CT- STARS

State Analytical Reporting System

OBI- STARS Procurement and Spend

Advanced User Guide

Advanced User Guide Overview

Purpose

The purpose of the advanced user guide is to provide a detailed overview of the STARS tool and provide step-by-step instructions on the functionality of STARS. The user guide includes detailed explanations, best practices, and guided exercises to facilitate STARS training and adoption.

Table of Contents

The advanced user guide is broken into ten different sections, each consisting of specific functionality available in the STARS program. Each of these sections contains subsections that are listed with corresponding page numbers on the Table of Contents.

> Note: The Table of Contents contains clickable links on each section and subsection to allow the user to access the section directly without having to manually navigate to the corresponding page number.

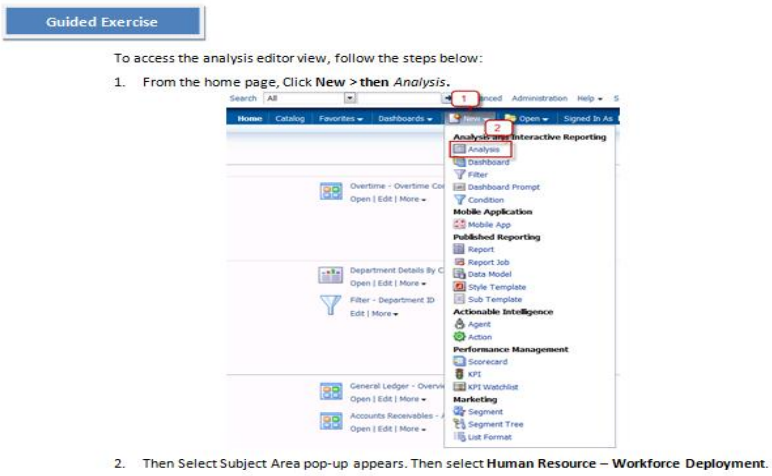
Navigation

Each of ten sections includes topic overviews and guided exercises.

Each section and subsection begins with an overview of the topic that will be covered as well as tables and screenshots detailing the different layouts, icons, and items the user will interact with in the section.

Each section will also include guided exercises with enumerated steps and corresponding screenshots for the user to follow and gain hands-on experience on the topic covered. Each guided exercise will be marked within the user guide by the presence of a blue "Guided Exercise" text box as shown in the screenshot below. The user should start the guided exercise beginning with the first numbered step below the blue "Guided Exercise" text box.

Example:



The Advanced User Guide begins with the Table of Contents and the Course Introduction.

Table of Contents

1. Course Introduction

Purpose	This course introduces participants to the State Analytical Reporting System (STARS) using the OBI platform. This application focuses on using the Analysis and Dashboards interface. Participants will also learn how to use help functionality specific to the OBI application. This course will instruct participants on how to create and execute analyses. Additionally, participants will learn how to manage, manipulate, format, and save analyses in order to obtain the desired information and display it on Dashboards
Getting Started	In this section, the following topics are covered: • Participant introductions • Course Objectives and materials (classroom guide, job aids, files)
Audience	This course is designed for State Analytical Reporting System (STARS) Analysis and Dashboard users.
	The following topics will be discussed during this course: • Course Introduction • Navigate OBI - STARS • Create and Save Analyses • Format Analysis & Columns • Customize Analysis Views • Drill Down Functionality • Search Analysis & Print or Export Results • Work with Dashboard Prompt • Build & Design Dashboard

Course Objectives

The following processes and objectives will be covered in this course:

Process	Objectives
Overview of Analyses	View an Analysis and Dashboard
Navigate OBI – STARS	Sign into OBI - STARS Understand OBI Home page Understand the Analysis Editor Criteria tab Understand Filter Editor Understand the Analysis Results tab Understand Analysis Views Editor
Create and Save Analyses	Create a New Analysis Guided Exercise Saving Filters from Analysis Applying Saved Filters Move and Delete an Analysis
Formatting Analysis & Columns	Move, Add, Exclude, Hide & Delete Column Sorting a Column Adding Grand Totals & Sub Totals Edit Column Format Edit Value Format Edit Data Format Apply Conditional Formats
Customize Analysis Views	Type of Views Table Properties Add a Pivot Table Adding a Graph Formatting Graph Editing Graph Properties Adding Pivot Table Graph Adding a View Selector Adding a Column Selector Delete Views
Drill Down Functionality	Creating another Analysis Navigating Action Link Creating Action Link Testing Action Link
Print and Export Results	Search for an Analysis Print Results to PDF Export Results to Excel
Work with Dashboard Prompts	Understanding a Dashboard Prompt Creating Dashboard Prompt
Building & Designing Dashboard	Understanding & Navigating My Dashboard Building My Dashboard Editing My Dashboard Saving a Dashboard Customization Setting Preference Exporting the Dashboard to Excel Spreadsheet

2. Navigate OBI - STARS

Introduction	Typically, organizations track and store large amounts of data about products, customers, contacts, activities, employees, and other elements. This data is often spread across multiple databases in different locations with different versions of database software. After the data has been organized and analyzed, it can provide an organization with metrics to measure the state of its business. This data can also present key indicators of change in market trends and in employee, customer, and partner behavior. OBI helps you obtain, view, and analyze data. Analysis provide “answers” to business question, allowing you to explore and interact with information, as well as present and visualize data using graphs, pivot tables, and analyses. You can save, organize, and share these results with others. Analyses that you create with the Analysis Editor can be saved in the Presentation Catalog and integrated into the OBI dashboard. Results can be enhanced through graphing, view layout, calculation, and drilldown features. Security and data access for OBI is controlled at the data level, not the application level. Follow the steps below to access the Analysis Editor.
Objectives	At the end of this section, you will be able to complete the following tasks related to Analysis Navigation. • Sign into OBI - STARS • Understand OBI Homepage • Understand the Analysis Editor Criteria tab • Understand Filter Editor • Understand the Analysis Results tab • Understand Analysis View Editor

2.1 Sign into OBI - STARS

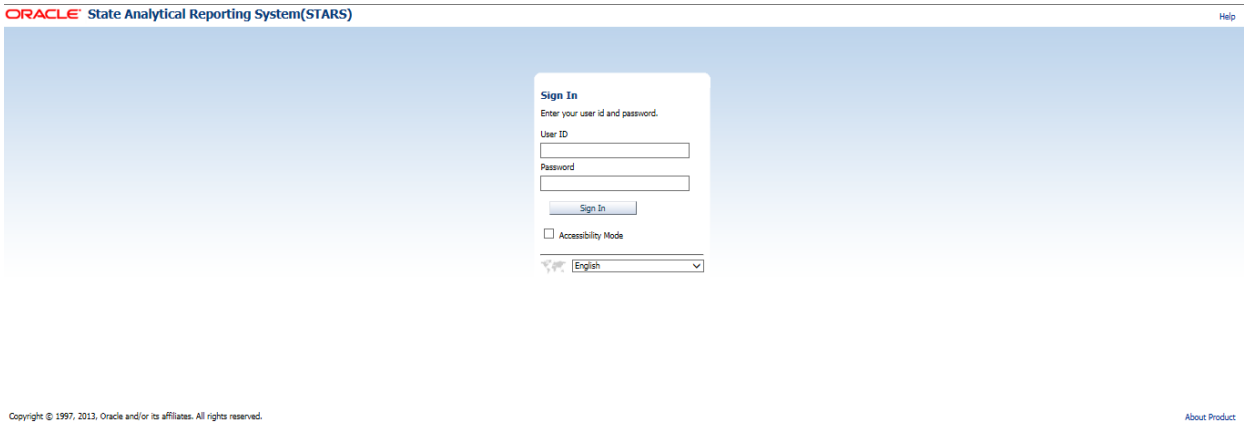
Typically, organizations track and store large amounts of data about products, customers, contacts, activities, employees, and other elements. This data is often spread across multiple databases in different locations with different versions of database software.

After the data has been organized and analyzed, it can provide an organization with metrics to measure the state of its business. This data can also present key indicators of change in market trends and in employee, customer, and partner behavior. OBI helps you obtain, view, and analyze data.

Analysis provide "answers" to business question, allowing you to explore and interact with information, as well as present and visualize data using graphs, pivot tables, and analyses. You can save, organize, and share these results with others.

Analyses that you create with the Analysis Editor can be saved in the Presentation Catalog and integrated into the OBI dashboard. Results can be enhanced through graphing, view layout, calculation, and drilldown features.

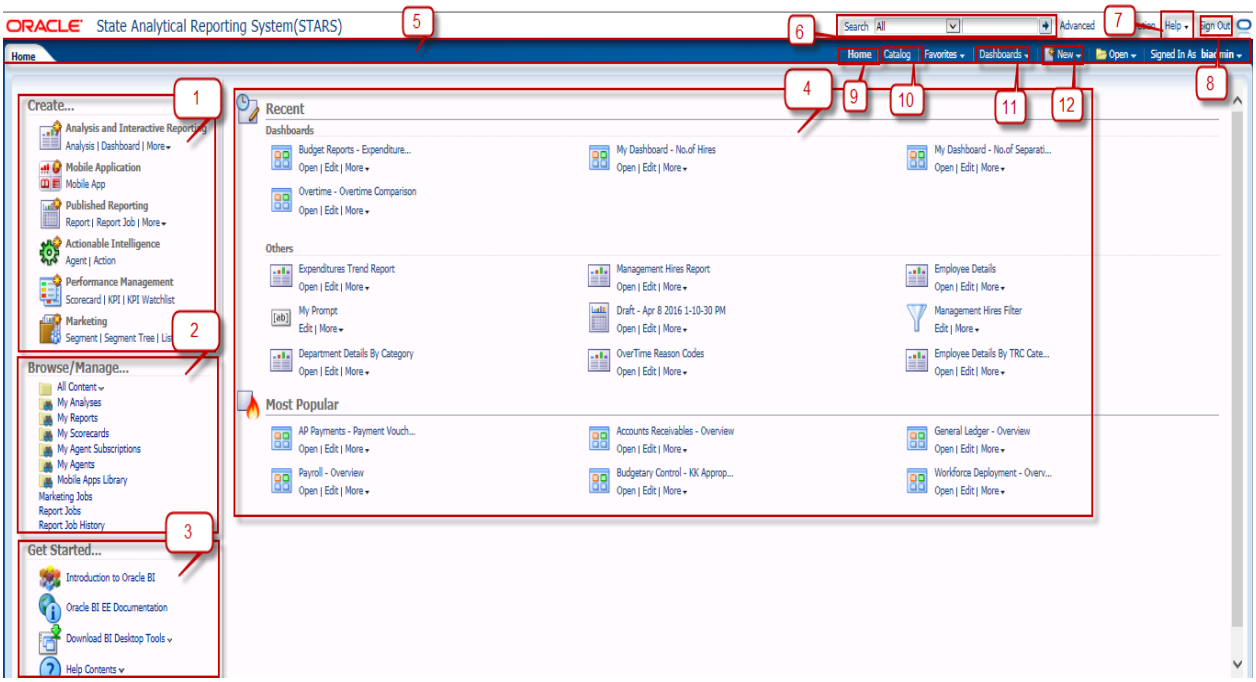
Security and data access for OBI is controlled at the data level, not the application level.
Follow the steps below to access the Analysis Editor.



Guided Exercise

Exercise Steps
1. Open Internet Explorer and enter the URL: - https://stars.ct.gov/ for the environment in the **Address** field. ***Note:*** *The OBI login window displays.*
2. Enter your **User ID** and **Password** in the appropriate fields
3. Click. ***Note:*** *The application launches and displays the Analysis Editor Home page*

2.2 Understand OBI Homepage



Introduction	The Home page provides an intuitive, task-based entryway into the functionalities of OBI. The Home page is divided into sections that allow you to quickly begin a specific task, locate, or create a new object, or access technical documentation.
1. Create	The Create section allows you access to editors for OBI objects to create OBI content, including analyses, agents, Key Performance Indicators, and analyses.
2. Browse/Manage	In the Browse/Manage section, you can search content using the Catalog page by clicking the All Content link or apply default searches that return OBI objects that belong to you using the My Analysis, My Agents, and other similar links.
3. Get Started	In the Get Started section, you can access download links for OBI desktop tools, for example, the OBI Office Add-In, as well as access technical documentation and other related content.
4. Recent/Most Popular	The Recent and Most Popular sections contain recently opened objects, and those that are most popular among you and other users of the system.
5. **Global Header**	You use this section to access links and options to begin a task or locate an object.
6. **Search**	You use this option to search for an object from the global header. You can search for an object by its name, location, or type only, which is similar to using a Find dialog box in many products. You will find only those objects for which you have the appropriate permissions. When the desired object is located, you can click it to display it for viewing or editing, as your permissions allow.
7. Help button Help	You use this link to display the following options: BIEE Home Help dynamically changes to display the Help topic for the current page, editor, or tab. Help Contents displays a cascading menu that provides options that link to the tables of contents for OBI, BI Publisher, and Marketing. Documentation displays the documentation library for OBI. OTN… displays the Business Intelligence and Data Warehousing Technology Center page on the Oracle Technology Network (OTN). About OBI displays a dialog identifying the OBI version and copyright information.
8. Sign Out link Sign Out	You use this link to log out of the OBI application. Note: Do not close the browser window to exit from OBI.
9. Home link Home	You use this link to navigate to the Home page from any other part of the user interface.

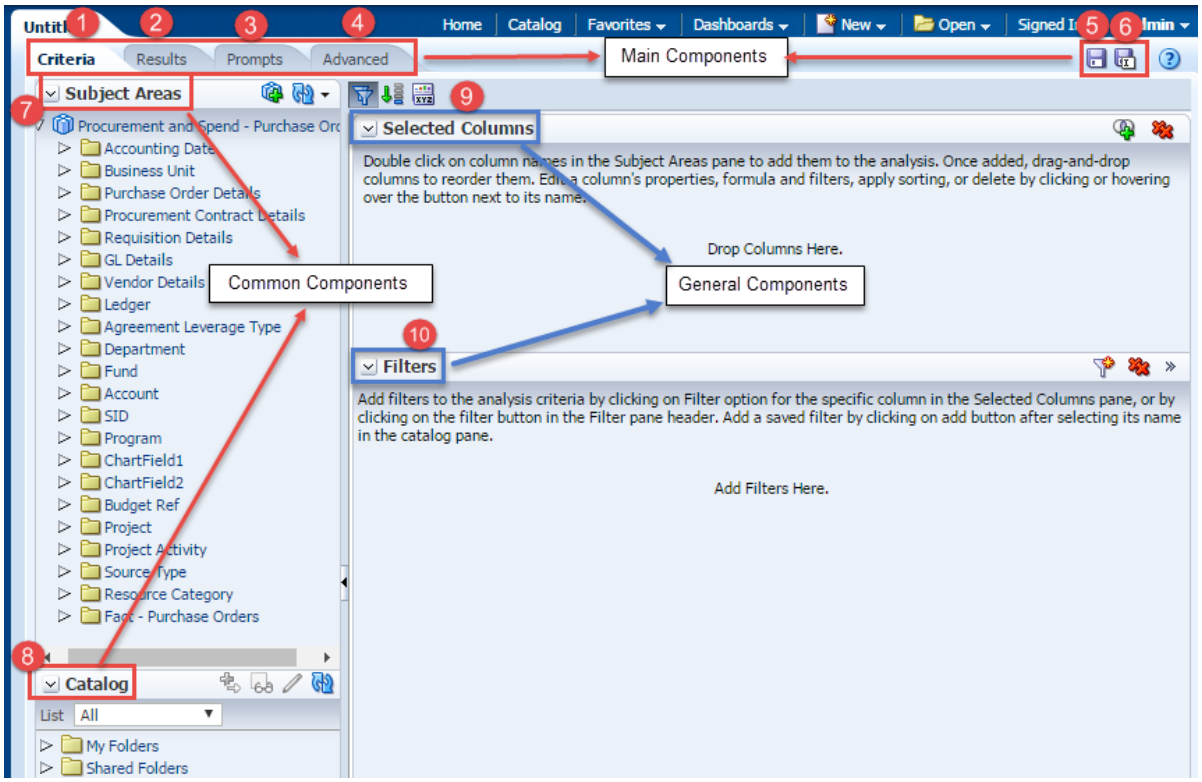
10. Catalog link Catalog	You use this link to navigate to the Catalog page, in which you can navigate and work with objects in the Presentation Catalog.
11. Dashboards link Dashboards	You use this link to access the customized Dashboards and My Dashboard, used to display analyses created in Analysis Editor.
12. New link New	You use this link to display a list of the objects that you can create. To create an object, select it from the list. The appropriate dialog or editor displays for you to create the object.

2.3 Understand the Analysis Editor Criteria tab

*Note: The Analysis Editor view below is explained in detail in the Introduction course. To get to the Analysis editor view, navigate to **New** > then click **Analysis from the Home** page. Next specify the Subject Area you would be working on it.*

The Analysis Editor is divided into three Components.

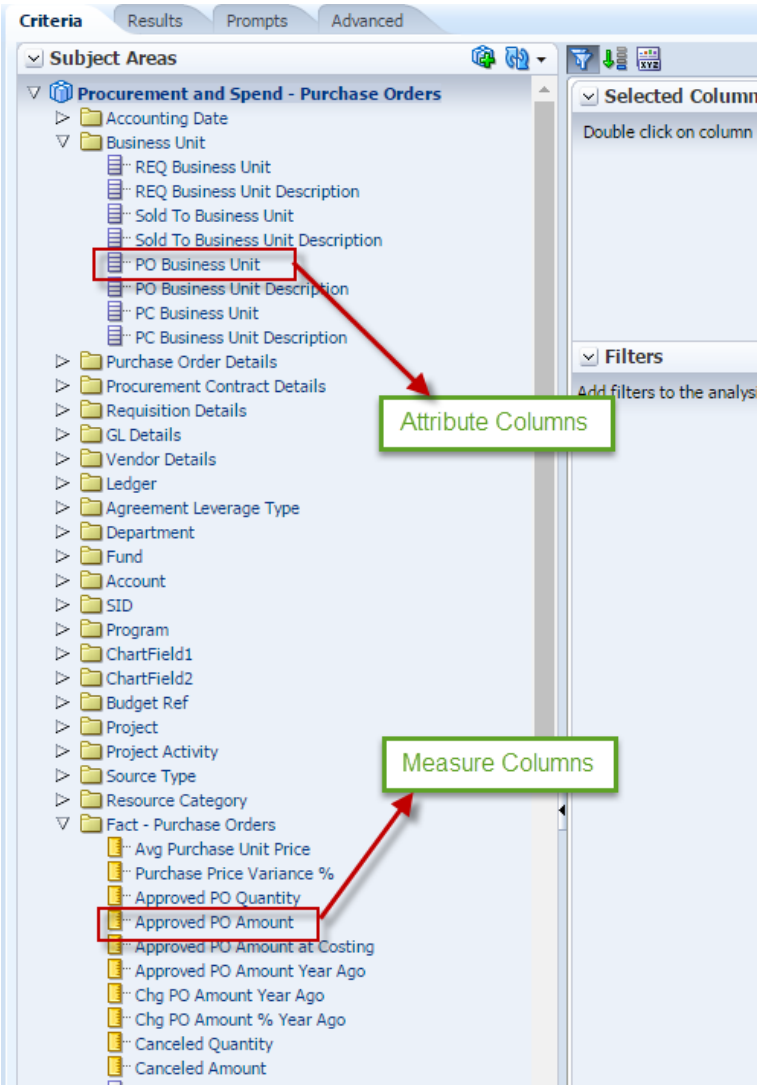
a. Main Components
b. Common Components
c. General Components



The Analysis Editor is composed of tabs and panes, as shown in the screen shot, representing the subject area (columns), available catalog objects, selected columns for the analysis, and filters (which limit the selected data).

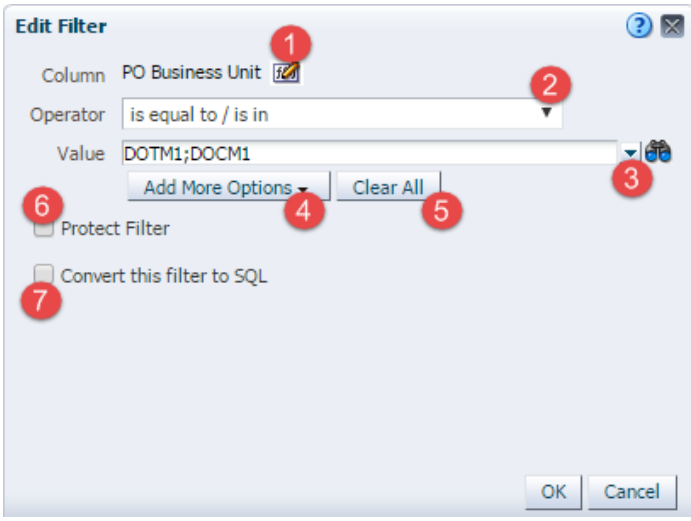
Exercise Steps	
Review the following components on Analysis Editor **Page**.	
Element	**Description**
Main Components:	
1. Criteria	It is used to specify the criteria for an analysis, including columns and filters.
2. Results	It is used to create different views of the analysis results such as graphs, tickers, and pivot tables.
3. Prompts	Prompts tab to access the "Prompt editor" to create prompts that allow users to select values that dynamically filter all views within the analysis or all analyses on a dashboard.
4. Advanced	It is used to examine or edit the XML code and logical SQL statement that is generated for an analysis.
5. Save	Use this button to save an analysis.
6. Save As	Use this button to save an analysis as another name.
Common Components:	
7. Subject Areas	In this section we select the columns and hierarchy levels for an analysis and to work with subject areas.

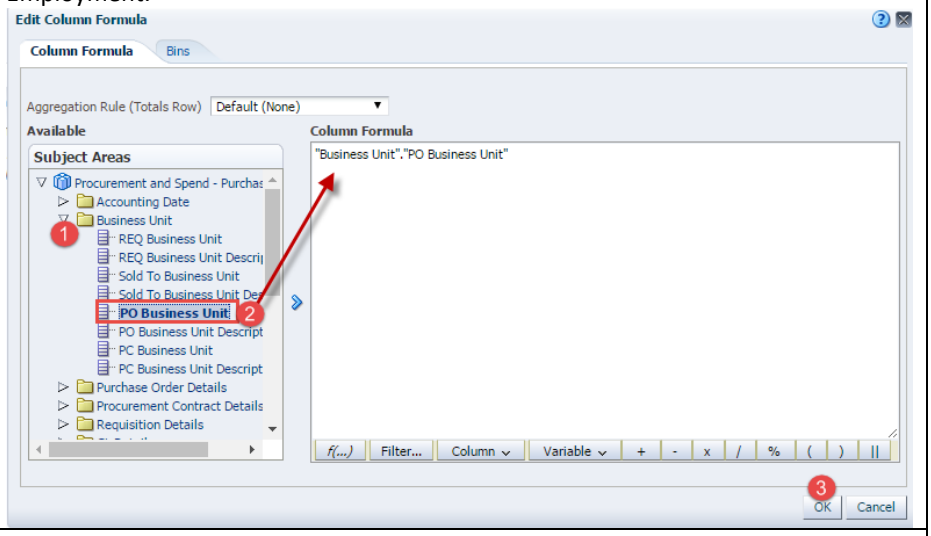
	There are three column types in a subject area. They are **Attribute Column**: Presentation Columns are renamed as Attribute Columns. In OBI they are also called as Dimension Columns. Example:- Department (as shown in below fig) **Measure Column**: It holds a simple list of data of values. It is a column in an OBI repository, usually in a Fact Table. Example Age(Years) (shown in below fig) **Hierarchy Column**: Holds a list in which individual members are shown in an outline manner, with lower-level members rolling into higher-level members, and outline totals being shown for the higher-level members. Example: - Not shown here.
8. Catalog	This section is used to drag and drop objects from the catalog to add to the analysis like saved filters.
General Components:	
9. Selected Columns	In this pane we used to modify the columns and hierarchy levels that have been selected for an analysis.
10. Filters	It is used to create new filters for an analysis.

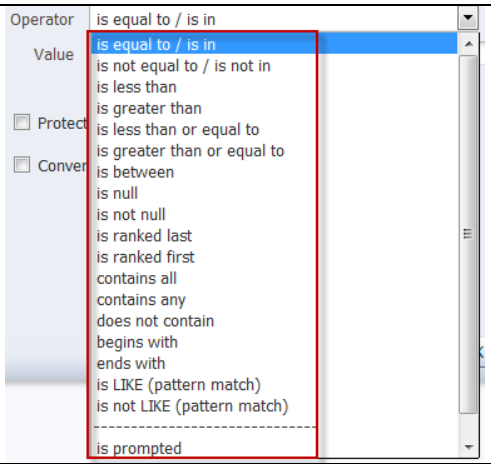
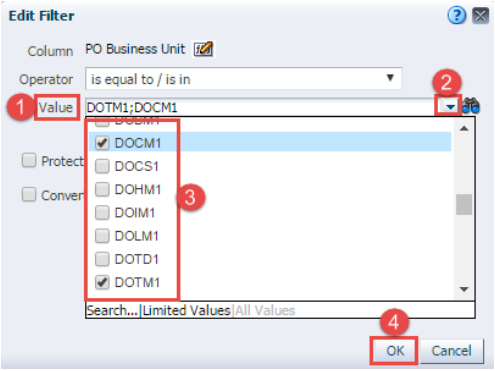
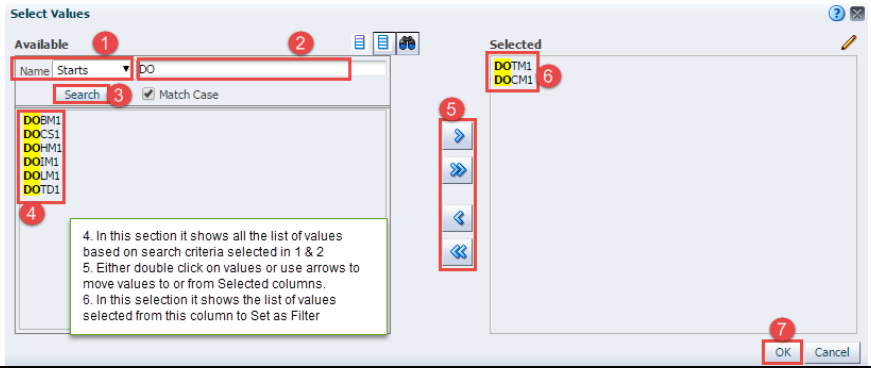
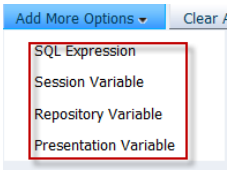
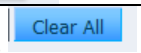


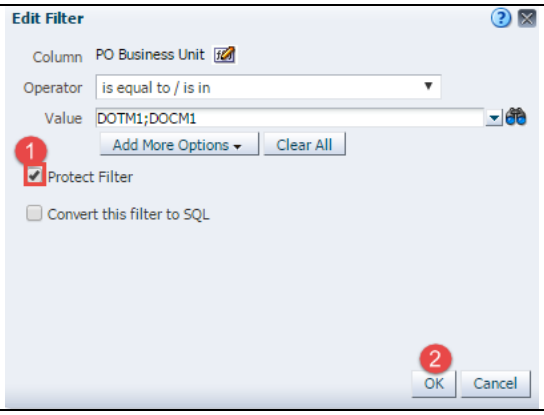
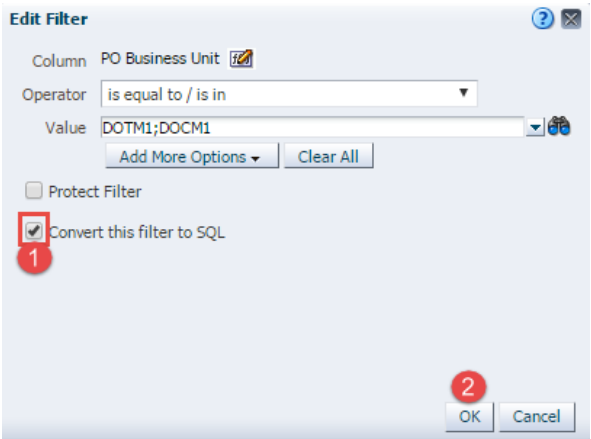
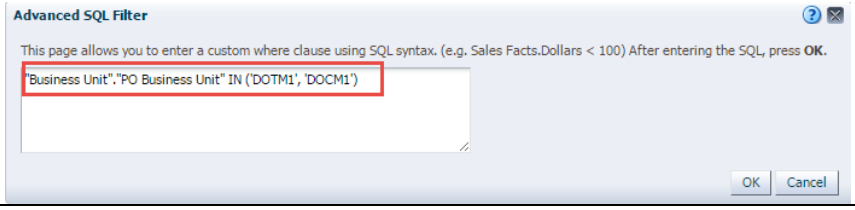
2.4 Understand Filter Editor

Review the following components on Filter Editor.



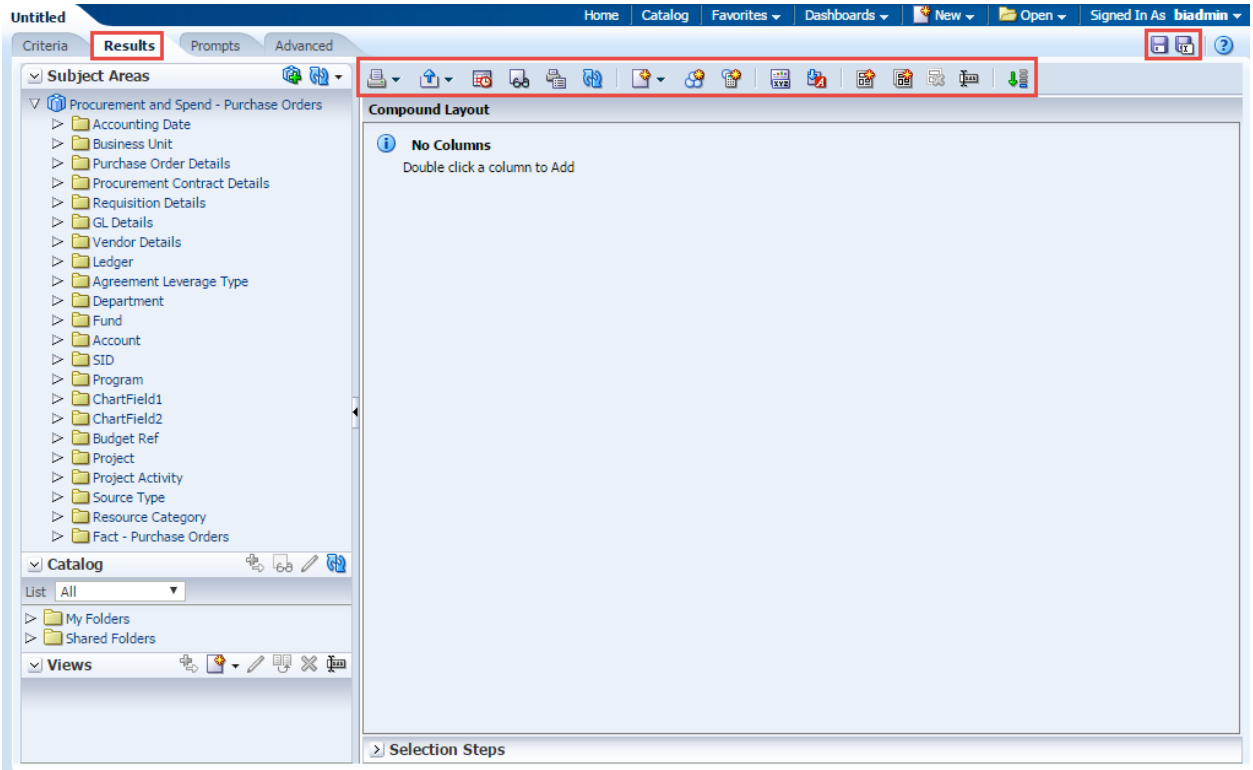
Element	Description
Main Components:	
1.Column	It shows the name of the column on which filter is being created. The name of the column can be changed by click on Edit icon . It will open Edit Column Formula dialog box where you can change or select any column from the Subject Area section by expanding folders Worker > then Employment. 
2.Operator	In the operator drop-down menu, it will display all type of different operators as shown below:

	
3. Value	Enter value to restrict the data by selecting one or more values by click on drop down menu.  **Advanced Search**:- Click on Search icon to filter out  Once you click on Search icon a dialog opens. This box will help us in filter out the number of values to a small no, so that it makes easy to select values. 
4. Add More Options	This feature is used when we have to use Variables like session, repository and Presentation. 
5. Clear All	It will clear all the values selected in Value box. 
6. Protect Filter	Enabling this filter will basically “hard-codes” a filter so that it won’t be overwritten.

	
7. Convert this filter to SQL	Enabling this feature will allow you to write logical SQL for the where clause in the query we will have to use the filtering option over the selection steps because we're able to convert filters into SQL which we can customize or we can add a SQL statement straight to the filter without converting it. Once you convert a filter to SQL you will not be able to revert it back to the original dialog box and will only be able to edit it in the Advanced SQL Filter box. A powerful feature of the filters is that it allows you to write SQL statements and that will affect the where clause of an analysis. This allows you to potentially write more complex statements for your filtering needs.  Once you select "Convert this filter to SQL" the next box will allow you to write your own SQL code for the filter, if there are more options selected before you convert your SQL, it will convert that as well. 

2.5 Understand the Analysis Results tab

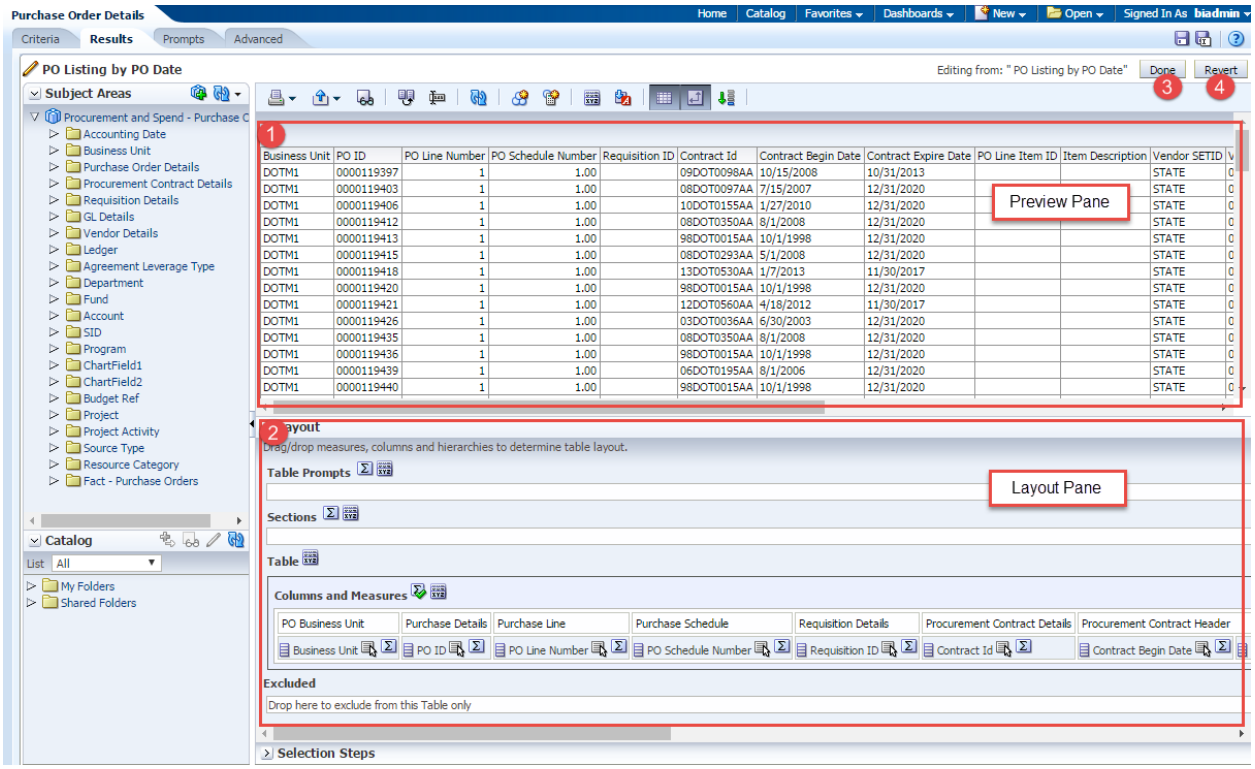
Elements	Description
Print this analysis	You use this button to print in PDF or HTML formats.
Export this analysis	You use this button to export analysis or data in different formats.
Show how results will look on a Dashboard	You use this button to preview the current view.
Print Options	You use this button to specify areas for printing.
Refresh the results of the current analysis	You use this button to refresh the results of the current analysis Deletes the view ***Caution:*** There is no confirmation.
New View	You use this button to display a list of views from which you can select the view that you want to create. The view is added to the current compound layout.
New Group	You use this button to add a group.
New Calculated Item	You use this button to build calculated items.
Edit Analysis Properties	You use this button to specify properties for the entire analysis.
Import formatting from another analysis	You use this button to select an analysis from which to import formatting for columns and views.
Create Compound Layout	You use this button to create a new instance of the compound layout.
Duplicate Compound Layout	You use this button to create a copy of the current compound layout. When you copy, you do not actually create additional copies of the analysis or its views. The analysis and views exist only once. Any changes that you make to the analysis or its views are reflected in the multiple instances of the compound layout.
Delete Compound Layout	You use this button to delete the current compound layout. The views in the layout are not deleted from the analysis. This button is not available if you attempt to delete the last compound layout in the analysis.
Rename the Analysis	You use this to rename the analysis
Show/Hide Selection Steps pane	You use this button to show or hide the display of the Selection Steps pane in the Results tab.
Save Analysis button	You use this button to save an analysis to a folder.
Save As button	You use this button to save an existing analysis as another name.
Help	You use this button to open the first level of help documentation for the Analysis Editor


Untitled
Home
Catalog
Favorites
Dashboards
New
Open
Signed In As biadmin
Criteria
Results
Prompts
Advanced
Subject Areas
Procurement and Spend - Purchase Orders
Accounting Date
Business Unit
Purchase Order Details
Procurement Contract Details
Requisition Details
GL Details
Vendor Details
Ledger
Agreement Leverage Type
Department
Fund
Account
SID
Program
ChartField1
ChartField2
Budget Ref
Project
Project Activity
Source Type
Resource Category
Fact - Purchase Orders
Catalog
List
All
My Folders
Shared Folders
Views
Compound Layout
No Columns
Double click a column to Add
Selection Steps

2.6 Understand Analysis Views Editor

We can change the layouts of views by editing the views through View Editor.

Below explained with sample analysis



Pane	Description
1. Preview Pane	In this pane we can preview the results based on Layout Pane.
2. Layout Pane	In this pane we can change the structure of the report by moving columns, adding subtotals and grand totals, by changing the format of the table values and column headings.
3. Done	Once the changes are made. Click Done to go to Compound Layout.
4. Revert	If you want to go back to initally layout structure or format then click Revert.

3. Create and Save Analysis

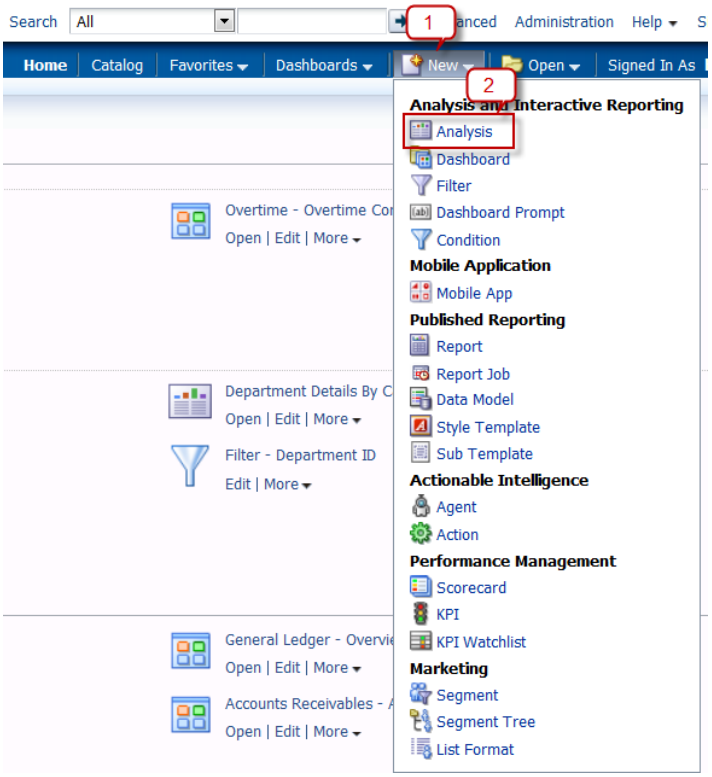
Introduction	The Analysis Editor interface is part of the State Analytical Reporting System (STARS) application used to query information across all the different agencies within the State of CT system. The Analysis Editor function allows you to explore and interact with information, and present and visualize information using drillable tables, graphs, pivot tables, and other reporting formats. You can save, organize, and share the results through Dashboards, alerts, or exporting to another format. Analyses are user-defined reports that pull data from a consolidated data warehouse. Analyses that you create with the Analysis Editor can be saved in the OBI Presentation Catalog and integrated into a dashboard. Results can be enhanced through graphing, compound layout, calculation, and drilldown features. Analyses can be tailored and altered to meet the needs of each individual user. Analyses created in the Analysis Editor must be saved in order to use and display on Dashboards. You can save analyses to private folders for quick execution and modification. You can also save analyses to a common shared folder to grant other users access to analyses that you create. In this module, you will learn how to save analyses and modify previously saved analyses.
Objectives	At the end of this section, you will be able to complete the following tasks related to Analysis. • Create a New Analysis • Guided Exercise • Save Filters from Analysis • Apply Saved Filters • Move or Delete an Analysis

3.1 Create a New Analysis

The Analysis Editor interface allows you to make analytical analyses based on data that is stored in the data warehouse. You can select specific tables and columns that are stored within the data warehouse to execute a specific analytical analysis.

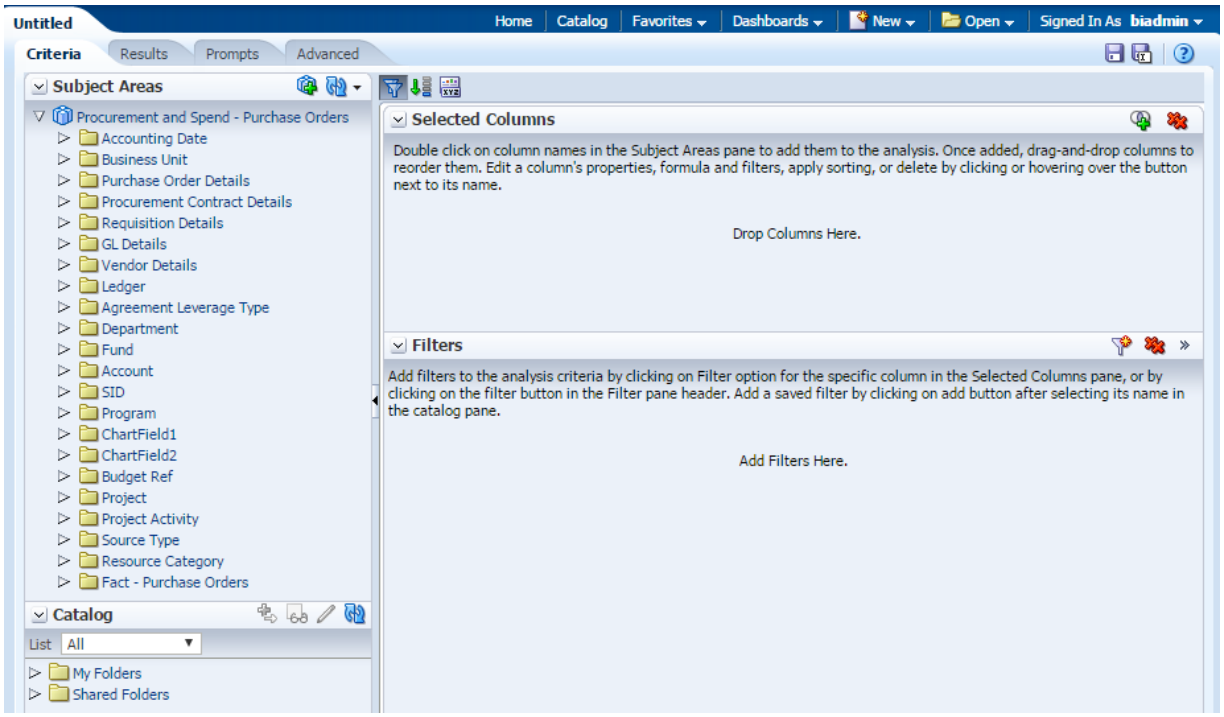
To access the analysis editor view, follow the steps below:

1. From the home page, Click **New > then** *Analysis***.**



2. Then Select Subject Area pop-up appears. Then select **Procurement and Spend – Purchase Orders**.

3. The Analysis Editor will be displayed.



Guided Exercise

In this exercise we will be creating **Count of PO's by Item ID** analysis so we can view the number of PO's for a specific Item in a particular time period.
The columns and Filters that we will use in this report are as follows:

Columns:-

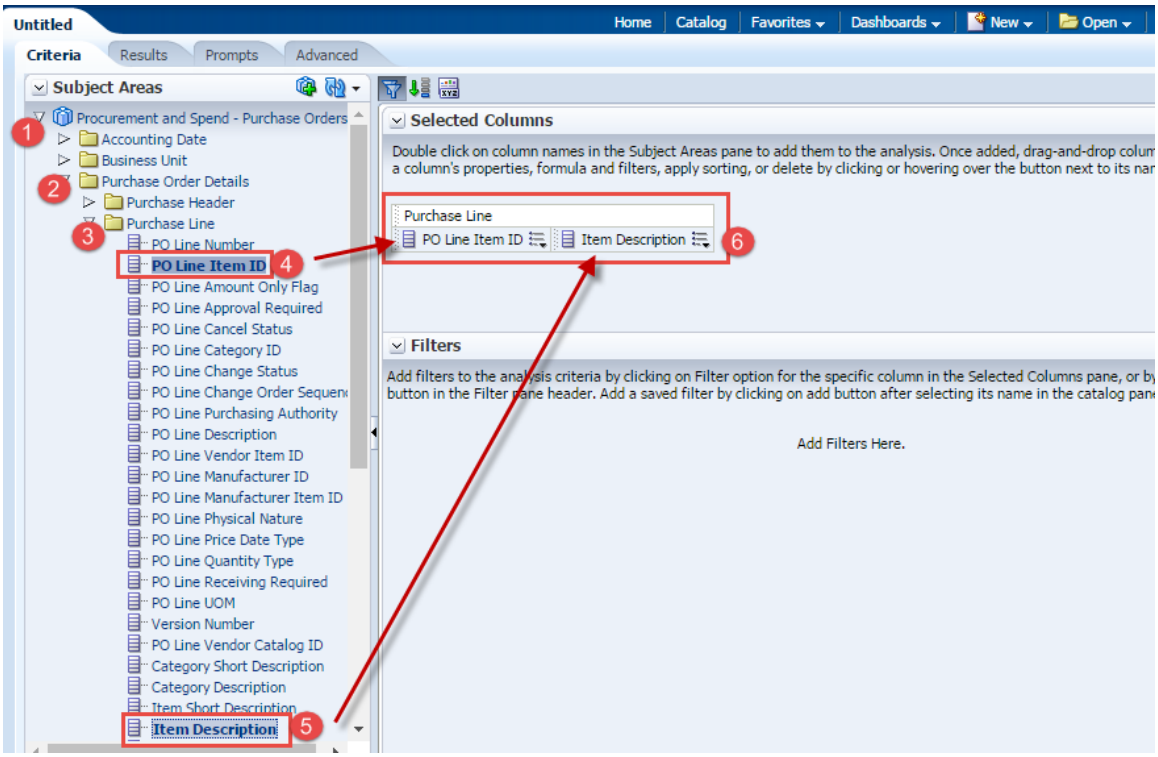
Folder	Columns
Purchase Order Details -> Purchase Line	1. PO Line Item ID 2. Item Description
Purchase Order Details	3. PO ID
Purchase Order Details -> Purchase Schedule	4. PO Schedule PO Price 5. PO Schedule PO Price

Filters:-

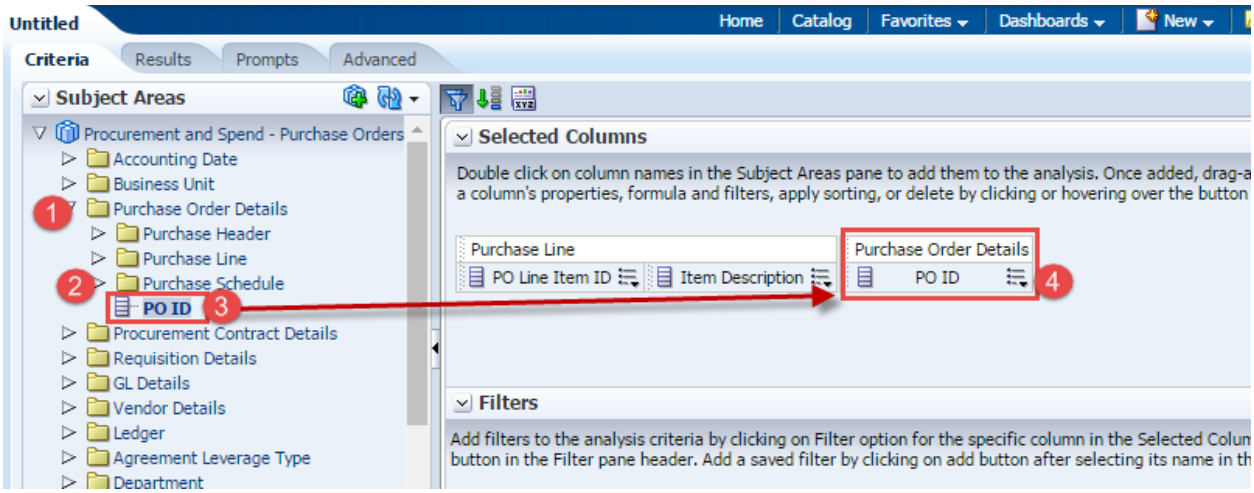
Column	Operator	Value
Accounting Year	Is equal to / is in	2016
PO Business Unit	Is equal to / is in	DOTM1
PO Line Item ID	Begins with	CM_

1. Make sure the Criteria tab is selected.
   Now, we will drag and drop or double click the following columns form the **Subject Areas** pane into **Selected Columns** pane as shown in the screenshot below.

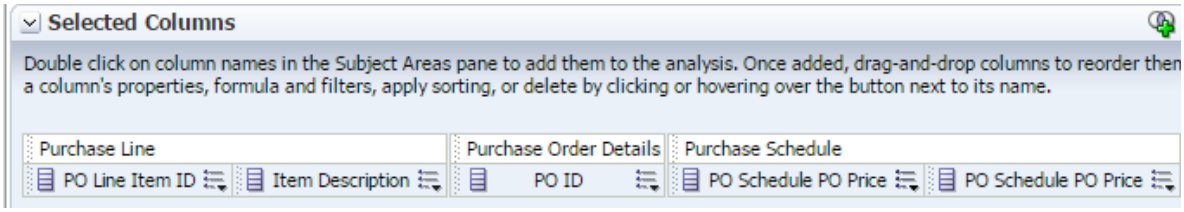
2. Navigate to the **Purchase Order Details** -> **Purchase Line** and expand it. Drag and drop the **PO Line Item ID, Item Description** columns into the Selected Columns pane as shown in the screenshot below:



3. Navigate to the **Purchase Order Details** folder and expand it. Drag and drop the **PO ID** column into the Selected Columns pane as shown in the screenshot below:

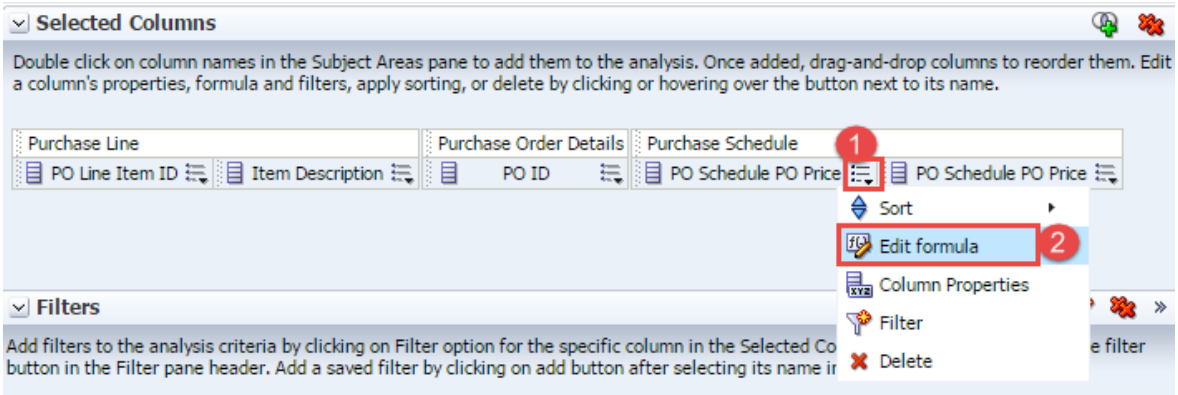


4. In similar way Navigate to the **Purchase Order Details >** *then* **Purchase Schedule** folder and expand it. Drag and drop the **PO Schedule PO Price** column **<u>two times</u>** into the Selected Columns pane as shown in the screenshot below:

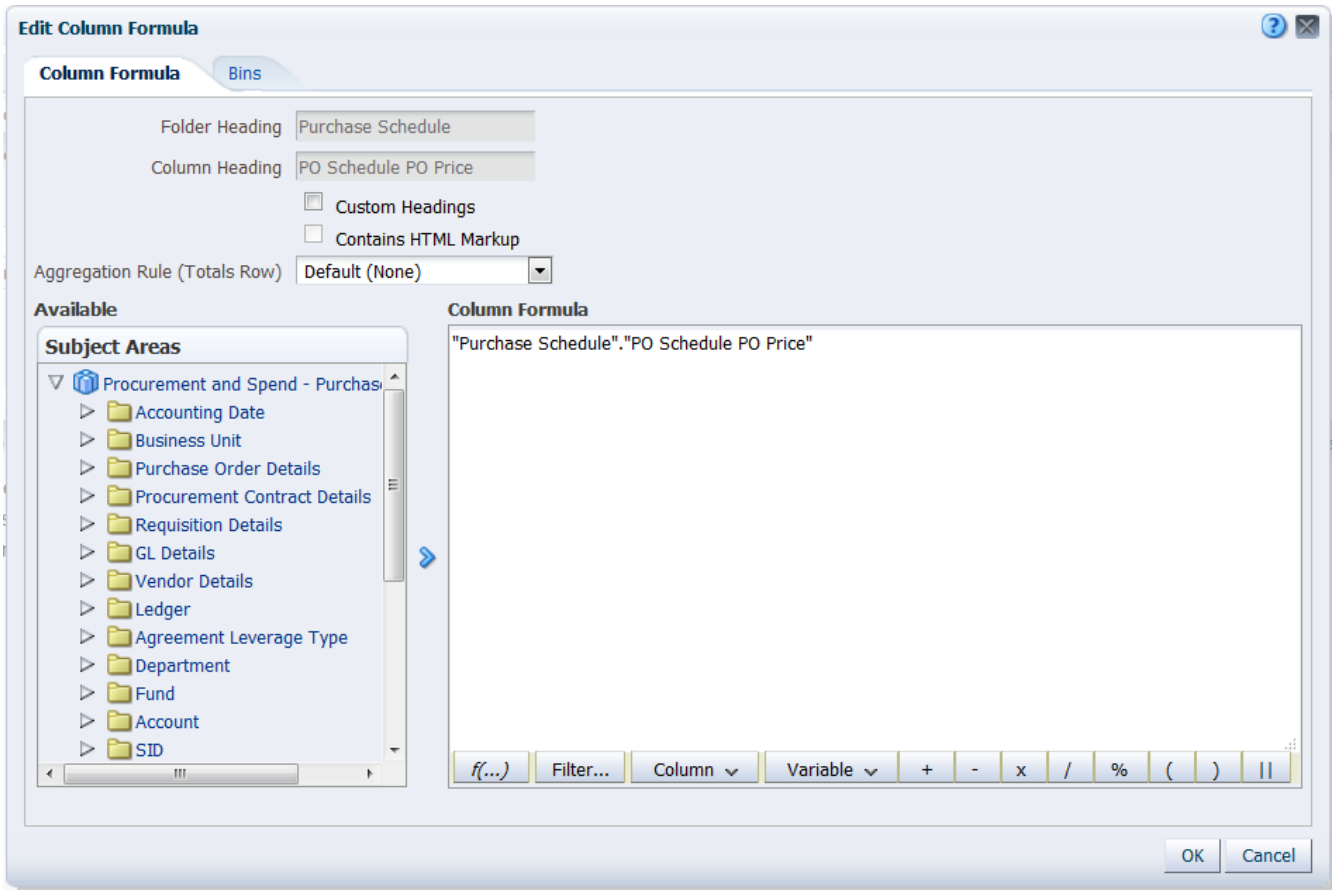


Note:- In the Selected Columns section, you can reorder the columns in your analysis by clicking and dragging them.

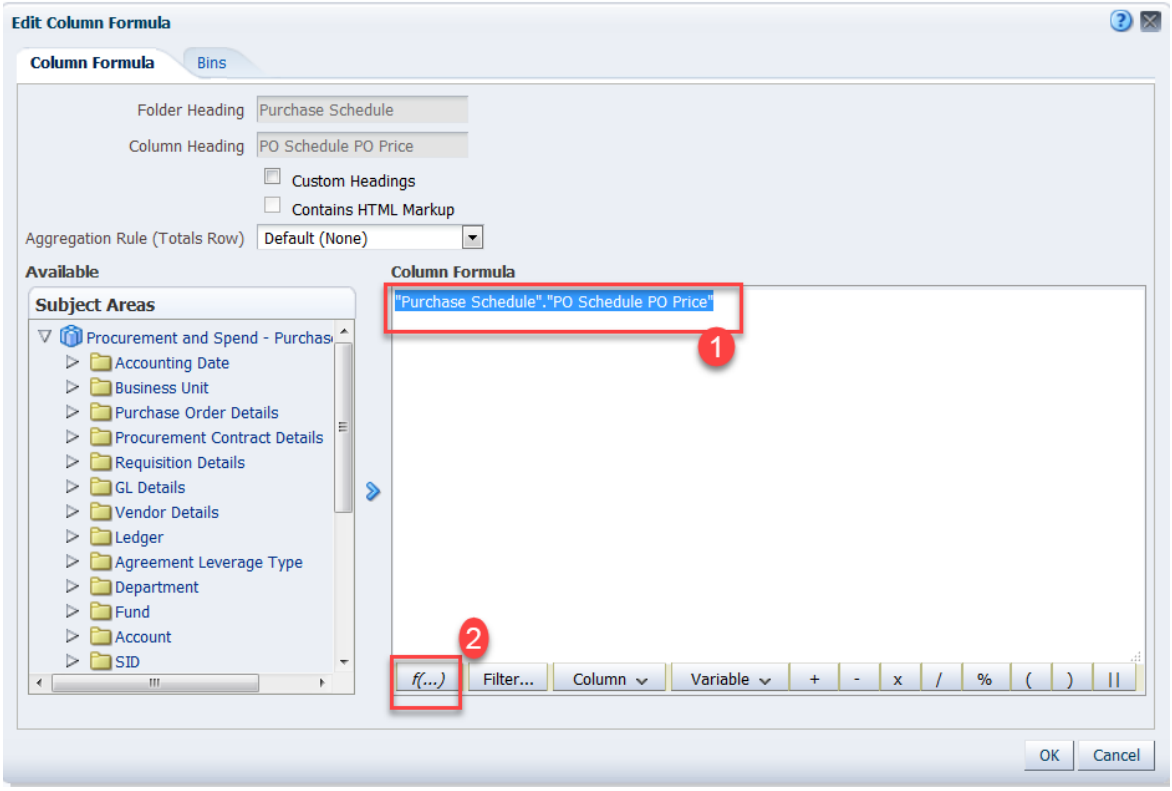
5. Hover over the edge **of PO Schedule PO Price** Column to display more drop down menu, click on edit formula.



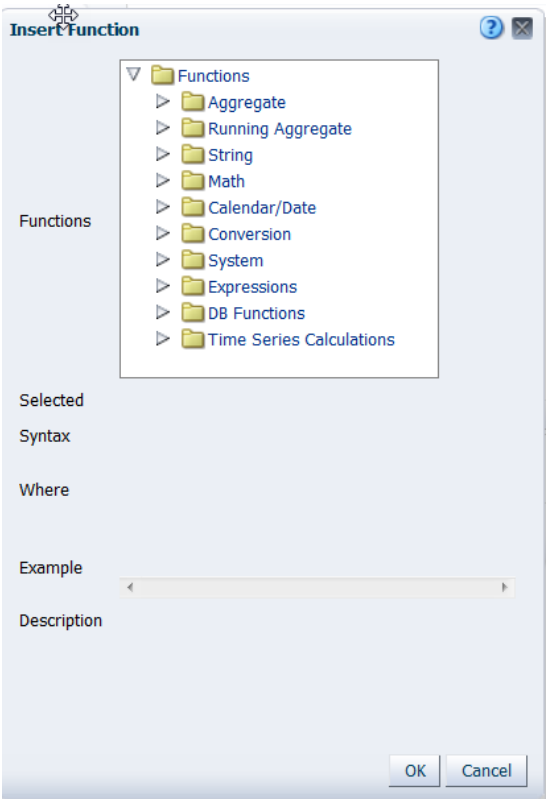
Edit Column Formula dialoge box opens:-



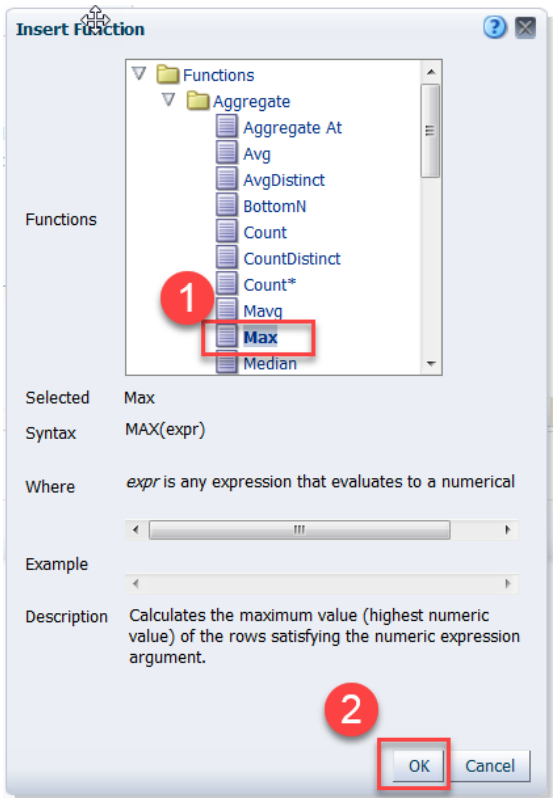
Ensure all text in the Column Formula is selected. And then click on f(…) as show in the below screenshot.



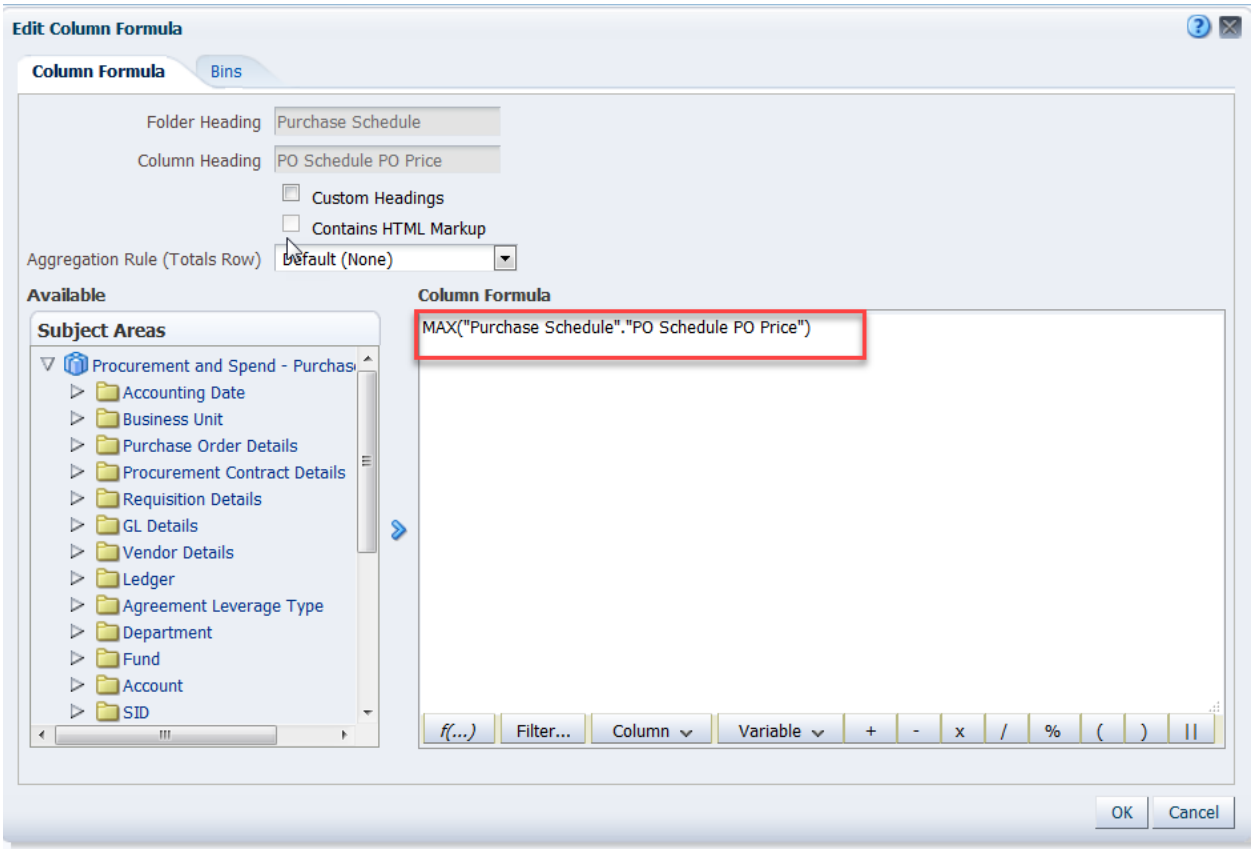
F(…) buton opens an Insert Function pop-up window



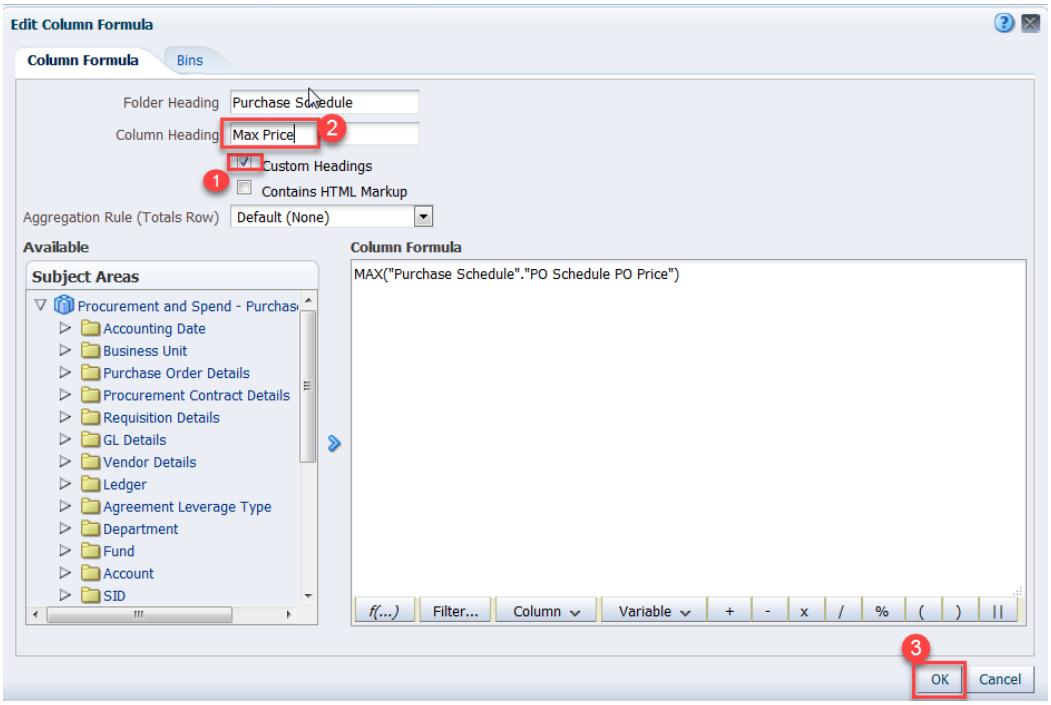
Expand Aggregate Function and select **Max.** Click OK to close the window.



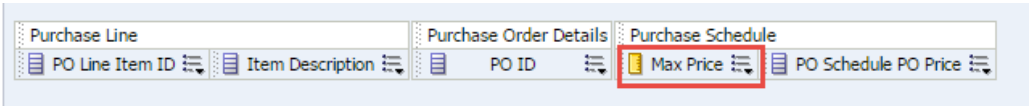
The formula inside Column Formula should now read as **MAX("Purchase Schedule"."PO Schedule PO Price").**



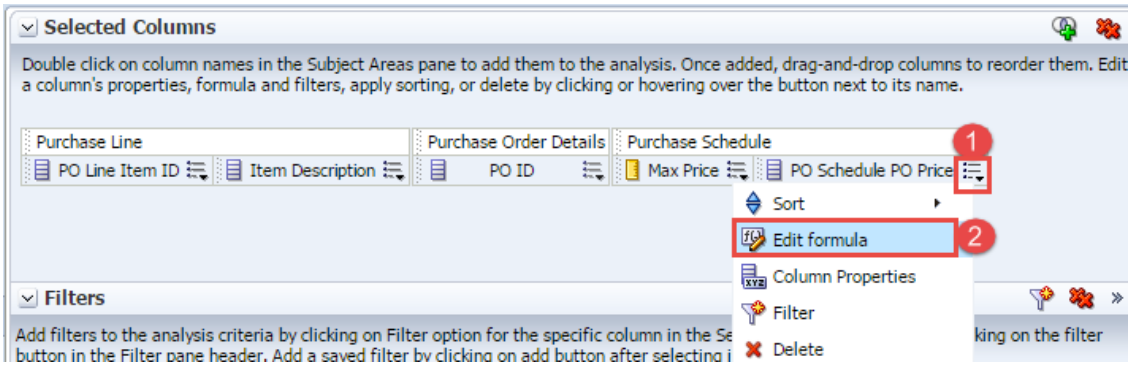
Click Custom Heading check box and type **Max Price** in Column Heading as shown below then click **OK** to close the Column Formula dialog box.

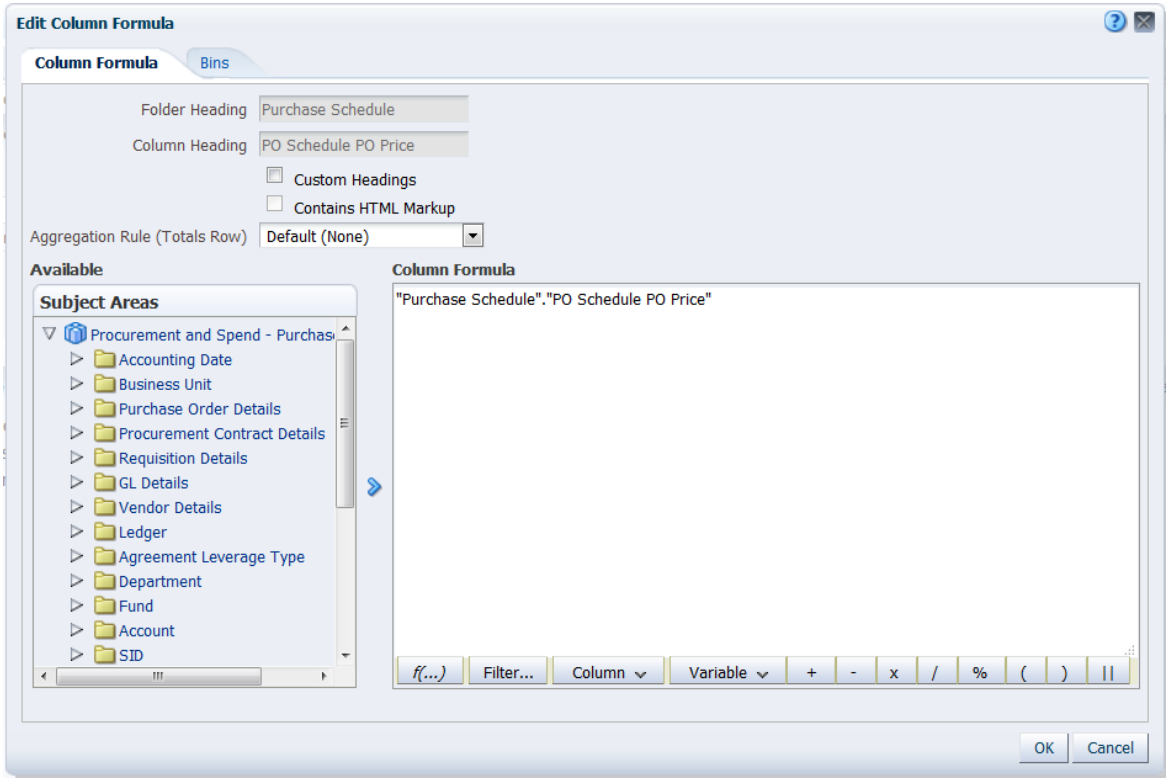


PO Schedule PO Price should now appear as shown in the below screenshot.

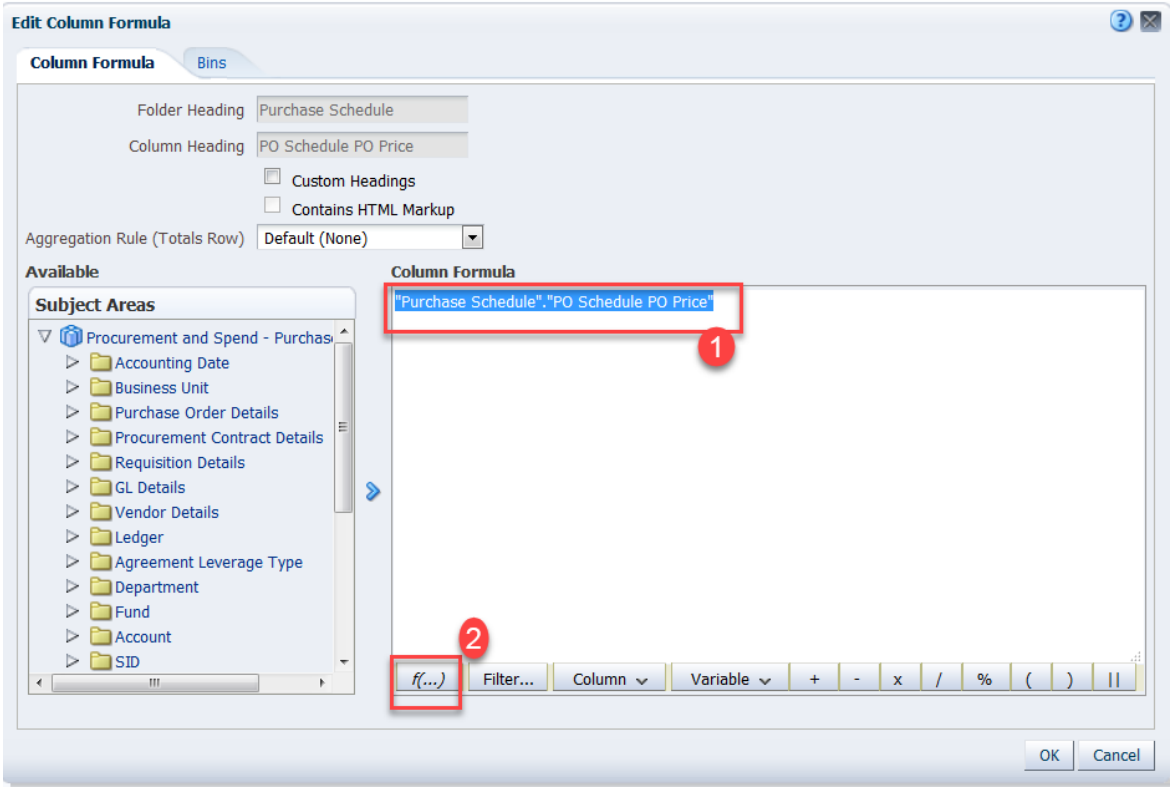


6. Hover over the edge **of PO Schedule PO Price** last Column to display more drop down menu, click on edit formula .

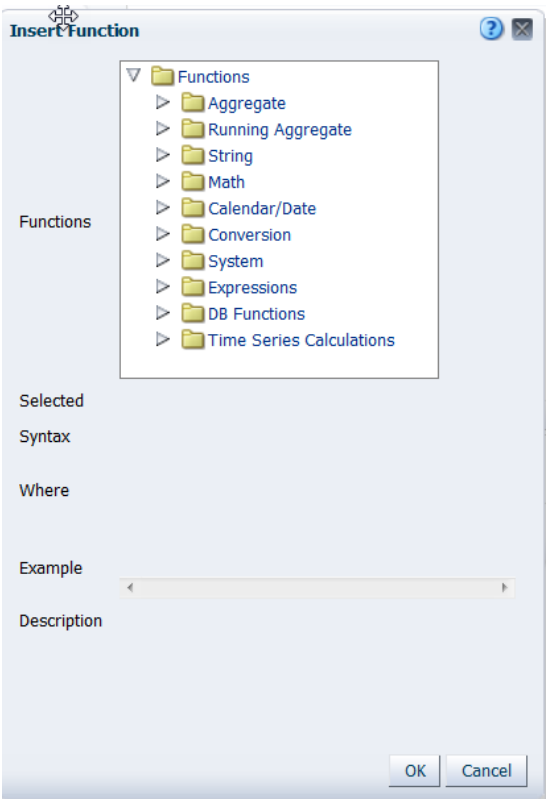




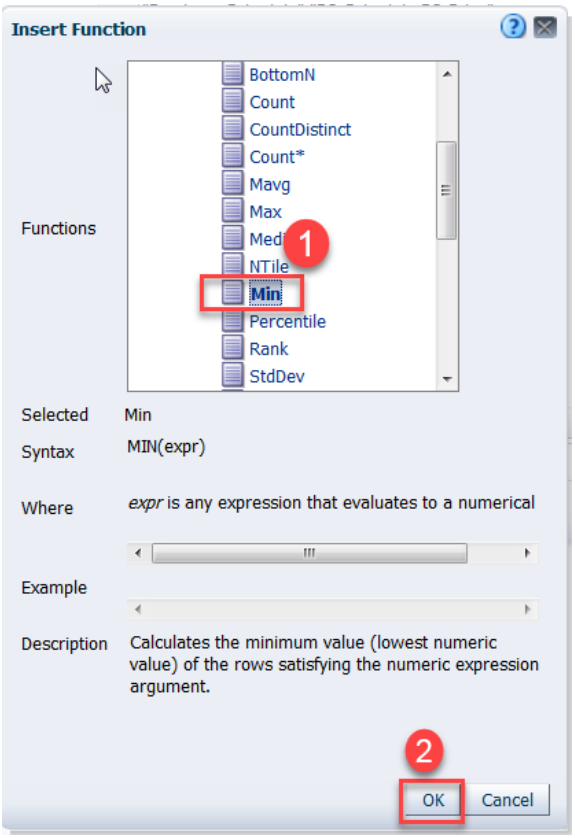
Ensure all text in the Column Formula is selected. And then click on f(…) as show in the below screenshot.



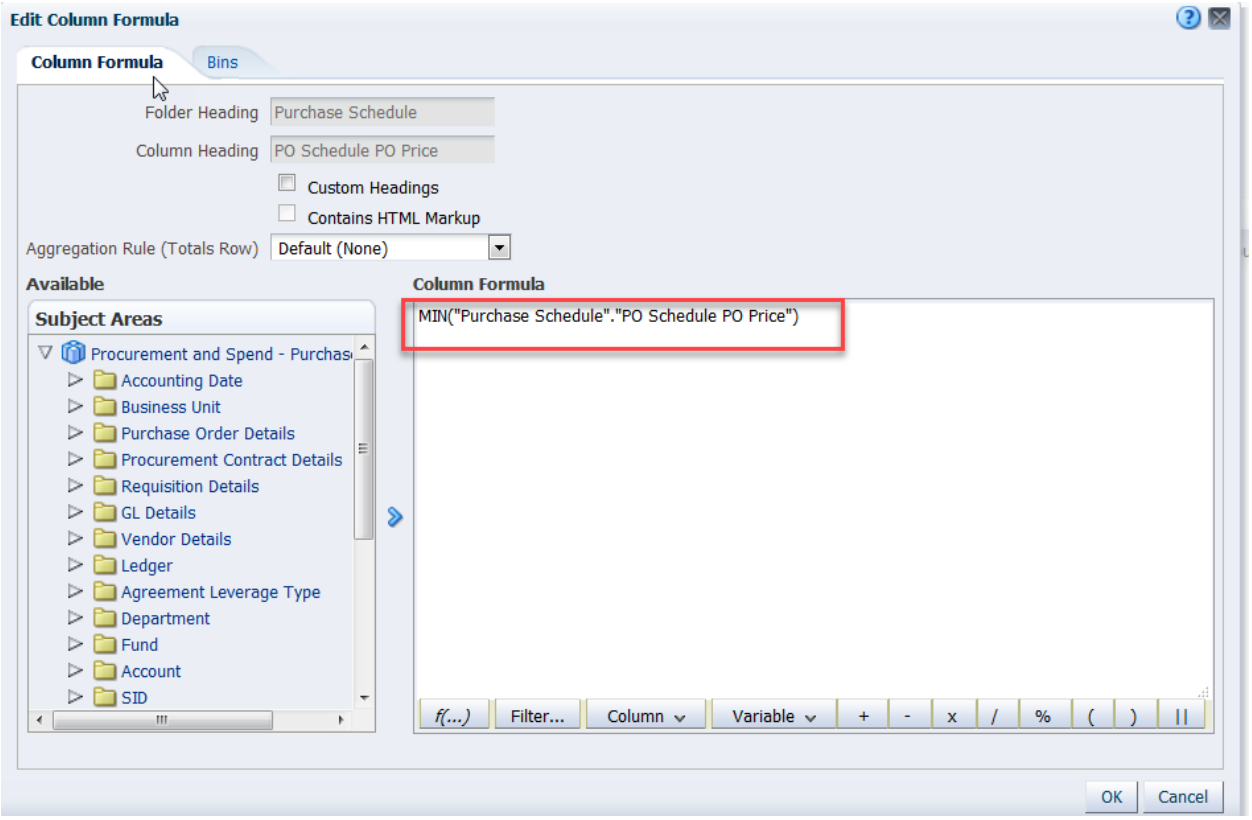
F(…) buton opens an Insert Function pop-up window



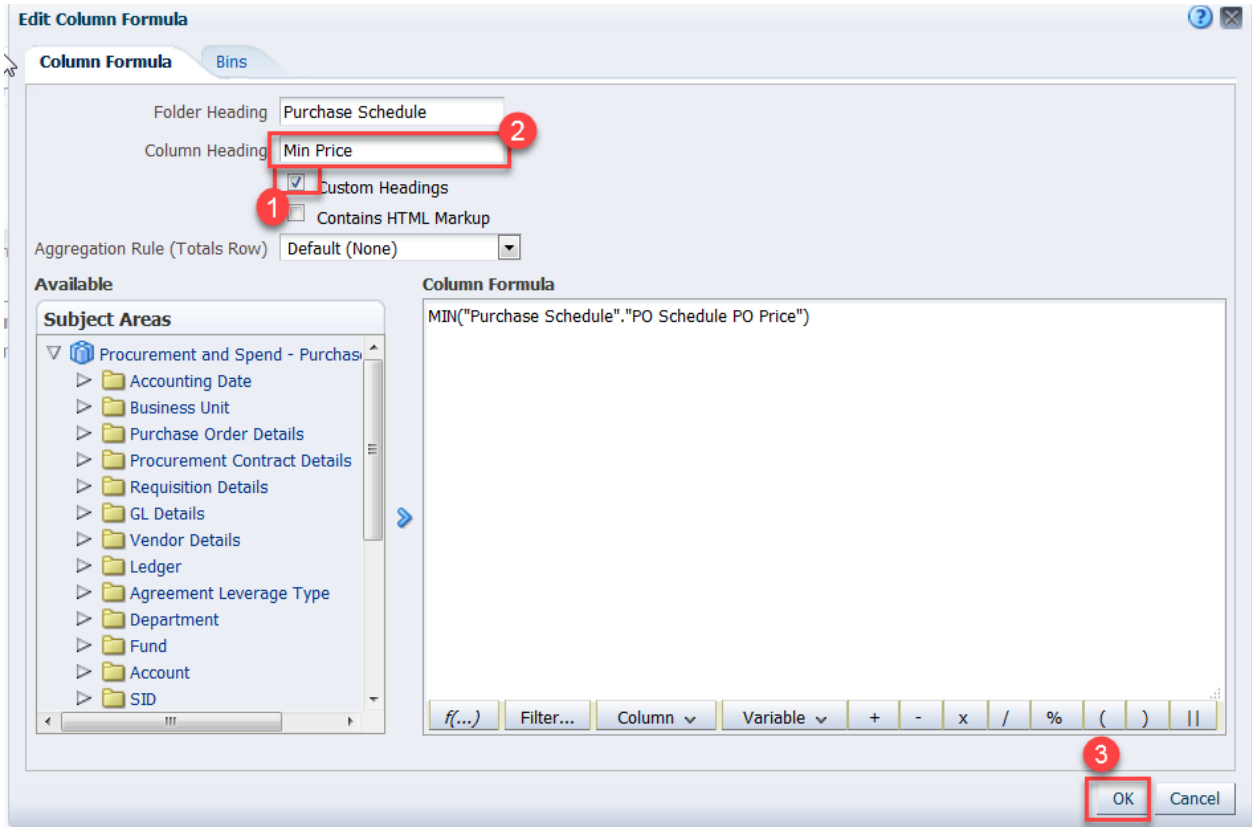
Expand Aggregate Function and select **Max.** Click OK to close the window.



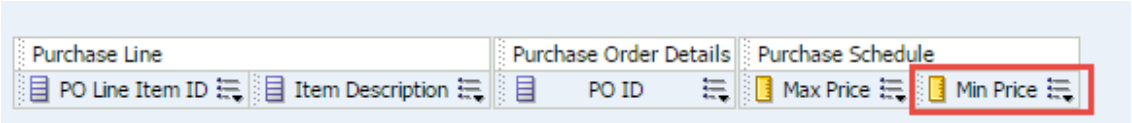
The formula inside Column Formula should now read as **MIN("Purchase Schedule"."PO Schedule PO Price").**



Click Custom Heading check box and type **Min Price** in Column Heading as shown below then click **OK** to close the Column Formula dialog box.

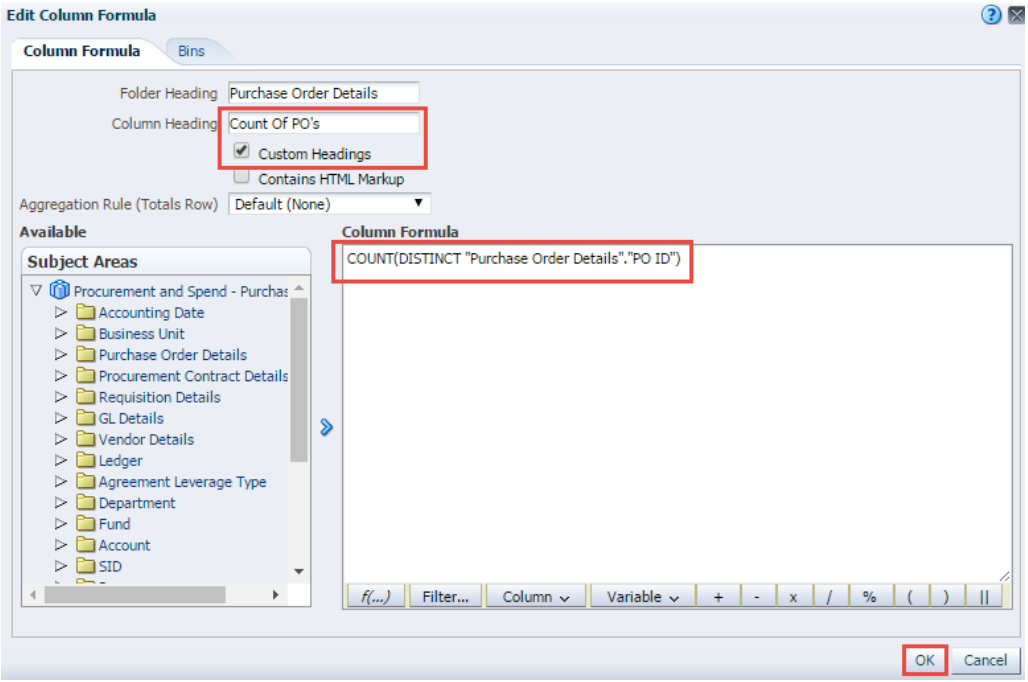


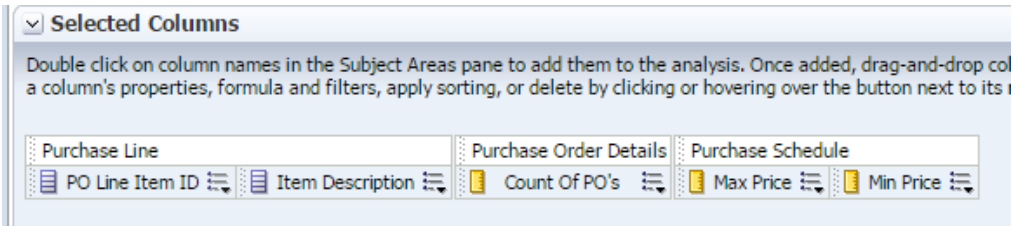
The columns in selected columns should appear as shown in below screenshot.



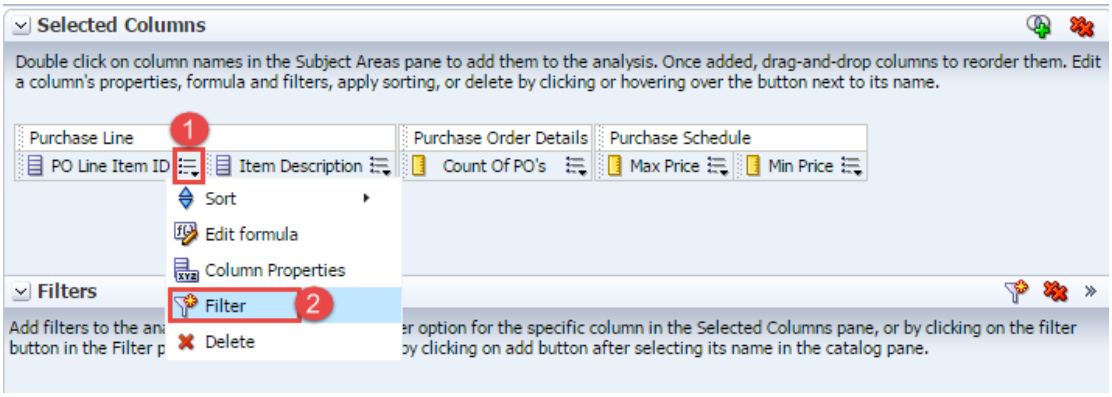
7. In the similar way edit PO ID column to create Count of PO's as shown in the below screen:

Note:- *Be sure to add: COUNT(DISTINCT.....) keyword as shown below.*

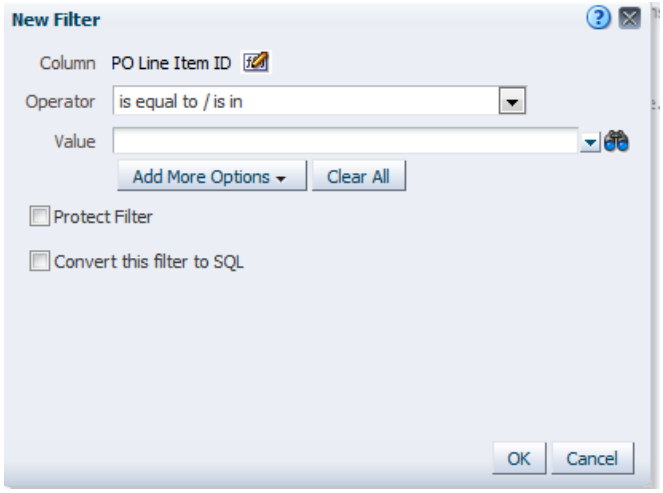




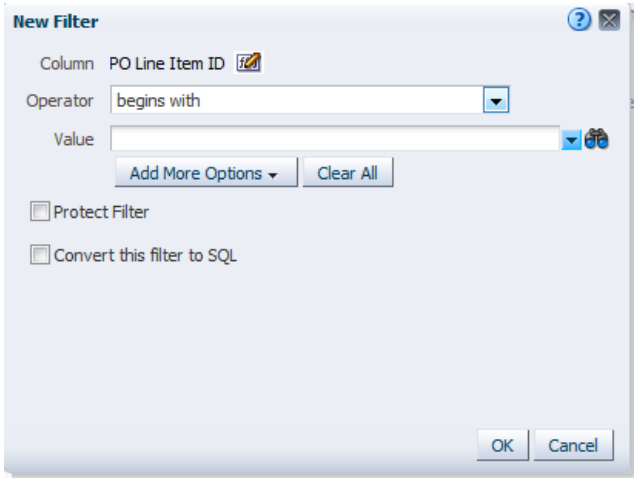
8. Hover over the edge of the PO Line Item ID column to display the More drop down menu to create a Filter. Click over the columns toolbar by selecting the **More** drop-down menu.



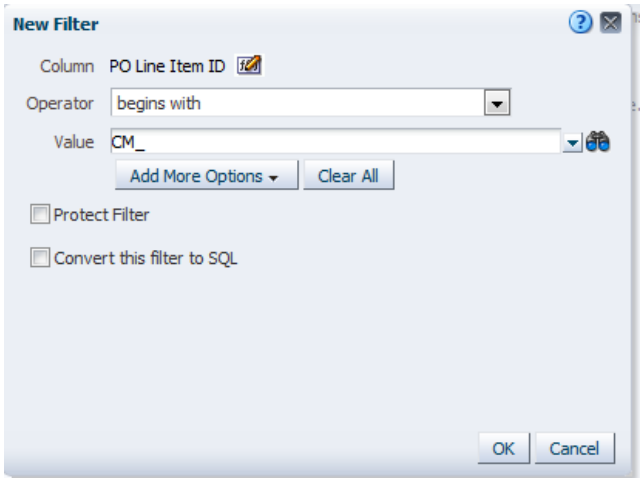
Editor dialog opens,



9. Set the operator to value “begins with”.

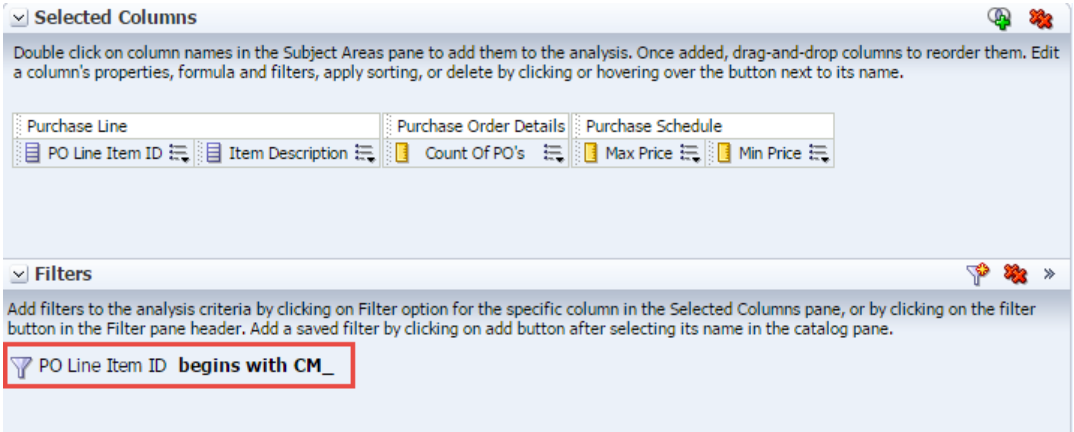


10. Click on Value field and enter CM_



Click **OK**.

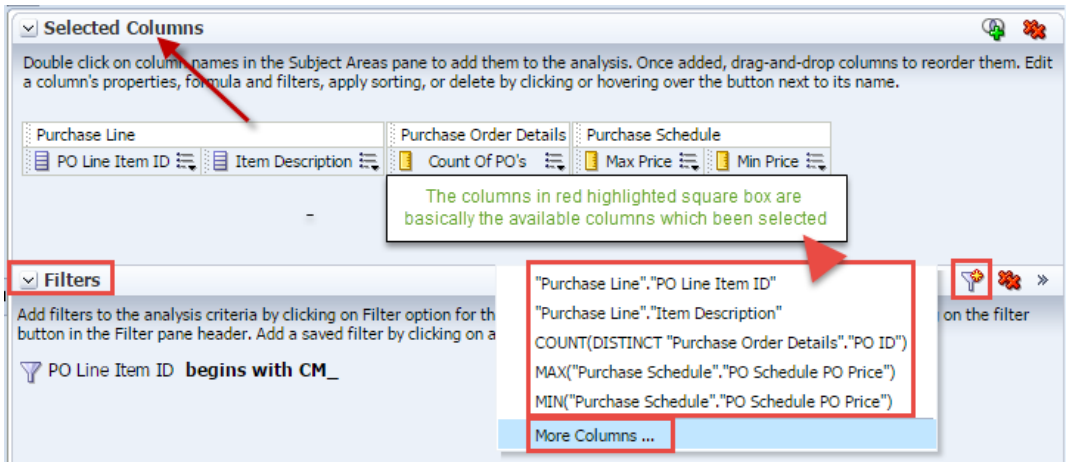
11. Filter pane displays the newly created filter.



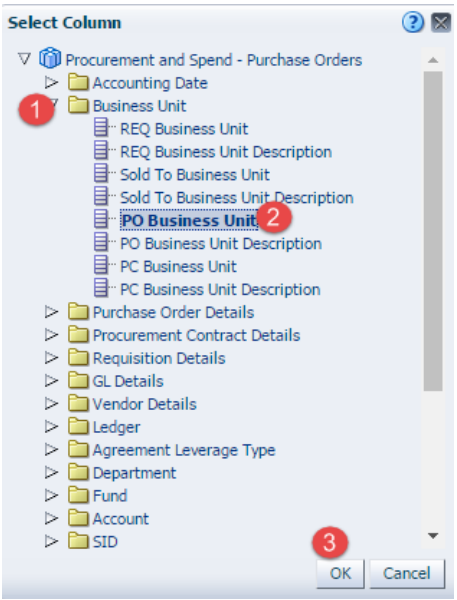
Next, let's add **Business Unit** filter.

Since PO Business Unit column is not available selected columns, we have to create this from Filter Pane.

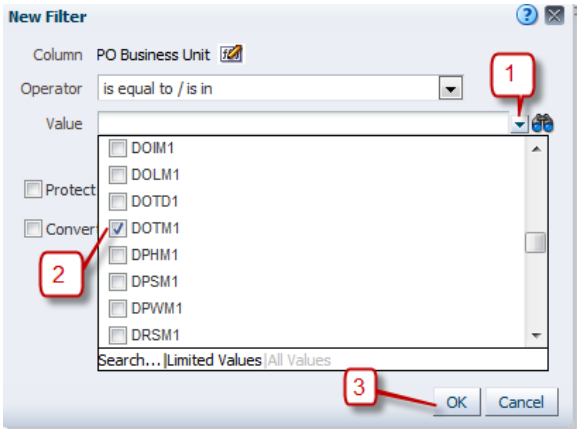
12. Go to **"Create a filter for the current Subject Area"** icon in Filter pane, and then click on **More Columns**.



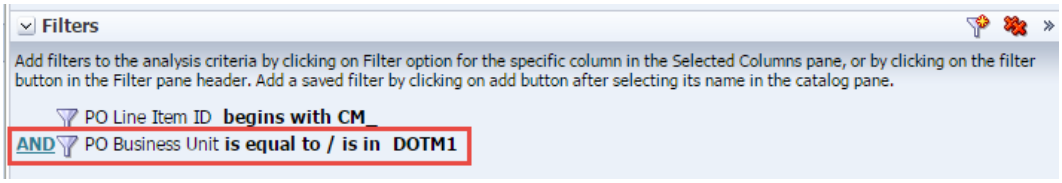
A subject area dialog opens, expand Business Unit to select **PO Business Unit**.



13. Set the Operator as default value. And select Business Unit value as "**DOTM1**". Click **OK**.



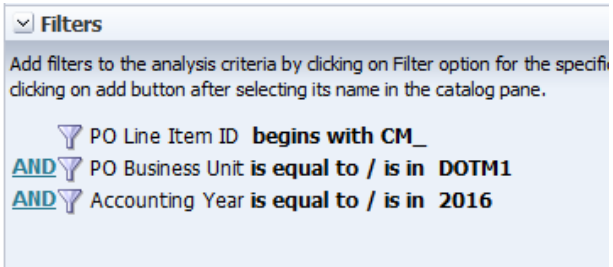
The filter pane now will look as below:-



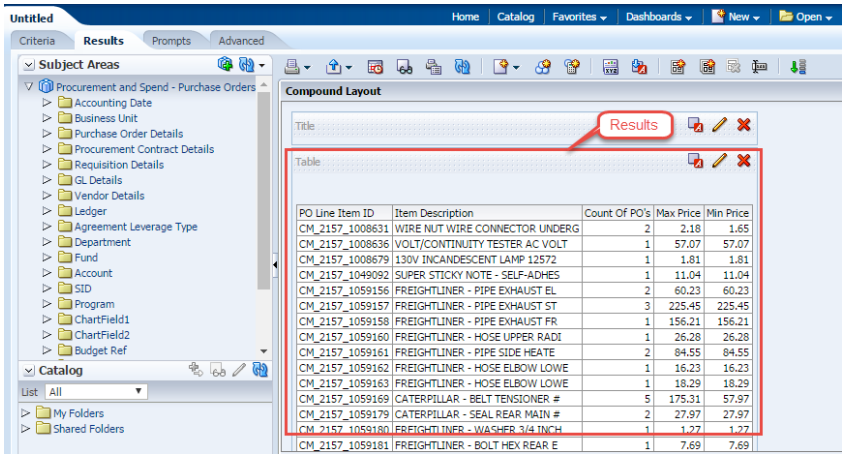
14. Repeat the same steps for the following column filters.

Folder > Column	Operator	Value
Accounting Date > Accounting Year	Is equal to / is in	2016

Once all the filters are applied, the filter pane will look as below:-



15. Click **Results tab** to view the data.



Note: Notice how the default views in the results are Title view and Table view

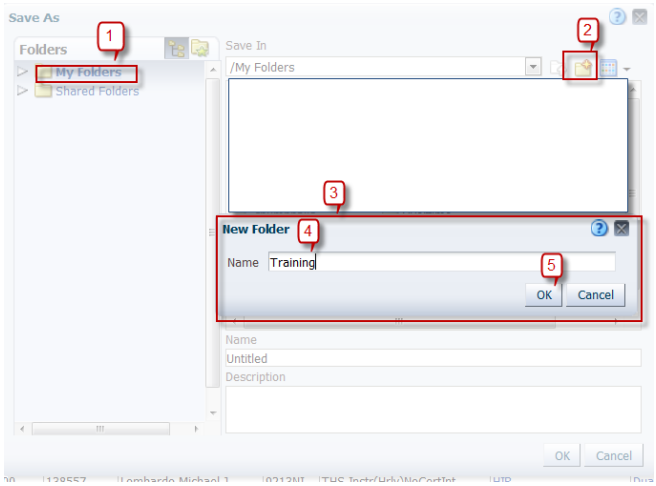
Save Analysis to a Personal Folder

Next we will save the Analysis in the web catalog, so that the analysis can be accessible whenever needed.

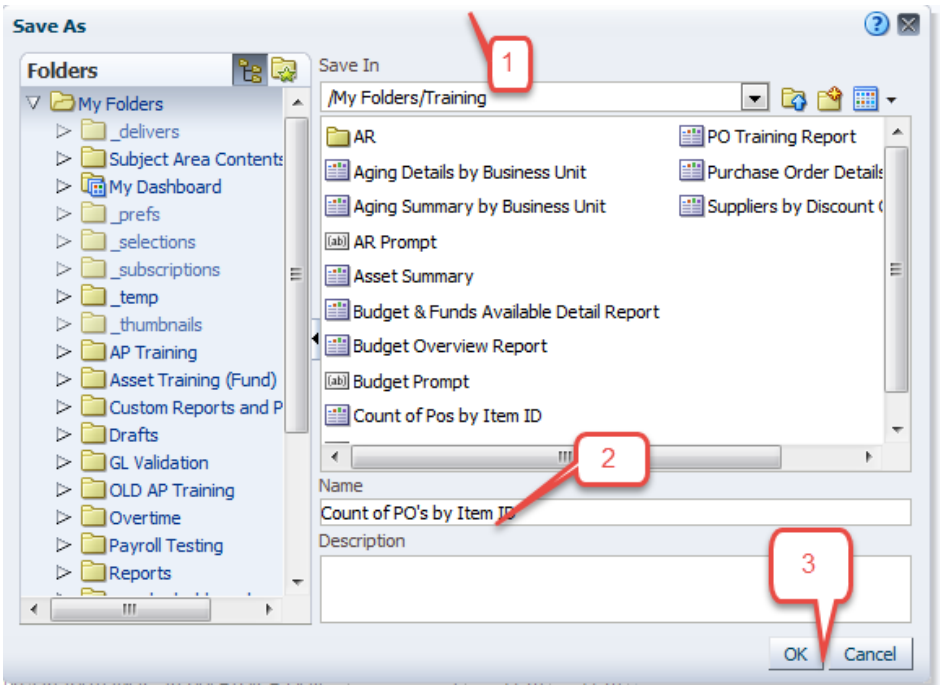
1. To do so, click the **Save** icon to save your analysis.

2. **Save as** dialog displays, navigate to My Folders in the left hand pane and then click the New Folder icon. The New Folder dialog box appears.

3. Name the folder as **Training** and click **OK**.



4. Name the analysis as **Count of PO's by Item ID** and click **OK**.



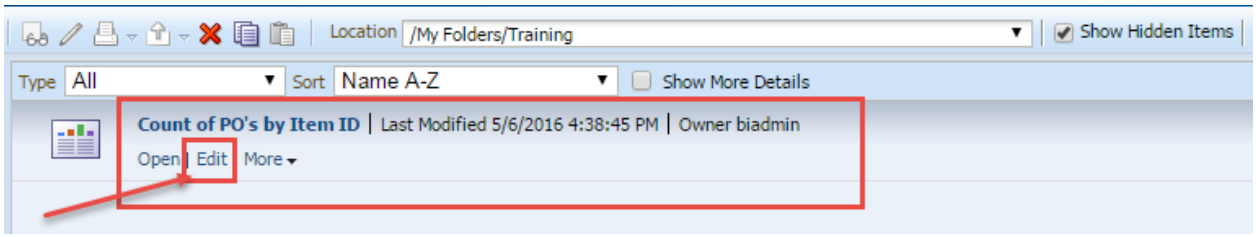
*Note: Now the analysis will be saved under **My Folders/Training** in the Web Catalog.*

3.2 Save Filters from Analysis

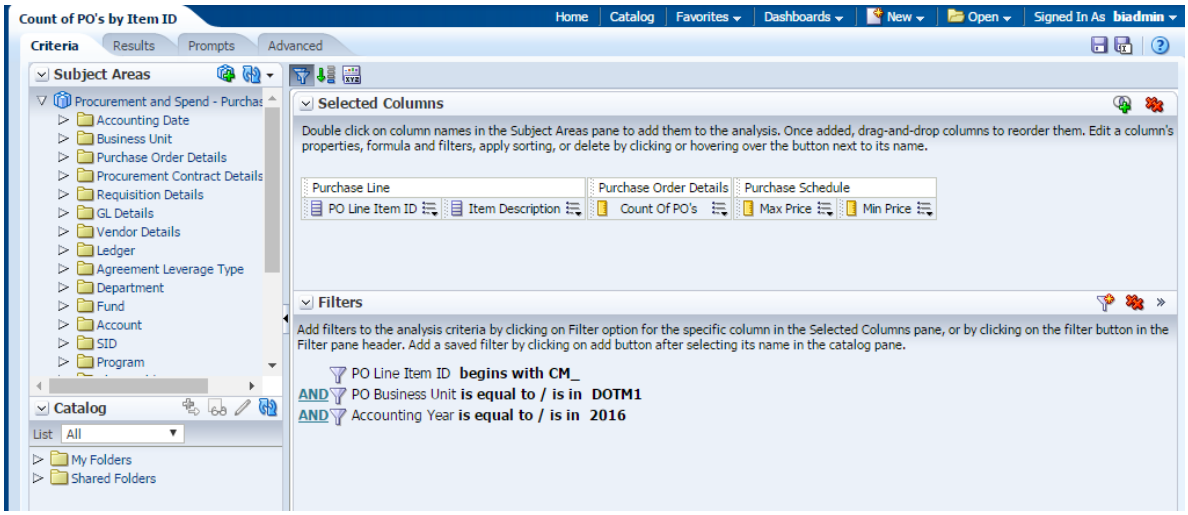
Users may find it useful to save complicated filters that could apply to many different queries, so that you don't have to keep **recreating** them.

To save filter from analysis, follow the below steps:

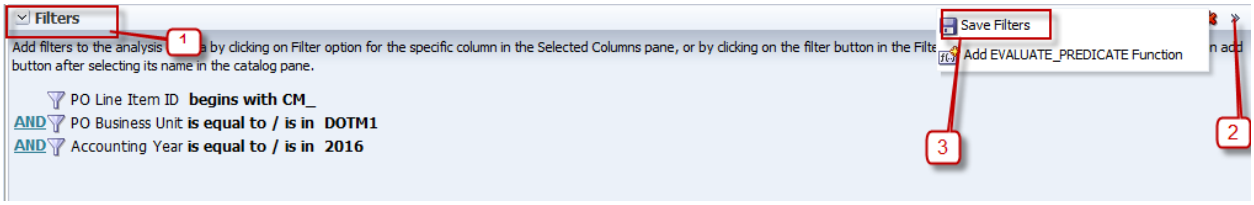
1. Navigate to **My Folders/Training** folder and select **Count of PO's by Item ID.** Click **Edit**.



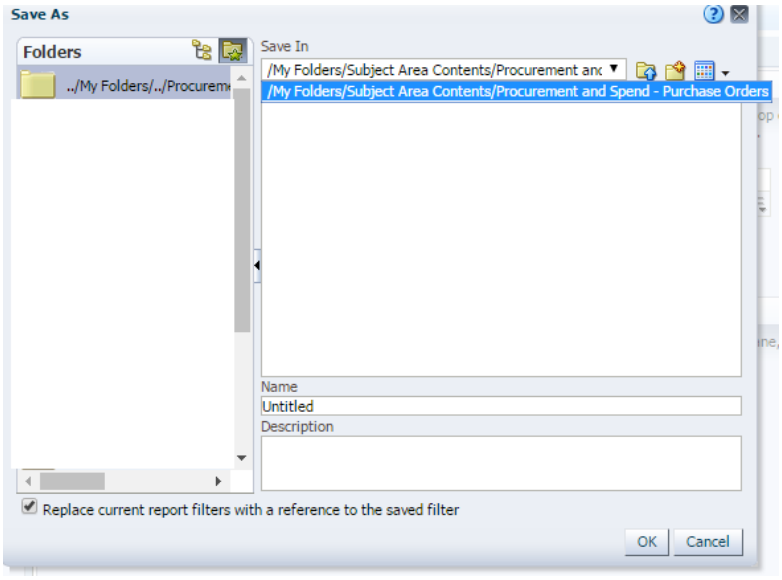
2. Click on Criteria Tab of the Analysis.



3. Click the **More Options** » icon in the filters pane and select **Save Filters** from the drop-down list.

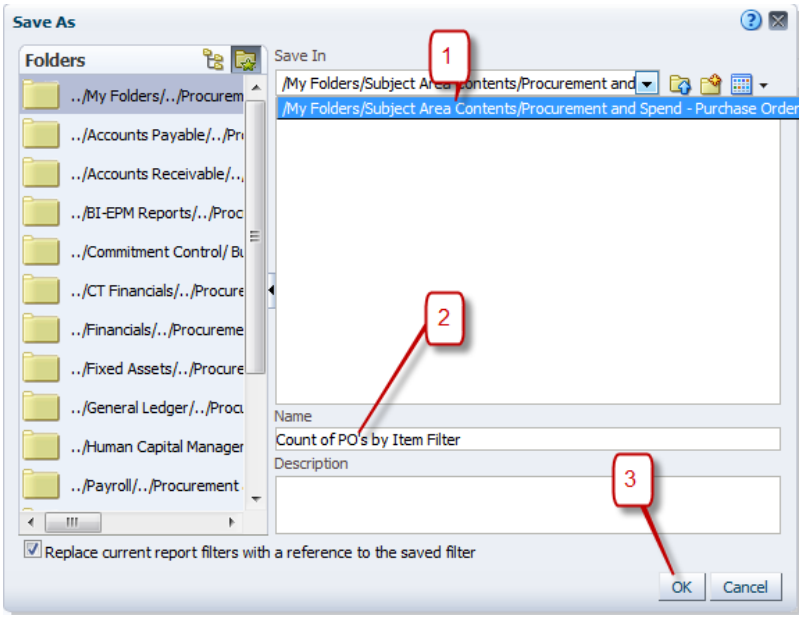


The **Save As** dialog box should look like this:



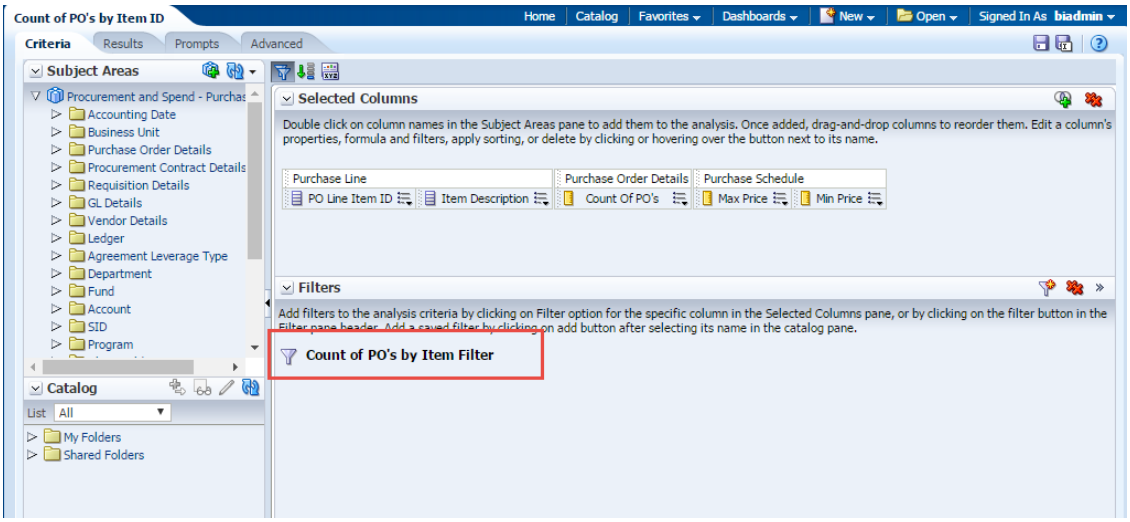
Note: A filter must be saved to a subject area folder so that it is available when you create an analysis using the same subject area.

4. Name the filter **Count of PO's by Item filter** and accept the default location which is "**My Folders/Subject Area Contents/Procurement and Spend – Purchase Orders**"



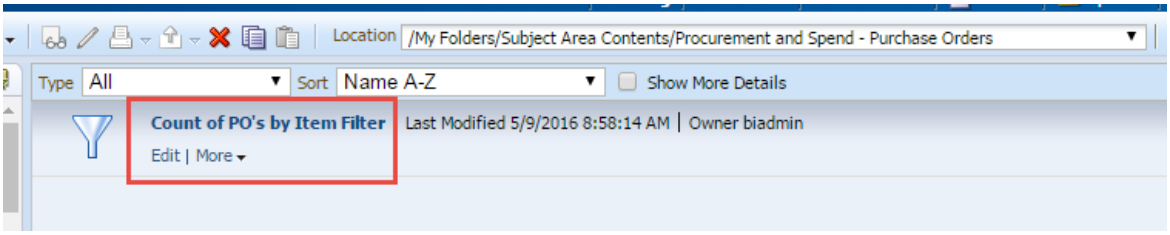
Note: OBI allows you to save any type of business intelligence object to any location within the Catalog. However, for some object types such as filters, OBI suggests the best Catalog location.
Click **OK**.

5. The filters pane appears as follows with the saved filter name



***Note: Don't save the analysis*.**

6. Navigate to Catalog and go to My Folder to check the filter which we just saved. It should be under the following path:-
   /My Folders/Subject Area Contents/ Procurement and Spend – Purchase Orders



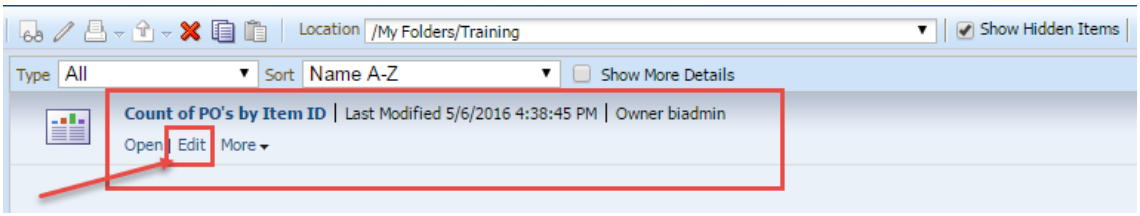
3.3 Apply Saved Filters

We can apply saved filters to the analysis if we need to reuse the filters we have created in other analysis, this way we will save time and effort when creating new analyses.

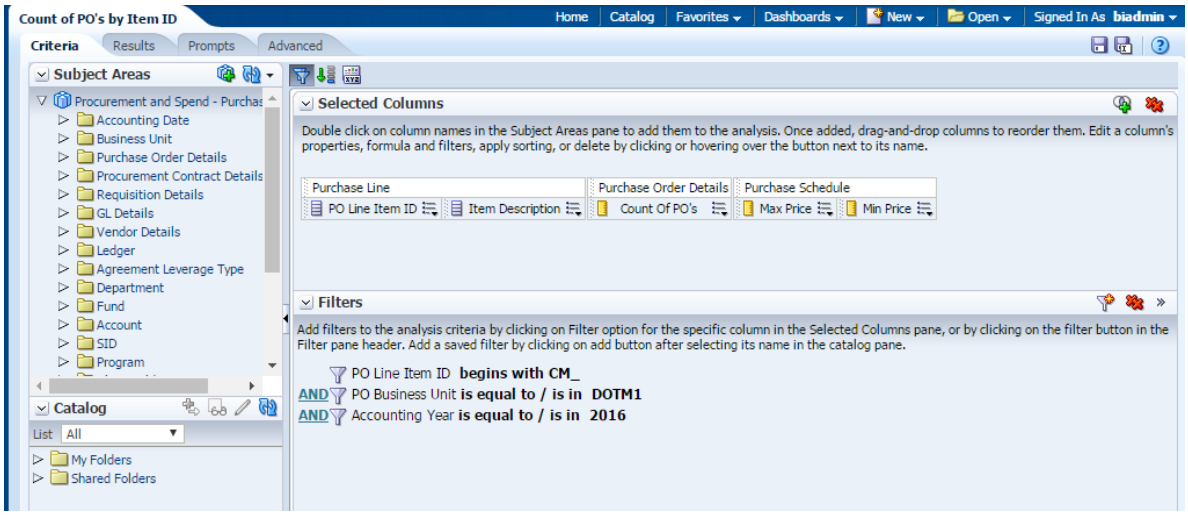
Guided Exercise

To show how to apply a saved filter, we will delete the Filter from an Analysis and apply the Filter we just saved in Section 3.2.

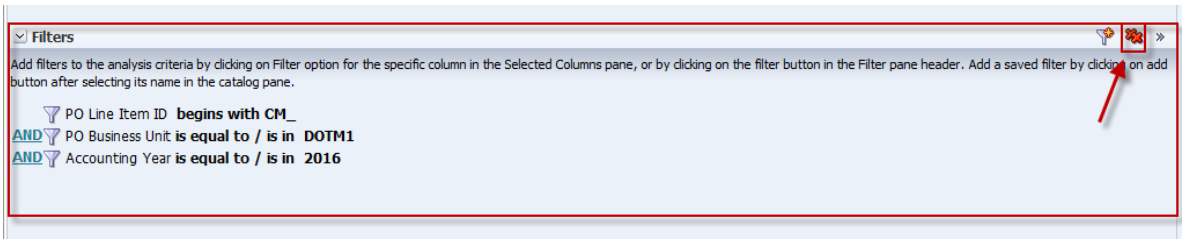
1. Navigate to **My Folders/Training** and select **Count of PO's by Item ID** then click "**Edit**".



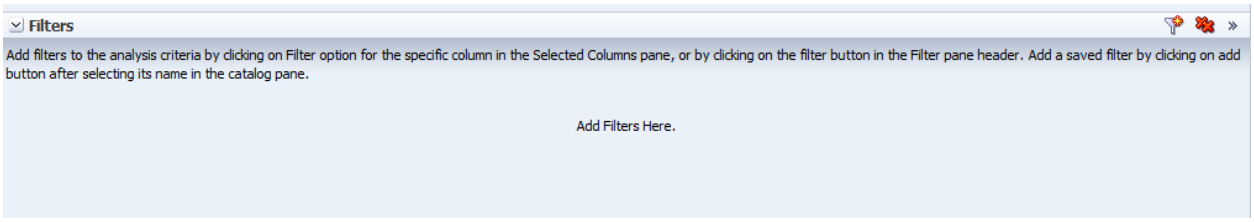
2. Select the **Criteria** tab.



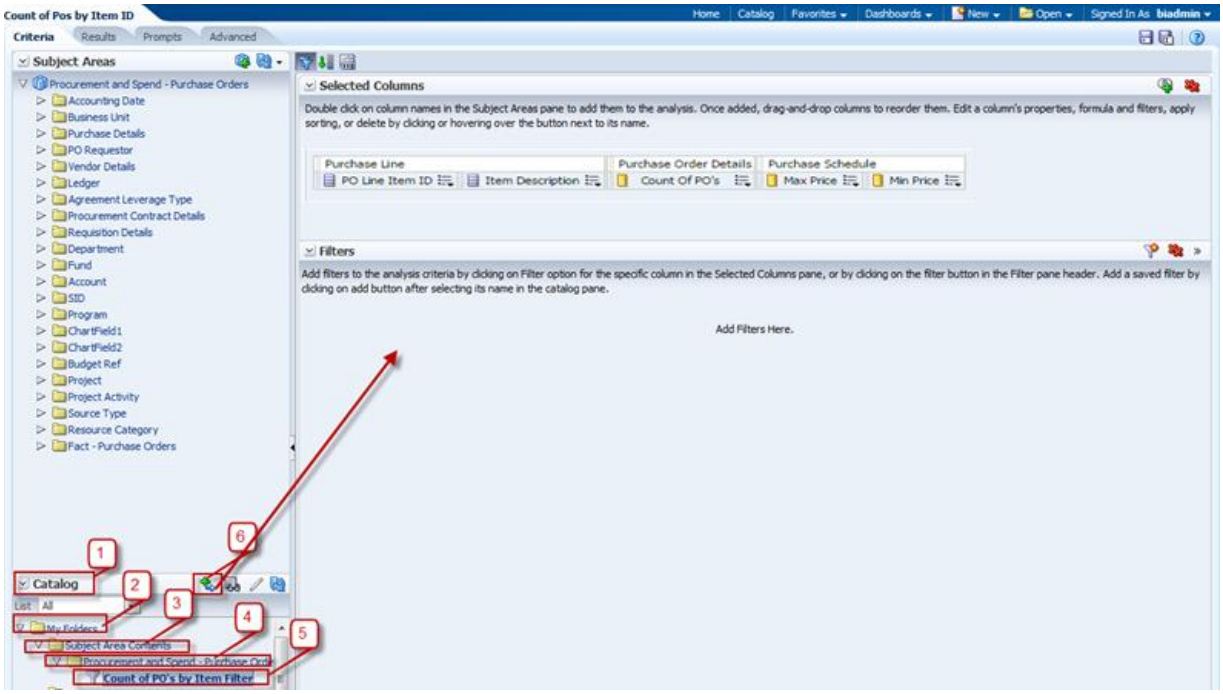
3. Click on "**Remove all Filters"** from the Filters pane.



4. Filters will be deleted and filter pane will appear as shown below:

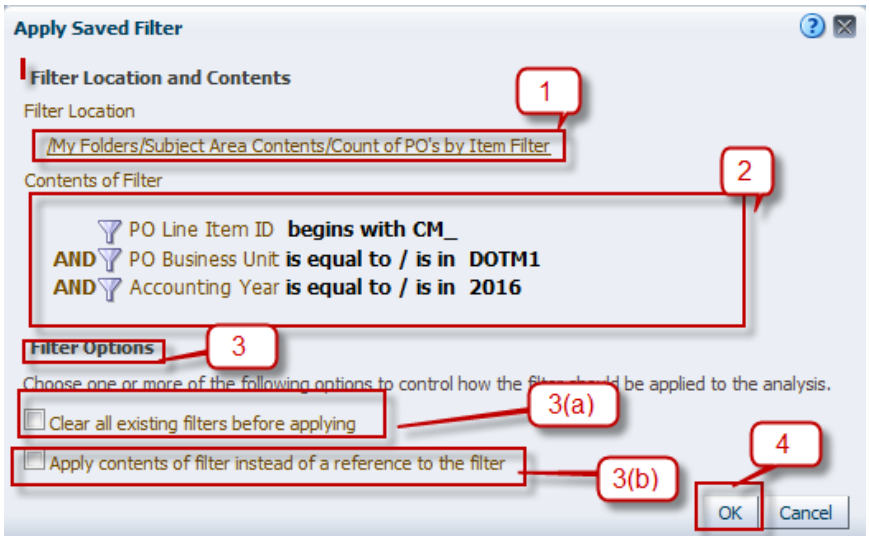


5. Go to Catalog section under Subject Areas then go **My Folders/Subject Area Contents/Procurement and Spend – Purchase Orders** to select **Count of PO's by Item Filter.**



6. Click on the green plus sign and blue arrow (step # No. 6 above) to move that filter to the Filters pane.

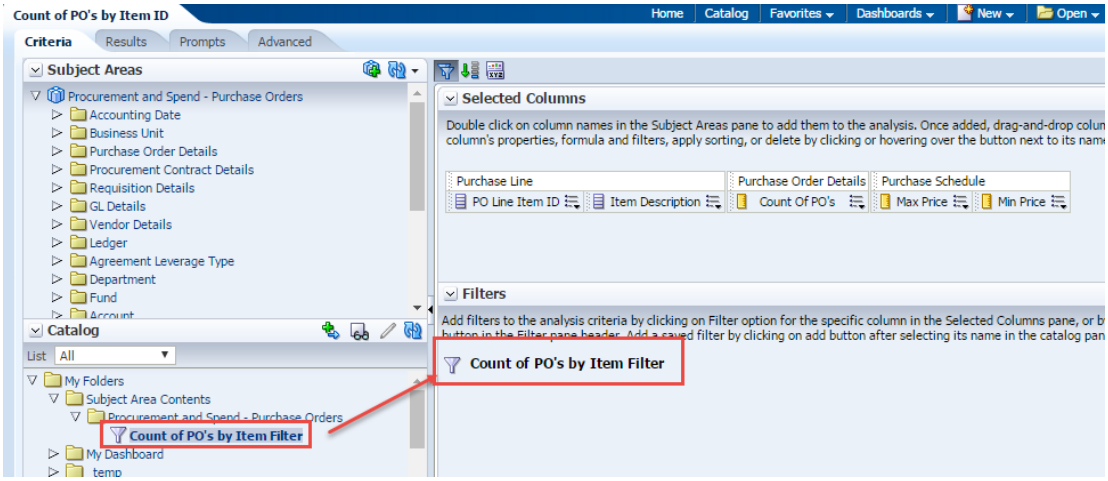
7. Apply Save Filter dialog opens:-



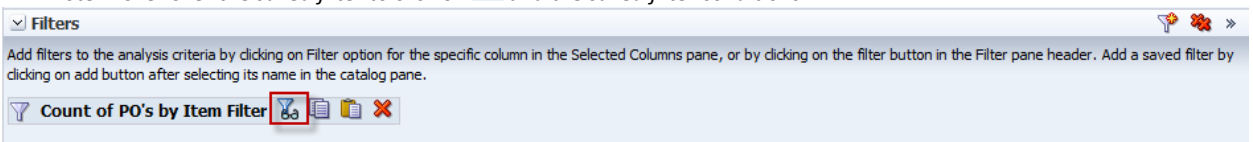
Elements	Description
1. Filter Location	It will show the path where this filter is saved.
2. Contents of Filter	It will display all the conditions used in the saved filter.
3. Filter Options	a. Clear all existing filters before applying: It will clear all the filters which are being used in the current analysis and will apply this saved filter.

	b. Apply contents of filter instead of a reference to the filter:- It will display all the condition instead of filter name in the filter pane.

8. Leave the default values and click **OK**.



Note: Hover over the saved filter to click on  *and the saved filter conditions.*



Thus the saved filter will be applied when we click on **Results.**

Note: - Don't save the report, as this is an example for the class.

3.4 Move or Delete Analysis

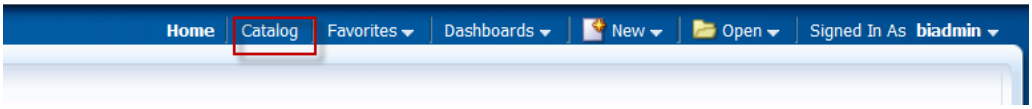
***NOTE**: The Copy feature is covered in section 6.1*

An Analysis can be moved from one folder to another folder as needed. The following are the steps for it.

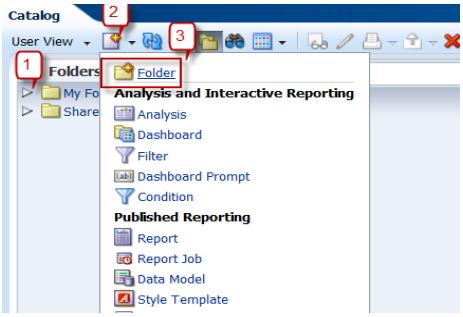
We will create a new folder under "My Folders" and name it as "**Temp**" in the following way:-

Guided Exercise

1. Click **catalog** from Global header.



2. Select "**My Folders**" and then click **New** to select "**Folder**"

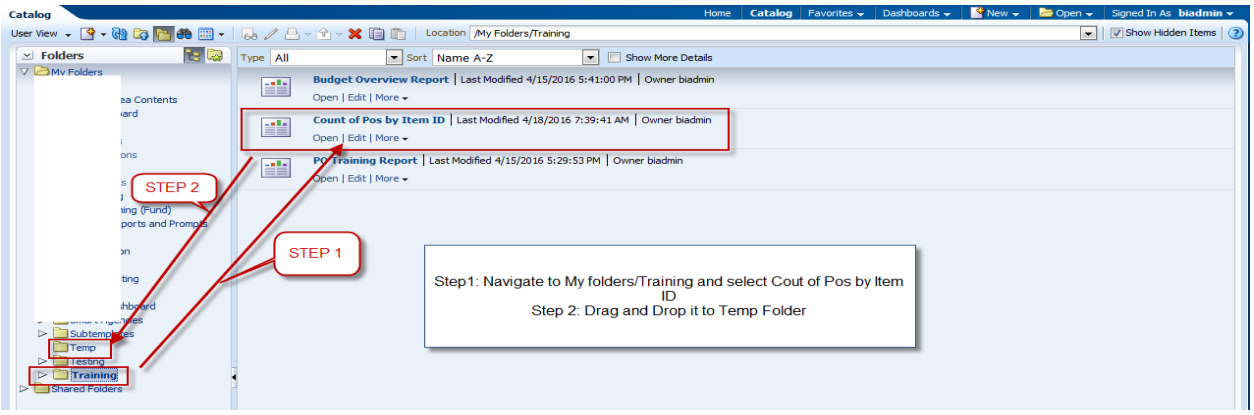


3. A new dialog opens, name it as **Temp** and click **OK**.

A Folder gets created under My Folders.

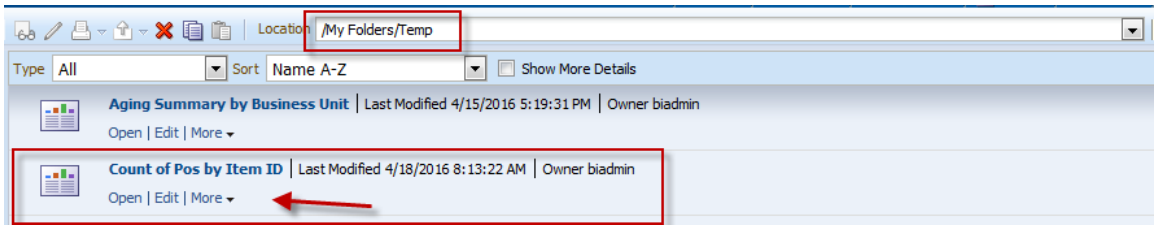
Next, we will move **Count of PO's by Item** from **Training** Folder to **Temp Folder**.

4. Go to **Training** folder and select **Count of PO's by Item**. Click and hold to drag and drop the analysis in **Temp** folder as shown below.



Now the Analysis will be moved from Training Folder to Temp folder

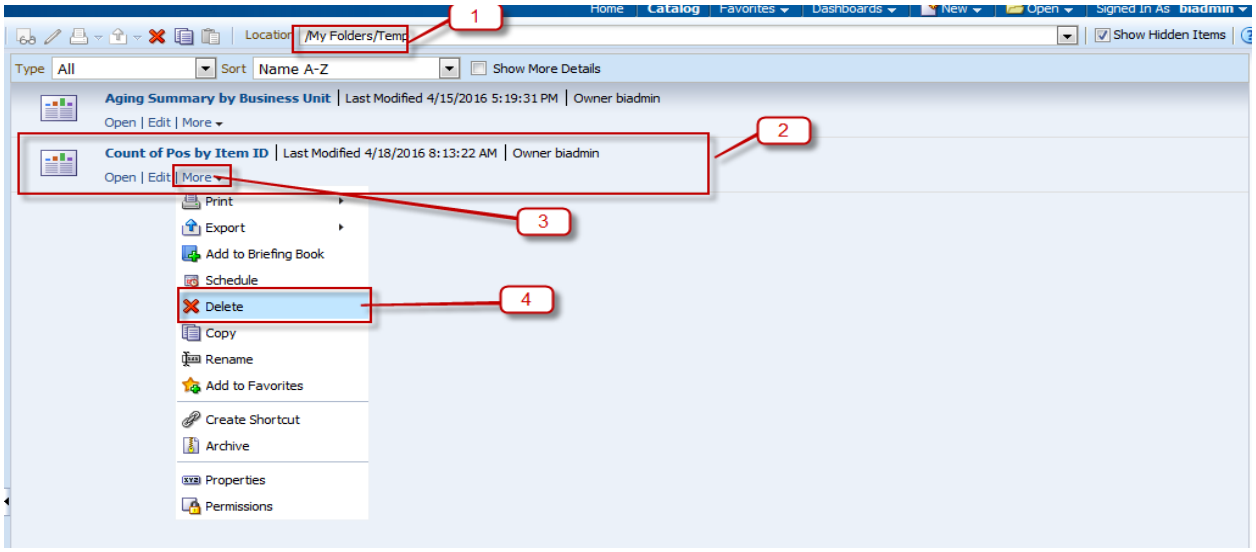
5. Navigate to **My Folders/Temp** to check the analysis which we just moved.



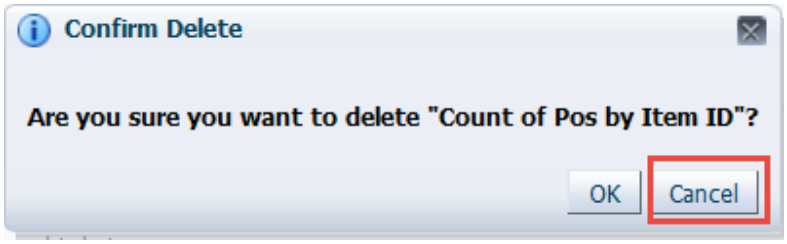
Deleting an Analysis

Note: We won't be deleting the analysis.

6. To Delete the Analysis, click on **More** drop down menu for **Count of Pos by Item ID** to select **Delete** option.



7. ***Do not actually delete the analysis***. Click cancel to cancel the Delete function.



Note: It will premanently delete that analysis from the Folder.

8. Now move back the analysis to Training Folder.

4. Format Analysis & Columns

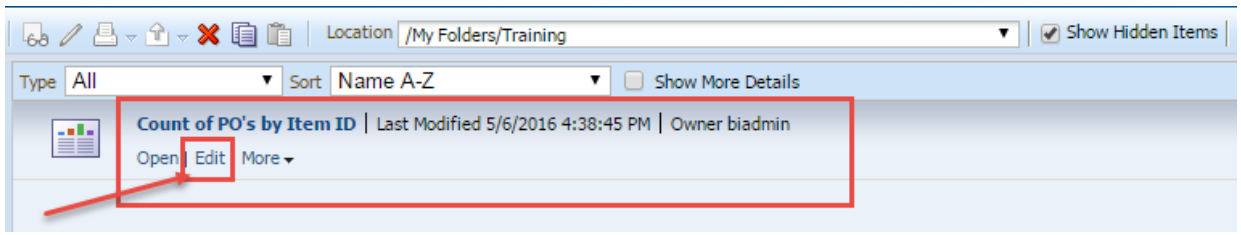
Introduction	After you run an analysis, the results are formatted using default formatting rules. By adding additional formatting to the results, you can draw focus to blocks of related information and call attention to specific data elements. You can edit properties for a column to control the appearance and layout of a column and its contents. You can also specify formatting to apply only if the contents of the column meet certain conditions. By default, your selections for a column apply only to the current analysis. You can create or modify the formula or aggregation rule behind a column through use of the formula function within the Analysis Editor. This modification is completed in the user interface for an individual analysis; it does not affect the column rule for other analyses. This functionality requires a basic knowledge of SQL syntax and expression writing.
Objectives	At the end of this section, you will be able to complete the following tasks related to results on Analyses tab. • Move, Add, Exclude, Hide/Delete Column • Sort a Column • Add Grand Totals & Subtotals • Edit Column Format • Edit Value Format • Edit Data Format • Apply Conditional Format

4.1 Move, Add, Exclude, Hide & Delete Column

Move a column

In the **Compound Layout** under **Results** tab, we have the ability to change the presentation of data based on the desired outcome.
By default the results tab of the analysis is **grouped** based on what has been selected first in the **Criteria** tab when we first created the analysis. This can be changed by moving or reorganizing the columns displayed in the report by following the below steps.

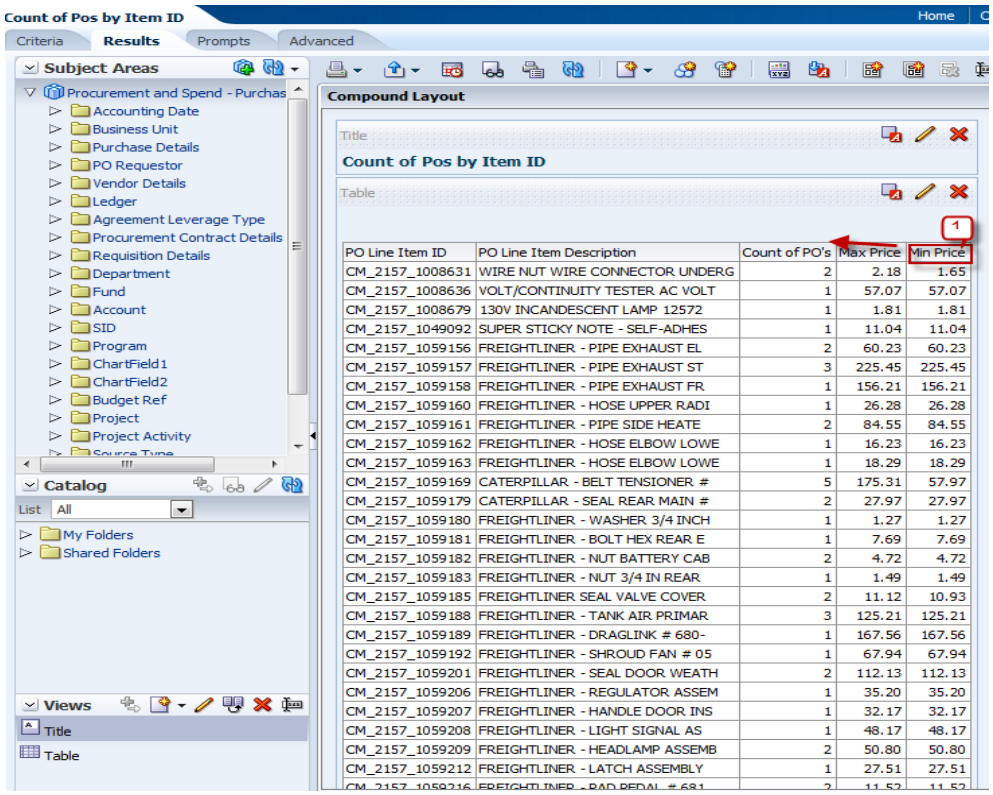
Edit the "**Count of PO's by Item ID**" analysis under My Folders/Training and select the Results tab as shown below.



Guided Exercise

a. By Dragging:-

1. Hover over the column header of Min Price, cursor will change to drag symbol then left click and drag and drop it before Max Price



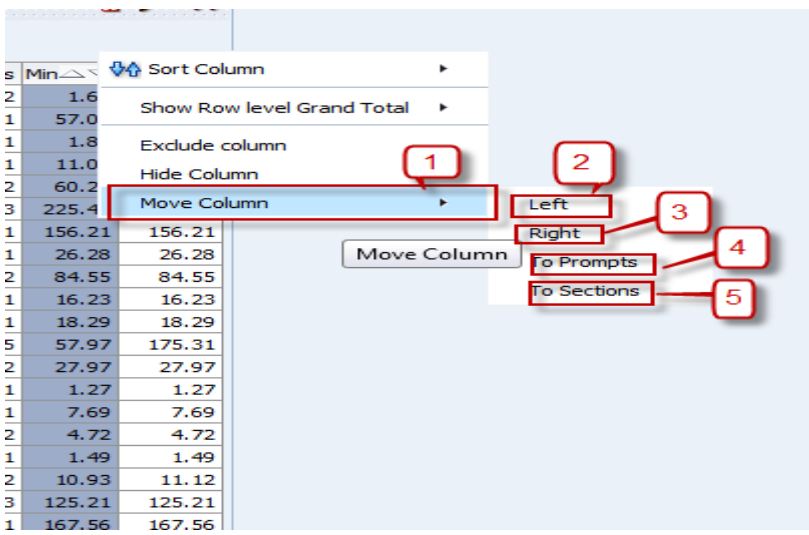
PO Line Item ID	Item Description	Count Of PO's	Min Price	Max Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG		1.65	2.18
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23
CM_2157_1059163	FREIGHTLINER - HOSE ELBOW LOWE	1	18.29	18.29
CM_2157_1059169	CATERPILLAR - BELT TENSIONER #	5	57.97	175.31
CM_2157_1059179	CATERPILLAR - SEAL REAR MAIN #	2	27.97	27.97
CM_2157_1059180	FREIGHTLINER - WASHER 3/4 INCH	1	1.27	1.27
CM_2157_1059181	FREIGHTLINER - BOLT HEX REAR E	1	7.69	7.69
CM_2157_1059182	FREIGHTLINER - NUT BATTERY CAB	2	4.72	4.72
CM_2157_1059183	FREIGHTLINER - NUT 3/4 IN REAR	1	1.49	1.49
CM_2157_1059185	FREIGHTLINER SEAL VALVE COVER	2	10.93	11.12
CM_2157_1059188	FREIGHTLINER - TANK AIR PRIMAR	3	125.21	125.21
CM_2157_1059189	FREIGHTLINER - DRAGLINK # 680-	1	167.56	167.56
CM_2157_1059192	FREIGHTLINER - SHROUD FAN # 05	1	67.94	67.94

The above screenshot is final display of our results.

Guided Exercise

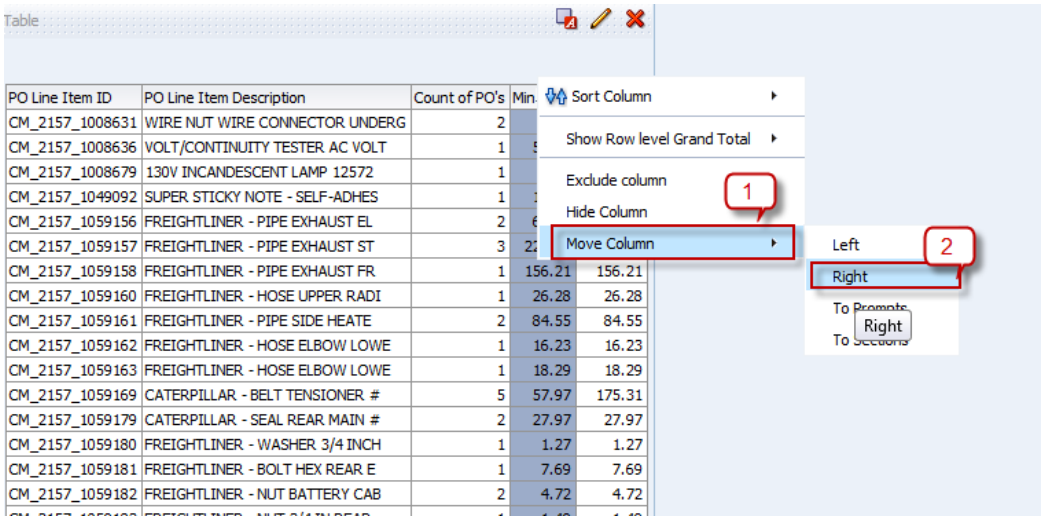
b. By Run time Option:-

2. Hover over the column header of Min Price and right click to get run time options (aka drop down options) Click on Move Column drop – drop menu.

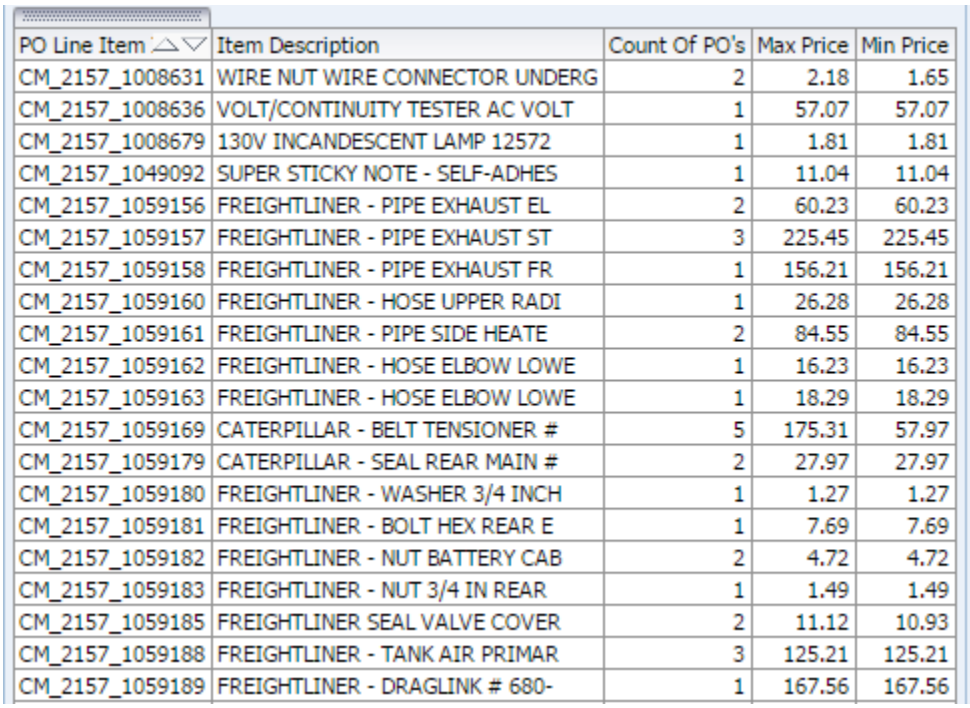


Elements	Description
1. Move Column	This option in Run time Menu allows you to move column to Left, Right, To Prompts, and To Sections & To Columns.
2. Right	It will move column to Right
3. Left	It will move column to Left
4. To Prompts	It will move the column to Table Prompt level and restrict the data by select values.
5. To Sections	It will divide the results into sections based on column selected.
6. To Columns	It will move the column back to Tables.

3. Now, move the **Min Price** column to Right. Hover over the column header of the **Min Price** column and right click to get run time options (aka drop down options). Highlight the **Move Column** then select **Right**.

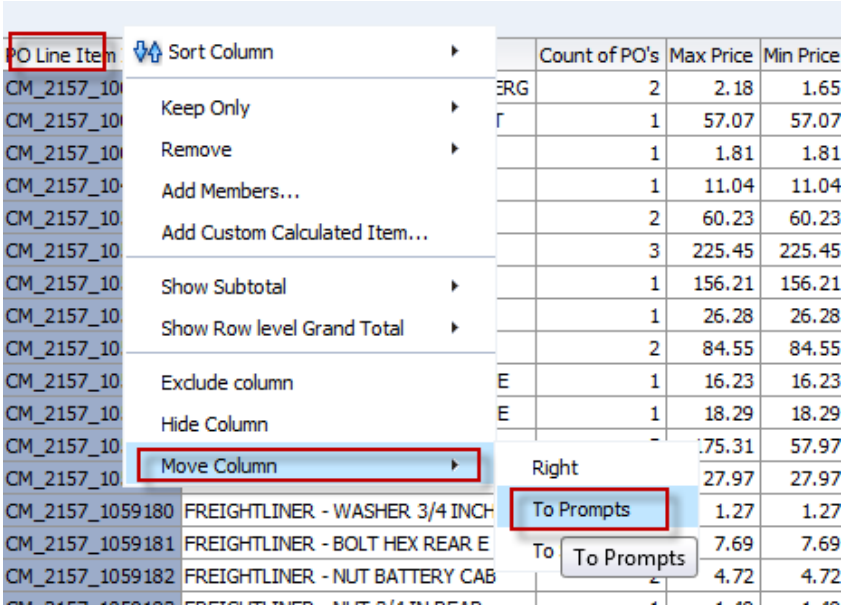


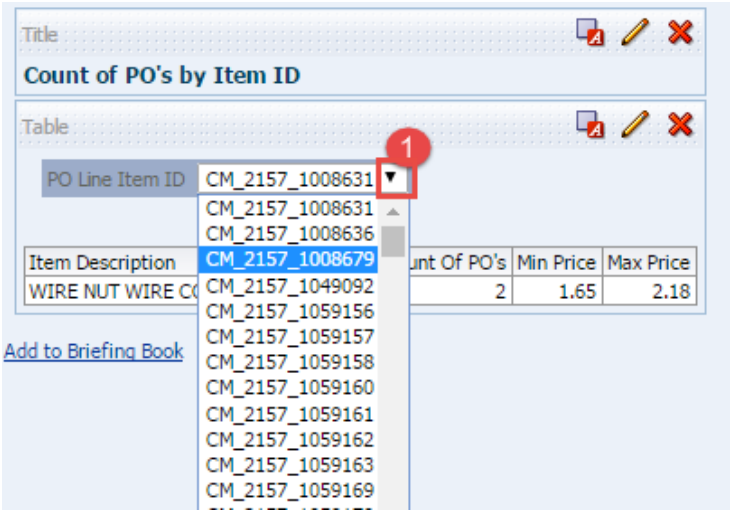
This will move the column to right as shown below:



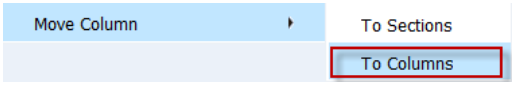
PO Line Item	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23
CM_2157_1059163	FREIGHTLINER - HOSE ELBOW LOWE	1	18.29	18.29
CM_2157_1059169	CATERPILLAR - BELT TENSIONER #	5	175.31	57.97
CM_2157_1059179	CATERPILLAR - SEAL REAR MAIN #	2	27.97	27.97
CM_2157_1059180	FREIGHTLINER - WASHER 3/4 INCH	1	1.27	1.27
CM_2157_1059181	FREIGHTLINER - BOLT HEX REAR E	1	7.69	7.69
CM_2157_1059182	FREIGHTLINER - NUT BATTERY CAB	2	4.72	4.72
CM_2157_1059183	FREIGHTLINER - NUT 3/4 IN REAR	1	1.49	1.49
CM_2157_1059185	FREIGHTLINER SEAL VALVE COVER	2	11.12	10.93
CM_2157_1059188	FREIGHTLINER - TANK AIR PRIMAR	3	125.21	125.21
CM_2157_1059189	FREIGHTLINER - DRAGLINK # 680-	1	167.56	167.56

4. Now move **PO Line Item ID** column to Table Prompts by clicking on **To Prompts.** To do so, Hover over the column header of the **PO Line Item ID** column and right click to get run time options (aka drop down options). Select **Move Column** and then click on **To Prompts**.





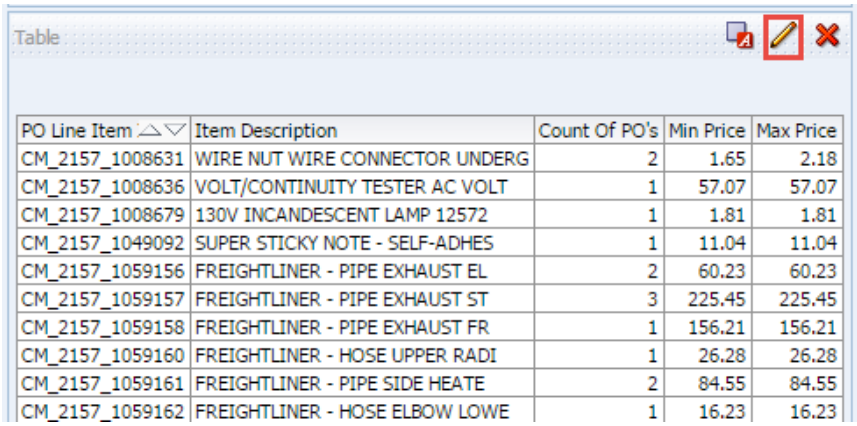
Note: To move back Table prompt to Table, click on To Columns.



Guided Exercise

c. By Edit View:-

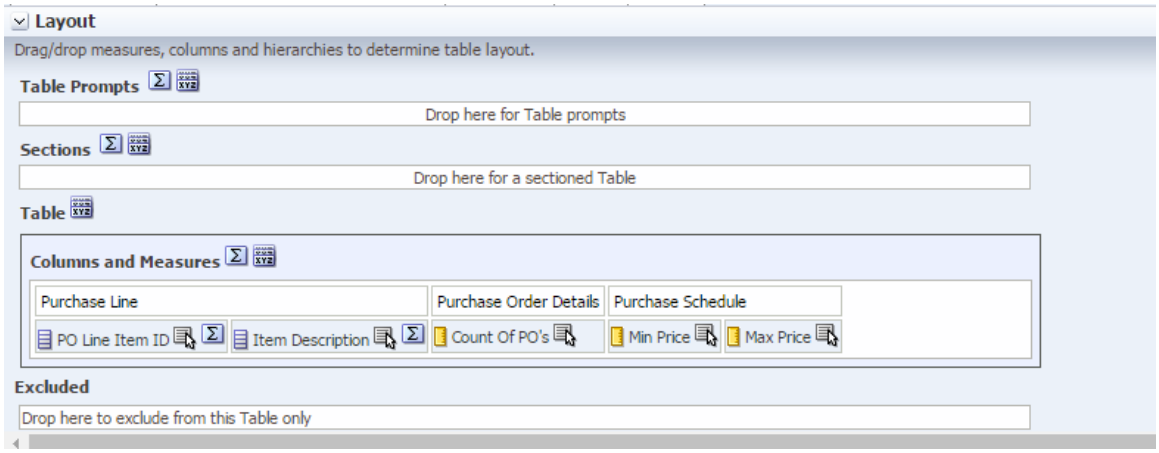
5. To move or reorder of columns to your analysis, click the **Edit View** icon in the Table View.



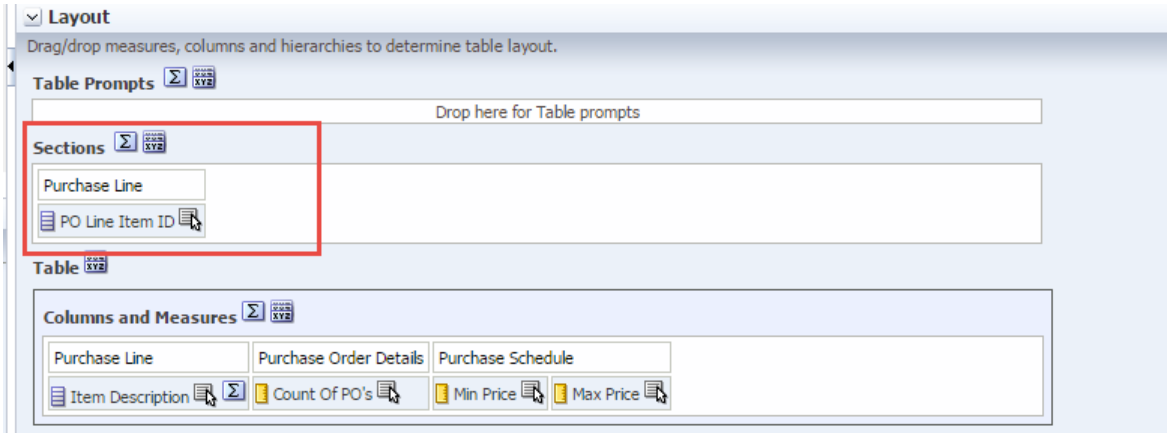
Table

PO Line Item	Item Description	Count Of PO's	Min Price	Max Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	1.65	2.18
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23

The Table Editor appears as shown.

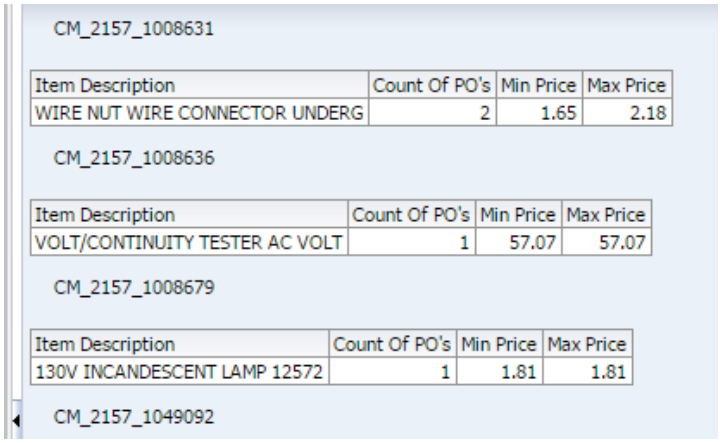


6. Under **Layout Pane** drag and drop the **PO Line Item ID** column into the **Sections** pane as shown below.



Note: The column can also be moved to Table Prompts based on requirement.

7. Check the results in Preview Pane.



CM_2157_1008631

Item Description	Count Of PO's	Min Price	Max Price
WIRE NUT WIRE CONNECTOR UNDERG	2	1.65	2.18

CM_2157_1008636

Item Description	Count Of PO's	Min Price	Max Price
VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07

CM_2157_1008679

Item Description	Count Of PO's	Min Price	Max Price
130V INCANDESCENT LAMP 12572	1	1.81	1.81

CM_2157_1049092

Note:- In the Preview pane, we can see the results in sections.

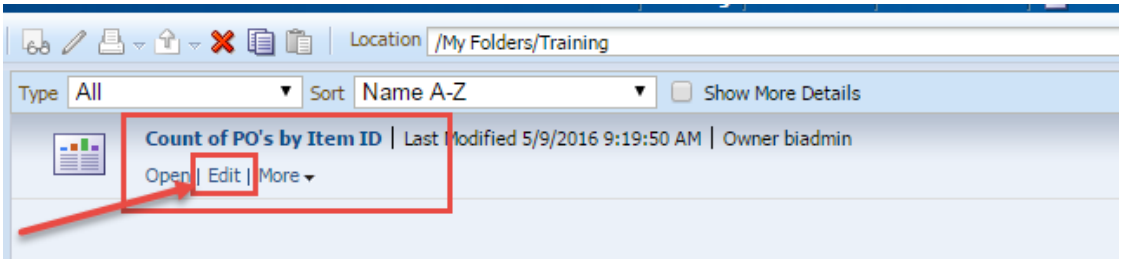
8. Drag the **PO Line Item ID** column back to **Columns and Measure**.

   Click **Done**.

Add a column

To Add Columns to your analysis can be done in the following way:-

Make sure to Open the "**Count of POs by Item ID**" and select the Results tab by clicking on Edit as shown:



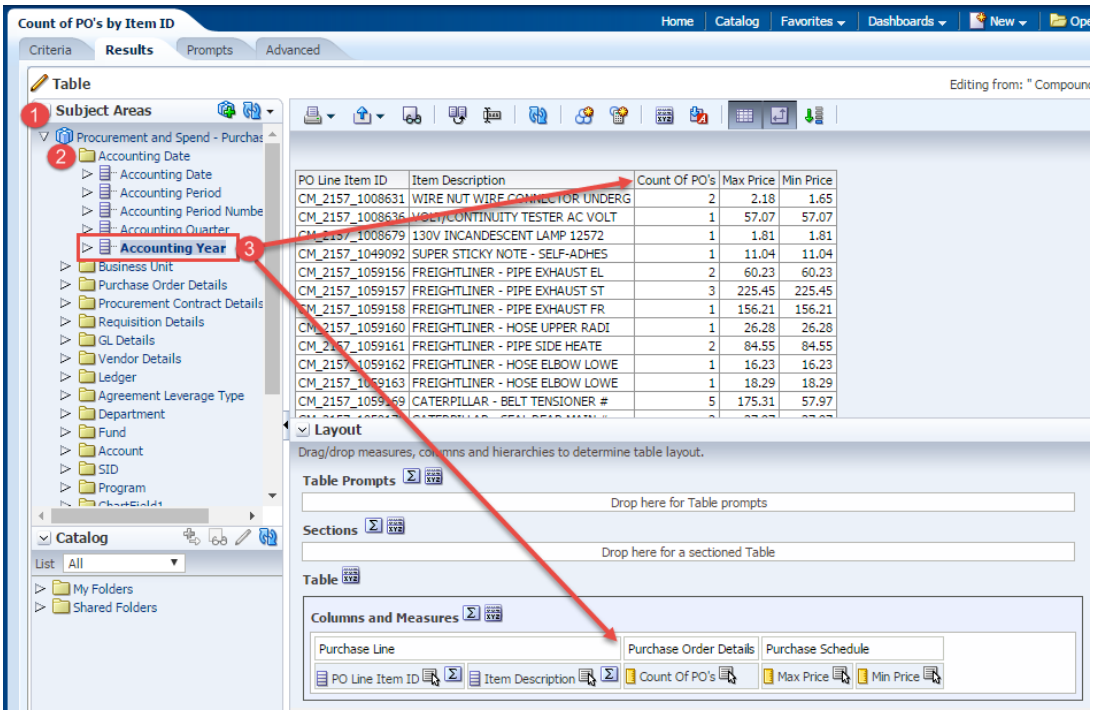
Guided Exercise

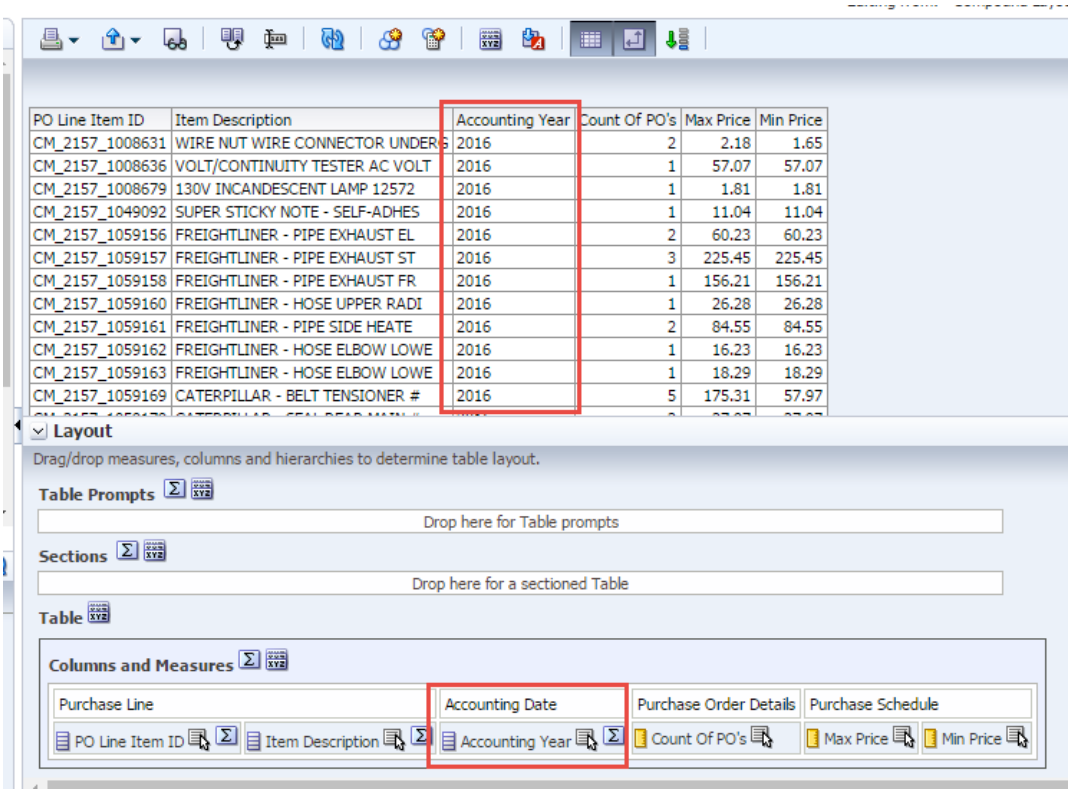
a. Edit View: -

1. To Add Columns from your analysis, click the **Edit View** icon in the Table View.

   Next we will add **Accounting Year** to the results.

2. Expand **Accounting Date > Accounting Year** to select **Accounting Year** from **Subject Areas** and drag & drop in **Layout pane** in Column & Measures section.





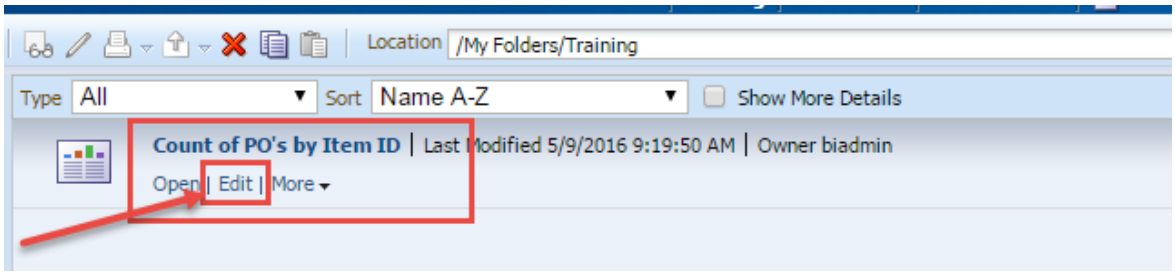
3. Click **Done**.

Exclude a column

To Exclude a Column there are two ways:-

Run time Menu
Edit View

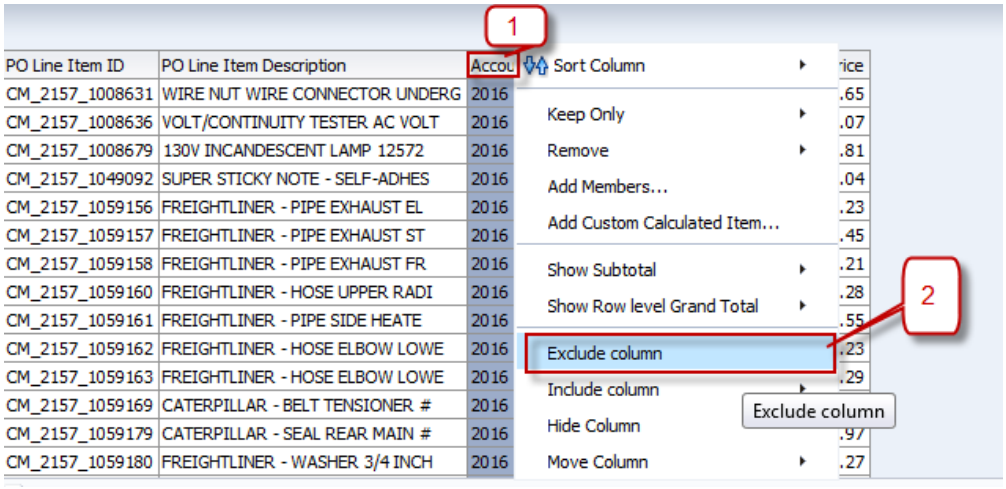
Make sure to open the "**Count of POs by Item ID**" and select the Results tab by clicking on Edit as shown:



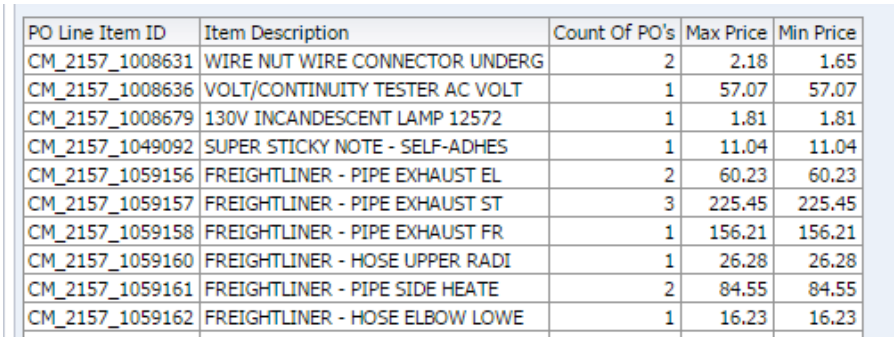
Guided Exercise

a. **Run time Menu**:-

1. On Results tab, go to **Accounting Year** column, right click on column header to view the run time menu. Click **Exclude** Column.

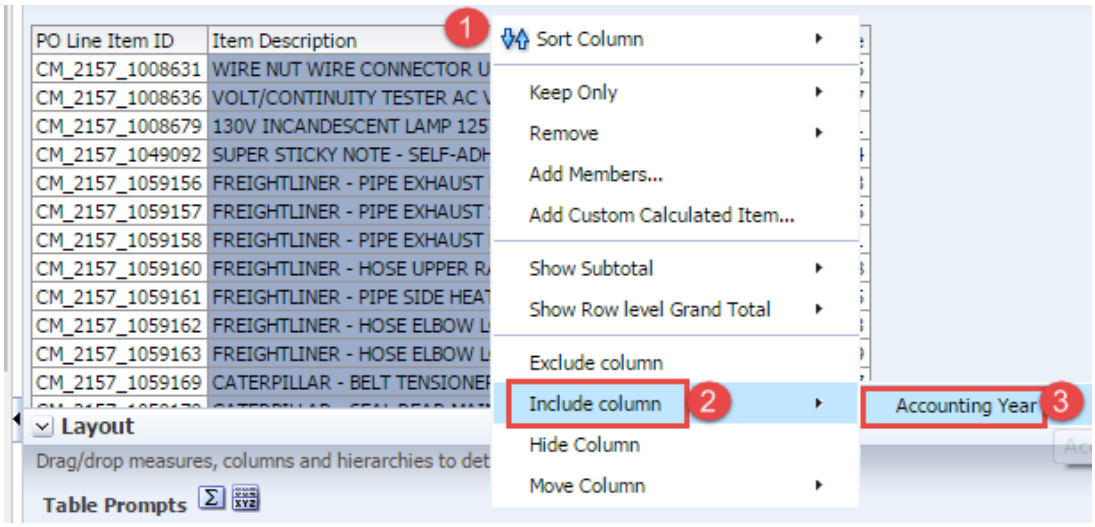


2. It will not delete the column, it will just exclude the column.



PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23

3. If you want to include the column, just go to any column and right click to get runtime menu. Click **Include Column** and then **Accounting Year**.

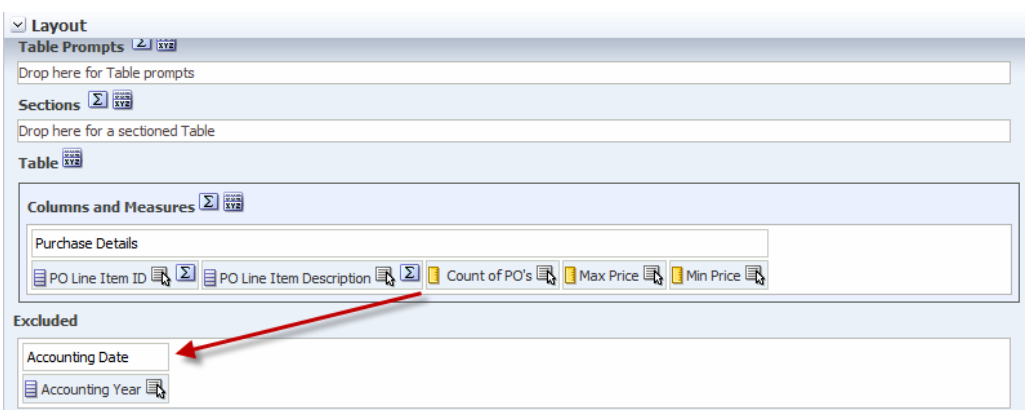


It will include the column.

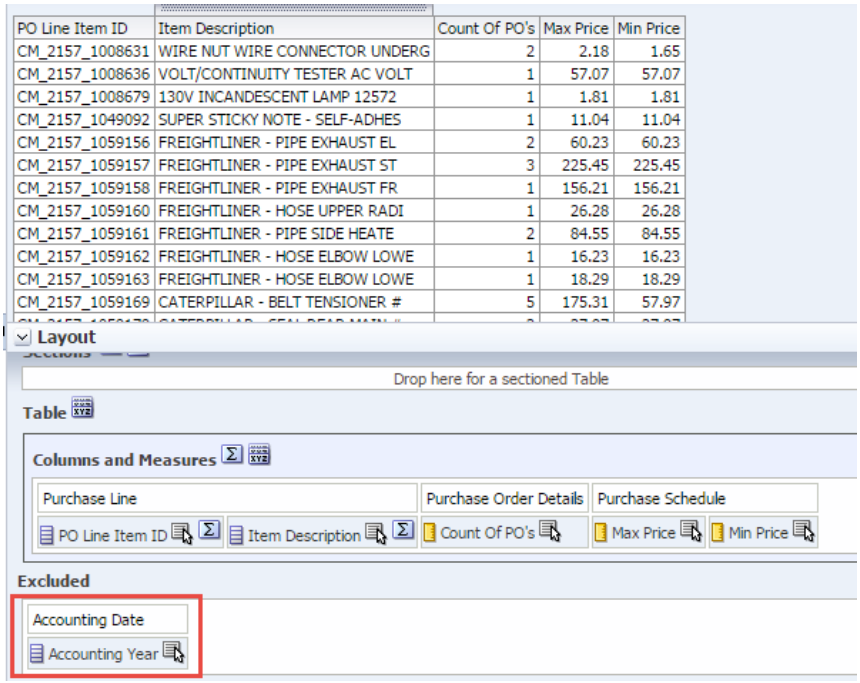
PO Line Item Description	Accounting Year	Count of PO's
WIRE NUT WIRE CONNECTOR UNDERG	2016	2
VOLT/CONTINUITY TESTER AC VOLT	2016	1
130V INCANDESCENT LAMP 12572	2016	1
SUPER STICKY NOTE - SELF-ADHES	2016	1
FREIGHTLINER - PIPE EXHAUST EL	2016	2
FREIGHTLINER - PIPE EXHAUST ST	2016	3
FREIGHTLINER - PIPE EXHAUST FR	2016	1
FREIGHTLINER - HOSE UPPER RADI	2016	1
FREIGHTLINER - PIPE SIDE HEATE	2016	2
FREIGHTLINER - HOSE ELBOW LOWE	2016	1
FREIGHTLINER - HOSE ELBOW LOWE	2016	1
CATERPILLAR - BELT TENSIONER #	2016	5
CATERPILLAR - SEAL REAR MAIN #	2016	2
FREIGHTLINER - WASHER 3/4 INCH	2016	1

b. Edit View

1. To Exclude column, Columns from your analysis, click the **Edit View** icon in the Table View. Go to Layout pane and Drag Location Code column and drop in **Excluded** as shown below.

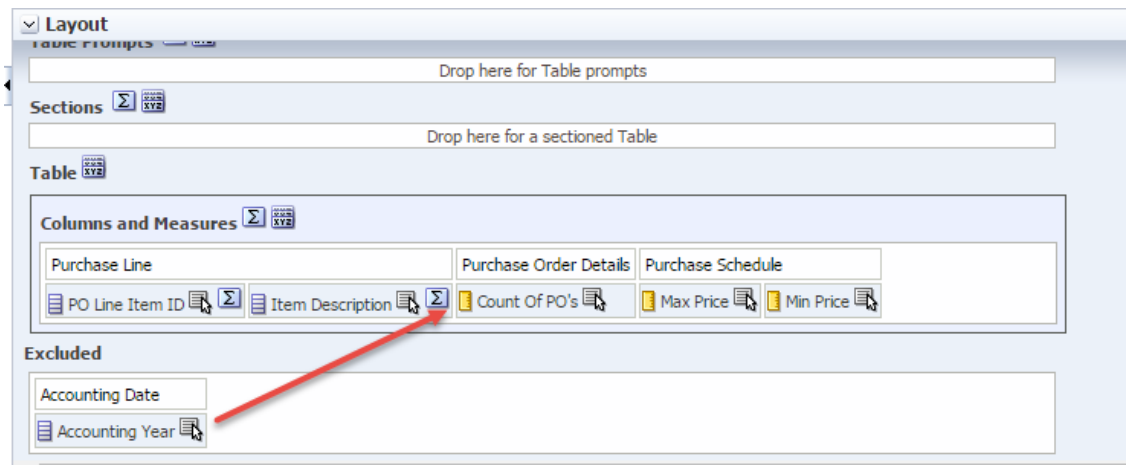


2. Check the Preview layout to see that column is excluded.



PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23
CM_2157_1059163	FREIGHTLINER - HOSE ELBOW LOWE	1	18.29	18.29
CM_2157_1059169	CATERPILLAR - BELT TENSIONER #	5	175.31	57.97

Note: It can be included by dragging and dropping in the Columns and Measures section.



Click **Done**.

Hide/Delete a column

Hide a column:- If you want to include a column but don't want to display in the table, you can hide a column. Hiding a column doesn't delete column from Criteria tab.
Delete a column:- If you select an incorrect column or a column is no longer necessary for the analysis, you can remove the column from the analysis. You cannot delete the entire table; you must delete each column separately. It deletes column from Criteria tab.
Deleting a column does not delete filters based on the column. The filter will still be active even if the data is not displayed in the results.

Difference between Hide and Exclude Column: If you sort by columns then "hide" them then the table is sorted by the hidden columns. But if you sort by columns then "exclude" them then the table is no longer sorted by the excluded columns. So "hide" allows you to sort by a non-visible column.

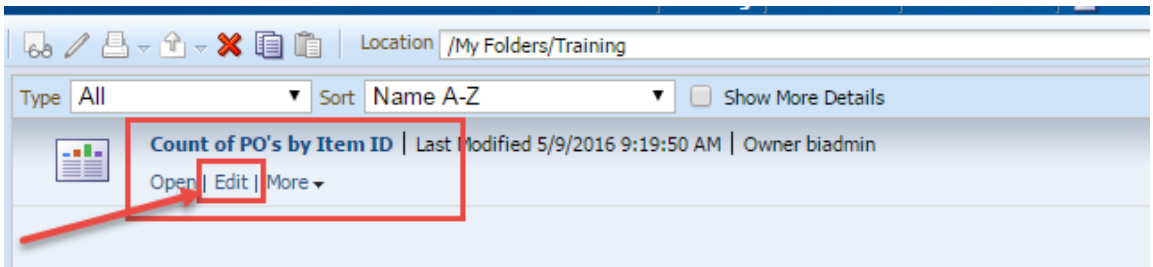
Hide a column

To hide a column, there are two ways:-

- Run Time Menu

- Edit View

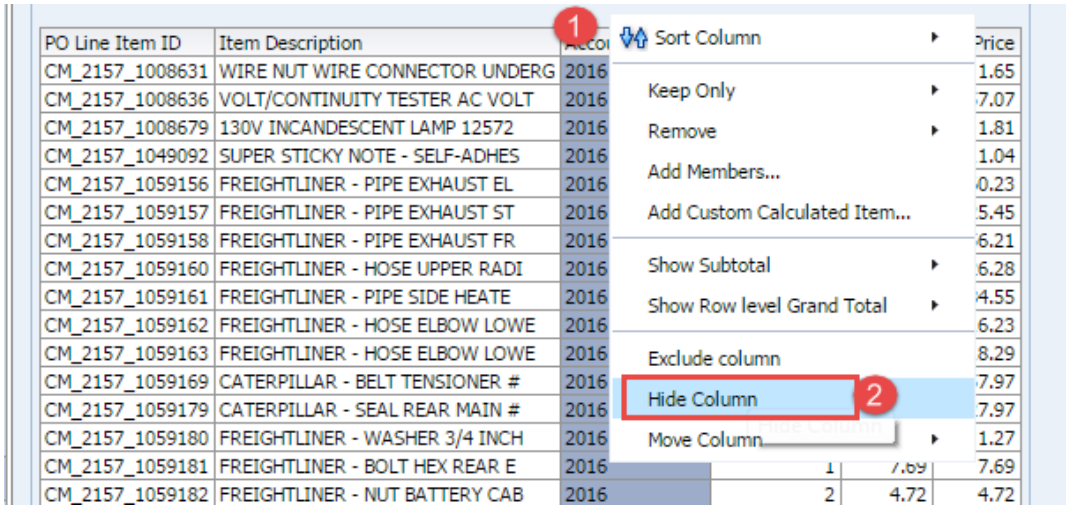
Make sure to open the "**Count of PO's by Item ID**" and select the Results tab by clicking on Edit as shown:



Guided Exercise

a. Run Time Menu:-

1. On Results tab, go to **Accounting Year** column, right click on column header to view the run time menu.
2. Click Hide.

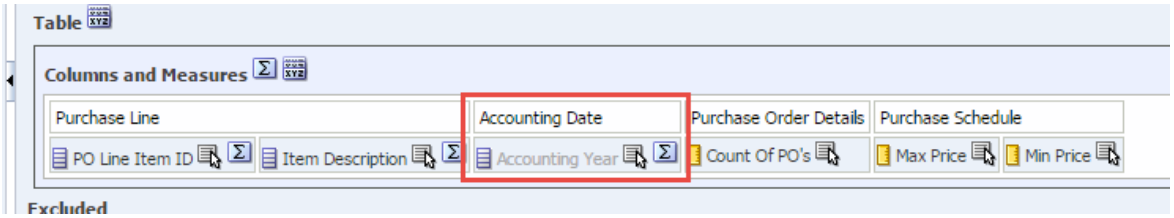


Note:- From Runtime Menu we cannot display a hidden column.

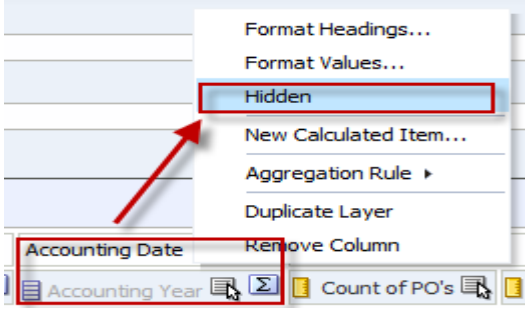
Guided Exercise

b. Edit View:-

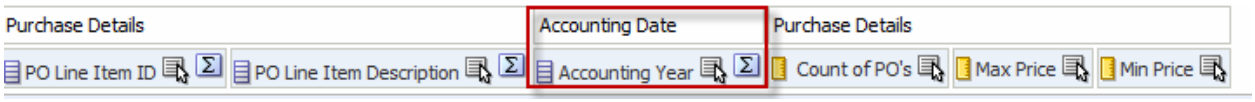
1. To Hide column from your analysis, click the **Edit View** icon in the Table View.
   Go to Layout menu and you will see Accounting Year as unhighlighted as we have just Hide the column from Run time Menu.



2. To unhide Click the **More Options** icon for **Accounting Year** and click Hidden.



This will unhide the column. And again if you want to hide it, repeat the same by going to **More Options**.



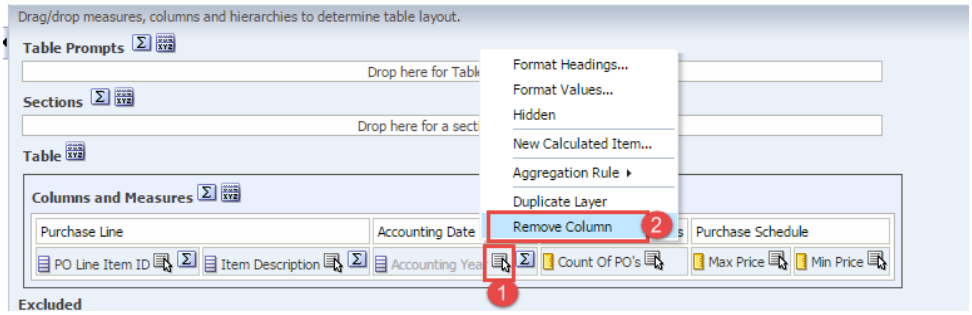
3. Click **Done**.

Deleting a Column

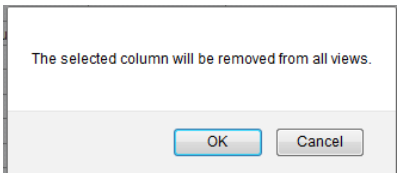
Guided Exercise

To **Delete** Columns from your analysis, click the **Edit View** icon in the Table View.

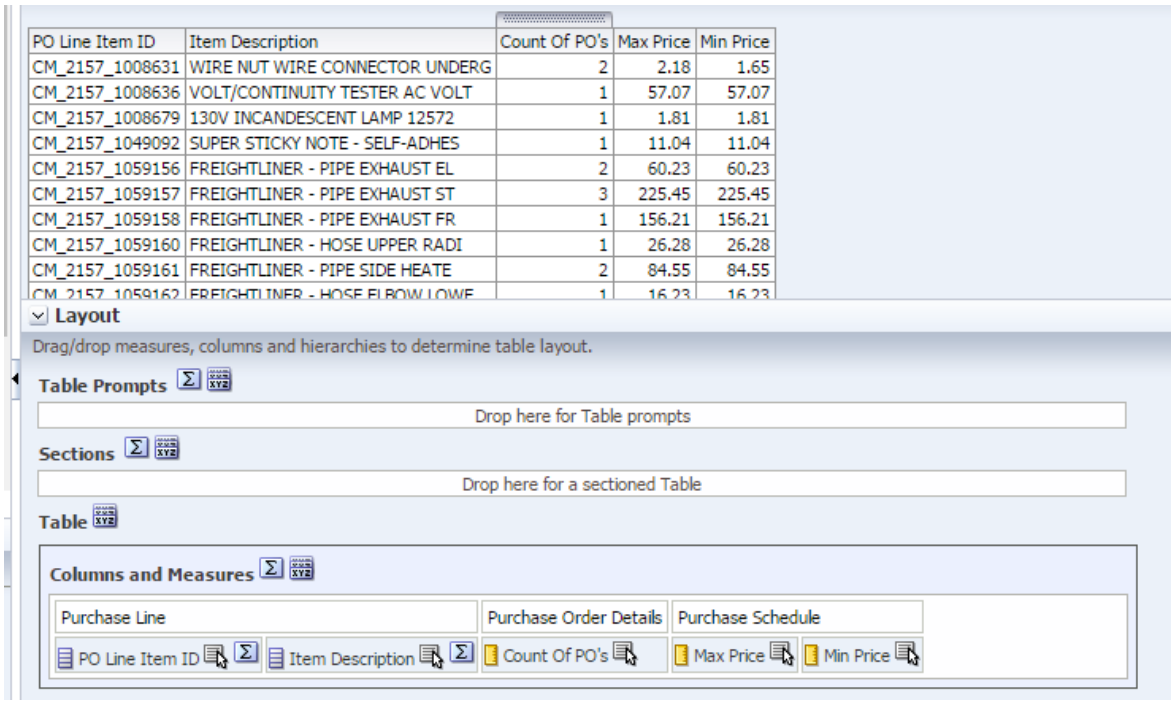
1. In the layout pane, click the **More Options** icon for Accounting Year and select **Remove Column**.



2. Click **OK** when a box appears.



Note: Check the Perview Layout to make sure that the column is deleted.



PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23

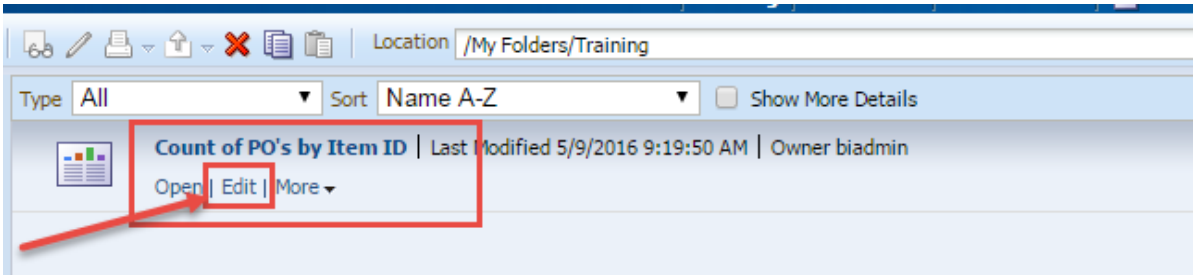
3. Click **Done**.

4.2 Sort a Column

Column results can be sorted in ascending or descending order for an analysis. You can sort on multiple columns for an analysis. When sorting on multiple columns, the sort order is indicated by a number that displays in the lower left corner of the Order by button.

Sorting columns can be done in the following ways:

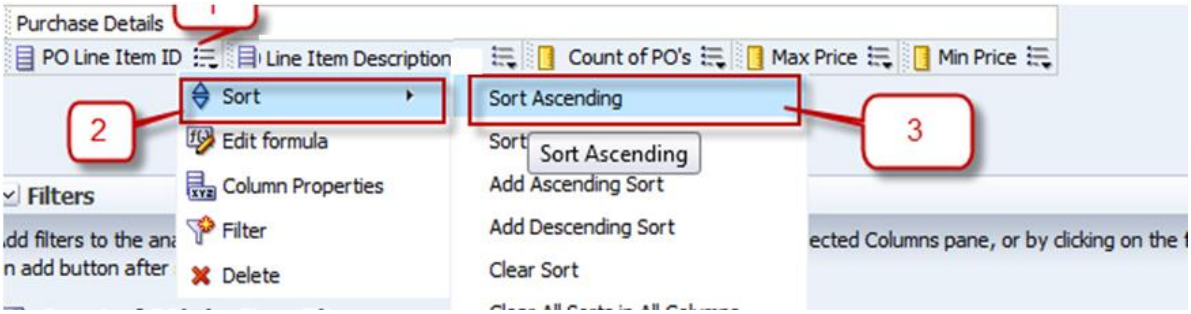
Make sure to open the "**Count of PO's by Item ID**" and select the Criteria tab by clicking on Edit as shown:

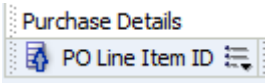


Guided Exercise

a. From Criteria Tab:-

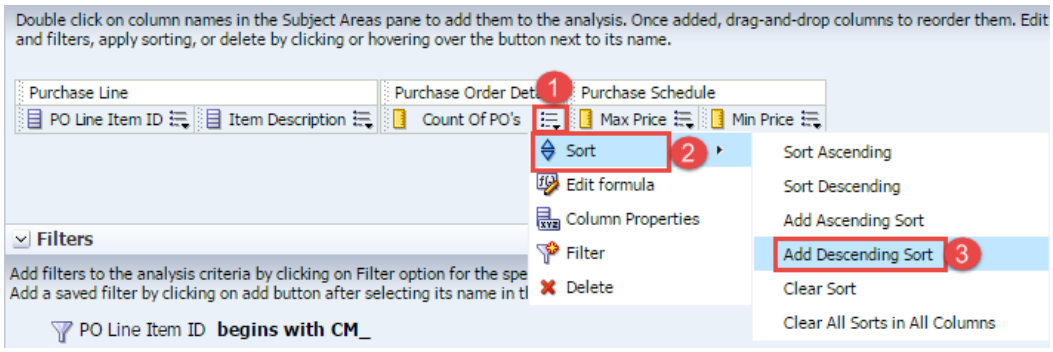
1. On the Criteria tab, click the **More Options** icon for **PO Line Item ID**.
2. Select Sort > Sort Ascending.

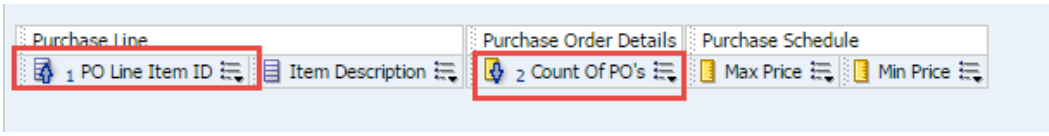


Observe that a sort icon is added to **PO Line Item ID**. 

Note: The order of the sort is indicated by an arrow, in this case the arrows point up, indicating that it is ascending. Additionally, if multiple sorts are added, a subscript number will also appear, indicating the sequence for the sort order.

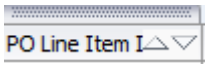
3. Added sorting for **Count of PO's** as descending order. Now number will appear saying that it is sorting based on those numbers.





4. Click on Results tab to see the results.

b. From Results Tab:-

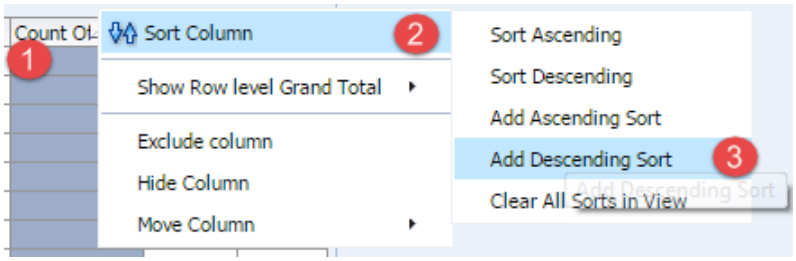
i. Hover the cursor over the **PO Line Item ID** column header to see two arrows displaying. 

Click on upside arrow for ascending. Once clicked that arrow will be highlighted.

PO Line Item ID	PO Line Item Description	Count of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21

The results will also be sorted by PO Line Item ID.

3. To add More sorting:- Go to **Count of PO's** column header and right click so that a run time menu opens up. Go to **Sort Column** to click on **Add Descending Sort**.



The results now will be sorted first by **PO Line Item ID** (ascending order) and then by **Count of PO's** (Descending order).

PO Line Item ID	PO Line Item Description	Count of
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1

Note: Difference between Sort Ascending and Add Ascending Sort is that later adds sorting to the already existing sorting where as former just sort the result based on the selected column only.

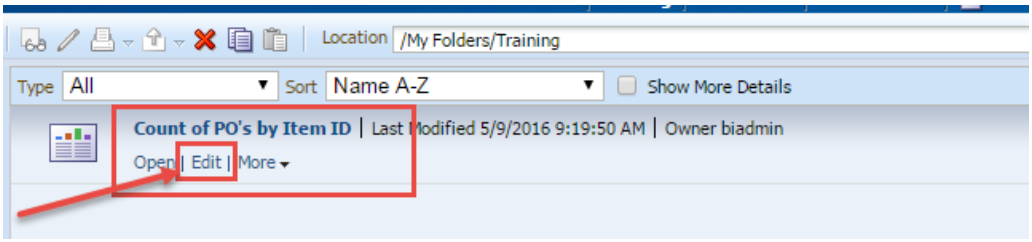
4.3 Add Grand Totals & Sub Totals

You can display a sub-total for a numerical column based on specific criteria; this will total a subset of rows and create an additional row for the subtotal. You can total any number of Attribute columns; you cannot total Fact columns. However, you must have Fact columns in your analysis for the totals to work correctly. You can also analysis a grand total for a numerical column based on all returned records. You can also create a grand total for a numerical column based on all returned records.

Note: If the totals are not correct, you may need to change the Aggregation rule from Default to Sum. Refer to the OBI Documentation for more information.

When you activate the Total By function for a column, the analysis automatically sorts by that column in ascending order. All additional sort order functions occur after the initial sort.

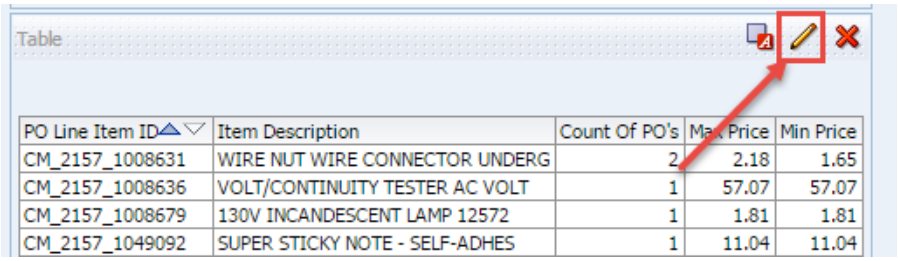
Make sure to open the "**Count of PO's by Item ID**" and select the Results tab by clicking on Edit as shown:



Guided Exercise

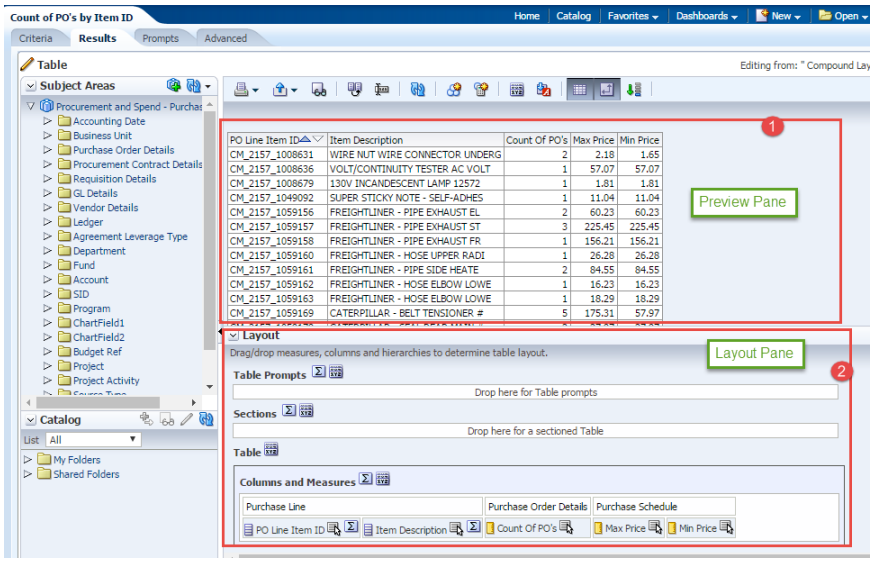
Grand Total:

1. In Results tab, click on Edit of Table View.

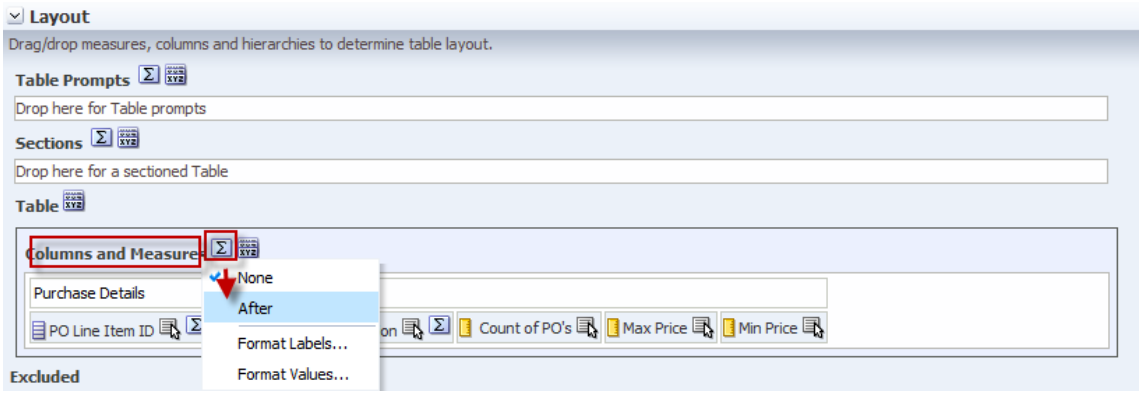


PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04

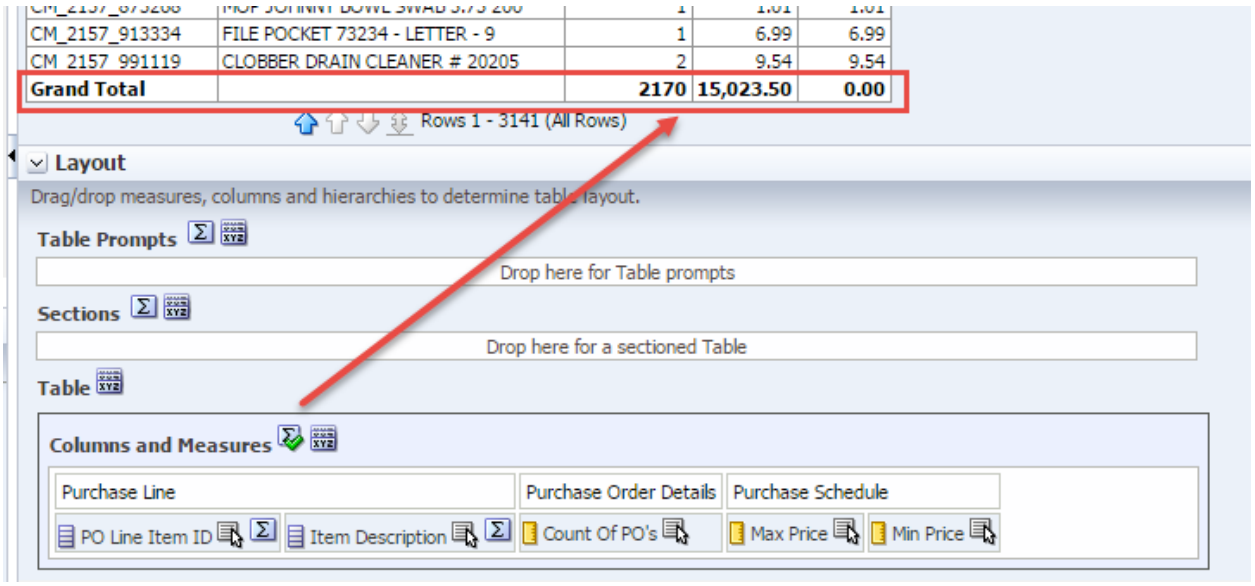
2. Table View Editor will open.



3. To add a **Grand total** to the analysis, click the Total icon to the right of **Columns and Measures** in the Layout pane of the Table editor.



4. Select **After** from the drop-down list. Review the results in the Preview pane, and note that the **Total** icon now displays a green checkmark, indicating that a grand total has been added to the analysis.



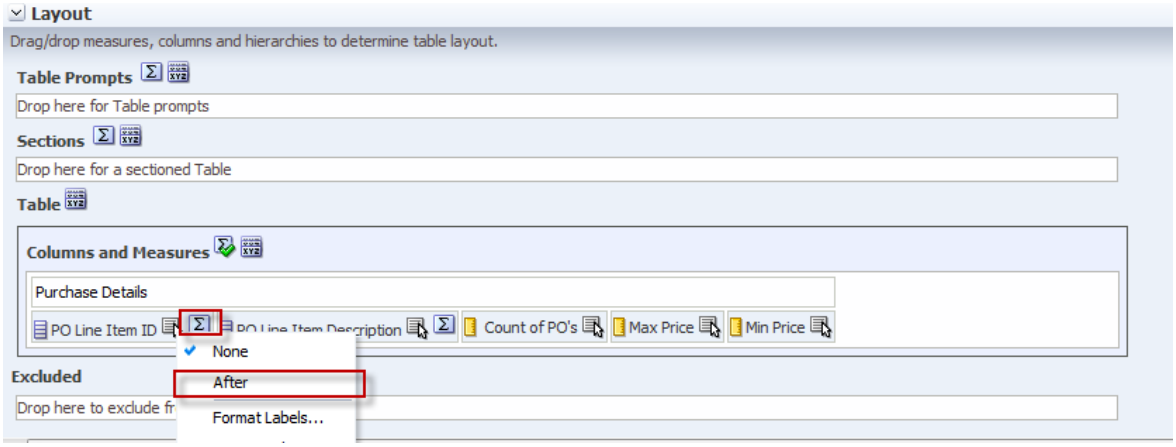
Click **Done**.

Guided Exercise

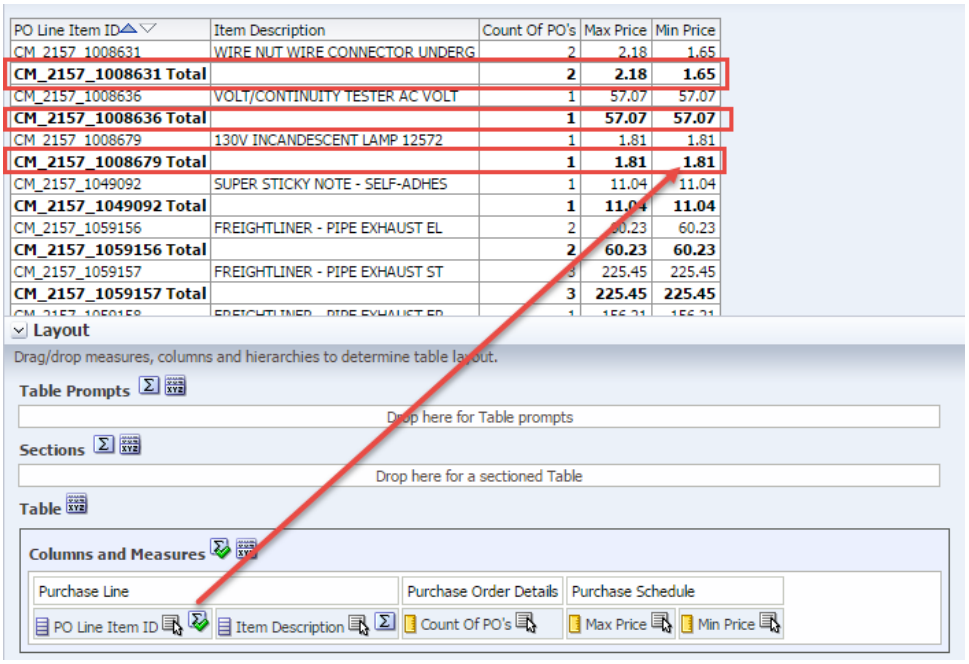
Sub Totals:

1. To add a Sub Total by PO Line Item ID to your analysis, click the Edit View icon in the Table view. The Table Editor appears.

   In the Layout pane, click the Total icon for PO Line Item ID.



2. Select **After** from the **summation** drop-down list. Review the results in the **Preview pane**, and note that the Total icon now displays a green checkmark, indicating that a total has been added for that specific **PO Line Item ID**.



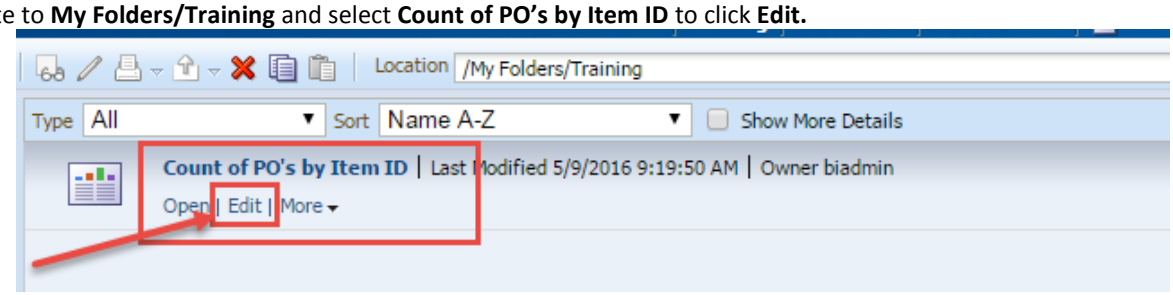
PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008631 Total		**2**	**2.18**	**1.65**
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008636 Total		**1**	**57.07**	**57.07**
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1008679 Total		**1**	**1.81**	**1.81**
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1049092 Total		**1**	**11.04**	**11.04**
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059156 Total		**2**	**60.23**	**60.23**
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059157 Total		**3**	**225.45**	**225.45**

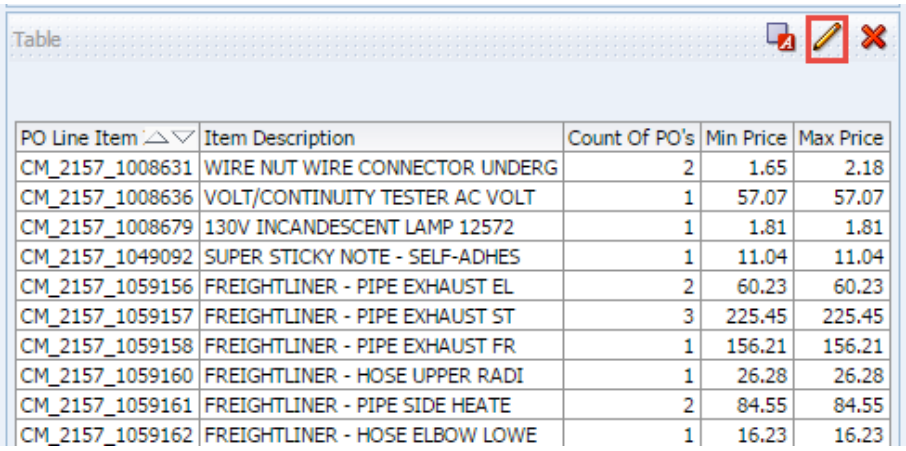
3. Click **Done**.

4.4 Edit Column Format

After you create and run an analysis, default formatting rules are applied to the analysis results. You can create additional formatting to apply to specific results. Additional formats help you to highlight blocks of related information and call attention to specific data elements. You can also use additional formatting to customize the general appearance of analyses and dashboards.

Navigate to **My Folders/Training** and select **Count of PO's by Item ID** to click **Edit.**



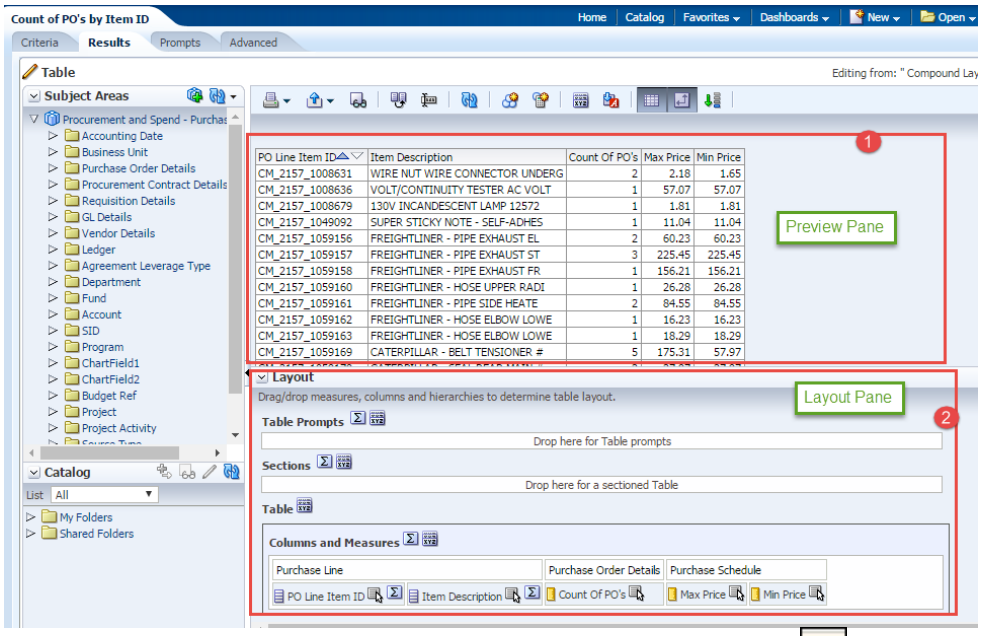


PO Line Item	Item Description	Count Of PO's	Min Price	Max Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	1.65	2.18
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23

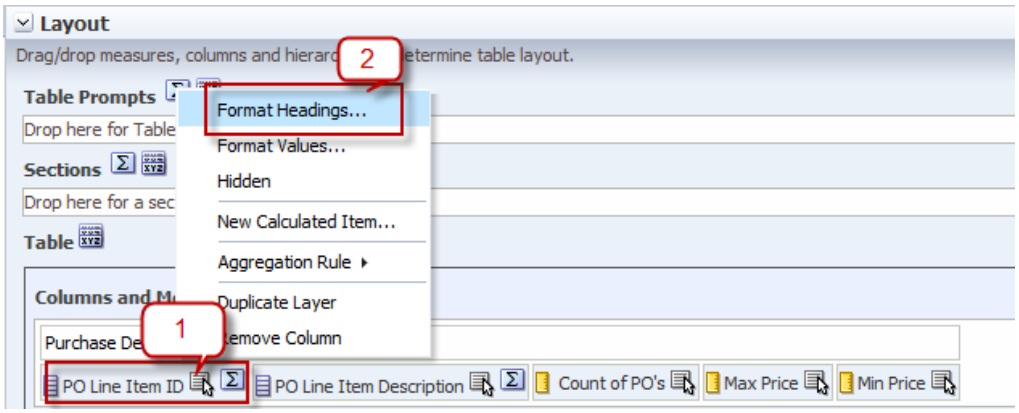
Next we will apply formatting to the **PO Line Item ID** column.

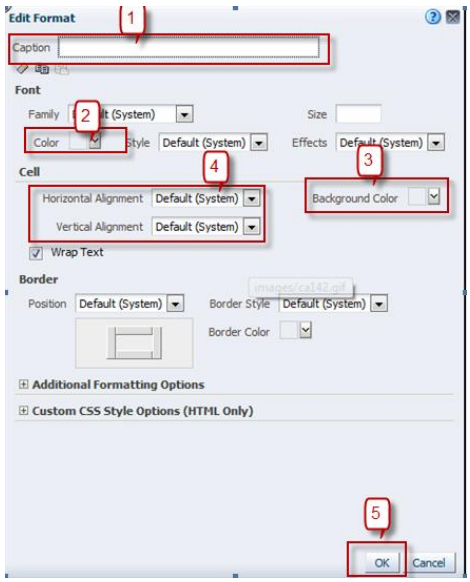
Guided Exercise

1. To edit Column header of the analysis, click Edit View icon on the Table view.
2. Table View Editor will open.

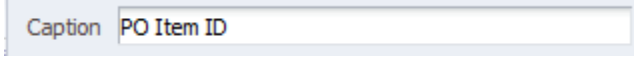


3. You apply formatting to a heading. In Layout pane, click the **More Options** icon  for **PO Line Item ID** and select **Format Headings.**

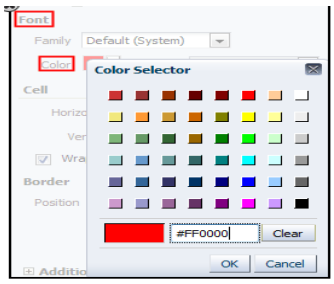




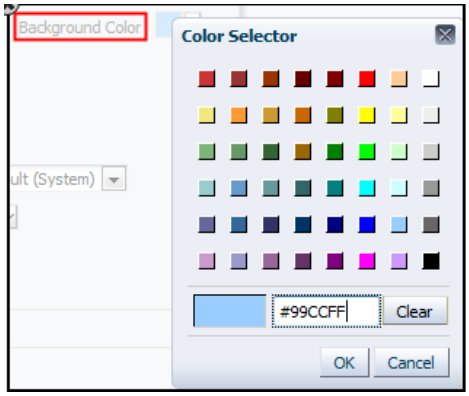
4. In the Caption text box, enter PO Item ID.



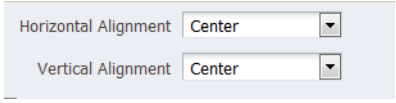
5. In the Font area, click the drop-down list for Color and select red color from the Color Selector dialog box and click **OK.**



6. In the Cell area, click the drop-down list for Background Color and select a light blue color from the Color Selector dialog box and click **OK.**



7. Change the Cell Value Alignment to **Center** from the drop – down menu.



8. Click **OK** in the Edit Format dialog box to see the results of your format changes for **PO Item ID**.

Verify Preview pane to check the change:

PO Item ID	Line Item Description	Count of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04

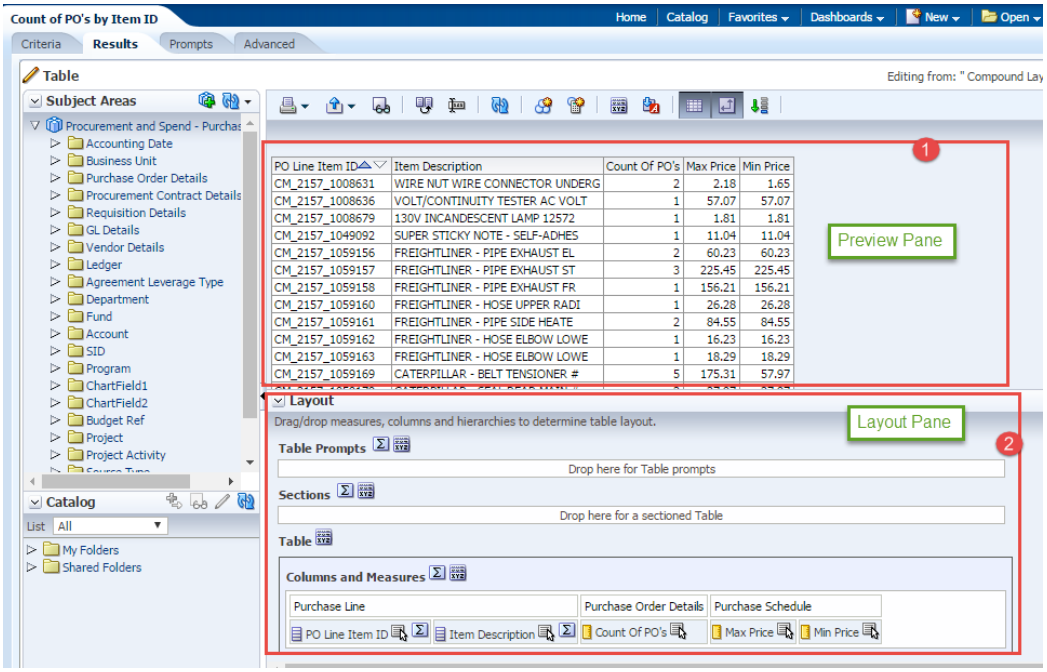
Click **Done**.

4.5 Edit Value Format

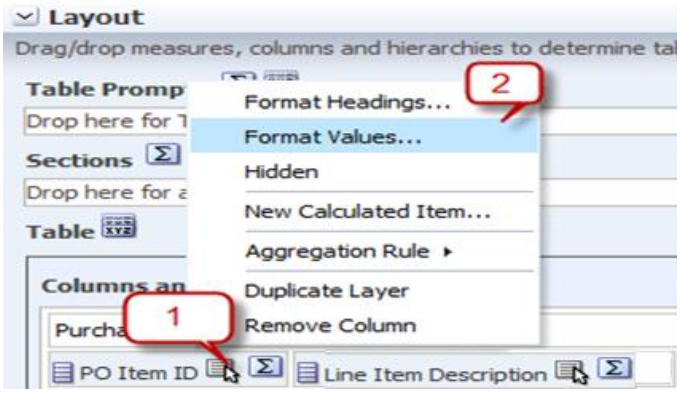
The Column Properties button allows you to edit column and table headings, hide individual columns, change the physical alignment of the results, edit column labels, and modify the format of the displayed data.
By default, the Analysis Editor uses a specific style sheet to display analysis results. When you build or modify an analysis, you can override the default settings and specify how the data within a column displays.
You can edit the column properties in both the Criteria and Results view. However, the Results view allows you to customize both the header and the column values.
The formatting options you select apply only to the analysis with which you are working, but you can import the designated format into other analyses.

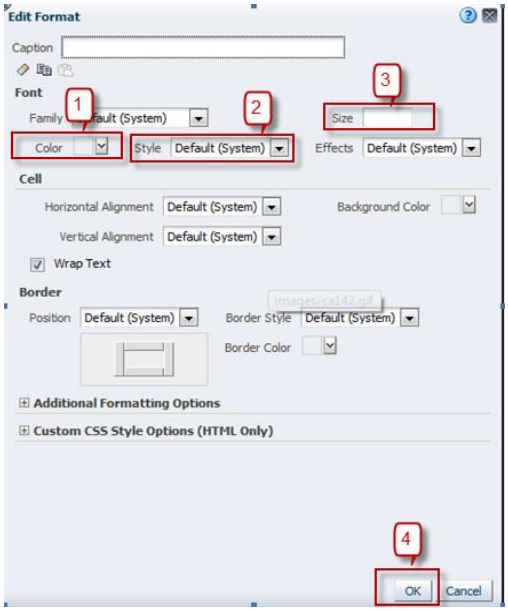
Guided Exercise

1. To edit Values of the analysis, click Edit View icon on the Table view.
2. Table View Editor will open.

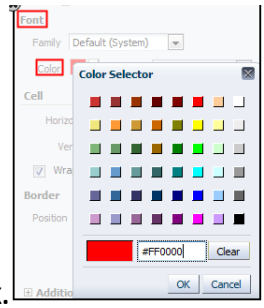


3. In the Layout editor, click the **More Options** icon for **PO Item ID** and select **Format Values.**

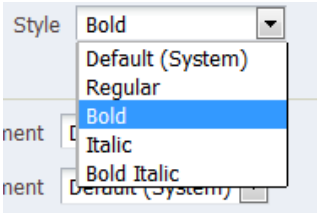


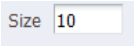


4. In the Font area, click the drop-down list for Color and select red color from the Color Selector dialog box and click **OK.**



5. In the Style drop-down list select **BOLD.**



6. In the size box, enter value as **10**. 

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Click **OK**. Check the preview layout to see the PO Item ID values format.

PO Item ID	PO Line Item Description	Count of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21

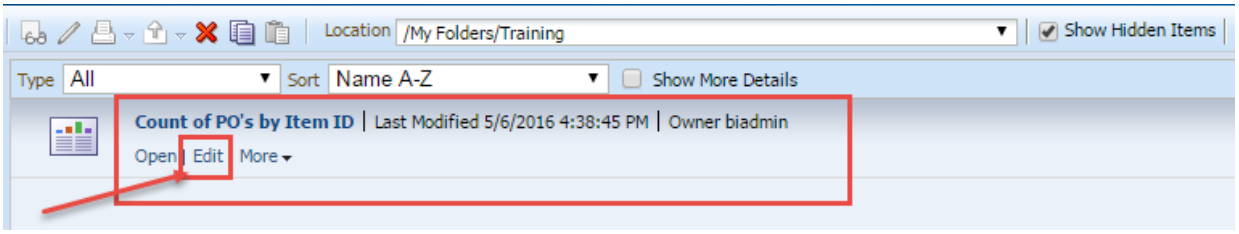
7. Click **Revert** and then **Done**.
   Note: We are not saving this format change, this is an example for the class.

4.6 Edit Data Format

The third tab within the Column Properties window allows you to override the default for alphanumeric data. This function is often used in conjunction with numerical data, such as percent, currency, to designate the number of decimal digits; or with dates, to designate a different mm/dd/yyyy format and month/day name instead of a number (April instead of 4). Refer to the Oracle documentation for more information on supported formats.

Some data elements may have the red parenthesis as the default data format for negative numbers, but not all. In addition, some columns may actually be text fields so you cannot reformat them.

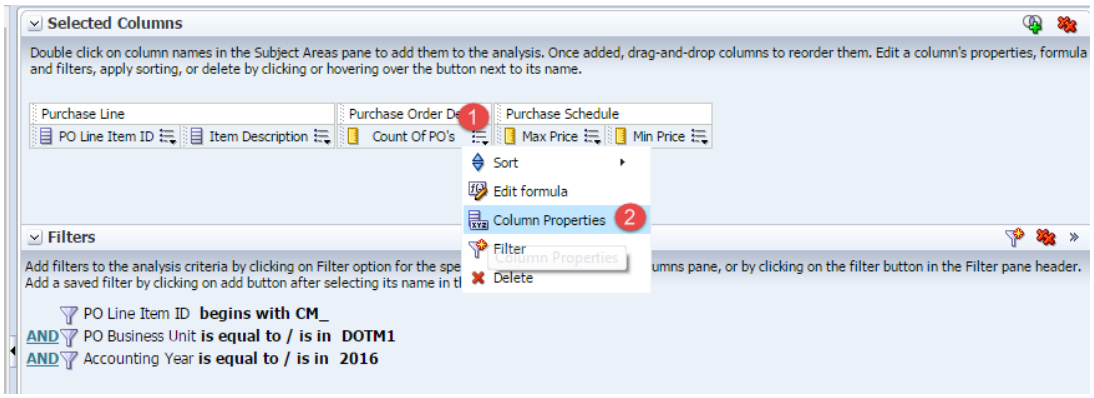
Make sure to open the "**Count of PO's by Item ID**" and select the Results tab as shown below.



Guided Exercise

1. Return to the Criteria tabbed page.

2. Edit the column properties for Count of PO's. Click the **More Options** icon and select Column Properties.



The Column Properties dialog box appears.

3. Select the **Data Format** tabbed page

4. Select the **Override Default Data Format** checkbox and select the values as indicated below in the image

Elements	Desciption
1. Treat Numbers As	Select the Format of the Number from the available drop – down list. Number Number Currency Percentage Month Name Month Name (Abbreviated) Day Name Day Name (Abbreviated) Custom
2. Negative Format	Choose the format in which way you want to represent the negative values in the output. Minus: -123 Minus (red): -123 Parentheses: (123) Parentheses (red): (123)
3. Decimal Format	Select no. of decimals you want to display after the number. 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
4. Use 1000's Separator	Enabling will use 1000's separator in the output result. Use 1000's Separator

4.7 Apply Conditional Format

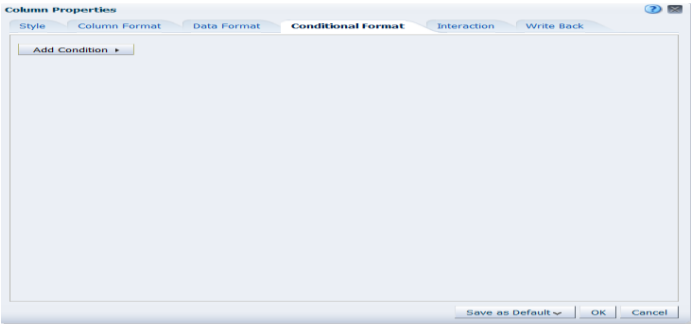
Conditional formatting helps direct attention to a data element when the value meets a certain condition. You can establish conditional formatting within a column by specifying criteria and indicating the use of distinct font, cell, border, and setting options when the condition is met. These types of conditional formats can include colors, fonts, images, and so on, for both the data and for the table cell that contains the data.

Guided Exercise

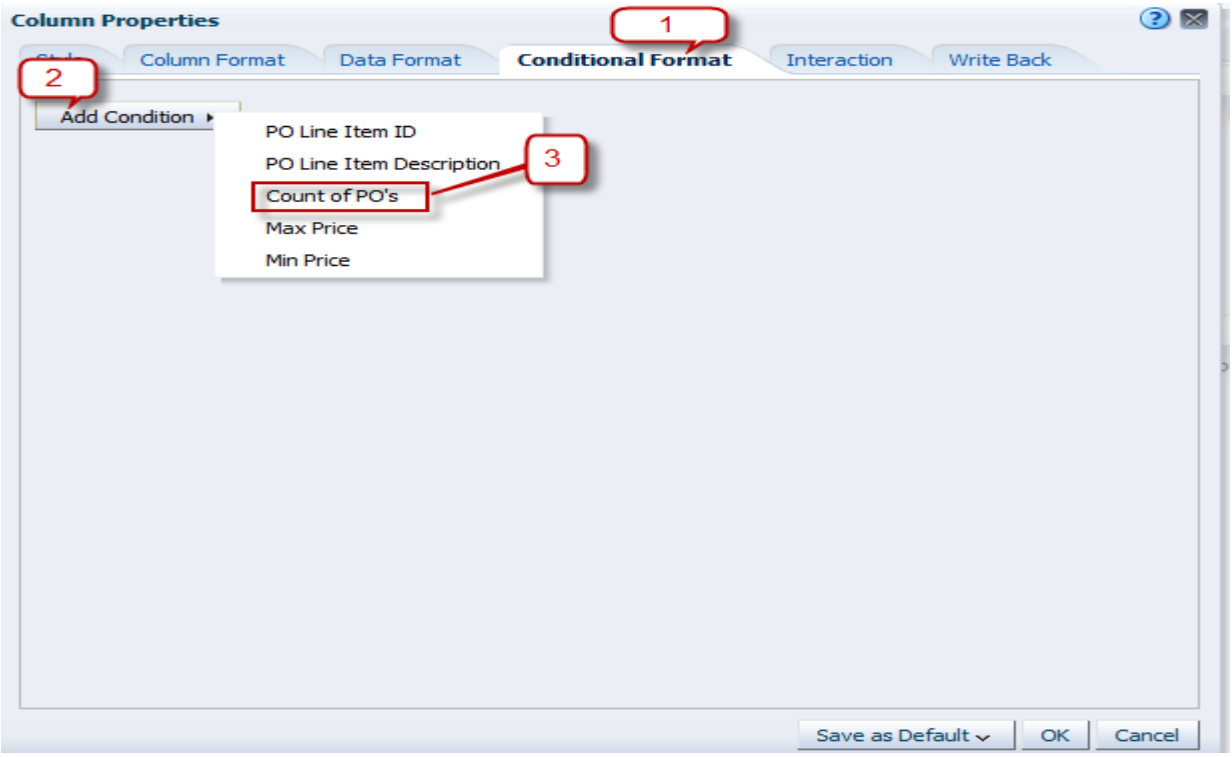
1. Return to Criteria tabbed page.

2. Edit the column properties for Union Code. Click the **More Options** icon and select **Column Properties**.

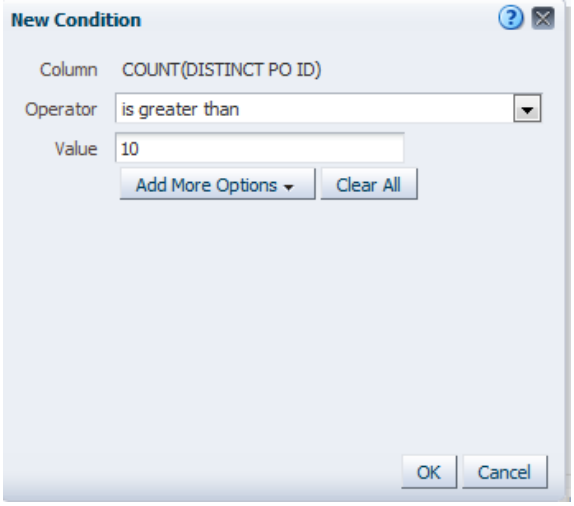
3. The Column Properties dialog opens. Click on **Conditional Formatting**.



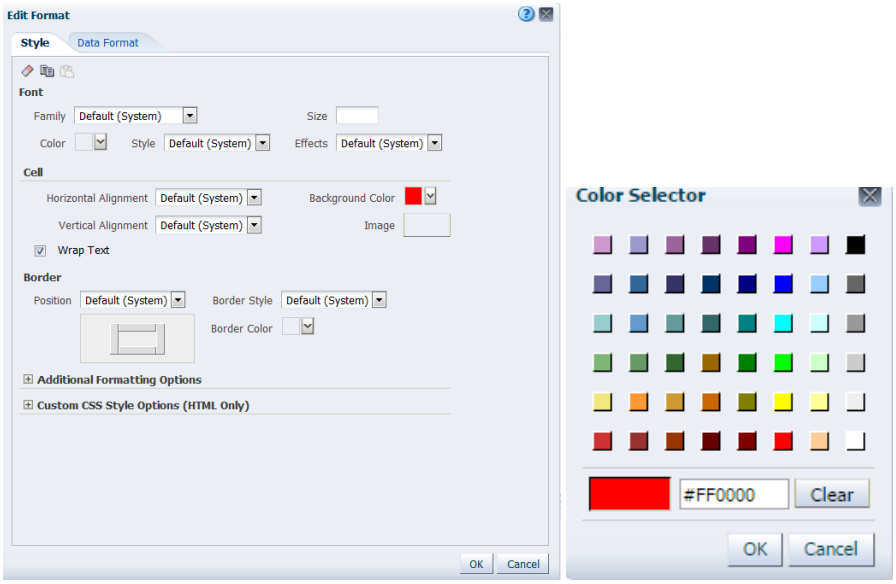
4. Let's add a condition to highlight Count of PO's value when greater than 10. So click on **Add Condition** to select **Count of PO's** column.



5. A Edit box opens. Select COUNT(DISTINCT PO ID) is greater than 10. Click **OK**.

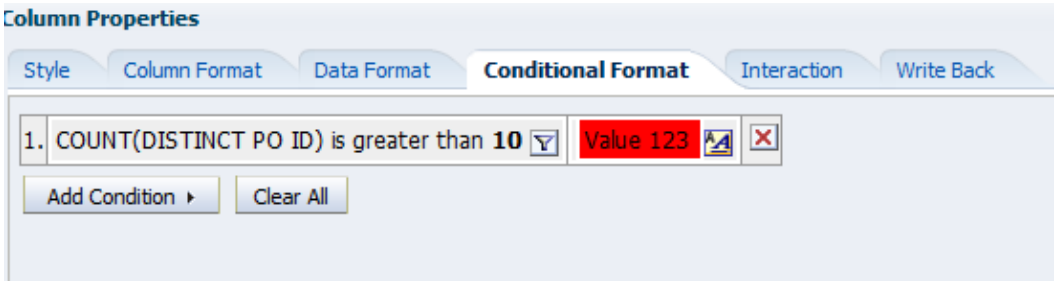


6. **Edit Format** dialogue opens. Change the **background color** as shown in below figure.



Click **OK**.

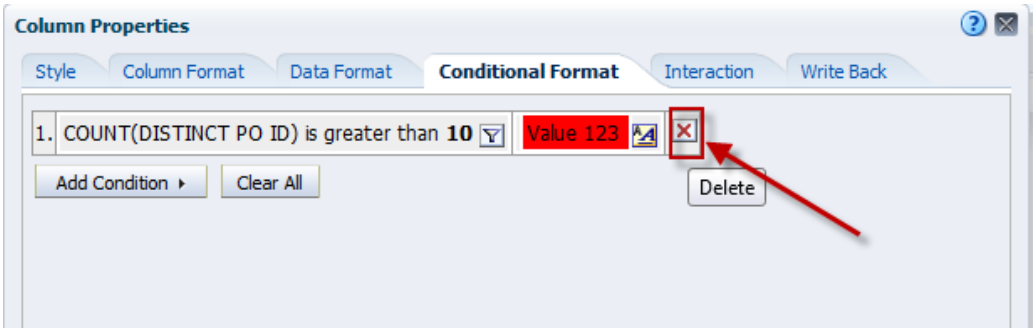
7. The Conditional Format screen now will appear as shown:-



8. Click **OK**. And go to Results tab to see the data. See the results for the Count of PO's grater than 10 as shown below

PO Line Item ID	PO Line Item Description	Count of PO's	Max Price	Min Price
CM_2157_5803747	INTERNATIONAL SEAT BOTTOM CUSH	17	161.11	161.11
CM_2157_44519	RECYCLED 2-COLOR DESK PAD CALE	14	1.63	1.21
CM_2157_4611427	TRUCK RADIAL TIRE RE-TREAD TRA	14	140.00	140.00
CM_2157_1900091	FLEX-BEAM RAIL 12 GAUGE CURVED	13	85.00	85.00
CM_2157_44498	MONTHLY DESK PLANNER - MONTHLY	13	6.38	2.59
CM_2157_6800415	CAB AIR FILTER CARTRIDGE FOR M	13	5.85	5.85
CM_2157_1845948	INTERNATIONAL RELAY HORN AND P	12	8.11	8.11
CM_2157_4994237	PIGTAIL FOR CLEARANCE MARKER L	12	1.24	1.24
CM_2157_1460263	CARTRIDGE OIL FILTER FOR 97 FR	11	10.57	0.00
CM_2157_1519614	BELT GUARD WITH MOUNTING HARDW	11	95.84	95.84
CM_2157_3438297	INTERNATIONAL TANK COOLANT REC	11	208.19	208.19
CM_2157_44483	DAYMINDER APPOINTMENT BOOK - D	11	4.53	3.30
CM_2157_3525868	REFLECTOR RED ADHESIVE BACKED	10	0.75	0.75
CM_2157_4611419	TRUCK RADIAL TIRE RE-TREAD TRA	10	140.00	140.00
CM_2157_7553521	BRAKE - DRUM REAR - 15 INCH X	10	177.60	177.60
CM_2157_1519648	PTO ASSEMBLY WITH SLIP CLUTCH	9	379.64	379.64

9. To **delete** the conditional format, return to Criteria tab and go to PO Item ID column properties. In conditional Fromat tab, go to the condition and delete. And click OK.



10. Go to Result tab to see conditional format is removed.

5. Customize Analysis View

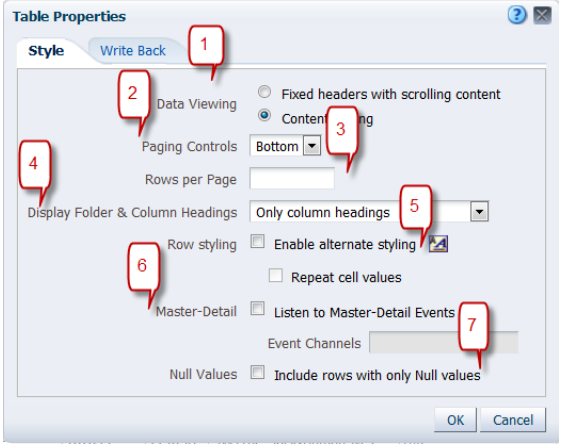
Introduction	Views use the presentation capabilities of OBI to help you look at results of analyses in meaningful, intuitive ways. You can add a variety of views to the results, such as graphs and pivot tables that allow drilling down to more detailed information, explanatory text, a list of filters that were used to limit the results, and more. When you display the results of a new analysis, the following views are displayed by default in the "Compound Layout" in the "Analysis editor: Results tab": • A title view, which displays the name of the saved analysis. • A table or pivot table view, which displays the results of the analysis, depending on the types of columns that the analysis contains: • If the analysis contains only attribute columns, only measure columns, or a combination of both, then a table is the default view. • If the analysis contains at least one hierarchical column, then a pivot table is the default view. You can customize or delete the existing views for an analysis, add other views, and combine and position views anywhere in the pane. Preparing multiple views of results can help you identify trends and relationships in data. If you are customizing results for display on a dashboard, then you can preview how the combination and position of views will look when viewed on a dashboard. You can then save the analysis with the collection of views.
Objectives	At the end of this section, you will be able to complete the following tasks related to customizing Analysis view in compound layout. • Type of Views • Edit Table Properties • Add & Customizing a Pivot Table • Add Graph • Format Graph • Edit Graph Properties • Add Graph to Pivot Table • Add View Selector • Add Column Selector • Delete View

5.1 Type of Views

View Name	Description
Compound Layout	You use this view to display and assemble multiple views. ***Note:*** This is the initial default view until another view type is selected.
Title	You use this view to add a title, a subtitle, a logo, a link to a custom online help page, and timestamps to the results. ***Note:*** *This view is added automatically to analysis results.*
Table	You use this view to show results in a standard table. You can navigate and drill down, add totals, customize headings, and change the formula or aggregation rule for a column. You can also control the appearance of a column and its contents, and specify formatting to apply only if the contents of the column meet certain conditions.
Pivot Table	You use this view to take row, column and section headings and swap them around to obtain different perspectives. You can drag and drop headings to pivot results, preview them and apply the settings. You can navigate through pivot tables and drill down into information. You can create complex pivot tables that show aggregate and unrelated totals next to the pivoted data, allowing for flexible analysis. For an interactive result set, elements can be placed in pages, allowing you to choose elements.
Graph	You use this view to modify the graph layout. You can customize the title, legend location, axis titles, data labels, the size, and scale of the graph, and control colors using a style sheet. The Analysis Editor supports a variety of standard graph types, including bar graphs, column graphs, line graphs, area graphs, pie graphs, and scatter graphs.
Funnel	You use this view to show a three-dimensional graph that represents target and actual values using volume, level, and color. It is useful for depicting target values that decline over time, such as a sales pipeline.
Gauge	You use this view to display a standard “gauge” graphic to indicate where a measure falls within a specific range. You can choose from several gauge graphics, color scheme size and measure highs and lows.
Map view	You use this view to present business data to users. As with views such as tables, pivot tables, and graphs, map views allow users to display data on maps in a number of different formats and to interact with the data. When data is visualized on a map, relationships among data values that might not have been obvious previously can be displayed in a much more intuitive manner. For example, a map view can show a map of a city with the zip codes color-coded by sales performance, while an image marker displays the average discount given per order.
Filters	You use this view to show the filters in effect for an analysis. Filters allow you to constrain an analysis to obtain results that answer a particular question.
Column Selector	You use this view to change dynamically which columns display in results. This allows you to analyze data along several attributes. By changing the facts, you can dynamically alter the content of the results.
View Selector	You use this view to change the view dynamically by which analysis results are displayed. Multiple views must be created in order for the View Selector view to be enabled.
Legend	You use this view to display specific captions or text for a table axis. You can adjust the font and location of the legend within the view.
Narrative	You use this view to display the results as one or more paragraphs of text. You can type in a sentence with placeholders for each column in the results, and specify how rows should be separated.
Ticker	You use this view to display the results as a ticker or marquee, similar in style to the stock tickers that run across many financial and news sites on the Internet. You can control what information is presented and how it scrolls across the page.
Static Text	You use this view to include static text in the results. You can use HTML to add banners, tickers, ActiveX objects, Java applets, links, instructions, descriptions, graphics, and so on, in the results.
Logical SQL	You use this view to show the SQL generated for the analysis. This view is useful for trainers and administrators, and is usually not included in results for typical users. You cannot modify this view, except to delete it.

5.2 Table Properties

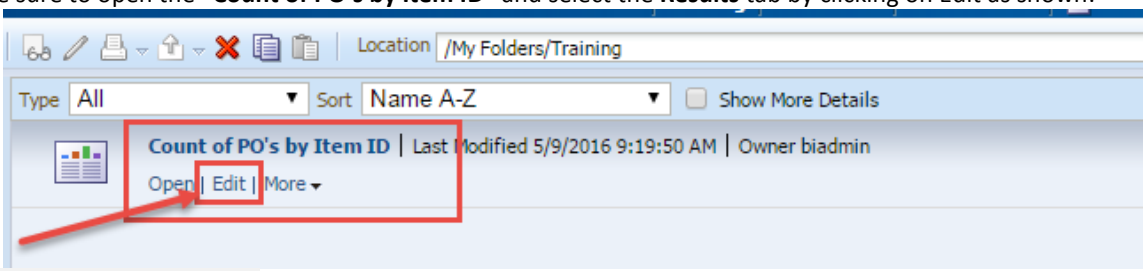
Understanding Table Properties:-



Elements	Description
1. Data Viewing	a. Fixed headers with scrolling content:- This will allow us to enter Maximum width and height sizes. By enabling this it will disable option 2 and 3. b. Content Paging:- This is the arrow marks which can be viewed at the end of table.  . It will by default gives 100 rows per page. Single arrow will only display only the next 100. Double arrow will display all the rows.
2. Paging Controls	It will give you the option of where to display the Content Paging on the page.
3. Rows per Page	By entering a value in the box it will display only that no. of rows. By default it will display 100 rows per page.
4. Display Folders & Column Headings	Choose the value from the drop-down menu to select, so that based on that the Folders and column headings will be displayed.
5. Row Styling	It will allow us to change the color or format or other formats.
6. Master - Detail	Use this box to specify whether a table or pivot table is to act as a detail view in a master-detail relationship and listen for master-detail events. Select this box and then specify the channel or channels in the **Event Channels** field.
7. Null Values	It will include rows with only Null Values.

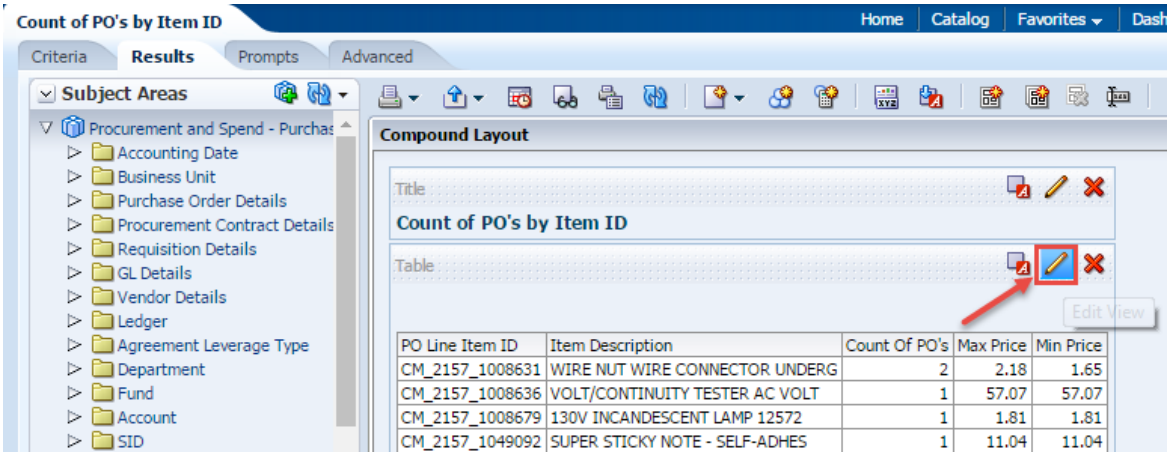
The properties of views in compound layout can be changed in the following ways:-

Make sure to open the "**Count of PO's by Item ID**" and select the **Results** tab by clicking on Edit as shown:

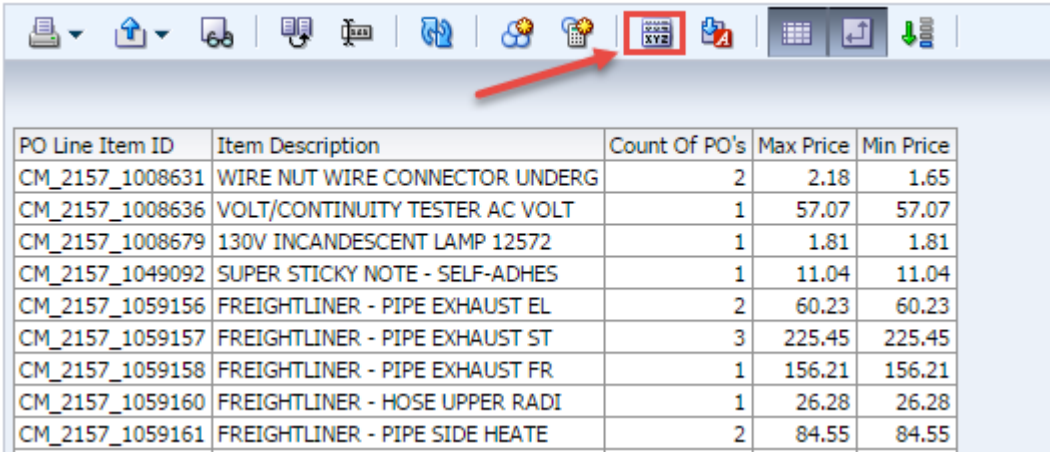


Guided Exercise

1. Click on **Edit** icon of the Table view.

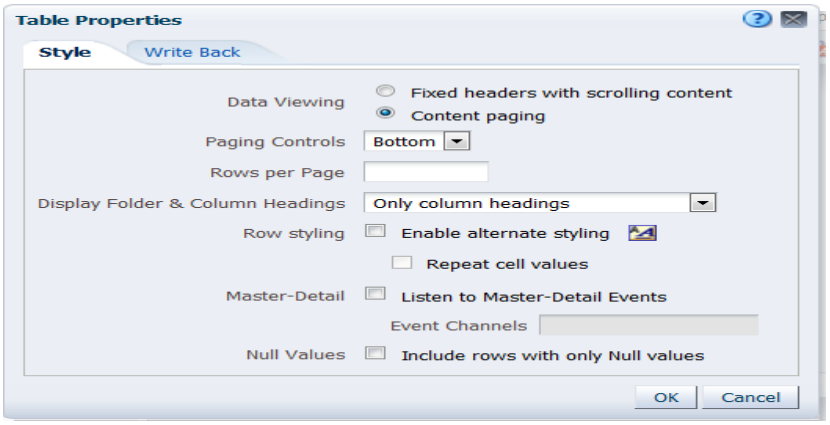


2. On top of Preview pane In the toolbar section like on "**Table View Properties".**



PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55

3. Table Properties dialog opens



4. After the changes, click **OK** then click **Done**.

5.3 Add a Pivot Table

A pivot table is a table that you can use to summarize large amounts of data quickly. You can rotate rows and columns to see different summaries of the source data, as well as add column and row grand totals.

Use the Pivot Table view, an additional view available with the results layout, to alter the layout and functionality of a conventional table view. The pivot table view is an interactive view that allows you to rotate the rows, columns, and section

headings to obtain different perspectives of the data. Pivot tables are navigable and drillable, and are especially useful for trending and comparative analyses.

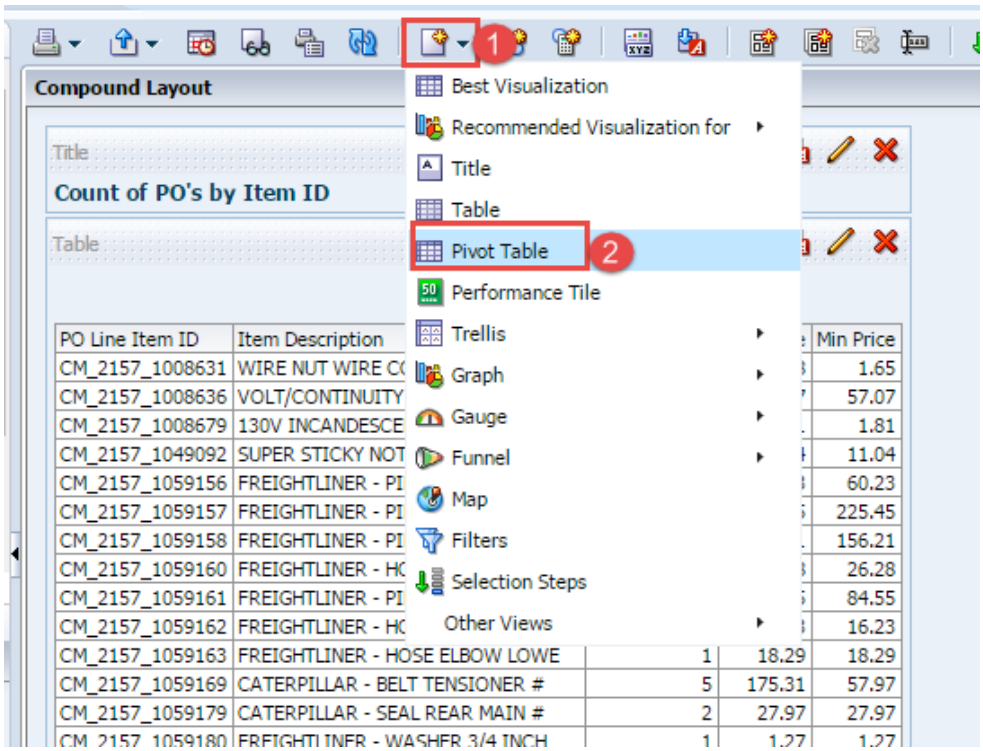
The elements of a Pivot Table:

- Pages create a separate filter within the pivot table, based on the moved column
- Sections create table breaks within the pivot table, based on the moved column
- The More Options button enables you to duplicate columns, modify how data is presented, and calculate sums, averages, percentages, etc.

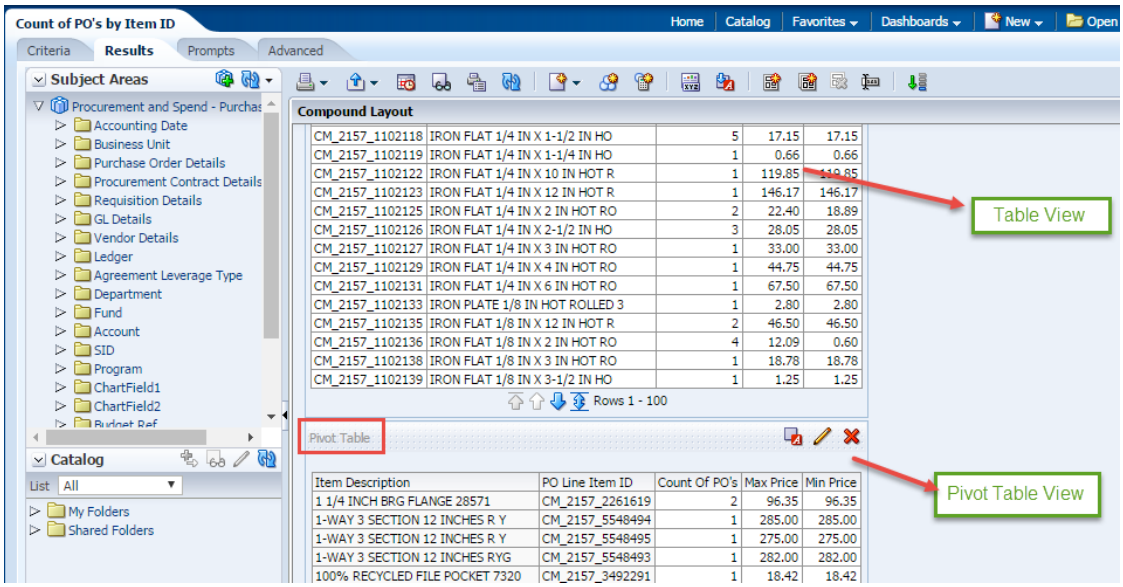
Next let's add Pivot table to the compound layout of Count of PO's by Item ID Report.

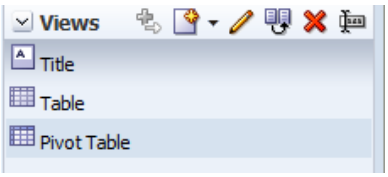
Guided Exercise

1. On Results tab of **Count of PO's by Item ID**, click on **New View** icon from the tool bar on top of Compound Layout to click on **Pivot Table**.



It will add another view in the compound layout under the table view.

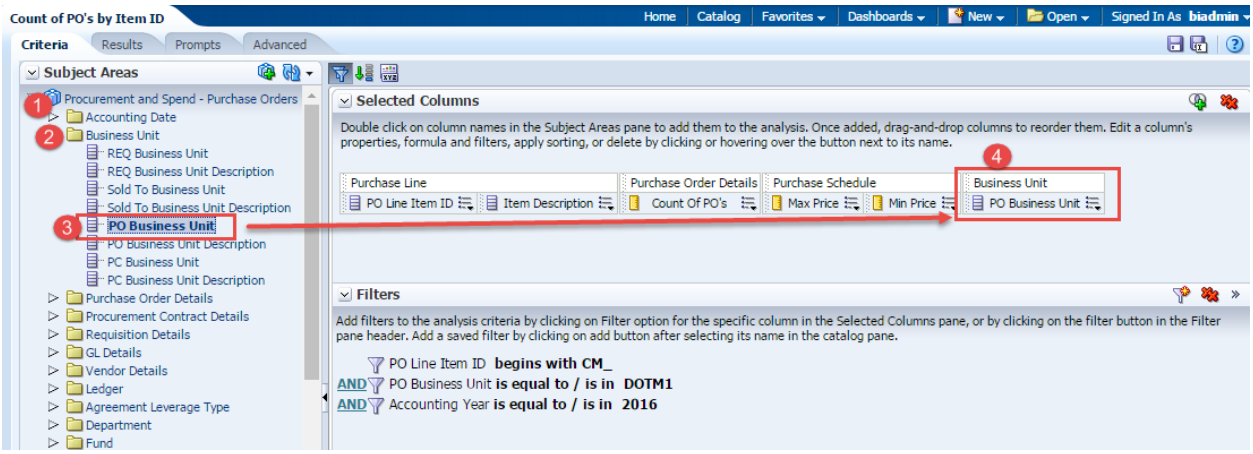




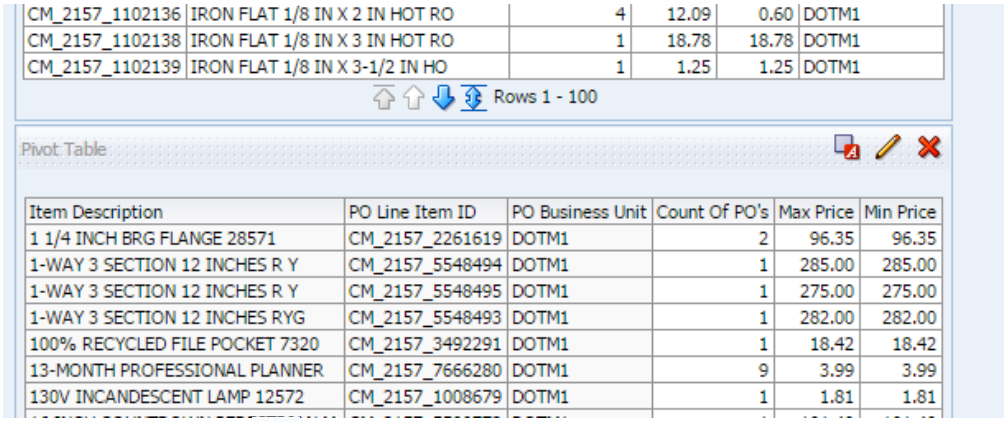
It will also show on the **Views** Pane on the left side of the screen as shown in above screenshot.

2. In this exercise, we will create pivot table based on **Count of PO's per Business Unit**.

Click on the Criteria tab and Add **PO Business Unit** under Business unit Folder to the existing report.



Click on Results



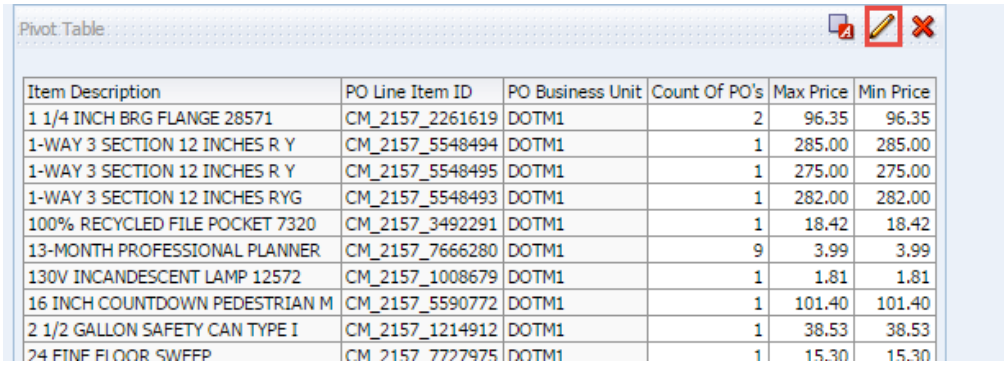
CM_2157_1102136	IRON FLAT 1/8 IN X 2 IN HOT RO	4	12.09	0.60	DOTM1
CM_2157_1102138	IRON FLAT 1/8 IN X 3 IN HOT RO	1	18.78	18.78	DOTM1
CM_2157_1102139	IRON FLAT 1/8 IN X 3-1/2 IN HO	1	1.25	1.25	DOTM1

Rows 1 - 100

Pivot Table

Item Description	PO Line Item ID	PO Business Unit	Count Of PO's	Max Price	Min Price
1 1/4 INCH BRG FLANGE 28571	CM_2157_2261619	DOTM1	2	96.35	96.35
1-WAY 3 SECTION 12 INCHES R Y	CM_2157_5548494	DOTM1	1	285.00	285.00
1-WAY 3 SECTION 12 INCHES R Y	CM_2157_5548495	DOTM1	1	275.00	275.00
1-WAY 3 SECTION 12 INCHES RYG	CM_2157_5548493	DOTM1	1	282.00	282.00
100% RECYCLED FILE POCKET 7320	CM_2157_3492291	DOTM1	1	18.42	18.42
13-MONTH PROFESSIONAL PLANNER	CM_2157_7666280	DOTM1	9	3.99	3.99
130V INCANDESCENT LAMP 12572	CM_2157_1008679	DOTM1	1	1.81	1.81

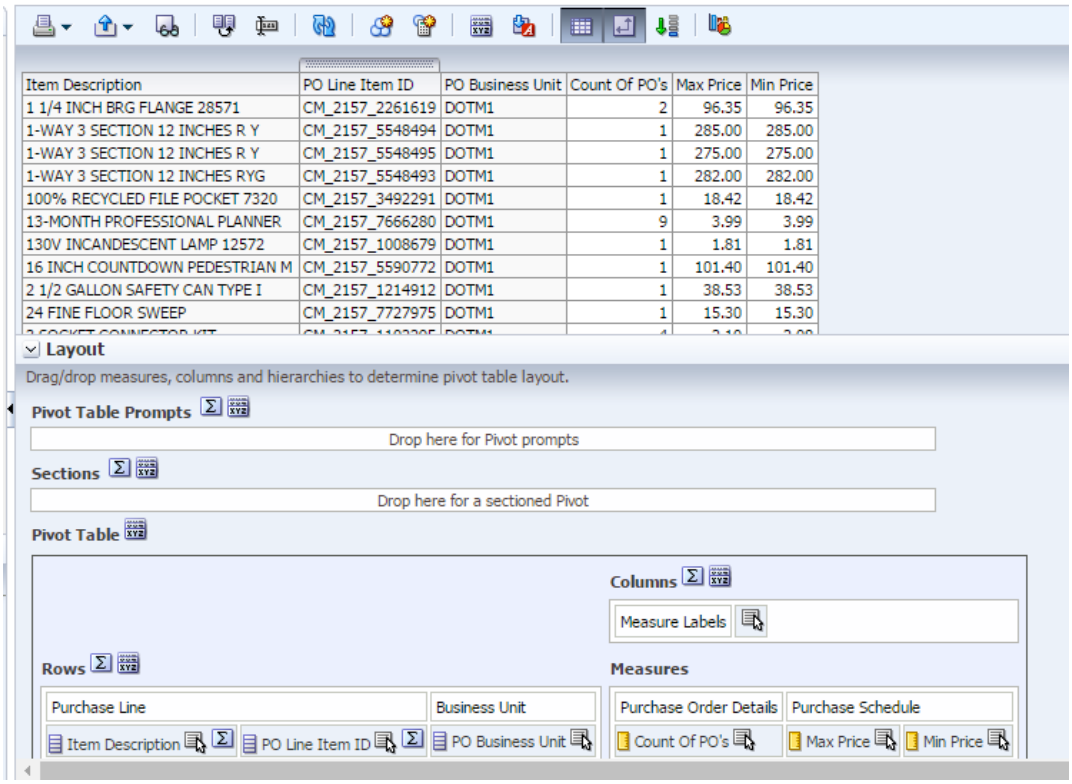
Click on Edit View icon  on Pivot Table.



Pivot Table

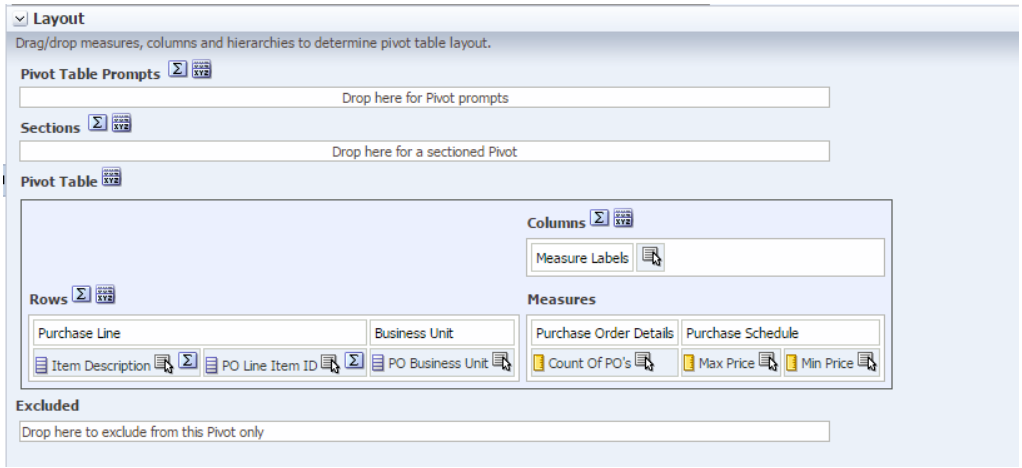
Item Description	PO Line Item ID	PO Business Unit	Count Of PO's	Max Price	Min Price
1 1/4 INCH BRG FLANGE 28571	CM_2157_2261619	DOTM1	2	96.35	96.35
1-WAY 3 SECTION 12 INCHES R Y	CM_2157_5548494	DOTM1	1	285.00	285.00
1-WAY 3 SECTION 12 INCHES R Y	CM_2157_5548495	DOTM1	1	275.00	275.00
1-WAY 3 SECTION 12 INCHES RYG	CM_2157_5548493	DOTM1	1	282.00	282.00
100% RECYCLED FILE POCKET 7320	CM_2157_3492291	DOTM1	1	18.42	18.42
13-MONTH PROFESSIONAL PLANNER	CM_2157_7666280	DOTM1	9	3.99	3.99
130V INCANDESCENT LAMP 12572	CM_2157_1008679	DOTM1	1	1.81	1.81
16 INCH COUNTDOWN PEDESTRIAN M	CM_2157_5590772	DOTM1	1	101.40	101.40
2 1/2 GALLON SAFETY CAN TYPE I	CM_2157_1214912	DOTM1	1	38.53	38.53
24 FINE FLOOR SWEEP	CM_2157_7727975	DOTM1	1	15.30	15.30

3. Pivot table layout editor opens:



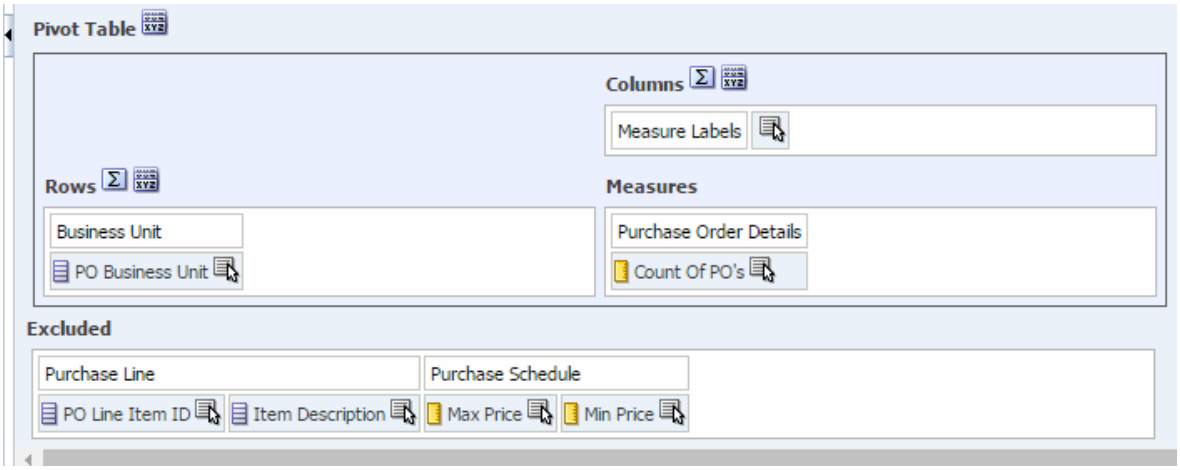
Item Description	PO Line Item ID	PO Business Unit	Count Of PO's	Max Price	Min Price
1 1/4 INCH BRG FLANGE 28571	CM_2157_2261619	DOTM1	2	96.35	96.35
1-WAY 3 SECTION 12 INCHES R Y	CM_2157_5548494	DOTM1	1	285.00	285.00
1-WAY 3 SECTION 12 INCHES R Y	CM_2157_5548495	DOTM1	1	275.00	275.00
1-WAY 3 SECTION 12 INCHES RYG	CM_2157_5548493	DOTM1	1	282.00	282.00
100% RECYCLED FILE POCKET 7320	CM_2157_3492291	DOTM1	1	18.42	18.42
13-MONTH PROFESSIONAL PLANNER	CM_2157_7666280	DOTM1	9	3.99	3.99
130V INCANDESCENT LAMP 12572	CM_2157_1008679	DOTM1	1	1.81	1.81
16 INCH COUNTDOWN PEDESTRIAN M	CM_2157_5590772	DOTM1	1	101.40	101.40
2 1/2 GALLON SAFETY CAN TYPE I	CM_2157_1214912	DOTM1	1	38.53	38.53
24 FINE FLOOR SWEEP	CM_2157_7727975	DOTM1	1	15.30	15.30

4. In the Layout pane, the following section is similar to the Table Edit View.

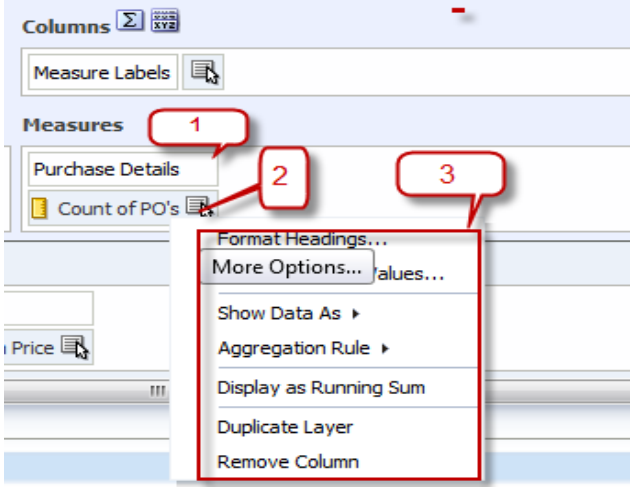


Elements	Desciptions
1. Pivot Table Prompts	It is used to reduce the rows and to retrievew the data quickly.
2. Sections	It is used to see the data according to the particular desciption values.
3. Pivot Table	In this section, we can swap the columns @ different perspective to get output as different view. Using the edit more option menu, can color and modify the report headings name, size and the value to fit to the table.
4. Excluded	It is used to Exclude columns from the report. And can be included when needed.

5. Exclude PO Line Item ID, PO Line Item Description, Max Price and Min Price Columns in Pivot

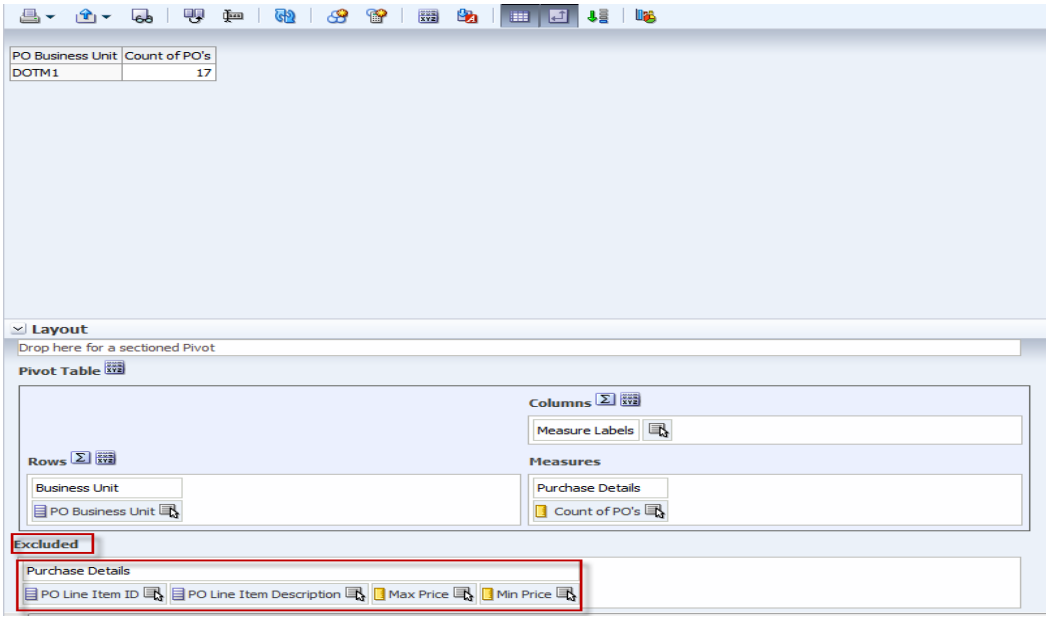


In the Measures column, edit column by clicking on more option as shown in below screenshot



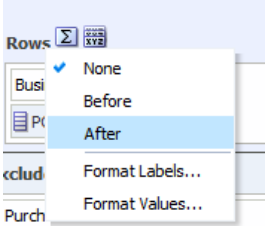
Elements	Desciption
1. Format Heading	It is used to edit the column name
2. Format Values	It is used to edit the values
3. Show Data as	It is used to show values as 'values', 'percent of', 'index of'
4. Aggregation rule	It is used to calculate the measure values as different functions are sum, min, max, Avg, first, last, count, count distinct, none.
5. Display as running sum	It is used to calculate the values according filters and condition @ running time of the report.
6. Duplicate Layer	It is used to make duplicate copy of the same column, to use the column more than one time for different condition and in various perspective on the same report
7. Remove Column	It is used to remove column from all perspective of the report

6. Since in this excerise we are creating a report to find count based on business unit, so move all columns to Excluded section and put PO Business Unit in the Rows section as shown:-



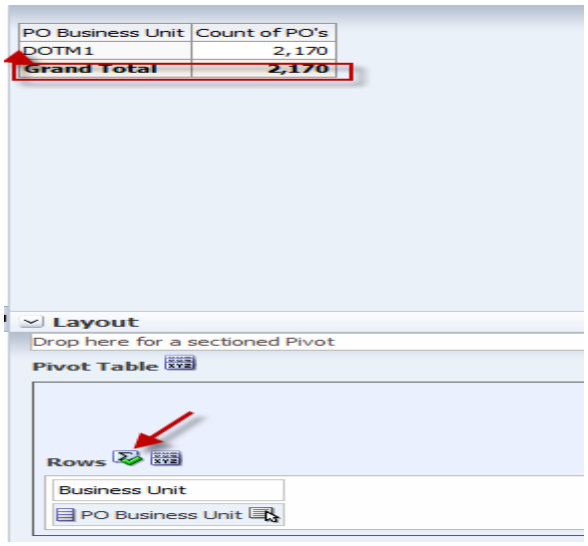
Check the preview layout to verify the data.

7. On the pivot table layout, Rows – click on summation button to calculate the total values according to column of measure values, options to show the total values as in row format.

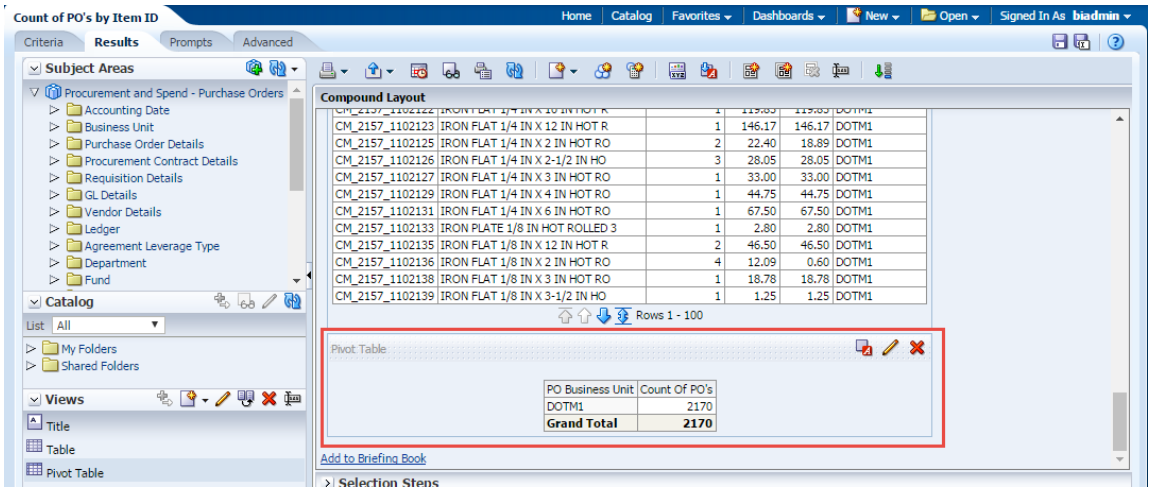


Elements	Description
None	It shows no total
Before	It shows the total value as in row format before the rows
After	It shows the total value as in row format at the end of the rows
Format Labels & Values	It is used to edit the content heading and values

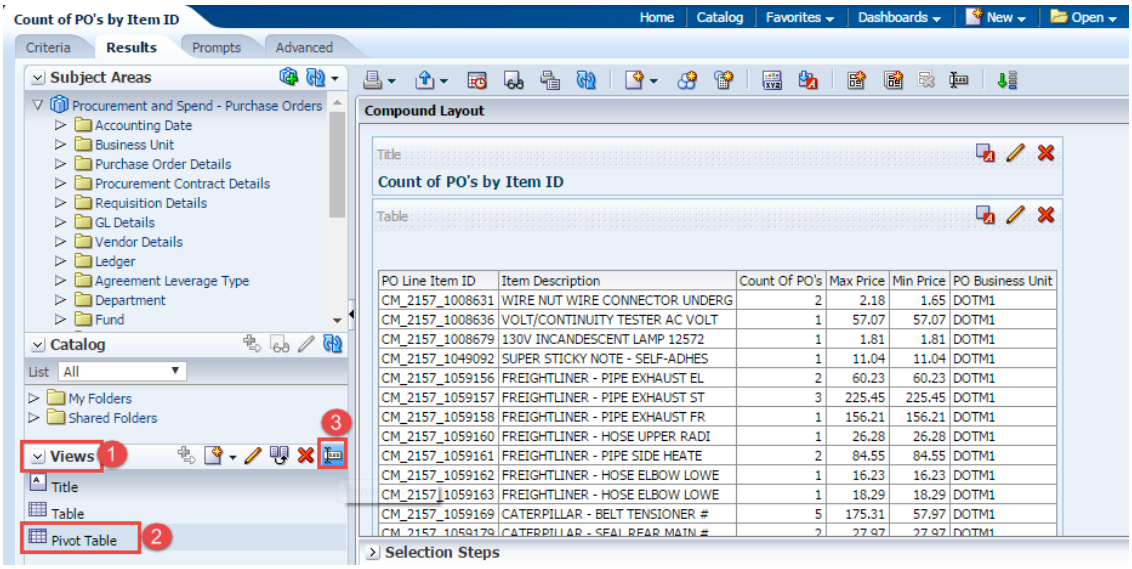
8. Click on "**After**" and see the results in preview pane. And also see that the Summation icon is highlighted with green tick mark.

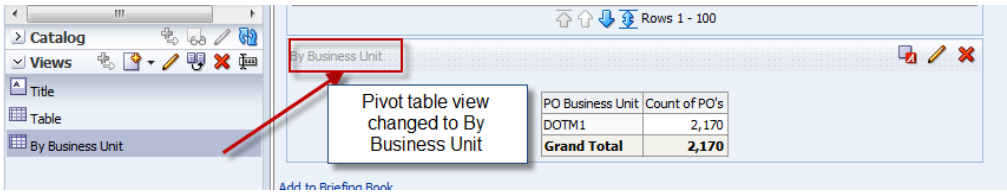


9. Click Done to view the Pivot table in compound layout.

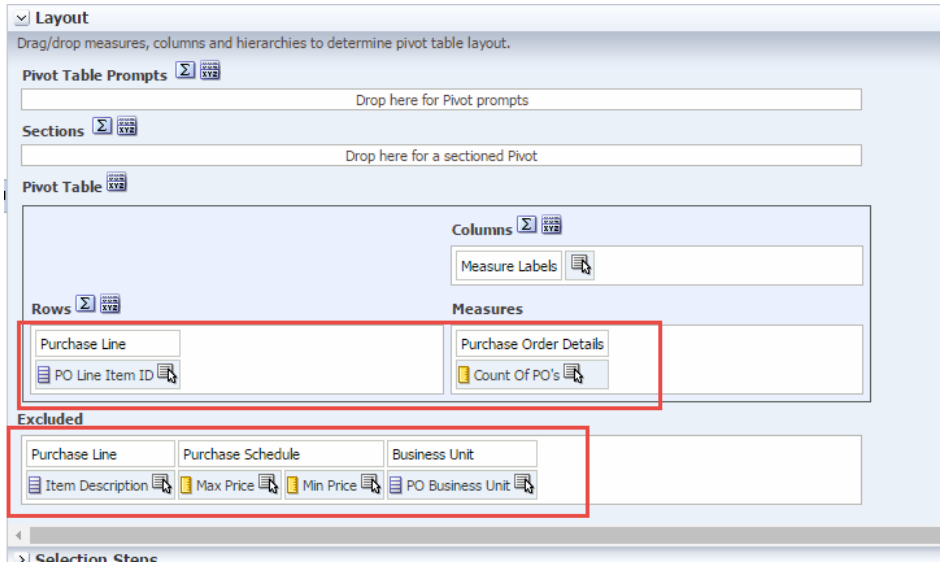


10. We will rename this Pivot table as "**By Business Unit**". Go to Views section and select the Pivot Table view and Click on rename icon . Follow the below screenshots:

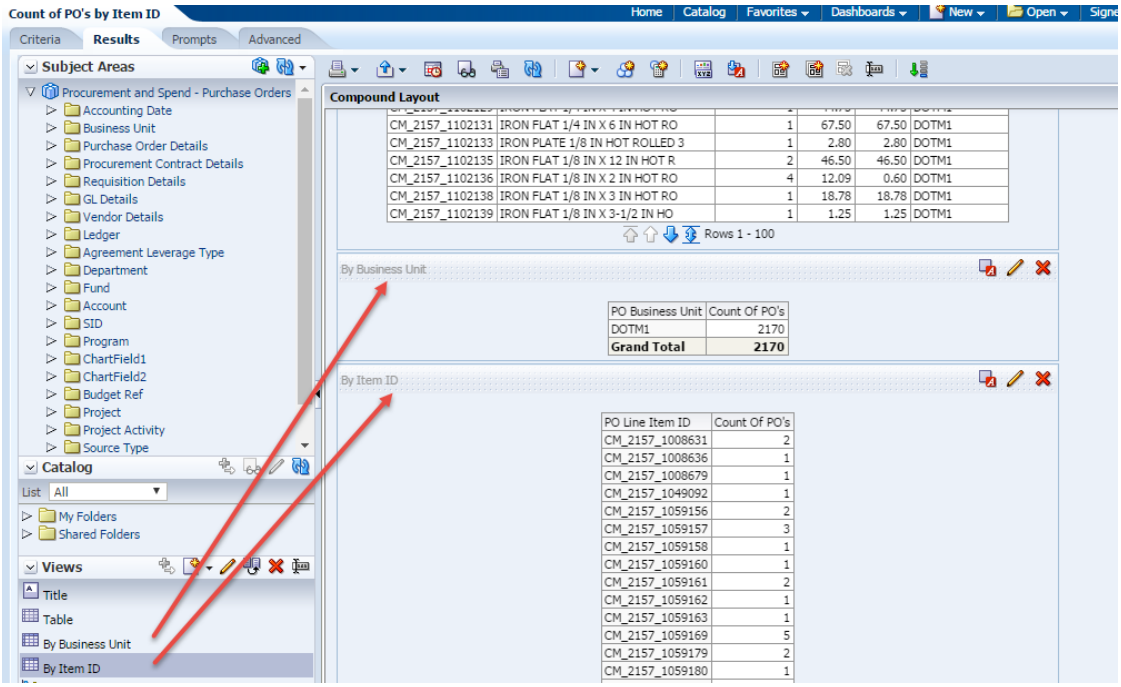




11. Let's create an another following pivot table views in similar way :- **By Item ID**



After creating views the screen will display as follows:-



Save the Analysis.

5.4 Add a Graph

Once you create and run an analysis, you can display results in a graph format. Graphs display a graphical representation of the extracted data. You can add a graph view to analysis results, or you can replace the table with a graph.

Note: You must click the Save button and resave the analysis in order to add the graph permanently to the results display.

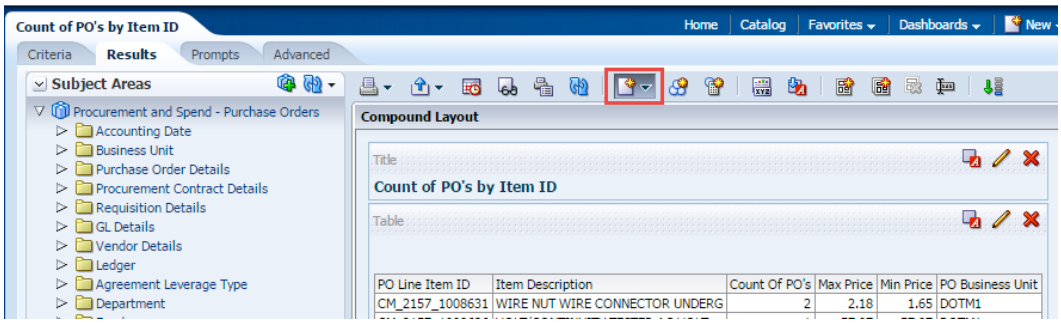
The following are types of Graphs:-

Graph Type	Description
Bar Recommended Subtype Vertical Horizontal Stacked Vertical Stacked Horizontal 100% Stacked Vertical 100% Stacked Horizontal	Shows quantities associated with categories. Bar graphs show quantities as bar lengths and categories as bars or groups of bars. Bar graphs are useful for comparing differences among like items; for example, competing product sales, same product sales over different time periods, or same product sales over different markets. Can be used to compare measure columns by showing bars in a horizontal or vertical direction.
Line Line	Shows quantities over time or by category. Line graphs are useful for showing trends over time. Can be used to plot multiple measure columns.
Area Recommended Subtype Stacked 100% Stacked	Shows the trend of the contribution of each value over time or by category. It is a line graph for which the regions between lines are filled in. Regions stack, adding up to the total value for each time period or category.
Pie Pie	Shows data sets as percentages of a whole. Pie graphs are useful for comparing parts of a whole, such as sales by region or by district.
Line-Bar Recommended Subtype Standard Stacked	Plots two sets of data with different ranges, one set as bars, and one set as lines overlaid on the bars. Line bar graphs are useful for showing trend relationships between data sets.
Time Series Line Time Series Line	Plots time series data. It scales the horizontal axis based on the time that has elapsed between data points.
Pareto Pareto	Is a form of bar graph and line graph that displays criteria in descending order. In this graph type, the line shows a cumulative total of the percentages. Pareto graphs are useful for identifying significant elements, such as best and worst or most and least.
Scatter Scatter	Displays x-y values as discrete points, scattered within an x-y grid. It plots data points based on two independent variables. This enables you to plot large numbers of data points and observe the clustering of data points. Scatter graphs are useful for observing relationships and trends in large data sets.
Bubble Bubble	Is a variation of a scatter graph that displays data elements as circles (bubbles). It shows three variables in two dimensions. One value is represented by the location of the circle on the horizontal axis. Another value is represented by the location of the circle on the vertical axis. The third value is represented by the radius of the circle. Bubble graphs are useful for plotting data with three variables, and for displaying financial data over a period of time.
Radar Radar	Plots the same information as a bar graph, but instead displays data radiating from the center of the graph. Each data element has its own value axis. Radar graphs are useful for examining overlap and distribution.

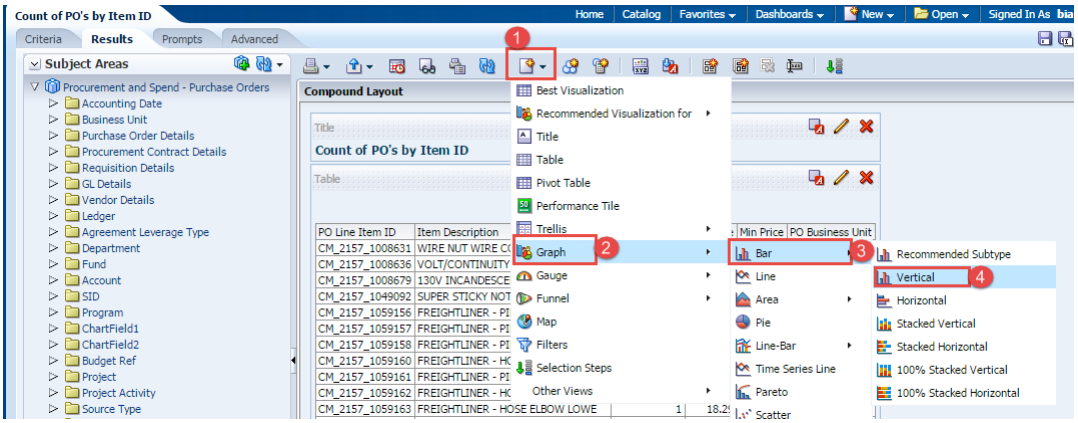
Guided Exercise

In our exercise, we will add a Vertical Bar graph.

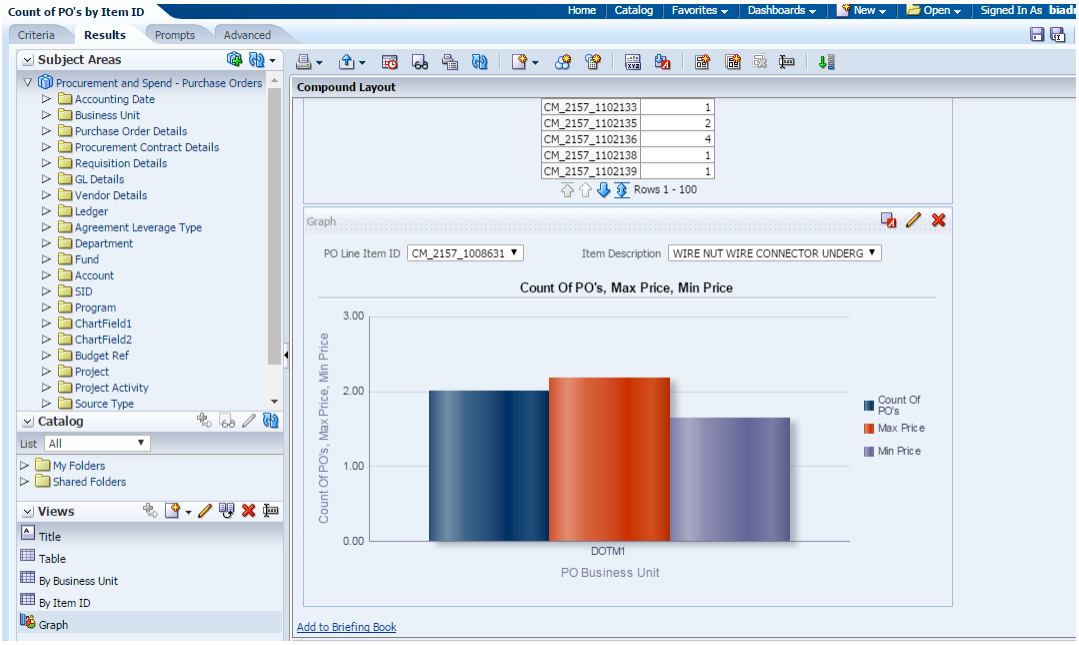
i. Click the **Results** tabbed page, click **New View** icon.



3. Select **Graph > Bar > Vertical** from the menus.

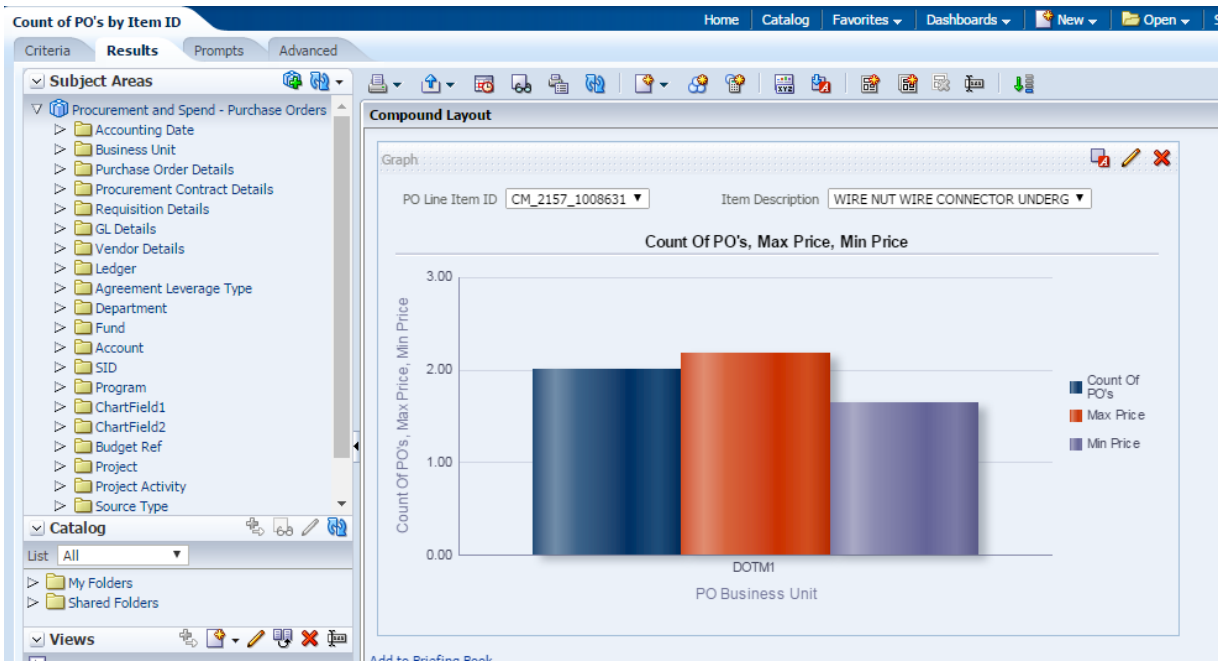


The default Graph view appears below the Pivot table views.

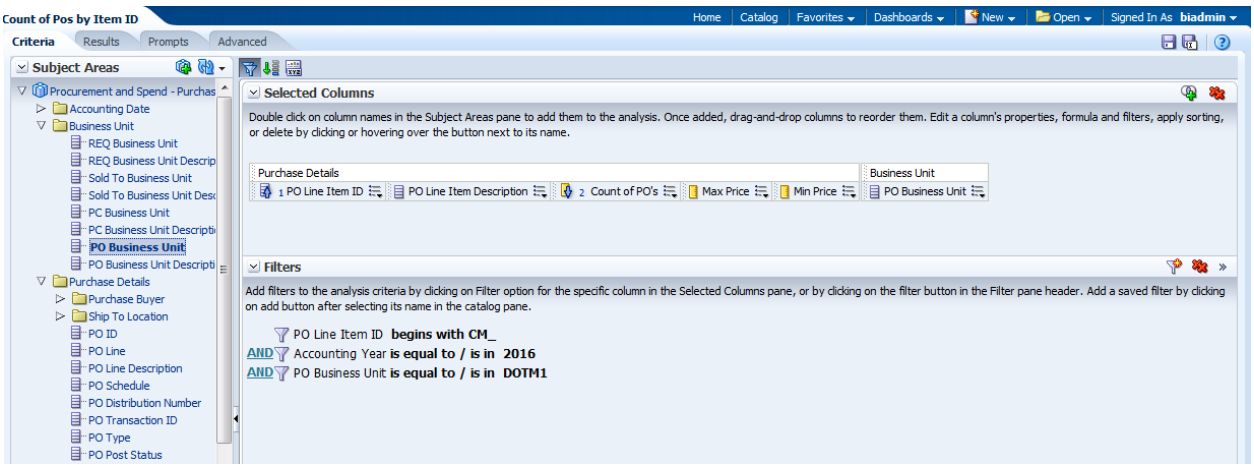


4. Click the **Remove View from Compound Layout** icon for Title and all the above views (Table & 2 Pivot tables)

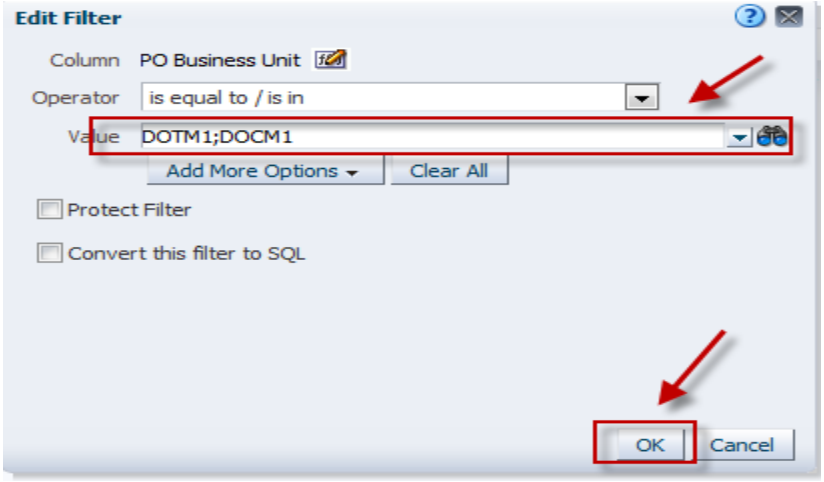
Note: Both views are removed from the Compound Layout. Note however, that they are still available for use from the Views pane.

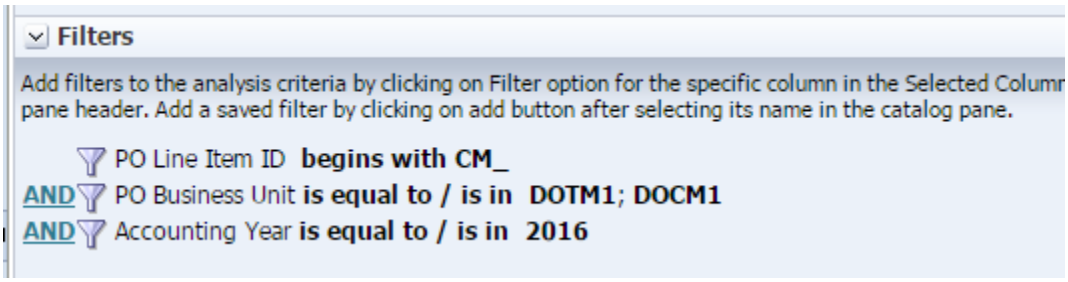


Go to Criteria tab:



Edit the PO Business Unit in Filter section and add DOCM1 to existing filter.





Save the Analysis.

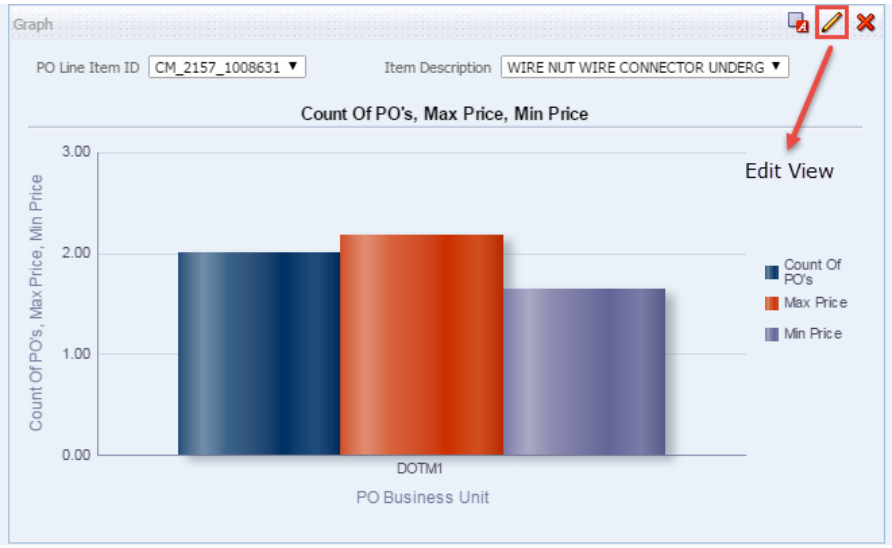
5.5 Format Graph

The default graph for an analysis is a two-dimensional vertical bar graph, drawn using the attributes and measures that are selected first within the analysis. You can select additional columns to display within a graph based on what is available in the Columns section of the Add/Edit Graph view.
You can also change the formatting, displayed text, legend, style, and size of a graph, which adjusts the landscape of a dashboard page.

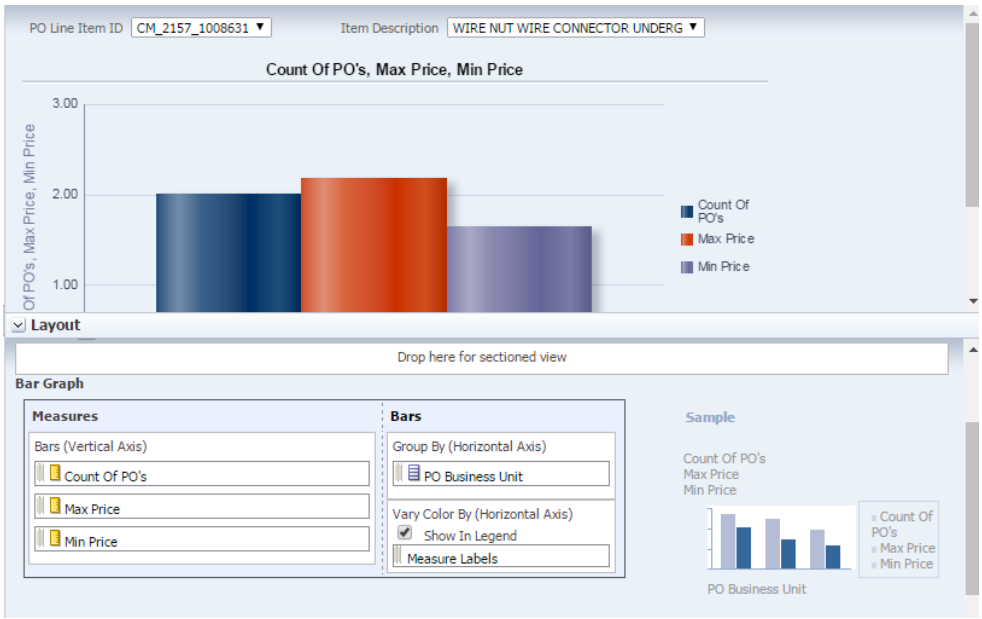
Guided Exercise

To enhance the appearance of a graph, perform the following steps:

1. Click the **Edit View** icon to begin your formatting changes. The Graph editor appears.

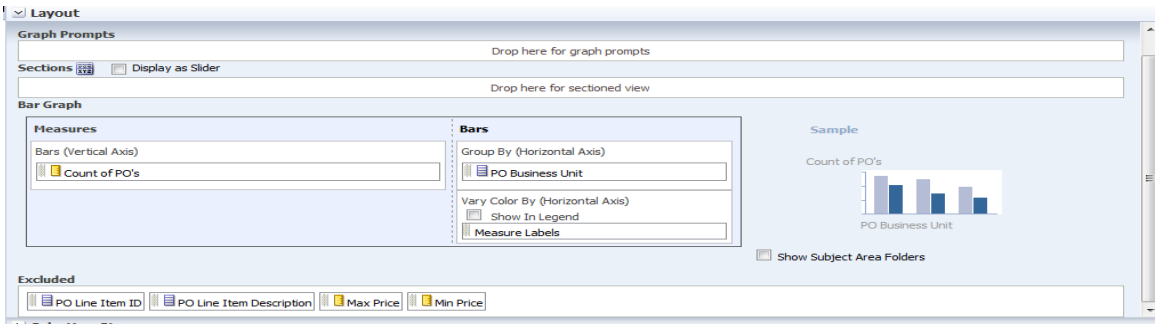


2. Like other views it also has same sections:-

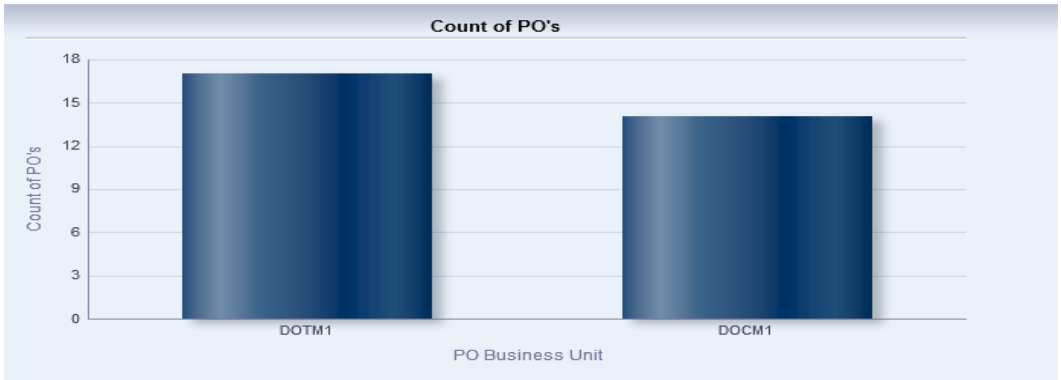


Next we will create a graph on **Total no. of PO's** based on **PO Business Unit**.

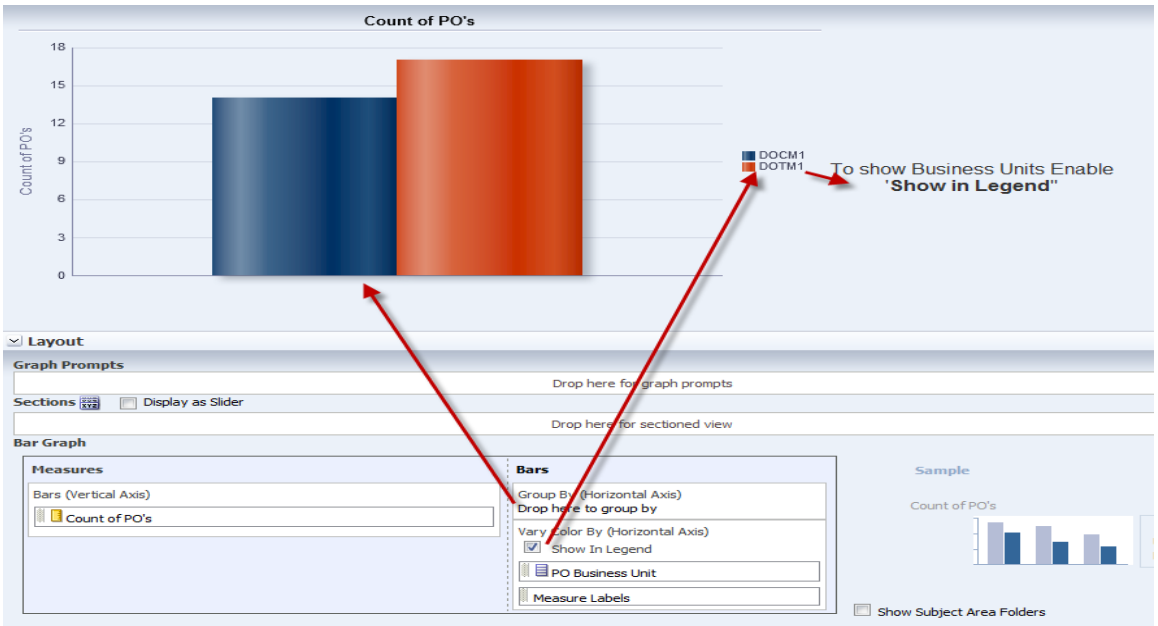
3. Let's move all the columns to **Excluded** sections except for **Count of PO's** in Measures and **PO Business Unit** in the Horizontal Axis section.



4. Preview the graph in preview pane.



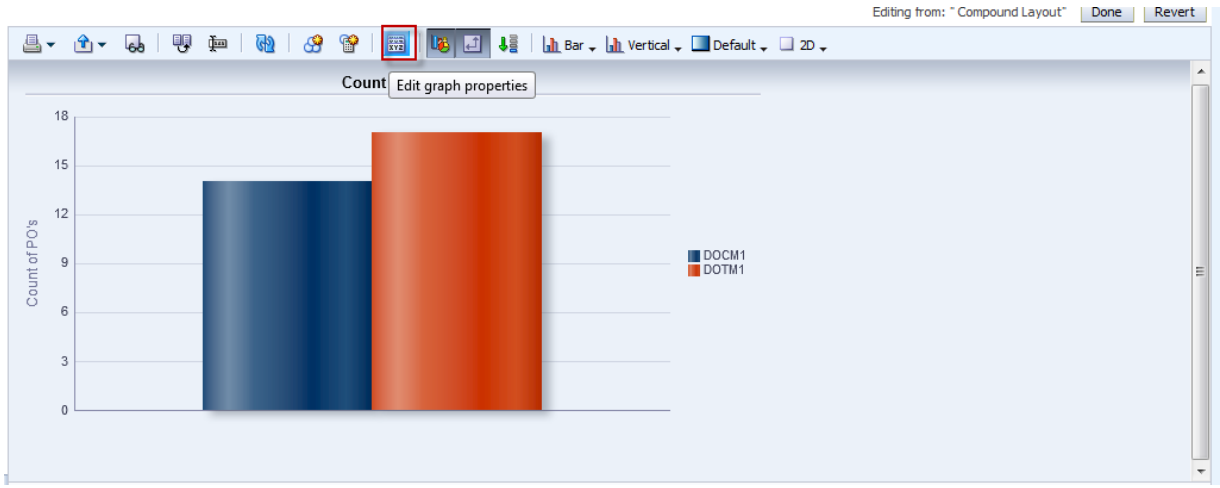
5. If you want the bar colors to change based on each Union Code value then move the PO Business Unit column from **Group By (Horizontal Axis)** to **Vary Color By (Horizontal Axis).**



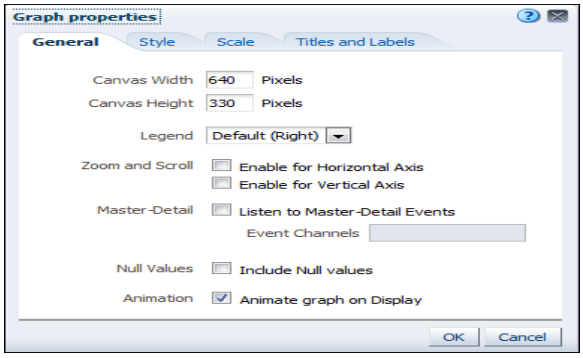
…Continued into next section

5.6 Edit Graph Properties

6. Click on Edit Properties icon.



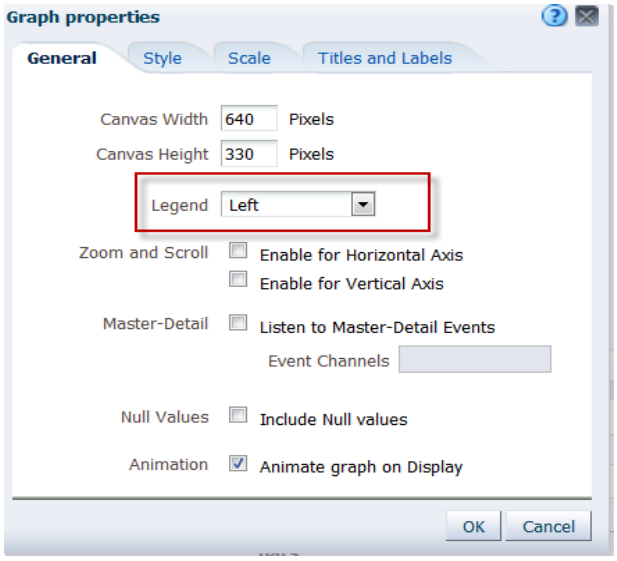
7. The Graph properties dialog box appears



The Graph properties dialog box is composed of four tabbed pages: General, Style, Scale, and Titles and Labels. These tabbed pages allow you to do the following:

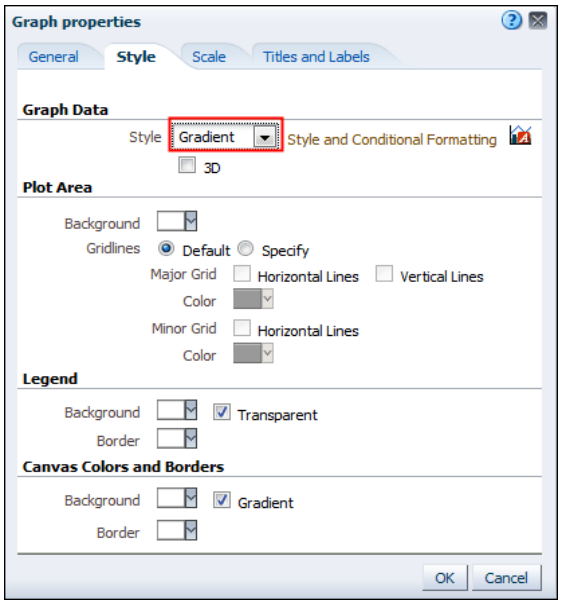
General	Set properties related to the graph canvas, such as canvas width, height, legend location, and so on.
Style	Set properties that control the appearance of the graph such as plot area and gridlines.
Scale	Set properties for parts of the graph, that is axis limits and tick marks.
Titles and Labels	Set properties that control the display of titles and labels for the graph.

8. Select **left** from the **Legend** location drop-down list. The dialog box should look like this:



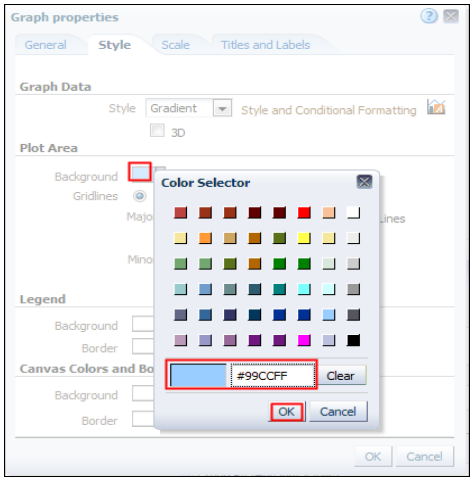
Note: The "**Animate graph on Display**" checkbox specifies whether to show initial rendering effects and is selected by default. For example, the bars on a horizontal graph start at the *x*-axis and move up the scale on the *x*-axis to the current measurement level.
"**Listen to Master-Detail Events**" allows you to specify this analysis as a detail view in a master-detail relationship. You will use this option in a subsequent step when working with pivot tables

9. Click the **Style** tabbed page.

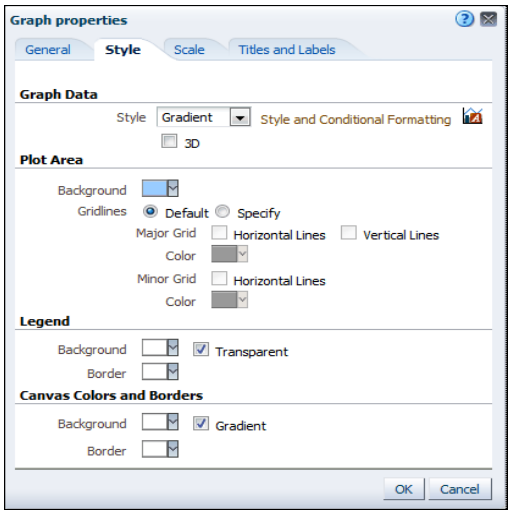


Click the **Style** drop-down list for Graph Data and select **Gradient**. The Graph Data area allows you to choose a style for specific types of graphs. For example, you might choose pattern fill for to highlight differences on a line-bar graph or gradient for a bar graph to make the data values standout.

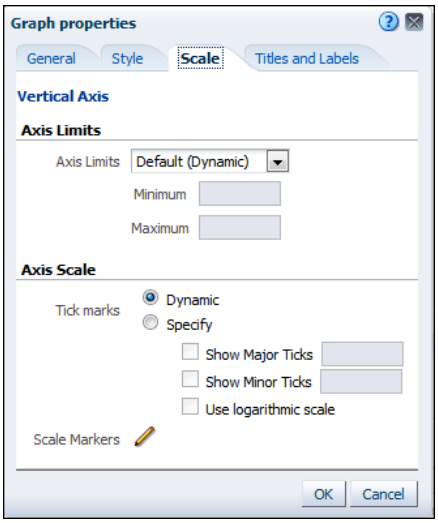
10. Click the **Background** drop-down list in the Plot area, and select a **light blue color** from the Color Selector and click **OK.**



The Graph properties dialog box should look like this:

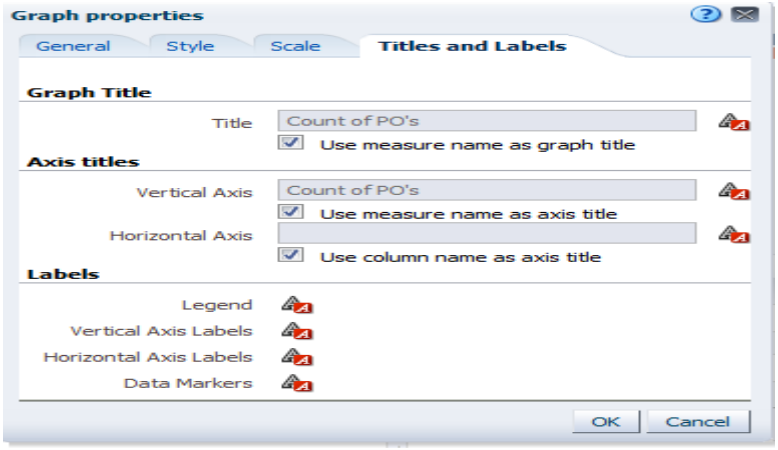


11. Click the **Scale** tabbed page. The Scale tabbed page appears.

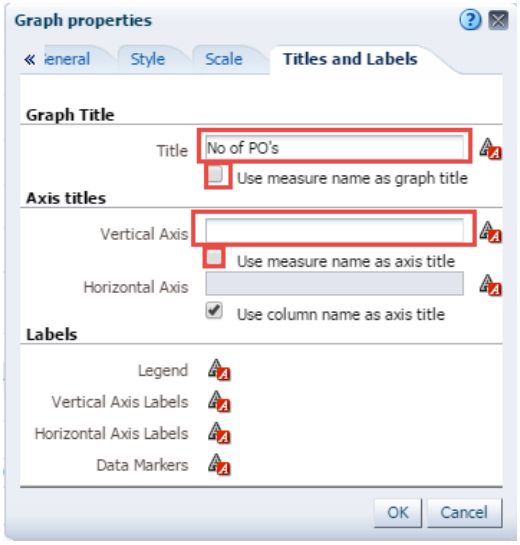


Specifically setting axis limits and tick marks allows you to control what you see on your graph. If you override the system default for tick marks, the colors that you have selected for horizontal and vertical gridlines on the General properties tabbed page will be applied to both major and minor ticks.

12. Click the **Titles and Labels** tabbed page.

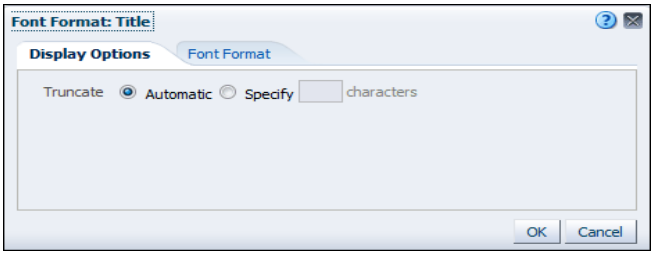


13. Deselect the checkbox for **Use measure name as graph title** and **Use measure name as axis title** enter **No. of PO's** in the Title text box.

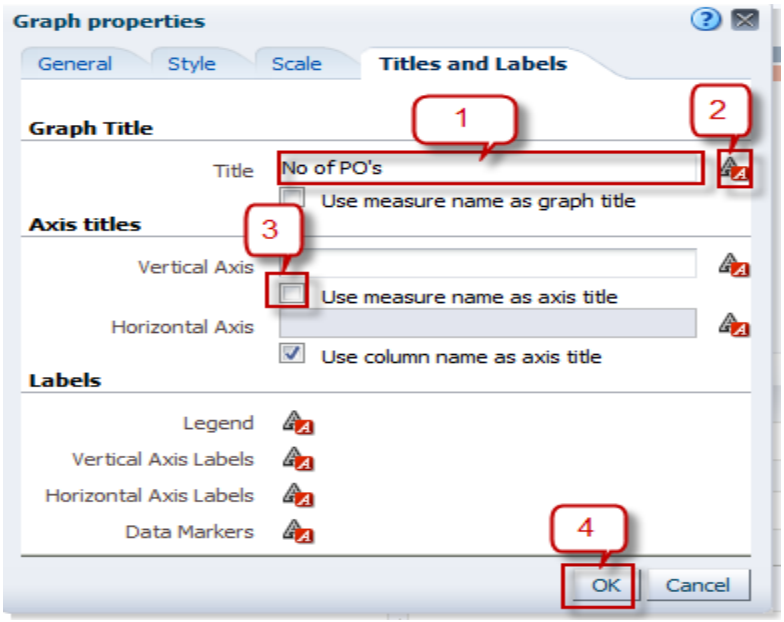


14. Click the **Format Title** icon  for Graph Title.

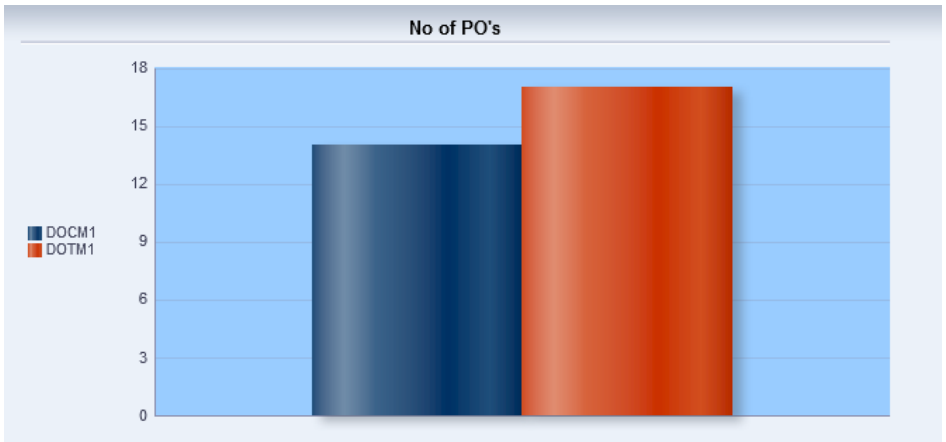
The "**Font Format: Title**" dialog box appears. You use this dialog box to specify how titles, legend labels, and so on are handled (such as truncated automatically) and to specify font properties.



15. Deselect the check box for **Vertical Axis Title** and click **OK** to close the Graph Properties dialog box.



The preview pane refreshes and should look like this:



Examine the changes that you made to the graph. The formatting changes have been applied along with a new title.

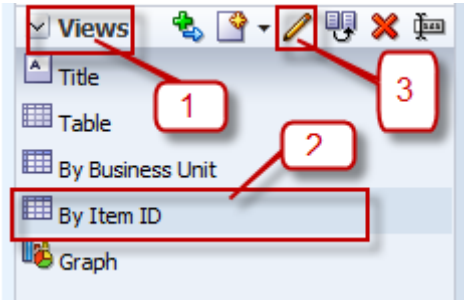
Click **Done**.

5.7 Add Pivot Table Graph

A graph can be added to Pivot table.

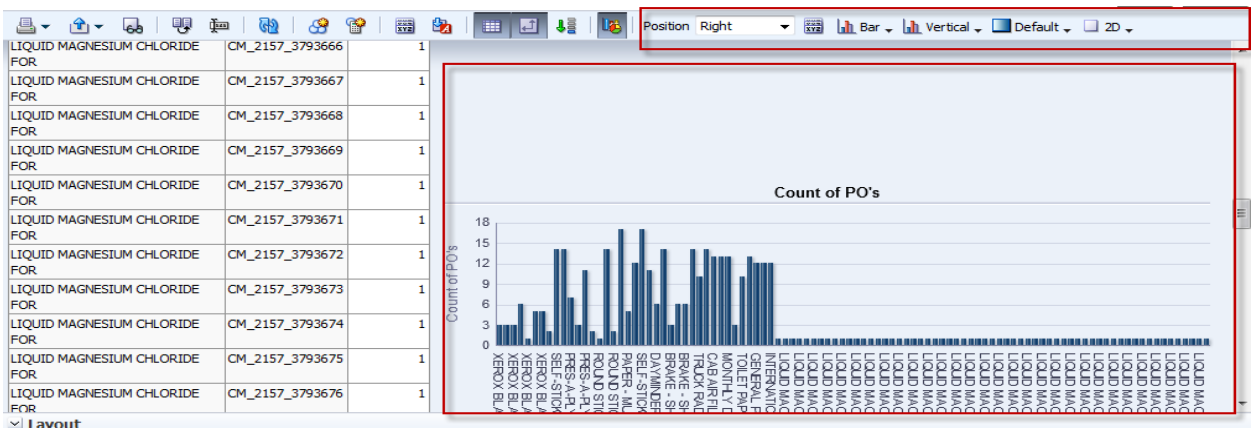
Guided Exercise

1. Navigate to views section, select "**By Item ID**" view and click on **Edit View** icon.



2. Now in the toolbar click on Graph **Pivoted Results** icon.

3. After clicking on the icon, it opens **more graph options on the toolbar** and also a graph by default displays on the right side of the table.



Select the option from the tool bar and click **Done**.

5.8 Add a View Selector

A view selector view allows users to select a specific view of the results from among the saved views for an analysis. When placed on a dashboard, the view selector is displayed as a list from which users can choose the view that they want to display below the selector.

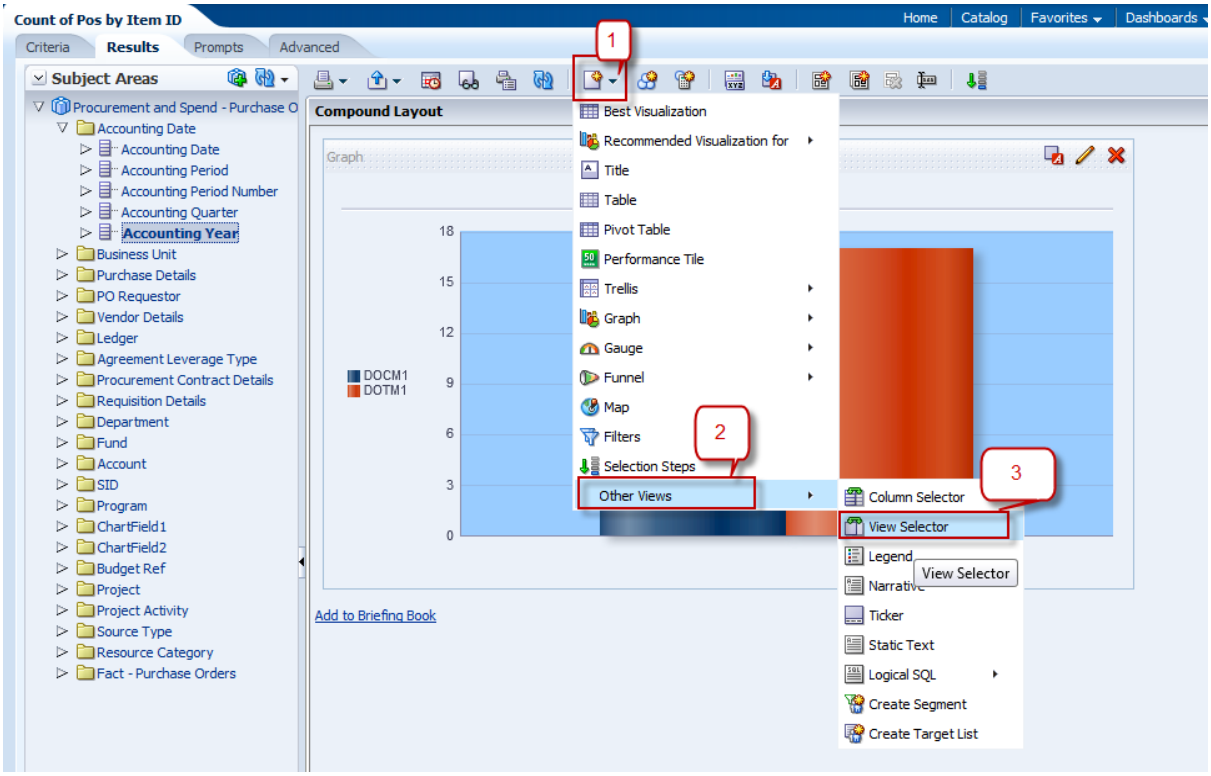
Generally, you would include views in the view selector that are not being displayed in the Compound Layout view. For example, you might create a table, graph, gauge, and view selector view for an analysis, but include only the table and view selector view on the Compound Layout view. When the analysis is displayed on a dashboard page, users can select the graph or gauge view from the view selector view.

Next we will add two pivot tables in a view selector (By Business Unit, By Item ID).

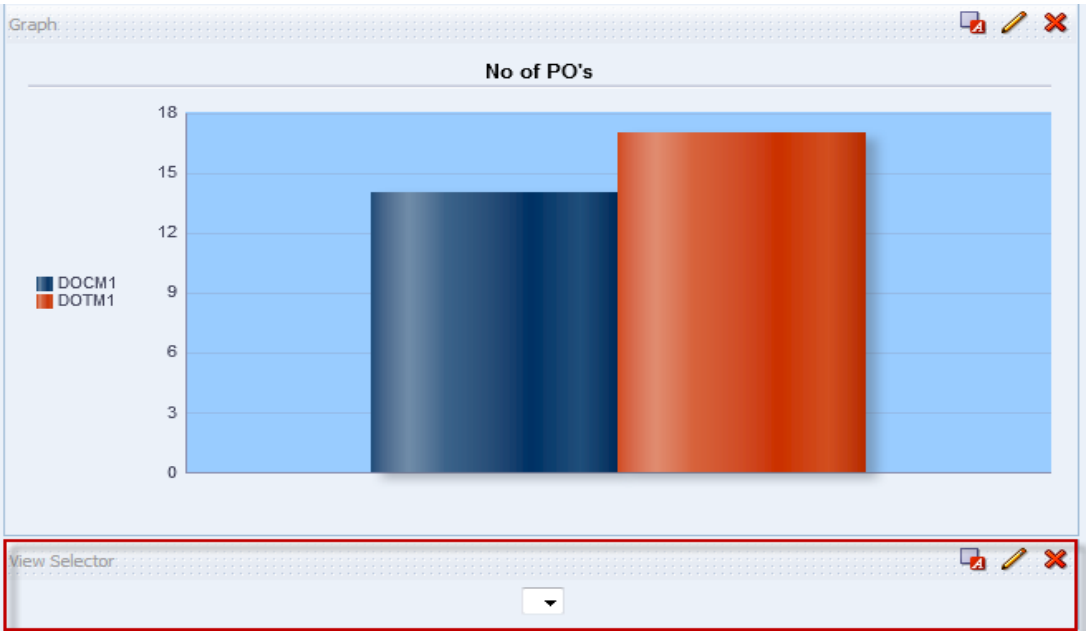
Guided Exercise

1. Return to Results tabbed page, click on **New** View icon.

2. Click **Other Views** and select **View Selector**.

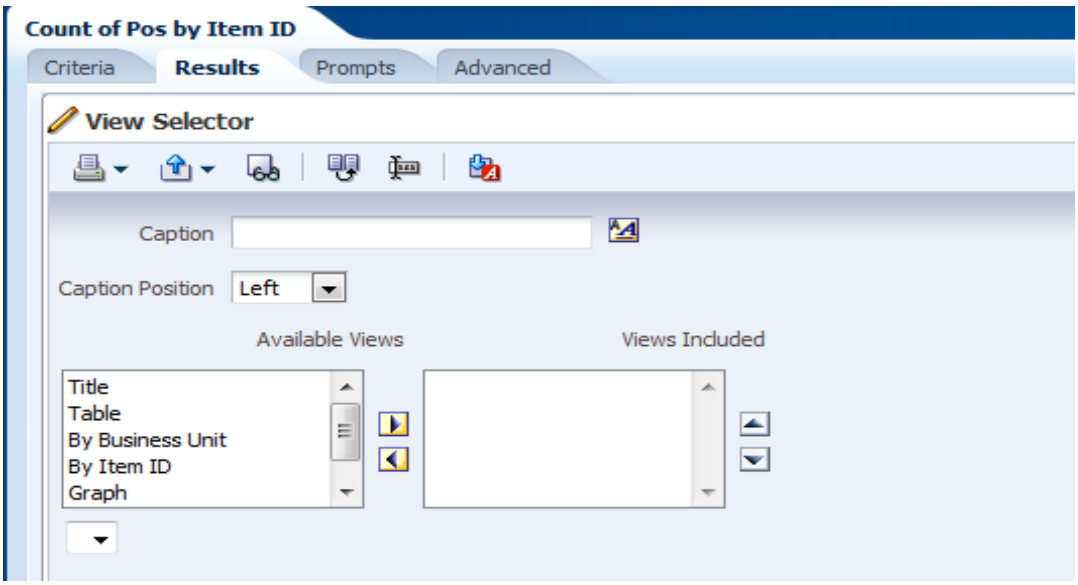


A new View will be added under the Graph view.



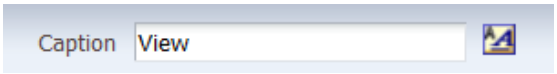
3. Click on **Edit** View icon of **View Selector**.

A View selector Edit view page will open.

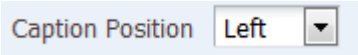


Elements	Description
Caption	Text entered in this place will appear as a caption to the View Selector
Caption Position	It is to select position of the Caption
Available Views	It will show all the available Views
Views Included	It will show the views which are included to show in the View selector.

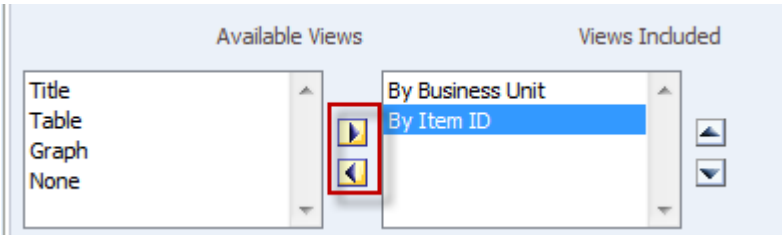
4. Enter “View” in the text box of **Caption**.



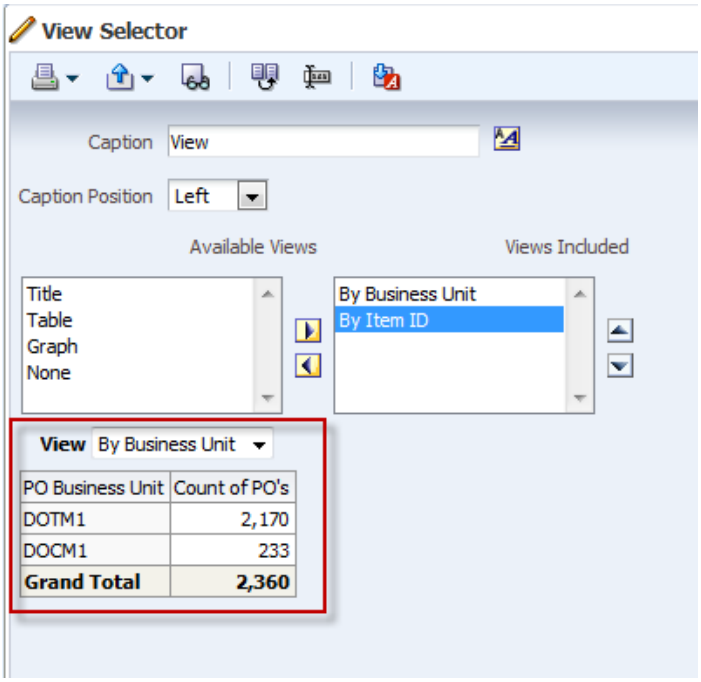
5. Leave the **Caption Position** as default (Left).



6. Move **By Business Unit, Item ID** from Available Views to Views Included using arrows. You can select multiple values by holding CTRL.

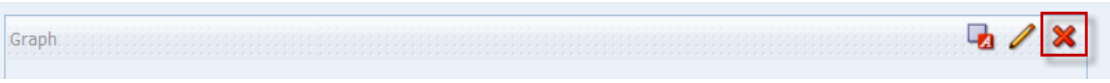


7. Check the Preview to see how the View selector will display in the Compound Layout.

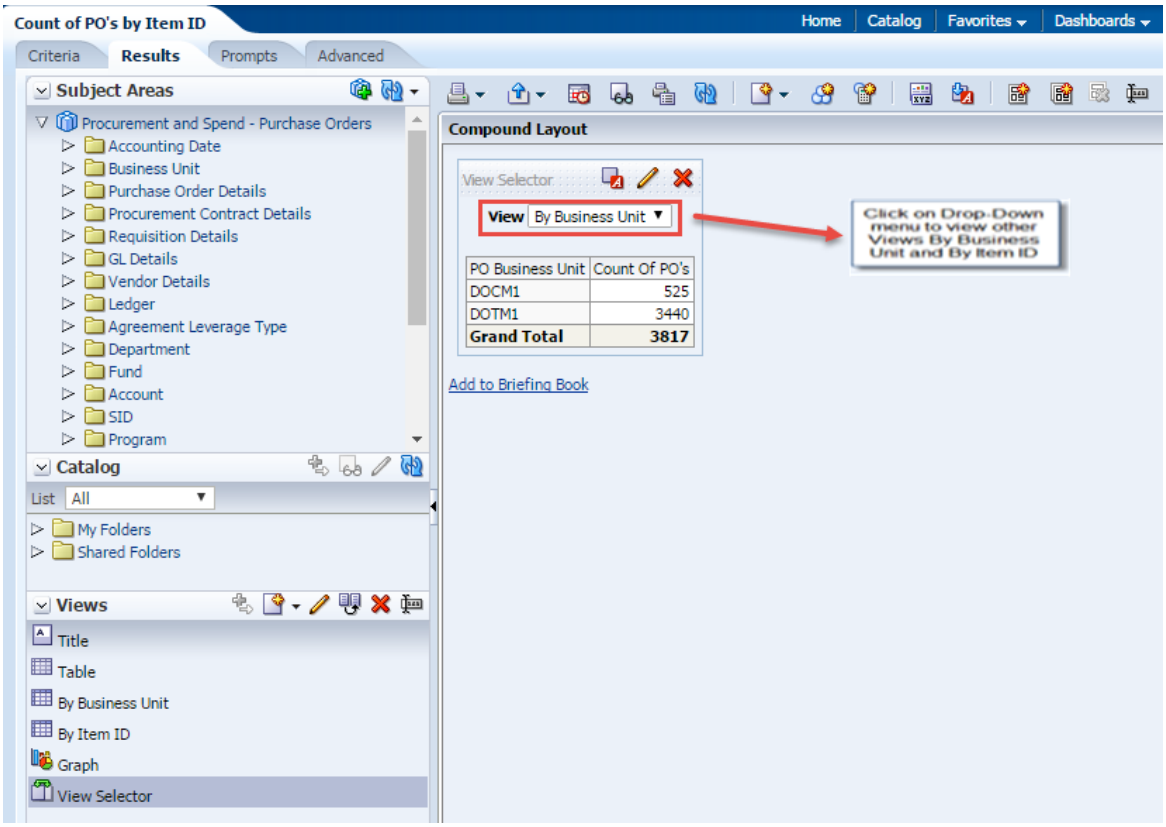


Click **Done**.

8. Delete Graph View from Compound layout by clicking on the red 'X' in the corner of the Graph view window.



9. Compound Layout in **Results tab,** should appear as shown.


Count of PO's by Item ID
Home
Catalog
Favorites
Dashboards
Criteria
Results
Prompts
Advanced
Subject Areas
Procurement and Spend - Purchase Orders
Accounting Date
Business Unit
Purchase Order Details
Procurement Contract Details
Requisition Details
GL Details
Vendor Details
Ledger
Agreement Leverage Type
Department
Fund
Account
SID
Program
Catalog
List All
My Folders
Shared Folders
Views
Title
Table
By Business Unit
By Item ID
Graph
View Selector
Compound Layout
View Selector
View By Business Unit
Click on Drop-Down menu to view other Views By Business Unit and By Item ID
PO Business Unit
Count Of PO's
DOCM1
525
DOTM1
3440
Grand Total
3817
Add to Briefing Book

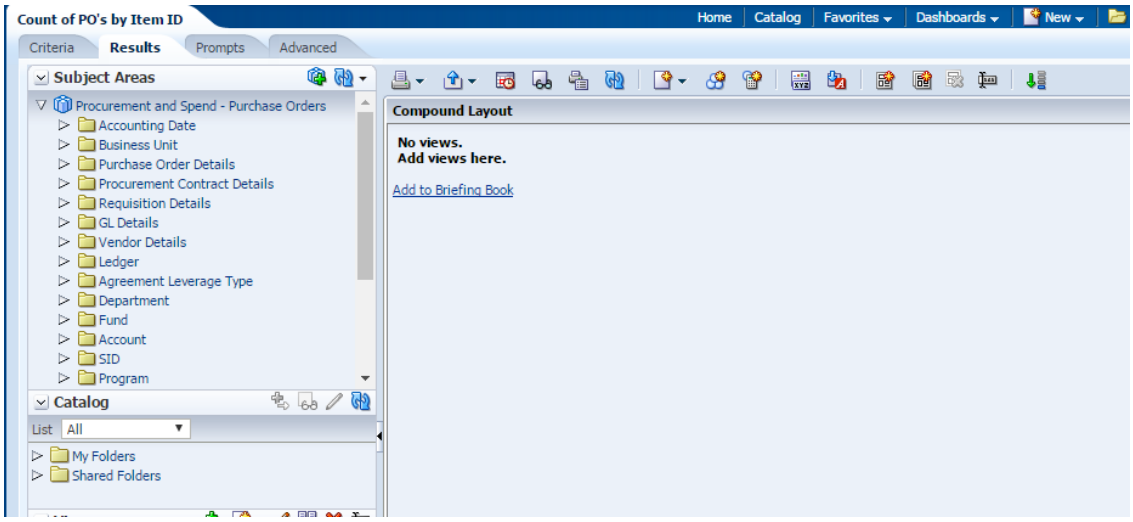
5.9 Add Column Selector

The Column Selector view allows you to change dynamically which columns display in an analysis. One column selector can be attached to each column in a specific analysis, and multiple columns (attributes) can be attached to each column selector.
Selecting a column enables you to analyze data along several attributes and/or metrics. It also enables you to configure the column order within a dashboard to display data in a clearer layout.

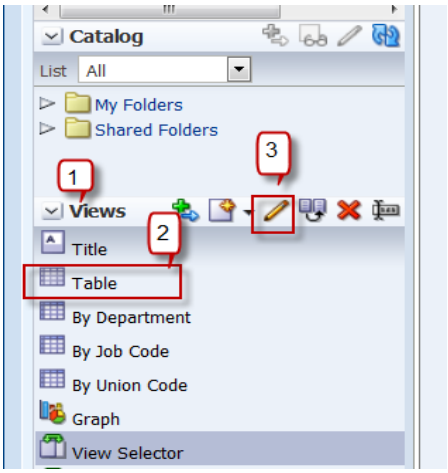
Guided Exercise

1. Delete the View selector from the compound layout.

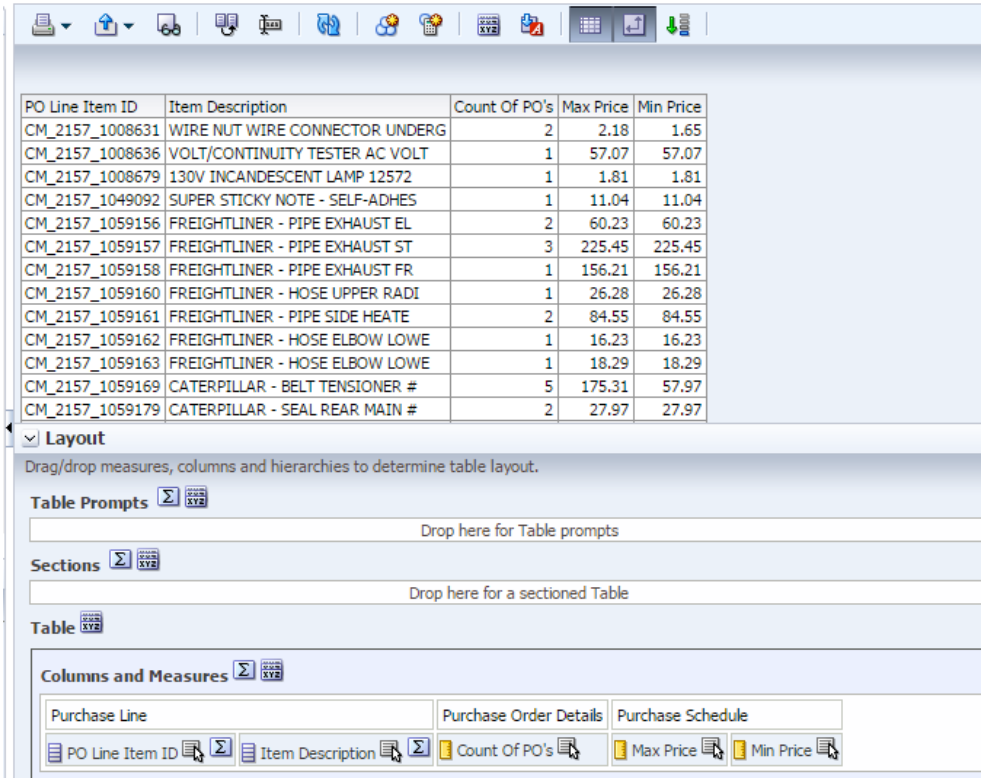
After deleting View Selector view the compound layout appears as shown below:-



2. Go to **Views** section and select **Table** to click **Edit**.

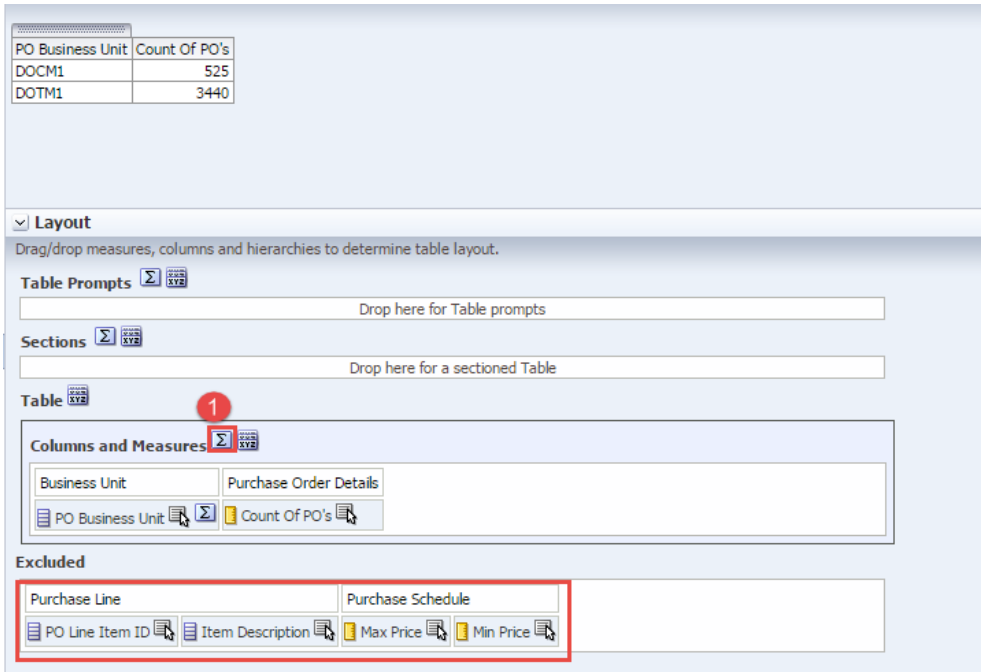


3. The Edit View of the table looks as below:



PO Line Item ID	Item Description	Count Of PO's	Max Price	Min Price
CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23
CM_2157_1059163	FREIGHTLINER - HOSE ELBOW LOWE	1	18.29	18.29
CM_2157_1059169	CATERPILLAR - BELT TENSIONER #	5	175.31	57.97
CM_2157_1059179	CATERPILLAR - SEAL REAR MAIN #	2	27.97	27.97

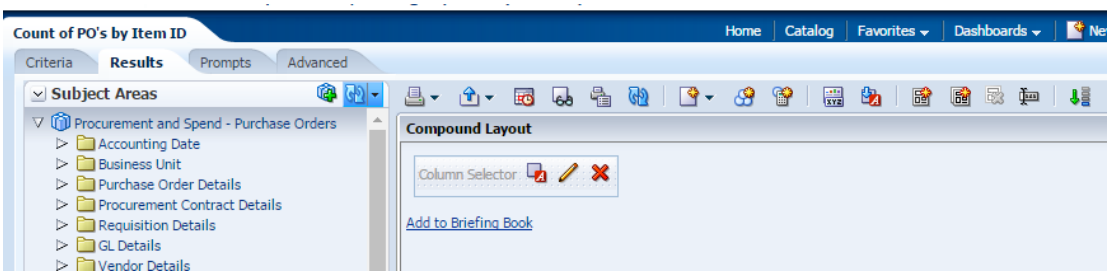
4. Exclude all the columns by leaving **PO Business Unit** and **Count of PO's** in Columns and Measures. Click on **Summation** and click **After** to get grand total.

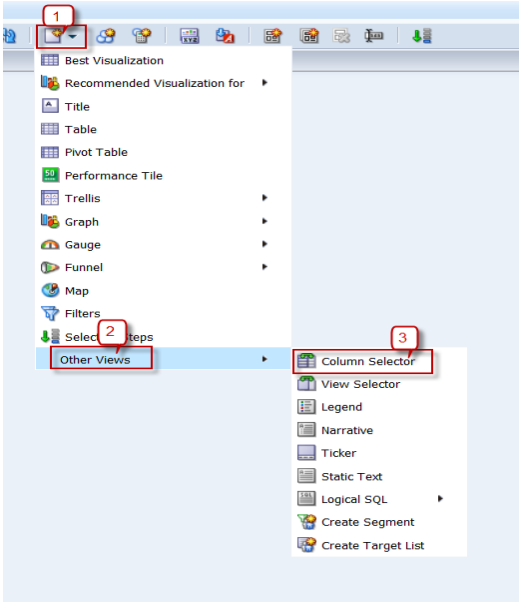


PO Business Unit	Count Of PO's
DOCM1	525
DOTM1	3440

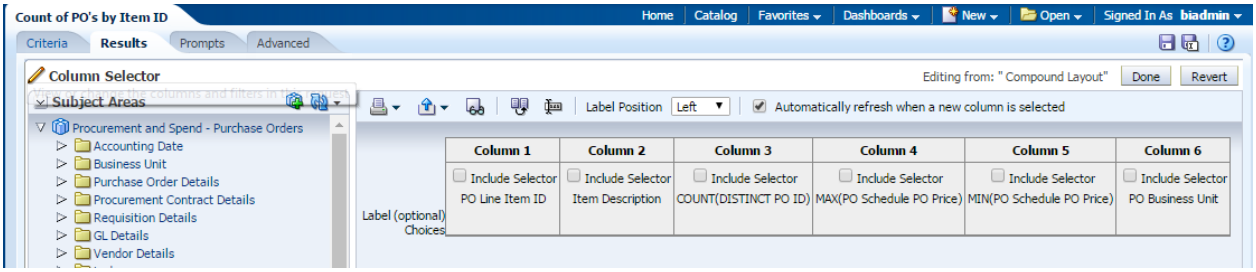
5. Click **Done**.

6. Return to Results tabbed page. Click **New View** icon. Go to **Other Views** to select **Column Selector**.

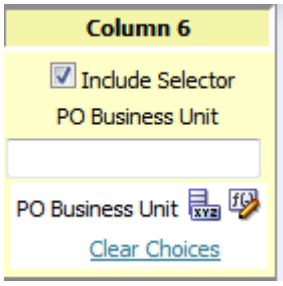




Column Selector Editor Page appears as follows:

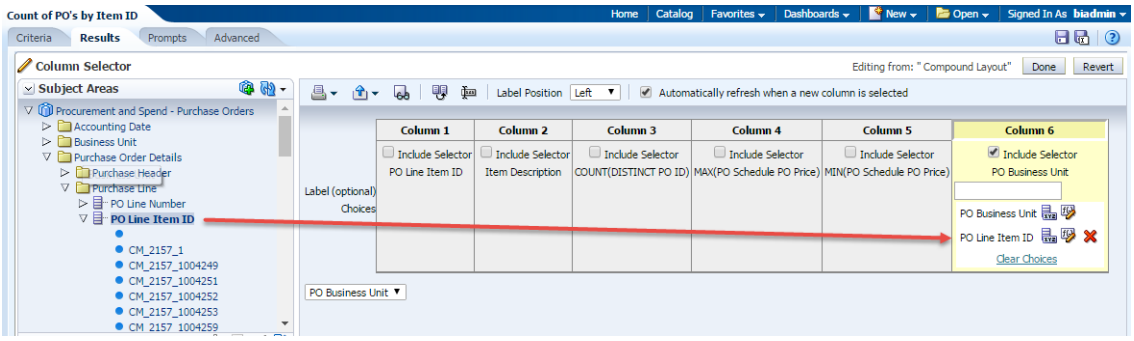


7. Enable **Include Selector** in **Column 6 PO Business Unit**. By checking corrresponding box.



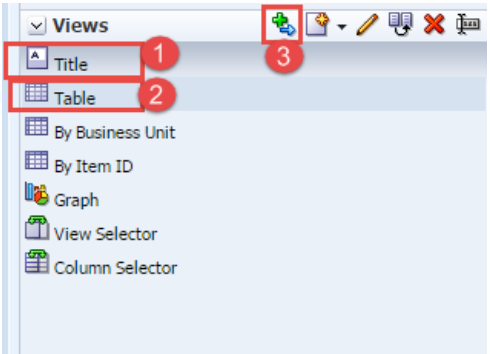
8. From Subject Areas section expand folders and double click on following columns:

Purchase Details > select **PO Line Item ID**

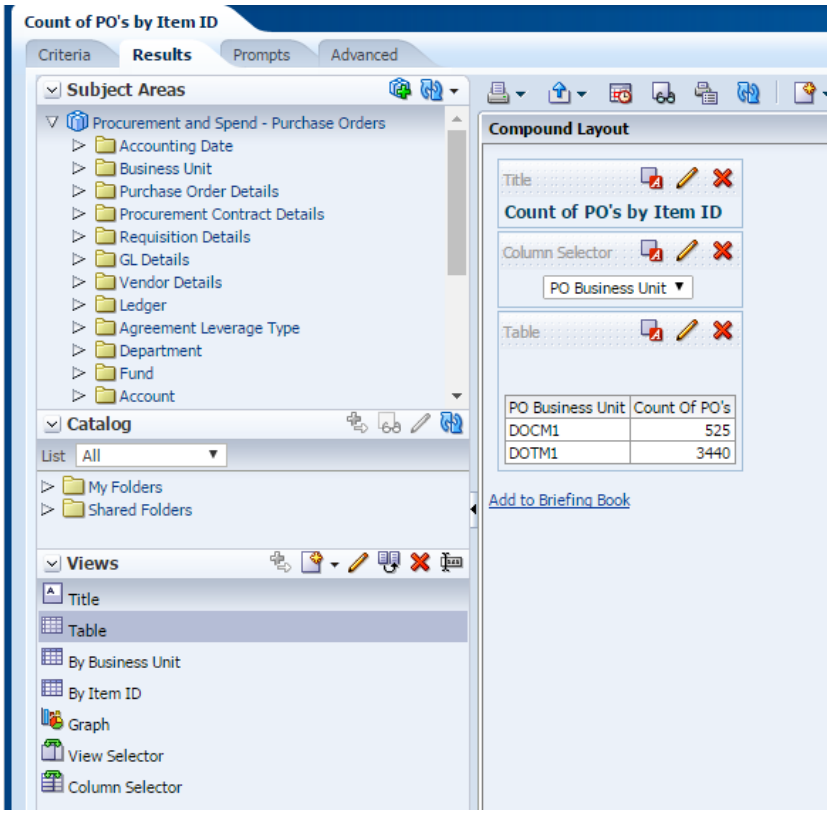


9. Click **Done**.

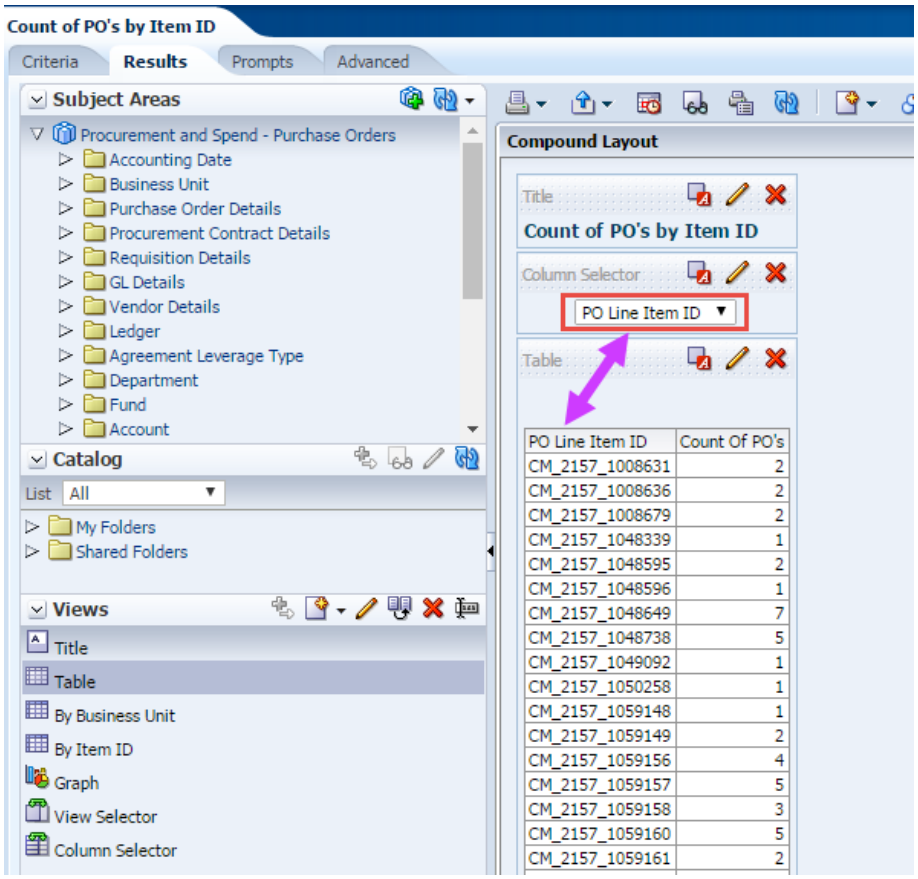
10. Add Title view and Table view to **Compound Layout** from Views section.



11. After adding Table to **Compound layout**, it appears as below:



12. Select the value in **column selector**, based on that column in the first column changes.



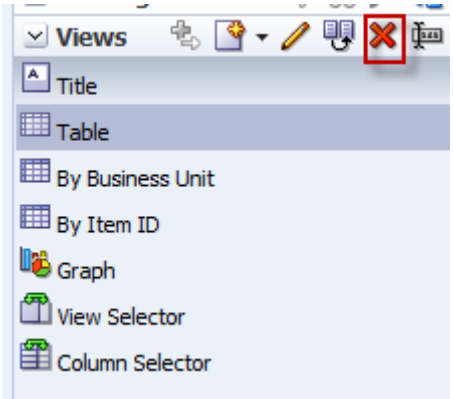
13. **Save** the Analysis.

5.10 Delete Views

You can remove views from the Views pane when they are no longer useful. This removes the view permanently from the Analysis.

Be careful when deleting a view, as there is no warning message.

You must use the Remove View from Analysis button in the Views pane; the Remove View from Compound Layout button within the workspace only hides the view.



6. Drill down Functionality

Introduction	This tutorial shows you how to build and use actions to provide guided navigation, link to external web content, and invoke web services. You learn how to guide user navigation in dashboards and analyses using actions and action links, to access external web content in the context of your OBI analysis, to use conditions and agents with actions to automate initiation of business processes, and to invoke a Web Service using actions and action links.
Objectives	At the end of this section, you will be able to complete the following tasks related of Drill Down functionality. • Create Analysis • Navigate Action Link • Create Action Link • Test Action Link

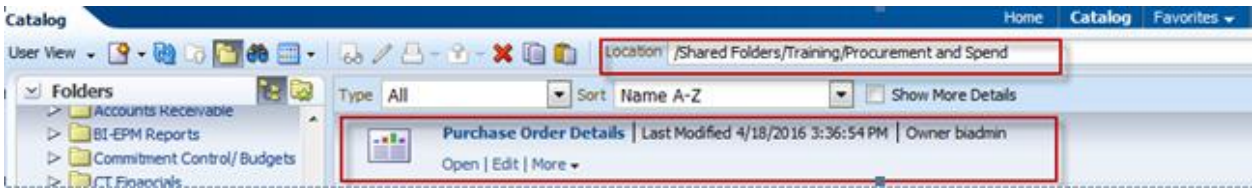
6.1 Copy an Existing Analysis

We have created **Purchase Order Details** analysis and placed under **Shared Folders/Training/Procurement and Spend**.

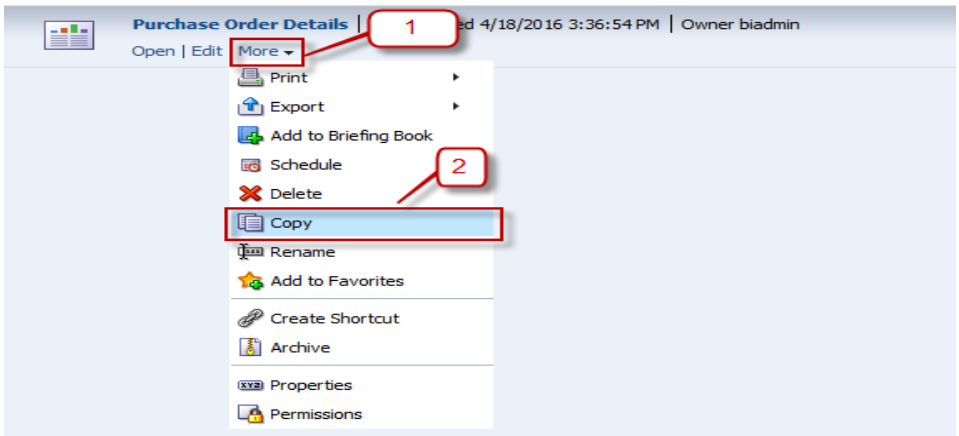
Navigate to the folder and Copy the analysis to paste it under **My Folders/Training.**

Guided Exercise

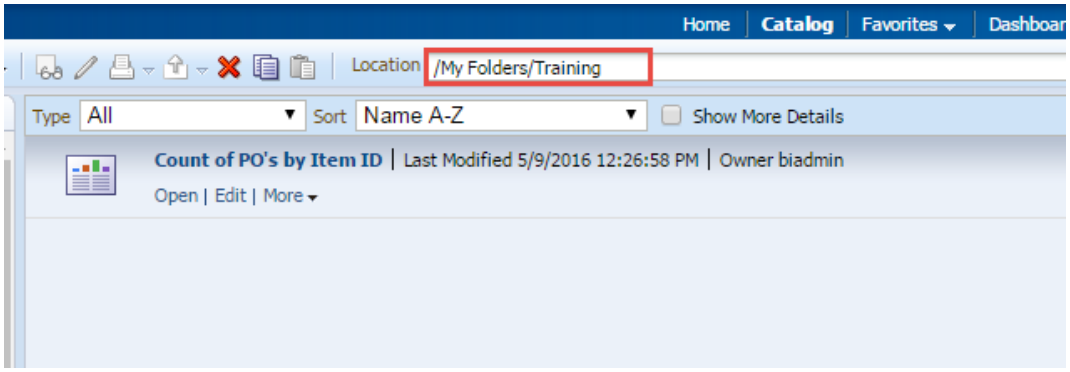
1. Navigate to **Shared Folders/Training/ Procurement and Spend.**



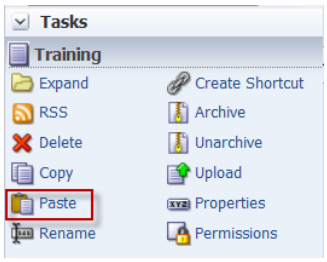
2. Select **Purchase Order Details** analysis and click on **More Options** to select **Copy**.



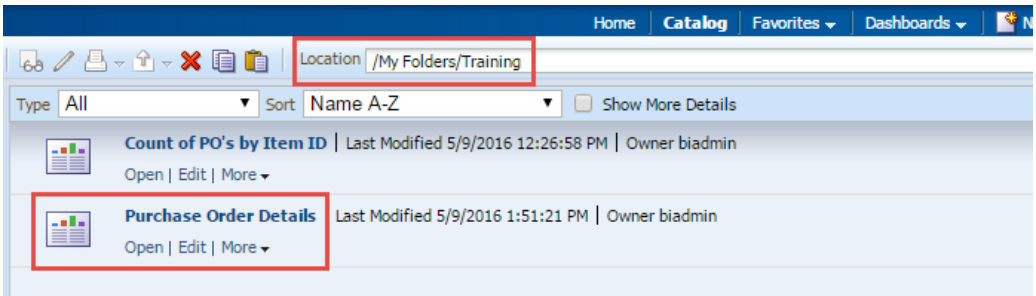
3. Navigate to **My Folders/Training.**



4. Click on **Paste** from **Tasks** section.



5. Purchase Order Details analysis will get pasted in My Folders/Training folder.



Purchase Order Details Analysis:-

This analysis is created to view Purchase Order Details of those PO's with PO Business Unit, Vendor ID, Vendor Name, PO ID, PO Line, PO Line Item ID, Contract ID, PO Schedule, PO Quantity and PO Amount and use in Count of PO Report as a **detail report** by creating action link.

This analysis has following columns and filters:-

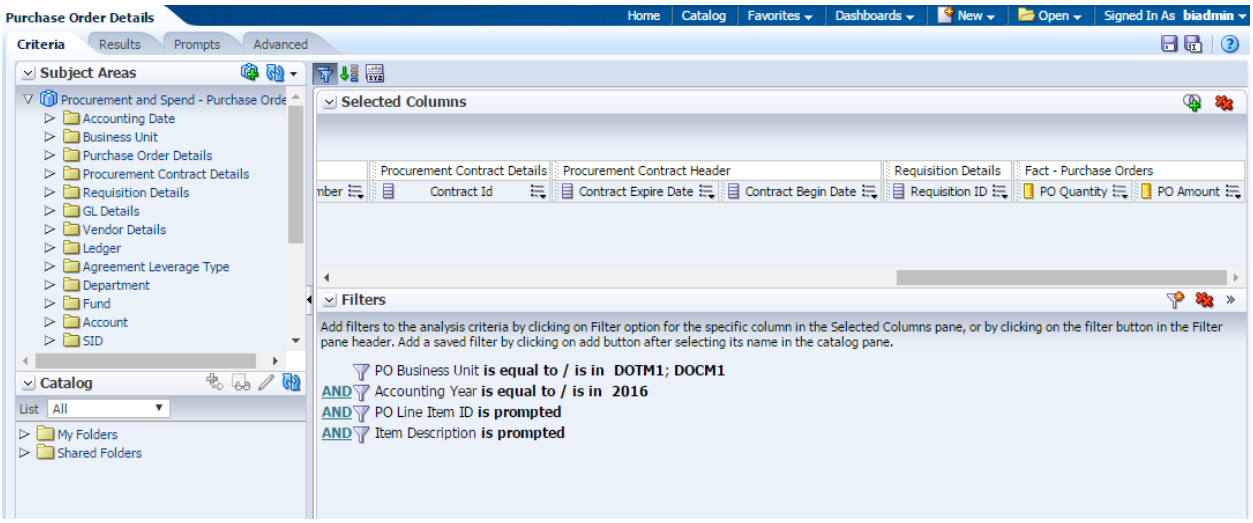
Columns:

Folder Name	Column Name
Business Unit	PO Business Unit
Vendor Details > Vendor	Vendor SETID
Vendor Details > Vendor	Vendor ID
Vendor Details > Vendor	Vendor Name
Purchase Order Details	PO ID
Purchase Order Details > Purchase Header	PO Entered Date
Purchase Order Details > Purchase Header	PO Status
Purchase Order Details > Purchase Line	PO Line Item ID
Purchase Order Details > Purchase Line	Item Description
Purchase Order Details > Purchase Line	PO Line Number
Purchase Order Details > Purchase Schedule	PO Schedule PO Price
Purchase Order Details > Purchase Schedule	PO Schedule Number
Procurement Contract Details	Contract Id
Procurement Contract Details > Procurement Contract Header	Contract Begin Date
Procurement Contract Details > Procurement Contract Header	Contract Expire Date
Requisition Details	Requisition ID
Fact – Purchase Orders	PO Quantity
Fact – Purchase Orders	PO Amount

Filters:

Column Name	Operator	Condition
PO Business Unit	Is equal to / is in	DOTM1; DOCM1
Accounting Year	Is equal to / is in	2016
PO Line Item ID	Is prompted	
Item Description	Is Prompted	

The columns and conditions in the analysis will appear as shown below.

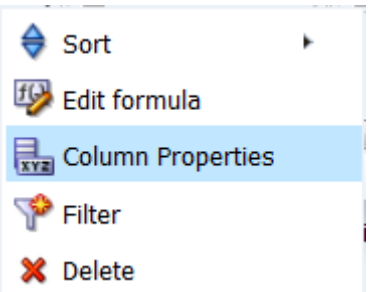


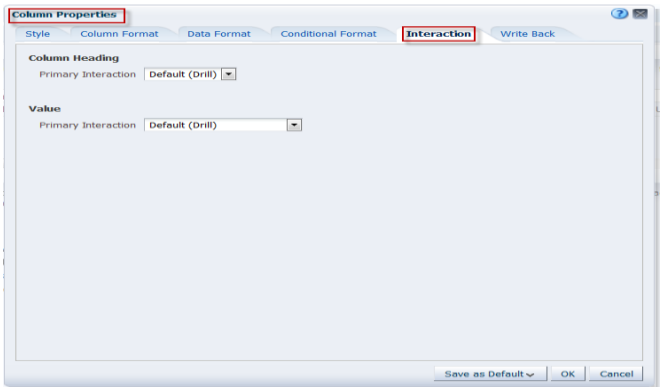
Note: We will use the above analysis and "is prompted" filters when creating a dashboard page and placing the analysis on the dashboard. The values from the Dashboard Prompt will then use these filters to display the results.

6.2 Create Action Link

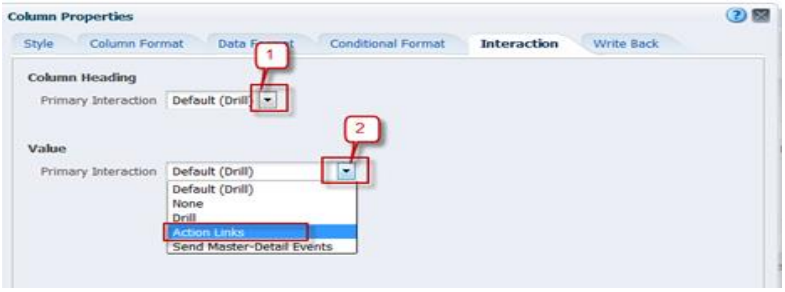
An **action link** is a link to an action that you have embedded in an analysis, dashboard page, scorecard objective, scorecard initiative, or KPI that, when clicked, runs an associated action.

1. Action link is available in column properties of a column by going to Interaction tab.

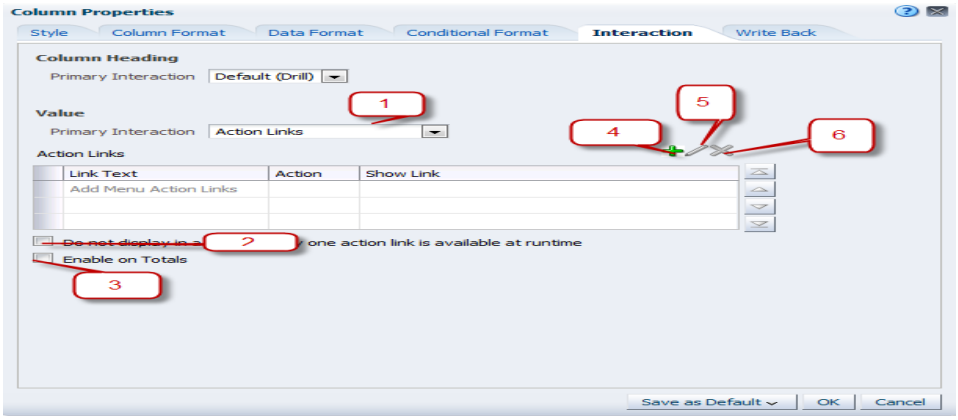




2. Action links can be added in Column Heading or in Value by clicking on drop down menu.



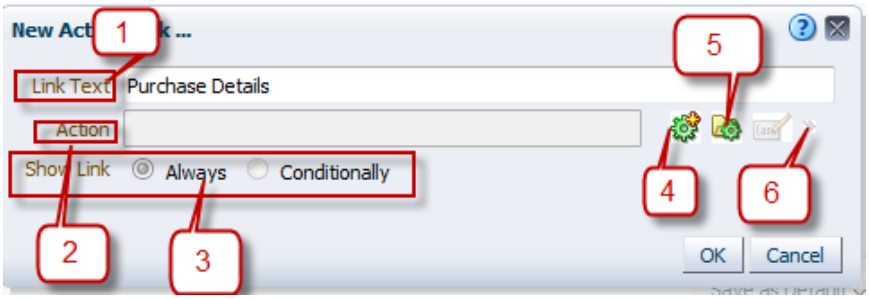
3. Click on Action Link:-

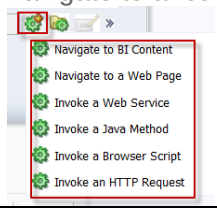


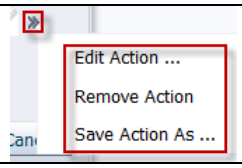
Elements	Description
1. Action Links	In the Action Links list, you can view, add, edit, and delete actions associated with the column. Notice that you can have multiple action links associated with a column. By default, actions available for a column appear in a popup when a user clicks the column value or heading in an analysis.
2. Do not display in a popup if only one action is available at runtime	This option is used to reset, so that in the event only one action is available for a value or heading, the action is executed upon the user interaction. Leave this option unchecked
3. Enable on Totals	This option is used to enable action links for Grand Totals and Sub Total level.
4. Add Action Link	To add Action Link
5. Edit Action Link	Used to edit an existing analysis.
6. Delete Action Link	Delete an existing analysis

4. Click the **Add Action Link** button .

New Action Link window displays:



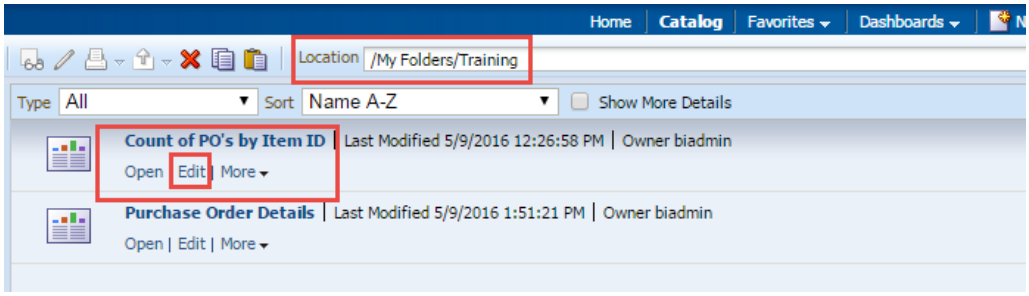
Elements	Description
1. Link Text	Enter some text in the "Link text", this will popup whenever the user clicks on the column value
2. Action	Choose the type of action link. In this exercise we will choose "Navigate to BI Content" as we are going to navigate to a page within our dashboards.
3. Show Link	It is used to apply conditions based on which the action link needs to apply
4. Add Action Link	Choose the type of action link. In this example we will choose "Navigate to a BI Content" as we are going to navigate to another analysis. 
5. Select existing Action	Choose an action link which has been already created and saved in the folder.
6. More	This option is used to edit or remove or save action link as.



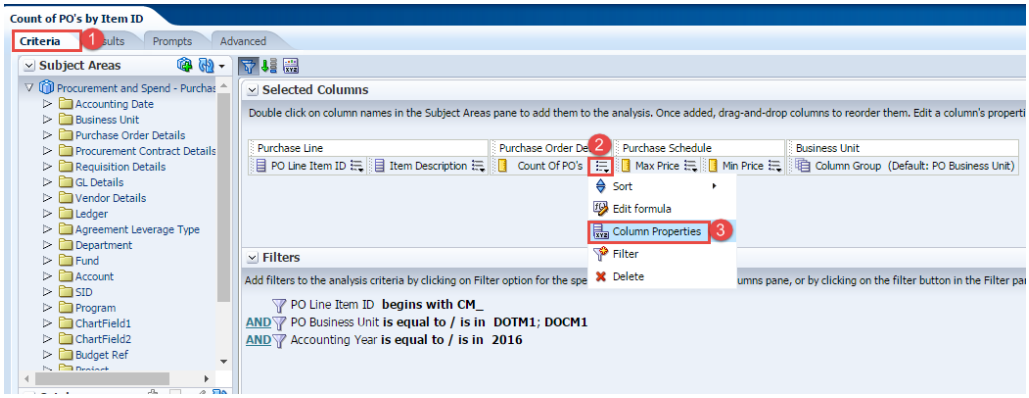
Next we will create **action link** between **Count of PO's by Item ID** and **Purchase Details Report**.

Guided Exercise

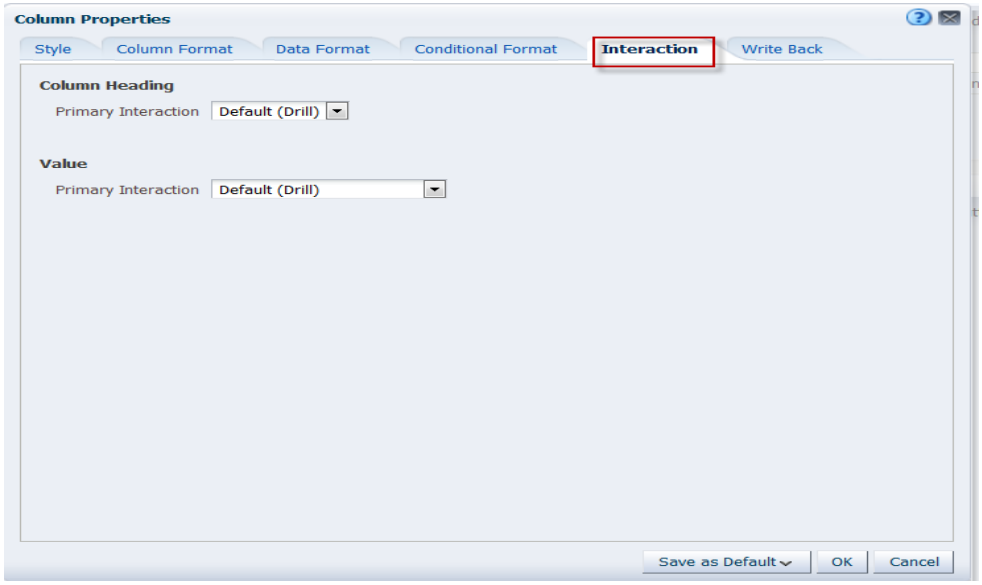
1. Navigate to **My Folder/Training** folder and select Count of Po's by Item ID" to click on Edit.



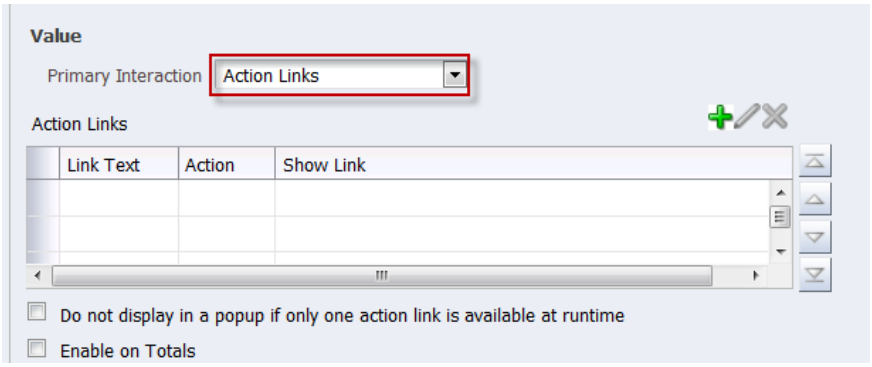
2. Click on Criteria tab and in Selected Columns section Hover over **Count of PO's** column **More** icon and select **Column Properties** from dropdown menu.



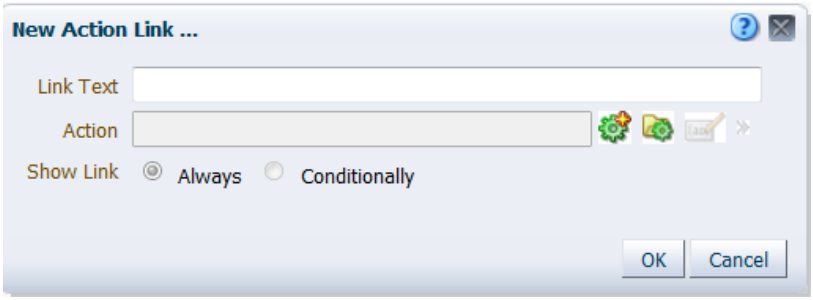
3. Column Properties dialoge opens, click on the **Interaction** tab.



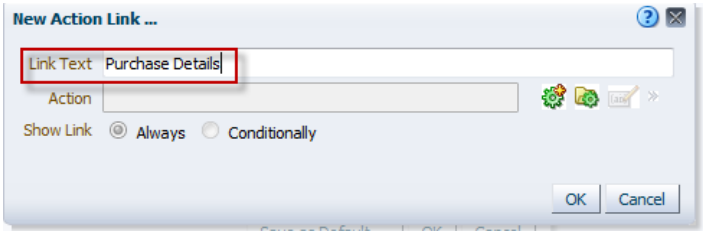
4. In the Value section (not the Column Heading section) select Action Links from Primary Interaction drop down menu.



5. Click on **Add** action link icon  .
   New Action Link… dialoge opens

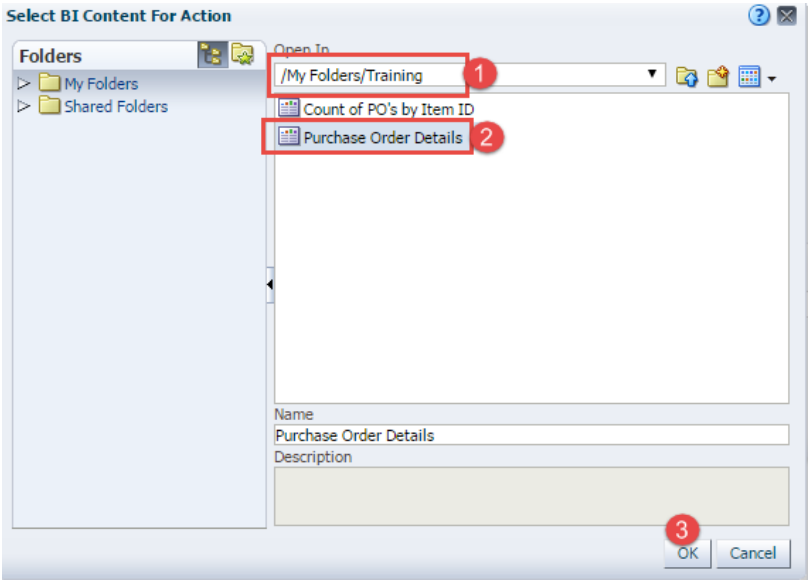


6. Enter "**Purchase Details**" in Link Text box.



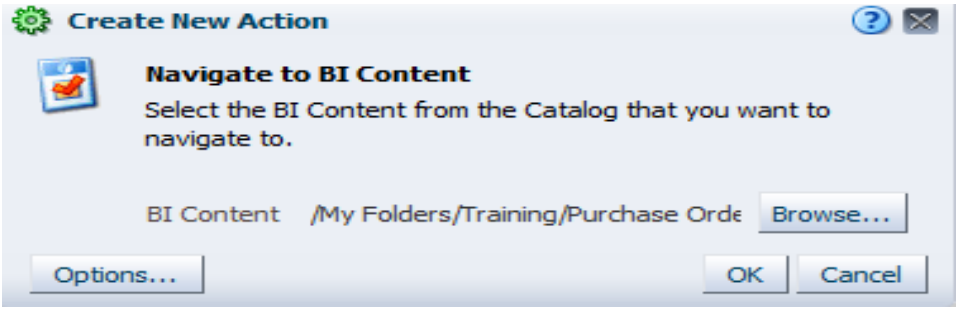
7. Click on **Create New Action** icon to select "**Navigate to BI Content**".

8. Select BI Content for Action dialoge opens, navigate to My Folders/Training folder and select **Purchase Order Details** analysis.



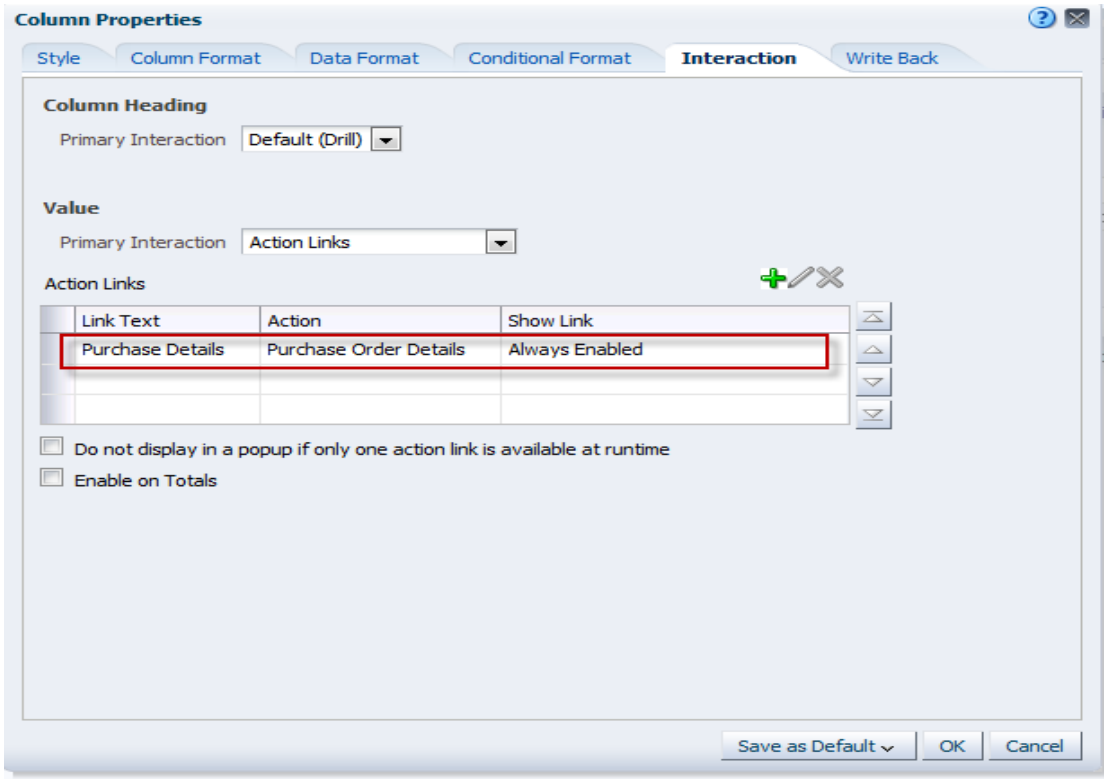
9. Click **OK**.

10. **Create New Action** dialoge appears as follows:-



Click **OK** then again Click **OK** to close New Action Link dialogue.

11. **Interaction** tab displays as follows:



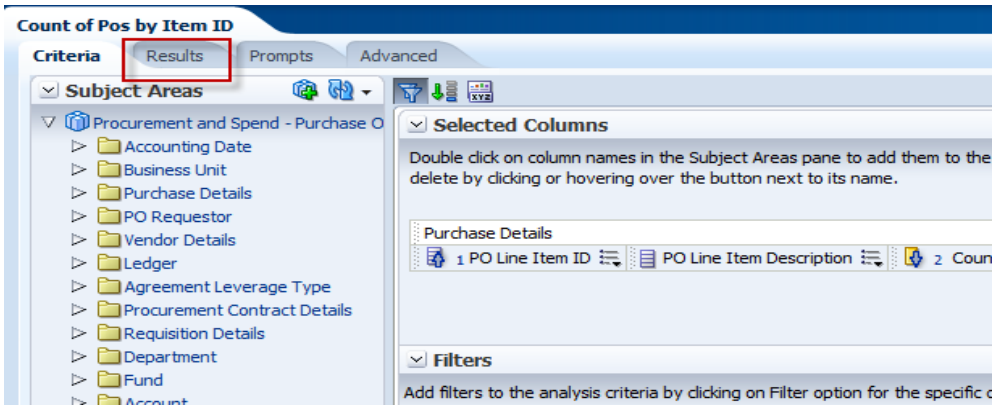
Click **OK** to close column properties dialoge.

12. **Save** the Analysis.

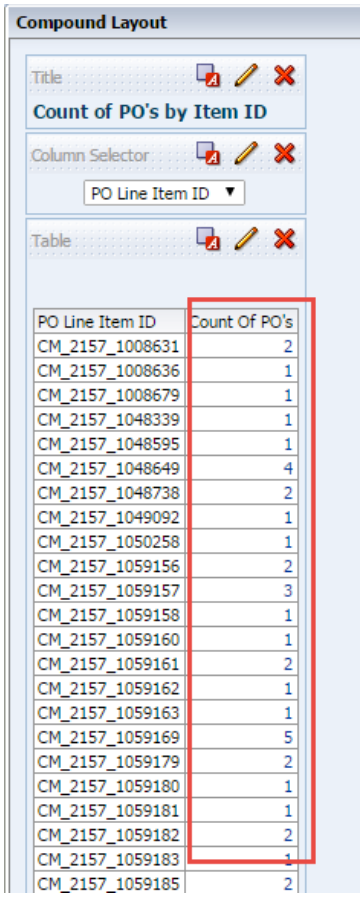
6.3 Test an Action Link

Guided Exercise

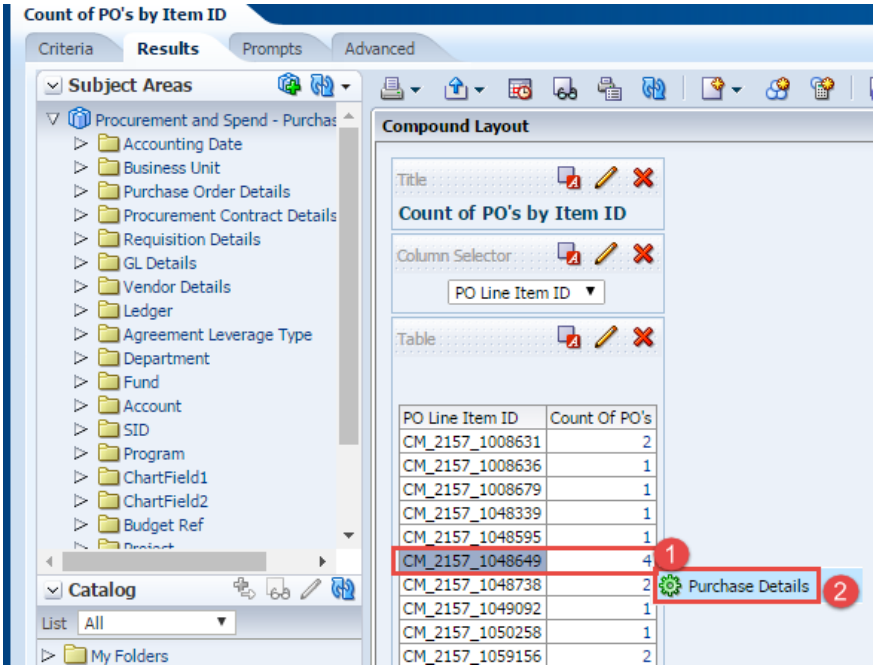
1. Click the **Results** tab.



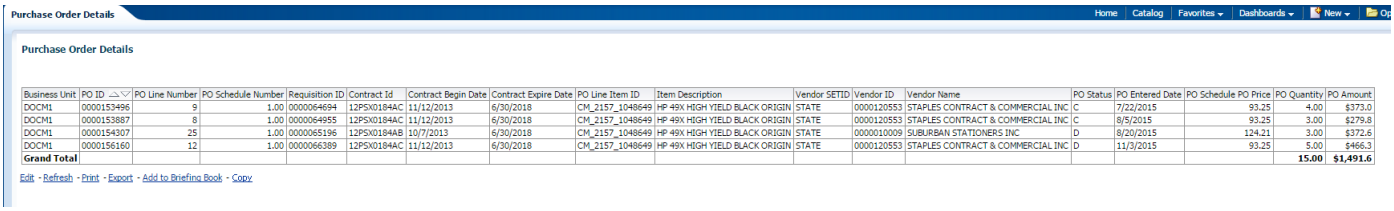
2. In the Results tab, all the values are highlighted with action links.



3. Click on a value in the Count of PO's column, then click on the Purchase Details link.

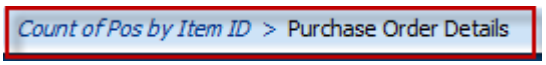


4. It will open a new window and will give you the PO Details of that **CM_2157_59241** Item.



Business Unit	PO ID	PO Line Number	PO Schedule Number	Requisition ID	Contract Id	Contract Begin Date	Contract Expire Date	PO Line Item ID	Item Description	Vendor SETID	Vendor ID	Vendor Name	PO Status	PO Entered Date	PO Schedule PO Price	PO Quantity	PO Amount
DOCM1	0000153496	9	1.00	0000064694	12PSX0184AC	11/12/2013	6/30/2018	CM_2157_1048649	HP 49X HIGH YIELD BLACK ORIGIN	STATE	0000120553	STAPLES CONTRACT & COMMERCIAL INC	C	7/22/2015	93.25	4.00	$373.0
DOCM1	0000153887	8	1.00	0000064955	12PSX0184AC	11/12/2013	6/30/2018	CM_2157_1048649	HP 49X HIGH YIELD BLACK ORIGIN	STATE	0000120553	STAPLES CONTRACT & COMMERCIAL INC	C	8/5/2015	93.25	3.00	$279.8
DOCM1	0000154307	25	1.00	0000065196	12PSX0184AB	10/7/2013	6/30/2018	CM_2157_1048649	HP 49X HIGH YIELD BLACK ORIGIN	STATE	0000010009	SUBURBAN STATIONERS INC	D	8/20/2015	124.21	3.00	$372.6
DOCM1	0000156160	12	1.00	0000066389	12PSX0184AC	11/12/2013	6/30/2018	CM_2157_1048649	HP 49X HIGH YIELD BLACK ORIGIN	STATE	0000120553	STAPLES CONTRACT & COMMERCIAL INC	D	11/3/2015	93.25	5.00	$466.3
Grand Total																**15.00**	**$1,491.6**

This release contains a new feature: **Breadcrumbs**.
Breadcrumbs have been added to help you understand your current location within OBI content and the path that you have used to navigate OBI content.
Observe the bottom left corner of My Dashboard. Breadcrumbs are active links that you can click to return to the place from which you navigated and to the state of the content when you left it.



5. Click on Count of PO's by Item ID to **return**.

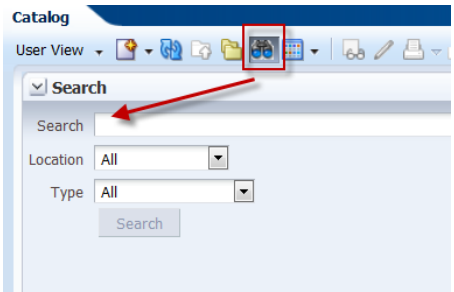
7. Search, Print and Export Analysis

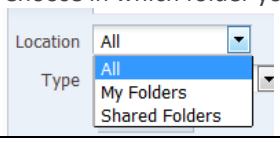
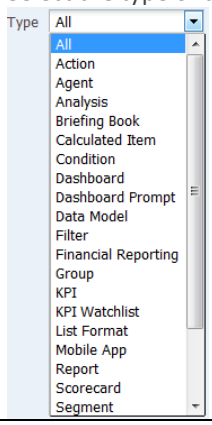
Introduction	We can search for objects in the Oracle BI Presentation Catalog. You can print analysis results to HTML and PDF formats. Additionally, you can export a complete list of analysis results to the following formats: · Download to Excel 2003 +exports the data in and the formatting as it displays in the view, including graphs, filters, etc… · The Download Web Archive is an HTML page and not modifiable. · Download Data exports just rows of data without formatting. · Download to PowerPoint exports to PowerPoint In this module, you will learn how to display analysis results in PDF format and Microsoft Excel©.
Objectives	At the end of this section, you will be able to complete the following tasks relating to: • Search an Analysis • Print Results to PDF • Export Results to Excel©

7.1 Search for an Analysis

The basic catalog search allows you to search for an object from the Global Header, Home page, or Catalog page. You can search for an object by its name, location, or type only, which is similar to using a Find dialog box in many products. You will find only those objects for which you have the appropriate permissions. When the desired object is located, you can click it to display it for viewing or editing, as your permissions allow.

Understanding Search elements:-



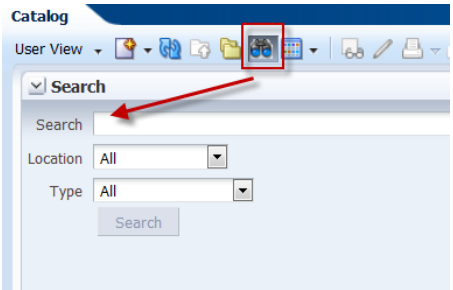
Elements	Description
Search	Enter the name of the Analysis, Dashboard, Prompts and so on.
Location	Choose in which folder you want to search. 
Type	Select the type of the Search you're looking for. 

Guided Exercise

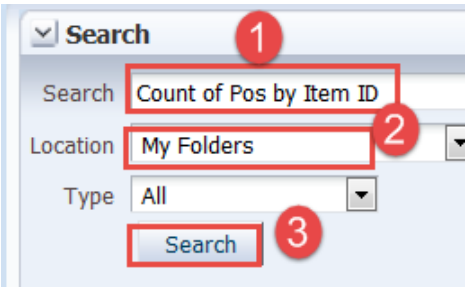
To search an analysis, follow the below steps:

1. On home page, click on Catalog in Global header.

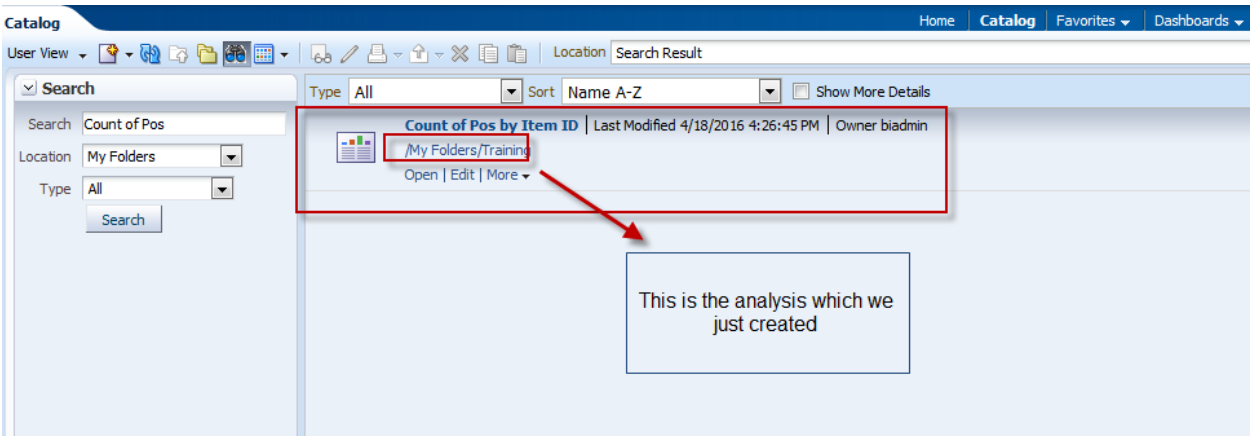
2. Now click on **Search** icon  in the Common Header.



3. Enter **Count of Pos by Item ID** under Search. And select **My Folders** as Location. Click **Search**.



Now it will display all the reports with **Count of Pos by Item ID** along with their folder path in My Folders.

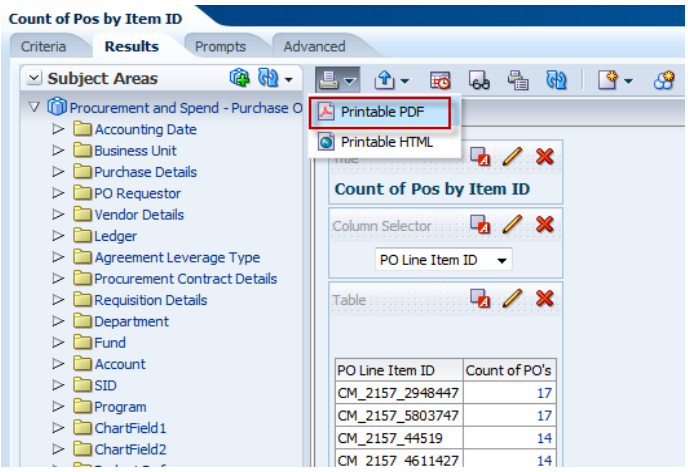


7.2 Print Results to PDF

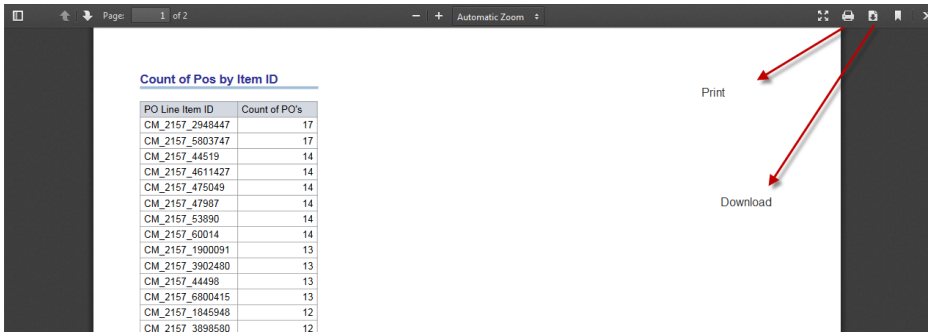
You can export analyses to a PDF format. By exporting analyses, you have the ability to print analyses as well as send an analysis to an individual.

Guided Exercise

Go to Results tabbed page, and click on **Print this Analysis** icon.



1. Click on **Printable PDF**, a new window opens with PDF version of the results. You can either save the analysis as PDF in your desktop or give print to printer.

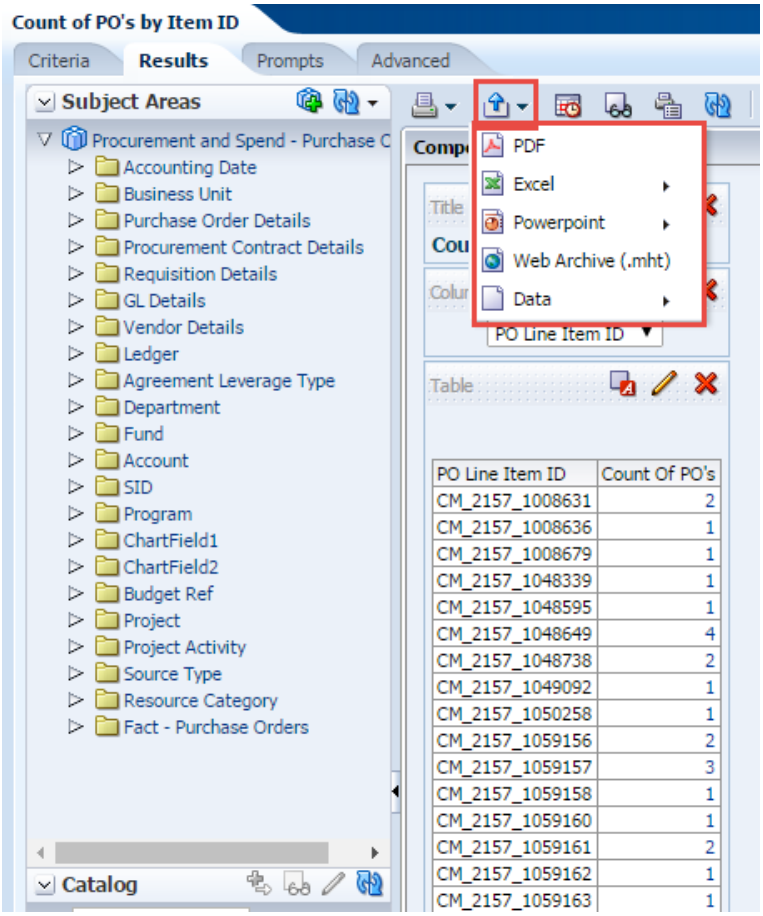


7.3 Export Results to Excel

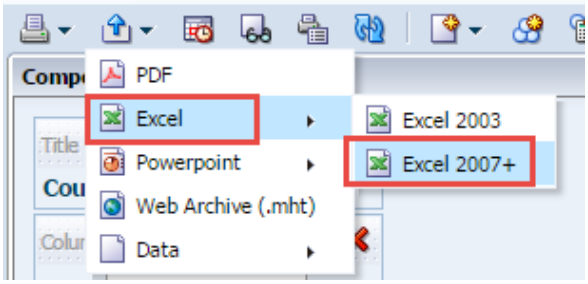
You have the ability to export an analysis to Microsoft Excel©. By exporting to Microsoft Excel©, you can save, print, email or manipulate the data in a spreadsheet.

Guided Exercise

1. Click Export this analysis icon on Results tabbed page.



2. Click **Excel** and **Save** the file



3. **Save** this Analysis.

8. Work with Dashboard Prompt

Introduction	A dashboard prompt is a special filter that filters analyses embedded in a dashboard.

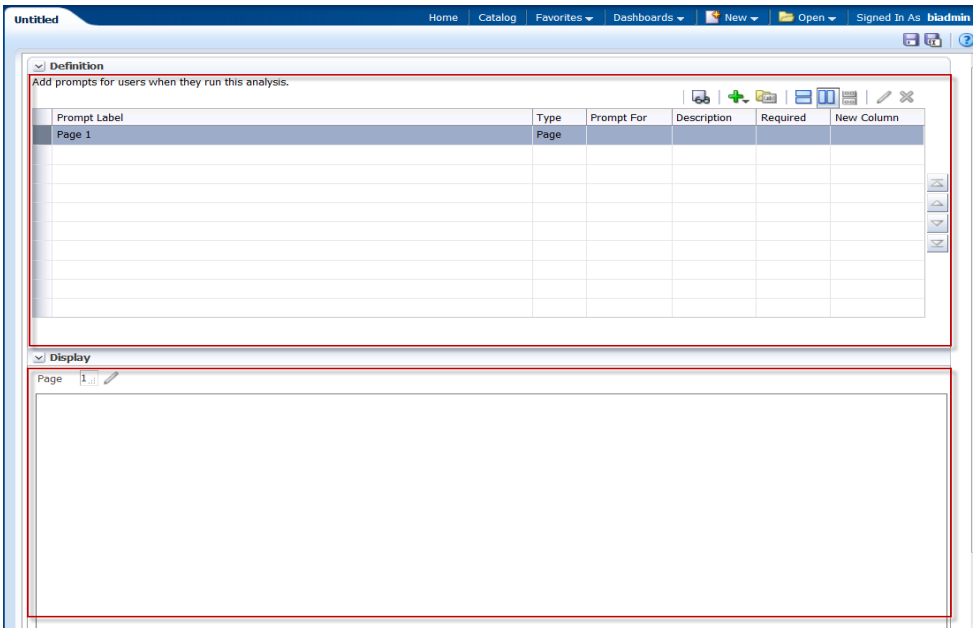
	The prompt created at the dashboard level is called a **Dashboard Prompt**, because, the prompt is created outside of a specific dashboard and stored in the catalog as a prompt object, which can then be applied to any dashboard or dashboard page that contains the columns, which are specified in the prompt. It can filter one or any number of analyses embedded on the same dashboard page. You can create and save these named prompts to a private folder or a shared folder. A **Dashboard Prompt** is interactive and will always appear on the dashboard page so that the user can prompt for different values without having to rerun the dashboard. A **Dashboard Prompt** can also interact with selection steps. You can specify a dashboard prompt to override a specific selection step. The step will be processed against the dashboard column with the user-specified data values collected by the dashboard column prompt, whereas all other steps will be processed as originally specified.
Objectives	At the end of this section, you will be able to complete the following tasks related to creating Dashboard Prompts. • Create a Dashboard Prompt

8.1 Understand a Dashboard Prompt

A prompt that is created at the dashboard level is called a dashboard prompt because the prompt is created outside of a specific dashboard and is stored in the catalog as an object, which can then be added to any dashboard or dashboard page that contains the columns that are specified in the prompt. Dashboard prompts are reusable, because you can create one prompt and use it many times. When the prompt object is updated and saved, those updates are immediately displayed in all dashboards where the prompt is used. A dashboard prompt is interactive and is always displayed on the dashboard page so that the user can prompt for different values without having to re-run the dashboard. Users can create and save dashboard prompts to either a private folder or to a shared folder.

Navigating and Understanding Dashboard Prompt

1. Dashboard prompt screen opens which will have two sections Definition & Display section.



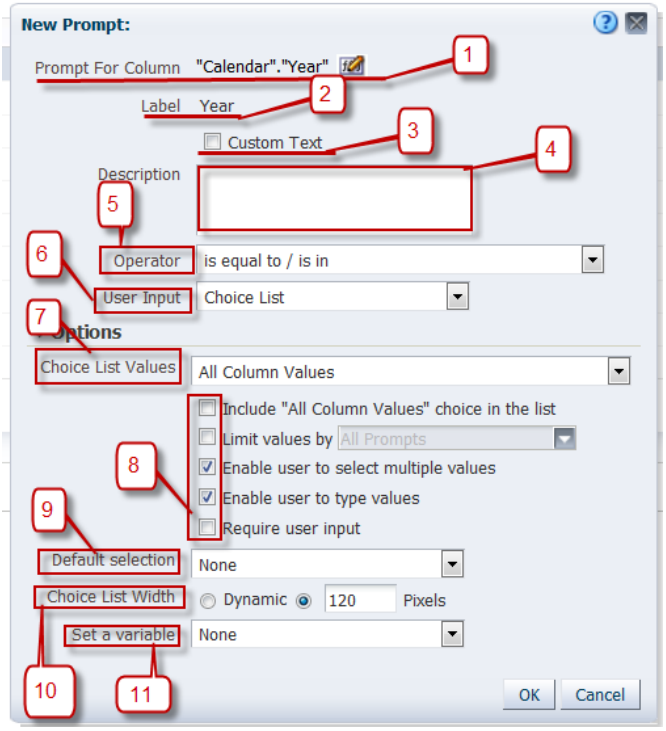
The **Definition pane** allows you to add, organize, and manage a named prompt's columns. You can use column prompts, image prompts (maps), currency prompts, and variable prompts. The Definition table lets you view high-level information about the prompt's columns. You can also use this table to select columns for editing or deleting, arrange the order in which the prompts appear to the user, or insert row or column breaks between prompt items.

The **Display pane** is a preview pane that allows you to view the prompt's layout and design.

2. Definition pane:-

Elements	Description
1. New	Used to add a new Column prompt, Variable prompt or Image prompt
2. Column / Row based layout	This is used to select the type of layout you want on the prompts page either Column or Row based.
3. Edit	Edit Prompt
4. Delete	Delete Prompt

3. New Column Prompt dialog, for example we will select **Year.**



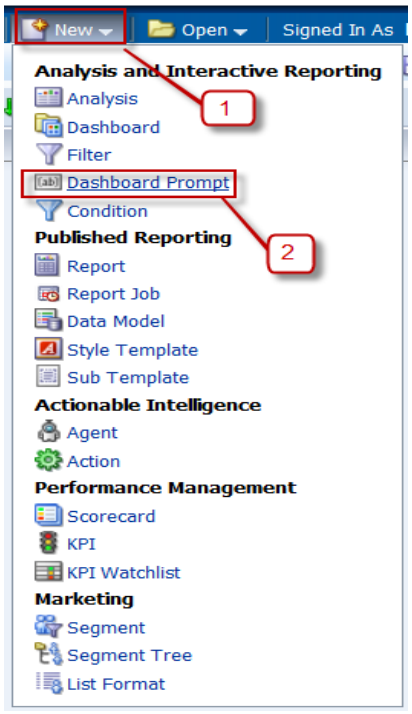
Elements	Description
1. Prompt for Column	It shows the column name of the prompt
2. Label	It is label which will be displayed
3. Custom Text	Enable this to change the default Label
4. Description	We can add description for this column
5. Operator	Choose appropriate operator
6. User Input	The User Input field's drop-down list appears for column and variable prompts and provides you with the option to determine the User Input method for the user interface—in other words, the user will see one of the following: check boxes, radio buttons, a choice list, or a list box. . You use this item in conjunction with the **Choice List Values** item to specify which data values appear for selection.
7. Choice List Values	The Options section provides you with the opportunity to constrain values available for selection. None All Column Values Specific Column Values SQL Results Members of Groups All Column Values and Specific Groups
8. Include "All Column Values" choice in the list Limit values by All Prompts Enable user to select multiple values Enable user to type values Require user input	The series of checkboxes allow you to restrict the amount of data returned. Select **Enable user to select multiple values**, and **Require user input**. Allowing multiple selection of values lets you choose more than one value (region for example), and requiring input forces you to enter at least one value.
9. Default Selection	It allows you to selection an initial value
10. Choice List Width	You the change the width of the Choice List by enabling dynamic or fixing it.
11. Set a variable	It allows you to create a new variable that this column prompt will populate

8.2 Create Dashboard Prompt

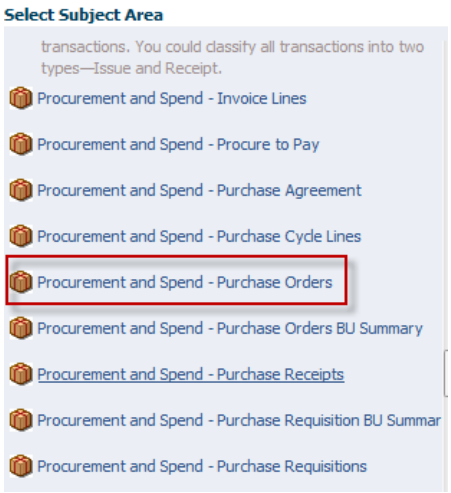
Next we will create Dashboard Prompt with two columns from Procurement and Spend - Purchase Orders subject area.

Guided Exercise

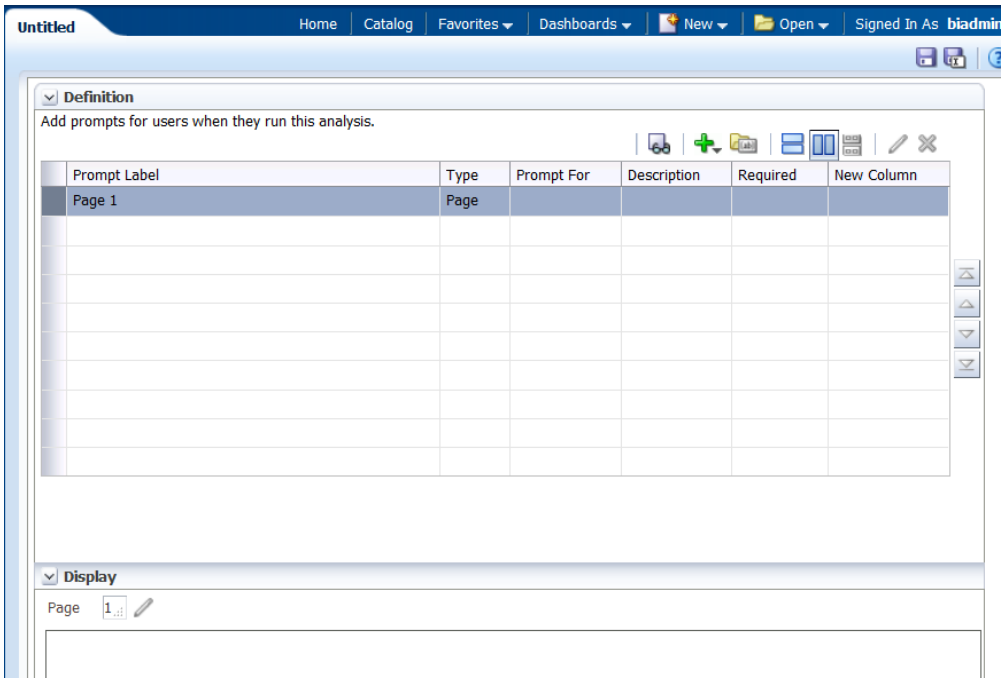
1. Click on **New** icon from global header and select **Dashboard Prompt.**



2. Select **Procurement and Spend - Purchase Orders** from the Subject Area dialog.

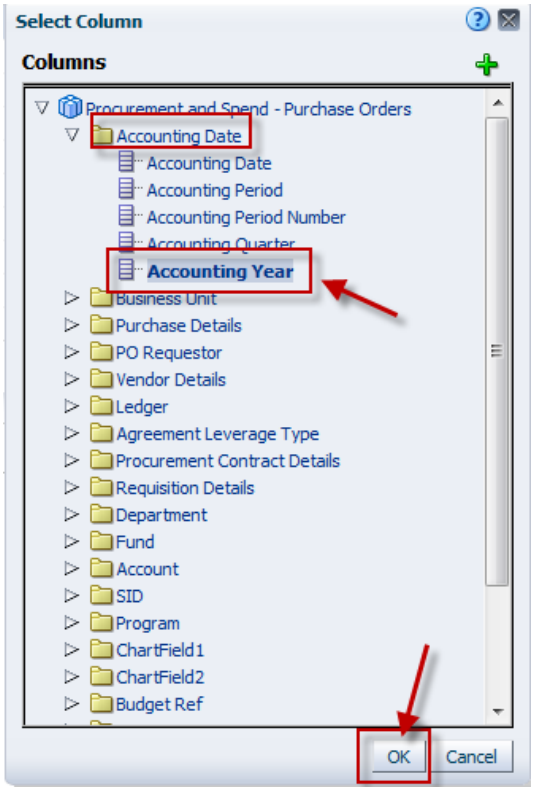


It will open Dashboard Prompt window:

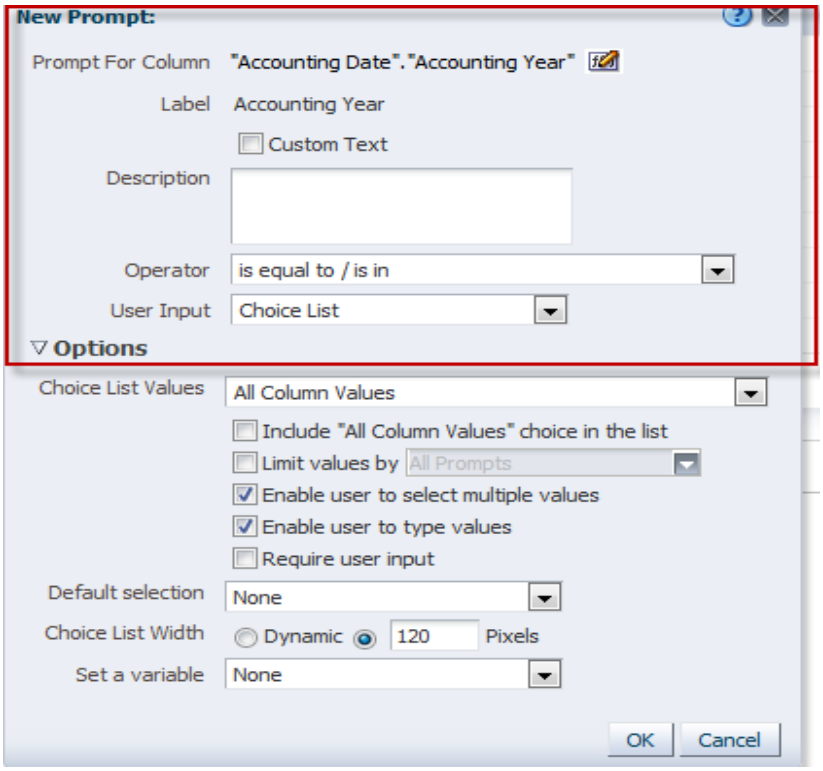


3. Click on **New** icon and select **Column Prompt**.

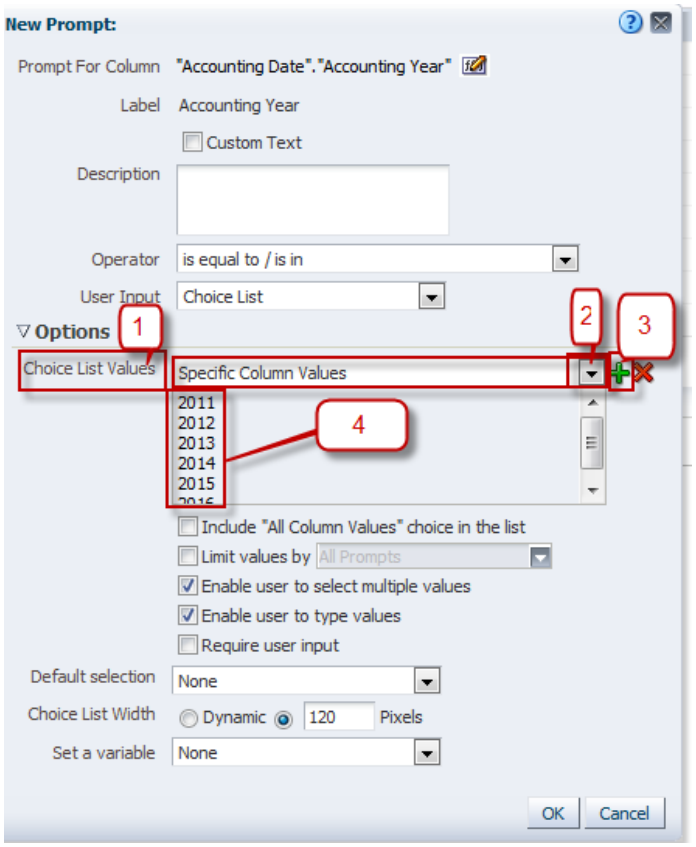
Subject Area with select column dialog opens: Expand Accounting Date and select **Accounting Year.**



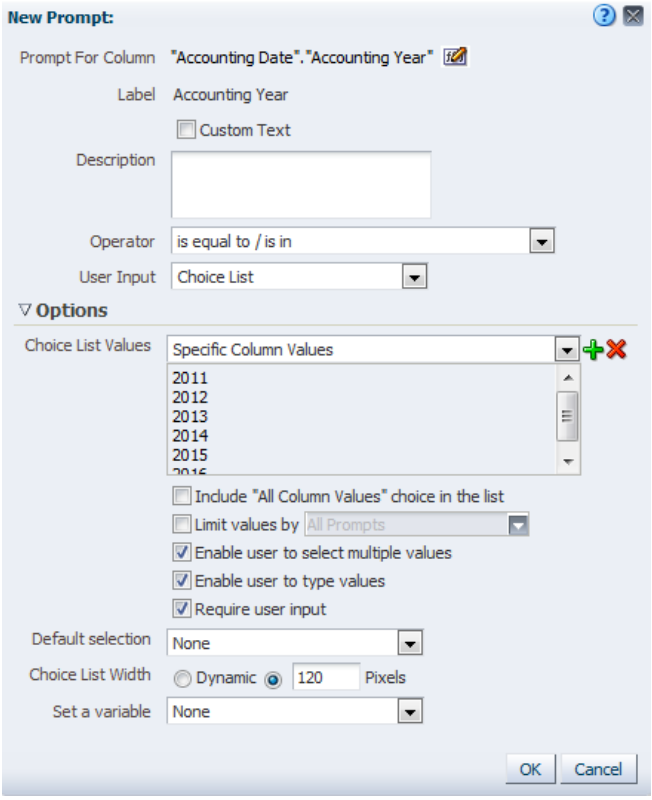
4. **New Prompt** dialog opens. Leave the defaults in the top section.



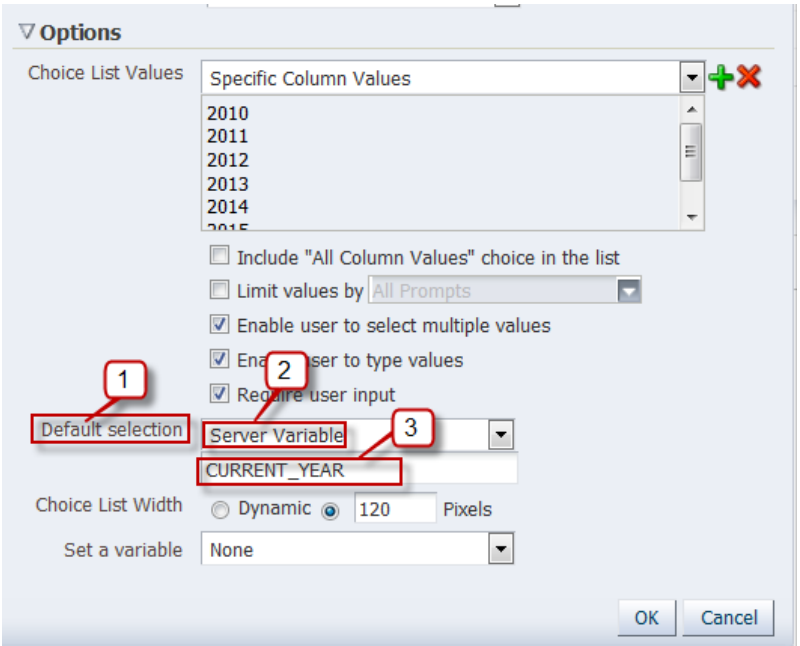
5. Click on **Choice List Value** drop down menu to select "**Specific Column Values**". Then click on **Add** icon next to it, and select Years from 2011 to 2016.



6. Enable **Require user Input**.

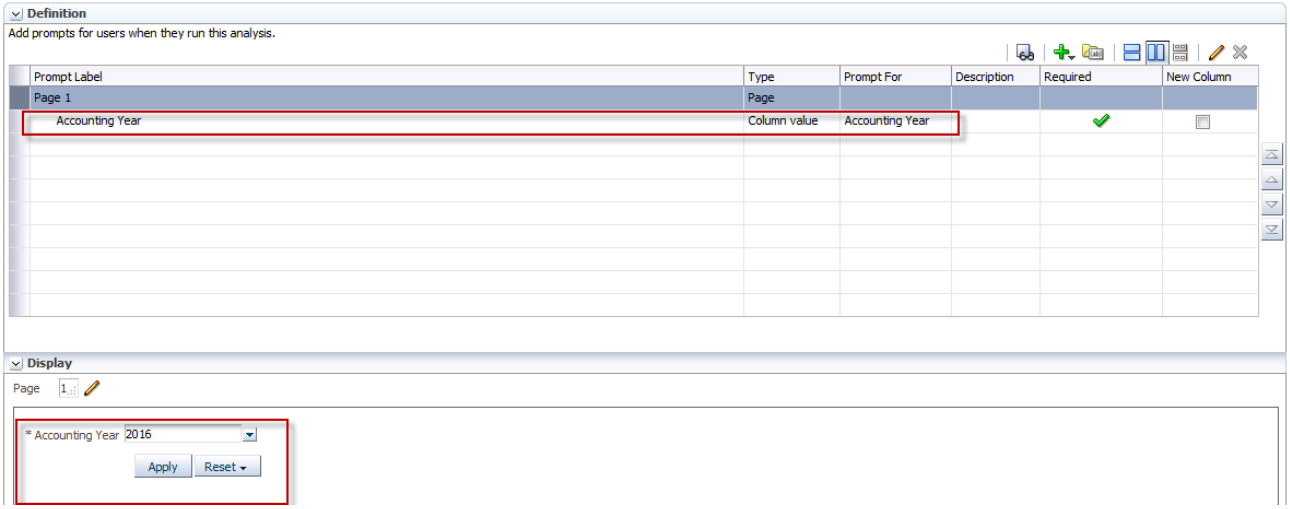


7. Click on Default selection drop down menu to select **Server Variable** and then type **CURRENT_YEAR**.



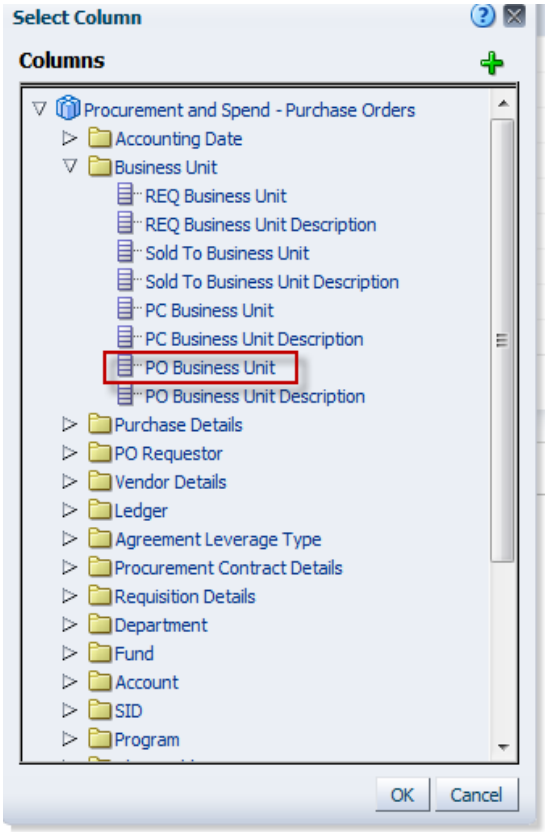
8. Click **OK** to close the Prompt.

9. The Definition pane and Display pane appears as follows:-

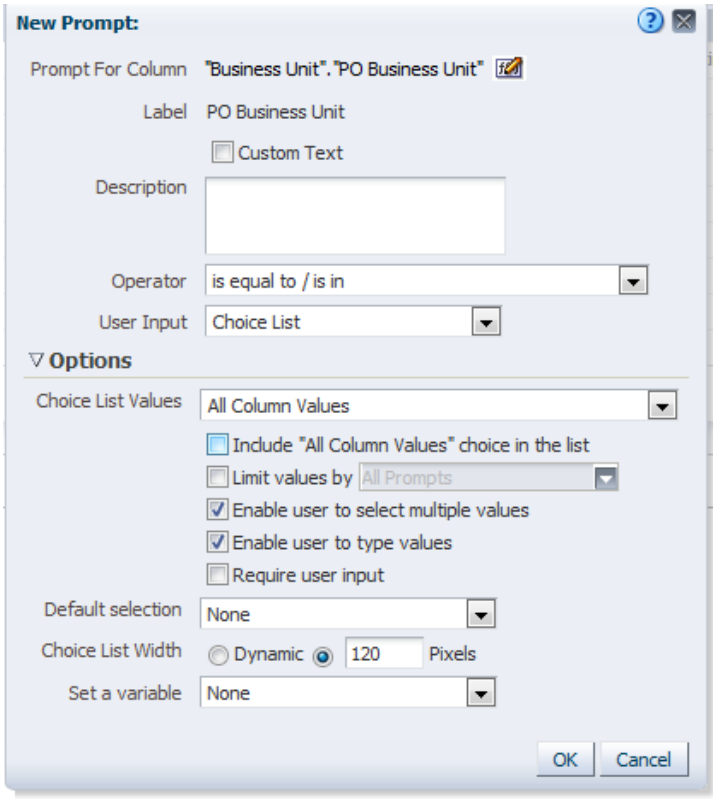


Next we will add **PO Business Unit** in similar way.

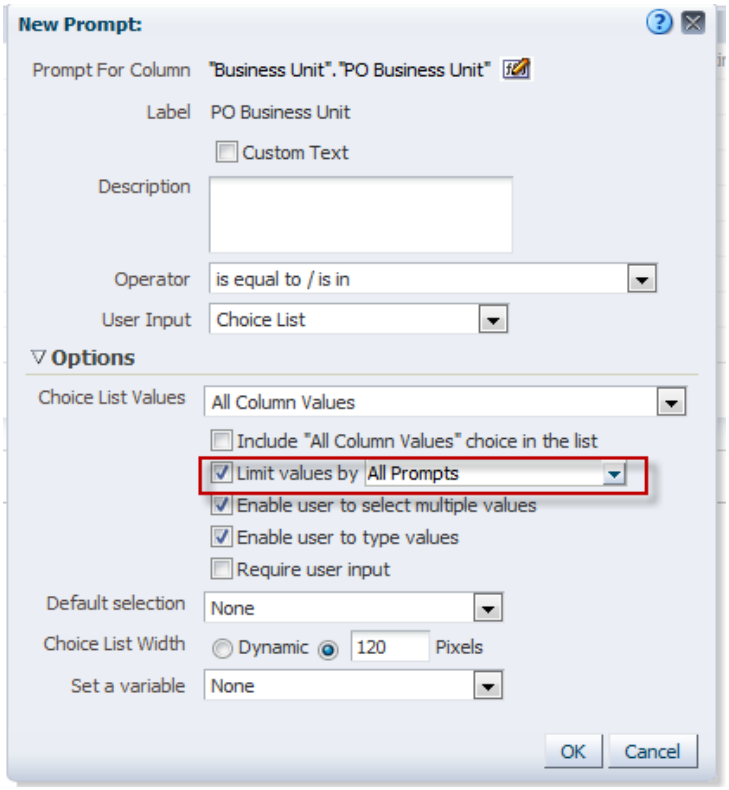
1. Click Add icon to select **Column Prompt** and select PO Business Unit by expanding Business Unit folder.



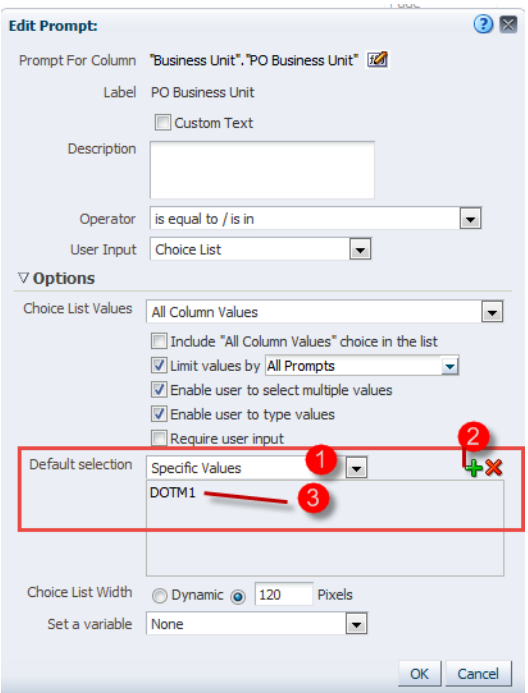
2. PO Business Unit Prompt dialog opens:



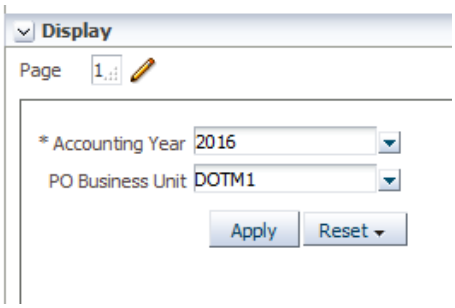
3. Enable **Limit values by**.



4. Change Default Selection to Specific Values and Choose DOTM1 and click on **OK**.

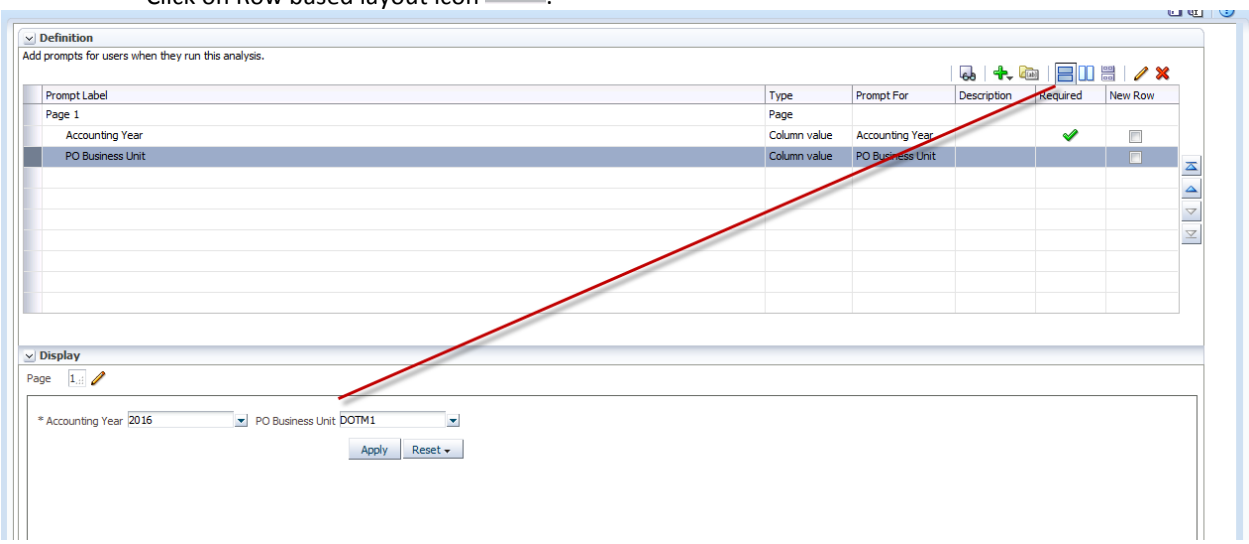


5. Click **OK** to close the dialog and see the Defintion and Display pane.

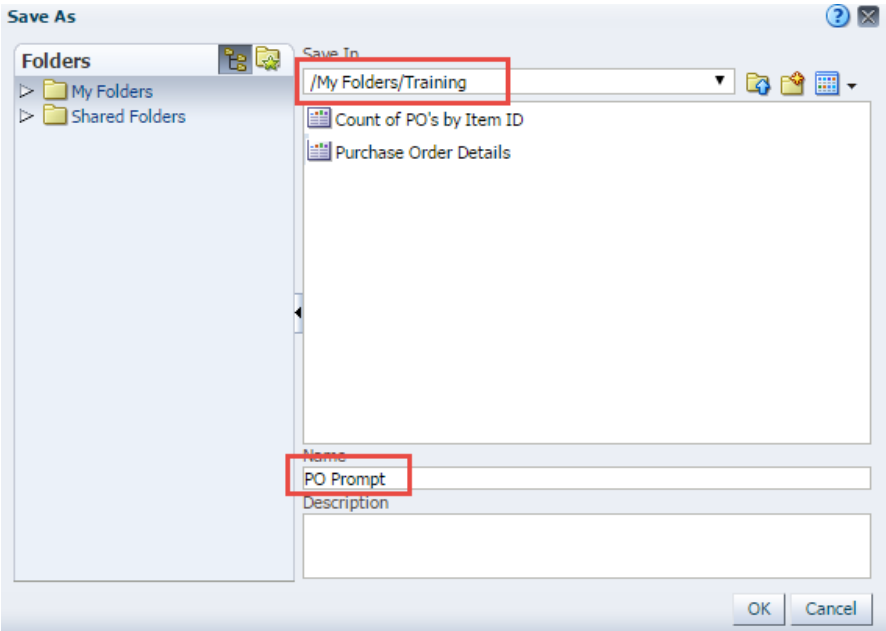


6. In Display pane the prompts layout is based on Column. We will change it to **Row based layout**.

Click on Row based layout icon .

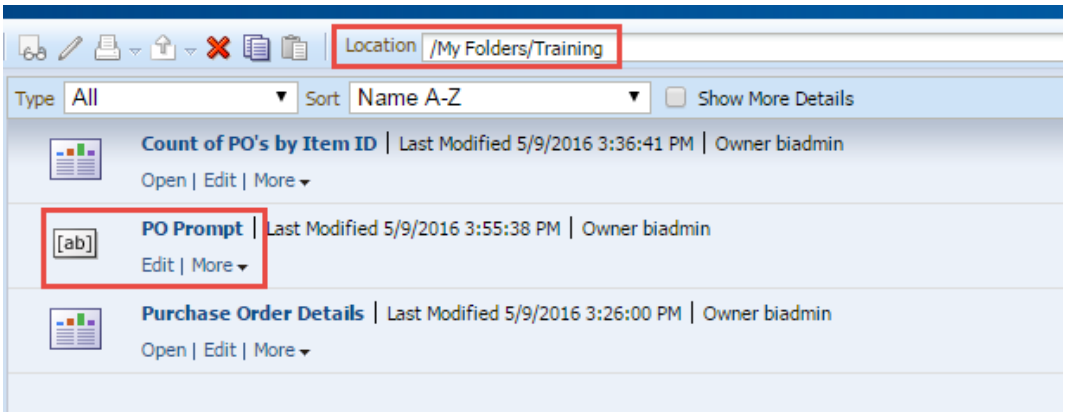


7. **Save Dashboard Prompt** under My Folders/Training as PO Prompt.



Click **OK**

8. Navigate to **My Folders/Training** to view the Dashboard Prompt.



9. Build & Design Dashboard

Introduction	In this topic, you will learn about **My Dashboard** view and adding a saved analysis and dashboard prompt that you have created previously. Dashboards provide personalized views of corporate and external information. Based on your permissions, you can view pre-configured dashboards or create your own personalized views. Users with administrative privileges can create shared dashboards for groups of users with common responsibilities or job functions. The ability to create and edit dashboards is controlled by the **Manage Dashboard** privilege, which is managed by the administrator. You can view your personalized views by selecting My Dashboard from the Dashboards drop-down list. You can also set My Dashboard as your default dashboard. Pre-configured dashboards appear in the Dashboards drop-down list. They can be created by administrators and shared with groups of users with common responsibilities or job functions.
Objectives	At the end of this section, you will be able to complete the following tasks related to building a Dashboard. • Understanding & Navigating My Dashboard • Build My Dashboard • Edit My Dashboard • Save a Dashboard Customization • Set Preference • Export My Dashboard to Excel Spreadsheet

9.1 Understanding and Navigating My Dashboard

Understanding Dashboards

Dashboards consist of multiple pages, which display as tabs across the top of the dashboard screen. Additionally, Analysis Editor Users have a personal dashboard, called My Dashboard, which enables you to personalize content to meet your requirements.

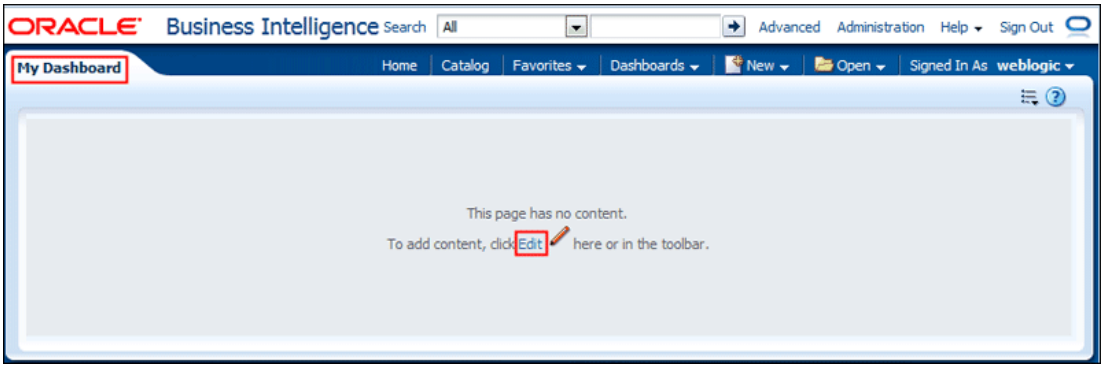
Pages can display anything that you can access or open with your Web browser, such as saved OBI analyses, images, graphs, tables, text, and links to Web sites and documents.

Dashboard objects are items that are used only in a dashboard. Examples of dashboard objects are sections to hold content, navigation links, and embedded content appearing within a frame in a dashboard.

You can add content to your personal dashboard by clicking and dragging it from the Dashboard Objects section onto the dashboard layout page, which consists of columns used to align content, and sections used to hold content. The look of a dashboard, such as background colors and the size of text, is controlled by styles and skins. You can modify individual objects on the dashboard to change the overall page appearance.

Navigate My Dashboard

1. The initial My Dashboard page.

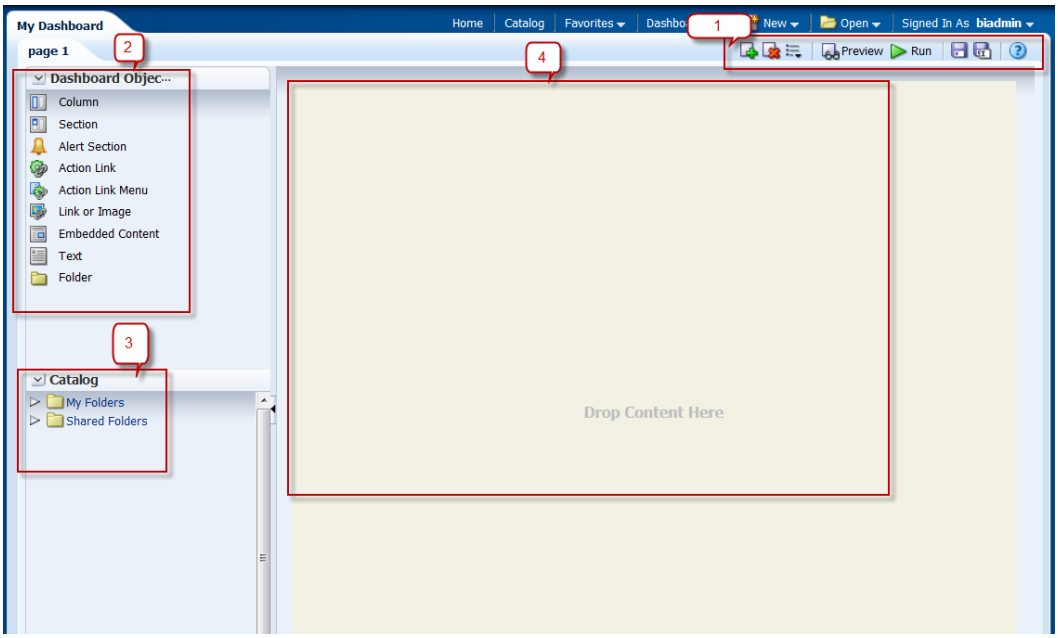


When you open a dashboard, including My Dashboard, the content appears in one or more dashboard tabbed pages. Pages contain the columns and sections that hold the content of a dashboard, and every dashboard has at least one page. Multiple pages are used to organize content.
This example shows an empty My Dashboard page with no content. Hover over the Edit icon to edit the dashboard and add content.

Note: If you have chosen or if your company has setup My Dashboard as your default, then you use dashboard template pages to populate your personal dashboards (My Dashboard) when you first log in as a new user. This allows you to see one or more dashboard pages with content, rather than an empty dashboard. It also gives you a starting point to build your own dashboard pages.

2. The Dashboard Builder appears and automatically creates **page 1** of your dashboard (the first tabbed page).

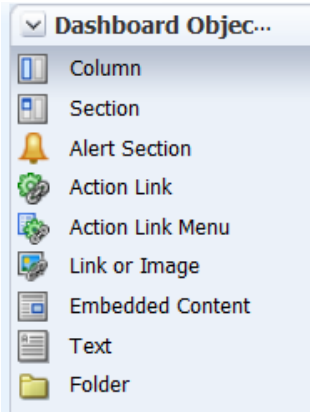
Using the Dashboard Builder, you can add pages and objects to a dashboard and control the page layout. The Dashboard Builder is composed of the following:



Sections	Description
1. Dashboard Toolbar	The toolbar allows you to perform tasks such as adding or deleting pages, previewing, saving, and so on.
2. Dashboard Objects pane	Items that are used only in a dashboard. Examples of dashboard objects are sections to hold content, action links, and embedded content that is displayed in a frame on a dashboard
3. Catalog pane	Items that you or someone else has saved to the Catalog, for example, analyses, prompts, and so on. In a dashboard, the results of an analysis can be shown in various views, such as a table, graph, and gauge. (The results of an analysis are the output that is returned from the OBI Server that matches the analysis criteria.) Users can examine and analyze results, save or print them, or download them to a spreadsheet.
4. Page Layout pane	This is a workspace that holds your objects, which are displayed on the dashboard.

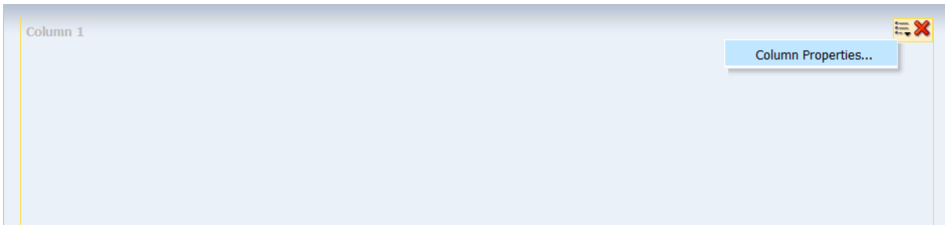
Dashboard Object Pane: -

As mentioned above, the Dashboard Objects pane provides you with a list of objects to add as content to a dashboard page. You will have to drag the object to the Page Layout pane on the right.



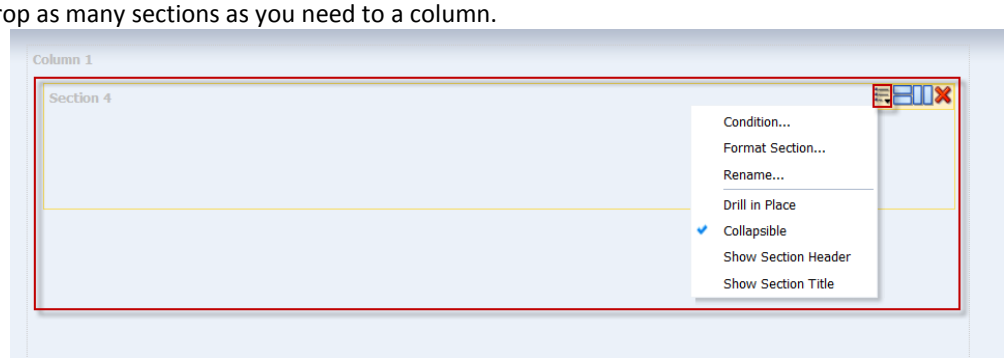
Two most imp objects used from Dashboard Object pane are as follows:-

Columns are used to align content on a dashboard. (Sections within columns hold the actual content.) You can create as many columns on a dashboard page as you need.



We can click on Column Properties of Column and change the style, alignment, font, color and soon.

Sections are used within columns to hold the content, such as action links, analyses, and so on. You can drag and drop as many sections as you need to a column.

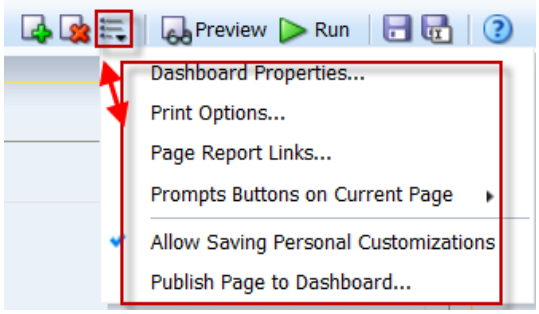


Elements	Desription
Conditions	You use conditions to determine the following: Whether sections and their content appear on the dashboard page • Whether agents deliver their content and execute their actions • Whether action links appear on dashboard pages Conditions are evaluated based on a Boolean expression; in other words, the condition is either True or False
Format Section	Use this option to display the Section Properties dialog box, where you specify the properties for the section, such as cell alignment and border color.
Rename	Use this option to display the Rename dialog box, which allows you to rename the section.
Drill in Place	Use this option to specify how the results appear when a user drills in an analysis. If a check mark appears in front of the “Drill in Place” option, the original analysis is replaced when the user drills (the section will

	automatically resize to fit the new analysis). If the check mark is not present in front of "Drill in Place," the entire dashboard content is replaced. Use this option for prompts that are created for hierarchical columns. Note: You can use the back button in the browser to view the original analysis.
Collapsible	Use this option to specify whether the user can expand and collapse this section on a dashboard page or whether the section is always expanded. If a check mark appears in front of the Collapsible option, you can expand and collapse the section.
Show Section Header	Use this option to specify whether to display the header for the section, which initially includes the title of the section. You can hide the title using the Show Section Title option.
Show Section Title	Use this option to specify whether to display the title of the section.

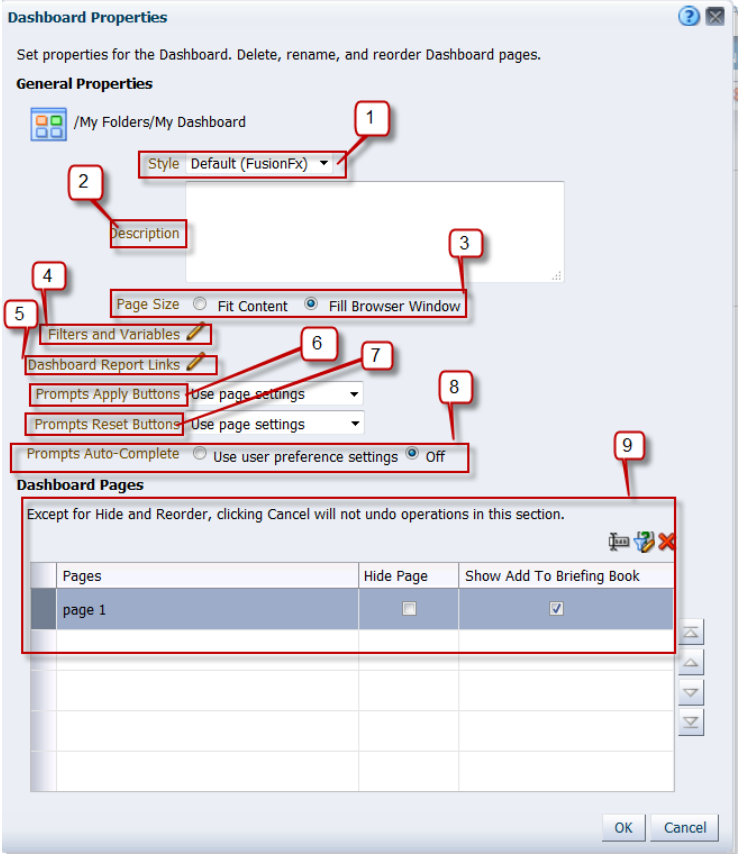
Dashboard Toolbar pane: -

The toolbar allows you to perform tasks such as adding or deleting pages, previewing, saving, and so on.



Add Dashboard Pages	It is used to add pages on the dashboard
Delete Current Page	When there are single or multiple page then It deletes the current page.
Tools	It provides options to set dashboard properties, Print options, set page report links, and so on
Preview	We can Preview the content on the dashboard before saving the Dashboard
Run	After saving the dashboard page click on Run to view the Dashboard.

Dashboard Properties:-



Elements	Description
1. Style	Styles control how dashboards and results are formatted for display, such as the color of text and links, the font and size of text, the borders in tables, the colors and attributes of graphs, and so on
2. Description	Descriptions are displayed when OBI Administrators use the Catalog Manager
3. Page Size	Use these options to specify how a dashboard page is to be sized **Fit Content** — This option sizes the container to the content with no wrapping. If the browser window is smaller than needed to fit the content, a scroll bar is displayed. **Fill Browser Window -** Sizes dashboard columns to the largest section in each column Expands columns (except columns for which a specific absolute size has been specified) and sections proportionally to fill the browser window, if there is any additional horizontal space in the browser window. Aligns content within columns and sections in the center, by default
4. Filters and Variables	To define default filters and variables, embed dashboard prompts with default values. These prompts will not be shown on the dashboard.
5. Dashboard Report Links	The report links at the dashboard level. Report links can be set at the dashboard, dashboard page (click Page Options> Page Report Links), or analysis level (click the properties icon for the specific analysis within the Dashboard Builder and then select Report Links).
6. Prompt Apply Buttons	Use this list to specify if you want to include or exclude the prompt's **Apply** buttons on the dashboard at runtime **Use page setting** — Select this option to use the **Apply** buttons as defined by the dashboard page settings **Show All Apply buttons** — Select this option to override the

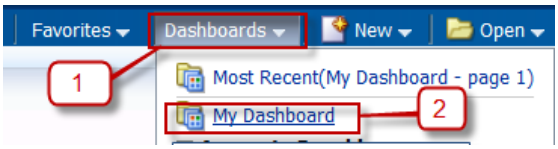
	dashboard page setting's **Apply** button preferences and show the **Apply** buttons for the prompts included on the dashboard and embedded analyses **Hide All Apply buttons** — Select this option to override the dashboard page setting's **Apply** button preferences and hide the **Apply** buttons for the prompts included on the dashboard and embedded analyses.
7. Prompts Reset Buttons	Use this list to specify whether you want to include or exclude the prompt's **Reset** buttons on the dashboard at runtime **Use page setting** —Select this option to use the **Reset** buttons as defined on the dashboard page settings **Show All Reset buttons** — Select this option to override the dashboard page setting's **Reset** button preferences and show the **Reset** buttons for the prompts included on the dashboard and embedded analyses. **Hide All Reset buttons** — Select this option to override the dashboard page setting's **Reset** button preferences and hide the **Reset** buttons for the prompts included on the dashboard and embedded analyses.
8. Prompts Auto Complete	Use this option to enable or disable the auto-complete functionality for the dashboard. When enabled, OBI suggests and highlights matching prompt values as the user types in the dashboard's prompt selection field, and highlights matching prompt values in the "**Select Values dialog**"
9. Dashboard Pages	Displays the pages in the dashboard. Use this area to perform operations (such as hide or rename) on dashboard pages using the dashboard pages toolbar buttons.
10. Dashboard Page toolbar	This toolbar contains the following buttons: • **Rename** — Use this button to display the "Rename dialog", where you specify a new name for the page in the dashboard. • **Select a prompt to capture default filters and variables** — Use this button to display the "Filters and Variables – page dialog", which enables you to add hidden named prompts to the dashboard page. • **Permissions** — Use this button to display the "Permission dialog", where you specify which accounts have which levels of access to the contents of the dashboard page. The **Permissions** button is displayed for shared dashboards only, and only if your user ID is authorized to access the security features. • **Delete** — Use this button to delete the page from the dashboard. After you click the button, you see a page that prompts you to confirm the deletion. • **Specify Who Can Save Shared Customizations** — Use this button to display the Permission dialog, where you specify which accounts can save shared customizations for the page. • **Specify Who Can Assign Default Customizations** — Use this button to display the Permission dialog, where you specify which accounts can assign default customizations for the page.

9.2 Build My Dashboard

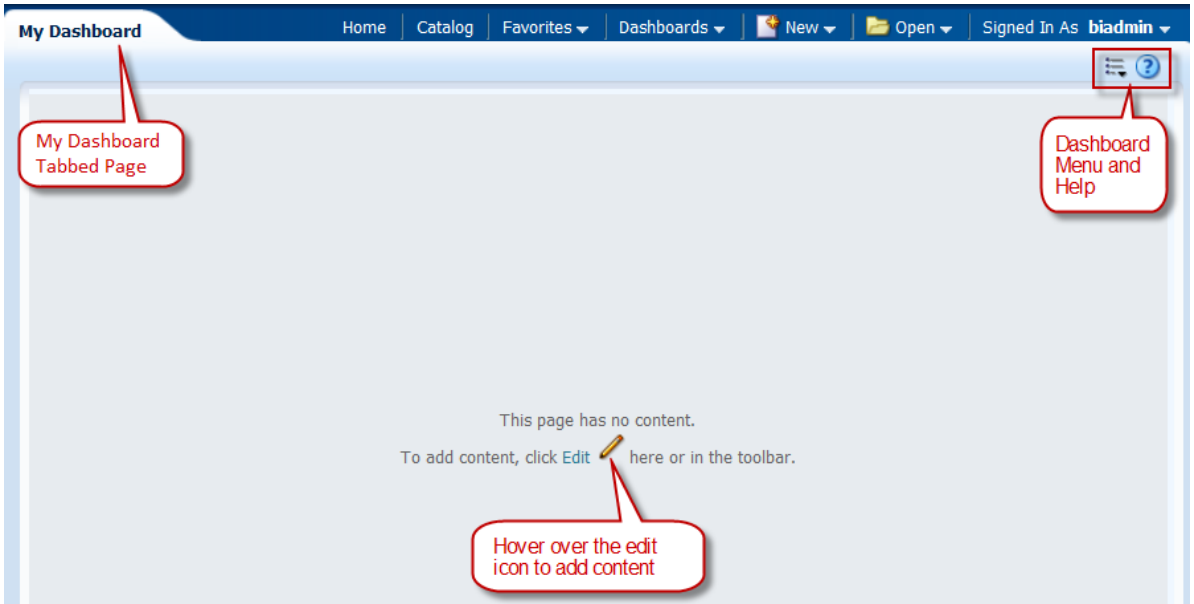
In this section, we will build My Dashboard which will have two pages.

Guided Exercise

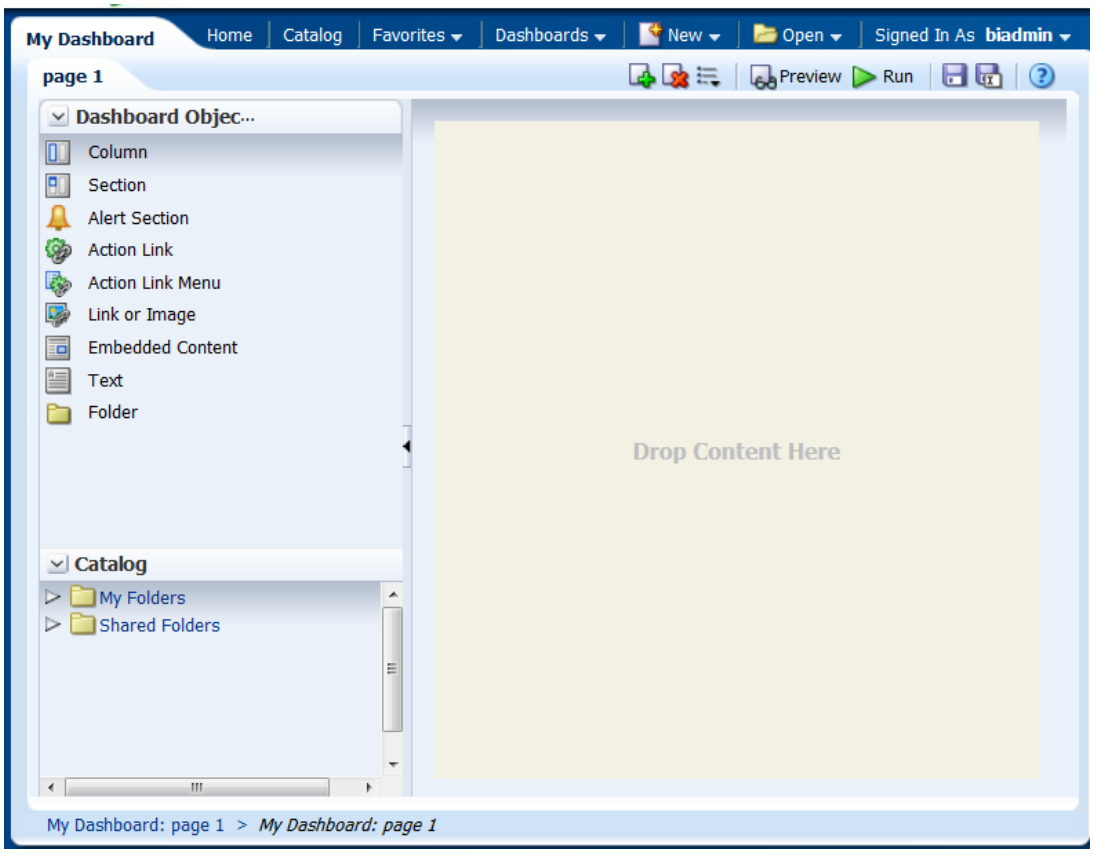
1. Click the **Dashboards** link on the global header and then click **My Dashboard.**



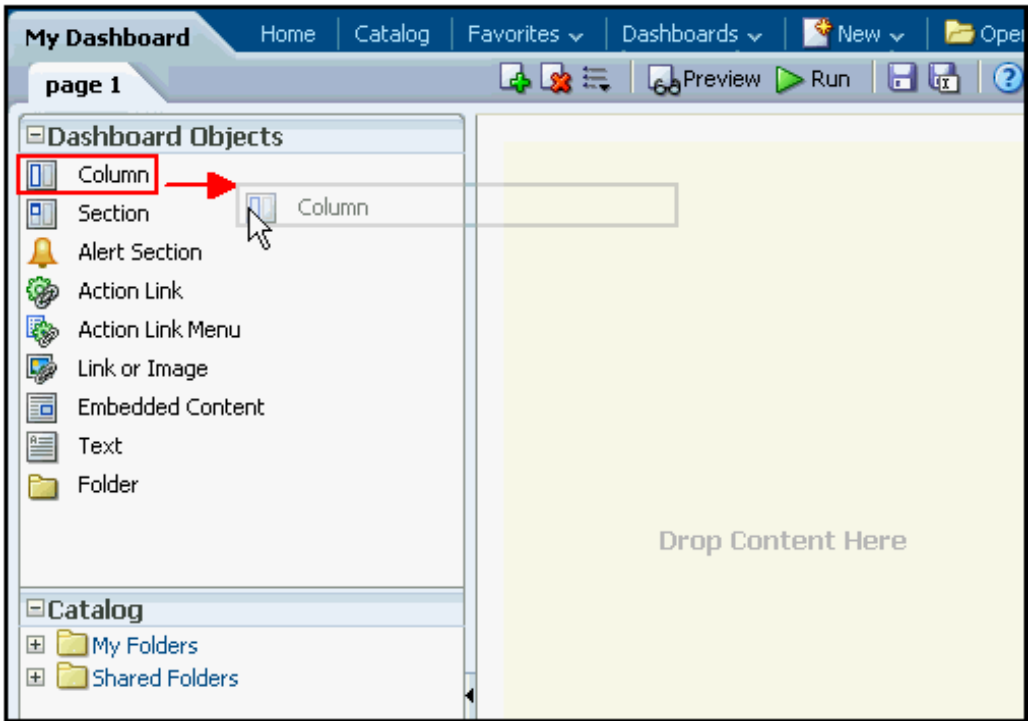
An empty My Dashboard page appears.



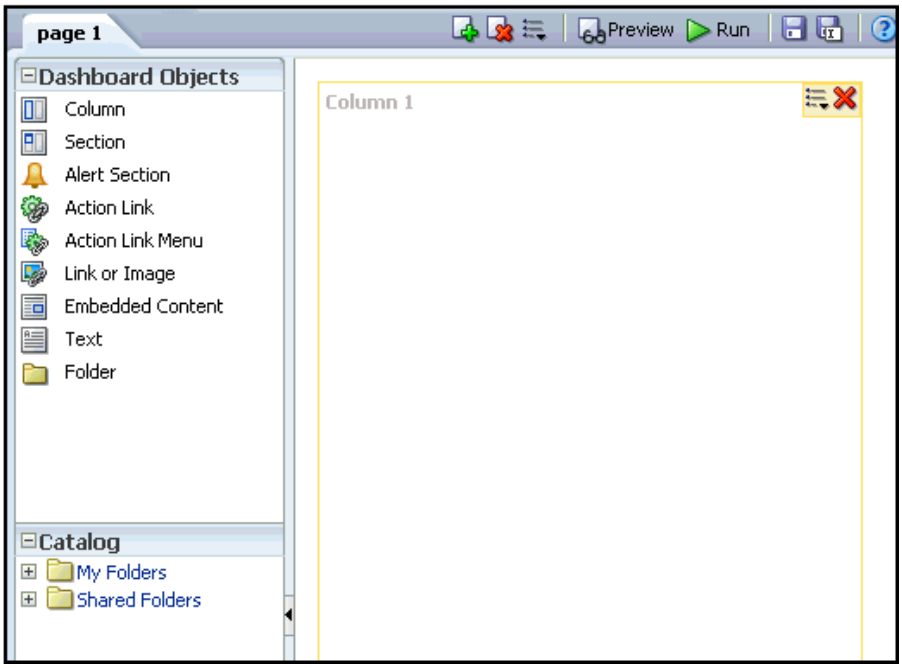
2. Click the **Edit** icon ( ) to add content to your empty dashboard page.
   The Dashboard Builder appears and automatically creates **page 1** of your dashboard (the first tabbed page).



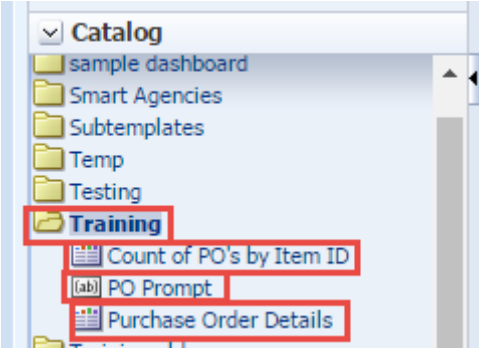
3. Drag the **Column** object onto the Page Layout pane.



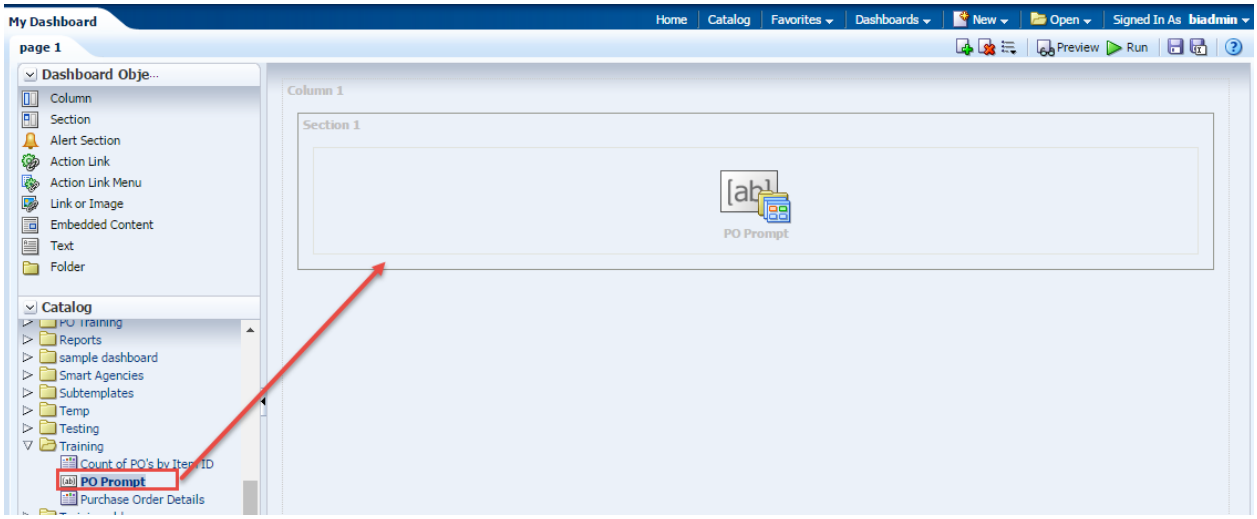
The Column object appears on the Page Layout pane



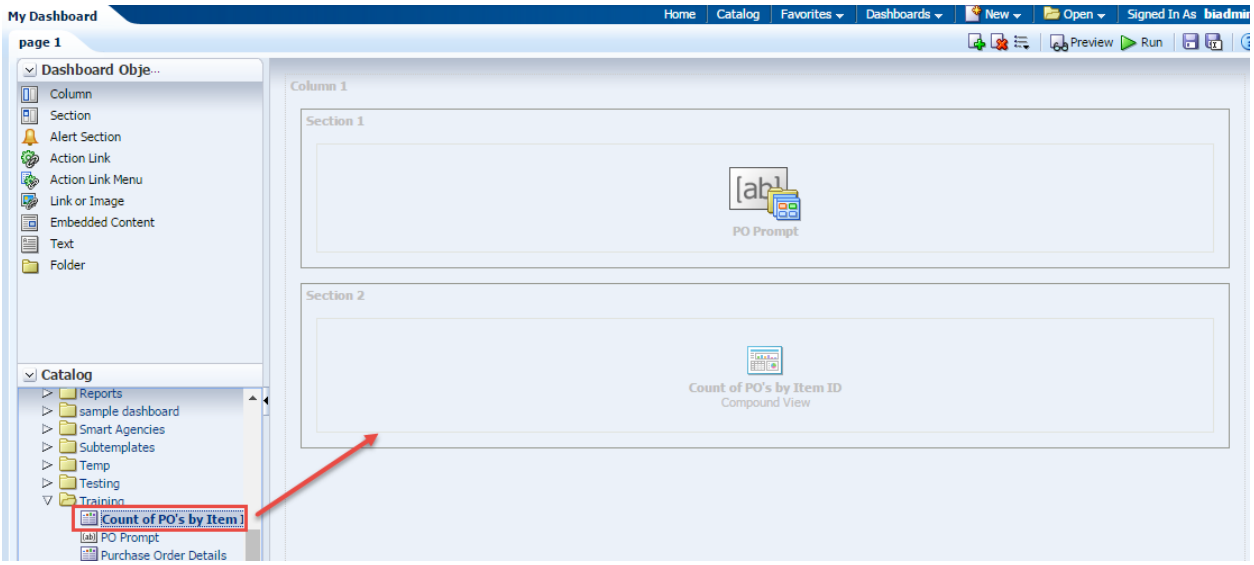
4. In the **Catalog** pane, navigate to the folder where you saved your analyses



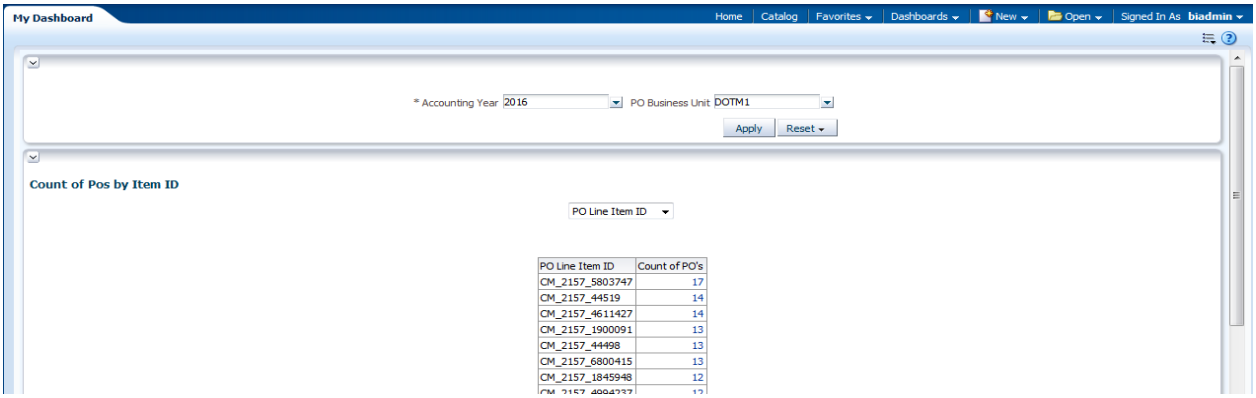
5. Drag **PO Prompt** to Column 1.



6. Drag **Count of PO's by Item ID** Analysis to Column 1 and place it under Section 1.

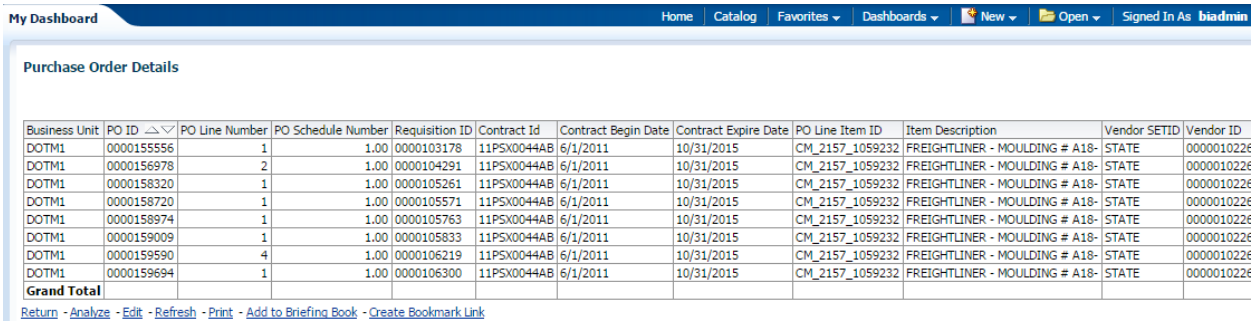


7. Click the **Save** icon ( ) to save the dashboard page and then click the **Run** icon 
My Dashboard appears with the selected analysis **Count of PO's by Item ID** using Dashboard Default prompt As of Accounting Year and Business Unit.



8. Click on the Amount link and it will take you to the detail report.

9. Scroll Down to bottom of page and at the end of the table there are **arrow buttons** with no. of rows displaying if the rows returned are more than 100.



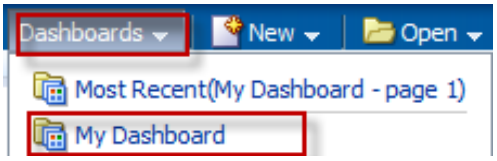
Business Unit	PO ID	PO Line Number	PO Schedule Number	Requisition ID	Contract Id	Contract Begin Date	Contract Expire Date	PO Line Item ID	Item Description	Vendor SETID	Vendor ID
DOTM1	0000155556	1	1.00	0000103178	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000156978	2	1.00	0000104291	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000158320	1	1.00	0000105261	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000158720	1	1.00	0000105571	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000158974	1	1.00	0000105763	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000159009	1	1.00	0000105833	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000159590	4	1.00	0000106219	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
DOTM1	0000159694	1	1.00	0000106300	11PSX0044AB	6/1/2011	10/31/2015	CM_2157_1059232	FREIGHTLINER - MOULDING # A18-	STATE	0000010226
Grand Total											

9.3 Edit My Dashboard

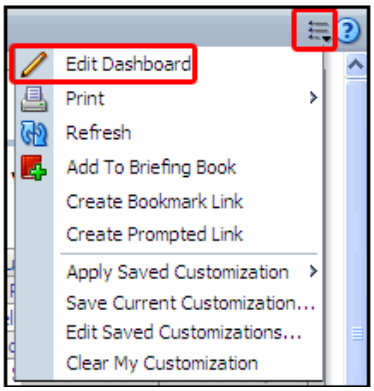
To begin enhancing My Dashboard, perform the following steps:

Guided Exercise

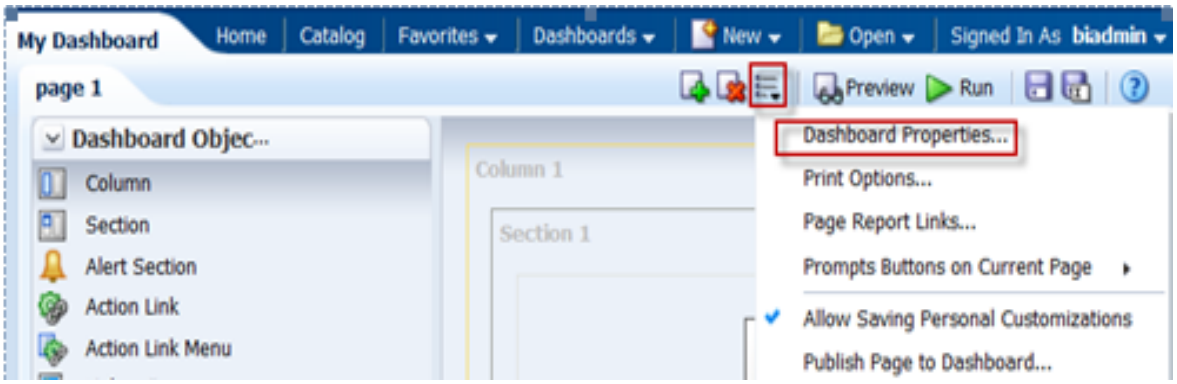
1. Click on Dashboards > My Dashboard



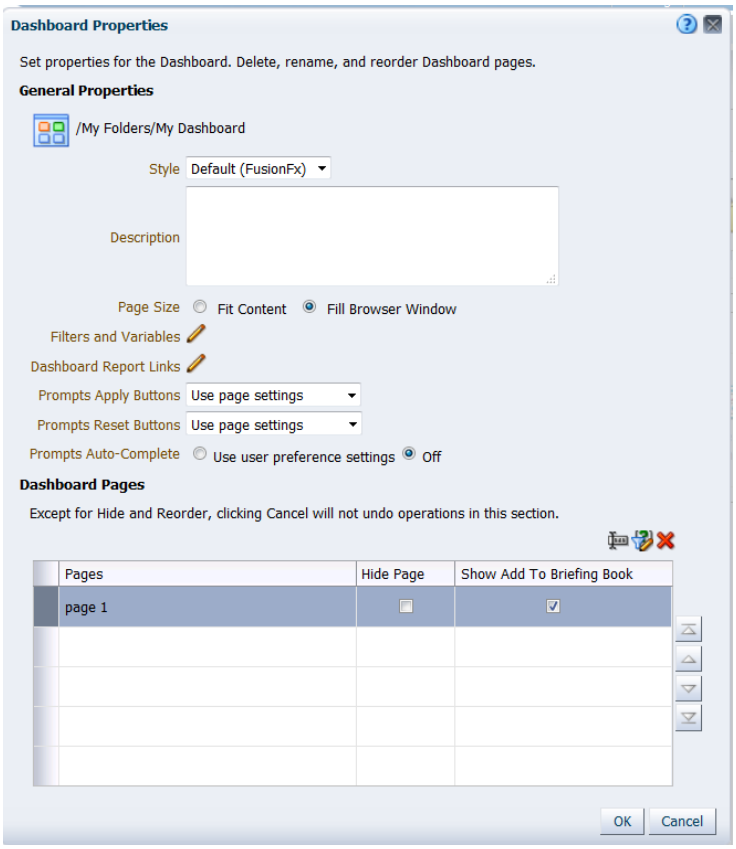
2. Click the **Page Options** icon ( ) and select **Edit Dashboard**.



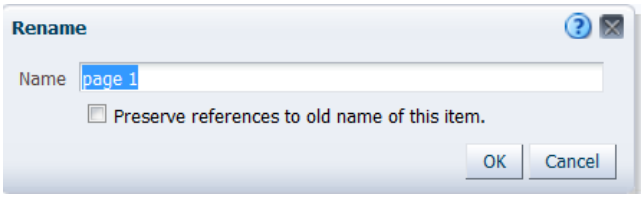
3. Give the existing tabbed page a more meaningful name.
   Click the **Tools** button and select **Dashboard Properties**.



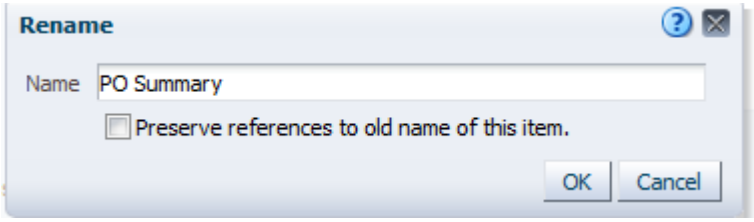
The **Dashboard Properties** dialog box appears.



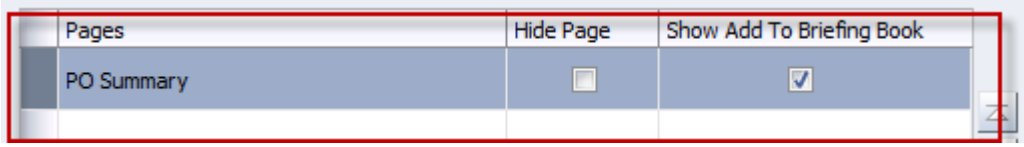
4. Select on the "page 1" and Click **Rename** icon ( ).The **Rename** dialog box appears.



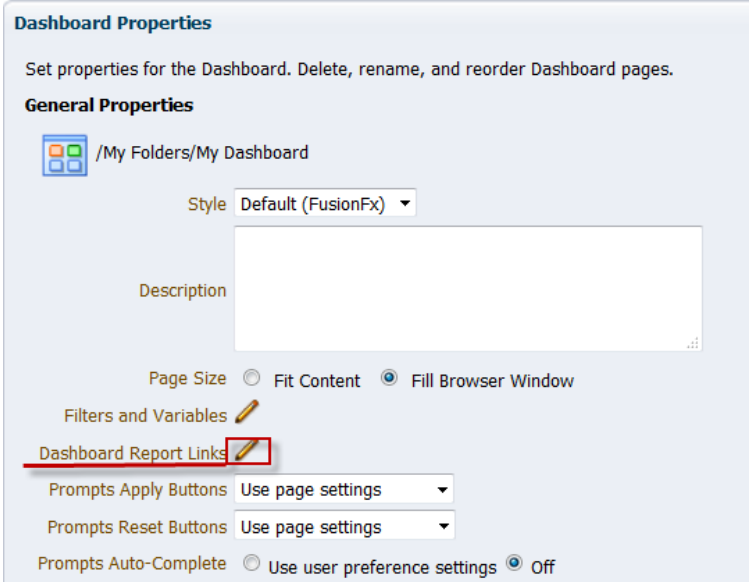
5. Enter **PO Summary** in the Name text box and click **OK**.



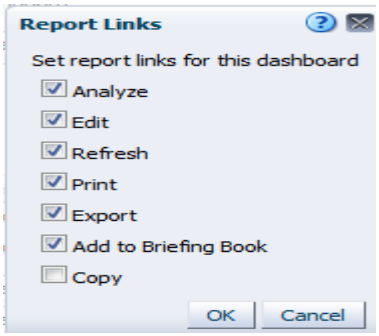
6. The Dashboard Properties dialog box reappears with the new dashboard page name.



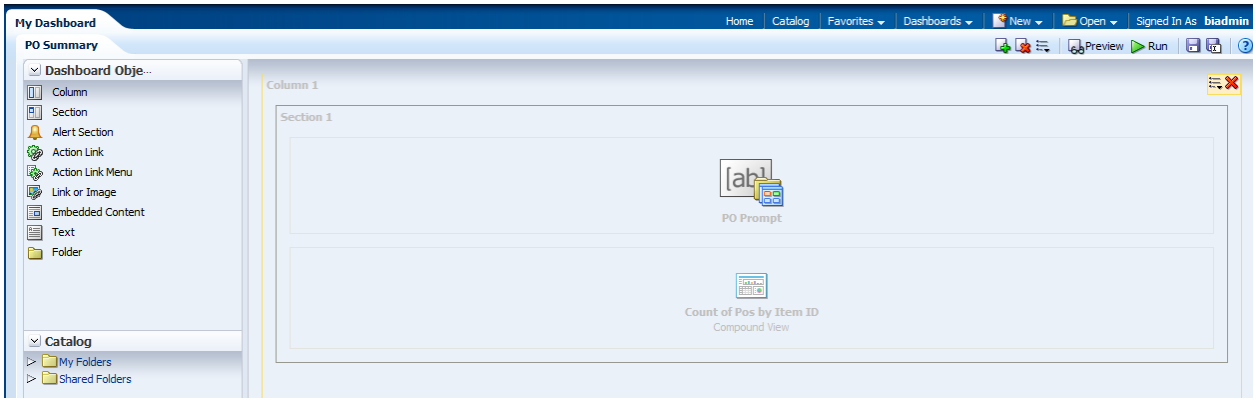
7. Click on Edit icon for **Dashboard Report Links** and set all the report links at the dashboard level.



8. Select the check boxes as indicated in the image below:

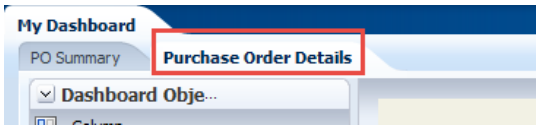


9. Click **OK** and then click **OK** again to return to the Dashboard Builder.
   The Dashboard Builder should look like this:

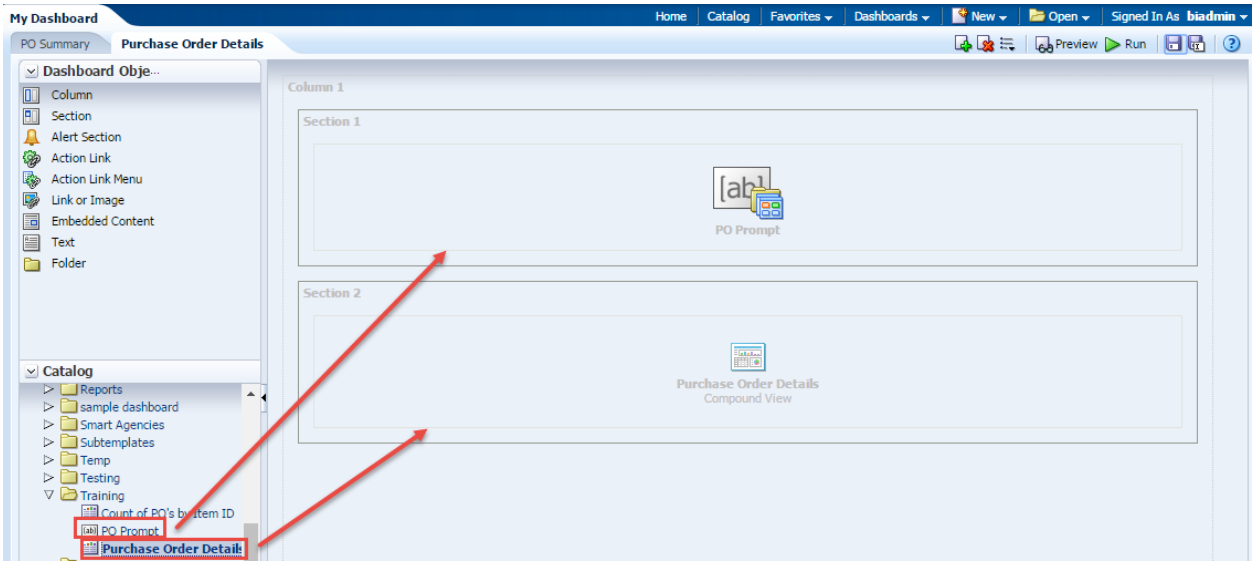


10. Click the **Add Dashboard Page** icon ( ). The Add Dashboard Page dialog box appears.
    Name the dashboard page **Purchase Order Details** and click **OK**.

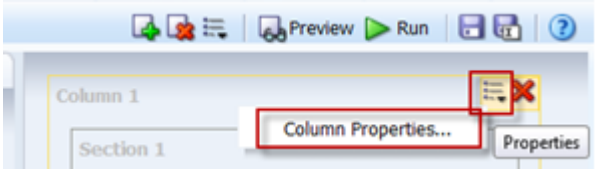
11. New page appears as follows:



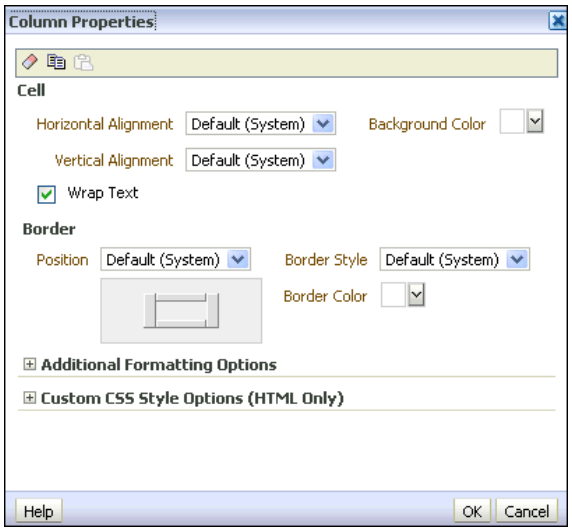
12. In the Catalog pane, navigate to My Folders/Training and Select **PO Prompt** and **Purchase Order Details** analysis and drag it to the Page Layout pane on the right.



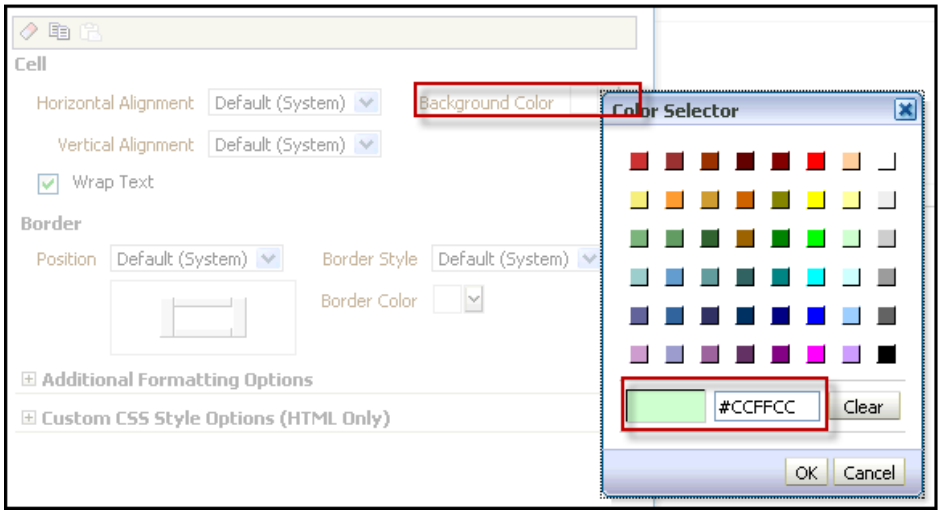
13. Edit the properties of the column. Click the **Column Properties** icon of the Column.



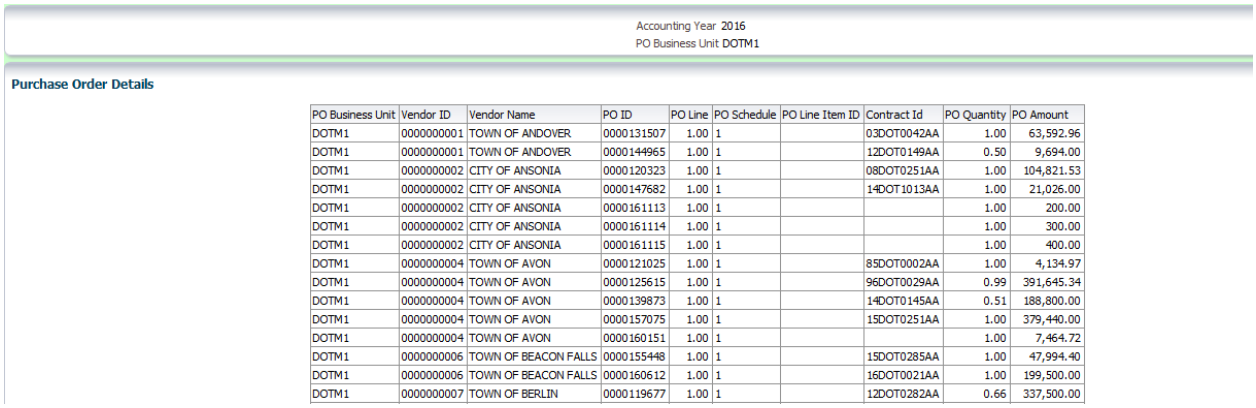
14. The Column Properties dialog box appears.



15. Select the drop-down list for **Background Color** within the Cell area and choose **light green**. Click **OK**, then click **OK** again to close the Column Properties dialog box.



16. Click **Preview** to preview the dashboard. After previewing close the Window.



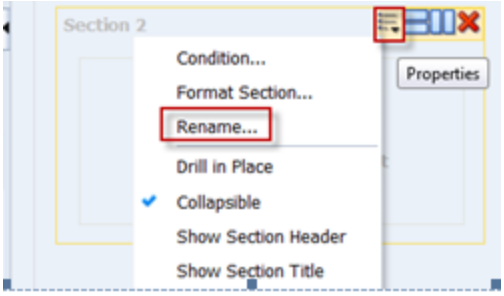
Accounting Year 2016
PO Business Unit DOTM1

Purchase Order Details

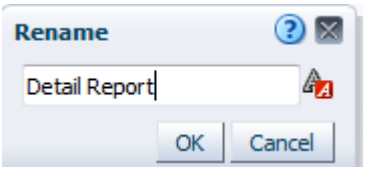
PO Business Unit	Vendor ID	Vendor Name	PO ID	PO Line	PO Schedule	PO Line Item ID	Contract Id	PO Quantity	PO Amount
DOTM1	0000000001	TOWN OF ANDOVER	0000131507	1.00	1		03DOT0042AA	1.00	63,592.96
DOTM1	0000000001	TOWN OF ANDOVER	0000144965	1.00	1		12DOT0149AA	0.50	9,694.00
DOTM1	0000000002	CITY OF ANSONIA	0000120323	1.00	1		08DOT0251AA	1.00	104,821.53
DOTM1	0000000002	CITY OF ANSONIA	0000147682	1.00	1		14DOT1013AA	1.00	21,026.00
DOTM1	0000000002	CITY OF ANSONIA	0000161113	1.00	1			1.00	200.00
DOTM1	0000000002	CITY OF ANSONIA	0000161114	1.00	1			1.00	300.00
DOTM1	0000000002	CITY OF ANSONIA	0000161115	1.00	1			1.00	400.00
DOTM1	0000000004	TOWN OF AVON	0000121025	1.00	1		85DOT0002AA	1.00	4,134.97
DOTM1	0000000004	TOWN OF AVON	0000125615	1.00	1		96DOT0029AA	0.99	391,645.34
DOTM1	0000000004	TOWN OF AVON	0000139873	1.00	1		14DOT0145AA	0.51	188,800.00
DOTM1	0000000004	TOWN OF AVON	0000157075	1.00	1		15DOT0251AA	1.00	379,440.00
DOTM1	0000000004	TOWN OF AVON	0000160151	1.00	1			1.00	7,464.72
DOTM1	0000000006	TOWN OF BEACON FALLS	0000155448	1.00	1		15DOT0285AA	1.00	47,994.40
DOTM1	0000000006	TOWN OF BEACON FALLS	0000160612	1.00	1		16DOT0021AA	1.00	199,500.00
DOTM1	0000000007	TOWN OF BERLIN	0000119677	1.00	1		12DOT0282AA	0.66	337,500.00

17. Save the Dashboard.

18. You will rename the section. Click **Properties** (within the section) **> Rename**. The Rename dialog box appears.

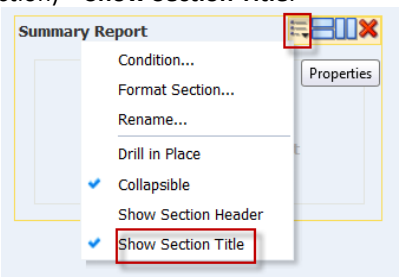


19. Enter Detail Report in the text box.

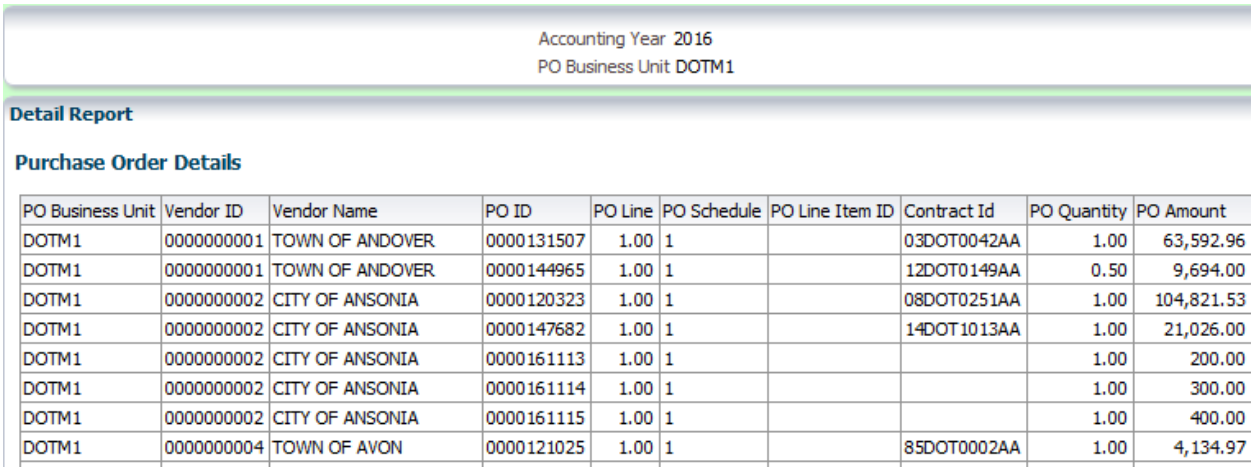


Click OK.

20. Click **Properties** (within the section) **> Show Section Title**.



21. Preview the dashboard page once again to see your changes.



Accounting Year 2016
PO Business Unit DOTM1

Detail Report

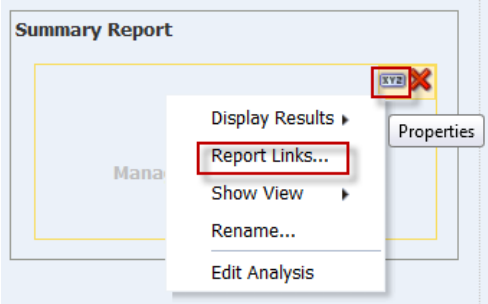
Purchase Order Details

PO Business Unit	Vendor ID	Vendor Name	PO ID	PO Line	PO Schedule	PO Line Item ID	Contract Id	PO Quantity	PO Amount
DOTM1	0000000001	TOWN OF ANDOVER	0000131507	1.00	1		03DOT0042AA	1.00	63,592.96
DOTM1	0000000001	TOWN OF ANDOVER	0000144965	1.00	1		12DOT0149AA	0.50	9,694.00
DOTM1	0000000002	CITY OF ANSONIA	0000120323	1.00	1		08DOT0251AA	1.00	104,821.53
DOTM1	0000000002	CITY OF ANSONIA	0000147682	1.00	1		14DOT1013AA	1.00	21,026.00
DOTM1	0000000002	CITY OF ANSONIA	0000161113	1.00	1			1.00	200.00
DOTM1	0000000002	CITY OF ANSONIA	0000161114	1.00	1			1.00	300.00
DOTM1	0000000002	CITY OF ANSONIA	0000161115	1.00	1			1.00	400.00
DOTM1	0000000004	TOWN OF AVON	0000121025	1.00	1		85DOT0002AA	1.00	4,134.97

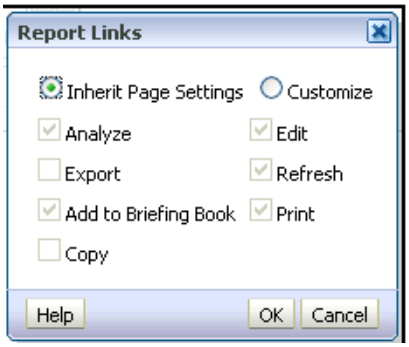
Deta

22. Save the Dashboard.

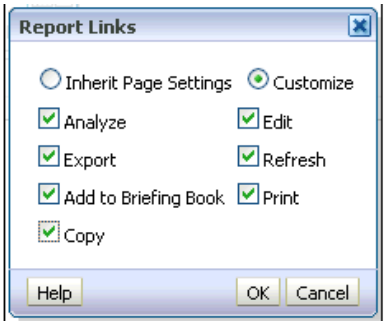
23. Override the default dashboard report links at the analysis level.
Click the **Properties** icon for the Purchase Order Details analysis, and select **Report Links.**



The Report Links dialog box appears.

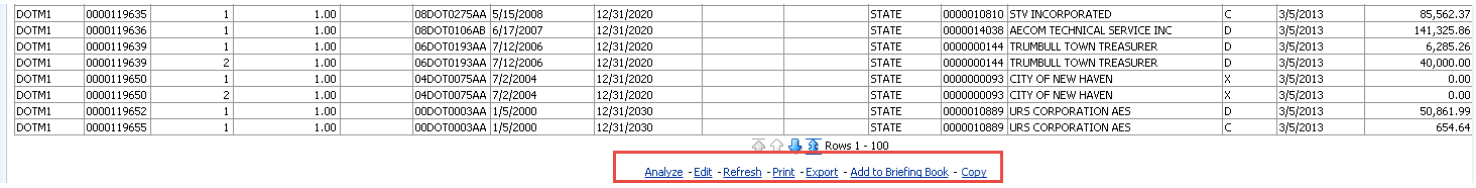


Select the **Customize** radio button and then select all check boxes.



Click **OK.**

24. Save and run the dashboard page. You are now able to export and copy this analysis from the dashboard.



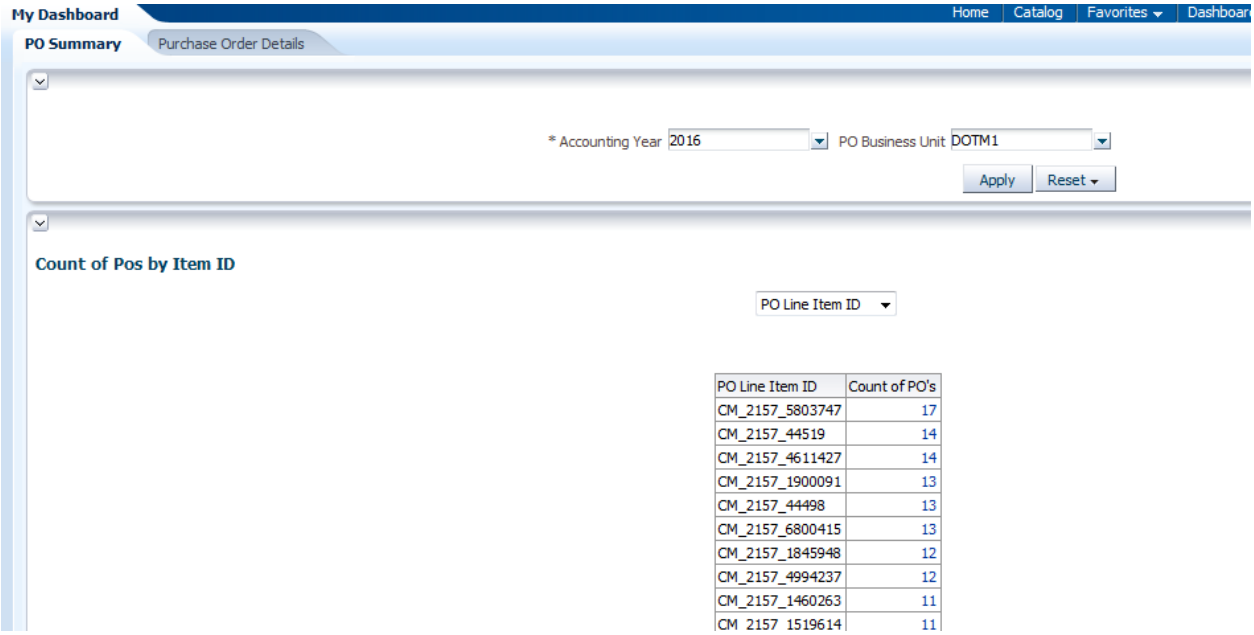
DOTM1	0000119635	1	1.00		08DOT0275AA	5/15/2008	12/31/2020			STATE	0000010810	STV INCORPORATED	C	3/5/2013	85,562.37
DOTM1	0000119636	1	1.00		08DOT0106AB	6/17/2007	12/31/2020			STATE	0000014038	AECOM TECHNICAL SERVICE INC	D	3/5/2013	141,325.86
DOTM1	0000119639	1	1.00		06DOT0193AA	7/12/2006	12/31/2020			STATE	0000000144	TRUMBULL TOWN TREASURER	D	3/5/2013	6,285.26
DOTM1	0000119639	2	1.00		06DOT0193AA	7/12/2006	12/31/2020			STATE	0000000144	TRUMBULL TOWN TREASURER	D	3/5/2013	40,000.00
DOTM1	0000119650	1	1.00		04DOT0075AA	7/2/2004	12/31/2020			STATE	0000000093	CITY OF NEW HAVEN	X	3/5/2013	0.00
DOTM1	0000119650	2	1.00		04DOT0075AA	7/2/2004	12/31/2020			STATE	0000000093	CITY OF NEW HAVEN	X	3/5/2013	0.00
DOTM1	0000119652	1	1.00		00DOT0003AA	1/5/2000	12/31/2030			STATE	0000010889	URS CORPORATION AES	D	3/5/2013	50,861.99
DOTM1	0000119655	1	1.00		00DOT0003AA	1/5/2000	12/31/2030			STATE	0000010889	URS CORPORATION AES	C	3/5/2013	654.64

9.4 Save a Dashboard Customization

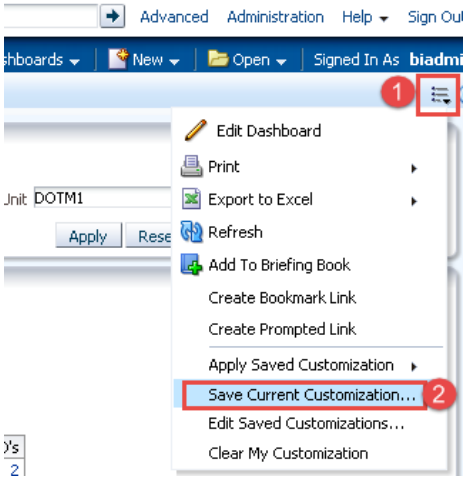
To save a dashboard Customization and set preferences, perform the following steps:
Create a personal, customized view of your dashboard page. Saved customizations allow you to save and view dashboard pages in their current state with your most frequently used or favorite choices for items such as filters, prompts, column sorts, drills in analyses, and section expansion and collapse. By saving customizations, you do not need to make these choices manually each time that you access the dashboard page.

Guided Exercise

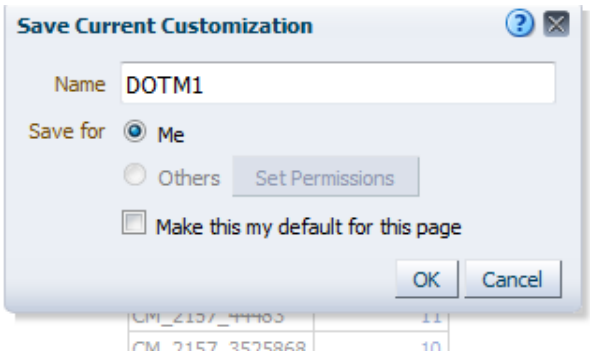
1. Click on **PO Summary** Page on My Dashboard and Leave PO Business Unit as **DOTM1**.



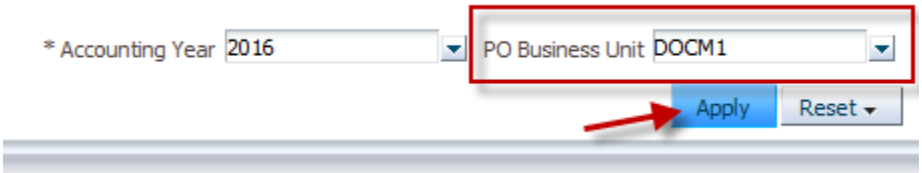
2. Click **Page Options > Save Current Customizations**.



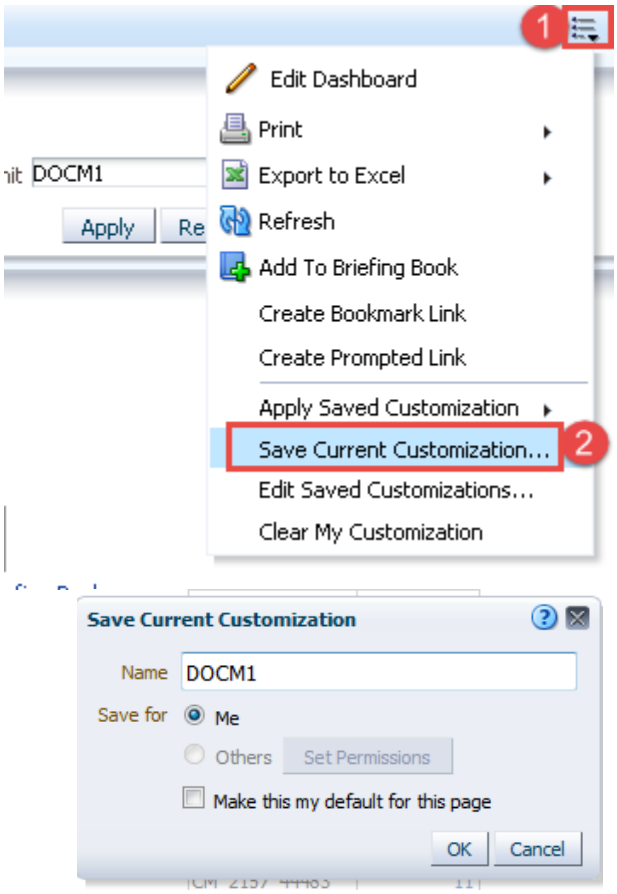
3. The Save Current Customization dialog box appears. Name your customization **DOTM1** and click **OK**.



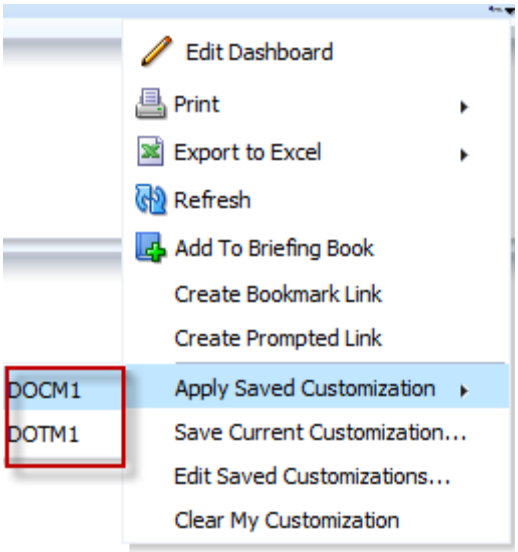
4. Next change the Business Unit Filter to **DOCM1** and click Apply.



5. Click **Page Options > Save Current Customizations** and name the Customization as **DOCM1**.

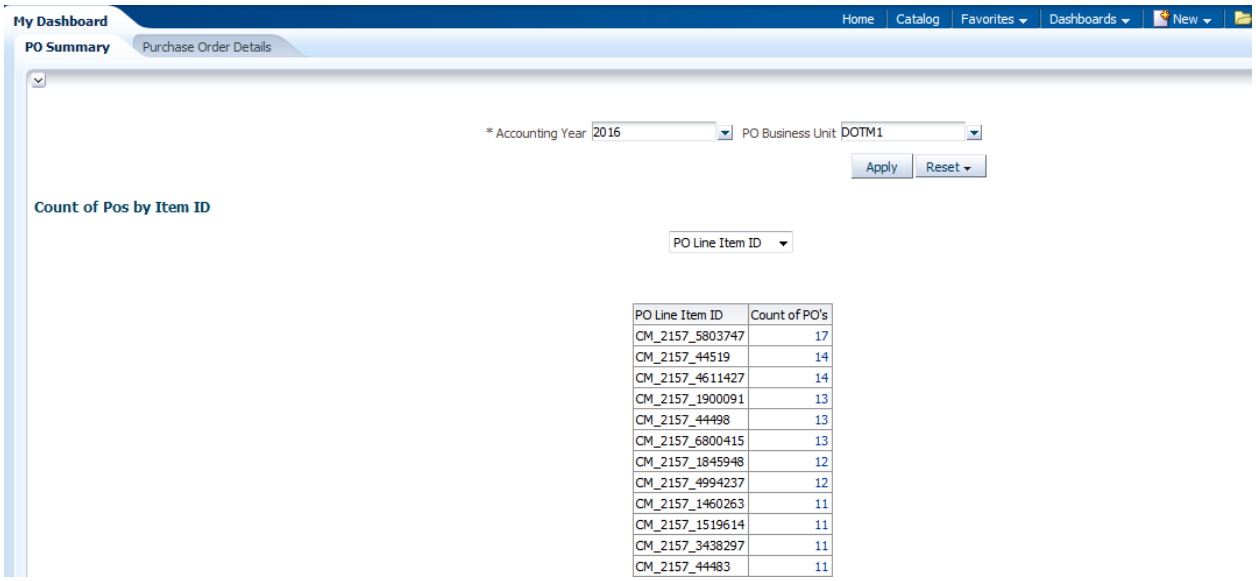


6. Your Saved Customization should appear as follows:-

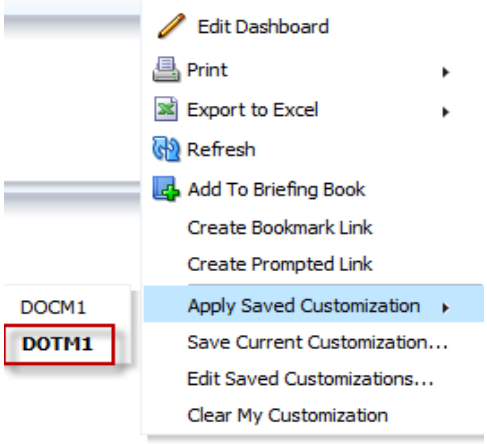


Now you can apply the saved customization to a dashboard page.

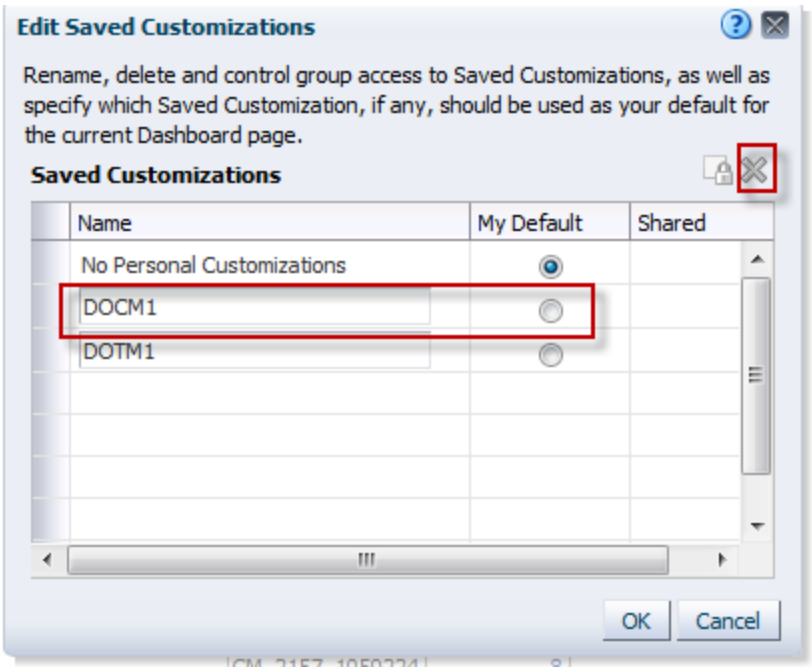
7. Click **Page Options > Apply Saved Customization > DOTM1**. And the Dashboard will run for the saved filters under this customization.



8. Now go to page option and click on Apply Saved Customization to see that **DOTM1** is bold. Which means that this customization is what is displayed on dashboard.



9. Customizations can be deleted from Edit Saved Customization. Click **Page Options > Edit Saved Customizations**



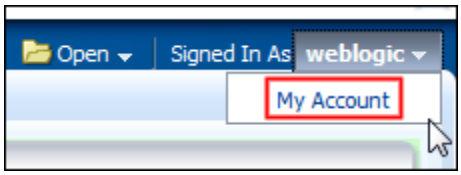
10. Click **OK** to close the Edit Saved Customization.

9.5 Set Preference

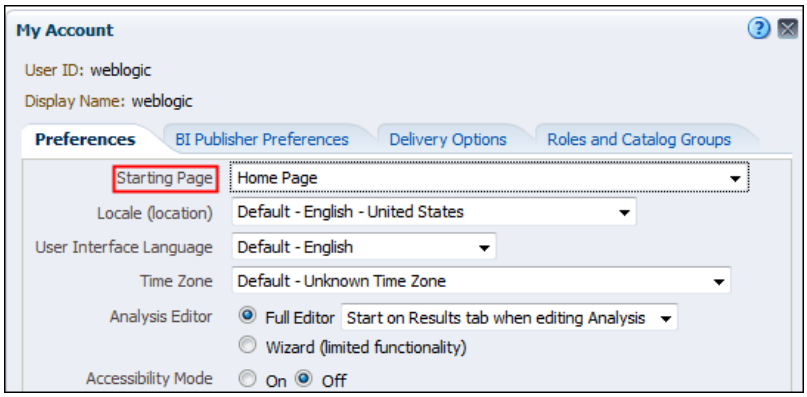
Set your preferences. You use the Preferences tabbed page in the My Account dialog box to specify your personal preferences, such as dashboard starting page, locale, and time zone. The available options depend upon your privileges.

Guided Exercise

1. Click your **User ID** on the global header and then select **My Account**.



The My Account dialog box appears.



2. Click the **Starting Page** drop-down list and scroll to view the available pages. Only the dashboard pages to which you have privileges appear in this list. Select the **My Dashboard** as your default.

   Other tabbed pages in the **My Account** dialog box include the following:

   - **BI Publisher Preferences**—Use this tabbed page to view the default profile for BI Publisher.
   - **Delivery Options**—Use this tabbed page to configure your delivery profiles for the delivery of alerts by agents.
   - **Roles and Catalog Groups**—Use this tabbed page to view a list of the roles to which you have been assigned by the OBI Administrator.

3. Set the **Locale**, **User Interface Language**, **Time Zone**, **Currency**, and **Accessibility Mode** appropriately for your own needs and click **OK**.

   Note: The Analysis Editor drop-down is a new feature in the current release.

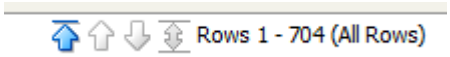
4. Click **OK**.

5. To verify that your starting page is now set to the My Dashboard page, log out and log back in. Your start page would be your My Dashboard.

9.6 Export the Dashboard to Excel Spreadsheet

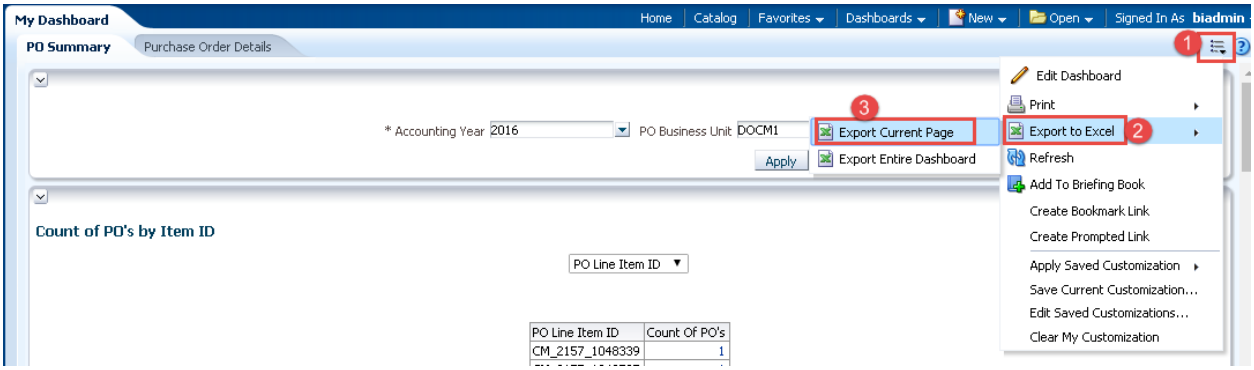
You can export an entire dashboard or a single dashboard page to Microsoft Excel 2007+.

Note: - If there are more than 100 rows then scroll down to the analysis and click on double sided arrow, so that it displays all the rows and now we can export the analysis.



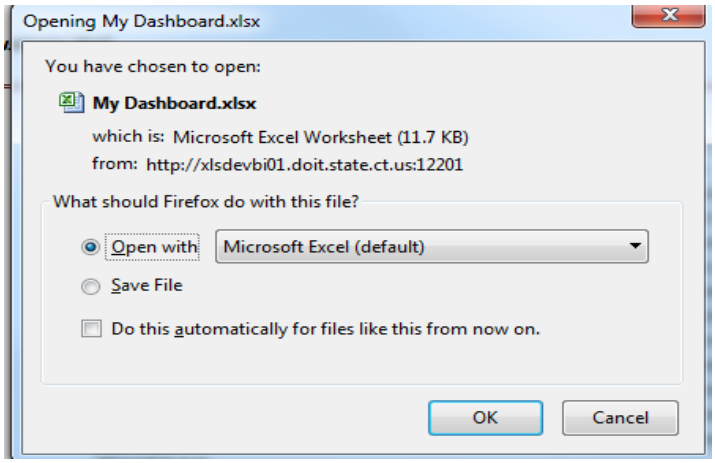
Guided Exercise

1. Click **Page Options > Export to Excel** to select **Export Current Page**.



Note: - If you choose **Export Entire Dashboard** then all dashboard pages of **My Dashboard** are exported to excel 2007. But make sure that in all pages the double sided arrow is clicked so that all the rows will be downloaded.

2. Choose **Export Current Page** and following window will pop up.



Click **OK** to see the dashboard page on the Excel.

10. Agents

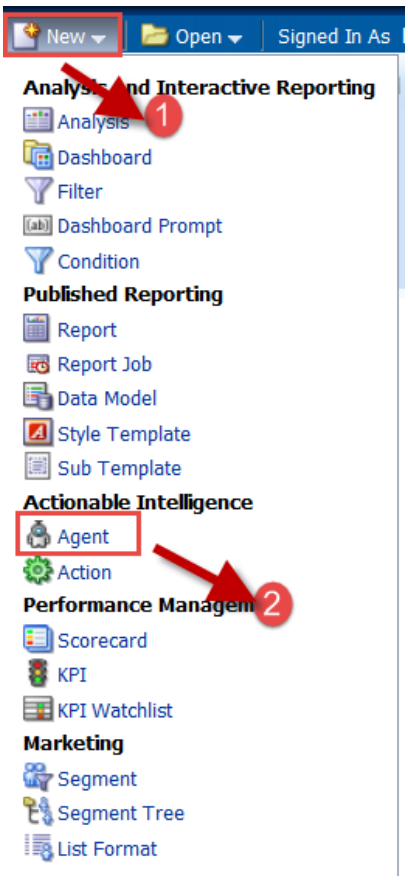
Introduction	Agents enable you to automate your business processes. You can use them to provide event-driven alerting, scheduled content publishing, and conditional event-driven action execution. Agents can dynamically detect information-based problems and opportunities, determine the appropriate individuals to notify, and deliver information to them through a wide range of devices (email, phone, and so on).
Objectives	At the end of this section, you will be able to complete the following tasks related to agents. • Understand Agents • Create Agents • Verify the Mail Client for the Agent/Alerts

10.1 Understand Agents

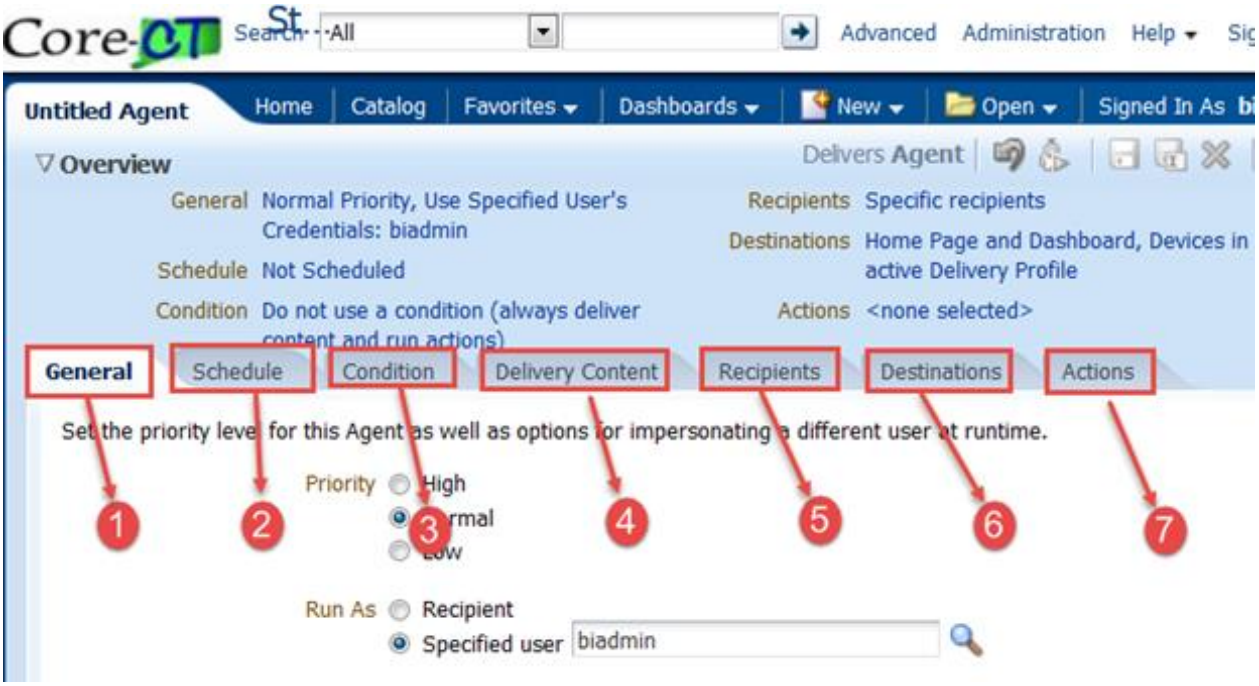
In the simplest format, an agent automatically performs a specified catalog analysis based on a defined schedule, and examines the results for a specific problem or opportunity. If the specific problem or opportunity is detected in the results, an alert is generated and delivered to specified recipients and to subscribers to the agent, using the delivery options that are specified for each person.

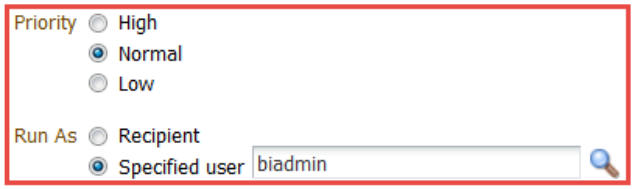
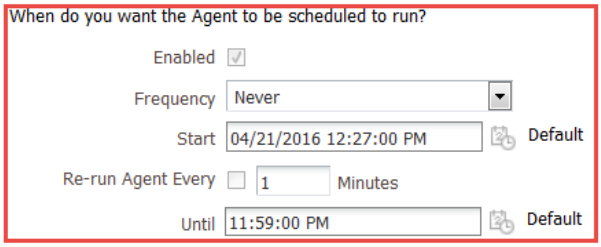
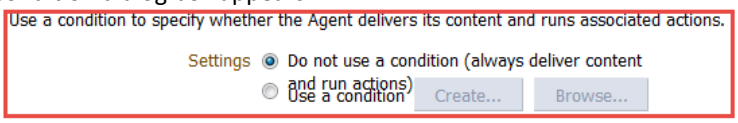
Guided Exercise

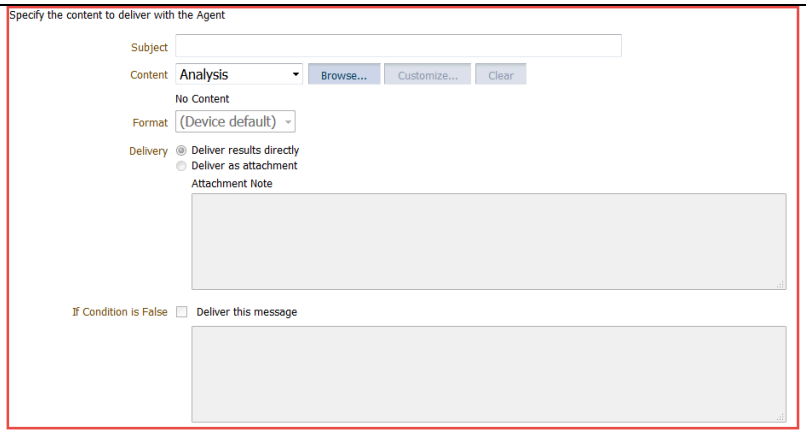
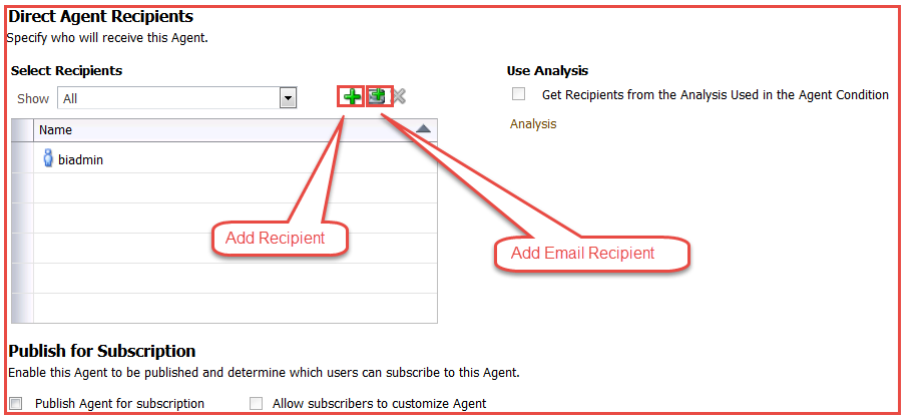
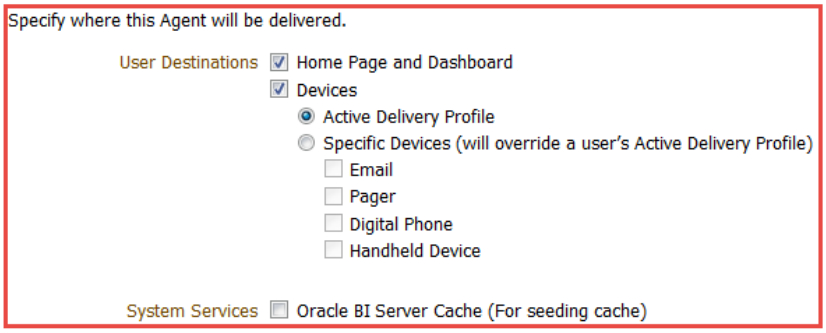
1. Click on **New** > then **Agents** from **Global Header**.



2. The following are the contents of Agents.



Contents	Description
1. General	**General** tab to specify the priority of the agent and how to send the delivery content. 
2. Schedule	**Schedule** tab and verify that scheduling is enabled, Frequency is set to **Once**, and the Start date and time are set to the current date and time. 
3. Condition	**Condition** tab, select the **Use a condition** option and click **Create**. The Create Condition dialog box appears. 
4. Delivery Content	**Delivery Content** tab to identify the content that will be delivered by the agent.

	
5. Recipients	**Recipients** tab, select the default option to identify the recipients of the agent. 
6. Destinations	**Destinations** tab, select the destination for the agent. 
7. Actions	**Action** tab, specifies any actions to invoke when the Agent completes.

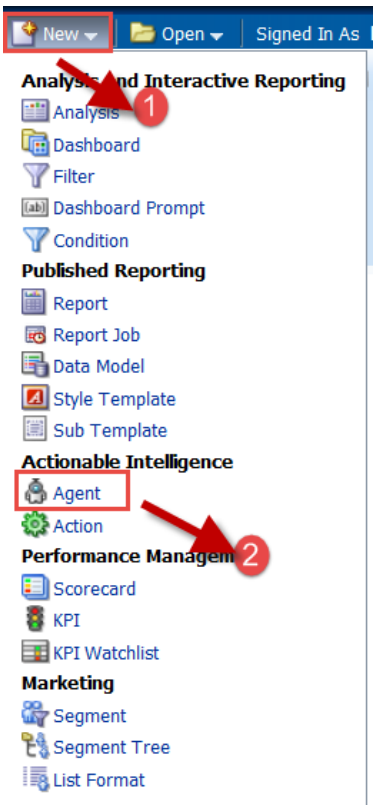
	Specify any actions to invoke when the Agent completes. **Agent Condition True or No Condition Exists** Actions Name | Invoke per Row **Agent Condition is False** Actions Name | Invoke per Row

10.2 Create Agents

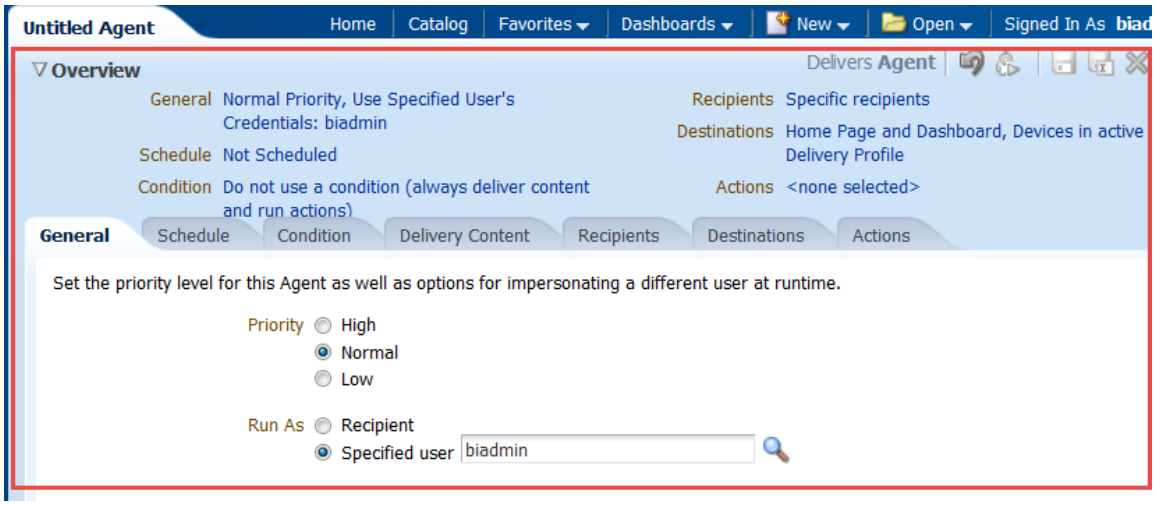
This topic covers how to create an alert/agent based on a condition and how to define the destination for both the dashboard and the email Client.

Guided Exercise

1. Click **New** in the Global Header and select **Agent** to navigate to the **Agent Editor.**



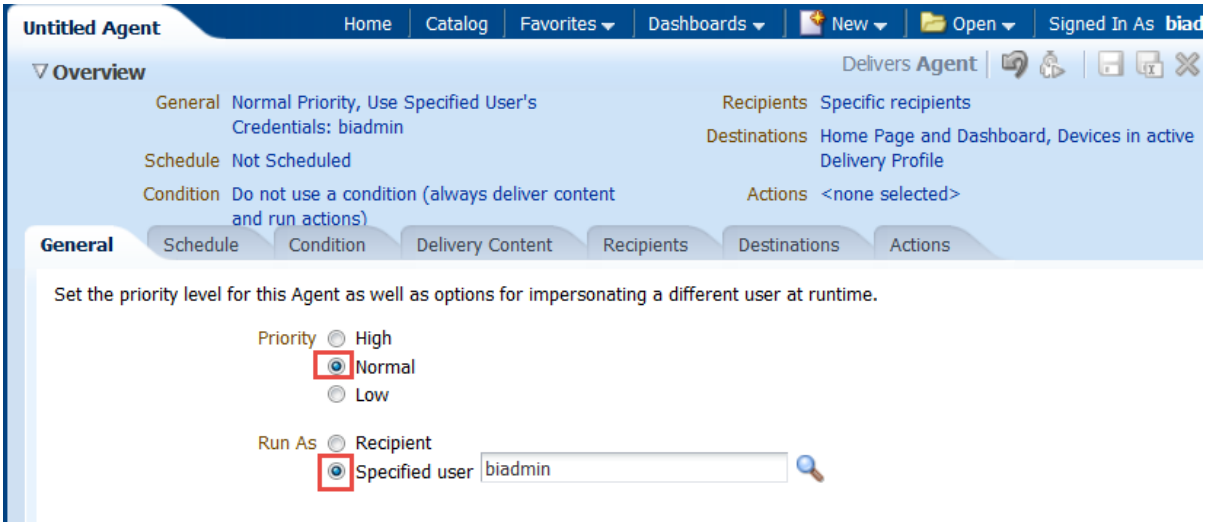
2. Agent Editor opens.



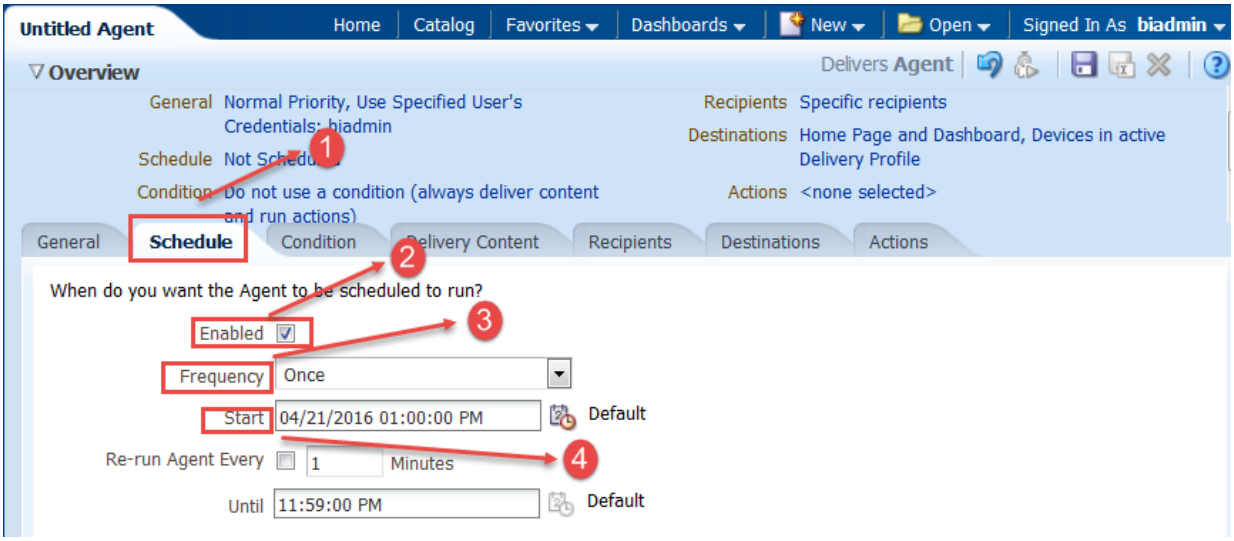
3. On General tab, select the following options:

   a. Priority **Normal**

b. Run as **Specified user**

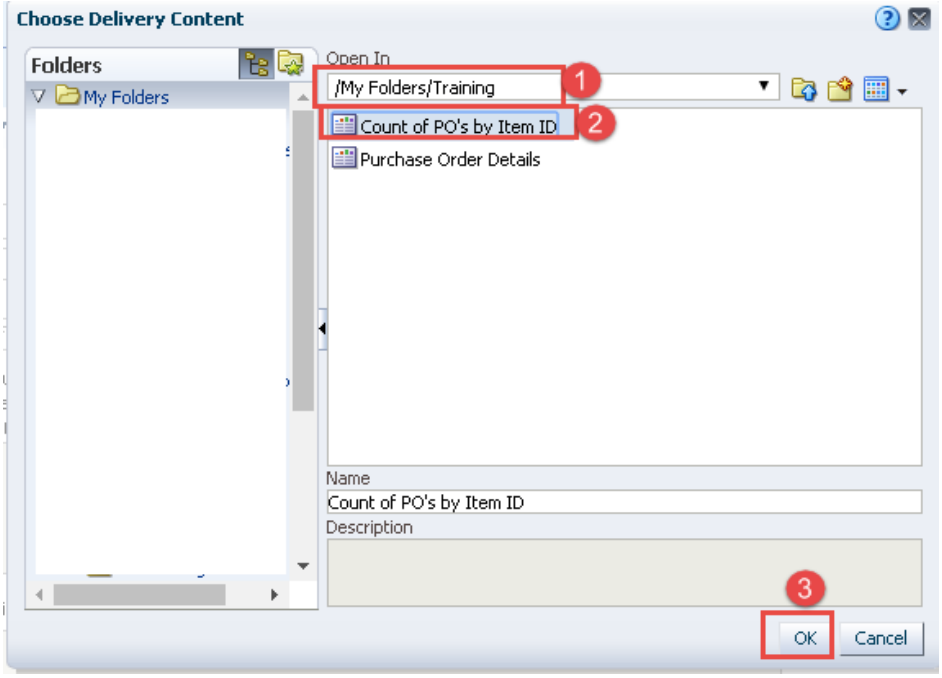


4. Click the **Schedule tab** and verify that scheduling is enabled. **Frequency** is set to Once, and the start date and time are set to the current date and time.
   Disable Re-run Ageng Every as diabled.

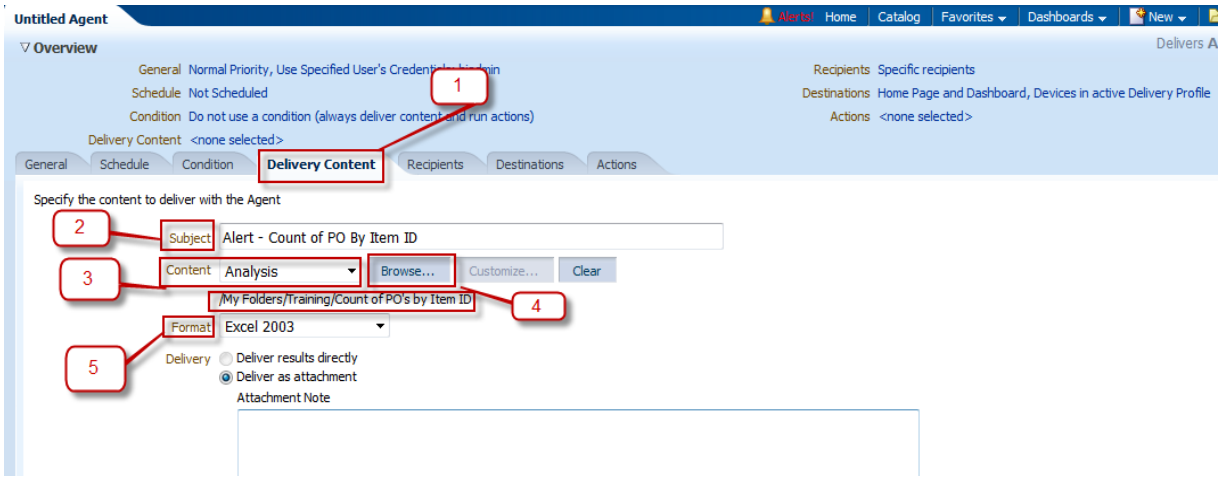


5. Click Delivery Content tab and enter the following:

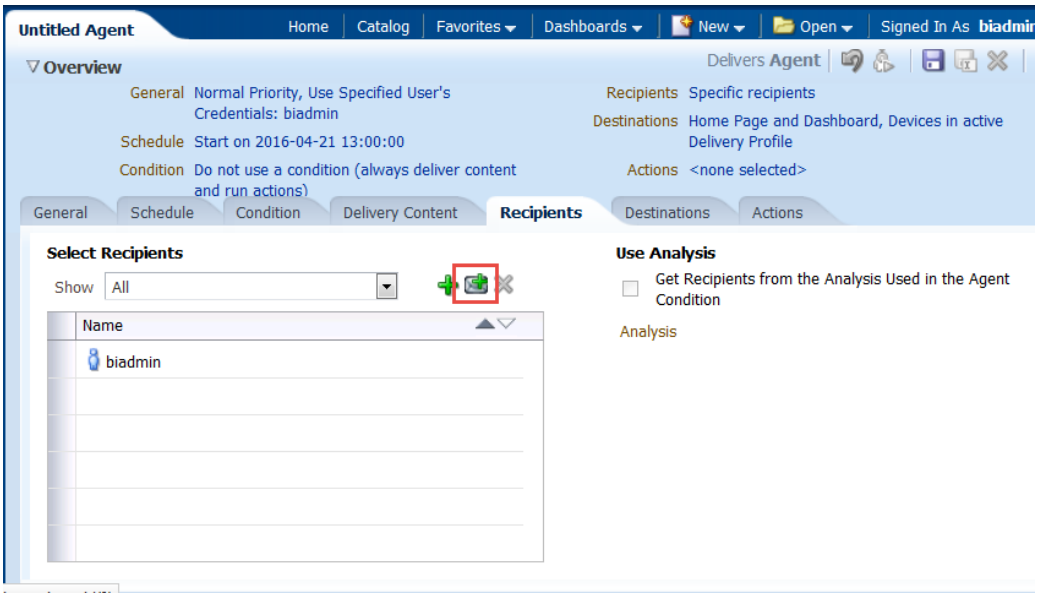
   a. Enter a **Subject** Name **Alert - Count of PO's by Item ID**
   b. Select Analysis from the **Content** drop-down list and click **Browse** to select the analysis.
   c. Select **Count of PO's by Item ID** Report from the **My Folders/Training** folder in Catalog.



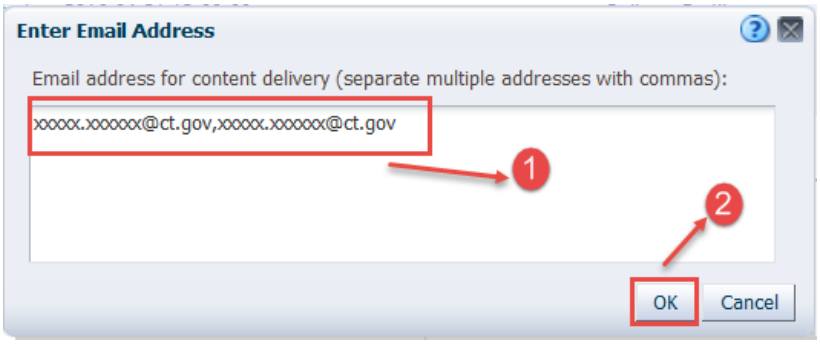
d. Change the Format to **Excel 2003** from the **Format** drop-down list.



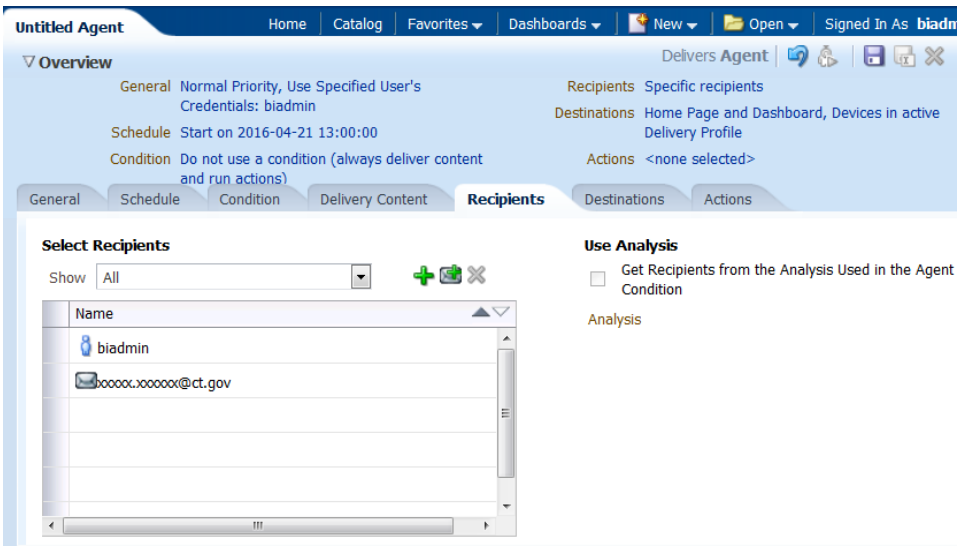
6. Click on **Recipients** tab, and click on Add **User Email Recipient** icon  to add your email id.



7. **Enter Email Address** dialog opens where we can enter **multiple** Email address by separating with **commas**. Please enter your email id and click **OK**.

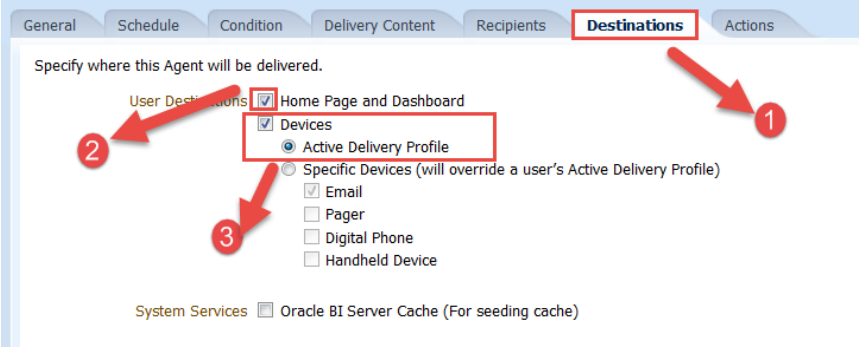


8. Leave all the default, the Recipients screen will appear as follows:

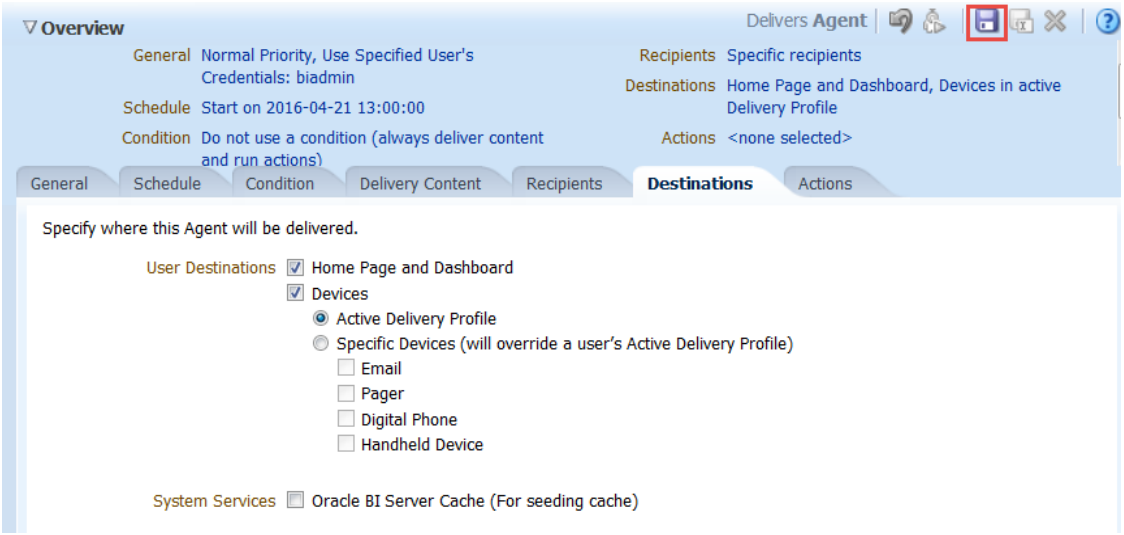


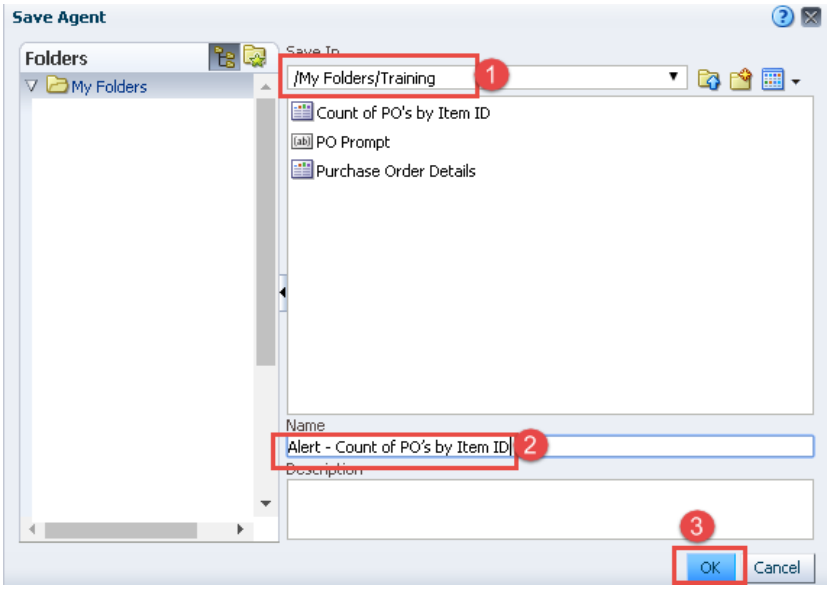
9. On the **Destinations** tab, select the destination for the agent.

For User Destinations, select the **Home Page** and **Dashboard** check boxes. Select the **Devices** check box and enable **Active Delivery Profile**.

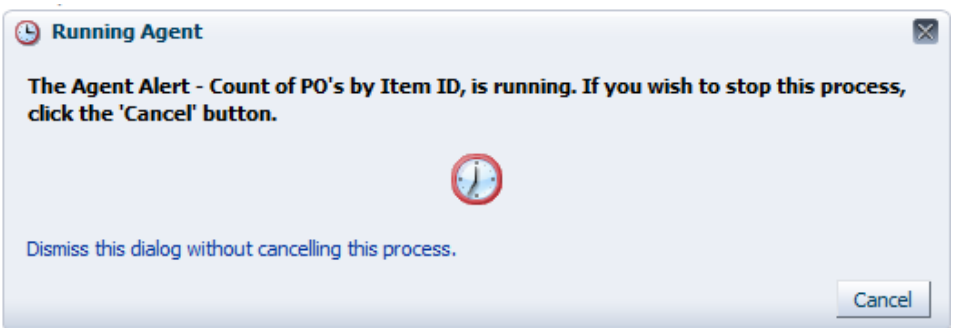


10. Click the **Save** button to save the agent. In the Save Agent dialog box, save the agent as **Alert – Agent Summary** in the **My Folders/Training** folder.

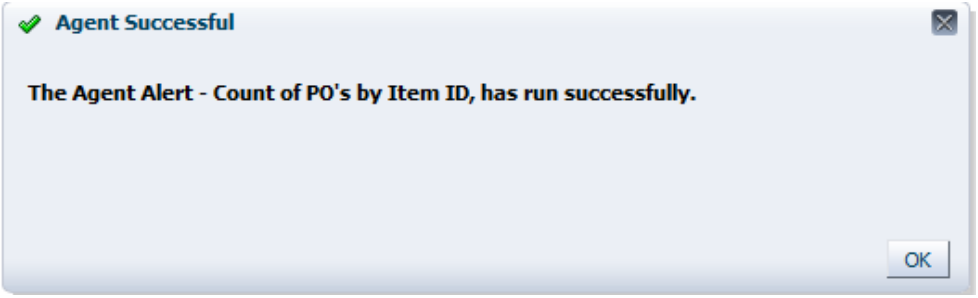




11. Click the **Run Agent Now** button. Verify that the agent is running in the Running Agent dialog box:

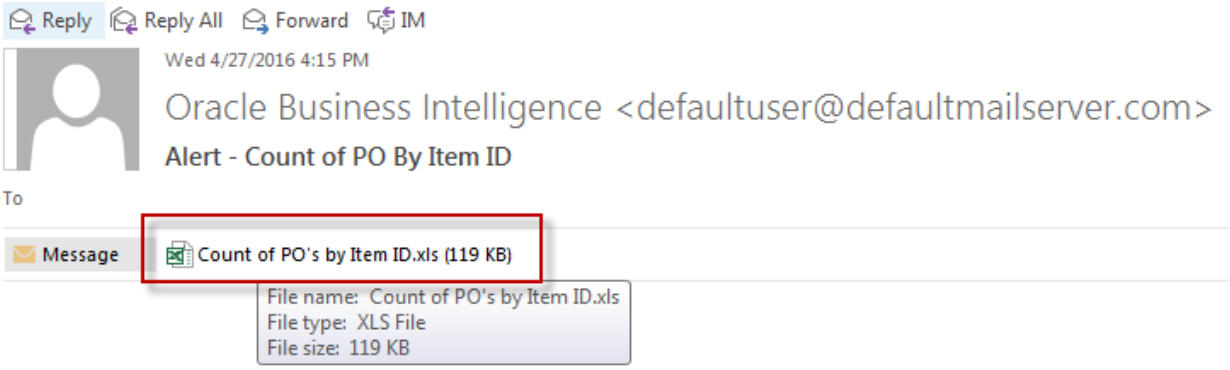


When the agent has run successfully, you should receive a confirmation:



Click **OK.**

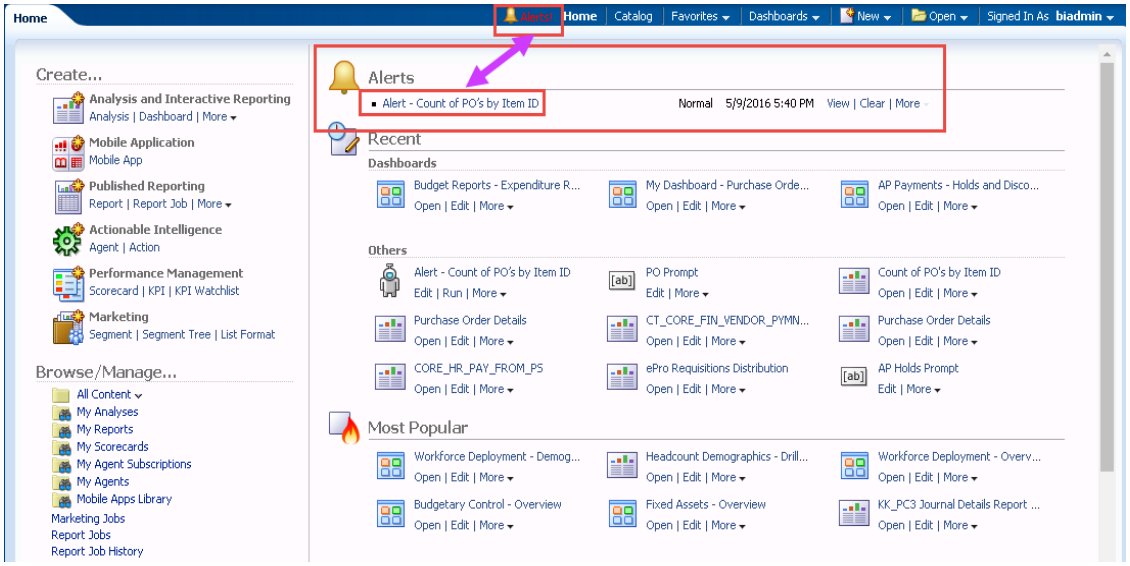
Verify that the agent ran successfully and generated alerts in the expected locations. These locations are Home Page and Dashboard, and the email Client.



10.3 Verify the Mail Client for the Agent/Alert

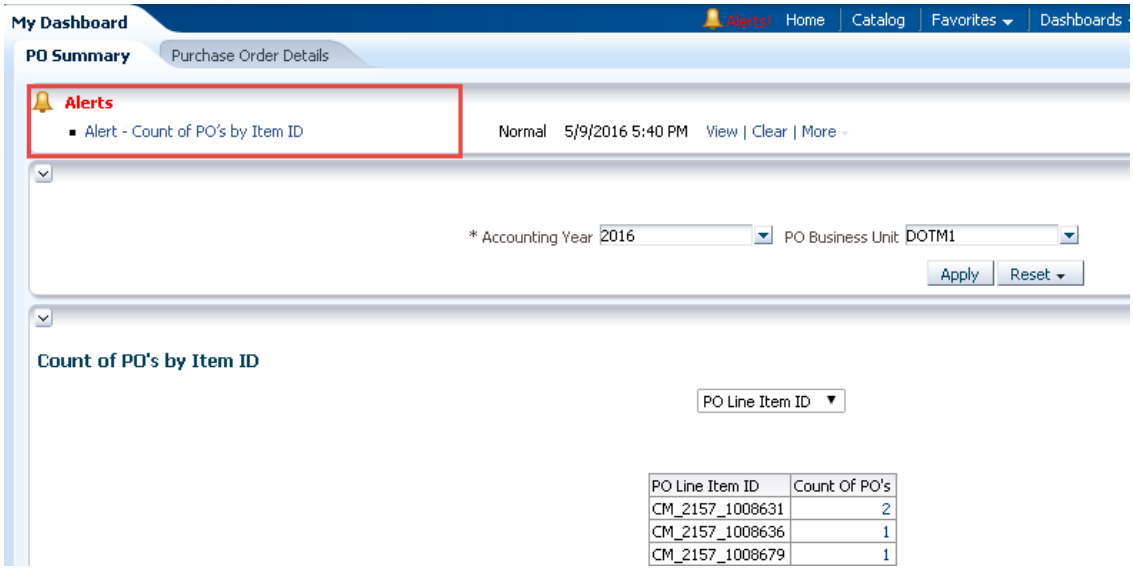
In this topic, you verify the alerts generated by the agent that you created. The alerts appear on the Dashboard and the email client as well.

1. Navigate to the **Home** page. There is an **alert** in the Global Header.

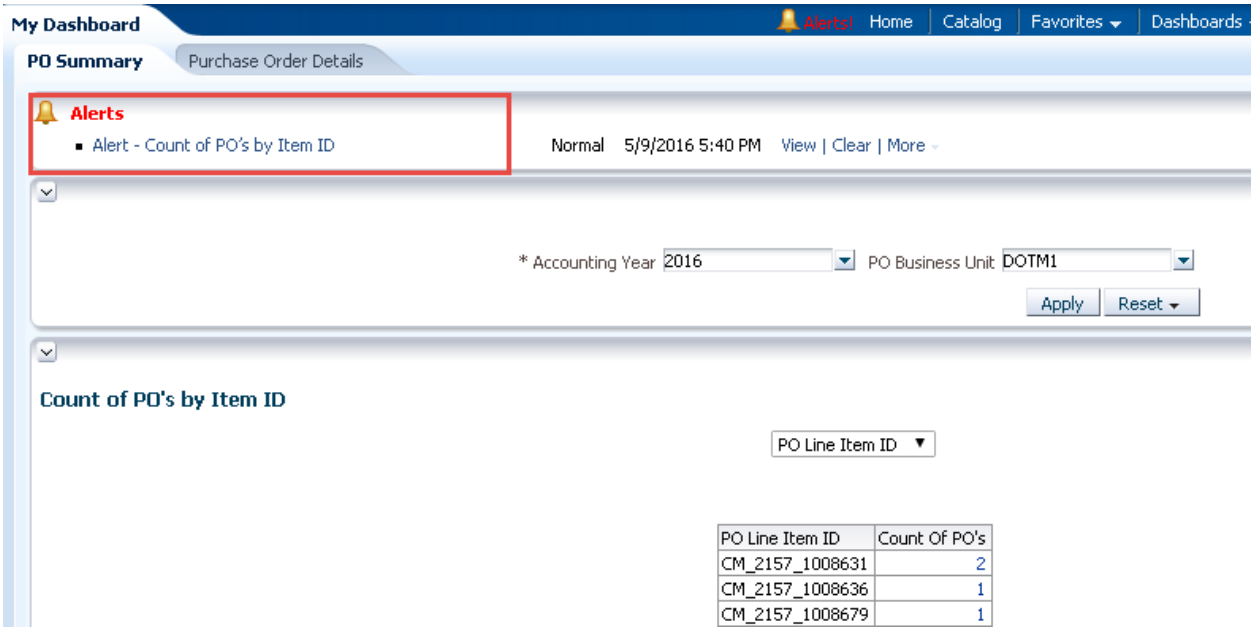


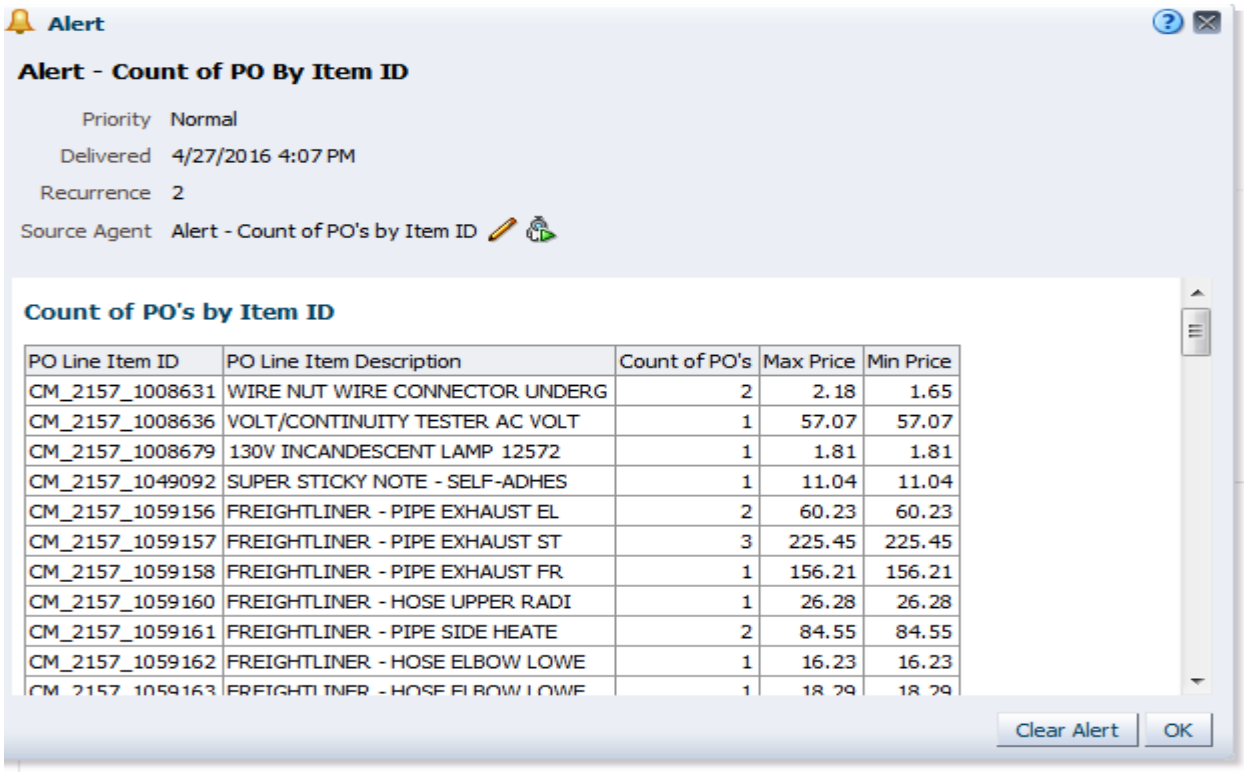
Click the **Alerts** link in the Global Header to view the alert.

2. Navigate to **My Dashboard** and verify that the alert appears.

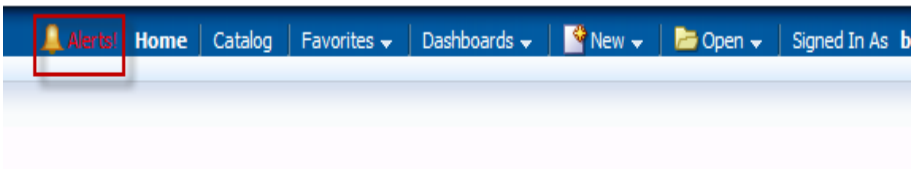


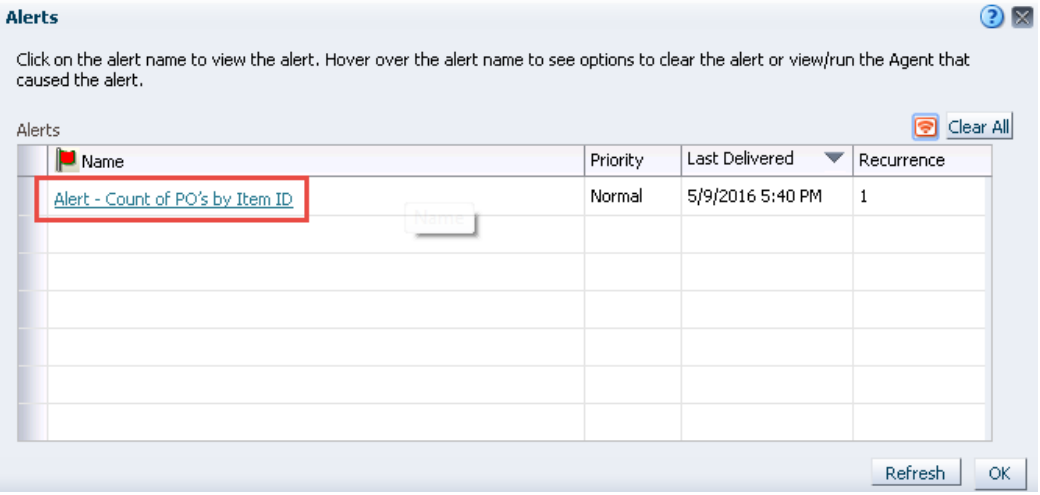
3. Click on **Alert – Count of PO by Item ID action link** to see the results run by the agent.





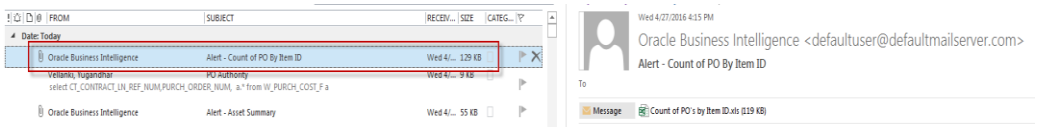
4. You can click the **Alerts** link in the Global Header to view the alert from Global Header where you can Edit, Delete or Run Again.





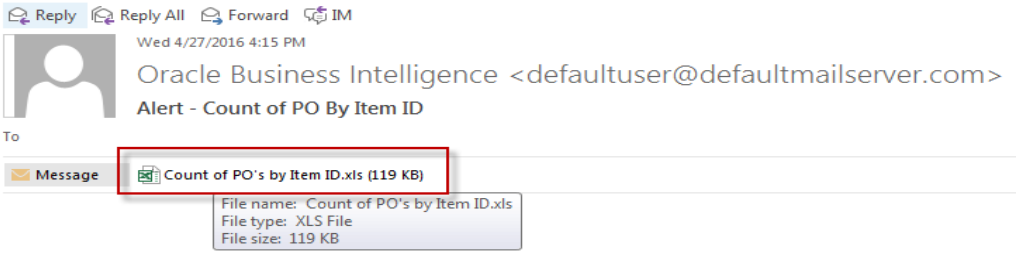
*Note:- By clicking on **Clear All** will delete all the Alerts. And even the alert will disappear from the Home and Dashboard Page.*

5. Click **OK** to close the alert.
6. Open your Client Email (Outlook) to check for the alert emails.



You see the messages sent by OBI for the alert/agent that you created.

7. Double-click the alert message to open it. The message is displayed with the details that you entered while creating the agent. The analysis is delivered as an attachment.



Click the attached report to open it.

	A	B	C	D	E
1	Count of PO's by Item ID				
2	PO Line Item ID	PO Line Item Description	Count of PO's	Max Price	Min Price
3	CM_2157_1008631	WIRE NUT WIRE CONNECTOR UNDERG	2	2.18	1.65
4	CM_2157_1008636	VOLT/CONTINUITY TESTER AC VOLT	1	57.07	57.07
5	CM_2157_1008679	130V INCANDESCENT LAMP 12572	1	1.81	1.81
6	CM_2157_1049092	SUPER STICKY NOTE - SELF-ADHES	1	11.04	11.04
7	CM_2157_1059156	FREIGHTLINER - PIPE EXHAUST EL	2	60.23	60.23
8	CM_2157_1059157	FREIGHTLINER - PIPE EXHAUST ST	3	225.45	225.45
9	CM_2157_1059158	FREIGHTLINER - PIPE EXHAUST FR	1	156.21	156.21
10	CM_2157_1059160	FREIGHTLINER - HOSE UPPER RADI	1	26.28	26.28
11	CM_2157_1059161	FREIGHTLINER - PIPE SIDE HEATE	2	84.55	84.55
12	CM_2157_1059162	FREIGHTLINER - HOSE ELBOW LOWE	1	16.23	16.23
13	CM_2157_1059163	FREIGHTLINER - HOSE ELBOW LOWE	1	18.29	18.29
14	CM_2157_1059169	CATERPILLAR - BELT TENSIONER #	5	175.31	57.97
15	CM_2157_1059179	CATERPILLAR - SEAL REAR MAIN #	2	27.97	27.97
16	CM_2157_1059180	FREIGHTLINER - WASHER 3/4 INCH	1	1.27	1.27
17	CM_2157_1059181	FREIGHTLINER - BOLT HEX REAR E	1	7.69	7.69
18	CM_2157_1059182	FREIGHTLINER - NUT BATTERY CAB	2	4.72	4.72
19	CM_2157_1059183	FREIGHTLINER - NUT 3/4 IN REAR	1	1.49	1.49
20	CM_2157_1059185	FREIGHTLINER SEAL VALVE COVER	2	11.12	10.93

This concludes the topic of sending **alerts** through OBI Delivers.