Oracle BIEE 11g Reports and Dashboard Hands On

Vlamis Software Solutions is one of the most respected training organizations in the Oracle Business Intelligence community because our training programs and materials are informed by our experience leading implementations in many of the world's foremost corporations. Through our roles as implementers, beta testers, and trainers, we develop and codify many of the "best practices" that are propagated throughout the industry. Our training materials reflect this expertise and are centered on hands-on exercises that build confidence and competence. With more than 200 Oracle BI implementations under our banner, our trainers are not just presenters, but accomplished consultants who incorporate their real world experience into the classroom ensuring that participants are optimally prepared. This Hands-on Lab is an excerpt from our OBIEE 11g classroom / web-based class.

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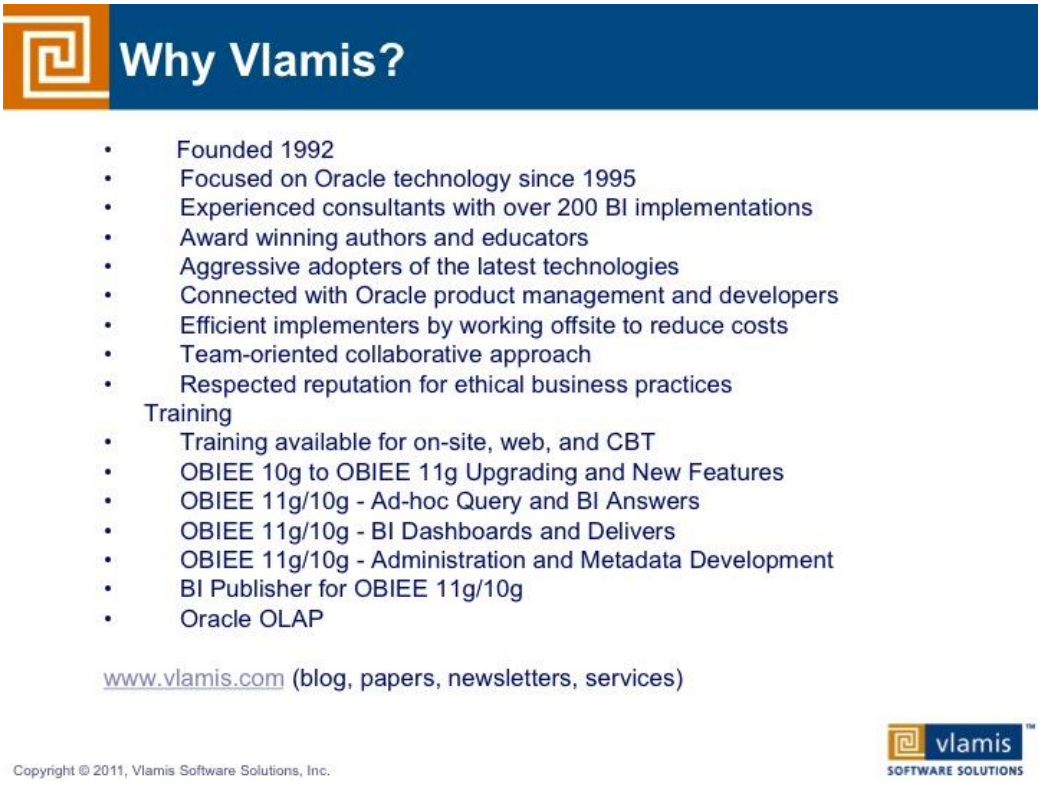
Oracle BIEE 11g Report and Dashboard Hands On

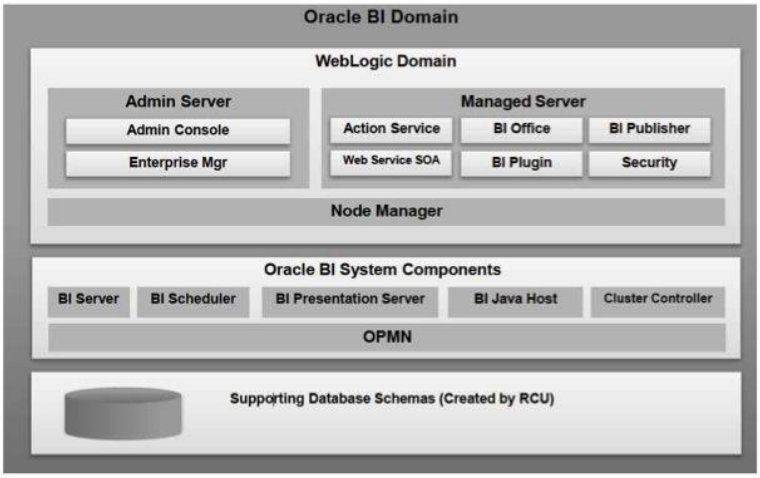
The Oracle BI Answers and Dashboards are the reporting components of the Oracle Business Intelligence environment.

This hands-on will consist of two 1 hour sessions covering the following:

Part One
Overview of What's New
The New Analysis Look and Feel
Answers – New Features
  Lesson #1 Working with New Column Types
Graphs New Features
  Lesson #2 Working with New Graphs
Part Two
Using Maps – A whole new world!
  Lesson #3 – Using Maps
Prompts – New Features
  Lesson #4 Working with Prompts
Dashboards Putting it All Together
  Lesson #5 Building Dashboards



OBIEE 11g Architecture



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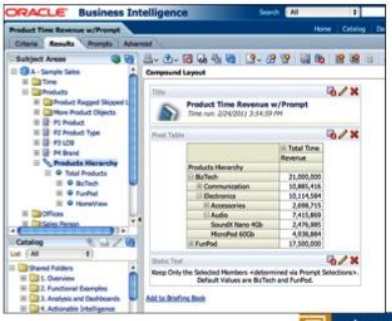
Answers 11g Overview

- Improved support for OLAP-style reporting
  - Hierarchical columns
  - Support for ragged and skip-level hierarchies
  - Dynamic re-arrangement of pivot tables in the dashboard
- Dynamic grouping and custom aggregates
- New Prompts
- New dashboard controls
- New gauge types and graphics



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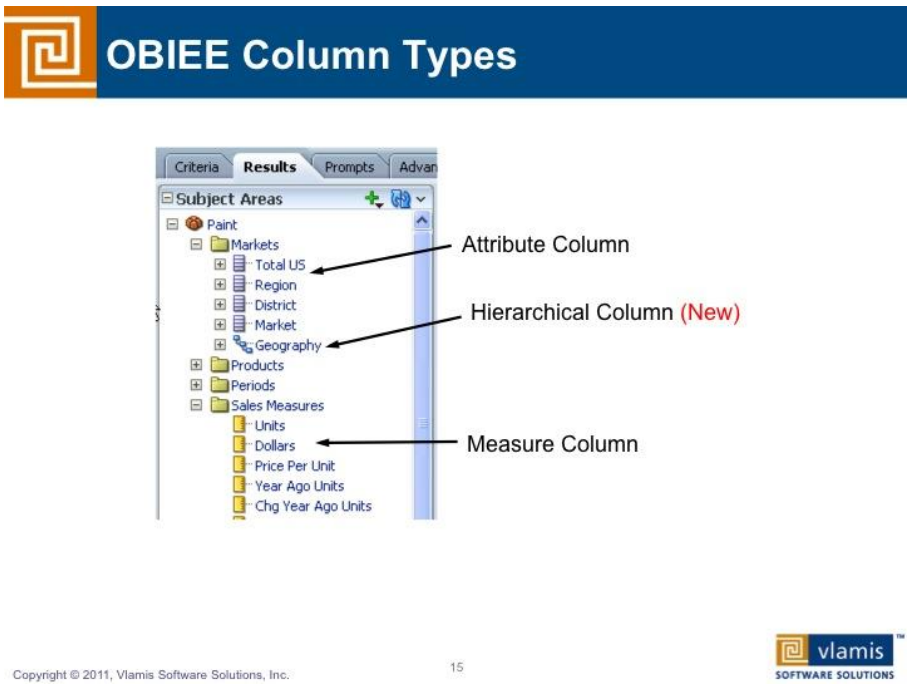


Lesson 1 – Using the New Hierarchical Columns

Exercise 1a: Creating a query

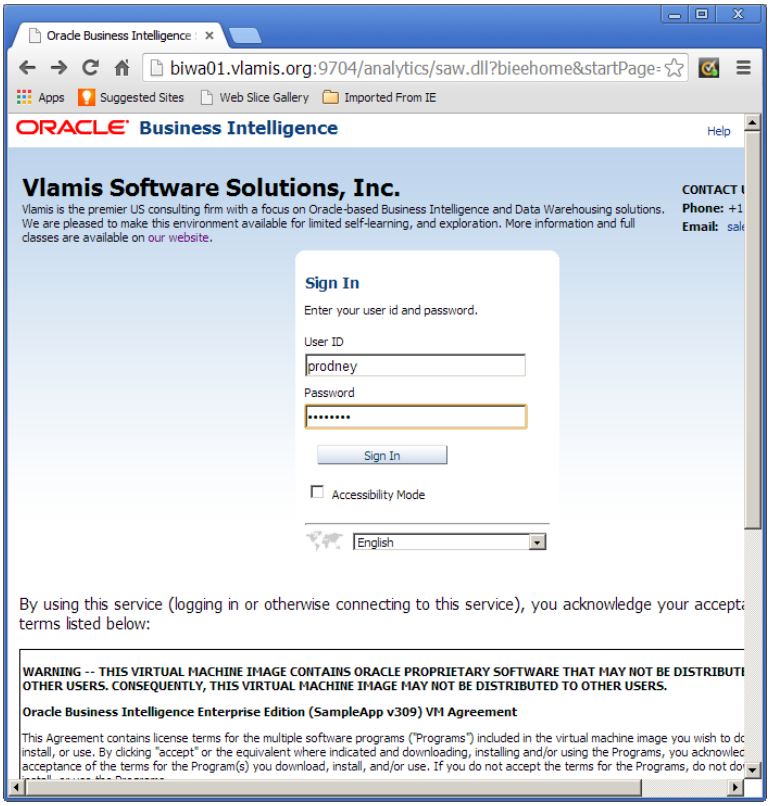
In this lesson, you will:

1. Create a simple query in Answers
2. Apply filters to the query
3. Format the query

Enter the URL template below. You will be given a number to replace the __ with at the beginning of the

http://biwa__.vlamis.org:9704/analytics/

Username: prodney
Password: Admin123 (case sensitive)

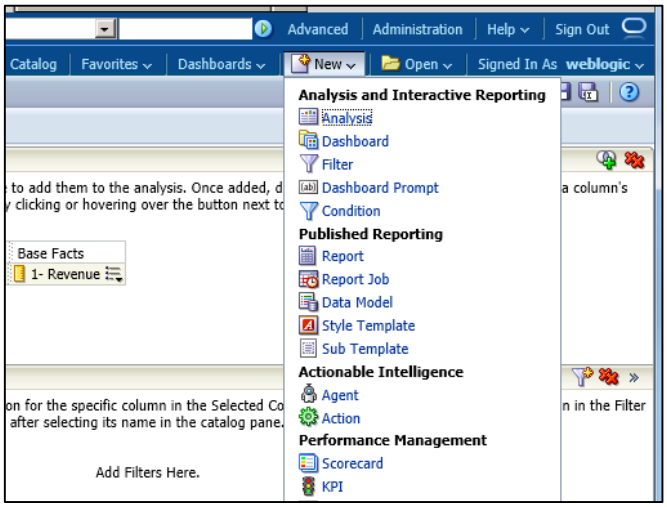


Scenario

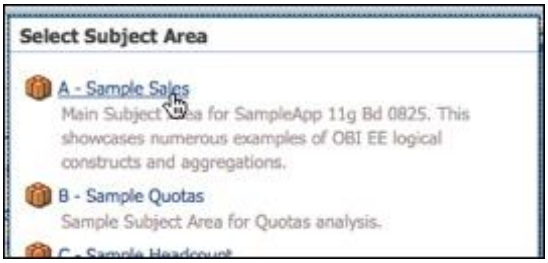
Build an Analysis that will show Revenue by Office by Time. The Offices Total value should be the aggregate of all Companies but only display the Companies that have Revenue between $6,000,000 and $9,000,000 for year 2010.

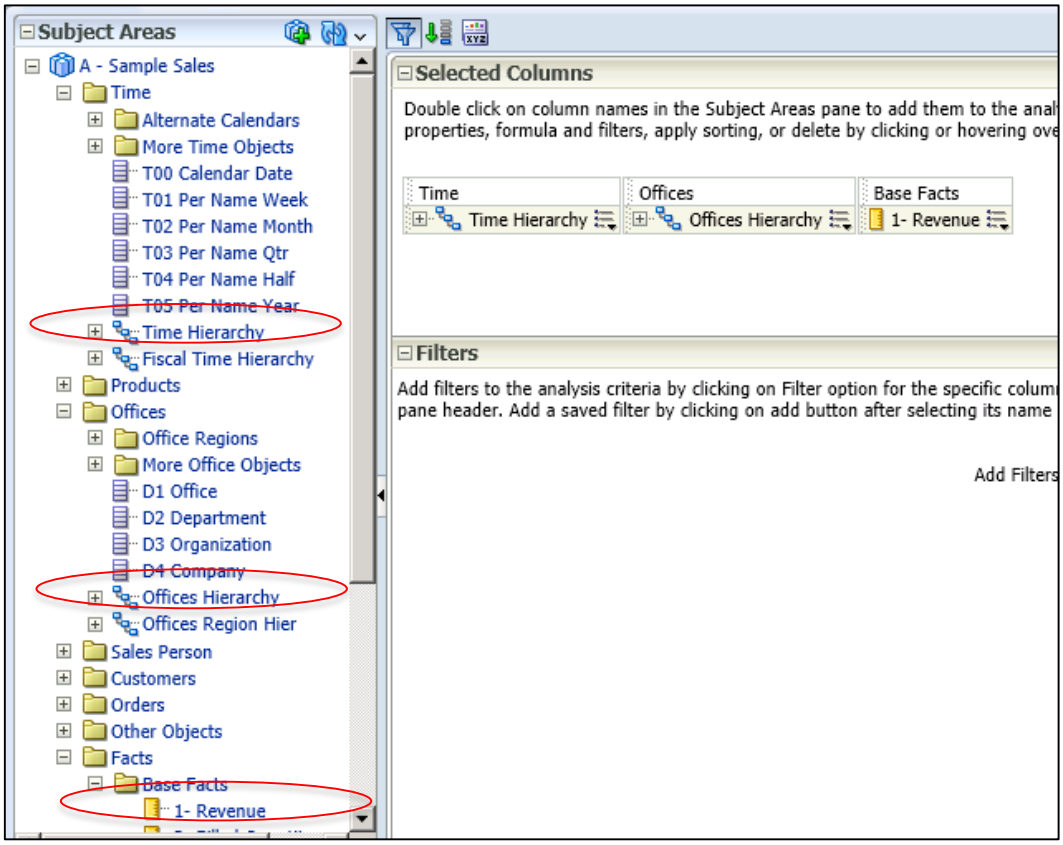
Create a Query

Click **New and then Analysis** at the top-right of the screen to navigate to the Answers start page.

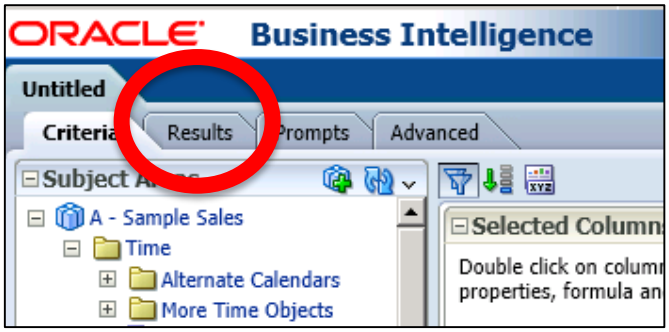


Click on the **A - Sample Sales** subject area link.

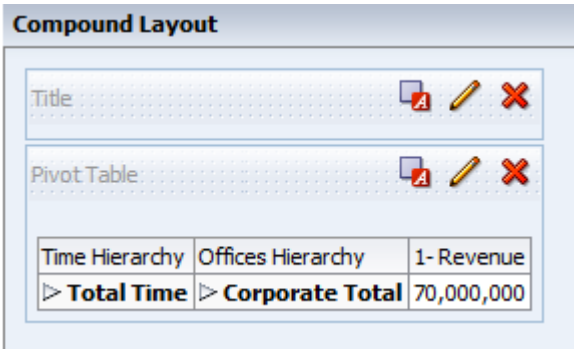




1. In the left-hand selection pane of the Answers interface:
    - Click the Plus ⊞ icon next to **Time Dimension** to drill down and see the columns associated with the **Time** dimension.
    - Double-click the **Time Hierarchy** column to add it to your query criteria, which appears in the right pane.
2. Click the Plus ⊞ icon next to **Offices Dimension** to drill down and see the columns for the Offices dimension.
    - Double-click the **Offices Hierarchy** column to add it to your query criteria.
3. Drill on **Facts**,
    - Drill on **Base Facts** and
    - Add the **Revenue** column.
    - Click on the **Results Tab** at the top-left of your screen.



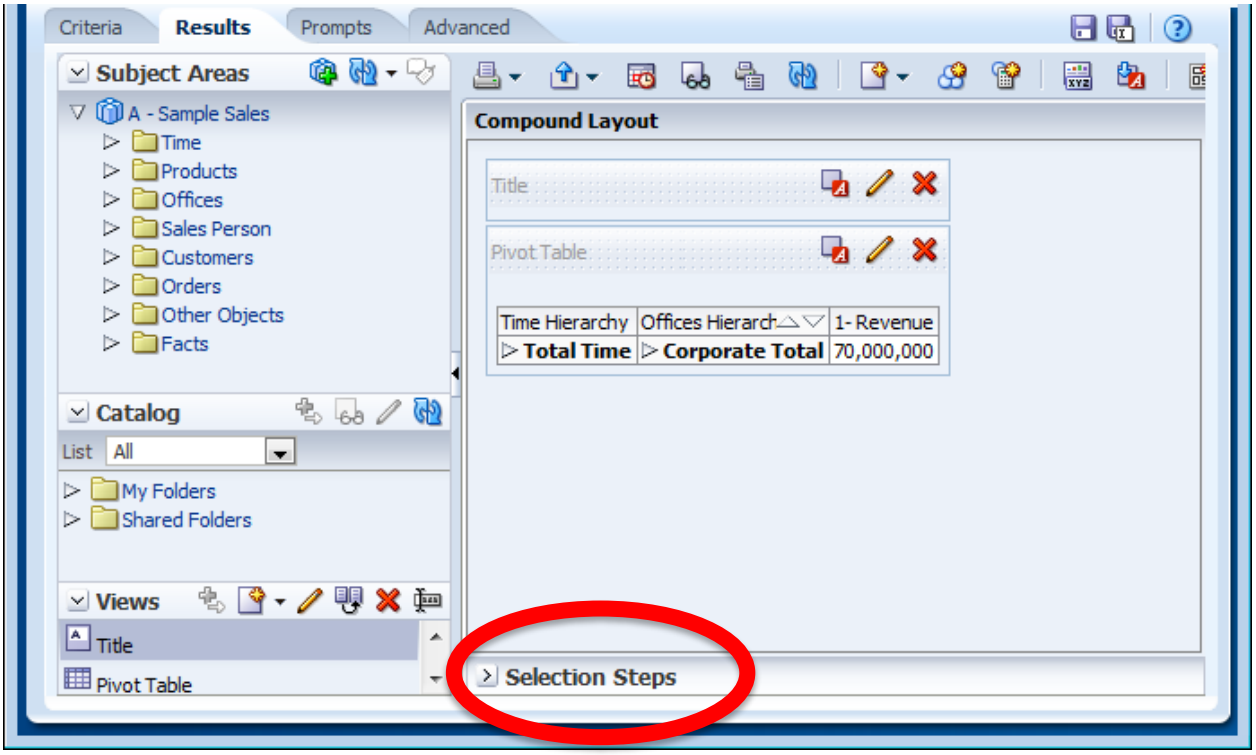
4. Your results should look like this:

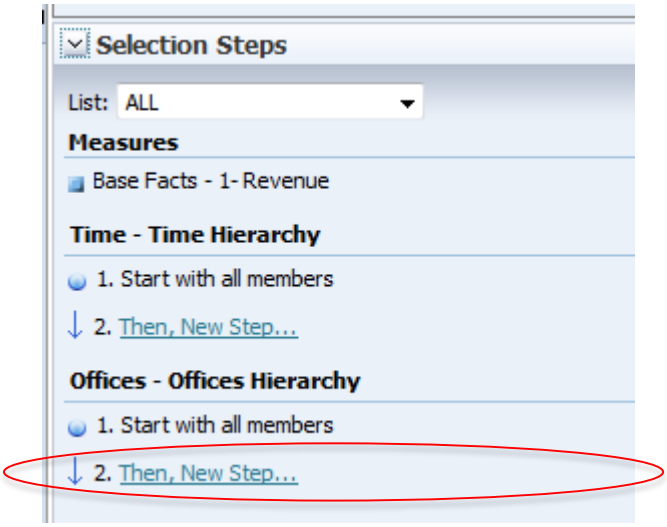


Filtering Data

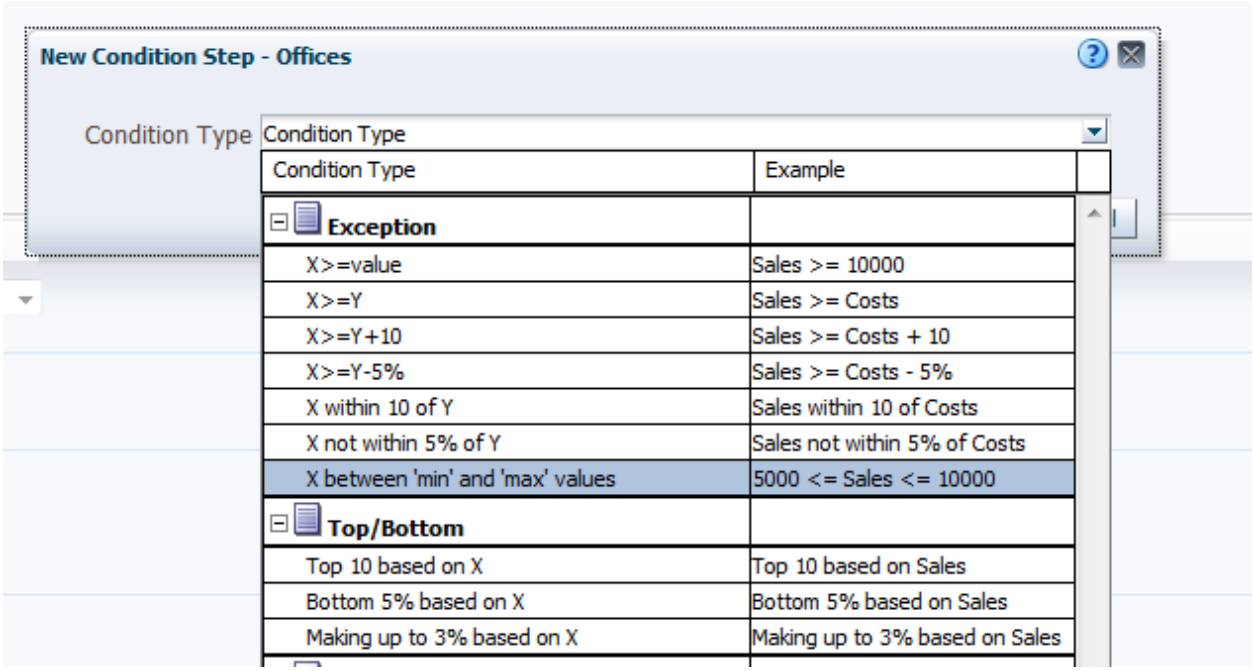
Exercise 1b: Using Selection Steps

In addition to traditional Filters, OBIEE11g now has Selection Steps. We will use Selection Steps to choose the correct Offices to display. Show your Selection Steps by clicking the icon on the bottom-center of your screen next to **Selection Steps**.

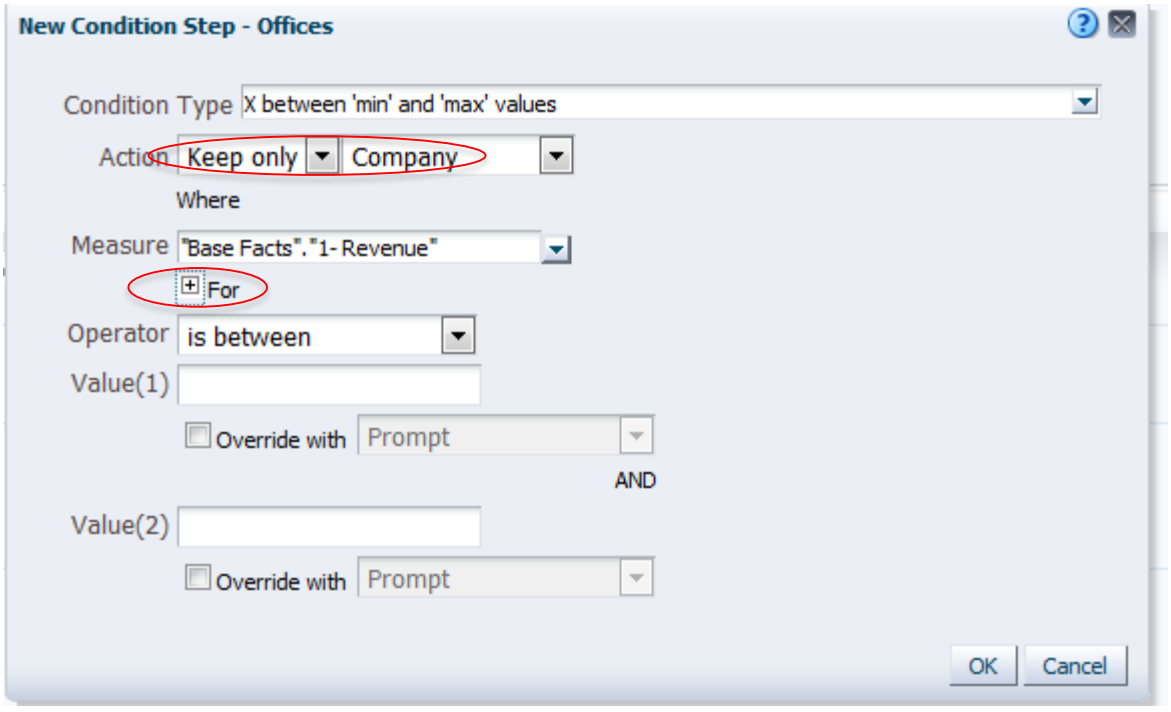




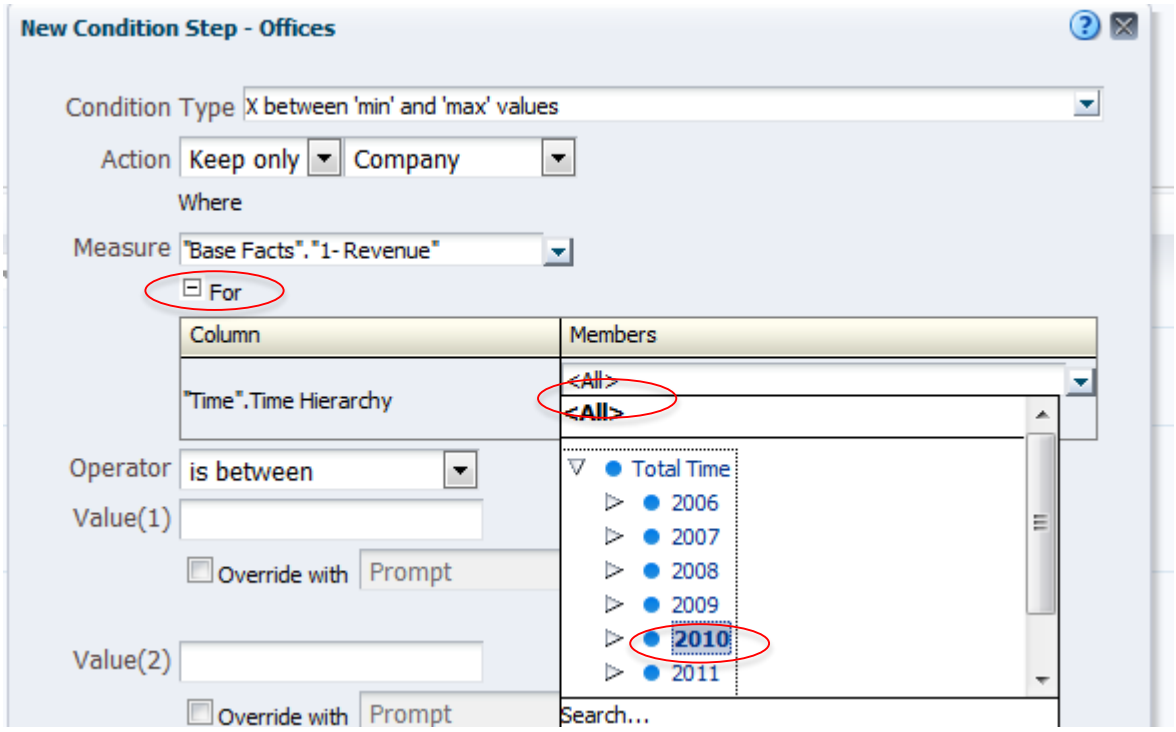
Under **Offices - Offices Hierarchy** click **Then New Step** and click **Apply a Condition**. Drop-down the list of conditions. Select **X between 'min' and 'max' values**.



Set the **Action** drop-downs to **Keep Only** and **Company**

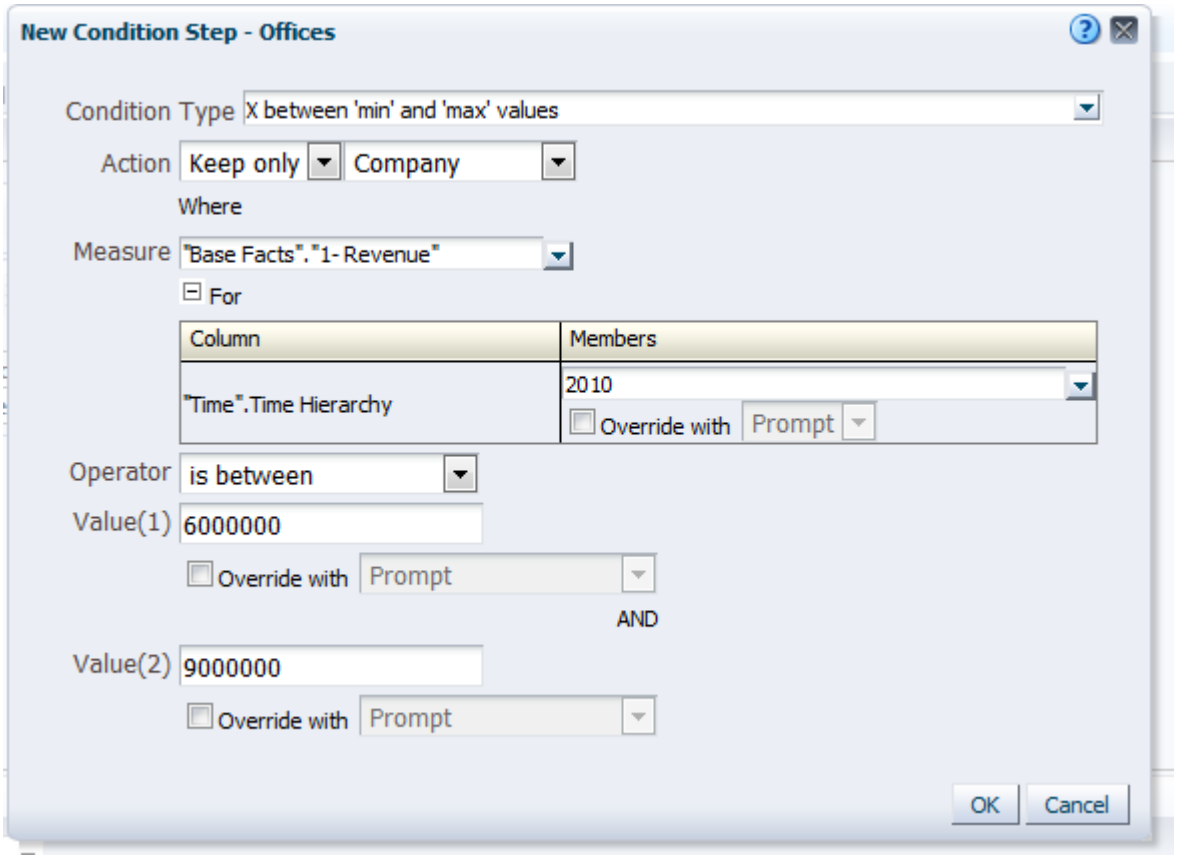


Click the ⊞ under **Measure** next to **For**.

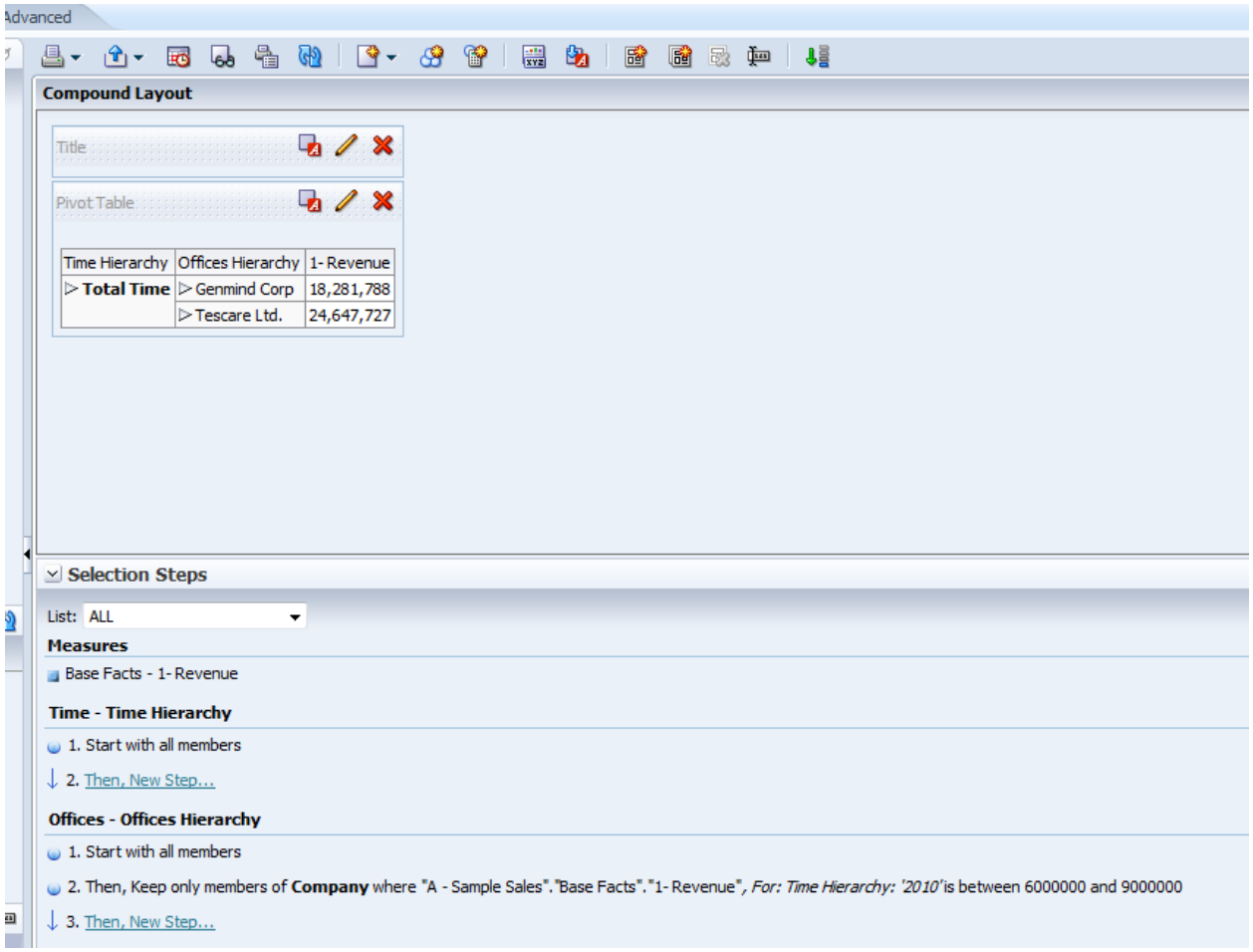


Click the drop down under **Members**, expand **Total Time** then select **2010**. Click off of the drop-down to make it collapse.

Enter **6000000** in the **Value(1)** box and **9000000** in the **Value(2)** box. If your New Condition Step looks like this, click **OK**.

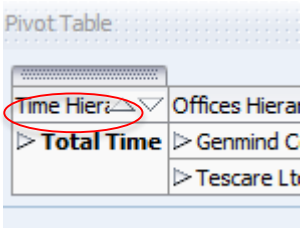

New Condition Step - Offices
Condition Type
X between 'min' and 'max' values
Action
Keep only
Company
Where
Measure
"Base Facts"."1- Revenue"
For
Column
Members
"Time".Time Hierarchy
2010
Override with
Prompt
Operator
is between
Value(1)
6000000
Override with
Prompt
AND
Value(2)
9000000
Override with
Prompt
OK
Cancel

The results should now look like this. Take note of the Selection Step you added.

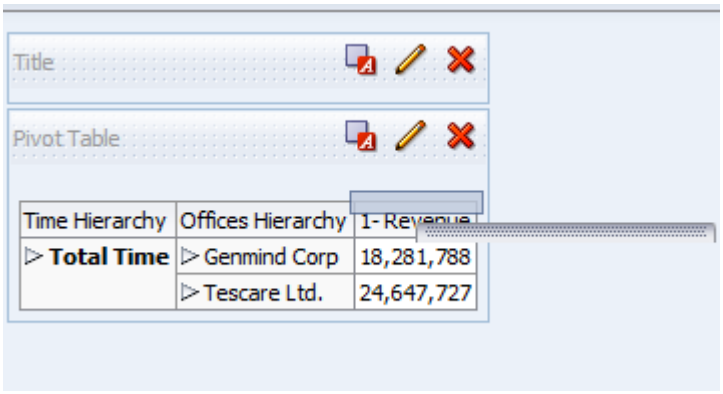


Exercise 1c: Pivot Table and Hierarchies

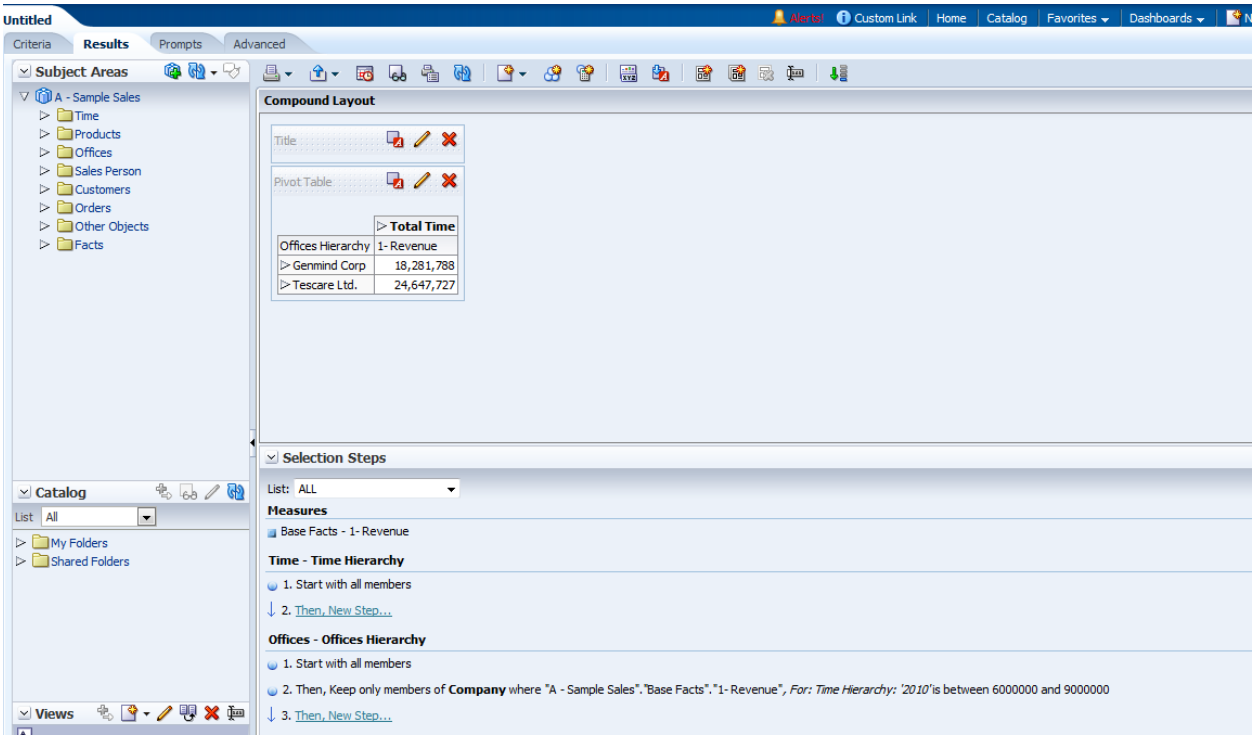
Now let's work with the Pivot Table. You can drag and drop columns on Pivot Tables. If you highlight the Time Hierarchy column you will see a Grey Tab Show up (and the mouse pointer will change):



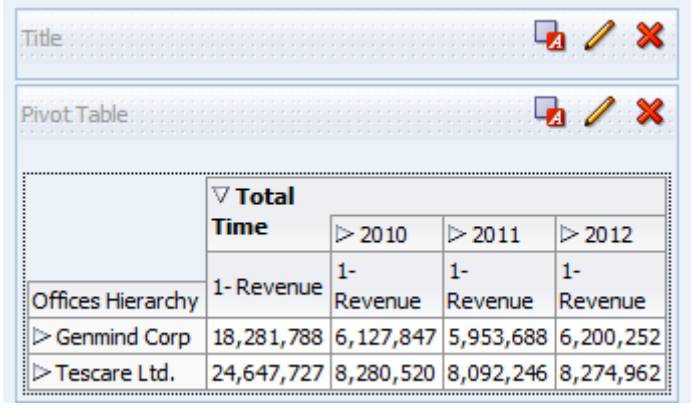
Now Grab the Tab and Drag it on top of the Revenue Column (you may see several different insertion points as you drag the tool bar.)



The display will now show this:

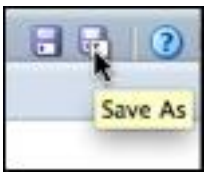


Click the arrow next to Total Time to Expand the Time Dimension and your Display should look like this:



You can expand the Offices and you will see that they stay within the same column. Expanding The Time will add columns but they are linked to the parentage and can expand and contract.

Save the Query as Lesson 1_<your initials> so we can use it in the next lesson.



Exercise 1d: Grouping

Next we will use the new Group Function to create an Aggregate Group

Return to the **Results** tab.

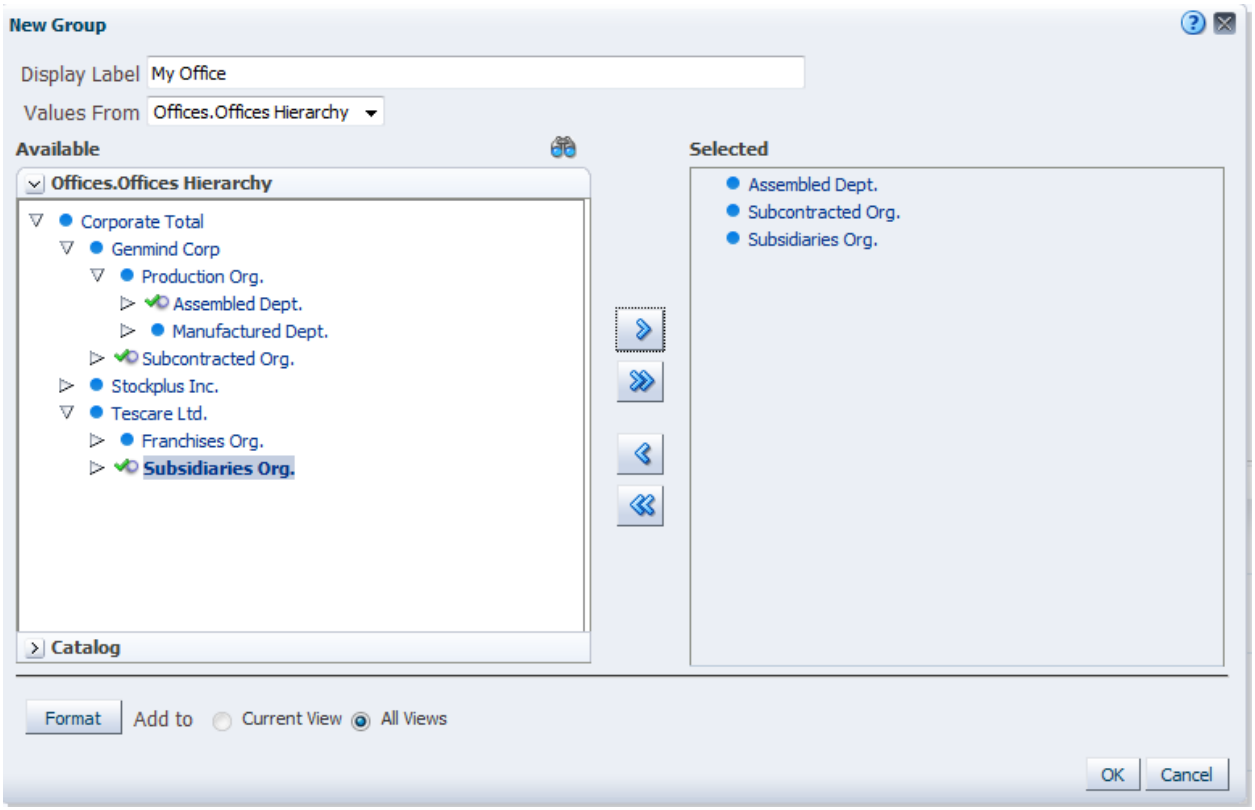
- If your Selection Steps is shown, minimize it by clicking the down arrow next to Selection Steps to free up screen space.

At the top of the area in the menu bar click on **New Group**

This allows you to create a separate aggregate group from selected members within a hierarchy.

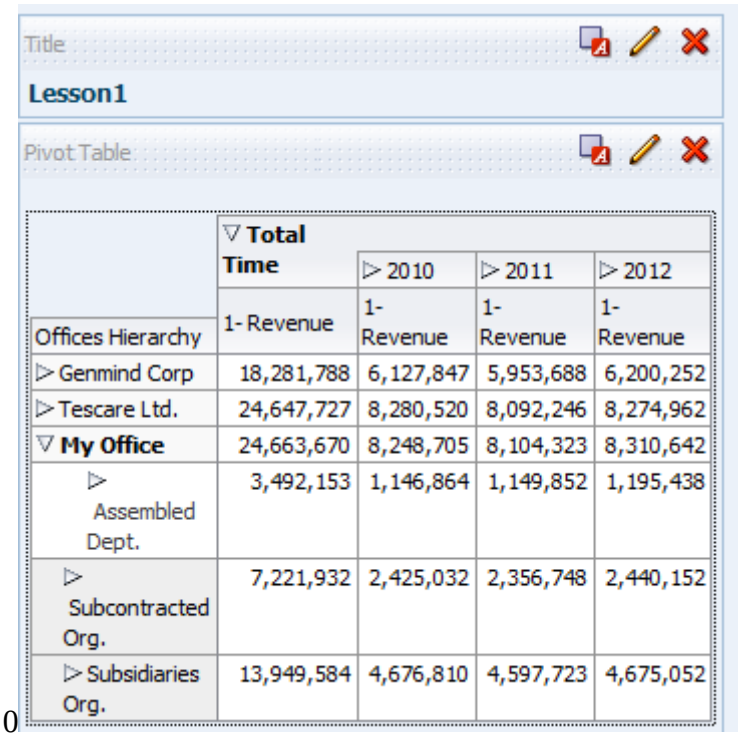
Give the Group a name (My Office) in the **Display Label** text area. Select "Offices.Offices Heirarchy" in the **Values From** text area.

- Go to Genmind → Production Org → Assembled Dept and select;
- select Subcontracted Org;
- go to Tescare Ltd.→ Subsidiaries Org. and select.



Click **OK**

Expand My Office and your screen should look like this:



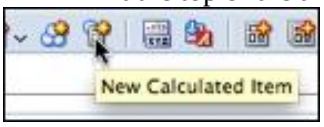
Offices Hierarchy	▽ Total Time 1- Revenue	▷ 2010 1- Revenue	▷ 2011 1- Revenue	▷ 2012 1- Revenue
▷ Genmind Corp	18,281,788	6,127,847	5,953,688	6,200,252
▷ Tescare Ltd.	24,647,727	8,280,520	8,092,246	8,274,962
▽ **My Office**	24,663,670	8,248,705	8,104,323	8,310,642
▷ Assembled Dept.	3,492,153	1,146,864	1,149,852	1,195,438
▷ Subcontracted Org.	7,221,932	2,425,032	2,356,748	2,440,152
▷ Subsidiaries Org.	13,949,584	4,676,810	4,597,723	4,675,052

0
1

Exercise 1e: Calculated Members

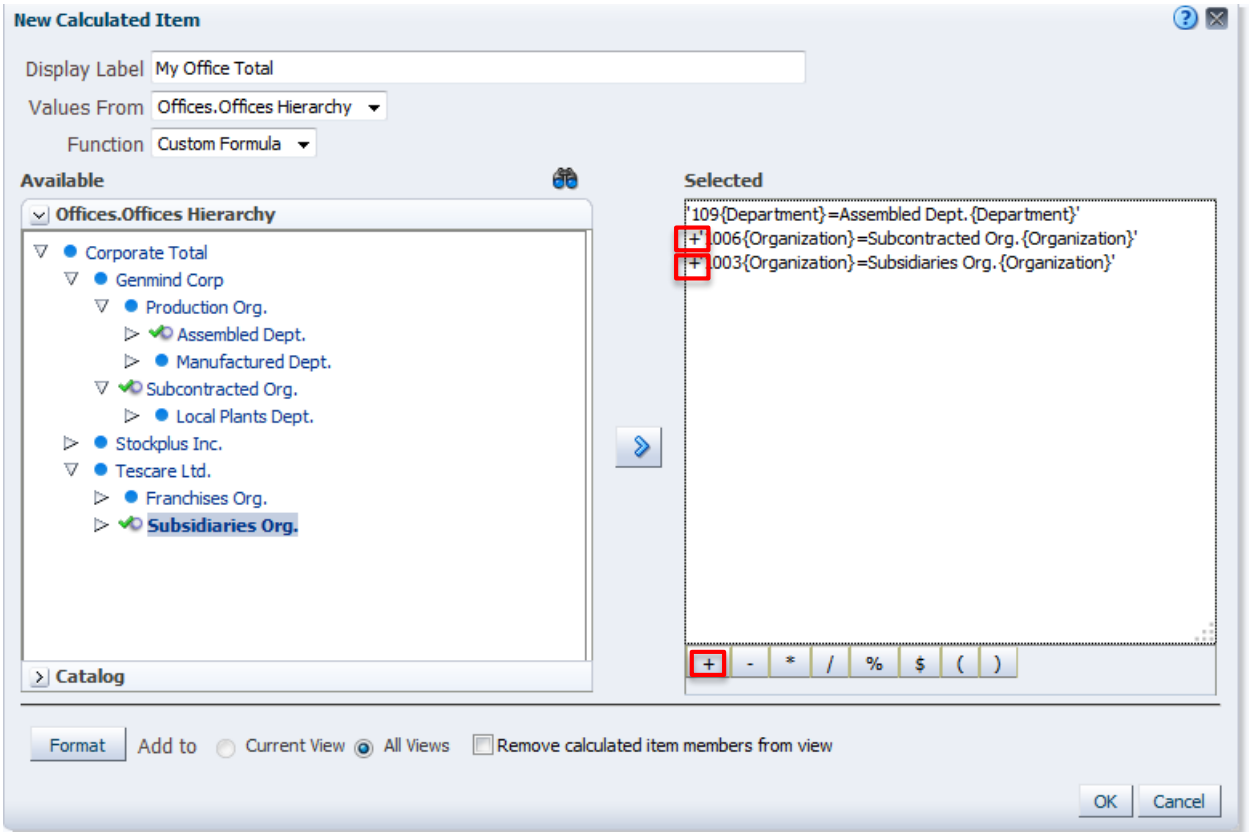
Next we will use the new Calculated Item Function to create a Custom Aggregate

- Return to the **Results** tab.
- At the top of the area in the menu bar click on **New Calculated Item**



You use this to create a separate aggregate from selected members within a hierarchy.

- Give the Item a name (My Office Total).
- Select Genmind → Production Org → Assembled Dept and move it over to the Selected field.
- Click the + button at the bottom.
- Select Genmind → Subcontracted Org and move it over to the Selected field.
- Click the + button at the bottom
- Select Tescare → Subsidiaries



Notice that the Select looks different. It is showing the calculations instead of just the members selected.

Click **OK**

The Results should look like this:

Title

Lesson1

Pivot Table

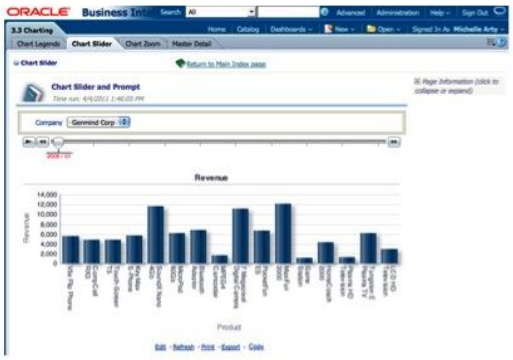
	Total Time			
		▷ 2010	▷ 2011	▷ 2012
Offices Hierarchy	1- Revenue	1- Revenue	1- Revenue	1- Revenue
▷ Genmind Corp	18,281,788	6,127,847	5,953,688	6,200,252
▷ Tescare Ltd.	24,647,727	8,280,520	8,092,246	8,274,962
▽ **My Office**	24,663,670	8,248,705	8,104,323	8,310,642
▷ Assembled Dept.	3,492,153	1,146,864	1,149,852	1,195,438
▷ Subcontracted Org.	7,221,932	2,425,032	2,356,748	2,440,152
▷ Subsidiaries Org.	13,949,584	4,676,810	4,597,723	4,675,052
My Office Total	24,663,670	8,248,705	8,104,323	8,310,642

Notice that the Calculated Item (My Office Total) is not Drillable but the Group (My Office) is Drillable. The Totals for both rows are the same.

OBIEE 11g Charts and Graphs

New Graphs and Visualizations

- Additional Graph Features implemented
- Sliders, Zoom and Legends
- Master Detail links



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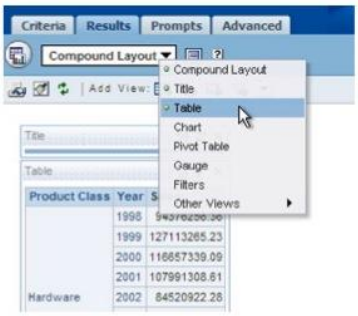
The View Selector

- Reports in Oracle Answers can have multiple Views associated with them
- Default views are Table, Title and Compound
  - Table view is a simple listing
  - Title view provides a title, subtitle and icon
  - Compound view combines multiple views
- Compound view is normally the view displayed in the dashboard



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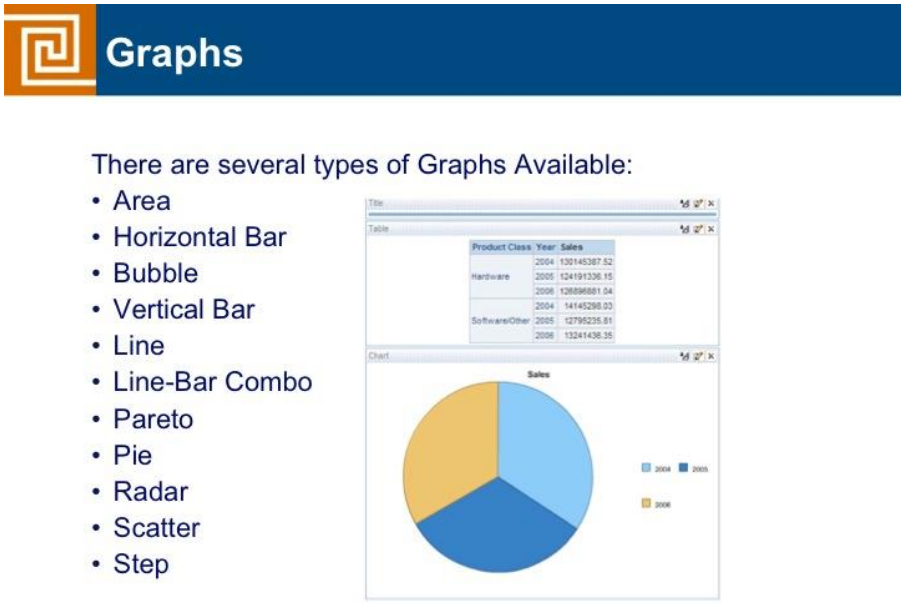
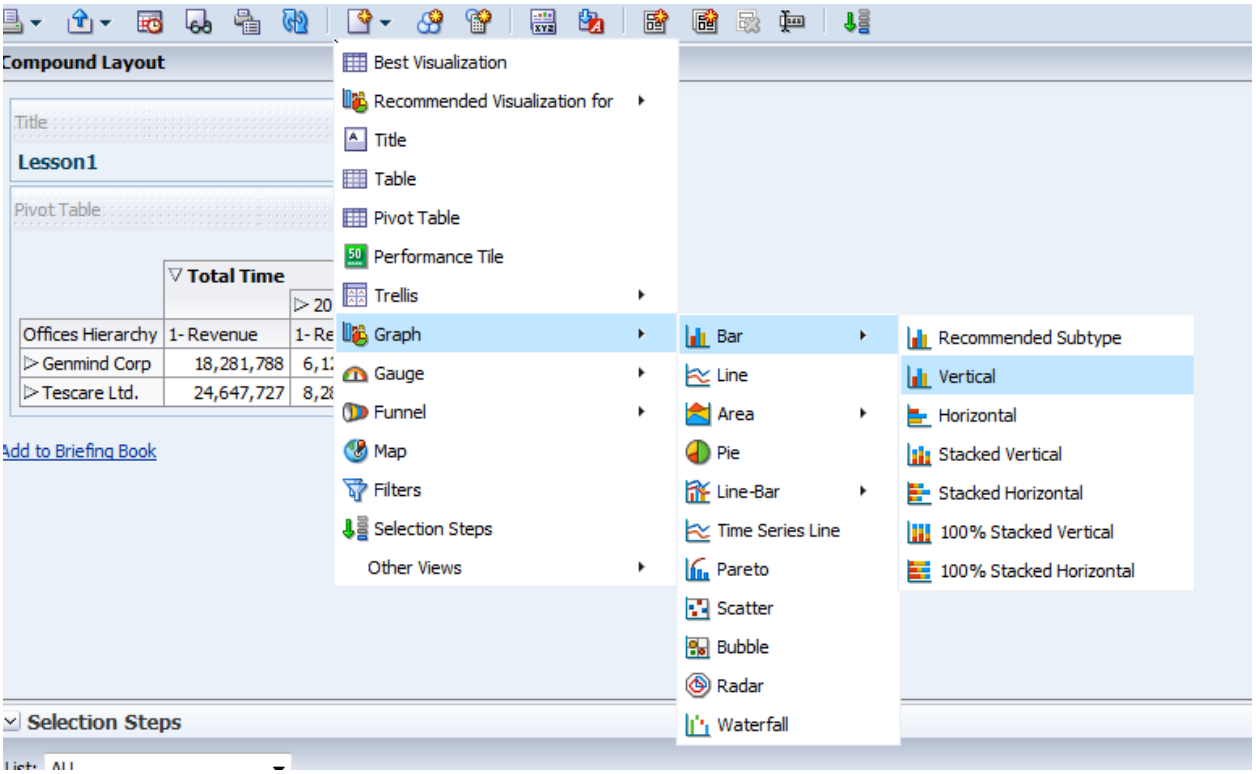


Lesson 2 – Creating Graphs

Exercise 2a: Graph Slider

Go to Selection Steps and Delete the My Office Group and My Office Total Calc

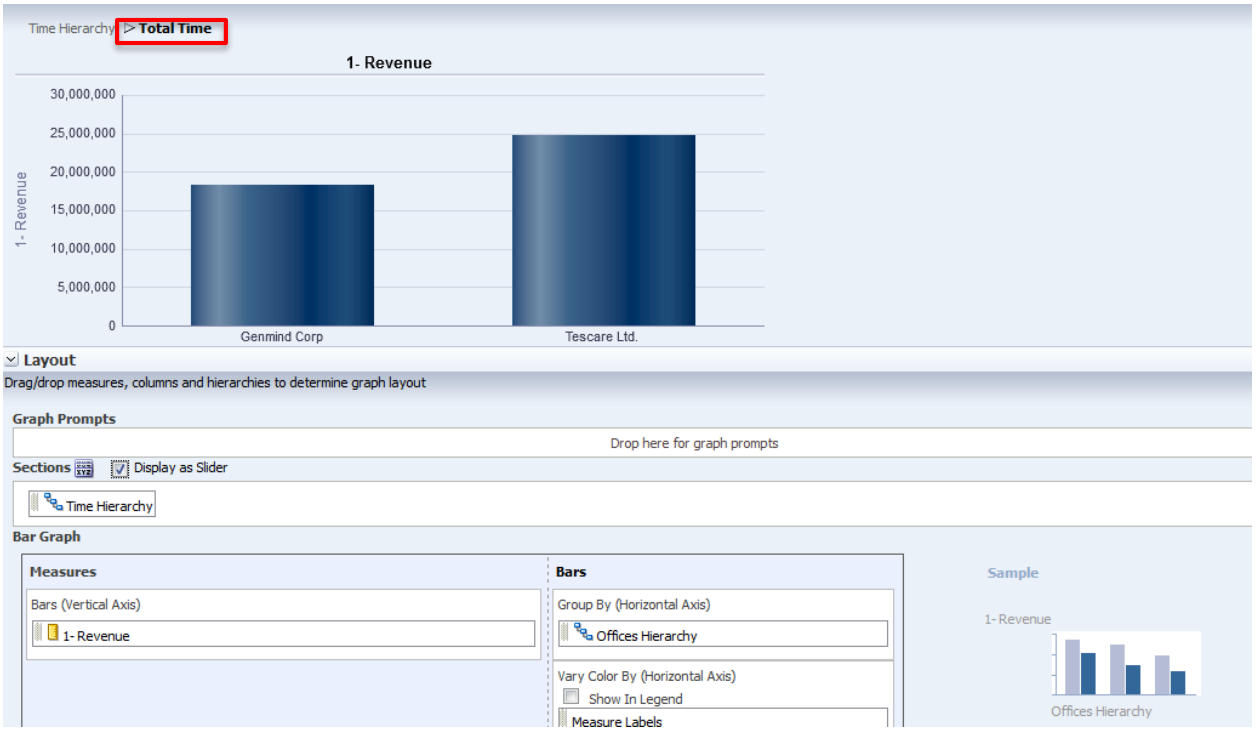
Working with the same query, select New View → Graph → Bar → Vertical.



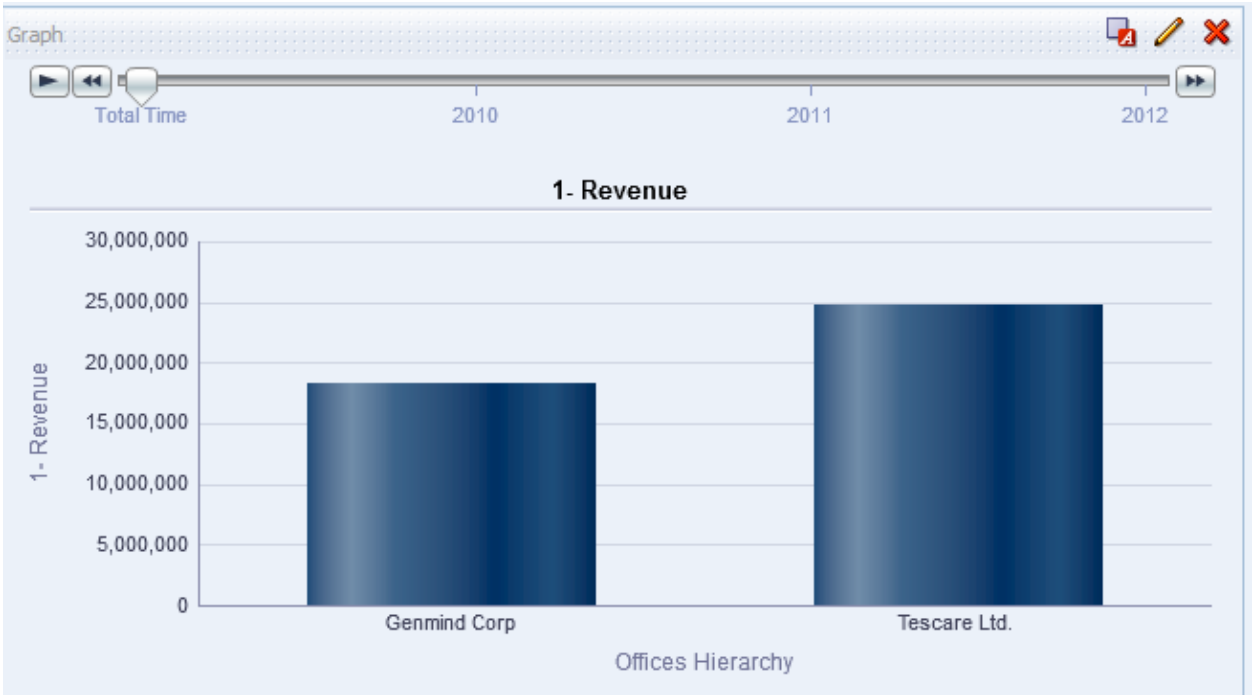
You should get something like the following:

Click on the pencil icon to edit the Graph View and perform the following:

1. Move Time Hierarchy under Sections
2. Check “Display as Slider” in the Sections
3. Expand Total Time in the graph view



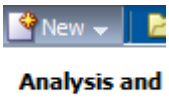
Click **Done** and your graph will look like this:



Click the Play button on the slider or move the slider to display results for various years.

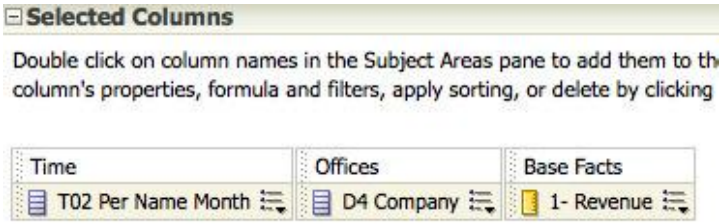
Save this as Lesson 2A_<your initials>

Exercise 2b: Graph Zooming

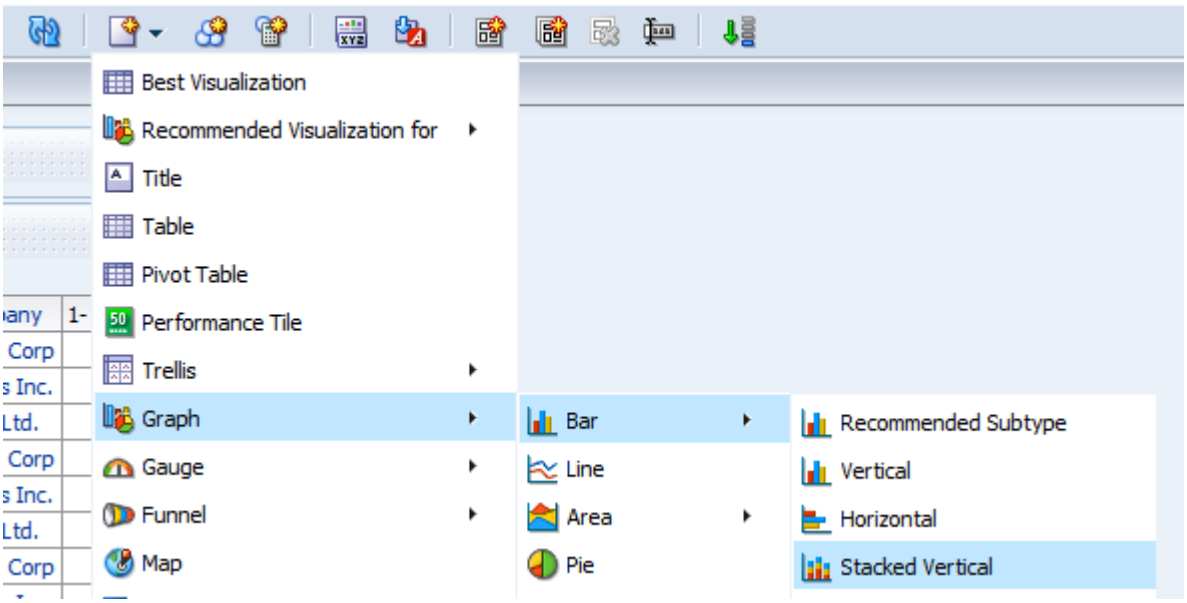
Create a new Analysis (using New → Analysis → A - Sample Sales) 

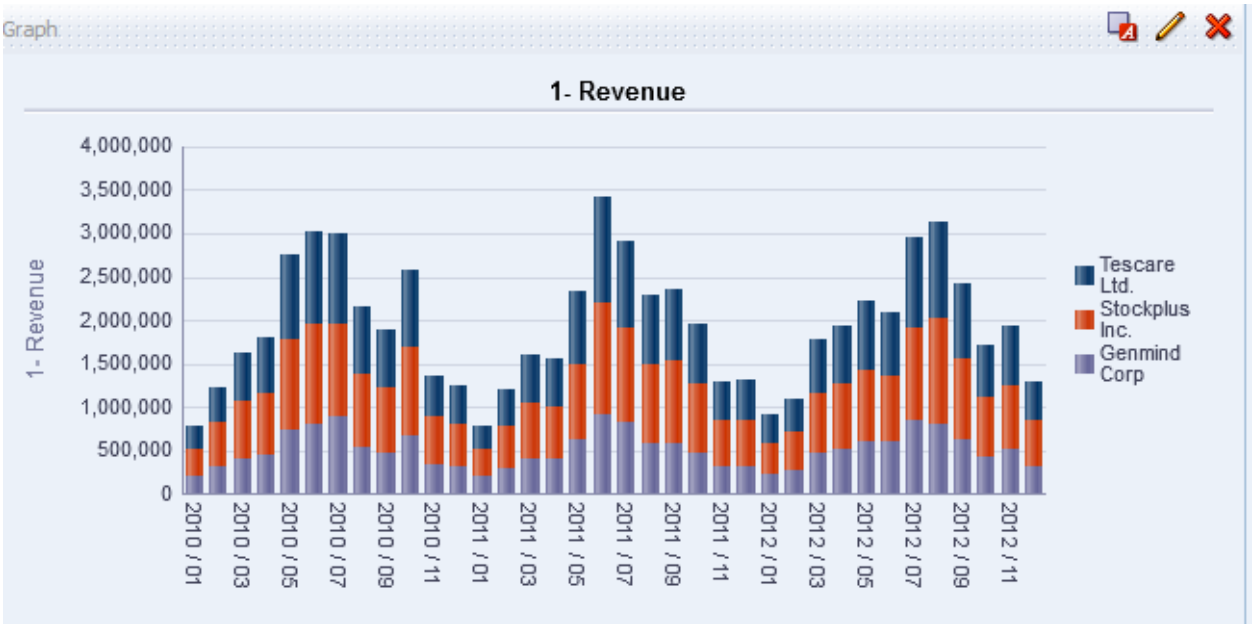
using the columns shows below:

Double click the following column names Time → More Time Objects → T02 Per Name Month, Offices → D4 Company, Facts → Base Facts → 1-Revenue to add them to the **Criteria** tab.



Go to the **Results** tab.
Create a new View → Graph Stacked Vertical Bar





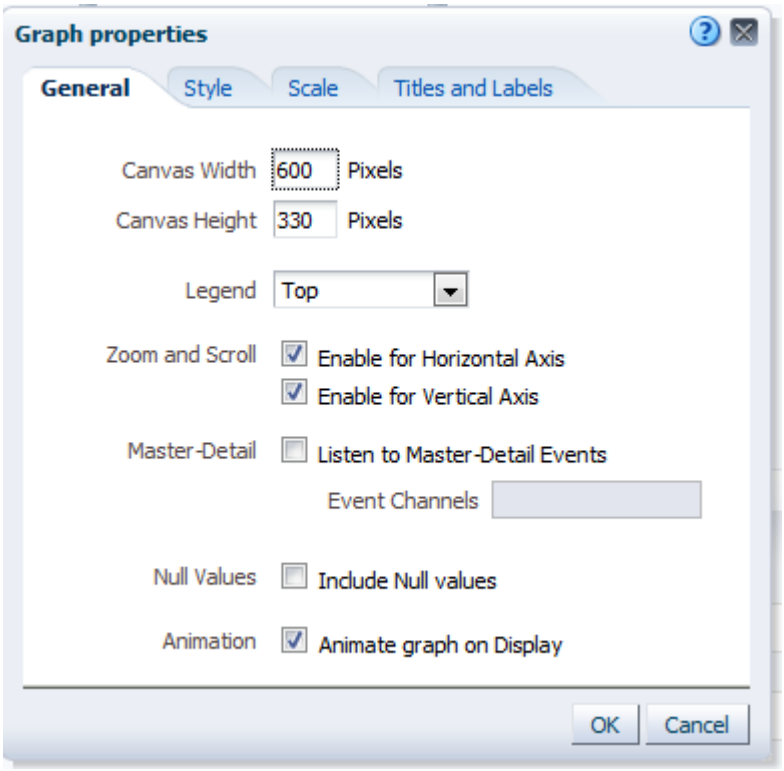
Now click the pencil icon to Edit the Graph.

Click the Edit Graph Properties icon

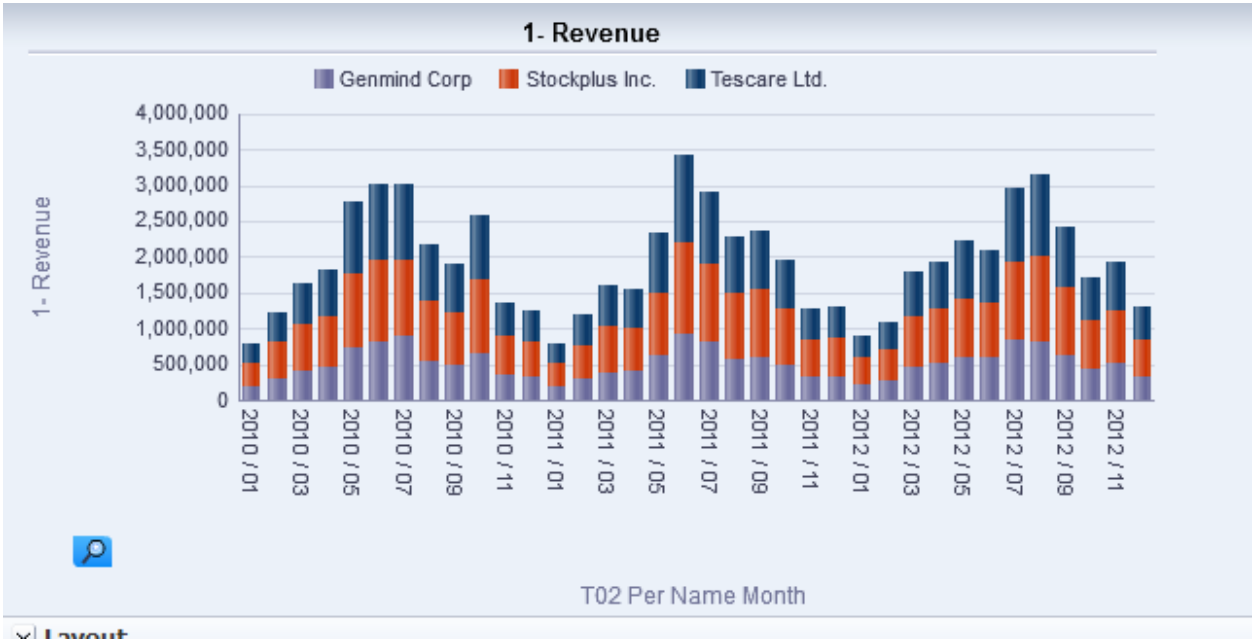
and set the following:

1. Zoom Enabled for Horizontal and Vertical Axis

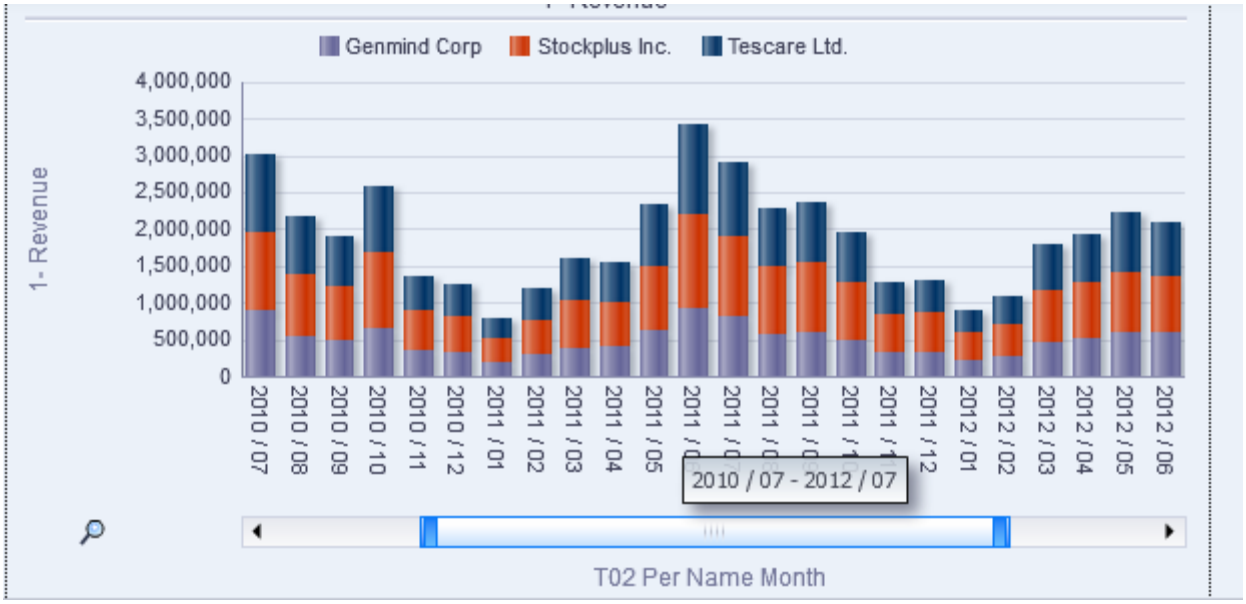
2. Legend on the Top
3. Canvas Width to 600



Click OK and your Graph should look like this:



When you move your mouse to the bottom left side of the graph (you may have to minimize the Layout section on small screens), a small magnifying glass icon will appear. Click on the Zoom icon and zoom into the Horizontal Axis so you can see each month label.



You can now slide for more detail

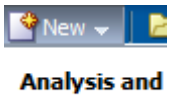
Note: You can also adjust the size of the slider bar by clicking and adjusting the “Blue” ends of the slider.

Save this as Lesson 2B_<your initials>

Lesson 3 – Maps

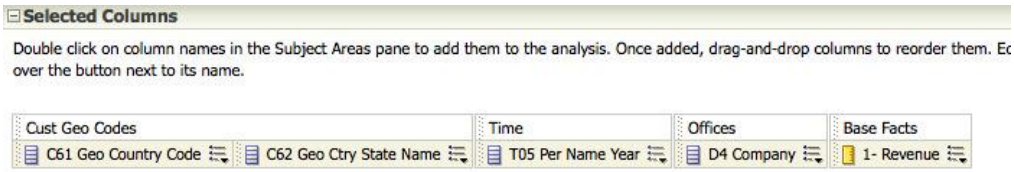
Exercise 3a: Creating a Map View

To create a Map view we must first start with data that has some geocoded columns. The Sample data has several columns that can be used.

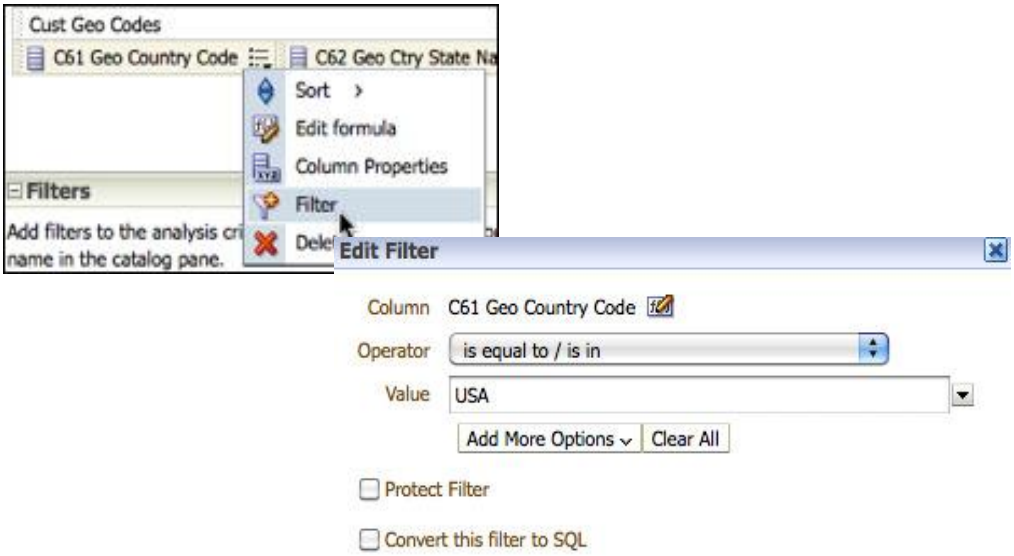


Create a query by selecting New Analysis in the A Sample Sales subject area with the following columns:

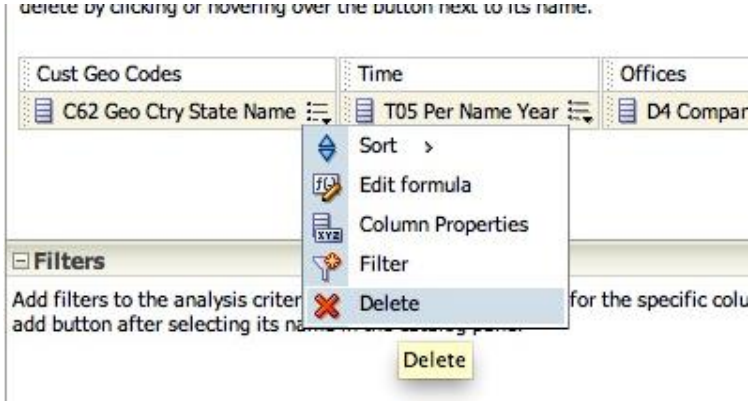
- Customers → Cust Regions → Cust Geo Codes →C61 Geo Country Code
- C62 Geo Ctry State Name
- Time → T05 Per Name Year
- Offices → D4 Company
- Facts→ Base Facts → 1-Revenue



Add a Filter for Country Code where the Value is USA



Now delete the C61 Geo Country Code from the selected columns

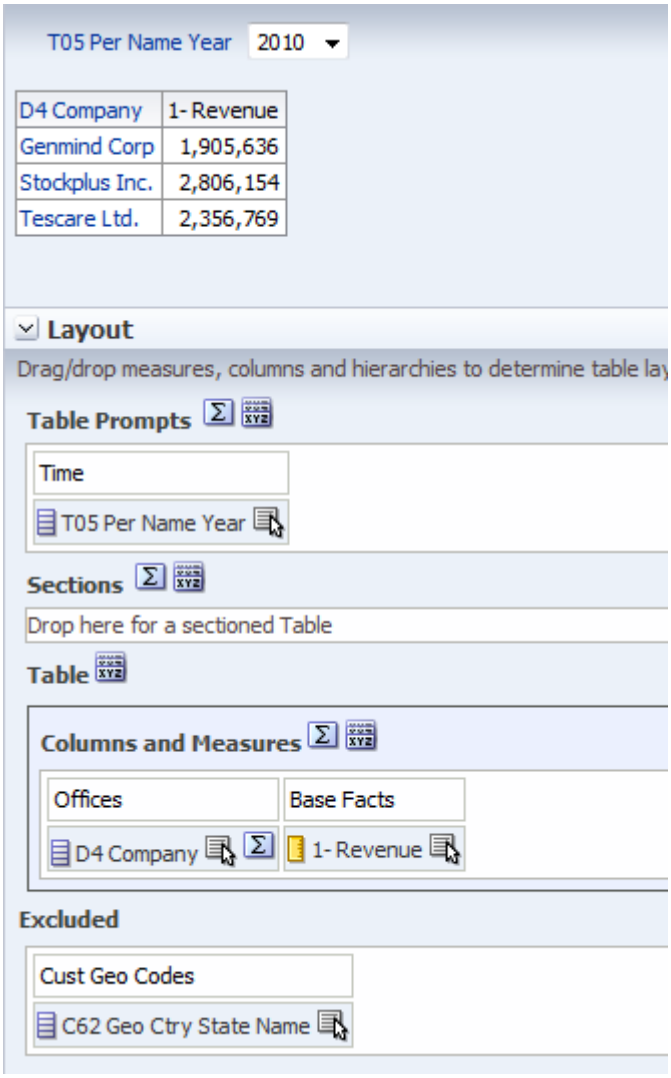


Click Results Tab

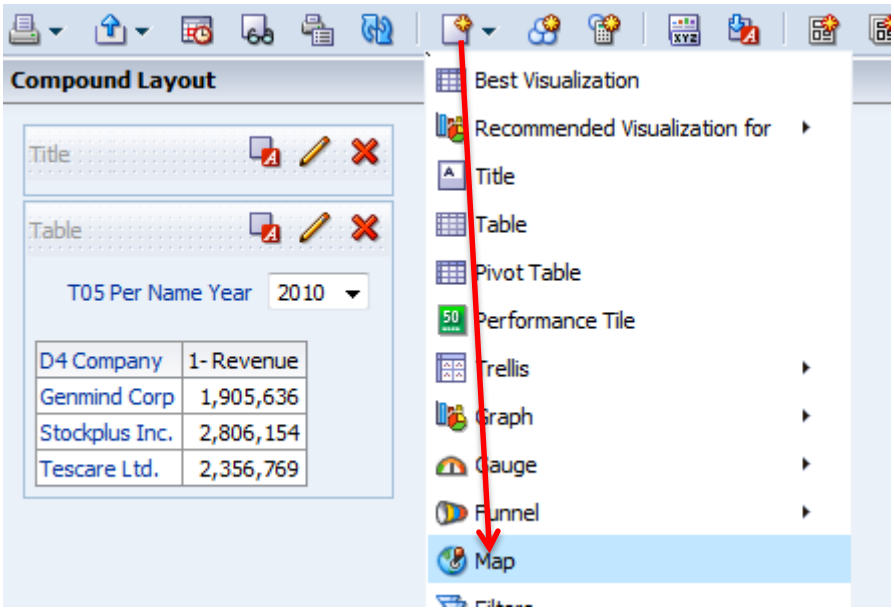
C62 Geo Ctry State Name	T05 Per Name Year	D4 Company	1- Revenue
USA_Alabama	2010	Genmind Corp	28,489
		Stockplus Inc.	42,141
		Tescare Ltd.	33,991
	2011	Genmind Corp	24,217
		Stockplus Inc.	46,208
		Tescare Ltd.	43,480
	2012	Genmind Corp	21,404
		Stockplus Inc.	24,576
		Tescare Ltd.	30,313
USA_Alaska	2010	Genmind Corp	26,467
		Stockplus Inc.	18,768
		Tescare Ltd.	14,686
	2011	Genmind Corp	30,364
		Stockplus Inc.	18,414
		Tescare Ltd.	19,294
	2012	Genmind Corp	46,256
		Stockplus Inc.	32,256
		Tescare Ltd.	22,132
USA_Arkansas	2010	Genmind Corp	6,872
		Stockplus Inc.	20,134
		Tescare Ltd.	13,365

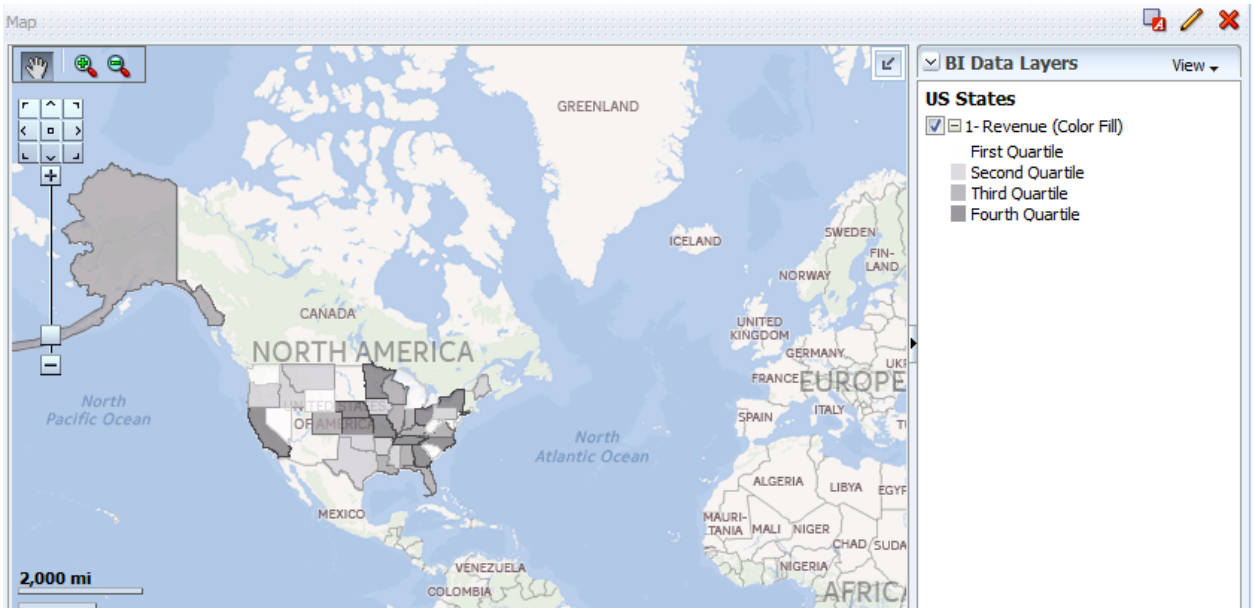
Edit the Table Layout (click Pencil in corner above) and make the following changes:

- Drag T05 Per Name Year to the Table Prompts Field.
- Drag C62 Geo Ctry State Name to the Excluded Field.



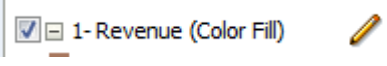
Click Done.
Now Create a New View → MAP you should now see this:



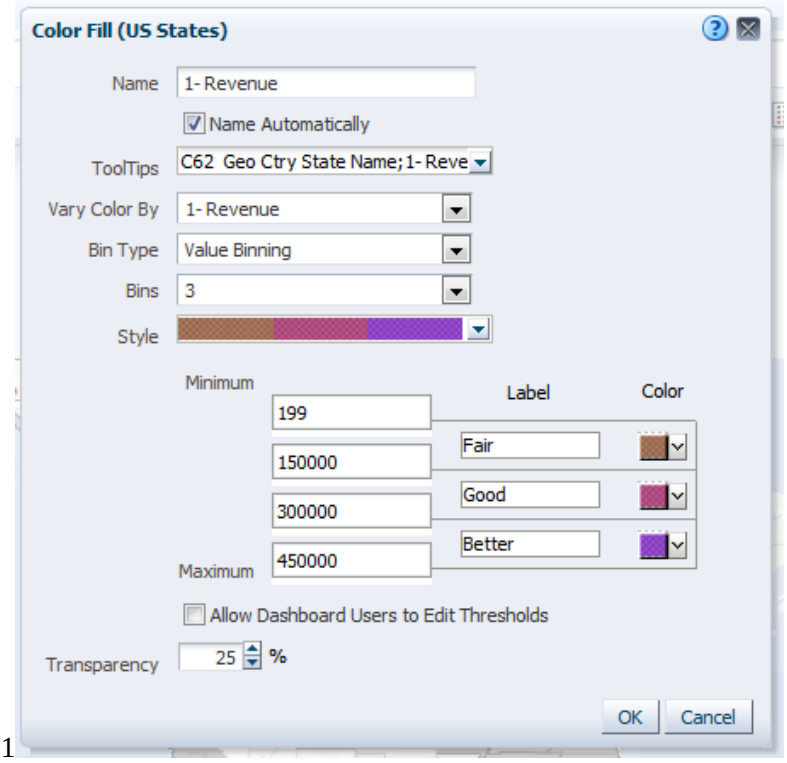


You can zoom in using the zoom bar on the left.

Click on the Edit (pencil icon) to edit the Map view

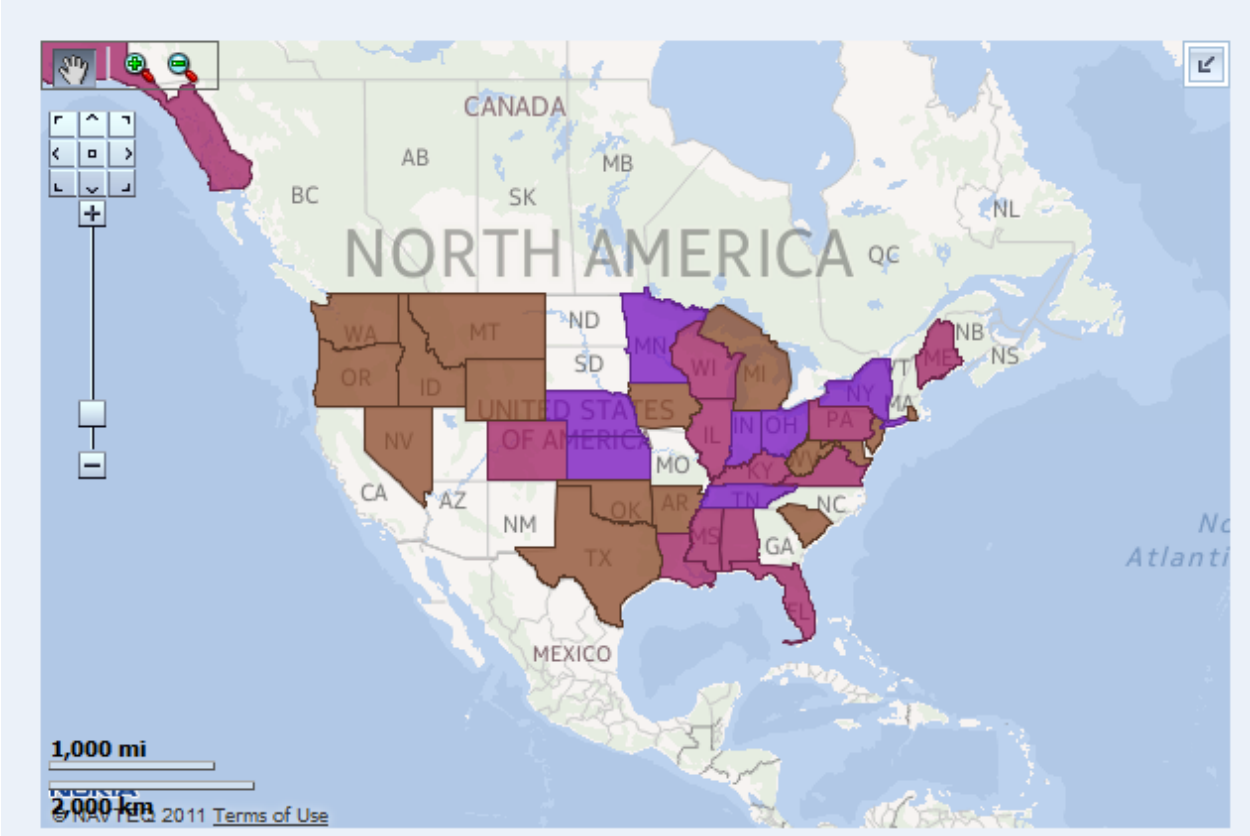
Inside the Map view, hover over the Revenue (Color Fill) later, and Click on the Edit (pencil icon) next to 1-Revenue (Color Fill). 

Make the changes show to the Revenue Selection

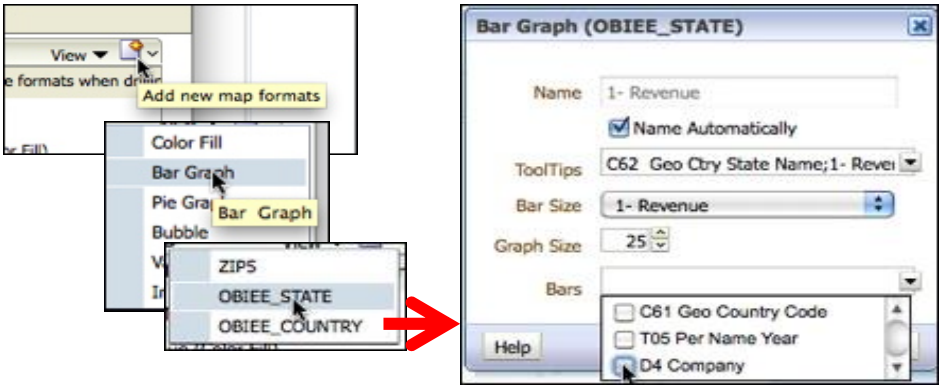


1

Click OK and your color Coding should be shown.

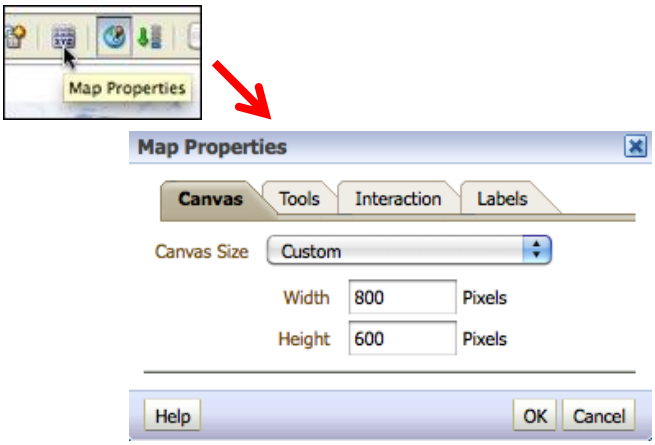


Now Add a new View with the Settings shown: **Note: this is accessible when in Map Edit mode.**



Now you will see Bar Charts on each of the States that have data. This represents the Revenue for Each Office within the State.

Last thing is to set the **Map Properties** (change Canvas size to Custom) to resize the Map

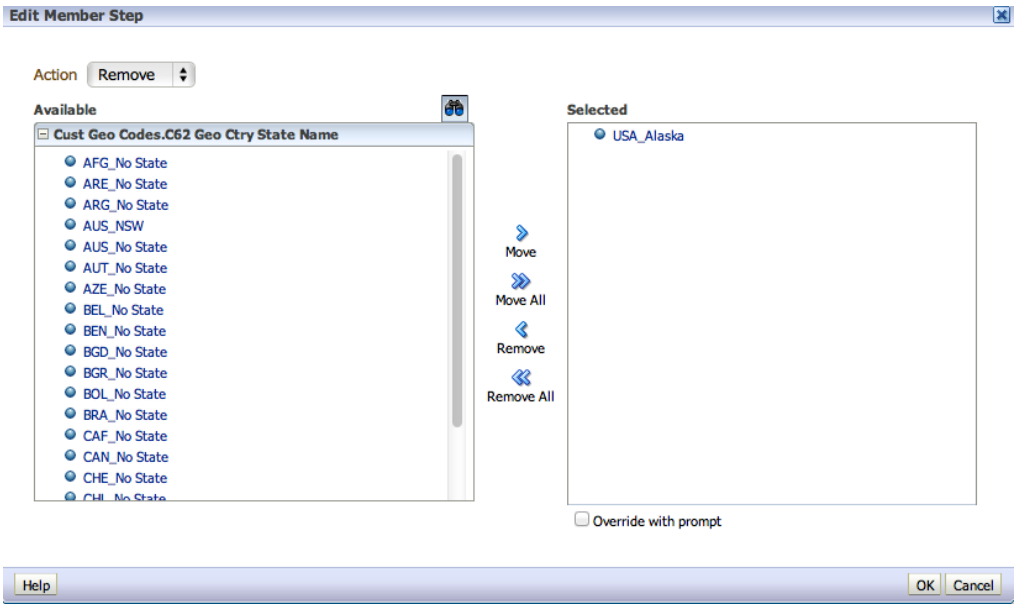


Change Canvas Size to Custom → 800 by 600

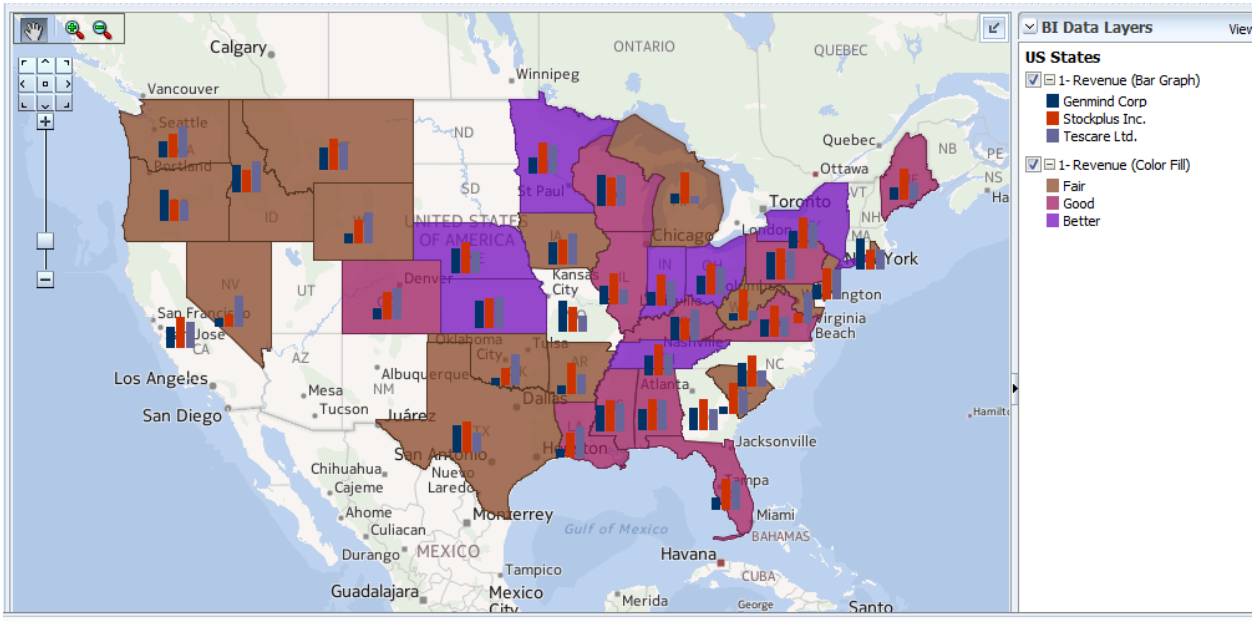
Hit OK and then you might want to zoom your map to better fill the page

Now let's remove Alaska!

- Go to the Selection Steps
- Under C62 Geo State Name enter this Selection step to Remove USA_Alaska.
- Use the search interface to find USA_Alaska quickly.



Click **Done** to show your new Map



Save this as Lesson 3_<your initials>

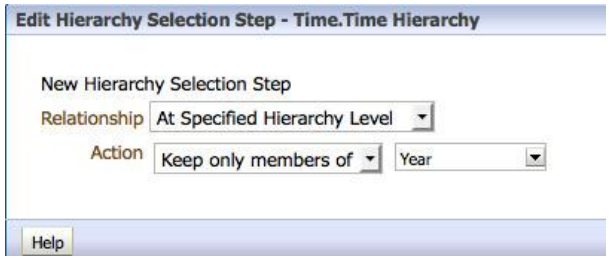
Lesson 4 – Prompts

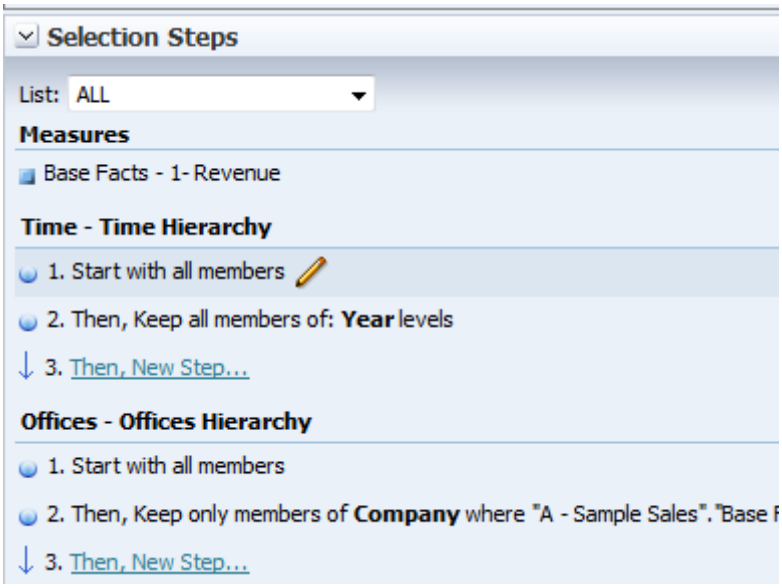
Exercise 4a: Creating a Prompt

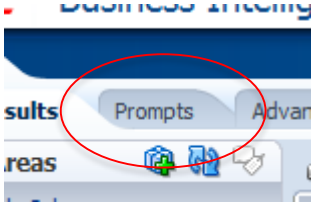
Prompts can be created for a particular Query or can be created as a standalone prompt for a Dashboard. First we will create a prompt tied to a query.

Go back into the **Home** page or **Catalog** and **Edit** the Lesson 1_<your initials> Query

- Open the Selection Steps pane.
- Under Time, Time Hierarchy click 2.
- Click New Step.
- Click Select Members Based on Hierarchy.
- Modify the Selection Steps to only keep members of the YEAR level.

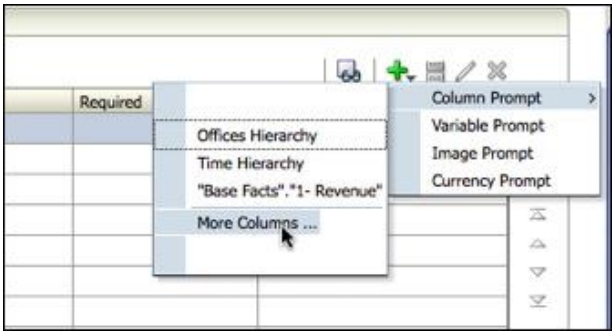




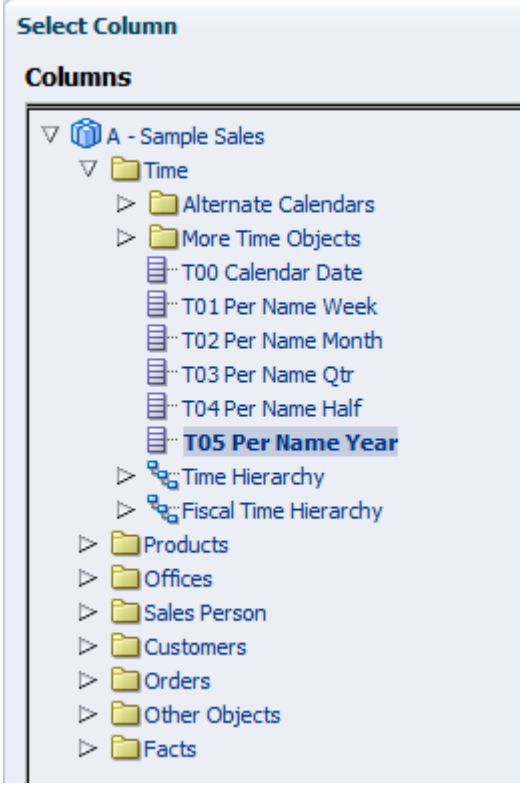
Now Click on the Prompts Tab. 

Click on the big Green + sign to start

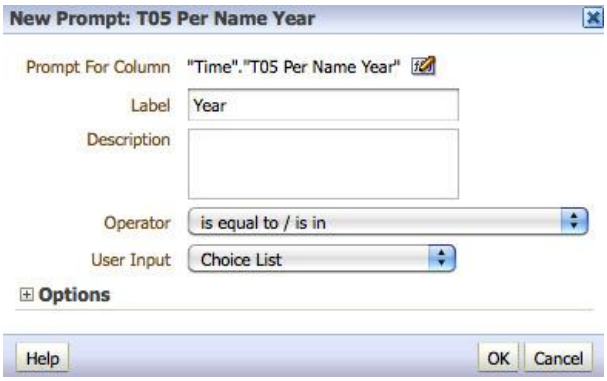
- Add a **Column Prompt**.
- Select **More Columns**



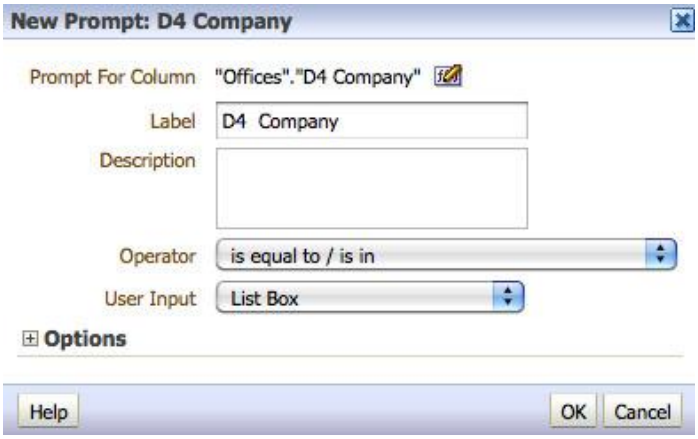
Expand the Time dimension and select T05 Per Name Year



Click OK and the Prompt diagram will appear. Change the Label to "Year" and Click OK again.

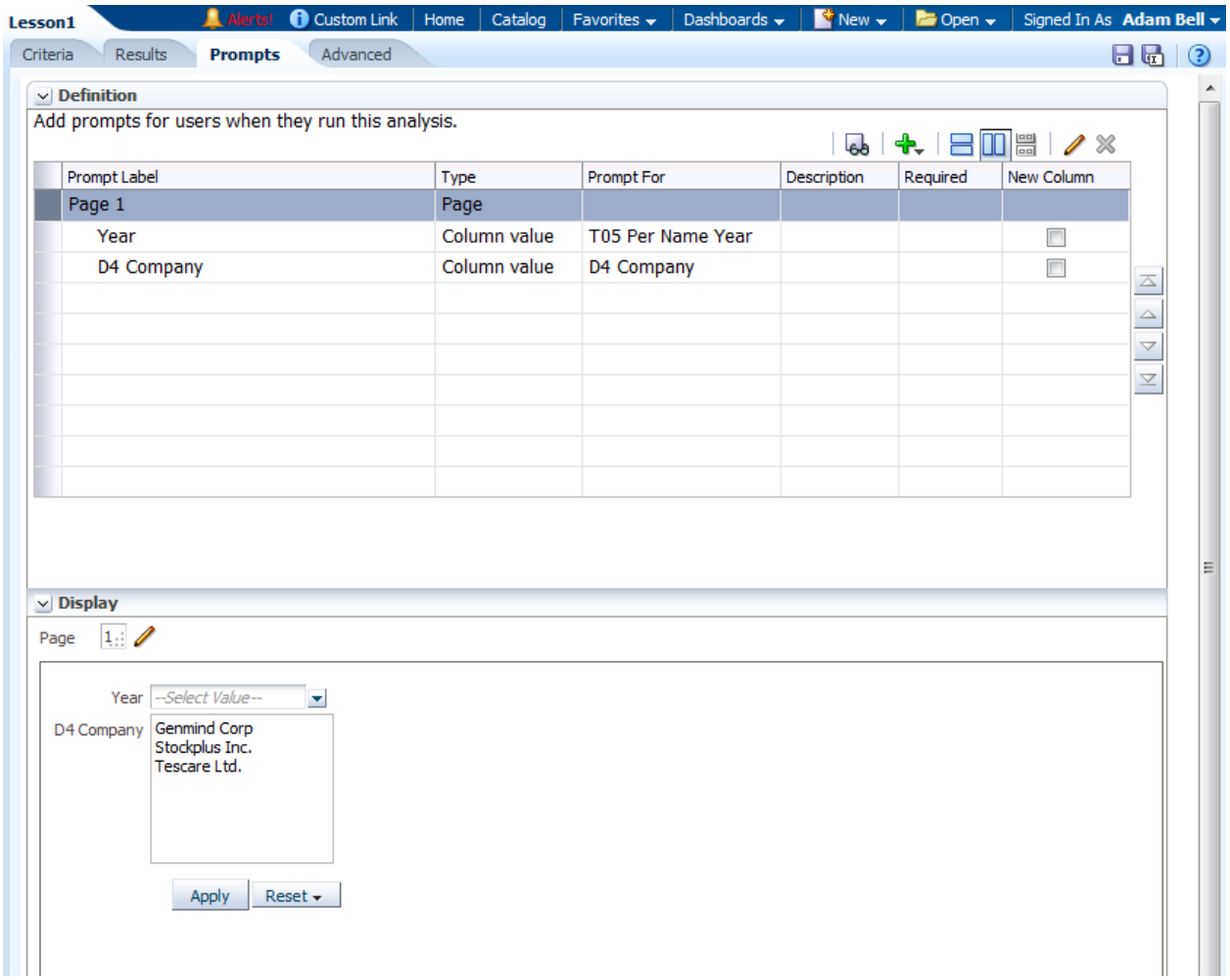


Now add another prompt for Offices, D4 Company. With the **User Input** set to **List Box**.



Click OK

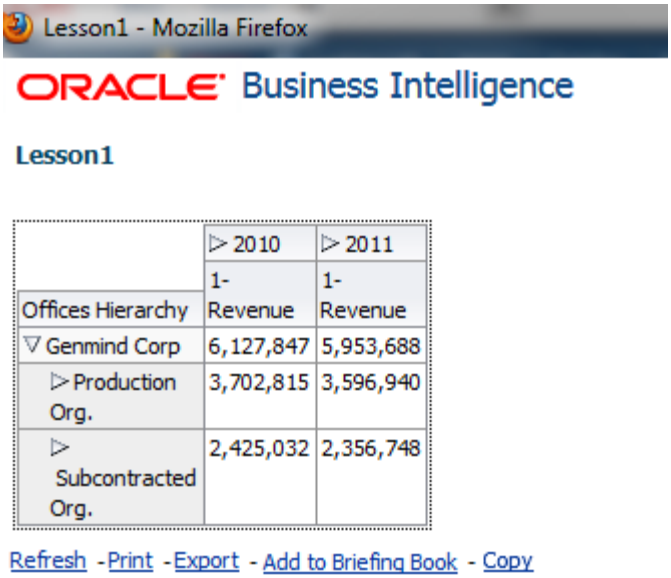
When done your screen should look like this:



Notice at the bottom of the screen you will see what the prompt will look like.

To test this click on the Preview Icon to preview the results.

- Use the Drop Down to select 2010 and 2011.
- Notice the ability to support multi-select in a combo box.
- Select **Genmind Corp** in the company selector and click on OK.
- Your screen should now show this report.



Click save as to save this as Lesson 4_<your initials>

Exercise 4b: Creating a Dashboard Prompt

Now let's create a dashboard prompt.

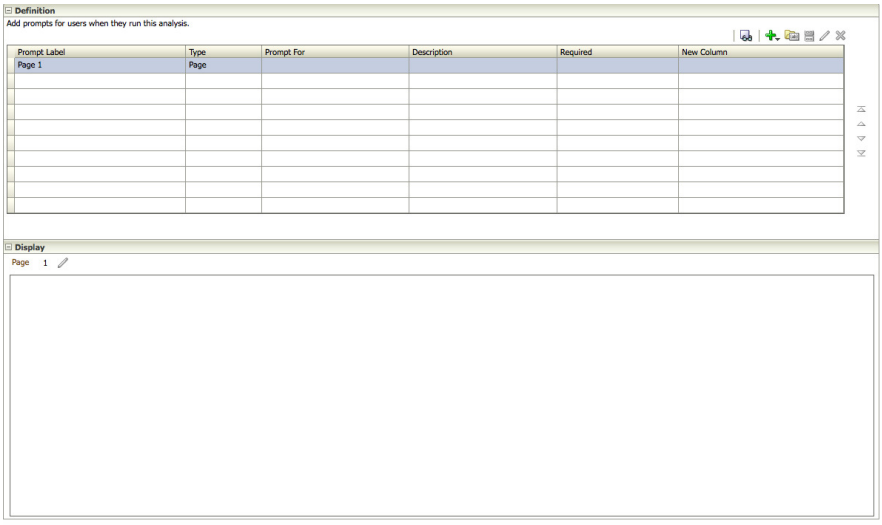
The steps involved in creating a Dashboard are the same as the query prompt it is just the starting place is different. For a Dashboard Prompt:

- Click on the New Link in the top menu.
- Select Dashboard Prompt.

Choose **A – Sample Sales** Subject area

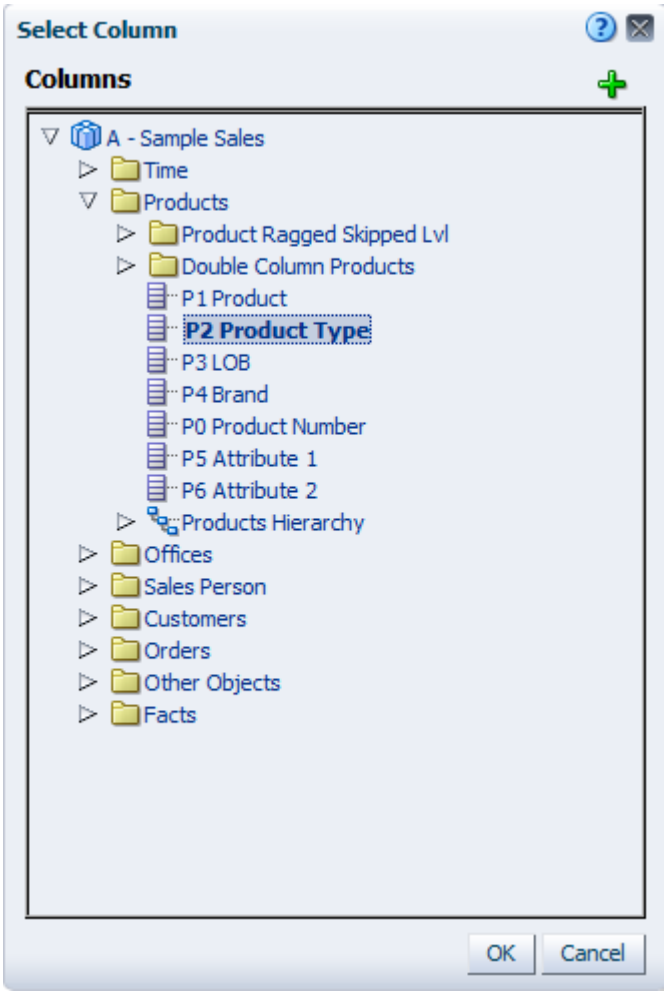
Now you will see a blank Prompt Page. Just like before you:

- Click the Green Plus (+)
- Choose Column Prompt.



We are going to add the column Product Type to our report and wish to add a prompt for this column.

Expand Products and choose P2 Product Type.



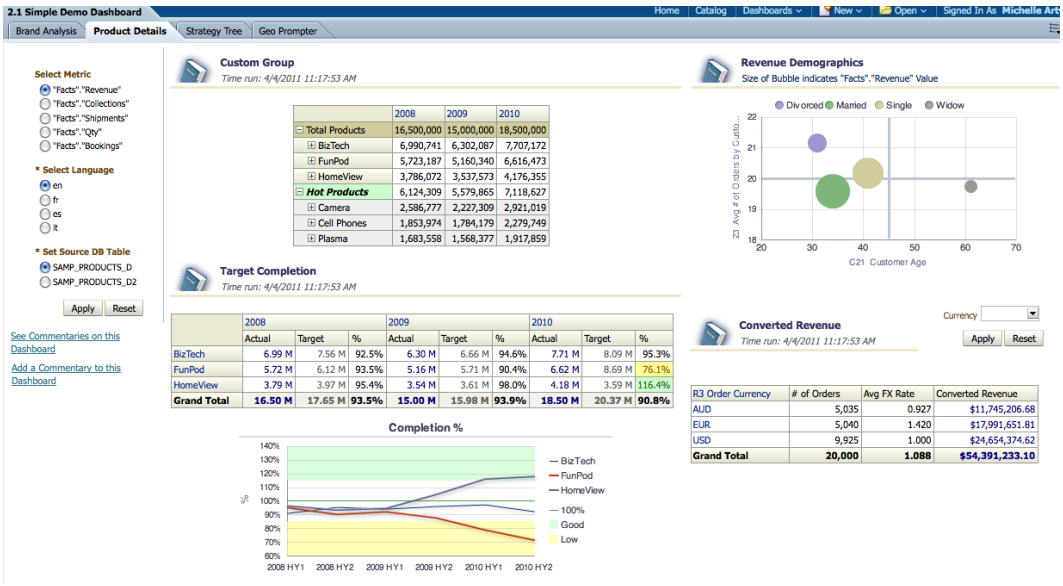
- Click OK and set the User Input to List Box just like last time.
- Save the Prompt by Clicking on the Save Icon.
- Save as Lesson 4B Prompt_<your initials>.

That is all there is to creating a dashboard prompt.

Lesson 5 The Dashboard: Putting It All Together

Oracle BI EE dashboards allow you to combine many different types and sources of data in the same place, giving users snapshot views of whatever is important for running their business. The BI Answers queries that you built in this class are just one type of content that Oracle BI EE Dashboards can utilize. This screenshot shows an example of the many different content options available to you with Oracle BI EE Dashboards.

Sample Dashboard



Exercise 5a: Creating a Dashboard

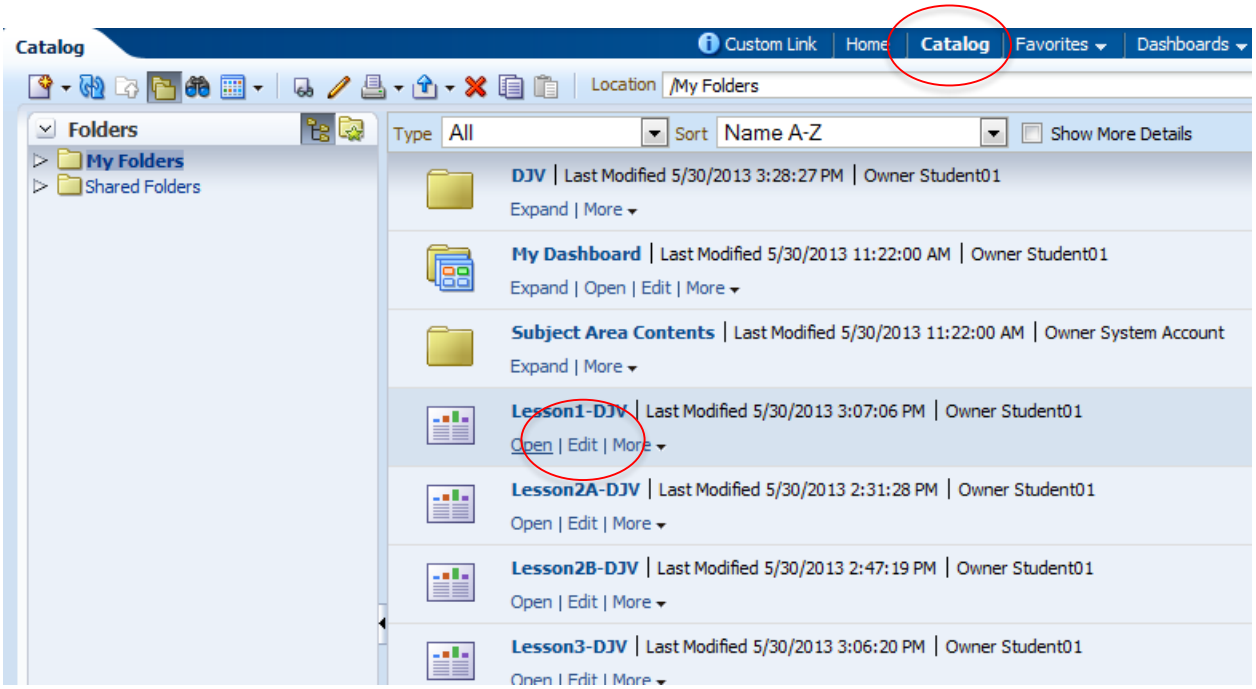
Now let's create a dashboard to store all the analyses we just built (plus one more) .

We can either create a new dashboard or edit the default Dashboard. For this exercise we will create a new Dashboard.

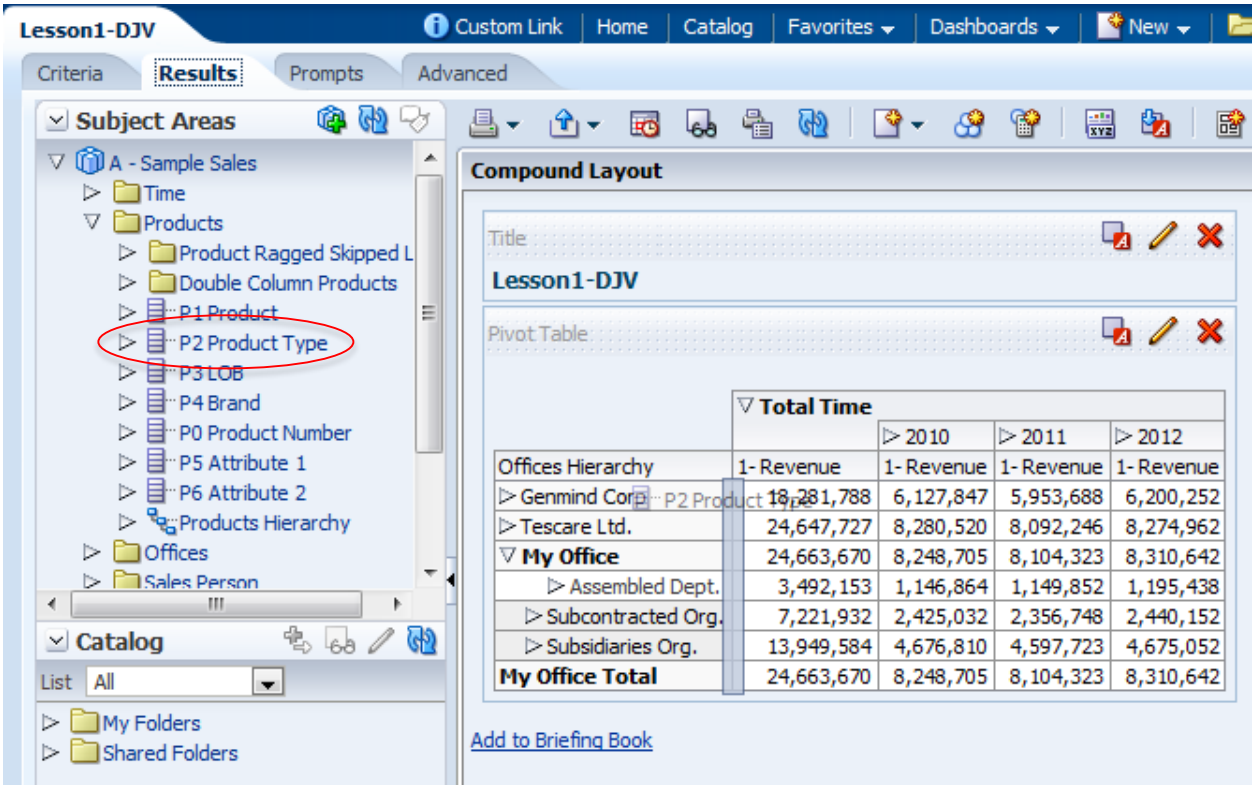
First, we'd like to modify our report from Lesson 1 to include the new column Product Type so we can use our prompt we just created.

From your catalog, edit Lesson1_<your initials> by:

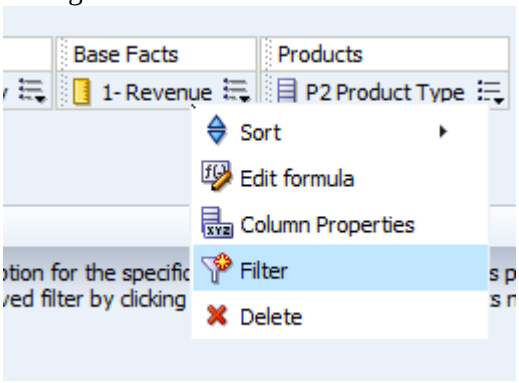
- clicking on the Catalog link up top
- selecting the edit choice for the Lesson1_<your initials> analysis.



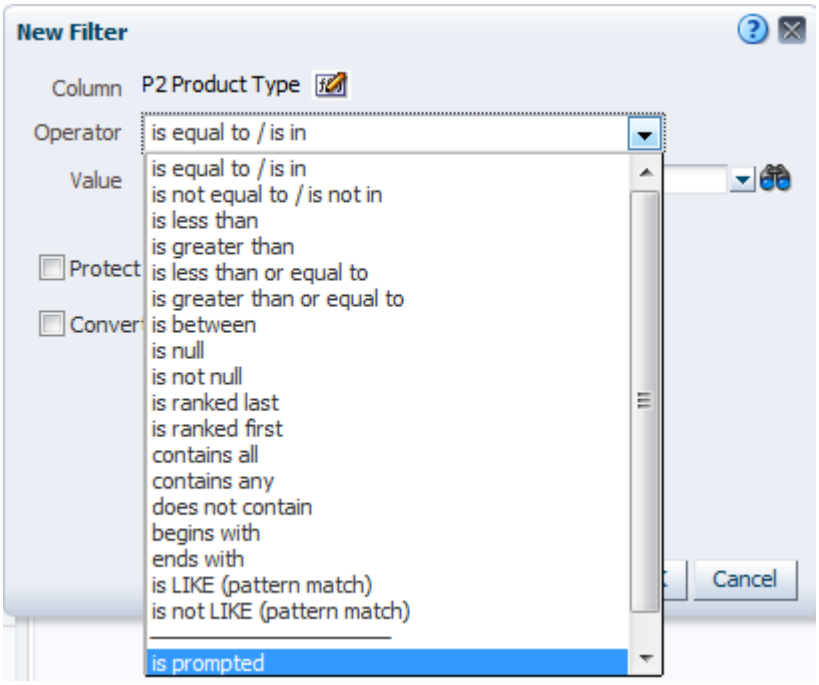
The analysis will open. Then click and drag the Products > P2 Product Type column into the report as another row column.



Now go to the Criteria tab and add a filter on the Product Type column.



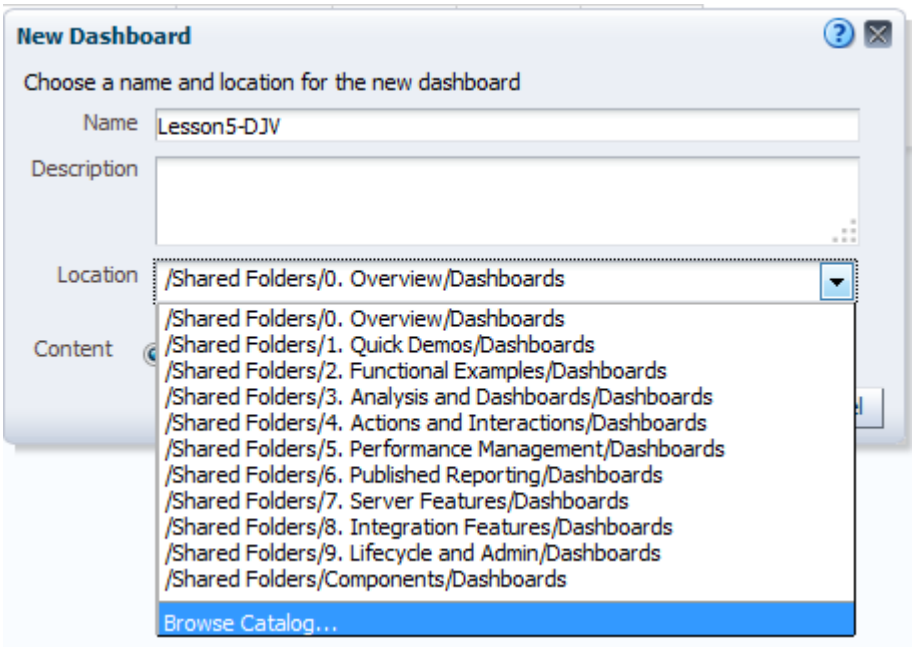
Set the filter for the column to "Is Prompted" and click OK.



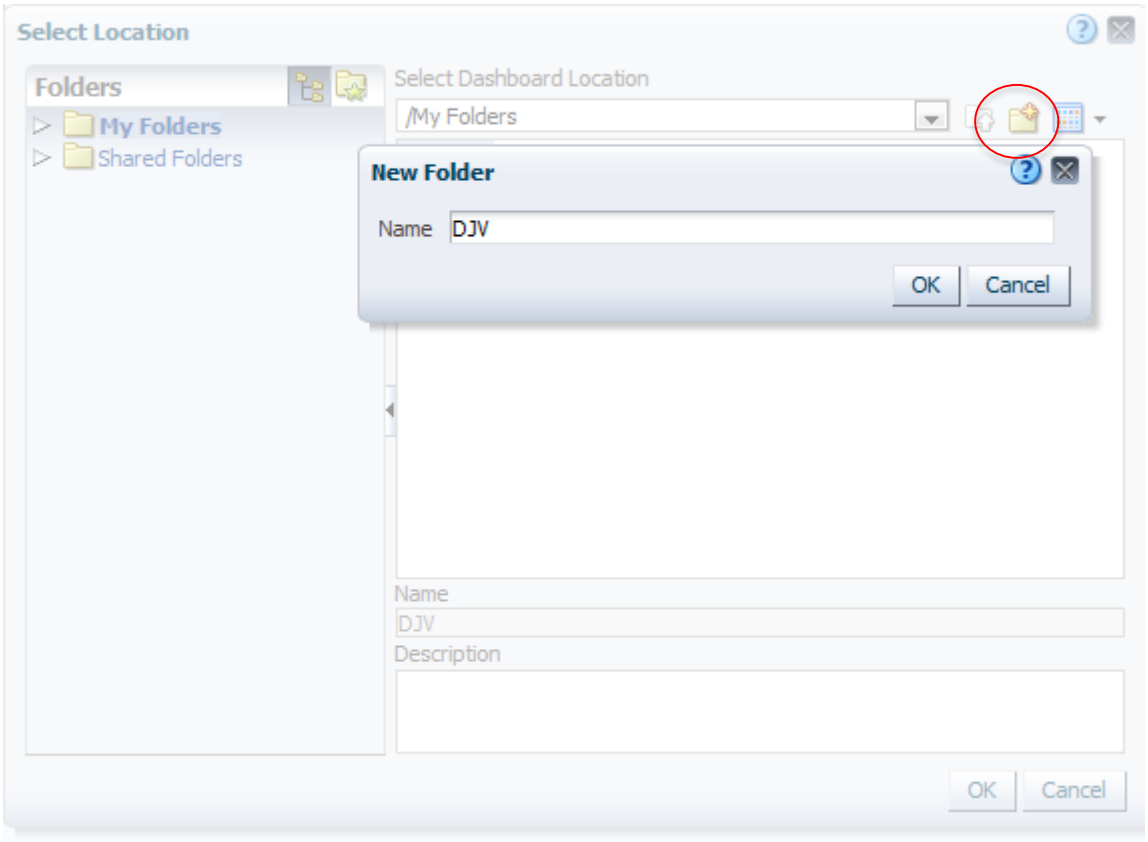
Save this analysis as Lesson 5A_<your initials>.

Now that we have this new report by product type, we can add that report to our new dashboard.

- Select New > Dashboard
- Name it **Lesson 5_<your initials>**
- Drop down the location list box
- Select **Browse Catalog…** so we can save this in a folder.

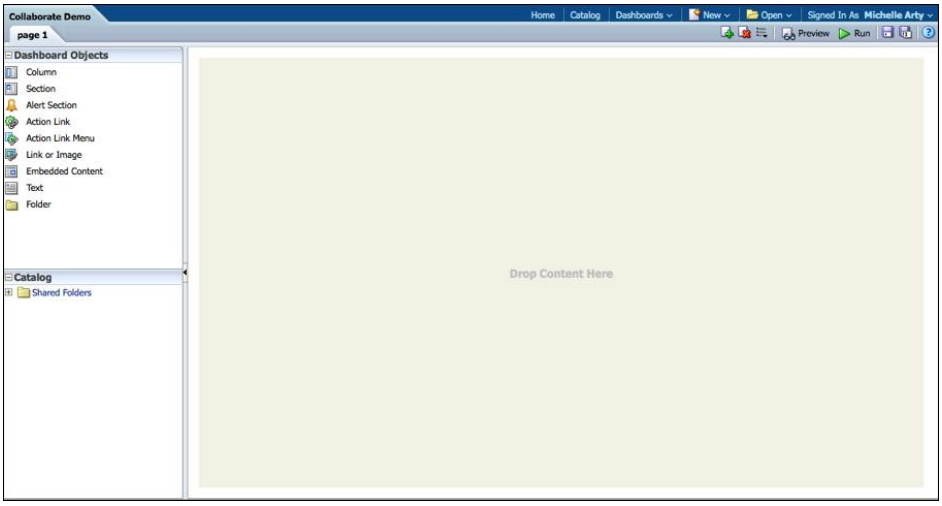


Select the New Folder button and give the folder the name of <your initials>.



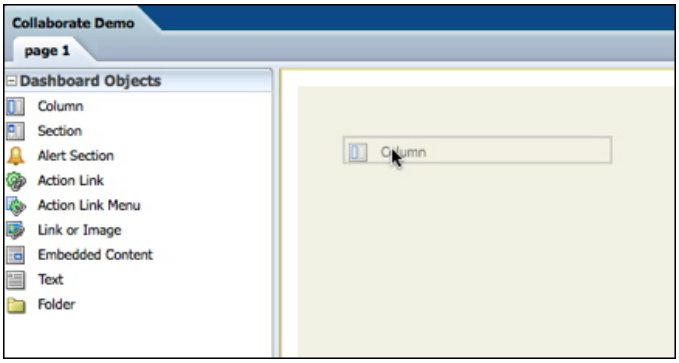
The system will warn you that the dashboard will not appear in the Dashboards drop-down list. That's fine.

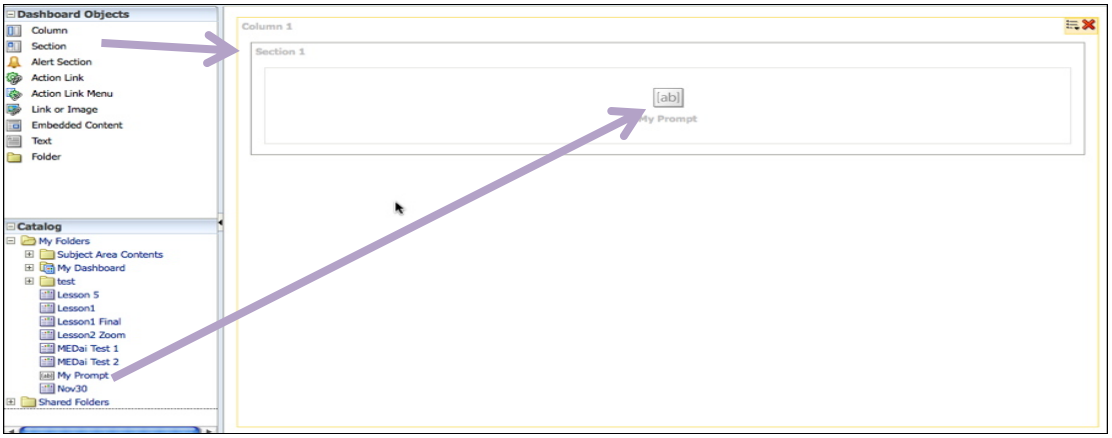
You will now see the blank Dashboard Screen.



The next thing to do is to create a Column.
On the left:

- Grab Column
- Drag it to the Workspace
- Release the mouse.





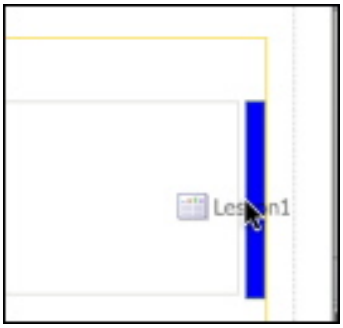
Do the same thing for Section, imbedded within the Column. (Top Arrow in Picture Above)

Drag and Drop Lesson4BPrompt_<your initials> into the Section (2nd Arrow)

We want to add the Lesson5A_<your initials> to the same section. To do this you must first set the section so that presentations are organized horizontally.

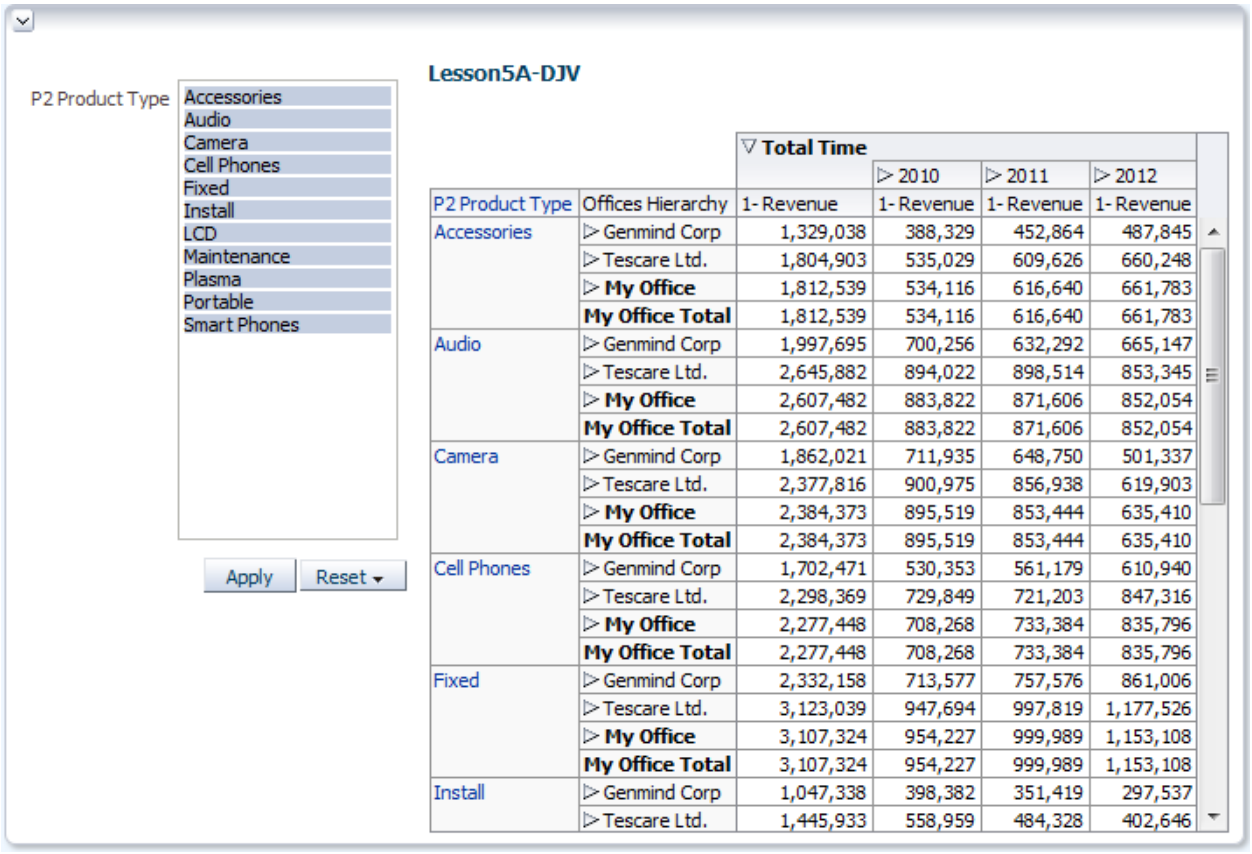
Click the Horizontal Layout icon that appears when you hover over Section 1.

Now click on Lesson 5A_<your initials> and drag it to the Right of the Lesson 4BPrompt_<your initials>.



Now save the dashboard and click on Run

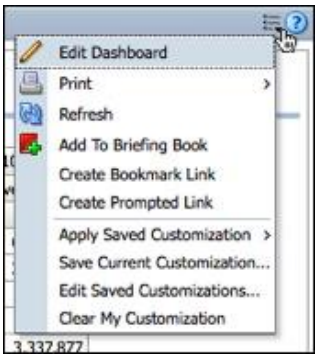
Now you can test how the prompt works



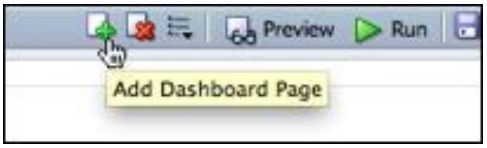
P2 Product Type	Offices Hierarchy	▽ Total Time 1- Revenue	▷ 2010 1- Revenue	▷ 2011 1- Revenue	▷ 2012 1- Revenue
Accessories	▷ Genmind Corp	1,329,038	388,329	452,864	487,845
	▷ Tescare Ltd.	1,804,903	535,029	609,626	660,248
	▷ **My Office**	1,812,539	534,116	616,640	661,783
	My Office Total	1,812,539	534,116	616,640	661,783
Audio	▷ Genmind Corp	1,997,695	700,256	632,292	665,147
	▷ Tescare Ltd.	2,645,882	894,022	898,514	853,345
	▷ **My Office**	2,607,482	883,822	871,606	852,054
	My Office Total	2,607,482	883,822	871,606	852,054
Camera	▷ Genmind Corp	1,862,021	711,935	648,750	501,337
	▷ Tescare Ltd.	2,377,816	900,975	856,938	619,903
	▷ **My Office**	2,384,373	895,519	853,444	635,410
	My Office Total	2,384,373	895,519	853,444	635,410
Cell Phones	▷ Genmind Corp	1,702,471	530,353	561,179	610,940
	▷ Tescare Ltd.	2,298,369	729,849	721,203	847,316
	▷ **My Office**	2,277,448	708,268	733,384	835,796
	My Office Total	2,277,448	708,268	733,384	835,796
Fixed	▷ Genmind Corp	2,332,158	713,577	757,576	861,006
	▷ Tescare Ltd.	3,123,039	947,694	997,819	1,177,526
	▷ **My Office**	3,107,324	954,227	999,989	1,153,108
	My Office Total	3,107,324	954,227	999,989	1,153,108
Install	▷ Genmind Corp	1,047,338	398,382	351,419	297,537
	▷ Tescare Ltd.	1,445,933	558,959	484,328	402,646

Now let's add a new page for our graphs.

In the right hand corner of your dashboard there is an option button, select Edit Dashboard.

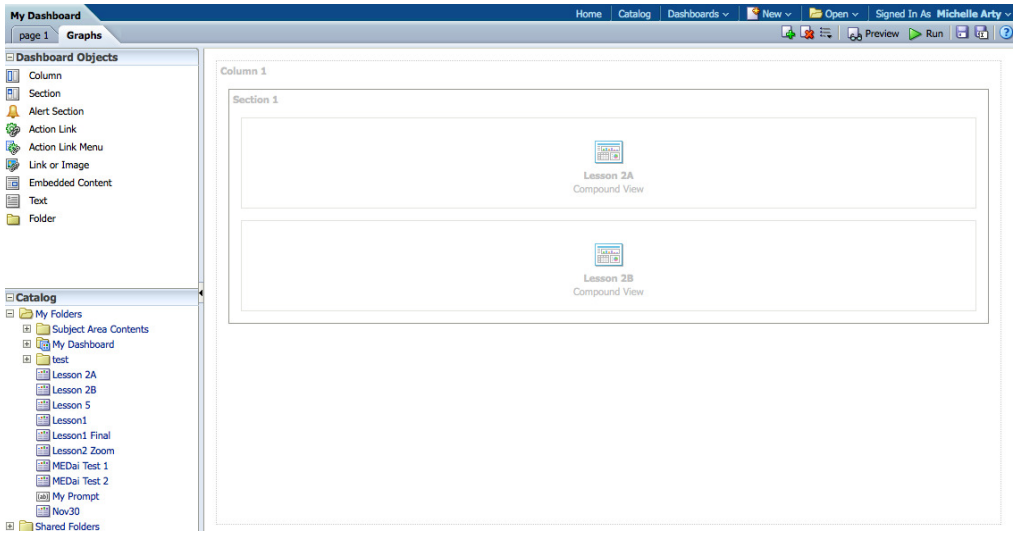


To Add a new Page you go to the menu at the top and click on the Green Plus icon.

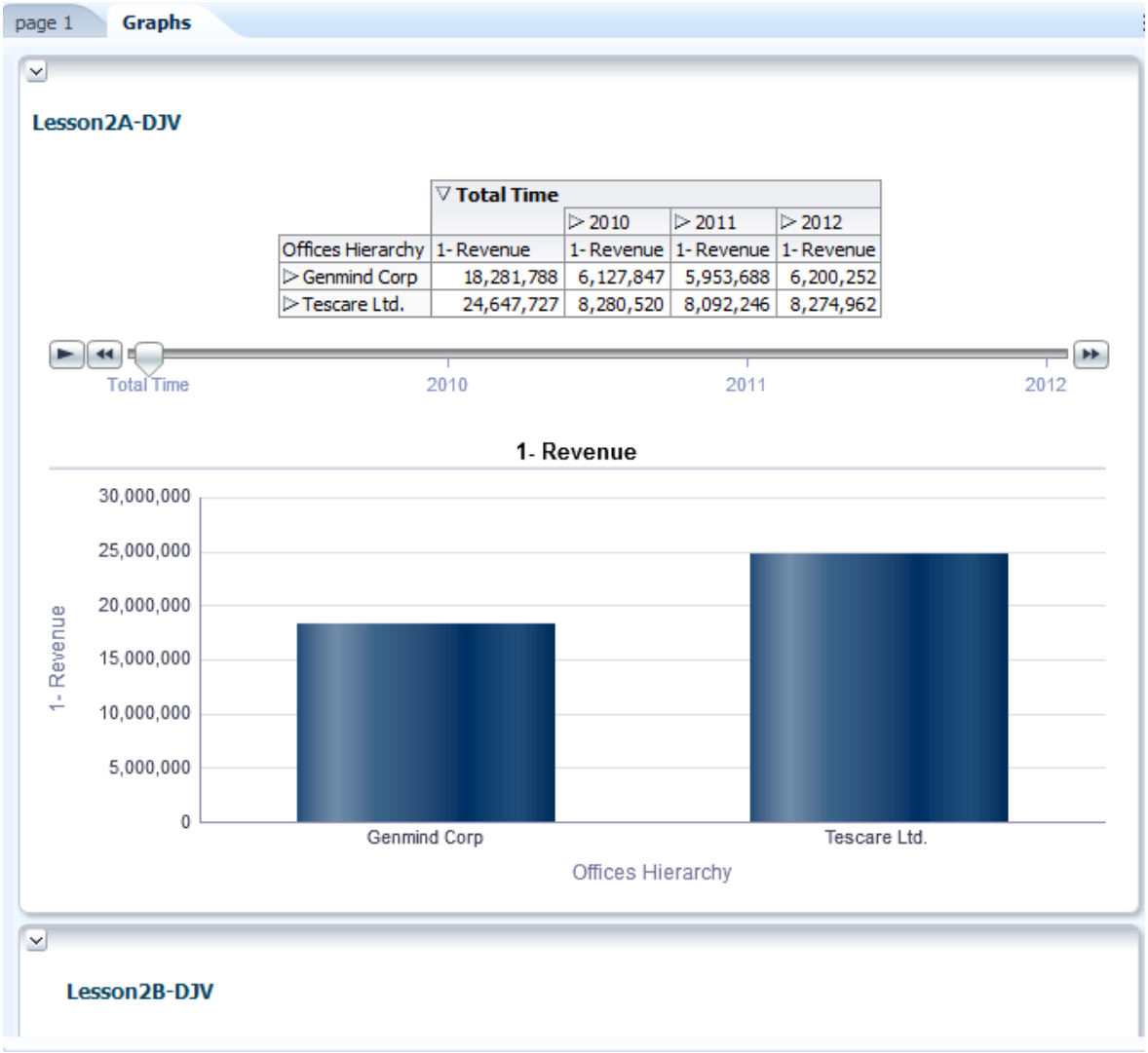


You will be asked for a Name – call it Graphs. And you will now see a new blank dashboard.

Now we want to add a new Column and one section as we did before. Now drag Lesson 2A and then Lesson 2B. Your Screen should look like this:



Save and Run and you can see the two tabs.



End of Exercise