Oracle BI 11g R1: Create Analyses and Dashboards

Practice Guide

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Chapter 1

Practices for Lesson 1: Overview

Practices Overview
There are no practices for lesson 1.

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Chapter 2

Practices for Lesson 2: Overview

Practice Overview

In this practice, you will explore the Oracle Business Intelligence user interface.

Practice 2-1: Exploring Oracle BI Presentation Services

Goal

In this practice, you gain familiarity with the main elements of the Oracle BI EE user interface.

Scenario

Log in to Oracle BI Presentation Services, navigate to the Home page, and explore the search capabilities and the Global Header options to become familiar with common Oracle BI tools, options, objects, and editors.

Time

10-15 minutes

Task

After logging in to Oracle Business Intelligence Enterprise Edition (Oracle BI EE), users are presented either with a personal dashboard or the Home page depending on how user preferences are set. The Home page is a task-oriented centralized page that combines with the Global Header to provide access to Oracle BI EE objects and their editors (required by report and dashboard developers). In this practice, you explore the Home page and Global Header to familiarize yourself with the multiple available approaches to navigate to the areas of Oracle BI EE that support your work.

1. Start Oracle Business Intelligence Presentation Services.

    a. Notice that a DOS command window for WebLogic Server is open and minimized to the task bar. Do not close this command window. It must remain open during all practices for this course.

    b. In a browser, enter the URL for Oracle BI EE using the following format:
    `http://<hostname>:<port number>/analytics`
    Your instructor will provide you with the correct URL.
    For example, the URL may be:
    `http://localhost:7001/analytics`

    c. In the Sign In screen for Oracle BI EE, enter the User ID and Password for a user with BI Administrator privileges, as given by your instructor. (The default BI administrator is the **weblogic** user and the password is **welcome1**.)

    d. Click **Sign In**.

    e. Click the **Home** tab to navigate to the Home page.

f. In the left pane of the Home page, notice the Create section, which provides quick access to editors for many Oracle Business Intelligence object types. When you create an object, the appropriate editor is launched so that you can quickly begin creating and working with objects. You learn more about using the Create section to create objects in subsequent practices.

2. Browse and search the saved Oracle BI objects in the Presentation Catalog.

a. In the Browse/Manage section, click the **All Content** link and select **Browse Oracle BI Presentation Catalog**. Either this option or the Search option opens the Catalog page, which includes tools and panes that allow you to explore the available Catalog folders. When you browse the Catalog, the Folders pane is displayed to the left of the list of selected folders and objects.

b. Click the **Show/Hide Folders Pane** button to hide the Folders Pane.

c. Click the **Show/Hide Folders Pane** button again to show the Folders Pane. You can also use the collapse pane arrow to hide and show the Folders Pane.

d. In the Folders Pane, select **My Folders**.

e. Select **Subject Area** Contents, and then select **Sample Sales Lite** in the Catalog list on the right.

f. Click the Up button to return to My Folders. As in most editors and other areas of Oracle BI, shared tools are available as buttons on the Catalog page. These tools are available whether you are searching or browsing the Catalog. The Up button enables you to navigate up the folder tree in the Folders pane when browsing, or to move to the parent folder of an object or folder in the objects list.

g. Click the Refresh button to refresh both the list and the Folders pane.

h. Click the **Search** button to open the Search pane.

i. Expand the **Location** drop-down list and notice that you can search My Folders, Shared Folders, or All locations.

j. Expand the **Type drop-down list** and notice that you can search by any Catalog object type.

k. Enter `Supplier Sales` in the Search field, select **All** in both the Location and Type drop-down lists, and click the **Search** button to search the Catalog for the Supplier Sales subject area object.
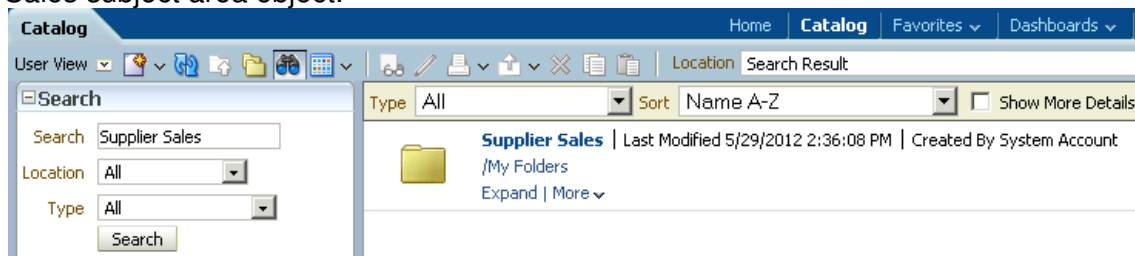
l. In the Global Header, expand the **Search** drop-down list and notice that you can also enter search criteria for any object type in the Catalog.

m. In the Global Header, enter `Supplier Sales` in the Search field, select **All** in the drop-down list, and click the **Search** button to run the same Catalog search.
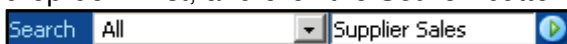
n. In the Catalog list, notice that you can sort objects by type (for example, filters, analyses, folders, or dashboards) and you can sort them by object properties.
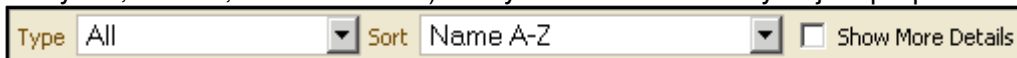
o. Toggle to the **Folders** pane.

p. Select **My Folders** in the Folders pane, and then select the **Supplier Sales** folder in the Catalog list.

q. Notice the toolbar on the Catalog page.

The toolbar is context sensitive, depending on the object type you select. You can copy and paste objects in the Catalog, or delete them using the toolbar buttons.

Depending on the object type selected, you can also open , edit , print , or export .

r. Click **More** underneath the Supplier Sales object. Notice that there are links that allow you to perform these and other actions with selected objects.
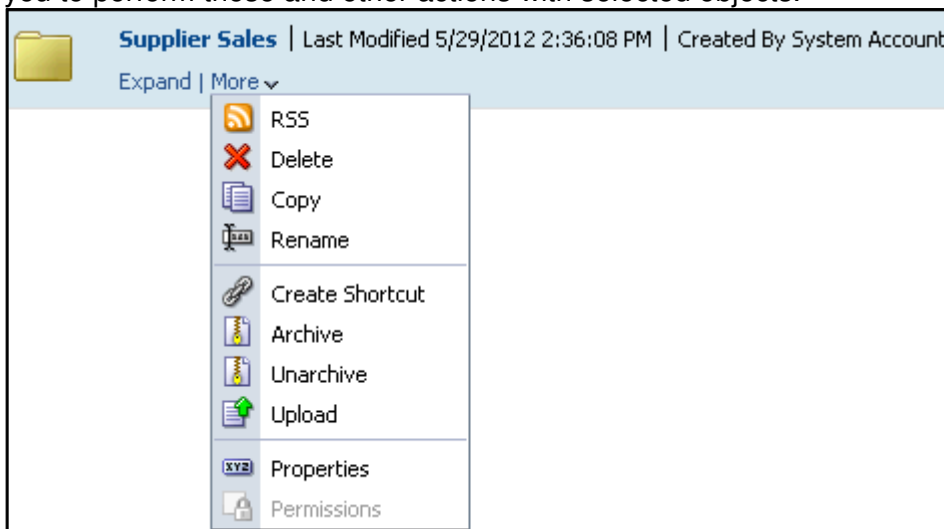
Some of these additional actions include setting properties and permissions, archiving, restoring or renaming objects, and creating shortcuts for storage in other parts of the Presentation Catalog. Any stored object appearing on the Catalog page or Home page can be edited or manipulated by using these links.

s. Notice the Tasks pane at the bottom-left corner of the page. Options are also available in the Tasks pane, which contains context-sensitive tasks that can be performed against a selected object. The name of the object to which the task you select will be applied is listed above the options.
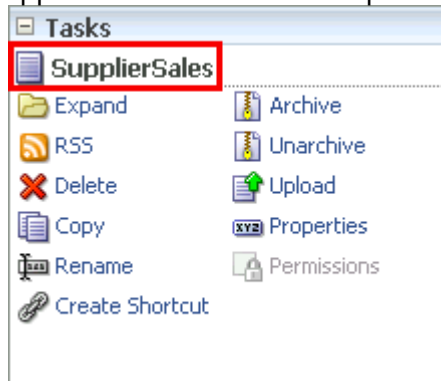
t. Click the **Home** link in the Global Header to navigate back to the Home page. Below the Catalog Folders in the Browse/Manage section, there are several predefined searches to bring back different objects belonging to you that are stored in your personal Catalog folders.
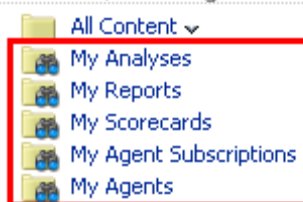
u. Click the **My Analyses** link to open the Search pane. By default, the search criterion is a wildcard, the search location is My Folders, and the search type is Analysis.
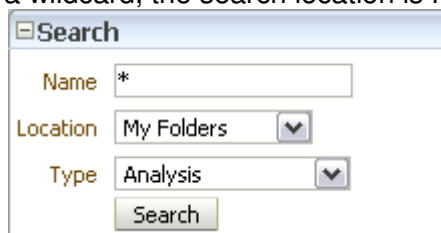
v. In the Name field enter `*Sales*` to search for analyses with "Sales" in the title.

w. Click **Search** to locate all the Analysis objects in My Folders.

x. You should see the following two analyses in the Supplier Sales folder:
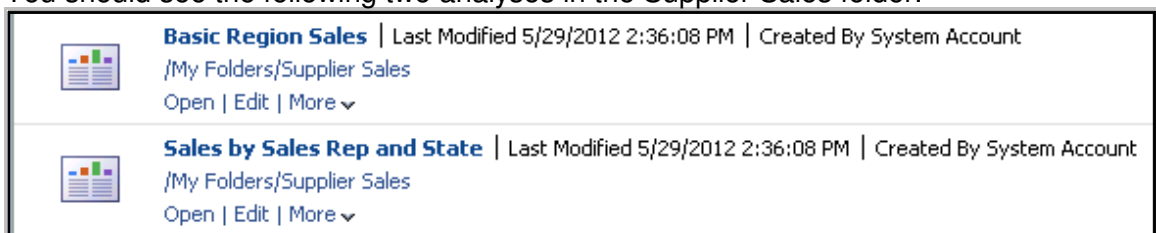
y. Click the **Open** link for the **Basic Region Sales** analysis. The analysis opens for viewing.

Region	Dollars
Central	13,423,387
East	25,460,351
West	25,728,722

Basic Region Sales

Basic Region Sales

Edit - Refresh - Print - Export - Add to Briefing Book - Copy

z. Use the browser's **Back** button to navigate back to the Catalog page, and open the **Sales by Sales Rep and State** analysis.

Sales by Sales Rep and State

Sales by Sales Rep and State

Sales Rep	State	Dollars
ALAN ZIFF	ID	212,182
	OR	1,211,313
	WA	104,436
ANDREW TAYLOR	MN	547,371
	WI	47,402
ANN JOHNSON	CT	1,926,818
	MA	518,035
	VT	185
ANNE WILLIAMS	FL	858,803
	GA	6,314
BARBARA JENSEN	MN	384,936
	WI	92,696
BETTY NEWER	ME	9,533
	NH	4,177,728
	RI	569,507
BRIAN LIEDTKE	CA	8,794,091
CHRIS DREW	KY	1,061,703
CHRIS MUIR	MO	487,452
	OK	761,583
COREG EADES	ID	389,126
	OR	275,380
	WA	17,616
DALE AREND	IN	1,000,799
	OH	165,942
DALE FAIRWEATHER	NY	734,282

Rows 1 - 25

Edit - Refresh - Print - Export - Add to Briefing Book - Copy

3. Navigate recent objects.

a. Return to the **Home** page.

b. Notice the **Recent** section of the Home page. In the Dashboards section, all of the recently accessed dashboards are listed. In the Others section, all recently accessed

non-dashboard objects are is listed. Examples of non-dashboard objects include analyses, filters, groups, calculated items, Key Performance Indicators, and so on.

c. Confirm that both of the analyses you recently viewed are visible in the Others section: **Sales by Sales Rep and State** and **Basic Region Sales**.

d. Click the **Open** link for the **Basic Region Sales** analysis to view the analysis.

e. Use the browser's **Back** button to navigate back to the Home page.

f. Click the **Edit** link for the **Basic Region Sales** analysis. The analysis opens in the Analysis Editor. You use the Analysis Editor to create, edit, and format analyses in subsequent practices.
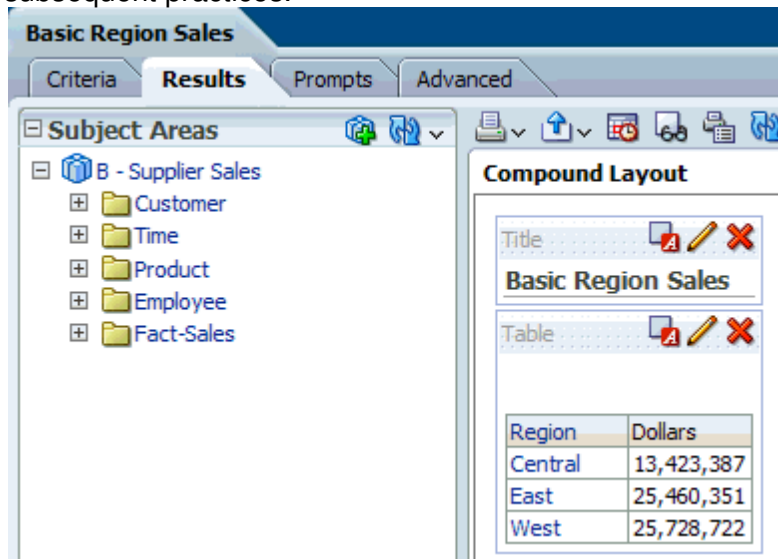
g. In the Global Header, click the **Open** button and notice that the analyses are also listed here in a Recent list.
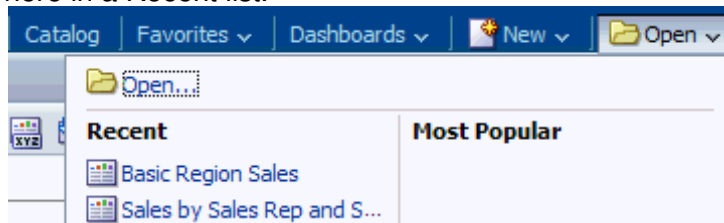
h. Click **Basic Region Sales** to open the analysis in the Analysis Editor. This is another method to open recently viewed objects.

i. Navigate back to the Home page. Notice that the Most Popular list is not currently populated with BI objects from the Catalog. The Most Popular list is composed of objects that are most frequently accessed by you and members of the team who share your shared folders in the Presentation Catalog.

Practices for Lesson 3: Working with Oracle Business Intelligence Analyses

Chapter 3

Practices for Lesson 3: Overview

Practices Overview

In these practices, you create and format analyses.

Practice 3-1: Creating Analyses

Goal

In this practice, you create and format analyses.
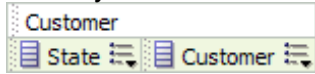
Scenario

You create and format new analyses, view the results, and save the analyses in the catalog.
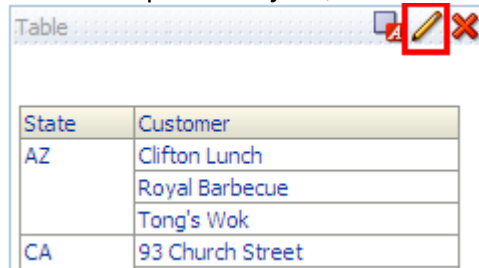
Time

25-30 minutes

Task

1. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    a. In a browser, enter the URL for Oracle BI EE using the following format:
        http://<hostname>:<port number>/analytics.
        Your instructor will provide you with the correct URL.
        For example, the URL may be:
        http://localhost:7001/analytics.

    b. In the Sign In screen for Oracle BI EE, enter the User ID and Password for a user with BI Administrator privileges, as given by your instructor. (The default BI administrator is the **weblogic** user and the password is **welcome1**.)

    c. Click **Sign In**.

2. Create an analysis for customers by state.

    a. On the Home page, in the Create section, click **Analysis** to navigate to the Analysis Editor.

    b. In the Select Subject Area pop-up, click **B – Supplier Sales**. The B - Supplier Sales subject area appears in the Subject Areas pane in the Analysis Editor.

    c. Expand the **Customer** dimension to display its columns.

    d. In the Customer dimension, drag the **State** column into the Selected Columns pane to add it to the analysis.

    e. In the Customer dimension, double-click the **Customer** column to add it to the analysis.

    f. Check your work:

3. Review the results of the analysis you just created.

    a. Click the **Results** tab. Notice that the results appear in a table format within the Compound Layout. This is the default for tables with attribute columns. For analyses that include a hierarchy column, the default Compound Layout includes a pivot table.

    b. Scroll down and click the **Next 25 Rows** button ⬇ to view the next set of rows in the table.

c. Click the **Display Maximum (500) rows per page** button ⬍ to view all 136 rows in the table.

d.   In the Compound Layout, click the **Edit View** button for the Table view.
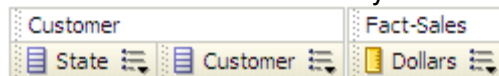
State	Customer
AZ	Clifton Lunch
	Royal Barbecue
	Tong's Wok
CA	93 Church Street

e.   Notice that the Layout pane is displayed. You learn more about the Layout pane in Lesson 7: "Working with Views in Analyses." For now, collapse the Layout pane so that it is not visible.

f.   Click the **Table View Properties** button to explore the properties that you can set for the table in the Table Properties dialog box.

g.   Click **Cancel** to close the Table Properties dialog box without making any changes.

4.   Modify the analysis by adding a measure column.

a.   Expand the **Fact – Sales** folder in the Subject Areas pane. Notice that measure columns, which contain measures that can change for each record and can be added up or aggregated in some way, are denoted with a yellow column icon. Double-click the **Dollars** column to add it to the analysis, and check your results. The screenshot shows only a partial view of the table:

State	Customer	Dollars
AZ	Clifton Lunch	40
	Royal Barbecue	231,341
	Tong's Wok	287,095
CA	93 Church Street	948,157
	Adria Restaurant & Deli	355,088
	Baldy Base Club	146,278
	Barry T's	12,973
	Big River Grille & Brewing	1,028,920
	Bill Johnson's Big Apple	716,730

b.   Click **Done** to close the Table view editor and return to the Compound Layout, which includes a Title view and a Table view.

c.   Click the **Criteria** tab to verify that the Dollars column is added to your analysis criteria.

Customer		Fact-Sales
State	Customer	Dollars

5.   Save the analysis in a new folder in the My Folders section of the Presentation Catalog.

a.   Click the **Save Analysis** button. The Save As dialog box appears.

b.   Select **My Folders** in the Folders pane of the dialog box.

c. Click the **New Folder** button. The New Folder dialog box appears.

d.   Name the new folder. Enter `My Sales` in the Name field.

e.   Click **OK**. The new folder is created in My Folders.

f. Click the **My Sales** folder.

g. In the Name field, enter `Sales by State`.

h. Click **OK**. The Sales by State analysis is saved in the My Sales folder in the My Folders section of the Oracle BI Presentation Catalog.

6. Create and view the results of an analysis that includes the Product hierarchy.

a. In the Global Header, select **New** > **Analysis**.

b. In the Select Subject Area pop-up, click **B - Supplier Sales**.

c. Expand the **Product** dimension and expand the **Product** hierarchical column to explore its members, each of which represents a level in the Product hierarchy. Notice that hierarchical columns are denoted by a hierarchical column icon.
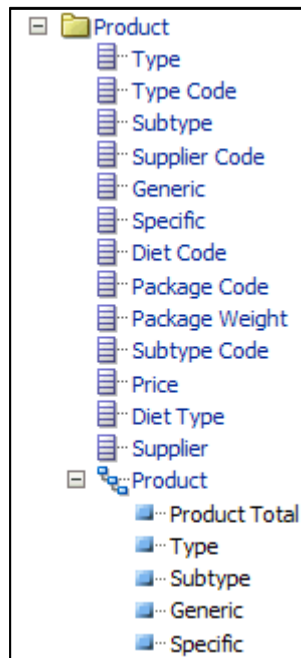
d. Notice that the levels in the Product hierarchy are Product Total, Type, Subtype, Generic, and Specific.

e. Double-click the **Product** hierarchical column to add it to the Selected Columns pane.

f. Expand the **Fact – Sales** folder and double-click the **Dollars** column to add it to the analysis.

g. Click the **Results** tab. Notice that the Compound Layout, when an analysis includes a hierarchy column, defaults to a pivot table.

h. In the pivot table, expand the **Product Total** level of the hierarchy column to view the sales of its child members in the hierarchy.
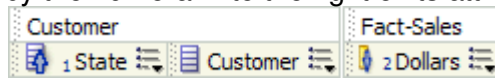
Product	Dollars
⊟ Product Total	64,612,461
⊞ Baking	5,275,980
⊞ Beef	5,088,480
⊞ Beverage	4,470,714
⊞ Bread	1,602,333
⊞ Cereal	1,336,946
⊞ Cheese	7,201,383
⊞ Condiments	9,123,306
⊞ Dessert	2,259,388
⊞ Entre	1,843,423
⊞ Frozen	521
⊞ Grains	40,566
⊞ Lamb	75,223
⊞ Non-food	4,809,399
⊞ Pasta	150,942
⊞ Pork	3,535,150
⊞ Poultry	7,304,207
⊞ Rice	277,234
⊞ Seafood	2,826,061
⊞ Snacks	1,512,880
⊞ Soup	842,819
⊞ Vegetable	5,035,506

i.   Expand further to view the child members at each level in the hierarchy. When you reach the last level in the hierarchy, known as the leaf level, notice that the level no longer has an expansion icon.

	Dollars
Product	
⊟ Product Total	64,612,461
⊟ Baking	5,275,980
⊟ Balsamic Vinegar	29,155
⊟ Balsamic Vinegar	29,155
Balsamic Vinegar	29,155
⊞ Beef Bouillon Cubes	22,357
⊞ Biscuit Mix	678,067
⊞ Butter	438,589
⊞ Cajun Seasoning	105,136
⊞ Cooking Wine	10,774
⊞ Eggs	347,189
⊞ Flour	295,295
⊞ Iodized Salt	24,902
⊞ Pancake Mix	558,304
⊞ Powdered Sugar	157,403
⊞ Salt	192,242
⊞ Seasoned Breading	88,771
⊞ Shortening	1,598,468
⊞ Stuffing Mix	538
⊞ Sugar	649,696
⊞ Taco/Fajita Seasoning Kit	65,924
⊞ Vanilla Extract	13,171
⊞ Beef	5,088,480

j.   Collapse the **Product Total** hierarchy level.

k.   Click the **Save Analysis** button and save the analysis as   `Product Sales` in My Folders > My Sales.

7.   View the saved analyses in the Presentation Catalog.

a.   Click the **Home** link in the Oracle BI EE Global Header to navigate back to the Home page, which offers multiple ways to easily access content in the Presentation Catalog. You can select an analysis in the Recent list, search the Presentation Catalog under Browse/Manage, or click Open to open analyses within the Catalog.

b.   In the Recent section, click the **Open** link for the **Product Sales** analysis. The analysis is executed and the results are displayed in the default Compound Layout.

c.   Expand the hierarchy to view the results.

d.   Return to the Home page and click the **Edit** button for the **Sales by State** analysis. The analysis is opened in the Analysis Editor, where you can manipulate its contents, formatting, and views.

8.   Modify the Sales by State analysis to sort data by state, then by dollars, in descending order.

a.   Click the **Criteria** tab.

b.   Click the **More Options** button 🔽 for the **State** column and select **Sort > Sort Ascending**. The column icon changes to indicate an ascending sort 🔼.

c. Click the **More Options** button for the Dollars column and select **Sort > Add Descending Sort**. The column icon changes to indicate a descending sort ⬇.
Note: The numeral 2 to the right of the measure column icon indicates that this is a secondary sort. In this case, the State column represents the primary sort, as indicated by the numeral 1 to the right of its attribute column icon.

Customer		Fact-Sales
⬆ ₁ State ⬇	☰ Customer ⬇	⬇ ₂ Dollars ⬇

d. Click the **Results** tab to verify the sort.

State	Customer	Dollars
AZ	Tong's Wok	287,095
	Royal Barbecue	231,341
	Clifton Lunch	40
CA	Compound	4,992,670
	Palestine Club	3,358,088
	Romeo's Mexican Food & Pizza	2,665,336
	Big River Grille & Brewing	1,028,920
	93 Church Street	948,157
	New York Cafe	864,823
	Bill Johnson's Big Apple	716,730
	Le Boulanger	543,790
	China Dragon Restaurant	430,338
	Club 427	385,594
	Adria Restaurant & Deli	355,088
	Baldy Base Club	146,278
	Barry T's	12,973
	India Garden Restaurant	21

9. Format dollars to appear as currency in dollars.

a. Click the **Criteria** tab.

b. To create more space and simplify the Analysis Editor, click the sideways triangle button to close the Subject Areas and Catalog panes.

c. Click the **More Options** button in the Dollars column and select **Column Properties**. The Column Properties dialog box appears.

d. Click the **Data Format** tab.

e. Select the **Override Default Data Format** check box.

f. Select **Currency** from the Treat Numbers As drop-down list.

g. Select **$** from the Currency Symbol drop-down list.

h. Select **Minus: -123** from the Negative Format drop-down list.

i. Select **2** from the Decimal Places drop-down list.

j. Select the **Use 1000's Separator** option.

k. Click the **Save As Default** button and select **Save as the system-wide default for "Fact-Sales"."Dollars"** to save this formatting as the default for the Dollars column.

l. Click the **Results** tab to verify the formatting.

State	Customer	Dollars
AZ	Tong's Wok	$287,095.25
	Royal Barbecue	$231,340.52
	Clifton Lunch	$40.18

10. Change the format again to appear as whole dollar amounts without decimal points.

   a. Click the **Criteria** tab.

   b. Click the **More Options** button in the Dollars column and select **Column Properties**. The Column Properties dialog box appears.

   c. Click the **Data Format** tab.

   d. Select the **Override Default Data Format** check box.

   e. Select **0** from the Decimal Places drop-down list.

   f. Click the **Save As Default** button and select **Save as the system-wide default for "Fact-Sales"."Dollars"** to save this formatting as the default for the Dollars column.

   g. Click the **Results** tab to verify the formatting.

State	Customer	Dollars
AZ	Tong's Wok	$287,095
	Royal Barbecue	$231,341
	Clifton Lunch	$40

11. Center the alignment of the customer column.

   a. Click the **Edit View** button ✏ for the table below the title in the Compound Layout.

   b. In the Layout Pane, click the **More Options** button 🔍 for the Customer column and select **Format Values**. The Edit Format dialog box appears.

   c. In the Cell section, select **Center** from the Horizontal Alignment drop-down list.

   d. Click **OK** and verify that Customer values are now centered.

State	Customer	Dollars
AZ	Tong's Wok	$287,095
	Royal Barbecue	$231,341
	Clifton Lunch	$40

12. Copy the formatting and apply it to another column.

   a. Open the Edit Format dialog box again to copy the format you applied to the Customer column.

   b. Click the **Copy Cell Format** button 📋 and click **Cancel** to close the Edit Format dialog box.

   c. Open the Edit Format dialog box for the **State** column.

   d. Paste the formatting from the Customer column cells by clicking the **Paste Cell Format** button 📋.

e. Notice that the Horizontal Alignment field changes to **Center**.

f. Click **OK** and verify that the State column values are now centered.

State	Customer	Dollars
AZ	Tong's Wok	$287,095
	Royal Barbecue	$231,341
	Clifton Lunch	$40
CA	Compound	$4,992,670
	Palestine Club	$3,358,088
	Romeo's Mexican Food & Pizza	$2,665,336
	Big River Grille & Brewing	$1,028,920
	93 Church Street	$948,157
	New York Cafe	$864,823

g. Return the Customer and State column settings back to the defaults and check the results. You can do this by either resetting to defaults in the drop-down list in the Edit Format dialog box or clicking the Clear Cell Format (restore defaults) button. Finally, explore some of the other formatting options available in the Edit Format dialog box. When you understand the options, click **OK** to close the dialog box.

13. Modify and format the Customer column heading in the Table editor. This change only affects the column heading in the Table view. Later, you will set a column heading globally for the column.

a. In the Layout Pane, click the **More Options** button for the Customer column and select **Format Headings**. The Edit Format dialog box appears.

b. Enter `Customers` in the Caption field.

c. Change the Background Color to orange.

d. Click **OK** to close the Edit Format dialog box.

e. Verify in the Preview pane that the changes you made have taken effect.

State	Customers	Dollars
AZ	Tong's Wok	$287,095
	Royal Barbecue	$231,341
	Clifton Lunch	$40

f. Click **Done** to save your changes, close the Table editor, and return to the Compound Layout view.

14. Within the default Compound Layout, each of the views it includes resides in a container. Modify the containers within the Compound Layout to change their background color to yellow and add spacing and indent the Table view.

a. In the container for the Table view in the Compound Layout, click the **Format Container** button. The Format Container dialog box appears.

b. Click the **Background Color** selector. The Color Selector dialog box appears.

c. Select yellow and click **OK**.

d. Expand the Additional Formatting Options.

e. Enter `10` in the Indent (Left Padding) and Top Padding fields.

f. Click **OK**.

g.   Change the background color of the Title view's container in the Compound Layout to yellow and verify that your spacing and background color changes have been applied.

State	Customers	Dollars
AZ	Tong's Wok	$287,095
	Royal Barbecue	$231,341
	Clifton Lunch	$40
CA	Compound	$4,992,670
	Palestine Club	$3,358,088

15. Preview how the Compound Layout will appear in a dashboard.

a. Click the **Show how results will look on a Dashboard** button to open the analysis in a new browser window.

b. When you have examined the results, close the dashboard preview's browser window to return to the Analysis Editor.

16. Modify the Customer column heading in the Column properties. This change will affect the column in any view of the analysis.

a. Click the **Criteria** tab.

b. In the Selected Columns pane, click the **More Options** button for the Customer column and select **Column Properties**. The Column Properties dialog box appears.

c. Click the **Column Format** tab.

d. Select the **Custom Headings** check box.

e. Enter `Customer Name` in the Column Heading field. Leave the folder heading as the default: Customer. Depending on the permissions set by the administrator and the security settings on the servers, you can select the Contains HTML Markup option to include HTML tags, Active-X objects, and JavaScript and VBScript in your headings.

f. Click **OK** to close the Column Properties dialog box.
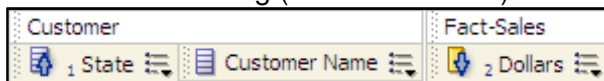
17. Navigate to the Results and Criteria tabs and verify that the new name appears in both places.

a. Click the **Results** tab to view the table in the Compound Layout. Notice that the name you set globally (Customer Name) is not reflected in your results. This is because the caption you set for the column in the Table editor overrides the global setting that you just added to the column on the Criteria tab.

b. To verify that your global change was applied, click the **Criteria** tab and verify that the new column heading (Customer Name) is visible.

18. Set up conditional formatting on the Dollars column.

a. In the Selected Columns pane, click the **More Options** button for the Dollars column and select **Column Properties**.

b. Click the **Conditional Format** tab in the Column Properties dialog box.

c. Click the **Add Condition** button.

d. Select **Dollars** from the drop-down list. The New Condition dialog box appears.

e. Select **is less than** from the Operator drop-down list.

f. Enter `250000` in the Value field.

g. Click **OK**. The Edit Format dialog box appears.

h. Click the **Color** drop-down list in the Font section.

i. Select **red** from the color selector and click **OK**.

j. Select **Bold** from the Style drop-down list.

k. Click **OK**.

l. Repeat the process and create the following conditional formatting:

Criteria	Operator/Value	Color	Style
Dollars	Is between 250000 and 500000	Blue	Bold
Dollars	is greater than 500000	Green	Bold

m. Click **OK** to close the Column Properties dialog box after you finish.

n. Click the **Results** tab to view the conditional formatting.

o. Click the **Save As** button to save the analysis as a new analysis

p. Name the analysis `Formatted Sales By State` and save it in the **My Sale**s folder.

19. Add a formula to the Formatted Sales by State analysis to increase the dollar amount by 10 percent.

a. Return to the **Criteria** tab.

b. In the Selected Columns pane of the Criteria tab, click the **More Options** button for the **Dollars** column and select **Edit formula**. The Edit Column Formula dialog box appears.

c. Click at the end of the formula in the Column Formula field.

d. Click the **Multiply** button in the Formula Editor.

e. Enter `1.10` after the asterisk.

f. Click **OK** to close the Edit Column formula dialog box.

g. Click **Results** and verify that the dollar amount increases in your results. Notice that the formula now appears as the column heading and the default formatting for dollars is no longer in effect, so that the dollar amounts again appear as numbers rather than as currency.

State	Customers	Dollars * 1.10
AZ	Tong's Wok	315,805
	Royal Barbecue	254,475
	Clifton Lunch	44

20. Add a function to the analysis to rank customers by dollar sales.

a. Return to the Criteria tab, click the **More Options** button for the Dollars column and select **Edit formula**. The Edit Column Formula dialog box appears.

b. The text in the Column Formula field should be selected. If not, select the text in the Column Formula field.

c. Click the **Insert Function** button . The Insert Function dialog box appears.

d. Expand the **Aggregate** functions group and select **Rank**. Notice that a description of the Rank function appears at the bottom of the window.

Insert Function

Functions:
- CountDistinct
- Count*
- Mavg
- Max
- Median
- NTile
- Min
- Percentile
- **Rank**
- StdDev
- Sum
- SumDistinct

Selected Rank

Syntax RANK(expr)

Where *expr* is any expression that evaluates to a numerical value.

Example RANK(chronological_key, null, year_key_columns)

Description Calculates the rank for each value satisfying the numeric expression argument. The highest number is assigned a rank of 1, and each successive rank is assigned the next consecutive integer (2, 3, 4,...). If certain values are equal, they are assigned the same rank (for example, 1, 1, 1, 4, 5, 5, 7...).

Help   OK Cancel

e. Click **OK** to close the Insert Function dialog box. The RANK function is added to the formula.

Column Formula
RANK("Fact-Sales"."Dollars"*1.10)
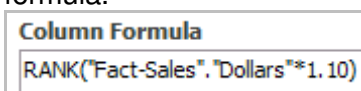
f. Click **OK** to close the Edit Column Formula dialog box. Notice that the **RANK** function is added to the analysis criteria.

g. Click **Results** and verify that the results are ranked. Notice that the ranked values retain the currency data formatting that you set earlier.

State	Customers	RANK(Dollars * 1.1)
AZ	Clifton Lunch	135
	Royal Barbecue	72
	Tong's Wok	65

21. Add a formula to rank dollars by state.

a. On the Criteria tab, click the **More Options** button for the Dollars column and select **Edit formula**.

b. Change the syntax by adding a "by" statement to the expression in the Column Formula field: `Rank(Fact-Sales.Dollars*1.10 by )`.

c. In the Column Formula field, place the cursor at the end of the expression after "by" (inside the parentheses).

d. In the Available field, expand **B - Supplier Sales > Customer**, select the **State** column, and click the **Add Column** button to add the state column to the formula.
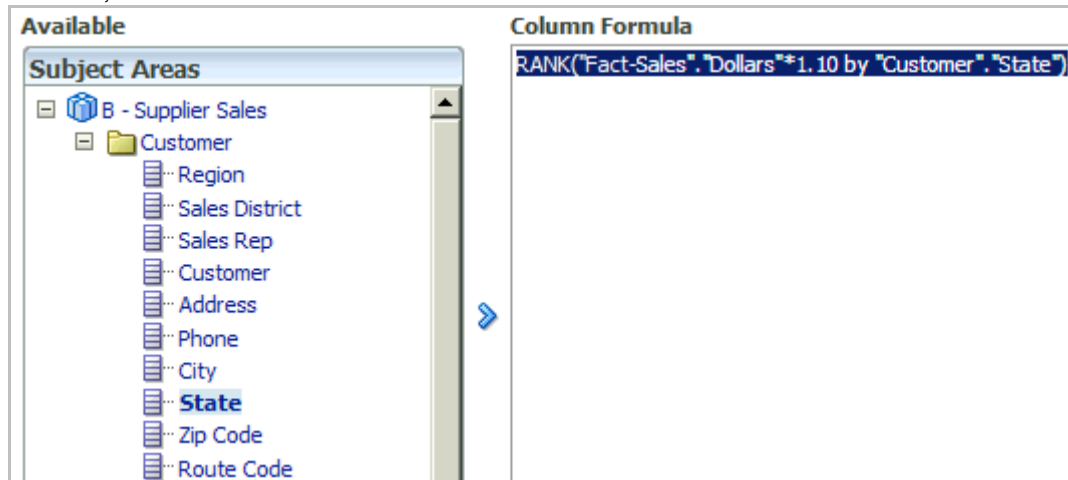
e. Select the **Custom Headings** check box.

f. In the Column Heading field, enter `RANK(Dollars by State)`.

g. Click **OK**.

h. Check your analysis on the Criteria tab:
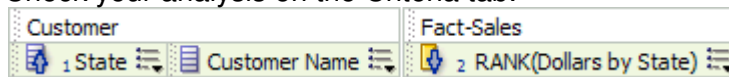
i. Click the **Results** tab to view the results.

State	Customers	RANK(Dollars by State)
AZ	Clifton Lunch	3
	Royal Barbecue	2
	Tong's Wok	1
CA	India Garden Restaurant	14
	Barry T's	13
	Baldy Base Club	12
	Adria Restaurant & Deli	11
	Club 427	10
	China Dragon Restaurant	9
	Le Boulanger	8
	Bill Johnson's Big Apple	7
	New York Cafe	6
	93 Church Street	5
	Big River Grille & Brewing	4
	Romeo's Mexican Food & Pizza	3
	Palestine Club	2
	Compound	1

22. Save this analysis as a new analysis.

a. Click the **Save As** button.

b. Name the analysis `Ranked Sales by State` and save it in the My Sales folder.

23. Open the Product Sales analysis and apply formatting.

a. Click the **Open** button in the Global Header and select the **Product Sales** analysis from the Recent list.

b. Click the **Criteria** tab.

c. Click the **More Options** button for the Product column and select **Column Properties** to open the Column Properties dialog box. Notice that you can set column properties globally, similarly to attribute columns.

d. Click the **Column Format** tab.

e. Select **Custom Headings**.

f. Change the column heading to `Product Hierarchy`.

g. Use the **Conditional Format** tab to add the following condition: When Dollars is less than $100,000, set cell background color to red

h. Close the Column Properties dialog box.

i. Confirm that your custom heading change is applied:

Product	Fact-Sales
⊞ Product Hierarchy	Dollars
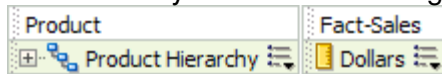
j. Click **Results**.

k. Expand the hierarchy to the leaf node of the Frozen product type. Notice that the conditional formatting set at the highest level of the hierarchy (column) is applied to all levels in the hierarchy that meet the condition.

Product Hierarchy	Dollars
⊟ Product Total	$64,612,461
⊞ Baking	$5,275,980
⊞ Beef	$5,088,480
⊞ Beverage	$4,470,714
⊞ Bread	$1,602,333
⊞ Cereal	$1,336,946
⊞ Cheese	$7,201,383
⊞ Condiments	$9,123,306
⊞ Dessert	$2,259,388
⊞ Entre	$1,843,423
⊟ Frozen	$521
⊟ Poultry	$521
⊟ Frozen Quail	$521
2 Pak Frozen Quail 8 oz	$521
⊞ Grains	$40,566
⊞ Lamb	$75,223

l. Return to the **Criteria** tab.

m. Expand the Product Hierarchy column.

Product	Fact-Sales
⊟ Product Hierarchy	Dollars
▫ Product Total	
▫ Type	
▫ Subtype	
▫ Generic	
▫ Specific	
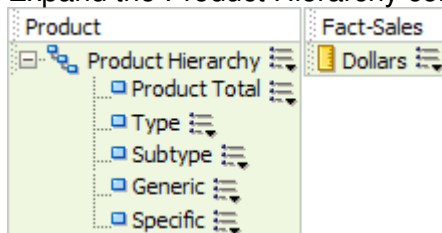
n. Click the **More Options** button for the **Subtype** hierarchy level and select **Hierarchy Level Properties**. The Hierarchy Level Properties dialog box appears.

o. Use the **Conditional Format** tab to add the following condition: When Dollars is less than $100,000, set cell background color to green.

p. Click **OK** to close the Hierarchy Level Properties dialog box.

q. Click the **Results** tab to verify that the Subtype level is displayed as expected. Formatting set at the hierarchy level overrides formatting set at the column level.

Product Hierarchy	Dollars
Product Total	$64,612,461
Baking	$5,275,980
Beef	$5,088,480
Beverage	$4,470,714
Bread	$1,602,333
Cereal	$1,336,946
Cheese	$7,201,383
Condiments	$9,123,306
Dessert	$2,259,388
Entre	$1,843,423
Frozen	$521
Poultry	$521
Frozen Quail	$521
2 Pak Frozen Quail 8 oz	$521
Grains	$40,566
Barley	$3,607
Enriched Pasta Shells	$28,490
Instant Grits	$8,468
Lamb	$75,223
Non-food	$4,809,399

r. Save the analysis as `Product Hierarchy Sales`.

24. Double-click the **Essbase Demo** shortcut on the desktop to view a demonstration of how to use Essbase data in an analysis.

Practices for Lesson 4: Filtering Data in Analyses

Chapter 4

Practices for Lesson 4: Overview

Practices Overview

In these practices, you limit data by using filters and prompts.

Practice 4-1: Adding Filters to an Analysis

Goal
Add filters to limit the results returned by an analysis

Scenario
You use a variety of methods to add filters to analyses to limit query results.

Time
10-15 minutes

Task
1. If necessary, start Oracle Business Intelligence Presentation Services and sign in using the URL and credentials provided by your instructor.

    a. In a browser, enter the URL for Oracle BI EE using the following format:
    `http://<hostname>:<port number>/analytics.`
    Your instructor will provide you with the correct URL.
    For example, the URL may be:
    `http://localhost:7001/analytics`

    b. In the Sign In screen for Oracle BI EE, enter the User ID and Password for a user with BI Administrator privileges, as given by your instructor. (The default BI administrator is the **weblogic** user and the password is **welcome1**.)

    c. Click **Sign In**.

2. Open the Formatted Sales by State analysis.

    a. Click the **Catalog** button in the Global Header.

    b. In the Folders pane, navigate to **My Folders > My Sales**.

    c. Click the **Edit** link under the **Formatted Sales by State** analysis to open it in the Analysis Editor.

3. Add a filter to show records only from the West region without showing the Region column in your results.

    a. Open the **Criteria** tab.

    b. In the Subject Areas pane, double-click **Region** in the **Customer** table to add the Region column to your analysis.

    c. Click the **More Options** button for the Region column and select **Column Properties**. The Column Properties dialog box appears.

    d. Click the **Column Format** tab.

    e. Select the **Hide** check box at the upper-right corner.

    f. Click **OK**.

    g. Click the **More Options** button for the Region column and select **Filter**. The New Filter dialog box appears.

    h. Notice that the "is equal to / is in" operator is selected by default.

i. Click the Search icon 🔍 next to the Value field to open the Select Values dialog box. This is one method for selecting column members to include in a filter. This method is advantageous when there are many members. In this example, there are only three members of the Region column.

j. Select **West** in the Available list and click the **Move** button to add it to the Selected list.

k. Double-click **East** to add it to the Selected list. Double-clicking is another method for adding values to the Selected list.

l. Click **OK** to close the Select Values dialog box and return to the New Filter dialog box.

m. Notice that **West;East** is added to the Value field.

n. Click the **Down Arrow** icon ▾ for the Value field and notice that this is another method for picking filter values. In this example, East and West are already selected. Notice that it is also possible to Search from this drop-down list.

o. Leave the filter values set to East and West and click **OK** to close the New Filter dialog box.

p. Notice that you are returned to the Criteria tab and that you have a new filter called "Region is equal to / is in West;East" in the Filters pane.

q. Place your cursor over the filter and click the **Edit Filter** button.
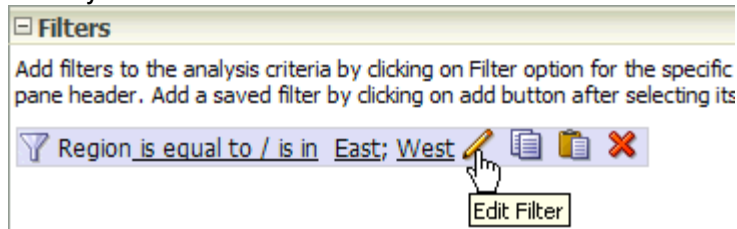
r. In the Edit Filter dialog box, click the **Down Arrow** for the Value field.

s. In the drop-down list, deselect the **East** check box.
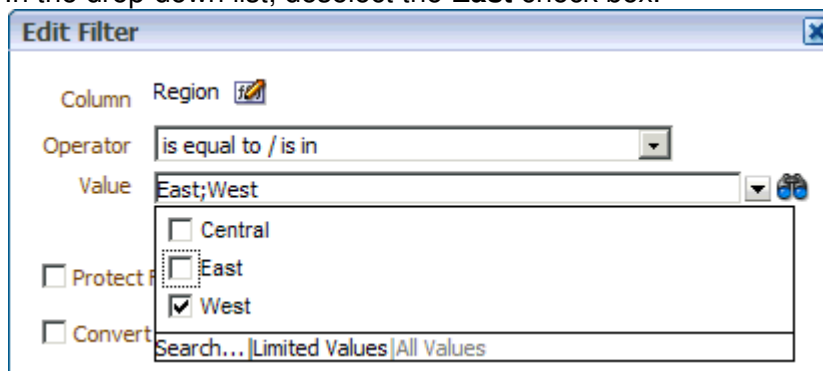
t. Click **OK** to close the Edit Filter dialog box.

u. Notice that the filter is updated in the Filters pane.
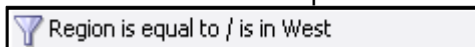
4. Use another method to add a second filter to show records only from 2008.

   a. Click the **Create a filter for the current Subject Area** button 🍋 in the Filters pane.

   b. Select **More Columns** to open the Select Column dialog box.

   c. Expand **Time** and select the **Year** column.

   d. Click **OK** to open the New Filter dialog box.

   e. Click the down arrow for the Value field.

   f. Select **2008** and click **OK** to add the filter to the Filters pane. One advantage of using this method is that you do not have to add the column to the analysis and then hide it, as you did in the previous example.

   g. Verify that both filters are now added to the Filters pane.

   ```
   ▼ Region is equal to / is in West
   AND ▼ Year is equal to / is in 2008
   ```
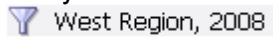
   h. Click the **AND** link to change the filter syntax to OR.

   i. Click **OR** to return the syntax to AND.

   j. Click the **Results** tab to view the results. Notice that neither Region nor Year is visible in the results.

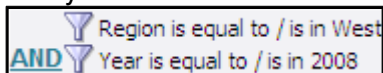| State	Customers	Dollars
AZ	Tong's Wok	$222,557
	Royal Barbecue	$178,193
	Clifton Lunch	$40
CA	Compound	$3,754,823
	Palestine Club	$2,462,990
	Romeo's Mexican Food & Pizza	$1,997,925
	Big River Grille & Brewing	$811,385
	93 Church Street	$742,577
	New York Cafe	$704,646
	Bill Johnson's Big Apple	$553,144
	Le Boulanger	$442,648
	China Dragon Restaurant	$343,836
	Club 427	$314,215
	Adria Restaurant & Deli	$287,375
	Baldy Base Club	$111,566
	Barry T's	$12,358
	India Garden Restaurant	$21

   k. Scroll to the bottom of the table, click the **Display maximum rows per page** button, and confirm that 30 rows are returned.

5. Save the filter as a named filter for use with other content.

   a. Click the **Criteria** tab.

   b. Click the **More Options** button ≫ in the Filters pane and select **Save Filters**. The Save As dialog box appears.

   c. Click the **Show Folder Tree** button 📁 and view the location in the folder tree that your default location represents. The Save In field defaults to the My Folders/Subject Area Contents/B - Supplier Sales folder in the Presentation Catalog because saved filters are among the objects saved and usable within respective subject areas. The system defaults to the correct location to save such objects so that they will be available for

use in the future from within the subject area. Note, however, that if you are saving a subject area-specific object like a filter or a selection or group in the default My Folders section of the Presentation Catalog, it will only be available in shared dashboards to people who have explicit access permissions. Depending on the planned use of the object, you may want to save in a shared subject area folder so that it is more broadly available for use in analyses and shared dashboards.

    d. Enter `West Region, 2008` in the Name field. Notice that, by default, the **Replace current report filters with a reference to the saved filter** check box is selected.

    e. Click **OK**.

    f. Verify that the current report filter now references the saved filter in the Filters pane.

 West Region, 2008

6. Save the existing analysis with the filter.

    a. Click the **Save As** button to open the Save As dialog.

    b. In the Folders pane, select **My Folders > My Sales**.

    c. Name the analysis `Formatted Sales by State, West Region 2008`.

    d. Click **OK**.

7. Create a filter for the current and previous month by using variables.

    a. Click the **Home** link.

    b. Click the **Edit** link to open the **Sales by State** analysis in the Analysis Editor.

    c. Click the **Criteria** tab.

    d. Add the **Month** column to the analysis by expanding **Time** and then dragging **Month** from the Subject Areas pane to the right of the Customer column.

    e. In the Filters pane, click the **Create a filter for the current Subject Area** button and select **"Time"."Month"**.

    f. In the Operator field, choose **is equal to** / **is in**.

    g. Click the **Add More Options** button and select **Repository Variable**.

    h. In the Repository Variable field, enter `CURRENT_MONTH`. Please note that this training environment already includes repository variables named CURRENT_MONTH and PREVIOUS_MONTH.

    i. Click the **Add More Options** button and select **Repository Variable**.

j. In the Repository Variable field, enter PREVIOUS_MONTH.

k. Click **OK** and verify that the filter appears in the Filters pane.

l. Click the **Results** tab to review the results. The analysis should be filtered to show data for only the current and previous month. Your results should look similar to the screenshot.

State	Customer	Month	Dollars
AZ	Royal Barbecue	April	$14,421
			$13,650
		May	$14,421
	Tong's Wok	April	$9,643
			$12,729
		May	$27,597
CA	93 Church Street	April	$78,591
			$21,399
		May	$69,984

m. Use the **Save As** button to save the analysis as Sales by State for Current and Previous Month in the My Sales folder.

n. Leave Analysis Editor open for the next practice.

Practice 4-2: Adding an Inline Prompt to an Analysis

Goal

Build an inline prompt that allows you to filter results

Scenario

In this practice, you use an inline prompt to constrain an analysis to obtain results that answer a particular question.

Time

10-15 minutes

Task

1. Create an analysis and add an inline prompt.

    a. Create the following new analysis using the **B – Supplier Sales** subject area:
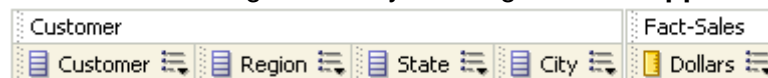
    b. Click the **Prompts** tab.

    c. Click the **New** button 🟢 and select **Column Prompt > "Customer"."Region"**. The New Prompt dialog box appears.

    d. In the Label field, enter `Filter by Region`. This caption will appear to the user.

    e. Enter `Filter by Region` in the Description field.

    f. In the Operator drop-down list, select **is equal to / is in**.

    g. In the User Input drop-down list, accept the default **Choice List**. Check your selections:
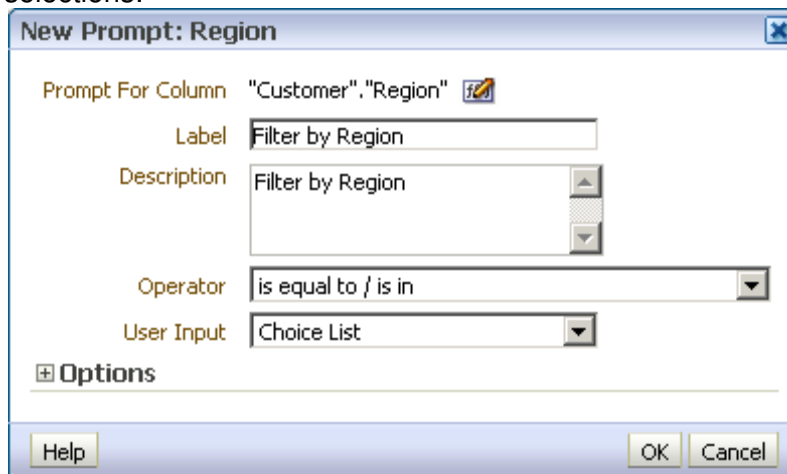
    h. Expand **Options**.

    i. Select the **Limit values by** check box and select **All Prompts** in the drop-down list. Limiting values prevents a user from choosing values that would result in no data. In this example, when a Region is selected in the first prompt, only states within that region will be available for selection in the next prompt.

j. Deselect the **Enable user to select multiple values** and **Enable user to type values** check boxes.

k. Verify that the **Require user input** check box is not selected. If a selection is required for the prompt, this is indicated to the user by an asterisk next to the prompt. The user can bypass a selection for any filter prompt appearing without an asterisk.

l. Check your work:

m. Click **OK**. The prompt is added to the analysis.

2. Check your work.

a. Click the **Preview** button 🔍 to display the prompt.

b. Click the **Filter by Region** drop-down list and verify that three regions appear: **Central**, **East**, and **West**.

c. Close the preview browser window.

d. You can also check your work in the Display pane below the Definition pane.

3. Repeat the steps outlined above and build two more prompts: one for State and the other for City. Use the screenshots below as a guide.

a. State prompt:

b. City prompt:

c. If necessary, use the up and down arrows to set the execution order of the prompts, so that they appear in the following order:

Prompt Label	Type	Prompt For
Page 1	Page	
Filter by Region	Column value	Region
Filter by State	Column value	State
Filter by City	Column value	City

4. Test your work by using the preview to verify the values.

a. Click the **Preview** button.

b. In the Filter by Region prompt, select **West** from the drop-down list.

c. In the Filter by State prompt, select **CA** (California) from the drop-down list. Notice that only states in the West region appear in the Filter by State drop-down list.

d. In the Filter by City prompt, select **San Francisco** from the drop-down list. Notice that only cities in California appear.

e. Click **OK**. The filtered analysis appears, displaying customers who are in the West region, in the state of California, in the city of San Francisco.

f. Close the preview browser window.

g. Save the analysis as `My Inline Column Filter Prompts` in the My Sales folder.

Practice 4-3: Using a Saved Analysis as a Filter

Goal

In this practice, you create a filter based on the results of another saved analysis.

Scenario

Use a saved analysis as a filter to limit the number of rows returned for a new analysis.

Time

5-10 minutes

Task

By using the results of a saved analysis to filter a column in another analysis, you can ensure that the results are limited to the same data set between related analyses.

1. Create and save an analysis to be used as a filter in another analysis.

    a. Use the B – Supplier Sales subject area to create the following new analysis and associated filter:

Customer		Time
Customer Region		Year

    Region is equal to / is in West
    AND Year is equal to / is in 2009
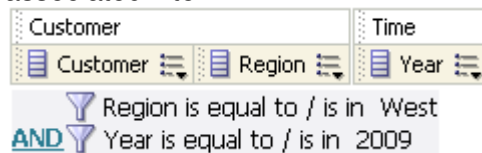
    b. Click the **Results** tab. There should be 29 records. The screenshot shows only a portion of the records.

Customer	Region	Year
93 Church Street	West	2009
Adria Restaurant & Deli	West	2009
Alley-Cats	West	2009
Andy's	West	2009
Baldy Base Club	West	2009
Bar-Be-Que Time	West	2009
Barry T's	West	2009
Big River Grille & Brewing	West	2009
Bill Johnson's Big Apple	West	2009
Cafe Barcelona	West	2009
Chang's Mongolian Grill	West	2009

    c. Save the analysis as `Customers – West Region 2009` in the My Sales folder.

2. Create an analysis to be filtered by a saved analysis.

    a. Use the B – Supplier Sales subject area to create the following new analysis:

Customer		Fact-Sales
Customer Region		Dollars Units Ordered Units Shipped

b. Click the **Results** tab. There should be 136 records returned. These are all the customers in all regions. The screenshot displays only a portion of the results.

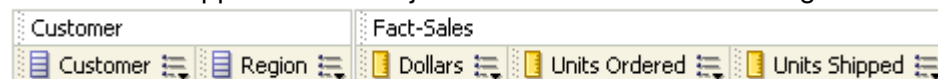| Customer	Region	Dollars	Units Ordered	Units Shipped
2nd & Goal Sports Cafe	Central	$371,939	18,137	17,986
93 Church Street	West	$948,157	44,633	44,097
A Site For Appetite	East	$7,535	78	78
Acropolis Restaurant	Central	$69,948	2,720	2,724
Adria Restaurant & Deli	West	$355,088	17,603	17,965
Aibonitos Restaurant	Central	$185,964	6,125	6,278
Alley Dog	Central	$304,899	12,366	12,389
Alley-Cats	West	$2,264,737	91,350	89,079
Amadeus At The Fernwood	East	$967,119	49,829	49,329

c. Click the **Criteria** tab.

d. Click the **Create a filter for the current Subject Area** button in the Filters pane and select **"Customer"."Region"**. The New Filter dialog box appears.

e. In the Operator field, select **is based on results of another analysis**.

f. Click **Browse** to select a saved analysis that you want the filter based on.

g. In the Open dialog box, select the **Customers – West Region 2009** analysis.

h. Click **OK**.

i. In the Relationship field, select **is equal to any**.

j. In the "Use values in Column" field, select **Region**.

k. Click **OK**. The filter appears in the workspace.

Region is equal to any Region in Customers - West Region 2009

l. Click the **Results** tab.

---

m. Verify that 31 rows are returned, and that results include only customers in the West region. Notice that this is two more rows than your filter on Region and Year produced in the saved analysis that you are filtering with. You can surmise that there are 31 customers in the West region, but of those, two were not active in 2009.

n. Save the analysis as `Customer Sales – West Region 2009` in the My Sales folder.

Practice 4-4: Editing SQL for a Column Filter

Goal

In this practice, you edit the SQL for a column filter in an analysis.

Scenario

You edit the logical SQL `WHERE` clause to be used as a filter to add another region to the filter.

Time

5 minutes

Task

Although it is generally not necessary to directly edit SQL in your analyses, it is sometimes preferable to directly edit the `WHERE` clause issued in the SQL for a filter.

1. Edit the SQL generated for a column filter.

    a. Open the saved **Customers – West Region 2009** analysis in the Analysis Editor.

    b. On the Criteria tab, mouse over the filter and then click the **Edit Filter button** for **Region is equal to / is in West**.
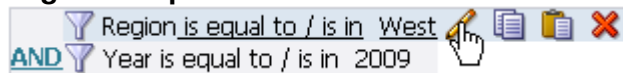
    c. In the Edit Filter dialog box, select the **Convert this filter to SQL** check box.
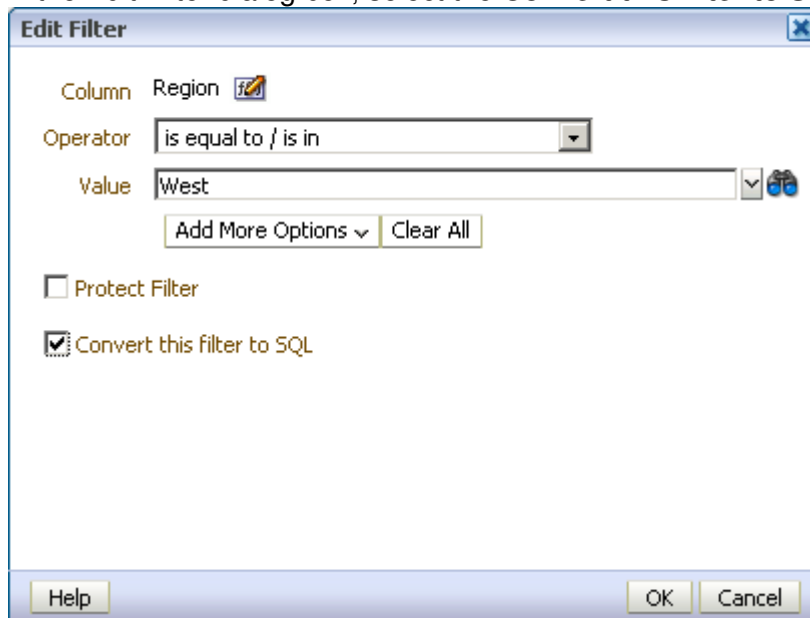
    d. Click **OK** to open the Advanced SQL Filter dialog box.

e. In the Advanced SQL Filter text box, change "Customer"."Region" = '**West**' to "Customer"."Region" = '**East**'.

f. Click **OK**. The edited filter appears in the workspace.
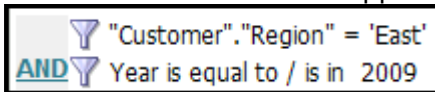
g. Click the **Results** tab.

h. Verify that the analysis now returns results for customers in the East region. There should be 55 records returned.

Customer	Region	Year
A Site For Appetite	East	2009
Amadeus At The Fernwood	East	2009
Amc Entertainment Inc	East	2009
Amerigo	East	2009
Arloi Dee	East	2009
Around The Clock Restaurant	East	2009
Back Street Bistro	East	2009
Barbecue Lodge Inc	East	2009

i. Save the analysis as `Customers – East Region 2009` in the My Sales folder.

Practices for Lesson 5: Selecting and Grouping Data for Analyses

Chapter 5

Practices for Lesson 5: Overview

Practices Overview

In these practices, you limit and group data by using selections, groups, and calculated items.

Practice 5-1: Using Selections, Groups, and Calculated Items to Manage Analysis Results

Goal

In this practice, you build a selection to retain only the members of an analysis that are pertinent to your business needs.
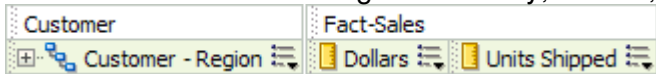
Scenario

You use selection steps to add, keep, and remove members based on direct selections as well as criteria. The goal of the selection is to prune the analysis to include the top-selling sales representatives in the East region, and to retain the current top-selling representative from California, so that you can compare the sales representative's performance with the East's top sellers.

Time

10-15 minutes

Task

1. Create a selection to limit the results to only members in the Eastern region and in California.

    a. Use the B – Supplier Sales subject area to create the following new analysis that includes the Customer - Region hierarchy, Dollars, and Units Shipped.

    b. Click the **Results** tab.

    c. Expand the **Customer - Region** hierarchy to examine the results and to view the levels in the hierarchy.

d.   Notice the **Dollars** and **Units Shipped** totals for the **East** region and for **California**. You will use these values for comparison later in this practice.

| Customer - Region	Dollars	Units Shipped
⊟ Customer Total		
⊟ Central	$13,423,387	545,565
⊟ Gulf	$843,693	30,551
⊟ MARY SILVER	$843,693	30,551
Alley Dog	$304,899	12,389
Papa Pete's Pizza	$538,794	18,162
⊞ LowerMidWest	$4,753,536	199,579
⊞ MidWest	$2,452,673	101,857
⊞ Texas	$4,125,482	165,220
⊞ UpperMidWest	$1,248,003	48,358
⊟ East	$25,460,351	1,181,586
⊞ Florida	$1,691,813	63,068
⊞ MidAtlantic	$3,885,608	154,853
⊞ UpperSouth	$6,388,423	299,594
⊞ Yankee	$13,494,508	664,071
⊟ West	$25,728,722	1,042,726
⊞ California	$16,448,806	682,921
⊞ Desert	$7,069,864	268,186
⊞ Northwest	$2,210,052	91,619

e.   Click the **Show/Hide Selection Steps pane** button 📥 on the toolbar to open the Selections pane in the Analysis Editor.

f.   In the List drop-down list, select **Measures**. Notice that the measures are listed, but there are no options to create a selection. This is because the analysis currently includes a hierarchy column and two measure columns. Selections can be used only to determine the membership of hierarchy and attribute columns in an analysis.

g.   Select **All** in the List drop-down list. A selection determining the membership of the Customer – Region hierarchy appears. Notice that, by default, the selection starts with all members of the hierarchy.

h.   Place the cursor over step 1 in the selection, "Start with all members", and click the **Edit** button to open the Edit Member Step dialog box.

i.   Click the **Action** drop-down list and select **Start with all members**.

j.   Notice that the Edit Member Step dialog box selection options are reduced, because if the first step is to select all members, it is not necessary to make any further selections.

k. Select **Start with Group or Calculated Item**. The dialog box provides you access to the Presentation Catalog to select groups or calculated items saved in a subject area.

l. Select **Start with selected members**. The dialog box displays the hierarchy so that you can select members from one or more levels in the hierarchy.

m. In the Available list, expand the Customer Total level of the hierarchy, select the **East** region, and click the **Move** button to add it to the Selected list. Notice that a green check mark appears in the list of members to indicate that a member has been selected.
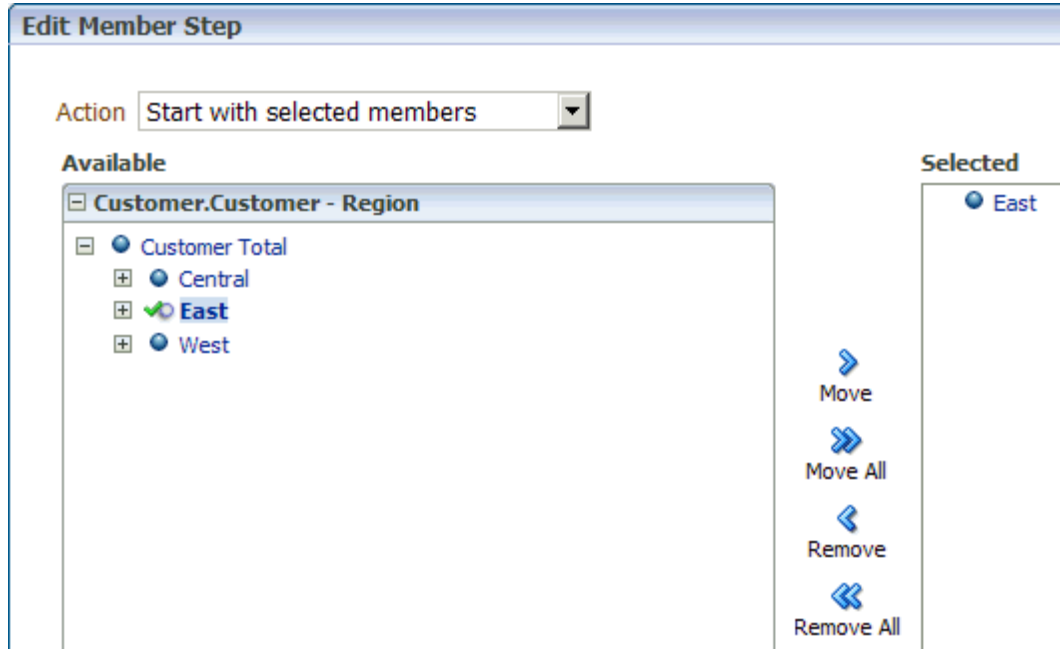
n. Expand the West region in the hierarchy, select **California**, and add it to the Selected list.

o. Click **OK** to close the Edit Member Step dialog box.

p. In the results, verify that the analysis now includes the East region, with the addition of California from the West region.

Customer - Region △▽	Dollars	Units Shipped
⊟ East	$25,460,351	1,181,586
⊞ Florida	$1,691,813	63,068
⊞ MidAtlantic	$3,885,608	154,853
⊞ UpperSouth	$6,388,423	299,594
⊞ Yankee	$13,494,508	664,071
⊞ California	$16,448,806	682,921

q. Notice also that the selection steps have been updated to **Start with 'East', 'California'**.

Customer - Customer - Region

🔵 1. Start with 'East', 'California'

↓ 2. Then, New Step…
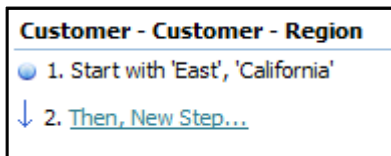
2. Add another step to your selection to keep only Brian Liedtke from the California sales force in your results.

a. Expand the California level in your results and verify that the sales results for the four sales representatives sum to the total for California.

Customer - Region	Dollars	Units Shipped
⊟ East	$25,460,351	1,181,586
⊞ Florida	$1,691,813	63,068
⊞ MidAtlantic	$3,885,608	154,853
⊞ UpperSouth	$6,388,423	299,594
⊞ Yankee	$13,494,508	664,071
⊟ California	$16,448,806	682,921
⊞ BRIAN LIEDTKE	$8,794,091	348,836
⊞ FRED FRIENDLY	$2,248,831	109,745
⊞ MAYNARD WAGNER	$1,877,540	83,223
⊞ VIRGIL JOHNSTON	$3,528,344	141,117

b. In the Selection Steps pane, click **Then, New Step > Select Members**.

c. In the New Member Step dialog box, select **Keep Only** from the Action drop-down list. Notice that because you have an initial selection in the first step, you are now adding, keeping, or removing members from the original selection. Each step is applied sequentially to arrive at the analysis selection.

d. In the Available pane, expand the hierarchy to **West > California > BRIAN LIEDTKE**.

e. Select **BRIAN LIEDTKE** in the Available list and move him to the Selected list.

f. Click **OK** to close the dialog box.

g. Notice that the results are now limited only to Brian Liedtke. The rest of the East region has been removed from the analysis results along with the California sales representatives who are not selected for the analysis. The original selection from the first selection step is being limited to only one sales representative because of the member selection.


h. Place the cursor over the **Then, Keep only 'BRIAN LIEDTKE'** selection step that you created and click the **Edit** button.

i. In the Edit Member Step dialog box, select **BRIAN LIEDTKE** in the Selected list and click the **Remove** button.

j. In the Available list, use Ctrl + click to select all of the California sales representatives except for Brian Liedtke, and then click the **Move** button to add them to the Selected list.
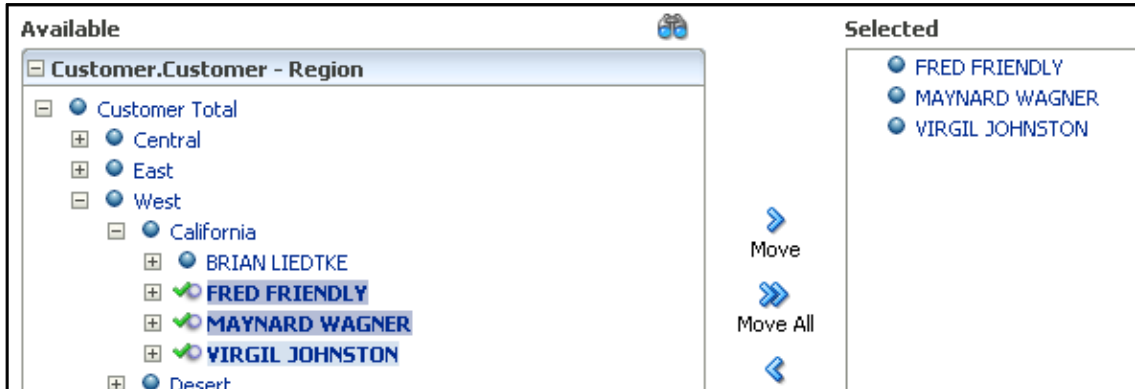
k. Select **Remove** from the Action drop-down list. This will remove the sales representatives in the Selected pane.

l. Click **OK**.

m. Verify that the results now display only Brian Liedtke under California in your results.

Customer - Region	Dollars	Units Shipped
⊟East	$25,460,351	1,181,586
⊞Florida	$1,691,813	63,068
⊞MidAtlantic	$3,885,608	154,853
⊞UpperSouth	$6,388,423	299,594
⊞Yankee	$13,494,508	664,071
⊟California	$16,448,806	682,921
⊞BRIAN LIEDTKE	$8,794,091	348,836

n. Now that you removed all of the other sales representatives from the California sales district, notice that the revenue or units shipped results did not change in the analysis. This is because selections, unlike filters, are applied after aggregation, so that in this case, the total sales for the California sales district include the aggregated results of all of its sales representatives despite the removal of three of the members from the analysis. Note that another method for using selection steps would be to simply include Brian Liedtke in the initial selection step.

3. Change the selection steps to clarify possible confusion in the analysis.

a. Notice that confusion could arise in the analysis because the California sales district appears at a glance as a child of the East region, and both its aggregate revenue and units shipped could be mistaken as contributing to the East region's results.

b. To clarify the possible confusion, edit the existing selection steps to start with East and West, and then remove Desert, Northwest, FRED FRIENDLY, VIRGIL JOHNSTON, MAYNARD WAGNER.

c. Verify that your results and selection steps appear similar to the screenshot:

	Dollars	Units Shipped
Customer - Region		
⊟ East	$25,460,351	1,181,586
⊞ Florida	$1,691,813	63,068
⊞ MidAtlantic	$3,885,608	154,853
⊞ UpperSouth	$6,388,423	299,594
⊟ Yankee	$13,494,508	664,071
⊞ ANN JOHNSON	$2,445,038	126,490
⊞ BETTY NEWER	$4,756,768	223,190
⊞ STEVEN SMITH	$6,171,011	310,265
⊞ TRACIE BELL	$121,691	4,126
⊟ West	$25,728,722	1,042,726
⊟ California	$16,448,806	682,921
⊞ BRIAN LIEDTKE	$8,794,091	348,836

Customer - Customer - Region

1. Start with 'East', 'West'
2. Then, Remove 'Desert', 'Northwest', 'FRED FRIENDLY', 'VIRGIL JOHNSTON', 'MAYNARD WAGNER'
↓ 3. Then, New Step...

Notice in the screenshot that the Yankee sales district is expanded so that its sales team is visible for comparison with the California district's sole member. Notice also that you could also spread these selections over multiple steps to achieve the same results.

4. To further simplify your analysis, add a selection step based on a condition to remove the members of the sales teams who fall in the bottom 50% based on revenue. The remaining members in the analysis represent the top 50%.

a. Expand the hierarchy to the **Sales Rep** level for each sales district. There should be a total of fifteen sales representatives in the current analysis.

b. Click the **Then, New Step** link and select **Apply a Condition**. The New Condition Step dialog box appears.

c. Click the **Condition Type drop-down list**, and examine the variety of conditions that you can choose. Notice that each condition type includes an example. Notice that you can use string matching or greater-than and less-than conditions, similarly to the filters you have built, to add, keep, or remove members.
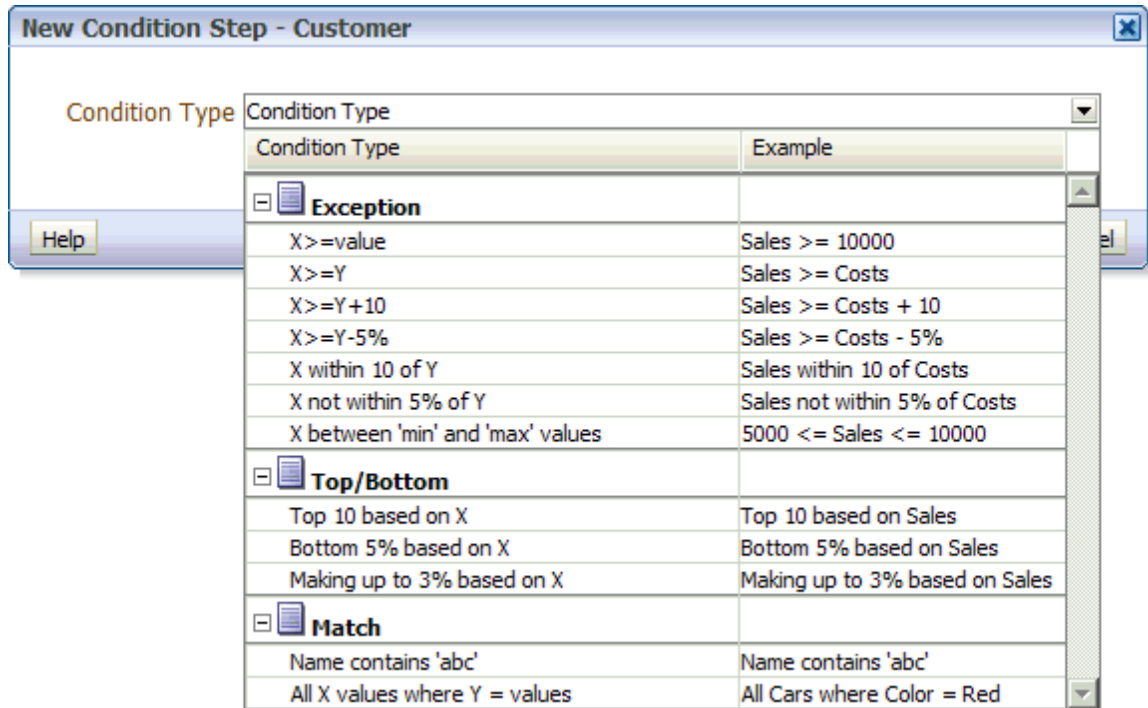
d. Select **Bottom 5% based on X**.

e. In the Action drop-down lists, select **Remove** and specify the **Sales Rep** level in the hierarchy.

f. In the Operator drop-down list, select **is bottom**.

g. In the Rank drop-down list, enter `50` and select the **%** option. Notice that underneath this option, you can also override the rank value with Repository, Session, and Presentation variables.

h. Keep the default measure, "Fact-Sales"."Dollars". You can also use the drop-down list to select other measures present in your analysis or select one from the subject area.

i. Verify your selections:

New Condition Step - Customer

Condition Type: Bottom 5% based on X

Action: Remove | Sales Rep

For

Operator: is bottom

Rank: 50 ☑ %

☐ Override with Presentation Variable

Based on

Measure: "Fact-Sales"."Dollars"

⊟ For

Dimension	Members

Help | OK | Cancel

j. Click **OK** and verify that your selection steps resemble the following:

Customer - Customer - Region

1. Start with 'East', 'West'

2. Then, Remove 'Desert', 'Northwest', 'FRED FRIENDLY', 'MAYNARD WAGNER', 'VIRGIL JOHNSTON'

3. Then, Remove members of **Sales Rep** for Bottom 50% based on "Fact-Sales"."Dollars"

k. In the results, expand the hierarchies to show the members at the **Sales Rep** level and verify that they have been reduced by half. There should now be seven members in the analysis at the **Sales Rep** level of the hierarchy, each of whom belong to the top 50% based on revenue.

Customer - Region	Dollars	Units Shipped
⊟ East	$25,460,351	1,181,586
⊞ Florida	$1,691,813	63,068
⊟ MidAtlantic	$3,885,608	154,853
⊞ PAULA MADISON	$1,864,628	74,448
⊟ UpperSouth	$6,388,423	299,594
⊞ KATIE RICHARDS	$2,944,260	150,241
⊞ LILLIAN BAYER	$2,382,459	106,651
⊟ Yankee	$13,494,508	664,071
⊞ ANN JOHNSON	$2,445,038	126,490
⊞ BETTY NEWER	$4,756,768	223,190
⊞ STEVEN SMITH	$6,171,011	310,265
⊟ West	$25,728,722	1,042,726
⊟ California	$16,448,806	682,921
⊞ BRIAN LIEDTKE	$8,794,091	348,836

l. Notice that the measures for the entire East and West regions remain the same despite the removal of members from the analysis. Again, the aggregate measures are not affected by the selection steps.

m. Save the analysis as **Sales by Region – Top Performers East Region and California** in the My Sales folder.

5. Save your selection steps as a group. Groups and calculated items are treated as members and can be saved in the Presentation Catalog and added as additional members to an analysis. Note that a saved selection can be applied only to the same column from which it was created in the original analysis.

   a. Click the **Save Selection Steps** button 🖫 in the Selections pane to the right of your selection steps.

   b. In the Save Selection Steps dialog box, enter `Top Performers East Region and California` as the name of the group.

   c. Enter `Top Performers East and CA` as the Display Label.

   d. Select the **Steps** option in the Save section. Notice that this option generates the results dynamically each time the saved group is used, so that future changes in relative sales could change the membership of the group as the steps are applied. The other option maintains the current membership as a group. Finally, notice that you can select the Replace current steps with a reference to the saved group option to replace the steps in the Selection Steps pane with the group name. Do not select this option.

   e. Notice that /My Folders/Subject Area Contents/B – Supplier Sales is selected by default as the save in location.

   f. Click **OK** to save the selection steps.

Practice 5-2: Adding Groups and Calculated Items to an Analysis

Goal

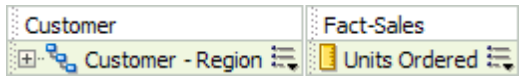In this practice, you create a group and a calculated item and use them in an analysis.

Scenario

You first use the group you saved from your selection to add its members to a new analysis. You then use a group to combine elements with different parents to meet analysis requirements. You then create two calculated items for an analysis to compare the average number of units ordered for all beverage products and all baking products.

Time

15-20 minutes

Task

1. Before creating a new group, add and format the group that you previously saved from your selection.

    a. Click the **Home** link.

    b. Verify that the Top Performers East Region and California group that you saved appears in the Recent list on the Home page.

    c. Click the **Analysis** link in the Create section of the Home page.

    d. Select the **B – Supplier Sales** subject area.

    e. Create an analysis with **Customer.Customer – Region** and **Fact-Sales.Units Ordered**.

    f. Open the **Selection Steps** pane.

    g. Click the **Then, New Step** link and choose **Add Groups or Calculated Items > Select Existing Groups and Calculated Items**.

    h. In the New Select Existing Groups and Calculated Items dialog box, in the Available list's Catalog pane, expand **My Folders** and its subfolders to display the saved objects for the B - Supplier Sales subject area.

    i. Select the **Top Performers East Region and California** group.

    j. Click the **down arrow** next to the Move button and then select **Add** to add the group distinctly at the bottom of your analysis, including a container outline value indicating the group name. The other option, Add Members, adds the group's members to the rest of your results without an outline value.
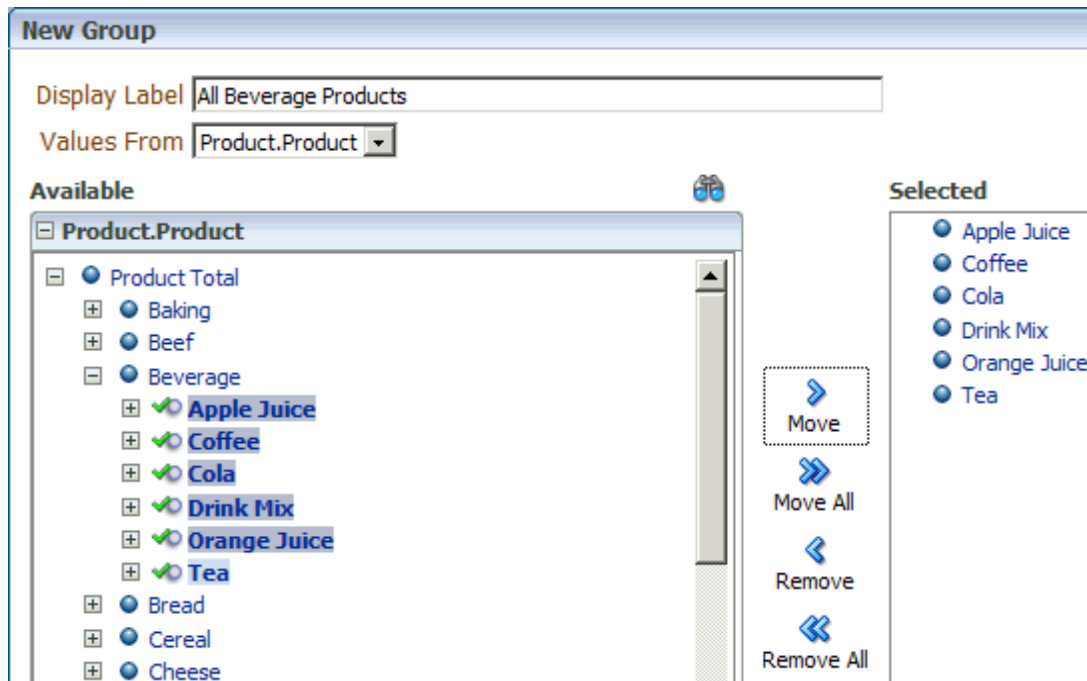
    k. Click **OK**.

l. Click the **Results** tab and verify that the group appears at the bottom of the analysis and that it contains other members. Do not save this analysis.

Customer - Region	Units Ordered
⊞ Customer Total	2,788,062
⊟ Top Performers East Region and CA	2,241,399
⊟ East	1,191,635
⊞ Florida	63,269
⊟ MidAtlantic	156,409
⊞ PAULA MADISON	75,264
⊟ UpperSouth	302,507
⊞ KATIE RICHARDS	152,097
⊞ LILLIAN BAYER	107,858
⊟ Yankee	669,450
⊞ ANN JOHNSON	126,453
⊞ BETTY NEWER	225,415
⊞ STEVEN SMITH	313,477
⊟ West	1,049,764
⊟ California	684,452
⊞ BRIAN LIEDTKE	351,809

2. Create and save a new group that contains members, which span different parents in the product hierarchy. You group "Cooking Wine" with other beverage products for use in an analysis. In this case, you will embed the group in the analysis instead of saving it as a separate object in the Presentation Catalog.

a. Use the **B – Supplier Sales** subject area to create a new analysis with the **Product** hierarchy and **Fact-Sales.Dollars**. Click **OK** when prompted about moving away from this page without saving.

Product	Fact-Sales
⊞ Product	Dollars

b. Click the **Results** tab.

c. Expand the **Beverage** type in the hierarchy and verify that **Cooking Wine** is not a child of this type.

d. Locate **Cooking Wine** as a child of the Baking type.

e. Click the **New Group** button 🗔 on the toolbar to display the New Group dialog box.

f. Enter `All Beverage Products` in the Display Label field.

g. **Product.Product** should already be selected in the Values From drop-down list. If not, select it. If there are more attribute or hierarchical columns included in the analysis, they can be selected here.

h. In the Available list, expand **Product Total**, then expand **Beverage.**

i. Use Ctrl + click to select all of the Beverage child products and then click the **Move** button to add them to the Selected list.

j. Expand **Baking**, select **Cooking Wine**, and add it to the Selected list. Your group should appear as follows:
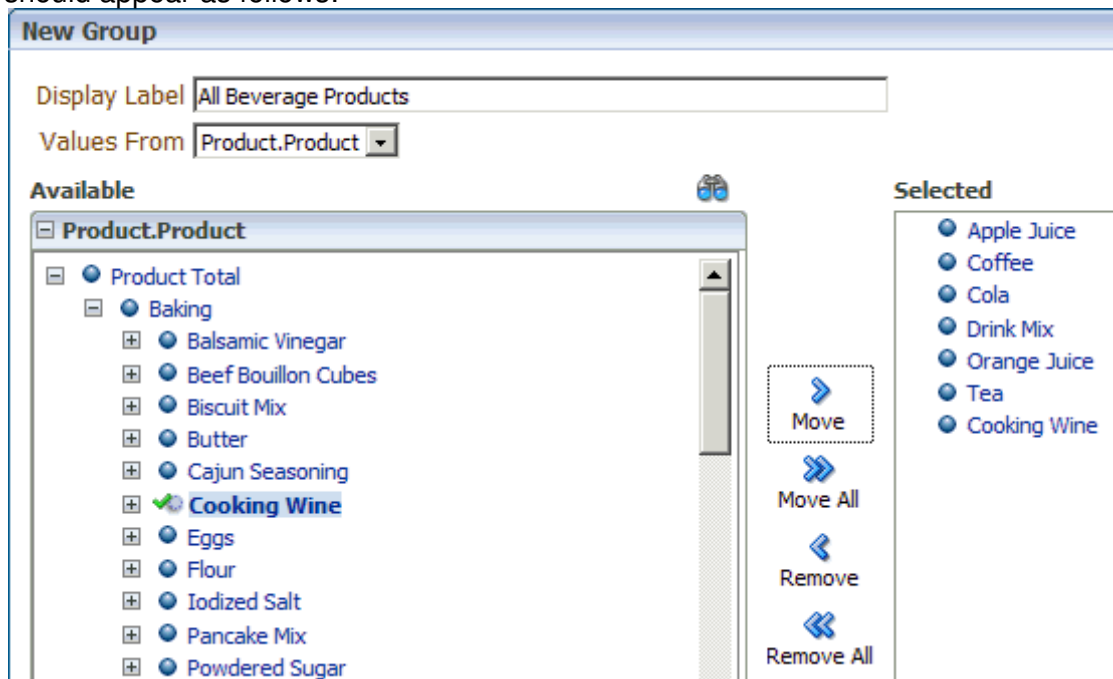
k. Click the **Format** button to select a format to indicate the group in your results.

l. In the Edit Format dialog box, set the font style to **Bold**.

m. In the Border section, click the left and right outer positions in the border diagram, and then set the Border Style to **Double** and the Border Color to red.

n. Click **OK** to close the Color Selector and check your work:

o. Click **OK** to close the Edit Format dialog box.

p. Click **OK** to close the New Group dialog box.

q. In the results, verify that the **All Beverage Products** group has been added to the bottom of your analysis. The group inherits the aggregation rule from the Dollars measure, which is Sum in this case, so that you can see the total amount of revenue for the combined beverage products at the group level in your results.

Product	Dollars
⊞ Product Total	$64,612,461
⊞ **All Beverage Products**	$4,481,488

r. Expand the **All Beverage Products** group and verify that **Cooking Wine** is included in the group.

Product	Dollars
⊞ Product Total	$64,612,461
⊟ **All Beverage Products**	$4,481,488
⊞ Apple Juice	$1,230,175
⊞ Coffee	$767,809
⊞ Cola	$1,499,241
⊞ Cooking Wine	$10,774
⊞ Drink Mix	$1,762
⊞ Orange Juice	$857,351
⊞ Tea	$114,377

s. Right-click **All Beverage Products** and notice that there are options for viewing, editing, and deleting the group.

t. Save your analysis as `Product Sales with Beverage Product Grouping` in the My Sales folder. The group is saved as an inline group with the analysis.

3. Create two calculated items for an analysis to compare the average number of units ordered for all beverage products and all baking products.

    a. Create a new analysis in the **B – Supplier Sales** subject area with the **Product** hierarchy and **Fact-Sales.Units Ordered**:
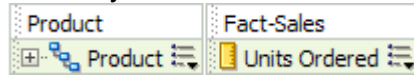
    b. Click the **Results** tab.

    c. Click the **New Calculated Item** button on the toolbar to display the New Calculated Item dialog box.

    d. Enter `Average for Beverage Products` in the Display Label field.

    e. Notice that, by default, Custom Formula is selected for the Function, and that there is a toolbar with mathematical operators present for building formulas with selected members.

    f. Select **Average** from the Function list, and note the other available functions you can apply to members.

    g. In the Available list, expand the Product hierarchy, expand the Beverage type, and select all of its child members. Then expand the Baking type and select **Cooking Wine**. You can use Ctrl + click to select multiple members in the list.

    h. Click the **Move** button to add the selected members to the Selected list.

    i. Click the **Format** button to select a format to indicate the group in your results.

    j. In the Edit Format dialog box, set the font style to **Bold**.

    k. In the Border section, set the Position to **All**, then set the Border Style to **Thick** and the Border Color to red.

    l. Click **OK** to close the Edit Format dialog box.

    m. Click **OK** to close the New Calculated Item dialog box.

    n. Verify that the calculated item appears correctly at the bottom of your analysis. Notice that you cannot expand a calculated item in the hierarchy.

o. Use the above steps to add a calculated item named Average for Baking Products that provides average units sold for all members of the Baking type level of the product hierarchy. Set the border for this calculated item to blue to distinguish it. Your comparative averages should appear at the bottom of your analysis results as follows:

	Units Ordered
Product	
⊞ Product Total	2,788,062
Average for Beverage Products	34,963
Average for Baking Products	16,731

p. Right-click either of the calculated items and notice there are options for viewing, editing, and deleting the calculated item.

q. Save your analysis as Product Units Ordered with Average Comparison in the My Sales folder.

Practice 5-3: Including Selected Members Based on Family Relationships

Goal

In this practice, you include members in selection steps based on family relationships in a hierarchy.

Scenario

You build an analysis and then use selection steps to include hierarchy family members.

Time

10-15 minutes

Task

1. Use selection steps to include siblings of hierarchy family members.

    a. Create a new analysis in the B – Supplier Sales subject area with Product, Year, and Dollars:
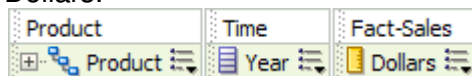
    b. Click **Results**.

    c. Open the **Selection Steps** pane.

    d. Under Product – Product, select **Then, New Step > Select Members based on Hierarchy** to open the New Hierarchy Selection Step dialog box.

    e. In the Relationship field, select **Based on Family Relationship**.

    f. In the Action field, select **Keep Only > Siblings Of**.

    g. In the Available list, expand **Product Total > Beverage**.

    h. Select only **Apple Juice** in the Available pane.

i.   Click the **Move** button to move Apple Juice to the Selected pane. This selection step is now set up to keep only the siblings of Apple Juice.
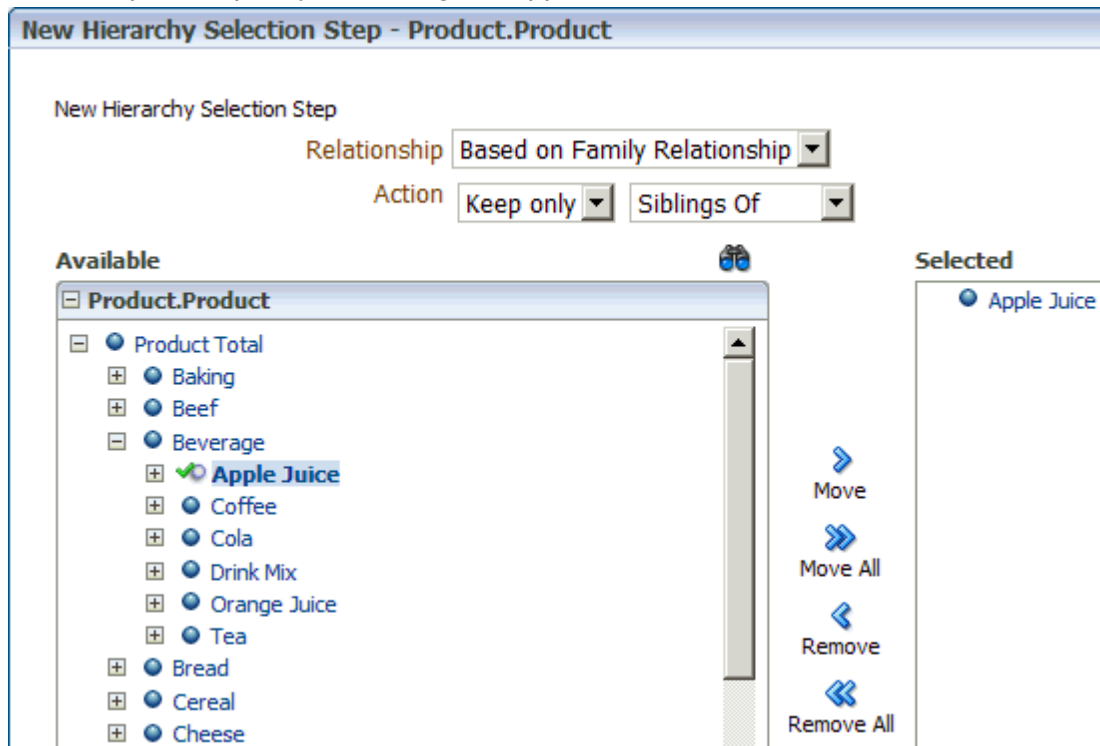
j.   Click **OK** to close the New Hierarchy Selection Step dialog box.

k.   Notice that the selection step is updated and the results now contain only the siblings of Apple Juice:

Product	Year	Dollars
⊞ Coffee	2008	$577,819
	2009	$189,990
⊞ Cola	2008	$1,108,470
	2009	$390,771
⊞ Drink Mix	2008	$1,304
	2009	$458
⊞ Orange Juice	2008	$660,025
	2009	$197,326
⊞ Tea	2008	$86,261
	2009	$28,115

⊟ **Selection Steps**

List: ALL

Measures

▣ Fact-Sales - Dollars

Product - Product

◉ 1. Start with all members

◉ 2. Then, Keep Siblings of 'Apple Juice'
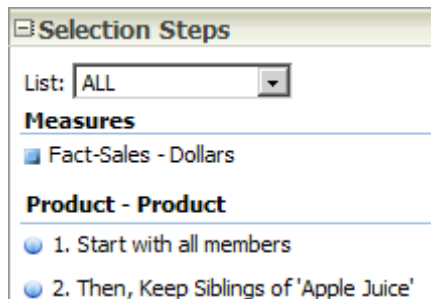
l. Click the **Edit** button for Then, Keep Siblings of 'Apple Juice' to open the Edit Hierarchy Selection Step dialog box.

m. Select **Include selected members** and click **OK**.

n. Notice that the results set now includes Apple Juice and the selection step is updated with 'Include selected members'.

		Dollars
Product	Year	
⊞ Apple Juice	2008	$921,414
	2009	$308,761
⊞ Coffee	2008	$577,819
	2009	$189,990
⊞ Cola	2008	$1,108,470
	2009	$390,771
⊞ Drink Mix	2008	$1,304
	2009	$458
⊞ Orange Juice	2008	$660,025
	2009	$197,326
⊞ Tea	2008	$86,261
	2009	$28,115

⊟ Selection Steps

List: ALL ▼

Measures

▪ Fact-Sales - Dollars

Product - Product

● 1. Start with all members

● 2. Then, Keep Siblings of 'Apple Juice' (Include selected members)

2. Use selection steps to include leaves of hierarchy family members.

a. Delete the selection step you just created: **Then, Keep Siblings of 'Apple Juice' (Include selected members)**.

b. Select **Then, New Step > Select Members based on Hierarchy**.

c. In the Relationship field, select **Based on Family Relationship**.

d. In the Action field, select **Keep Only > Leaves Of**.

e. In the Available list, select **Product Total** and Move it to the Selected pane.

f. Click **OK**.

g. Notice that the selection step is updated, and the result set displays only the leaves of the Product hierarchy (members that have no children). The result set should return 351 rows. The screenshot shows only a partial view of the results.

Product	Year	Dollars
"100 Ct Foam Containers 6""x6""x3"""	2008	$37,939
	2009	$12,254
"100 Ct Foam Plastic Plates 8"""	2008	$950
"12 Ct Tulip Vase 8"""	2008	$100,925
	2009	$28,370
"20 Cu Ft Commercial Upright Freezer Unit w/Child Safety Latch, 4 Shelves"	2009	$7,801
"Chef's Knife 8"""	2008	$472
	2009	$124
"Napkin/Straw/Condiment Holder Side-mount 16"" x 6 """	2008	$7,349
"Padded Bar Stool 36"" Swivel Base"	2008	$867
	2009	$1,478

Selection Steps

List: ALL

Measures

☐ Fact-Sales - Dollars

Product - Product

○ 1. Start with all members

○ 2. Then, Keep Leaves of 'Product Total'

3. Apply a condition to your results.

a. Click **Then, New Step > Apply a Condition** to open the New Condition Step dialog box.

b. In the Condition Type field, select **All X values where Y = values**.

c. In the Action field, select **Keep Only > Specific**. Please note that Specific is the leaf node in the Product hierarchy.

d. In the Column field, select **"Product"."Type"**.

e. In the Value field, select **Beverage**.

Edit Condition Step - Product

Condition Type All X values where Y = values

Action Keep only Specific

Where

Column "Product"."Type"

Operator is equal to

Value Beverage

☐ Override with Presentation Variable

Help   OK   Cancel

f.   Click **OK** to close the New Condition Step dialog box.

g.   Notice that the selection step is updated, and the result set displays only the leaves of the Beverage hierarchy level (members that have no children).

		Dollars
Product	**Year**	
2 Pak Coconut Cream Beverage Base Imported 14 oz	2008	$1,304
	2009	$458
Apple Juice	2008	$921,414
	2009	$308,761
Fizzy Cola	2008	$1,108,470
	2009	$390,771
Ground Coffee	2008	$577,819
	2009	$189,990
Orange Juice	2008	$660,025
	2009	$197,326
Tea Bags 100-pk	2008	$86,261
	2009	$28,115

☐ Selection Steps

List: ALL ▾

Measures

▪ Fact-Sales - Dollars

Product - Product

● 1. Start with all members

● 2. Then, Keep Leaves of 'Product Total'

● 3. Then, Keep only members of **Specific** where "Product"."Type" is equal to Beverage

h.   Right-click any one of the leaves (columns) in the analysis and notice there are options for executing actions on hierarchy members: Keep Only, Remove, Keep Only Related, Remove Related, and Add Related.

		Dollars
Product	**Year**	
2 Pak Coconut Cream Beverage Base Imported 14 oz	2008	$1,304
	2009	$458
Ap	2008	$921,414
	2009	$308,761
Fiz	2008	$1,108,470
	2009	$390,771
Gr	2008	$577,819
	2009	$189,990
Or	2008	$660,025
	2009	$197,326
Te	2008	$86,261
	2009	$28,115

Collapse all items for this column
Collapse all items in view
Keep Only
Remove
Keep Only Related   ›
Remove Related   ›
Add Related   ›
Create Group...
Create Calculated Item...
Product   ›

i.   Save the analysis as `Selected Members based on Family Relationships` in the My Sales folder.

j.   Leave Presentation Services open for the next practice.

Practices for Lesson 6: Modifying and Formatting Views

Chapter 6

Practices for Lesson 6: Overview

Practices Overview

In these practices, you explore and work with a variety of views and graphs in your analyses.

Practice 6-1: Modifying and Formatting Views

Goal

In this practice, you modify the results of saved analyses to change the formatting of the default Compound Layout and the views that it contains.

Scenario
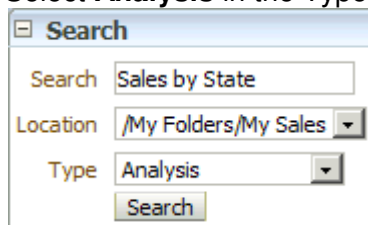
Add, format, and arrange Table, Filters, and Graph views within a Compound Layout, then create copies with different views and arrangements. Then add a graph to an analysis containing the product hierarchy and drill in the hierarchy.

Time

20-30 minutes

Task

1. Sign in to Oracle BI and search for the Sales by State analysis.

   a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

   b. Click **Home**.

   c. Click the **All Content** link in the Browse/Manage section, then select **Browse Oracle BI Presentation Catalog**.

   d. Click the **Search** button 🔍 to search the catalog.

   e. In the Search pane, enter `Sales by State` in the Search field.

   f. In the Location field, /My Folders/MySales should be selected by default. If not, use the down arrow to select it.

   g. Select **Analysis** in the Type field and click **Search**.

2. Use the Layout pane to modify the Sales by State analysis and its Table view.

   a. In the search results, select the **Sales by State** analysis.

   b. In the Tasks pane on the left, click **Edit** to open the analysis in the Analysis Editor in the Results tab.

   c. Click the **Edit View button** ✏️ for the Table view to open the Layout pane.

   d. Expand the **Layout** pane.

   e. Navigate to the Columns and Measures section and use the More Options button to remove the **Customer** column from the analysis.

f.   Click **OK** to confirm that the selected column will be removed from all views. Notice that the results are updated.

State	Dollars
AZ	$518,476
CA	$16,448,806
CT	$5,479,727
DC	$2,562,647
FL	$1,412,607
GA	$279,206
ID	$601,308
IL	$1,285,932
IN	$1,000,799

g.   Use the Subject Areas pane to add the **Fact-Sales** > **Units Ordered** and **Fact-Sales** > **Units Shipped** columns to the analysis results. Notice that the columns are added to both the results and the Columns and Measures section of the Layout pane.

3.   Edit the display properties for the Table view.

a.   Click the **Table View Properties** button ⬚ on the toolbar to edit display properties for the Table view.

b.   In the Table Properties dialog box, set the following:

Paging Controls	Top
Rows per Page	10
Display Folder & Column Headings	As Folder.Column
Enable Alternating row "green bar" styling	Selected

c.   Click the **Format** button ⬚ for the Set Alternate Format option to set the background color for the alternating green bars in the table.

d.   In the Edit Format dialog box, set the Background Color to **light blue** and click **OK**.

e.   Click **OK** to close the Table Properties dialog box and verify that your changes are reflected in the results preview. Your results should now display the folder name with the column, page controls on top, alternating blue bars, and include 10 rows on the results page:

⇧ ⇧ ⬇ ⬆ Rows 1 - 10

Customer.State	Fact-Sales.Dollars	Fact-Sales.Units Ordered	Fact-Sales.Units Shipped
AZ	$518,476	22,327	22,147
CA	$16,448,806	684,452	682,921
CT	$5,479,727	285,217	282,375
DC	$2,562,647	103,564	102,218
FL	$1,412,607	53,924	53,402
GA	$279,206	9,345	9,666
ID	$601,308	20,568	20,621
IL	$1,285,932	57,028	56,694
IN	$1,000,799	38,190	38,148
KY	$1,061,703	42,552	42,702

f.   Reset the folder and column headings to display only the column heading.

State	Dollars	Units Ordered	Units Shipped
AZ	$518,476	22,327	22,147
CA	$16,448,806	684,452	682,921
CT	$5,479,727	285,217	282,375
DC	$2,562,647	103,564	102,218
FL	$1,412,607	53,924	53,402
GA	$279,206	9,345	9,666
ID	$601,308	20,568	20,621
IL	$1,285,932	57,028	56,694
IN	$1,000,799	38,190	38,148
KY	$1,061,703	42,552	42,702

g.   Click **Done** to close the Table editor and return to the default Compound Layout.

4.   Add the named filter you created earlier to the Sales by State analysis.

a.   Click the **Criteria** tab.

b.   In the Catalog pane, expand **My Folders > Subject Area Contents > B - Supplier Sales** and select the **West Region, 2008** filter.

c. Click the **Add** button   to open the Apply Saved Filter dialog box.

d.   Accept the defaults in the Apply Saved Filter dialog box and click **OK** to add the filter to your analysis.

e.   Place the cursor over the filter in the Filters pane. Notice that you can copy and paste the filter, and you can view the filter to validate it. Click the **View Saved Filter** button   to review the filter's contents.

f.   Review the filter contents and click **Close** to close the View Saved Filter dialog box.

g.   Click the **Results** tab.

h.   In the **Views** pane on the left, click the **New View** button   and select **Filters**. A Filters view displays the named filter and includes a View link to open the View Saved Filter dialog box.
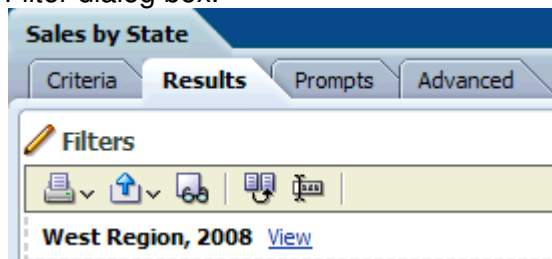
i.   Click **Done** in the Filters Editor.

j.   Verify that the new Filters view appears in the Views pane.

k. Select the **Filters** view in the Views pane and click the **Add View** button ![add view icon] to add it to the Compound Layout.

l. In the Compound Layout, click the **Remove View from Compound Layout** button for the Filters view.

m. Notice that the Filters view still appears in the Views pane. To completely remove the view from the analysis, you would click the Remove View from Analysis button in the Views pane. For this example, add the Filters view back into the Compound Layout.

n. To highlight this filter so that users understand why the results are limited to states in the West region, drag it to the top of the Compound Layout, above the Table view but below the Title view. A blue bar indicates a valid drop point in the Compound Layout for the view.

o. Format the container of the Filter view in the Compound Layout to highlight its presence by marking it yellow. **Hint:** Use the Format Container dialog box.


p. To verify that the container emphasis is working, create a printable PDF of the Compound Layout as it would appear in a dashboard. Click the **Print this analysis** button 🖨 and select **Printable PDF**.

q. Verify that the Filters view is highlighted in the results of the PDF file.

Sales by State

|	West Region, 2008		
State	**Dollars**	**Units Ordered**	**Units Shipped**
AZ	$400,790	17,424	17,318
CA	$12,539,507	522,078	521,815
ID	$447,769	15,514	15,597
NM	$1,670,980	67,761	66,085
NV	$1,199,701	40,829	40,668
OR	$1,157,526	52,069	51,048
UT	$2,050,433	79,590	78,409
WA	$97,946	4,407	4,304

r. Close the browser window or tab to close the printable PDF.

5. Create a Graph view and set its properties.

   a. In either the Views pane or on the toolbar, click the **New View** button and select **Graph > Bar > Default (Vertical)**. Notice that you can also select Vertical for the same effect. The default graph type is Vertical Bar. A Graph view is added to the bottom of the Compound Layout. Notice that the Graph view has also been added to the Views pane,
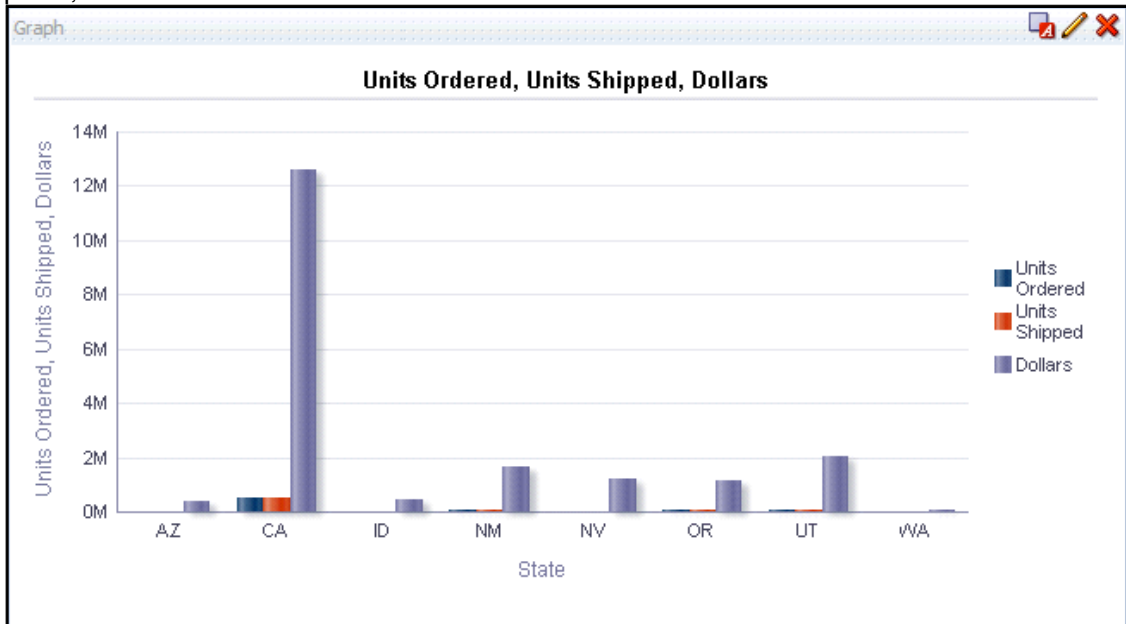

   b. Click the **Edit View** button for the Graph view in the Compound Layout to open the Graph Editor. You could alternatively select the Graph view in the Views pane and click the **Edit View** button. The difference is simply that in the first approach, you are editing the view from within the Compound Layout.

   c. If necessary, collapse the Layout pane.

   d. Click the **Graph Sub-Type** button Default (Vertical) on the toolbar and select **Horizontal**.
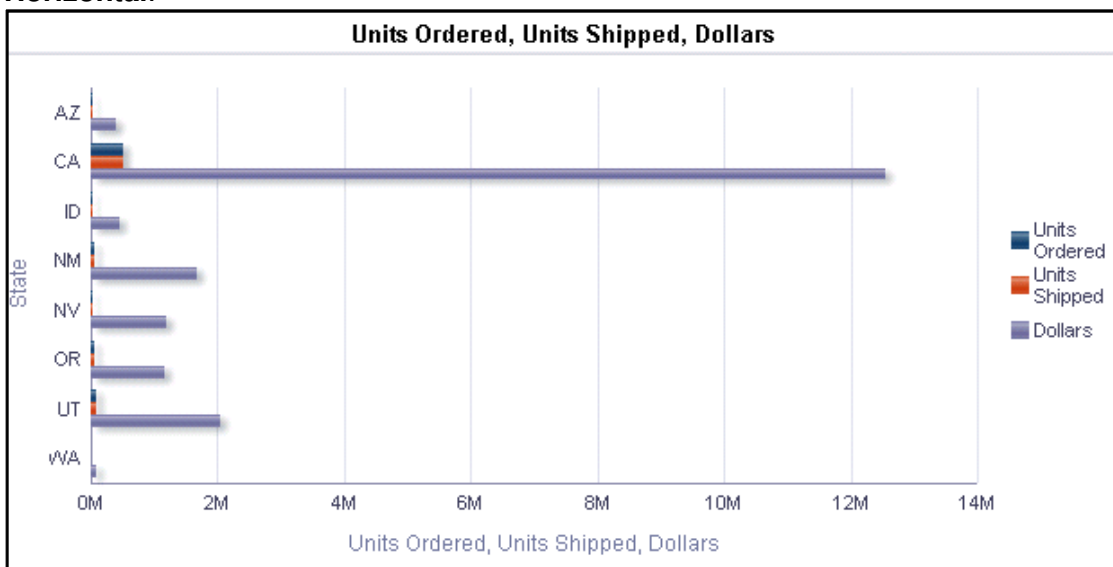
   e. Switch the graph back to **Default (Vertical)**.

f.   Click the **Edit Graph Properties** button ▦ to open the Graph properties dialog box. Note that depending on the graph type, the available options and tabs in this dialog box will differ as appropriate.

6. Explore and set options on the General tab.

    a. Notice the **Canvas Width** and **Canvas Height** settings. These settings allow you to specify in pixels the size of the graph's real estate. Leave the settings as they are.

    b. The Legend drop-down list allows you to specify the location of the graph legend. Leave this set to **Default (Right)**.

    c. The Zoom and Scroll options allow you to enable the use of zooming and scrolling in graphs that support it. Select **Enable for Horizontal Axis** and **Enable for Vertical Axis**.

    d. The Listen to Master-Detail Events option determines whether the graph will act as a detail participant in a master-detail relationship. You use this option in a later practice.

    e. The Animate graph on Display option is selected by default. This option renders graphs by using animation when they are displayed.

    f. Check your work in the General tab:
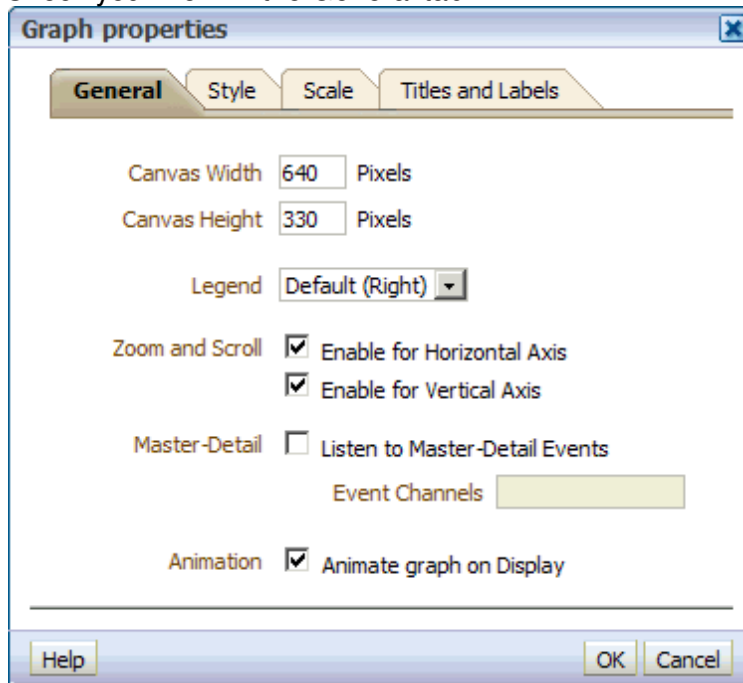
7. Explore and set options on the Style tab.

    a. Click the **Style** tab.

    b. The Style drop-down list allows you to select different graph styles. The options available depend on the type of graph you are formatting. Set the style to **Rectangle**.

    c. The Style and Conditional formatting allows you to set position and condition-based formatting for the graph. You will use this option later in this practice.

    d. The 3D option allows you to add 3D effects to the graph elements. To preserve its clarity, do not select this option for your graph.

e. The Plot Area section allows you to set properties for the plot area, which is above the canvas. Use the Background option to set the background color of your graph to a **light gray** in the Color Selector.

f. The Gridlines and associated options allow you to set horizontal and vertical grid lines and specify their colors. Leave the default, so that no grid lines appear in your graph.

g. Using the controls in the Legend section, you can set the background and border of the legend area. Leave the Background option defaulted to Transparent, and set the border to the color **red** by using the Color Selector.

h. The Canvas Colors and Borders section allows you to set the background color for the graph's canvas. Set the background color to **dark gray** (darker than the color used on the plot area) and retain the Gradient option, which specifies that the canvas background should fade to white from top to bottom of the Graph view. Set the Border to **black**.

i. Check your work in the Style tab:
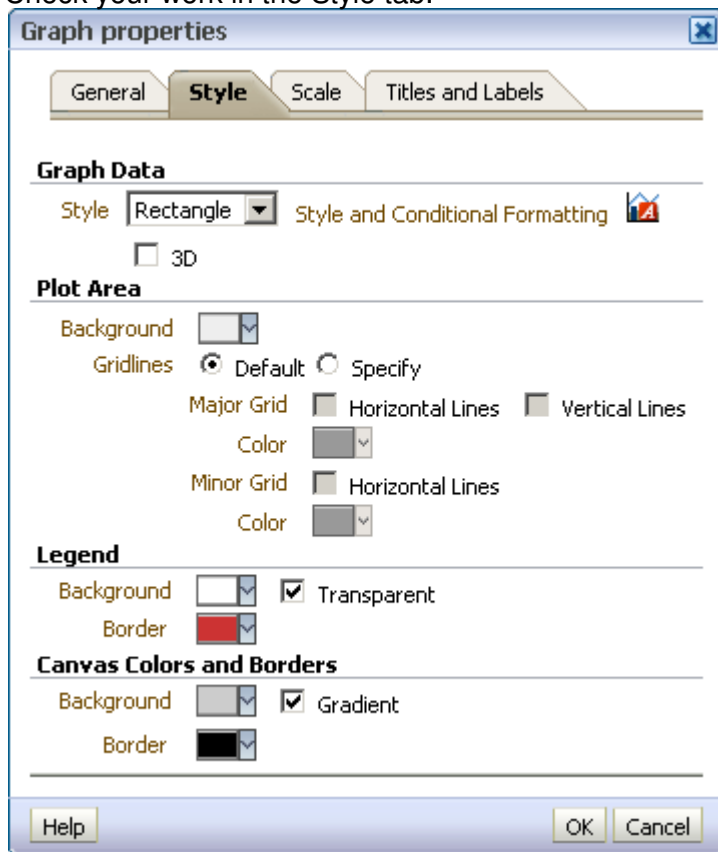
8. Explore and set options on the Scale tab.

a. Select the **Scale** tab.

b. The Axis Limits section allows you to set specific axis limits instead of letting the system do it for you by default. Accept the default, Dynamic, to let the system determine the scale and set the axis to zero for positive numbers.

c. The Axis Scale section allows you to set specific numbers of major and minor tick marks in the graph. Retain the default, Dynamic, which allows the system to determine the appropriate tick marks based on the data in the graph.

d.   Check your work in the Scale tab:
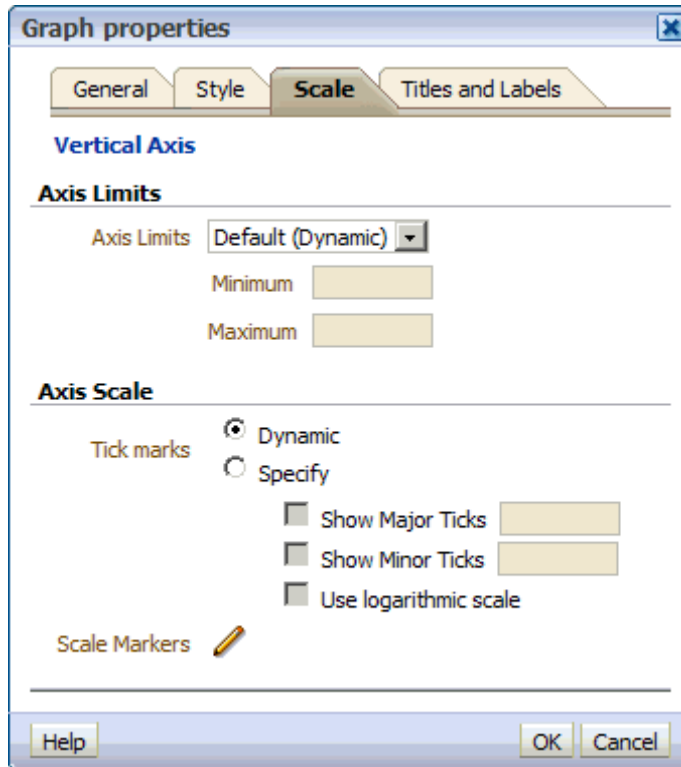
9.   Add a scale marker indicating underperforming states to your graph on the Scale tab. Note when viewing this scale that you are measuring dollars in the case of this scale marker, and not other available measures in the analysis.

a.   Click the **Scale Markers Edit** button ✏ to open the Scale Markers dialog box. Scale markers are either lines or shaded background ranges that are used to mark points and thresholds in the graph.

b.   Click the **Add** button to add a new scale marker.

c.   Give the marker a Caption of `Underperforming`, set the Type to **Range**, and enter a low value of **1** and a high value of **500000**. You can also reference a presentation variable, a measure column, or a SQL query.

d.   Leave the range color set to **red**.

e.   Click **OK**.

10. Explore and set options on the Titles and Labels tab.

a.   Select the **Titles and Labels** tab.

b. This tab allows you to set and format graph and axis titles and labels in the graph. In the Graph Title section, deselect the **Use measure name as graph title** option and enter `Western Sales 2008` as the title.

c. In the Axis Titles section, retain the default to display the columns and measures as the respective titles for the axes of the graph.

d. Note that by using the Format options on this tab, you can also set font and number formatting for labels throughout the graph.

e. Check your work in the Titles and Labels tab:

f. Click **OK** to save your changes and close the Graph Properties dialog box. Verify that your changes appear in the Graph Editor. Click the **Hide/Show Layout Pane** button on the toolbar if necessary to make space to view the results of your work. Your results should look similar to the screenshot.
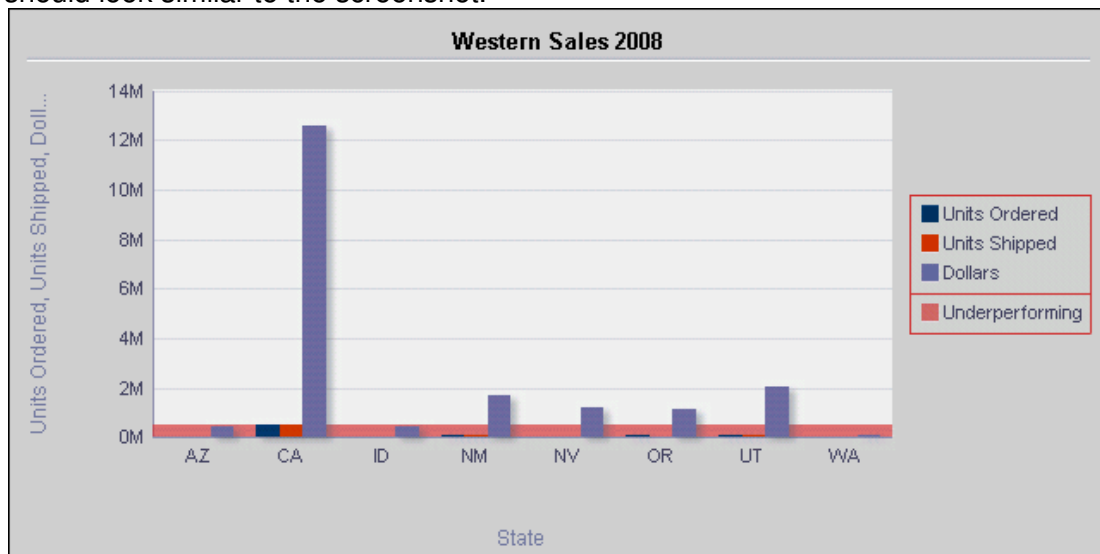
g. To test the zoom and scroll settings you made, click the magnifying glass icon in the lower corner of the graph and experiment with the zoom options. When you zoom in, you can then scroll through additional areas of the graph.

h. Roll your mouse over the rectangles in the graph and verify that the data values appears.

11. Change the measures in the graph.

a. If necessary, show the Layout pane.

b. Drag the **Units Shipped** measure from Measures to the Excluded drop target to exclude it from your sales graph.

c. Notice that the graph refreshes to show only the measures Units Ordered and Dollars.

12. Instead of grouping and displaying all of the states, use a State slider to display one state at a time.

a. In the Bars drop target in the Layout pane, notice that you are grouping the measures by State, the attribute.

b. Drag the **State** attribute column from the Bars > Group By drop target to the Sections drop target.

c. Scroll through the results to verify that each state now appears in its own graph, divided into sections of the view. You results should look similar to the screenshot.
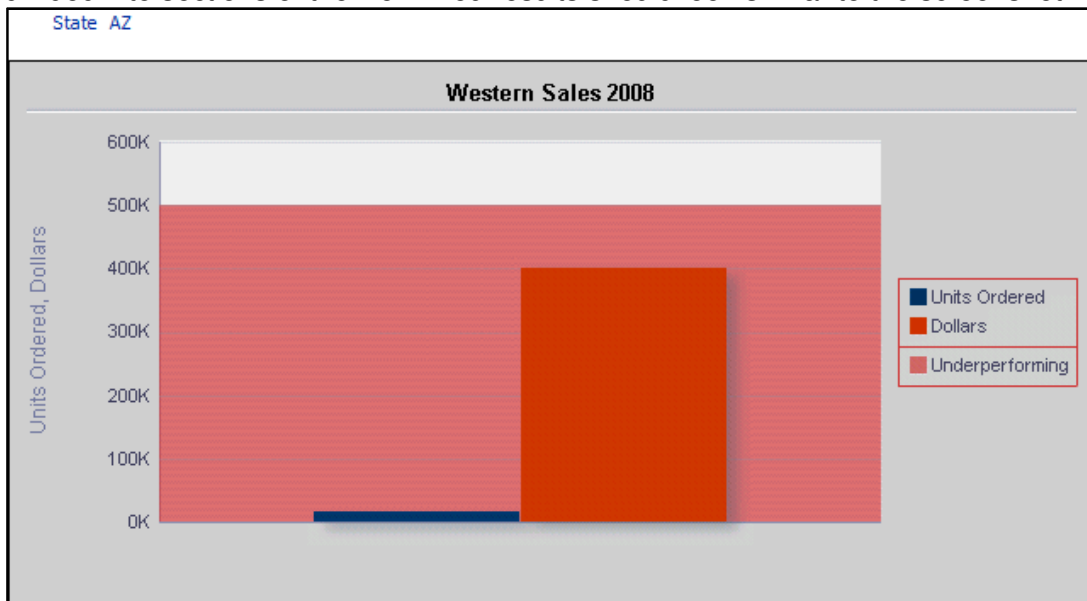

d. In the Layout pane, select the **Display as Slider** option for Sections and verify that the sections are all now subsumed into one graph in the Graph view again, but with a slider indicating the current selected state.

e. Drag the slider thumb to **NM** to display that state.
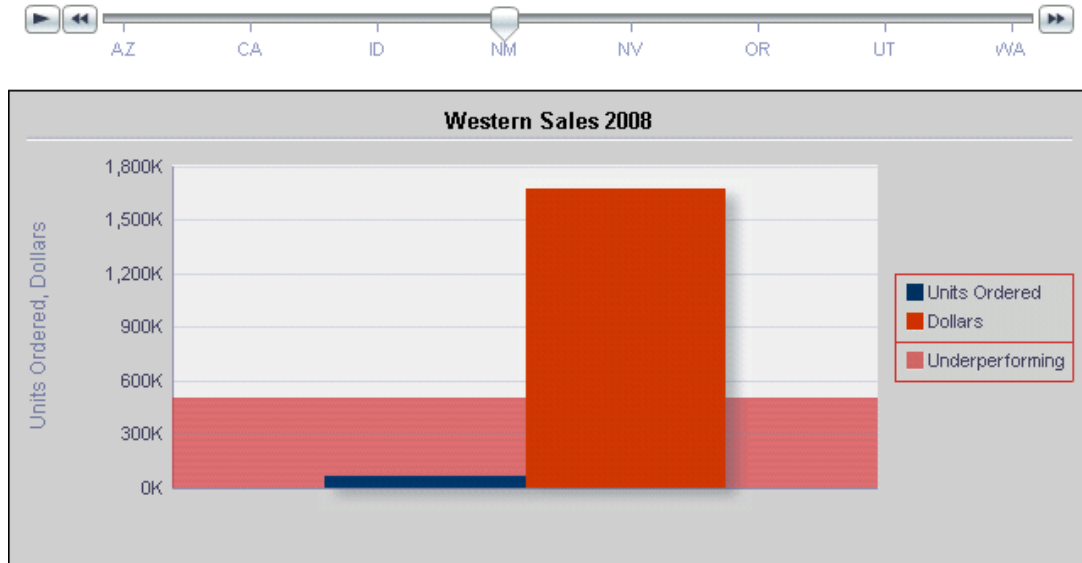
f. Use the Increase [▶▶] and Decrease [◀◀] buttons to scroll through the states.

g. Click the **Play** button to automatically scroll through the available states.

h. Click the **Pause** button to review a state that is of interest.

13. Add position formatting to your graph. Set the Dollars bars to display as green and the Units Ordered bars to display as dark blue.

a. Click the **Edit Graph Properties** button to open the Graph Properties dialog box.

b. Click the **Style** tab.

c. Click the **Format** button [📊] for the Style and Conditional Formatting option.

d. In the Style Formatting tab of the Style and Conditional Formatting dialog box, click the **Add New Position** button ➕ and select **green** as its color.

e. Repeat the step to add a second position and select **dark blue** as its color. Note that the position relationships correspond to the positions of the measures in the Measures drop target in the Layout pane of the Graph Editor. The dialog box should appear as follows:
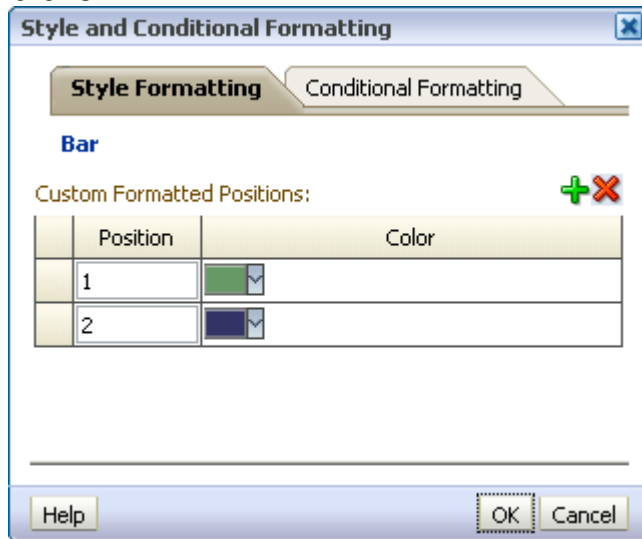
f. Click **OK** to close the Style and Conditional Formatting dialog box.

g. Click **OK** to close the Graph Properties dialog box.

h. Verify your results by selecting **NM** in the slider. Your results should look similar to the screenshot.
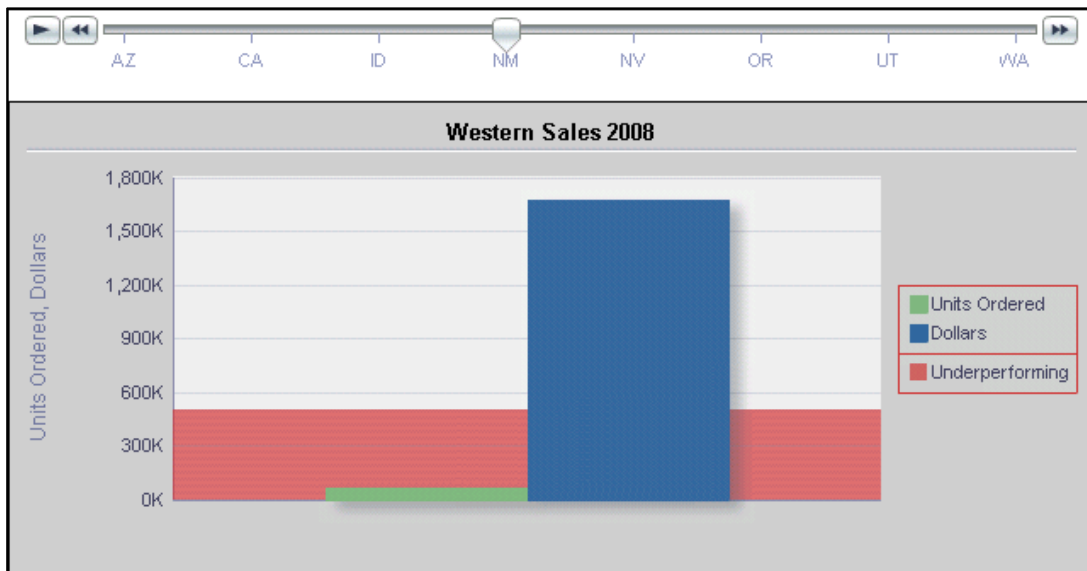

14. Add conditional formatting to your graph to indicate states that have crossed a high threshold for units ordered. Build a condition to display Units Ordered as orange in the graph if they exceed 100,000 units.

a. Click the **Edit Graph Properties** button to open the Graph Properties dialog box.

b. Click the **Style** tab.

c. Click the **Format** button ![icon] for the Style and Conditional Formatting option to open the Style and Conditional Formatting dialog box.

d.   Click the **Conditional Formatting** tab.

e.   Click the **Units Ordered** measure.

f.   Click **Add Condition Format** and select **Units Ordered**.

g.   In the New Condition dialog box, set the Operator to **is greater than**.

h.   Enter the value 100000.

i.   Click **OK**.

j.   Select **orange** as the color for the conditional format.

k.   Check your work in the Style and Conditional Formatting dialog box:

l.   Click **OK** to close the Style and Conditional Formatting dialog box.

m.   Click **OK** to close the Graph Properties dialog box.

n.   Select **CA** in the slider.

o. Verify that the Units Ordered bar in the graph turns orange to indicate that California has more than 100,000 units ordered. Your results should look similar to the screenshot:
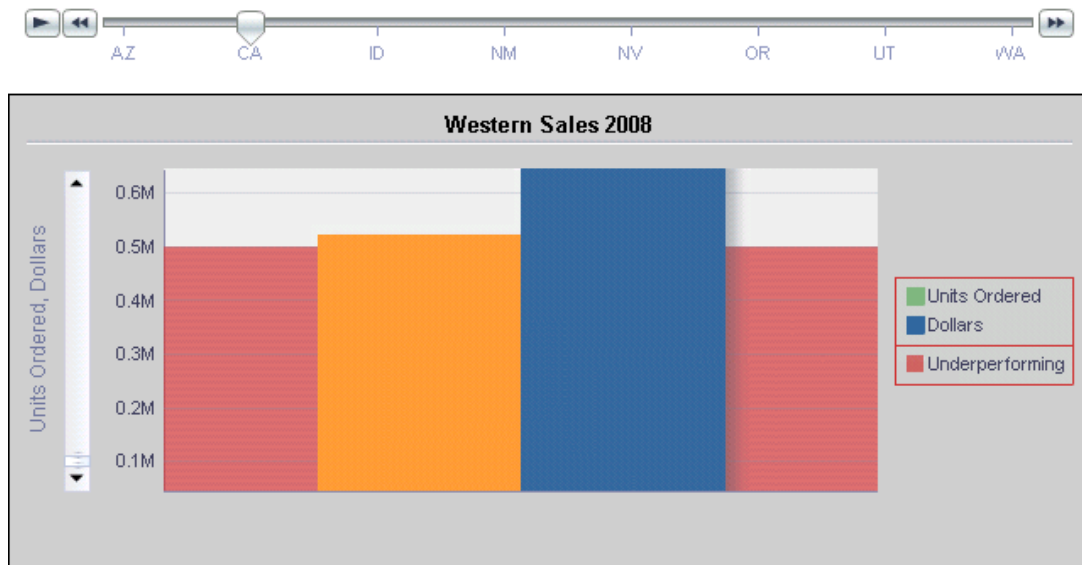

15. View the results in the Compound Layout.

a. Click **Done** at the upper-right corner to close the Graph Editor and return to the Compound Layout.

b. If necessary, scroll down and verify that the Graph view is displayed below the Table view.
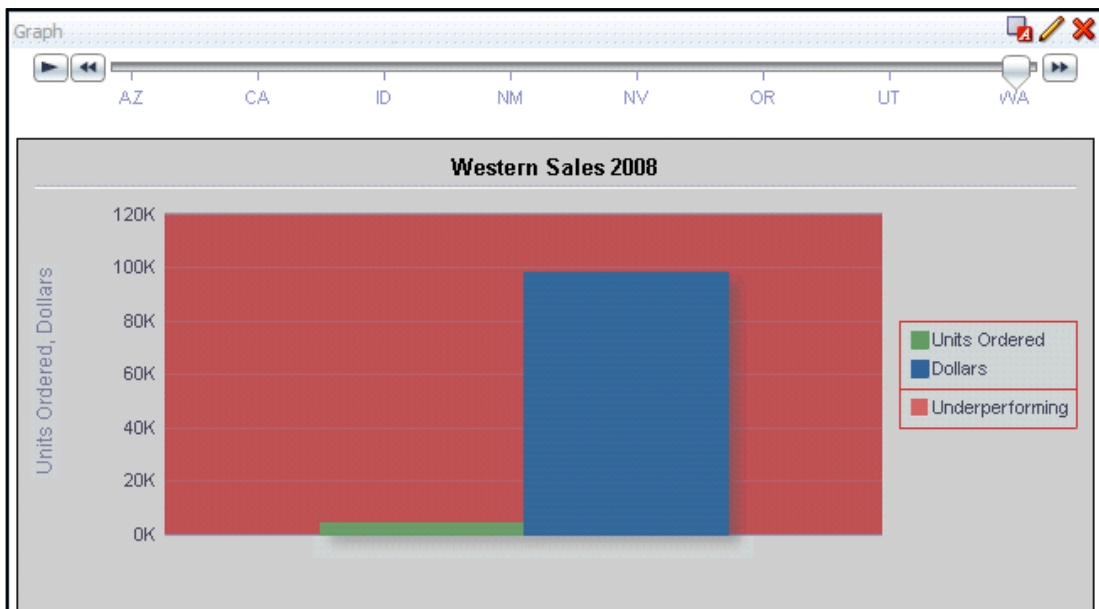
16. Change the title view in the Compound Layout.

a. Scroll up to the Title view.

b. Click the **Edit View** button for the Title view.

c. Enter   `Western Region Sales 2008` in the Title field.

d. Deselect the **Display Saved Name** option.

e. Review the other options that you can apply to a Title view, but retain the defaults.

f. Click **Done** to return to the Compound Layout and verify that the title view is changed.

17. Move the views to change the display.

a. Scroll down to the Graph view.

b. Drag the Graph view to the top of the Compound Layout and drop it between the Title view and the Filters View.

c. Drag the Table view to the left of the Graph view.

d. Leave the Filters view at the bottom. Your layout should look similar to the screenshot.
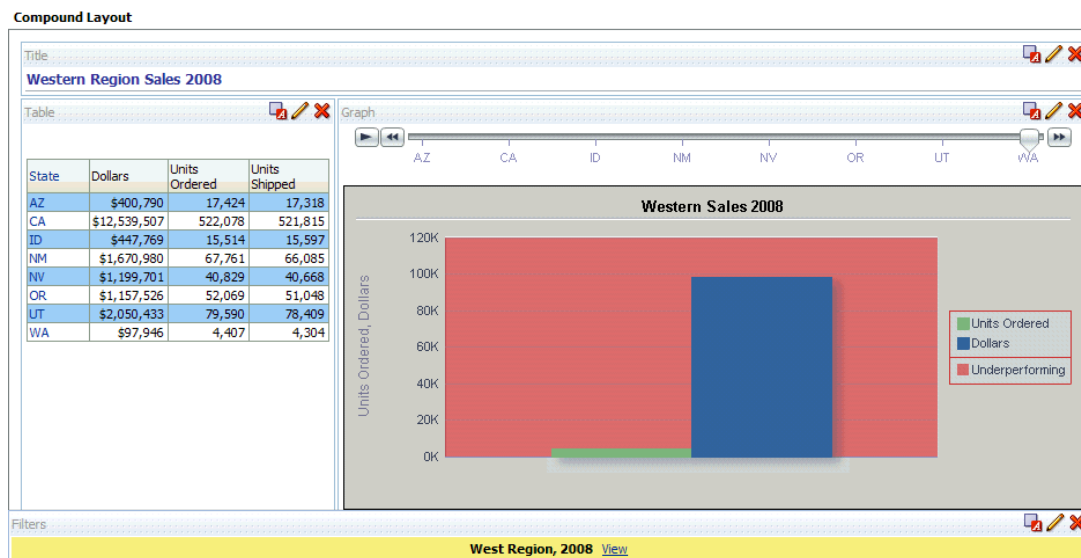
e. Save the analysis as `Western Region Sales with Graph` in the My Sales folder.

18. Create a copy of the Compound Layout, then remove its filter view and rearrange the Table and Graph views in the copy.

a. Click the **Duplicate Compound Layout** button.

b. Verify that the new Compound Layout:2 is selected.

c. Remove the Filters view from the Compound Layout:2 duplicate.

d. Drag the Table view to the right of the Graph view.

e. Click the **Create Compound Layout** button.

f. Notice that the new Compound Layout:3 does not inherit any properties from the others, so that a new Title view is added to the new Compound Layout, representing the default Title view setting, which displays the saved name of the analysis.
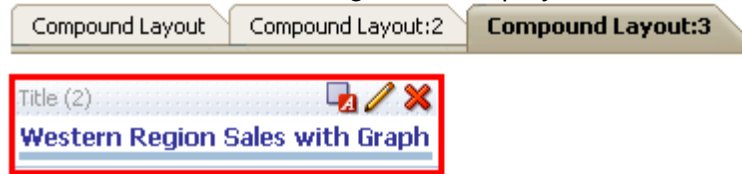

g. Notice that the new title view (Title:2) appears in the Views pane for the analysis. You could now begin building the Compound Layout by adding new or existing views from the View pane.
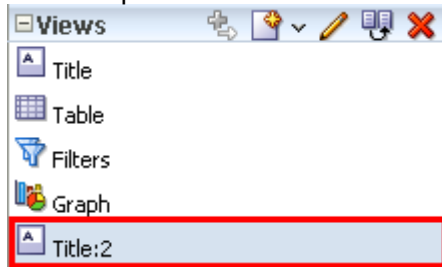

h. Click the **Delete Compound Layout** button to delete the third Compound Layout.

i. Save the analysis.

19. Edit the Product Sales with Beverage Product Grouping analysis.

a. Navigate to the **Product Sales with Beverage Product Grouping** analysis and open it for editing.

b. On the Results tab, add a horizontal bar Graph view to the Compound Layout.
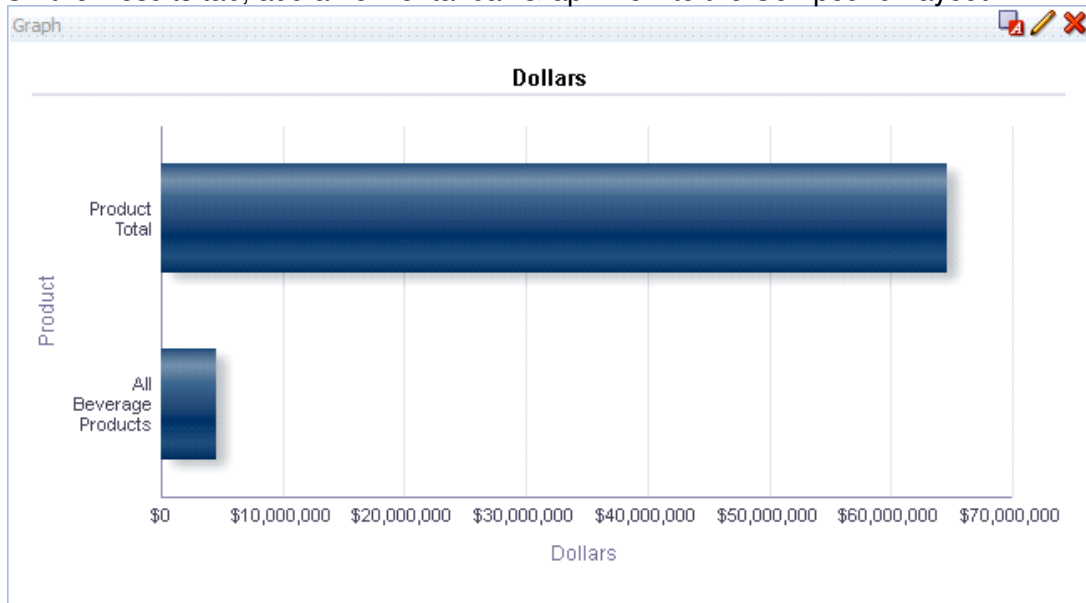
c. Drill on the **Product Total** bar in the graph to display the next level of the Product hierarchy.
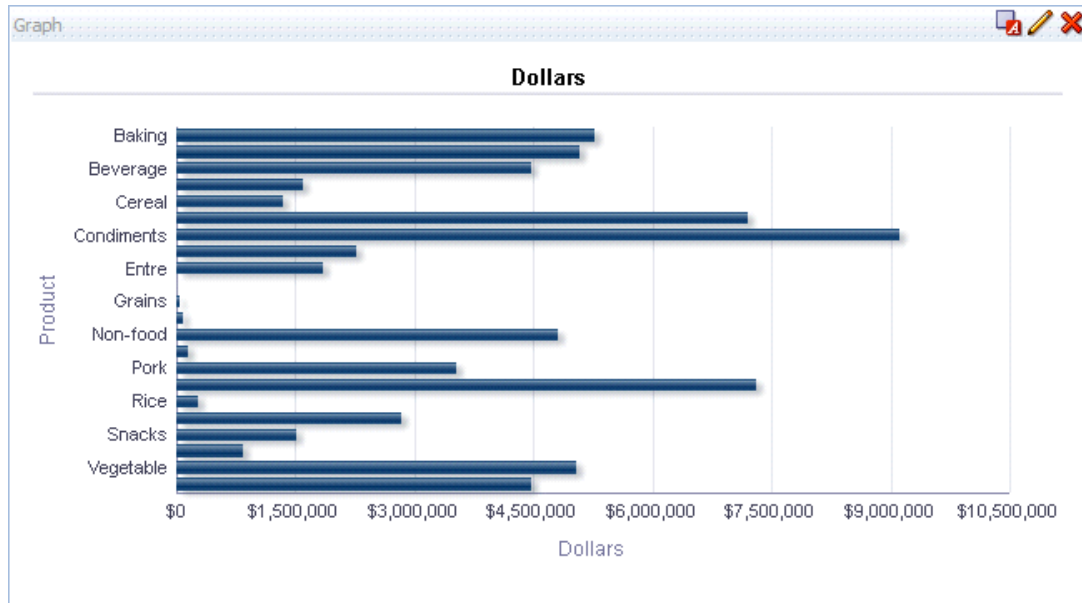
d. Click the browser **Back** button to return to the top level in the hierarchy in the graph.

e. Drill on the bar for the **All Beverage Products** group. Notice that the graph shows a bar for the group itself at the top of the graph and then all of its children in the remaining bars for relative analysis.
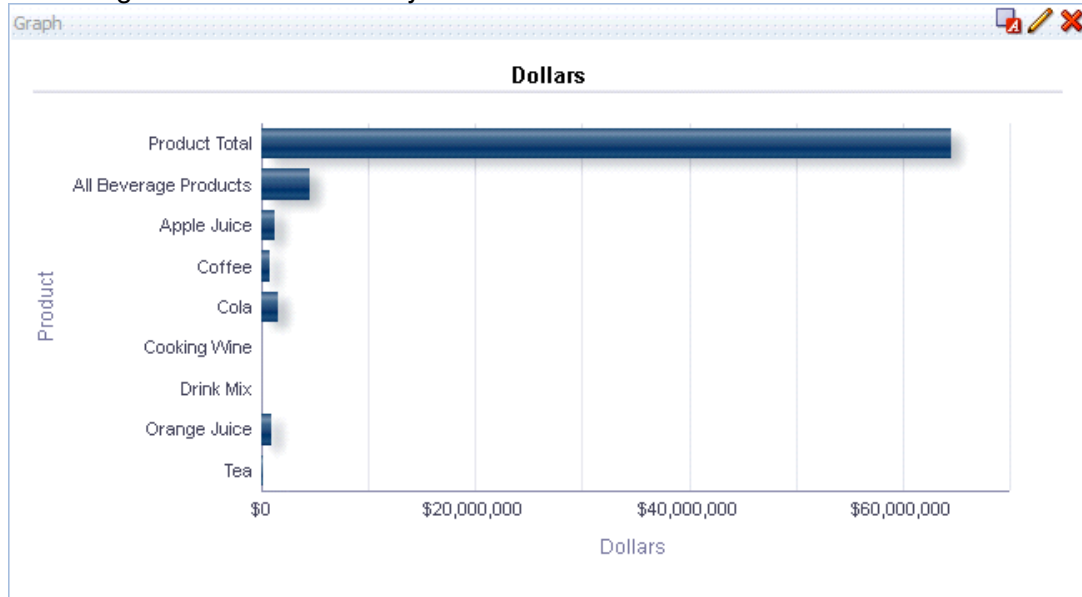
f. Click the browser **Back** button.

g. Save the analysis.

Practices for Lesson 7: Working with Views in Analyses

Chapter 7

Practices for Lesson 7: Overview

Practices Overview

In these practices, you explore and work with a variety of views in your analyses.

Practice 7-1: Using Master-Detail Linking in Views

Goal

In this practice, you link two views together. This way, actions taken in the master view affect data changes in a detail view that listens on a designated channel for changes to the master column.

Scenario

Use master-detail linking to enable users to dynamically change the appearance of a graph based on actions taken in a linked master table view in an analysis.

Time

5-10 minutes

Task

1.   Set a view as the master view.

   a.   Locate the **Western Region Sales with Graph** analysis and click **Edit** to open the analysis in the Analysis Editor.

   b.   Click the **Criteria** tab.

   c.   In the Selected Columns pane, click the **More Options** button for the **State** column and select **Column Properties**.

   d.   Click the **Interaction** tab.

   e.   In the Value section, define the column value's primary interaction as **Send Master-Detail Events**. A master view drives data changes in one or more detail views. Any view you add that includes the master column can be used as a master view. Any type of column can be set up as a master column, but the column must appear in the body of the master view. It cannot appear on the page edge or in a section slider.

   f.   In the Specify Channel field, enter `state` as the master channel. The master channel can be any value you want, but the channel and any reference to it must be exactly matching, including case. The Interaction tab should appear as follows:

   g.   Click **OK** to close the Column Properties dialog box.

2. Set the Graph view as the detail view.

a. Click the **Results** tab.

b. Click the **Edit View** button for the Graph view.

c. Click the **Edit Graph Properties** button 🔲 on the toolbar.

d. In the Graph Properties dialog box, on the General tab, select **Listen to Master-Detail Events**.

e. In the Event Channels field, enter `state`.

f. Check your work in the General tab:
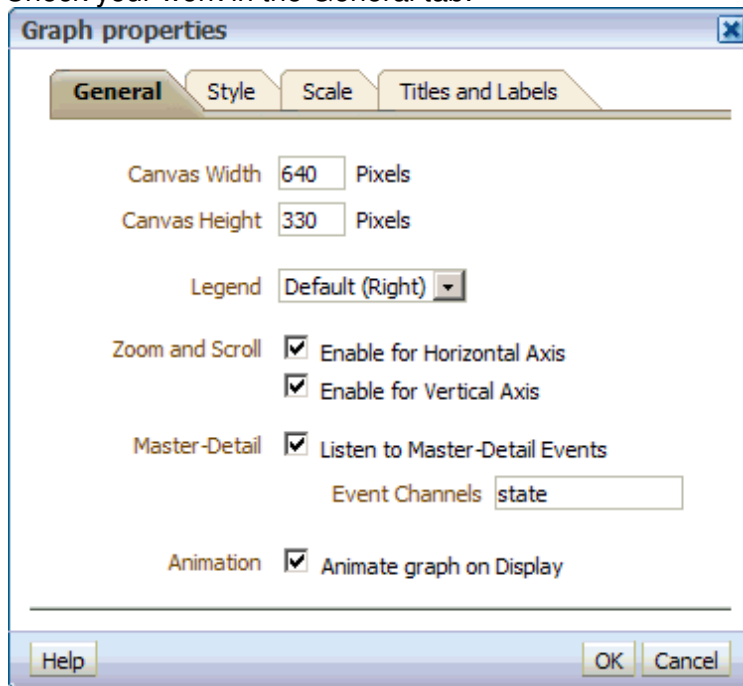
g. Click **OK** to close the Graph Properties dialog box.

h. Click **Done** to close the Graph Editor and return to the Compound Layout.

3. Test the master-detail linking.

a. Note the current location of the State slider in the Graph view.

b. Click **NM** in the Table view. Recall that you set State as the master column.

c. Because the Graph view is listening on the State master channel in the Table view, the State slider in the Graph view updates automatically to select NM (New Mexico).
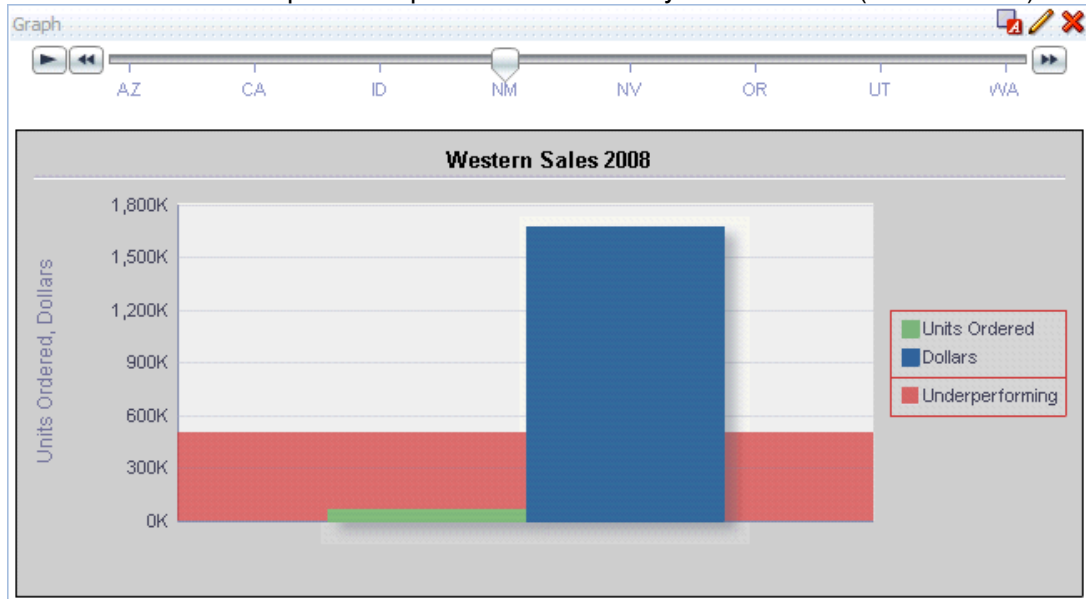
d. Experiment with the master-detail linking, and then save the analysis.

Practice 7-2: Adding a Column Selector to an Analysis

Goal

In this practice, you add a column selector to an analysis.

Scenario

Add a column selector view to enable users to dynamically change the columns that appear in an analysis. By using a Column Selector view in your Compound Layout, you can provide a quick way for users to select a column for which they would like to view measures.

Time

5-10 minutes

Task

1.   Add a Column Selector view.

   a.   Create the following new analysis using the B – Supplier Sales subject area:
        Customer, Dollars, Units Shipped, Units Ordered

   b.   Click **Results**. By default, the results appear in a Compound Layout with a Title view and a Table view, because you used an attribute column in your selected columns for the analysis.

   c. Click the **New View** button either in the Views pane or on the toolbar and select **Other Views > Column Selector** to add the Column Selector view to the Compound Layout.

   d.   Click the **Edit View** button for the Column Selector view.

   e.   In Column 1 (Customer), select the **Include Selector** option.
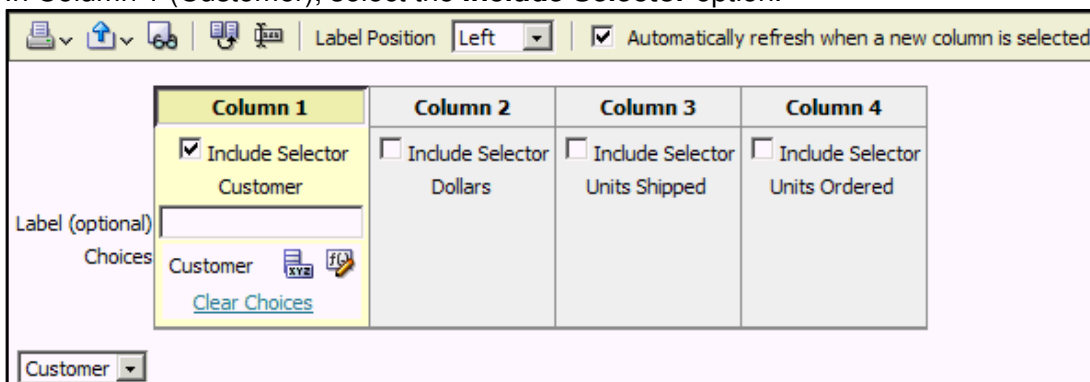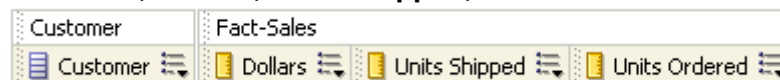
f. Add choices to the column selector by double-clicking the following attribute columns in the Subject Areas pane: **Time.Month**, **Time.Year**, **Customer.Region**, **Customer.State**. Notice that you can edit column properties or add custom formulas for the columns in the list. Hierarchical columns cannot be added to the selector.
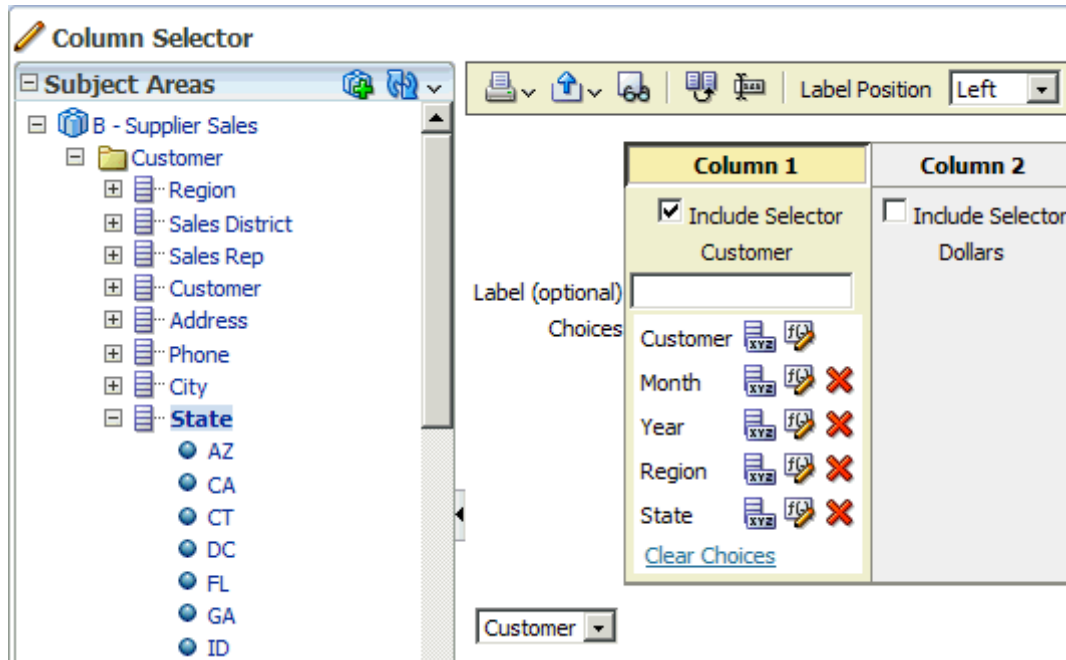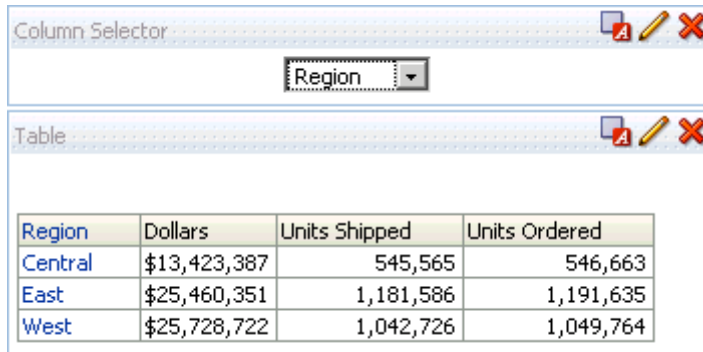

g. Click the preview Column Selector drop-down list to verify that the columns appear as selected.

h. Click **Done** to return to the Compound Layout.

i. Scroll to the bottom and locate the Column Selector view.

j. Drag the Column Selector view above the Table view in the Compound Layout.
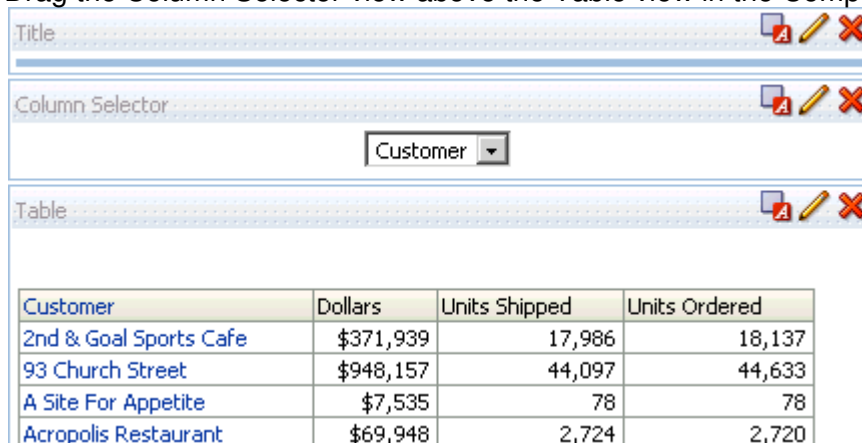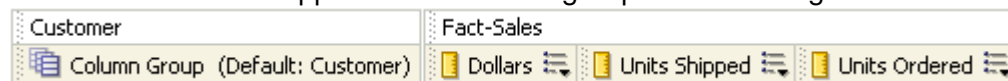
2. Use the Column Selector to modify the table results.

    a. Select **Region** from the Column Selector drop-down list and notice that the Table view is updated with new results.

    b. Select the other columns from the Column Selector and observe the results.

    c. Click the **Criteria** tab to view the selected columns for the analysis. Notice that the attribute column now appears as a column group with the designated default indicated.

    d. Save your analysis as `My Column Selector` in the My Sales folder.

Practice 7-3: Using the Table View

Goal

In this practice, you use the Table view to show results in a standard table, experiment with the use of sections and prompts, and add additional features, including totals and bins.
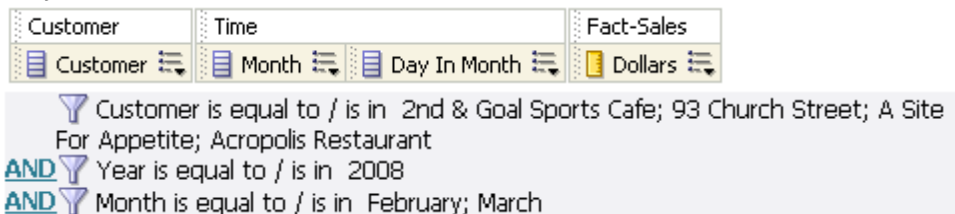
Scenario

Use the Table view to display column totals and grand totals, combine values into bins, and specify Table view properties, such as location of paging controls, number of rows per page, green bar styling, and column and table headings.

Time

15-20 minutes

Task

1. Create the following new analysis and associated filters using the B – Supplier Sales subject area:

   Note: If you add the Year column to your analysis to create the filter, delete it from the analysis after creating the filter.

2. Turn off the default drill interaction for the Customer and Month columns.

   a. Click the **More Options** button for the Month column, and select **Column Properties**.

   b. In the Column Properties dialog box, click the **Interaction** tab.

   c. In the Primary Interaction drop-down list for the Value, select **None**.

   d. Click **OK** to close the dialog box.

   e. Repeat the steps to turn off the drill interaction for the Customer column in this analysis. In this case, turn off the drill interaction for the Column Heading, not the value.

f. Click the **Results** tab. Notice that the Customer column heading, and values for the Month column, are black font color, indicating that there is no drill interaction. Drill interaction is indicated by blue font color.

Customer	Month	Day In Month	Dollars
2nd & Goal Sports Cafe	February	2	$3,249
		3	$303
		4	$134
		6	$27
		9	$6,323
		10	$1,025
		12	$15
		17	$10,159
		23	$2,314
		25	$311

3. Set the Customer column as a table prompt to create a prompt for its values, and set the Month column as a section.

a. Drag the **Customer** column above the table to the Table Prompts drop target. The Table Prompts and Sections drop targets appear in blue as you drag over them. Note that you could make the same change by right-clicking the column header and selecting Move Column > To Prompts.

Title

Table

Customer 2nd & Goal Sports Cafe ▼

Month	Day In Month	Dollars
February	2	$3,249
	3	$303
	4	$134
	6	$27
	9	$6,323

b. Verify the table prompt by selecting different customers and observing the results.
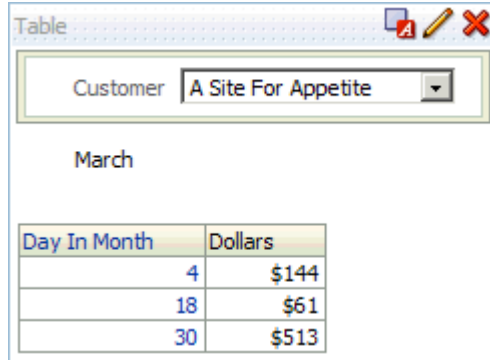
Table

Customer A Site For Appetite ▼

Month	Day In Month	Dollars
March	4	$144
	18	$61
	30	$513

c. Drag the **Month** column to the Sections drop target, which is just below the table prompt. Note that you could make the same change by right-clicking the column header and selecting Move Column > To Sections.

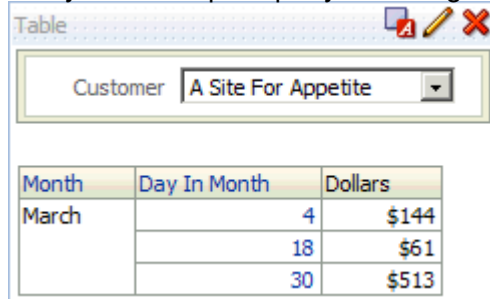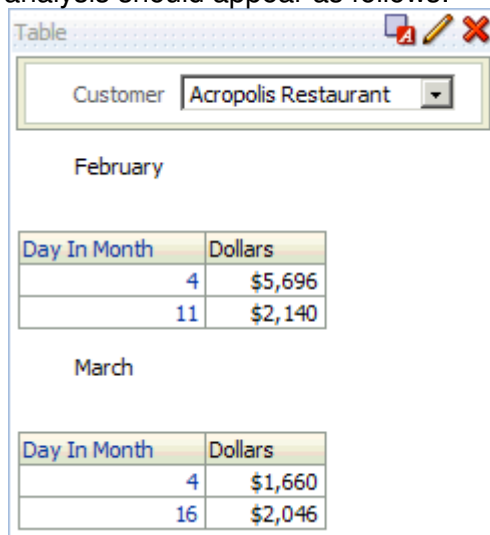| Table		

Customer | A Site For Appetite ▾ |

March

Day In Month	Dollars
4	$144
18	$61
30	$513

d. Select the **Acropolis Restaurant** in the table prompt and observe the results. Your analysis should appear as follows:

Table		

Customer | Acropolis Restaurant ▾ |

February

Day In Month	Dollars
4	$5,696
11	$2,140

March

Day In Month	Dollars
4	$1,660
16	$2,046

e. Save the analysis in the My Sales folder as `My Table View – Table Prompt and Sections`.

4. Remove the table prompt and the section, and then specify report totals.

a. On the Criteria tab, remove any filters applied as a result of selections made in the table prompt during testing. Your filters should appear as follows:

> ▽ Customer is equal to / is in 2nd & Goal Sports Cafe; 93 Church Street; A Site For Appetite; Acropolis Restaurant
> **AND** ▽ Year is equal to / is in 2008
> **AND** ▽ Month is equal to / is in February; March

b. Return to the Results tab and click the **Edit View** button for the Table view.

c. In the Layout pane of the Table editor, drag the **Customer** column from the Table Prompts to the Table drop target.

d.   Drag **Month** from the Sections drop target to the Table drop target. Check your work:

e.   To add a grand total for the report, click the **Totals** button Σ in the Columns and Measures drop target and select **After**. A grand total is added to the bottom of the table.

f.   Click the **Display maximum rows per page** button and scroll to the bottom of the results to view the total.

A Site For Appetite	March	4	$144
		18	$61
		30	$513
Acropolis Restaurant	February	4	$5,696
		11	$2,140
	March	4	$1,660
		16	$2,046
Grand Total			$200,755

g.   Click the **More Options** button 🖳 for the Customer column, select **Format Values**, and set the font style for the column's values to **Bold**.

h.   Click the **Totals** button Σ for the **Month** column and select **After** to apply totals for the individual column.

i.   Your analysis should look similar to the following:

A Site For Appetite	March	4	$144
		18	$61
		30	$513
	March Total		$717
Acropolis Restaurant	February	4	$5,696
		11	$2,140
	February Total		$7,836
	March	4	$1,660
		16	$2,046
	March Total		$3,706
Grand Total			$200,755

j.   Click **Done**.

k.   Save the analysis in the My Sales folder as `My Table View - Totals`.

5. Combine values into bins.

    a. Use the B – Supplier Sales subject area to create the following new analysis:

Product		Fact-Sales
Type	Type	Dollars
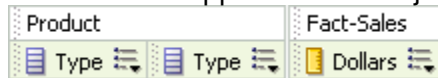
    b. Select More Options > Column Properties for the first Type column and rename it to `Binned Product Type`.

    c. Select More Options > Edit Formula for Binned Product Type.

    d. On the Column Formula tab, notice the column formula. You will compare this to the formula generated after you create bins in subsequent steps.

    e. Select the **Bins** tab.

    f. Click **Add Bin** to open the New Filter dialog box.

    g. Leave Operator set to "is equal to / is in".

    h. Open the drop-down list for the Value field.

    i. Select the following values: **Bread**, **Cereal**, **Grains**, **Pasta, Rice**.

    j. Click **OK** to close the New Filter dialog box. The Edit Bin Name dialog box appears.

    k. Name the bin `Bread, Cereal, and Grains`.

    l. Click **OK** to close the Edit Bin Name dialog box.

    m. The bin is added to the Edit Column Formula dialog box.

    Edit Column Formula

    Column Formula | **Bins**

    1. Type is equal to / is in Bread; Cereal; Grains; Pasta; Rice — Bread, Cereal, and Grains

    ☐ Create a bin for all other values
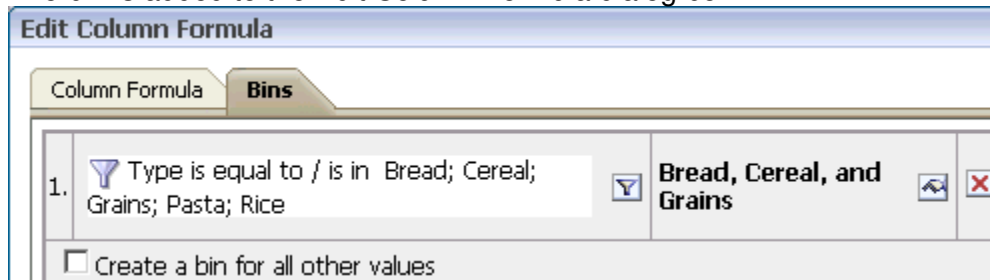
    n. Add another bin named `Meat and Poultry` that includes the following product types: **Beef**, **Lamb**, **Pork**, **Poultry**.

    o. Select "Create a bin for all other values" and name the bin `Other Product Types`.

    Edit Column Formula

    Column Formula | **Bins**

    1. Type is equal to / is in Bread; Cereal; Grains; Pasta; Rice — Bread, Cereal, and Grains

    2. Type is equal to / is in Beef; Lamb; Pork; Poultry — Meat and Poultry

    3. All other values — Other Product Types

p. Click the Column Formula tab and notice that the column formula is changed to a CASE statement.

Column Formula

CASE WHEN "Product"."Type" IN ('Bread', 'Cereal', 'Grains', 'Pasta', 'Rice') THEN 'Bread, Cereal, and Grains' WHEN "Product"."Type" IN ('Beef', 'Lamb', 'Pork', 'Poultry') THEN 'Meat and Poultry' ELSE 'Other Product Types' END

q. Click **OK** to close the Edit Column Formula dialog box.

r. Click **Results**. Your table should look similar to the screenshot.

Binned Product Type	Type	Dollars
Bread, Cereal, and Grains	Bread	$1,602,333
	Cereal	$1,336,946
	Grains	$40,566
	Pasta	$150,942
	Rice	$277,234
Meat and Poultry	Beef	$5,088,480
	Lamb	$75,223
	Pork	$3,535,150
	Poultry	$7,304,207
Other Product Types	Baking	$5,275,980
	Beverage	$4,470,714
	Cheese	$7,201,383
	Condiments	$9,123,306
	Dessert	$2,259,388
	Entre	$1,843,423
	Frozen	$521
	Non-food	$4,809,399
	Seafood	$2,826,061
	Snacks	$1,512,880
	Soup	$842,819
	Vegetable	$5,035,506

s. Save the analysis as `Binned Product Type` in the My Sales folder.

Practice 7-4: Working with Views

Goal

In this practice, you add a variety of views to results.

Scenario

You add a variety of views to the results of an analysis to help you look at data in meaningful and intuitive ways. Preparing multiple views of results helps users to identify trends and relationships in data. You create an analysis and add Filters, Legend, Narrative, Ticker, and Logical SQL views. Finally, you add a View Selector view so that users can choose the view that is useful to them.

Time

15-20 minutes

Task

1. Add a Filters view and then drill down in an attribute hierarchy to view results.

   a. Create the following new analysis using the B – Supplier Sales subject area:
      Region, Dollars

Customer	Fact-Sales
Region	Dollars

   b. Click the **Results** tab.

   c. Click the **New View** button   on the toolbar and select **Filters** to add a Filters view.

   d. Drag the Filters view above the Table view and below the Title view.

   e. Drill on the **Central** region. Notice how the Filter view changes after drill down to include a filter for Region that is equal to Central. This is because drilling limits the result set and automatically creates a filter. The Filter view tracks the filters in the analysis.

   f. Drill on **Mary Silver** to see her customers, and then drill on **Alley Dog** to see what product categories that customer has purchased. You can continue drilling from Product Type down to the specific product.

   g. Check your results, which should appear similar to the following depending on the drill path you take:

Notice that the administrator of the metadata repository has set up the hierarchy to drill directly from the Region to the Sales Rep and, below that, to the Customer. Also notice that drilling on the Customer results in the analysis of the products that the customer has bought. This is an example of a cross-dimensional hierarchy drill path.

h. Click the **Criteria** tab. Notice that columns and filters have been automatically added to the original analysis.

i. Remove all filters.

j. Remove all columns but the Region and Dollars columns.

2. Add a Legend view.

   a. Create a conditional format for the Dollars column where the background cell color for dollars less than one million is red, dollars between one million and two million is yellow, and dollars greater than two million is green.
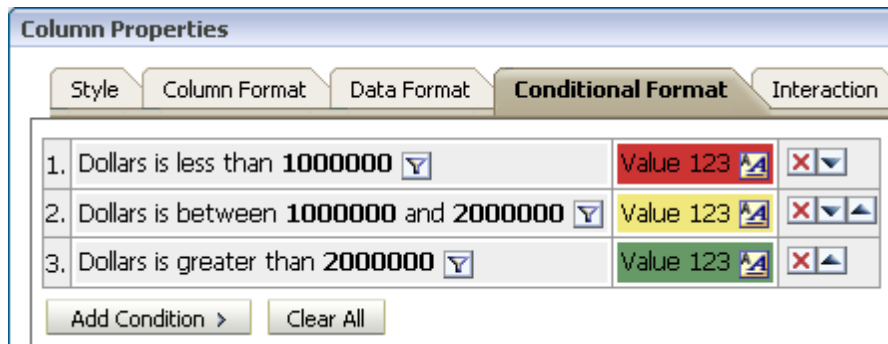
   b. Add the **Sales District** column to your analysis and click the **Results** tab.

   c. Delete the **Filters** view you created in an earlier step. To do this, remove it from the analysis completely by selecting it in the Views pane and clicking the **Remove View from Analysis** button.
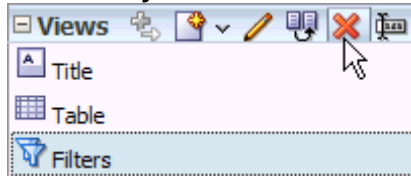
   d. If necessary, move the **Sales District** column after Region and before Dollars.

   e. In the toolbar, click the **New View** button and select **Other Views > Legend** to add it to the analysis.

   f. Click the **Edit View** button for the Legend view.

   g. In the drop-down list, set Legend items per row to **3**.

   h. Use the **Add Caption** button to add and populate items based on the following screenshot. Enter `Sales Legend` as the Title. Use the Sample Text format buttons to set colors to match those used in the conditional formatting for the Dollars column.

   i. Click **Done** to return to the Compound Layout.

j. Check your work.

3. Add a Narrative view.

a. On the toolbar, click the **New View** button and select **Other Views > Narrative**.

b. Select the **Narrative** view in the Views pane and click the **Edit View** button.

c. In the Prefix field of the Narrative Editor, enter `This report shows sales by sales district. The sales districts are:`

d. Select the text in the Prefix field and click the **Bold** button `B`.

e. Place your cursor at the end of the text, after the close bold tag, and click the **Line Break** button twice.

f. In the Narrative field, enter `@2`. This will include the results from the second column (Sales District) in the narrative text. You use @n to return results from a column, where n represents the desired column based on the sequence of columns in the analysis. In this example, Sales District is the second column in the analysis. Notice that if you want to, you can limit the number of rows displayed or add row separator text or tags, for example, a line break.

g. Place your cursor after @2 and click the **Line Break** button.

h. In the Postfix field, enter `Please address sales marked as red.`

i. Bold the text in the Postfix field.

j. Place your cursor at the beginning of the text in the Postfix field, before the bold tag, and click the **Line Break** button once.

k. Check your work.

l. Click **Done** to return to the Compound Layout and check your results.

4. Add a Ticker view.

    a. On the toolbar, click the **New View** button and select **Other Views > Ticker**.

    b. Select **Ticker** in the Views pane and click the **Edit View** button.

    c. In the Beginning Text field, enter `Total Sales by Sales District` between the first set of <tr> and <td> tags.

    d. In the Row Format field, enter `@2[br/]@3`. This displays data from columns 2 and 3 in separate rows in the ticker. Column 2 is Sales District and column 3 is Dollars.

e.   Check your work.

f.   Accept all other defaults and click **Done** to return to the Compound Layout.

5.   Add a Logical SQL view. This view is useful for administrators and developers for debugging purposes, and is usually not included in results for typical users.

a.   On the toolbar, click the **New View** button and select **Other Views > Logical SQL > Standard**.

b.   Verify that a logical SQL view was added to the Compound Layout and that the logical SQL for the query appears.


```
SELECT
    0 s_0,
    "B - Supplier Sales"."Customer"."Region" s_1,
    "B - Supplier Sales"."Customer"."Sales District" s_2,
    "B - Supplier Sales"."Fact-Sales"."Dollars" s_3
FROM "B - Supplier Sales"
ORDER BY 1, 2 ASC NULLS LAST, 3 ASC NULLS LAST
FETCH FIRST 65001 ROWS ONLY
```

6.   Add a View Selector view. This view allows users to select among available views and display the most useful view.

a.   On the toolbar, click the **New View** button and select **Other Views > View Selector**.

b.   Select **View Selector** in the Views pane and click the **Edit View** button.

c.   In the Caption text box, enter `Select a view:`

d.   Set the Caption Position to **Above**.

e.   Select the **Table** view in the Available Views list and click the **right-arrow** button ▶ to add it to the Views Included list.

f.   Repeat the above step to add the following views to the Views Included list: **Logical SQL**, **None**, and **Narrative**.

g. In the Views Included list, select the None view and click the **down-arrow** button to move it to the bottom of the list. The views appear in the list in the order that they appear in the view selector. Note that you can also rename views in the list to give them names that are more meaningful to your users.

h. Check your work.
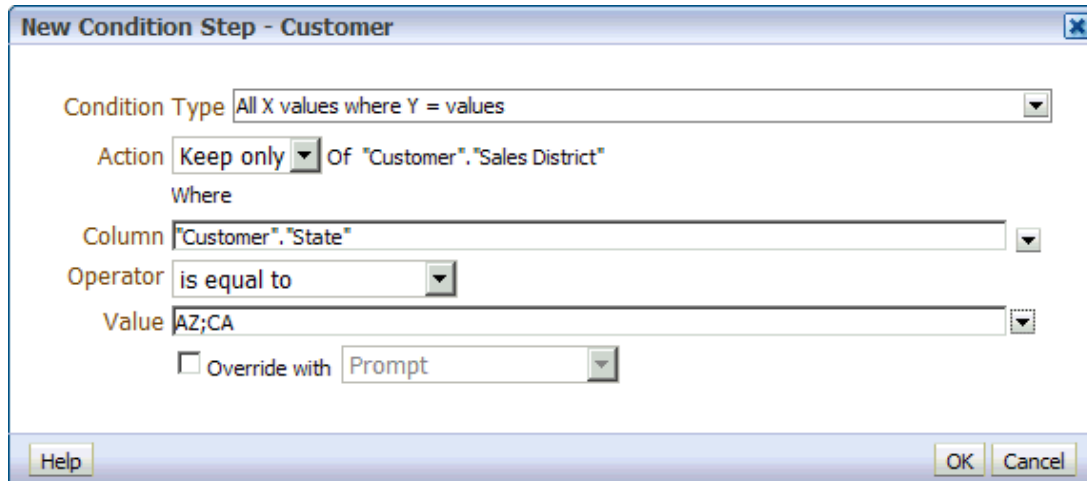
i. Click **Done**.

j. Scroll down to the bottom of the Compound Layout. In the View Selector view, toggle between the different available views and verify that each appears.

7. Add new graph views and rename one of the graph views.

a. In the toolbar, select **New View > Graph > Bar > Default (Vertical)** to add a Graph view.

b. In the toolbar, select **New View > Graph > Pie** to add a second Graph view. Notice that the name of the second Graph view is Graph (2). This is the default.

c. In the Views pane, select **Graph: 2**.

d. Click the **Rename View** button 📠 to open the Rename View dialog box.

e. Change the view name to `Graph: Pie` and click **OK**.

f. Confirm that the Graph (2) view name is changed to Graph: Pie.
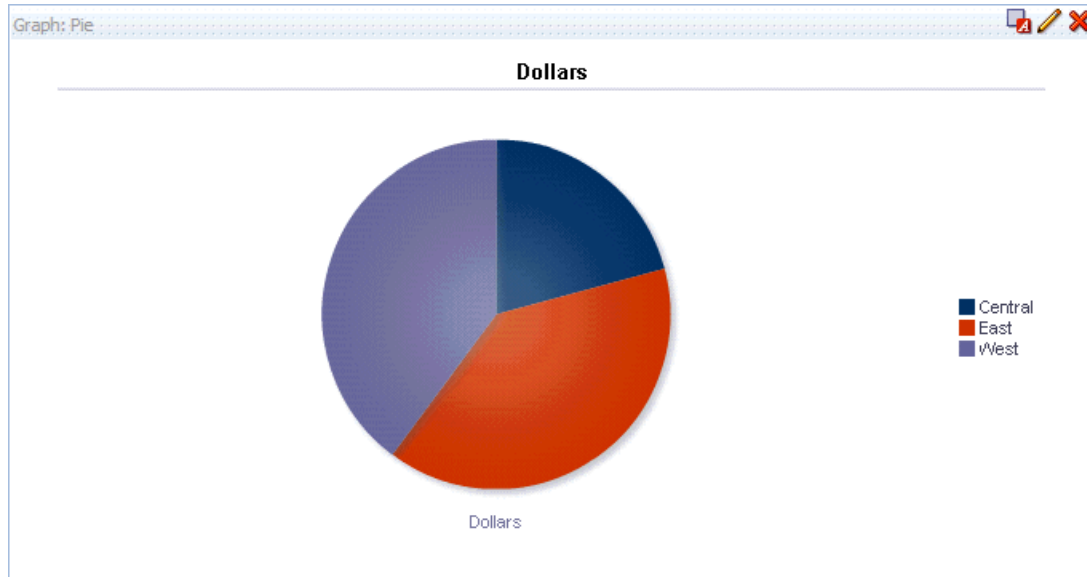
8. Add a Selection Steps view.

a. In the toolbar, select **New View > Selection Steps** to add a Selection Steps view.

b. Notice that initially the Selection Steps view shows "Analysis contains no Selection Steps".

c. Drag the Selection Steps view to the top of the Compound Layout and drop it to the right of the Table view.

d. Show and expand the **Selection Steps** pane.

e. In the Selection Steps pane, for **Customer – Sales District**, click **Then, New Step > Apply a Condition**.

f. In the Condition Type drop-down list, select **All X values where Y = values**.

g. In the Action list, select **Keep Only**.

h. In the Column list, select **"Customer"."State"**.

i. Leave Operator set to "is equal to".

j. In the Value list, select **AZ** and **CA**.

k. Check your work:

l. Click **OK**.

m.   Notice that all of the relevant views are updated with the selection steps, and the Selection Steps view allows you to keep track of the steps.

n. Save the analysis in the My Sales folder as `My Views`.

Practice 7-5: Using the Trellis View

Goal

In this practice, you create a Simple Trellis view and an Advanced Trellis view.

Scenario

Use Trellis views to present multi-dimensional data laid out in a set of cells in a grid, with each cell displaying a subset of data shown as numbers or as graphs.

Time

15-20 minutes

Task

1. Create an analysis that includes a simple trellis chart.

    a. Use the B- Supplier Sales subject area to create a new analysis with the following columns:
        Customer.Region
        Time.Year
        Product.Type
        Fact-Sales.Units Ordered

    b. Click **Results**.

    c. Click the **New View** button and select **Trellis > Simple**. A simple Trellis view is added to the compound layout.

    d. Delete the **Table** view from the Compound Layout.

    e. Click the **Edit** button for the Trellis view to open the Layout editor.

    f. In the Layout pane, drag **Year** from the Color By drop target to the Columns drop target and observe the change in the right pane.

    g. Drag **Units Ordered** to Group By.

h. Drag **Region** to Color By.

i. Check your work. Your Trellis chart should look similar to the screenshot:
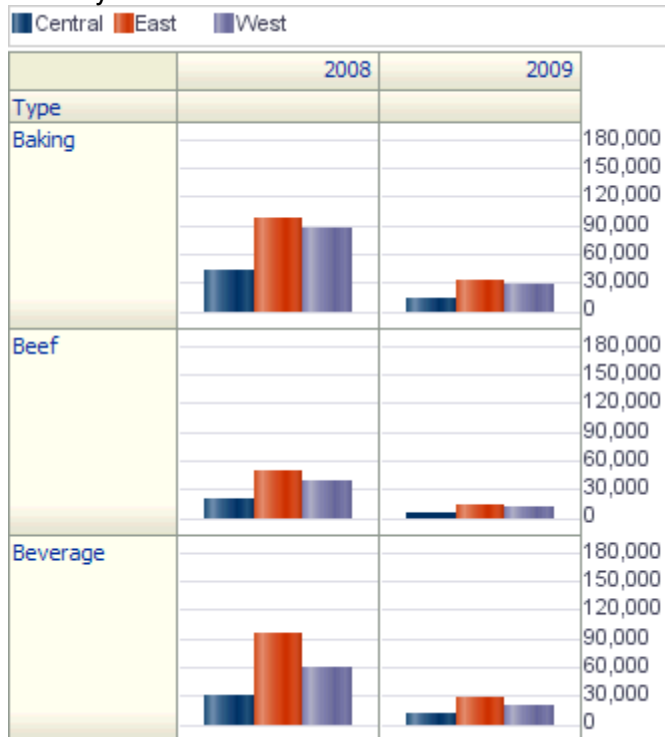
Notice that the Trellis chart allows you to compare product types by region across time using the same scale (units ordered).

2. Add a new measure to the chart.

a. In the Subject Areas pane, double-click **Fact-Sales.Units Shipped** to add the measure to the layout. Units Shipped is added to the Group By field. The Trellis chart now shows micro charts for two measures: Units Ordered and Units Shipped. The micro charts are displayed in the same order in the chart as the measures are displayed in the Group By field.

b. Hold the cursor over a bar in any of the micro chart to see a tool tip with information about the data.

c. Notice that you can change the micro chart type using View as drop-down list in the Visualization section. Leave the view set to **Vertical Bar**.

d. Drag **Units Ordered** and **Units Shipped** from Group By to Color By.

e.   Drag **Region** from Color By to Group By. Notice that now Units Ordered is compared to Units Shipped by Region in the micro chart for each cell.
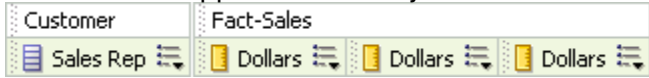
f.   Click **Done** to return to the compound layout view.

g.   Save the analysis a `My Simple Trellis View` in the My Sales folder.

3.   Show how the results will look on a dashboard.

a.   Click **Show how results will look on a dashboard** to open the analysis in a separate browser window.

b.   Hold the cursor to the left of the 2008 column until the cursor changes to the drag icon

.

c.   Drag **Year** above the measure to the Trellis Prompts drop target to create a prompt for Year.
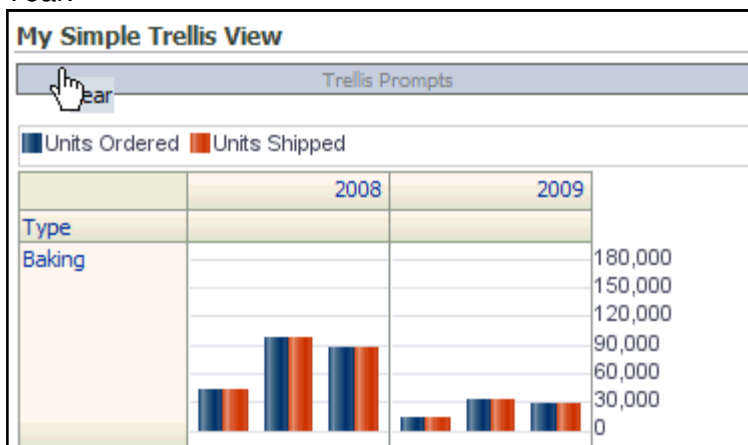
d. Use the prompt to filter the data.
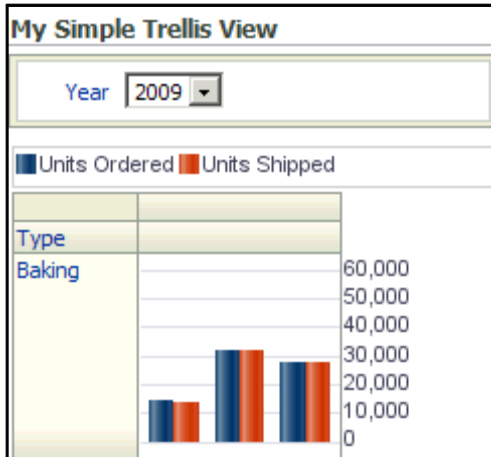
e. Close the separate browser window.

4. Create an analysis with an Advanced Trellis view.

a. Use the B – Supplier Sales subject area to create the following new analysis:

b. For the second Dollars column, select More Options > Column Properties to open the Column Properties dialog box.

c. Click the **Column Format** tab.

d. Select **Custom Headings**.

e. In the Column Heading field, rename the column heading to `Dollars by Month`.

f. Click **OK** to close the Column Properties dialog box.

g. Repeat the steps for the third Dollars column and rename it to `Dollars by Quarter`.

h. Click **Results**.

i. Click the **New View** button and select **Trellis > Advanced** to add an Advanced Trellis view to the compound layout.

j. Delete the **Table** view from the Compound Layout. Your results should look similar to the screenshot.

5. Add prompts and sections to the Trellis view.

a. Click the **Edit** button for the Trellis view to open the Layout editor.

b. In the Layout pane, expand **Prompts and Sections**.

c. In the Subject Areas pane, expand **Time**.

d. Drag **Year** to the Prompts drop target in the Layout pane.

e. Notice that the Year prompt is added to the Trellis view in the workspace.

f. In the Subject Areas pane, expand **Customer**.

g. Drag **Region** to the Sections drop target in the Layout pane.

h. Notice that the Trellis view is now divided into sections by region.

6. Set visualization for the measures.

a. In the Visualization section, make sure **Dollars** is selected.

b. In the "View as" drop-down list, select **Numbers**.

c. Notice that Dollars data is now represented as a number in the chart.

d. In the Visualization section, use the scroll arrows to select **Dollars by Month**.

e. In the "View as" drop-down list, select **Spark Bar**.

f. In the Subject Areas pane, expand **Time**.

g. Drag **Month** to Bars in the Visualization section. Notice that Dollars by Month data is now represented by a micro-chart, which shows Dollars by month for each Sales Representative.

	Dollars	Dollars by Month
Year	2008 ▾	
Central		
Sales Rep		
ANDREW TAYLOR	$422,818	
BARBARA JENSEN	$334,257	
CHRIS MUIR	$953,517	
DALE AREND	$891,168	
DICK SCHMIDT	$134,647	
GARY LISCIARELLI	$2,472,632	
GARY SMITH	$1,000,696	
JOSE CRUZ	$826,993	
LYLE IRWIN	$967,935	
MARY SILVER	$684,718	
RUBEN LOPEZ	$1,377,864	

h. In the Visualization section, use the scroll arrows to select **Dollars by Quarter**.

i. Notice that Month is displayed in the Bars area, but is unchecked.

j. In the Subject Areas pane, expand **Time**.

k. Drag **Quarter** to Bars in the Visualization section.

l. Notice that Dollars by Quarter data is now represented by a micro-chart, which shows Dollars by quarter for each Sales Representative.

m. In the Bars area, notice that Quarter is checked, but Month is not.

n. In the Visualization section, use the scroll arrows to select **Dollars by Month**.

o. Notice that Month is checked, but Quarter is not. You can add multiple dimensions to an Advanced Trellis view and pick which dimensions to apply to each column.

7. Change the size of the micro charts.

   a. Click **Trellis Properties** to open the Trellis Properties dialog box.

   b. Select the **General** tab.

   c. In the Visualization section click **Dollars by Month** to display options for graph size.

   d. In the Graph Size drop-down, select **Custom**.

   e. Set Width to **100** and Height to **25**.

Visualization

Dollars	**Dollars by Month**	Dollars by Quarter

Graph Size Custom ▾

Width 100 Pixels

Height 25 Pixels

f. Repeat for **Dollars by Quarter**.

g. Click **OK** to close the Trellis Properties dialog box.

h. Notice that the height of the micro-charts is changed.

i. Click **Done** to return to the Compound Layout.

j. Save the analysis a `My Advanced Trellis View` in /My Folders/My Sales.

k. Click **Show how results will look on a dashboard** to open the analysis in a separate browser window.
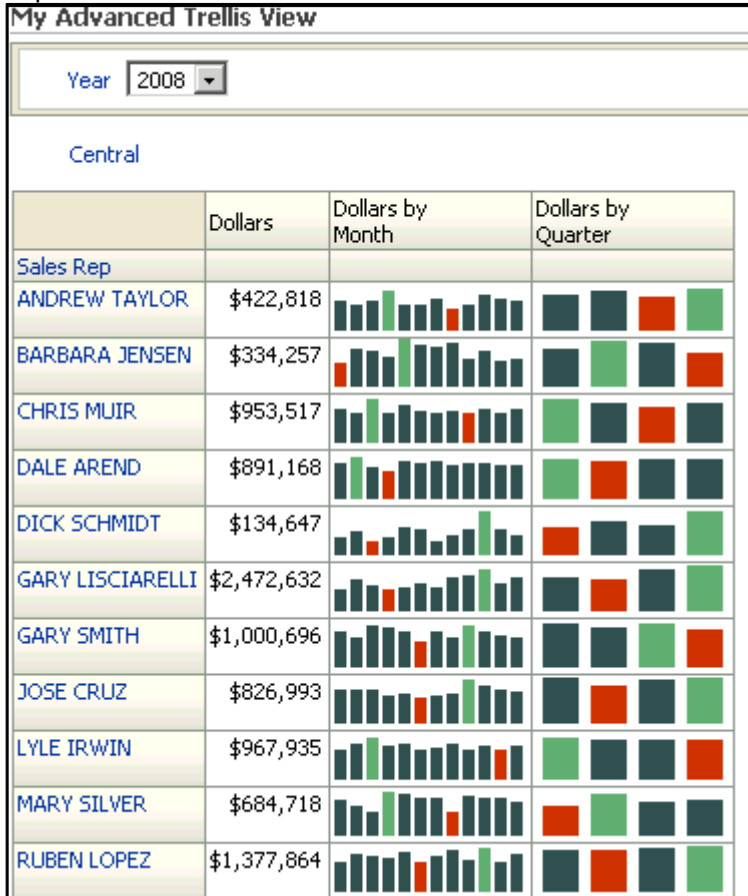
l. Use the prompt to filter the data.

m. Hover over the micro-charts to view tool tips about the data. Notice that the tip shows the starting value, ending value, maximum value, and minimum value for each micro-chart.
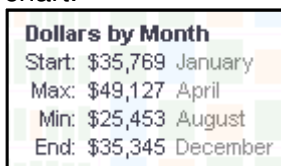
n.   Drill into the data and observe changes to the micro-charts.

o.   Close the preview browser window.

Practices for Lesson 8: Visualizing Data: Gauges, Maps, and Mobile

Chapter 8

Practices for Lesson 8: Overview

Practices Overview

In these practices, you work with Gauge and Map views.

Practice 8-1: Showing Results as a Gauge

Goal

In this practice, you use the Gauge view to show results as gauges.

Scenario

Create an analysis and display results in a Gauge view by using the Dial Gauge type. Set general background properties for the Gauge view, modify ranges, titles, and footers, and set advanced properties.

Time

10-15 minutes

Task

1. Add a Gauge view to the Compound Layout.

    a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    b. Create the following new analysis and associated filters using the B – Supplier Sales subject area:

Customer		Fact-Sales	
Customer	Region	Dollars	Units Shipped

    Region is equal to / is in West
    AND Date is between 01/01/2009 12:00:00 AM and 03/31/2009 12:00:00 AM

    Note: If you add the Date column to your analysis to create the filter, delete it from the analysis after creating the filter.

    c. Click the **Results** tab.

Customer	Region	Dollars	Units Shipped
93 Church Street	West	$184,182	8,834
Adria Restaurant & Deli	West	$67,714	3,506
Alley-Cats	West	$488,278	19,057
Andy's	West	$202,544	6,962
Baldy Base Club	West	$27,795	939
Bar-Be-Que Time	West	$309,697	12,223
Barry T's	West	$385	80
Big River Grille & Brewing	West	$176,306	9,662

d. On the toolbar, click the **New View** button and select **Gauge > Default (Dial)**.
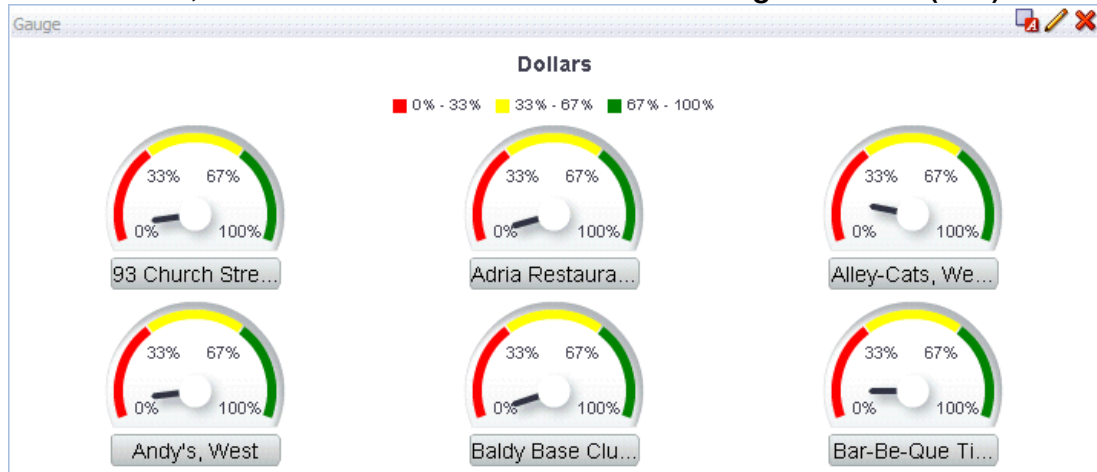
e. Click the **Edit View** button for the Gauge view.

f. In the Gauge Editor, click the **Style** button ⬤ Default (Dial) ⌄ on the toolbar and select **Dial**.

g. Click the **Show/Hide Settings Pane** button 🔍 to hide the Settings pane.

h. In the Size drop-down list, select **Small**.
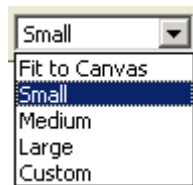
i. In the Layout pane, verify that Dollars is set as the measure in the Measures drop point.
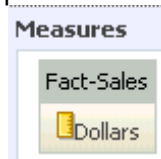
j. Drag the **Units Shipped** measure from the Excluded drop point to the Measures drop point.
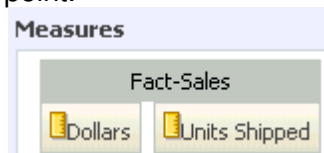
k. Notice that a second dial is added to the gauges.

2. Explore and set the Gauge properties.

a. On the toolbar, click the **Properties** button to open the Gauge Properties dialog box. Gauges have properties similar to other views.

b. Click the **Style** tab. Retain the defaults for dial arc length and the gauge size that you already set on the editor toolbar.

c. In the Marker Type section, select **Line** from the drop-down lists for the Dollars and Units Shipped measures.

d. Set the marker color for Dollars to **blue**, and for Units Shipped use **black**.

e. Use the gauge and canvas colors and borders settings to format the gauge as you want.

f. On the Titles and Labels tab, deselect **Use measure name as graph title** and set Gauge Set Title to `Q109 Revenue – Units Shipped`.

g. On the General tab, set the Gauges per row to `4`.

h. Click **OK**. Your result should look similar to the following. There is a gauge for each customer, and the blue line shows dollars, whereas the black line shows units shipped. The colors indicate the gauge ranges.
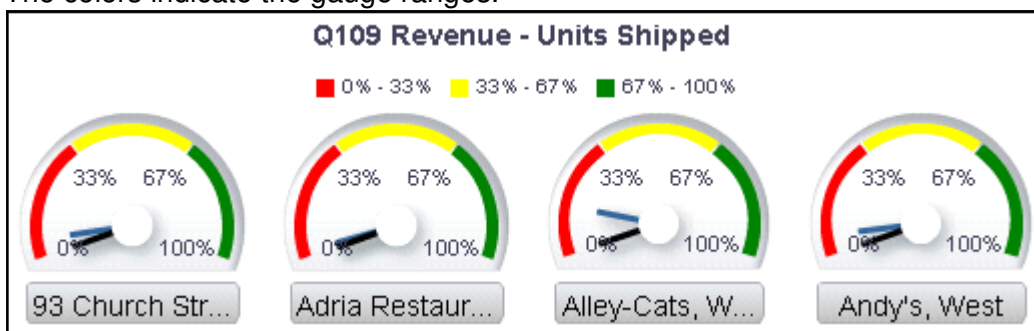
3. Modify the gauge ranges.

a. Click the **Show**/**Hide Settings Pane** button to show the Settings pane.

b. By default, the gauge ranges for the Dial Gauge are set to show percentage of total. Currently, the Dial Gauge displays three percentage ranges. Click the **Add Thresholds** button to add a fourth range. Keep its default color.

c. Check your results. The Dial Gauges now display four percentage ranges and the legend captions have changed to reflect the new ranges. Notice that the ranges are dynamically updated so that they represent equal percentages.

d. Click **Done**.

e. Delete the **Table** view.

f. Save the analysis as `My Gauge View` in the My Sales folder.

Practice 8-2: Using Map Views

Goal

In this practice, you use the Map view to show results as binned percentiles of a measure for states on a map.

Scenario
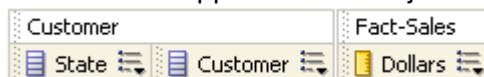
You create an analysis and display results in a Map view by using the State layer that has been prepared by your administrator. You explore Map view properties and options for the map formats, and then verify your map's settings by viewing the dollars for states in the maps.

Time

10-15 minutes

Task

1. Add a Map view to the Compound Layout.

   a. Use the B – Supplier Sales subject area to create the following new analysis:

Customer		Fact-Sales
State	Customer	Dollars

   b. Click the **Results** tab.

State	Customer	Dollars
AZ	Clifton Lunch	$40
	Royal Barbecue	$231,341
	Tong's Wok	$287,095
CA	93 Church Street	$948,157
	Adria Restaurant & Deli	$355,088
	Baldy Base Club	$146,278
	Barry T's	$12,973
	Big River Grille & Brewing	$1,028,920
	Bill Johnson's Big Apple	$716,730
	China Dragon Restaurant	$430,338
	Club 427	$385,594
	Compound	$4,992,670
	India Garden Restaurant	$21
	Le Boulanger	$543,790
	New York Cafe	$864,823
	Palestine Club	$3,358,088
	Romeo's Mexican Food & Pizza	$2,665,336

c. Click the **New View** button on the toolbar and select **Map** to display the world map.
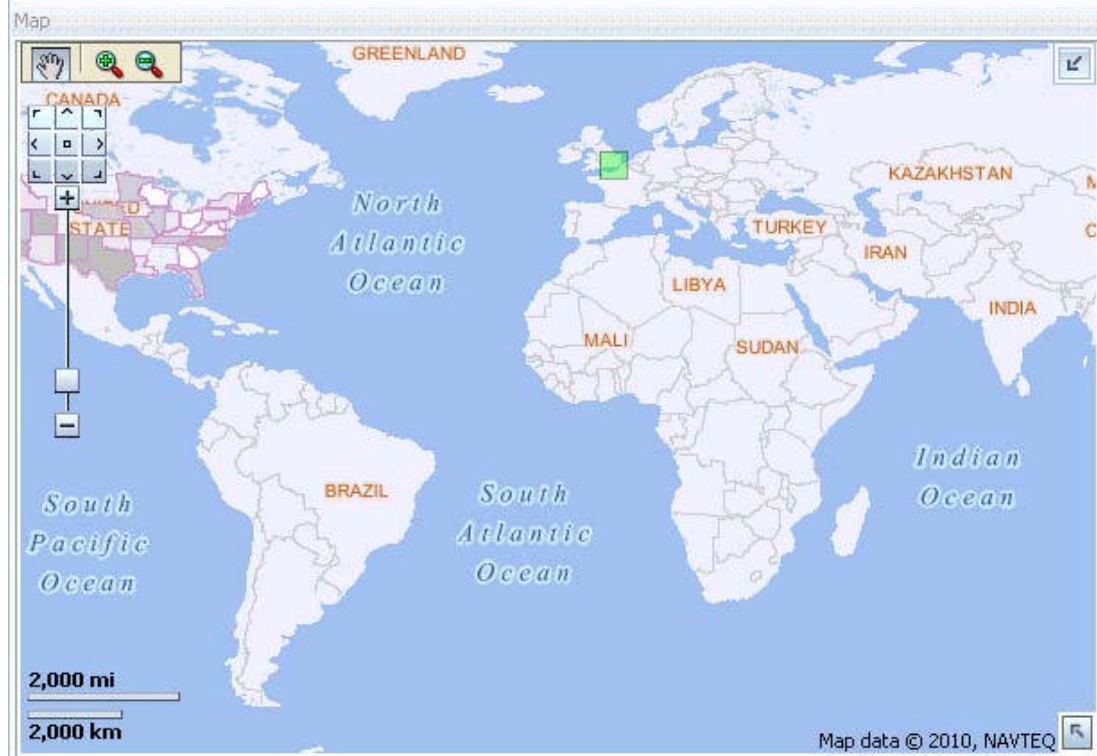
d. Notice that, by default, the BI Data Layers are binned by quartiles for the Dollars measure and are distinguished as shades of gray for use in the map.
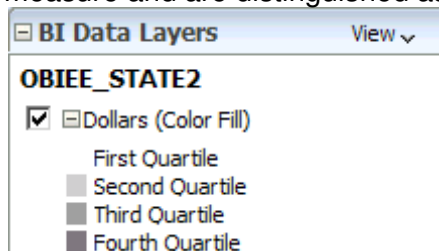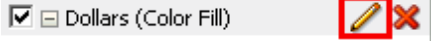
e. Use the Zoom and Pan tools in the Map view to zoom in and view the United States in the world map. Your administrator has created and mapped a layer to the State column in the SupplierSales subject area and set a default format.
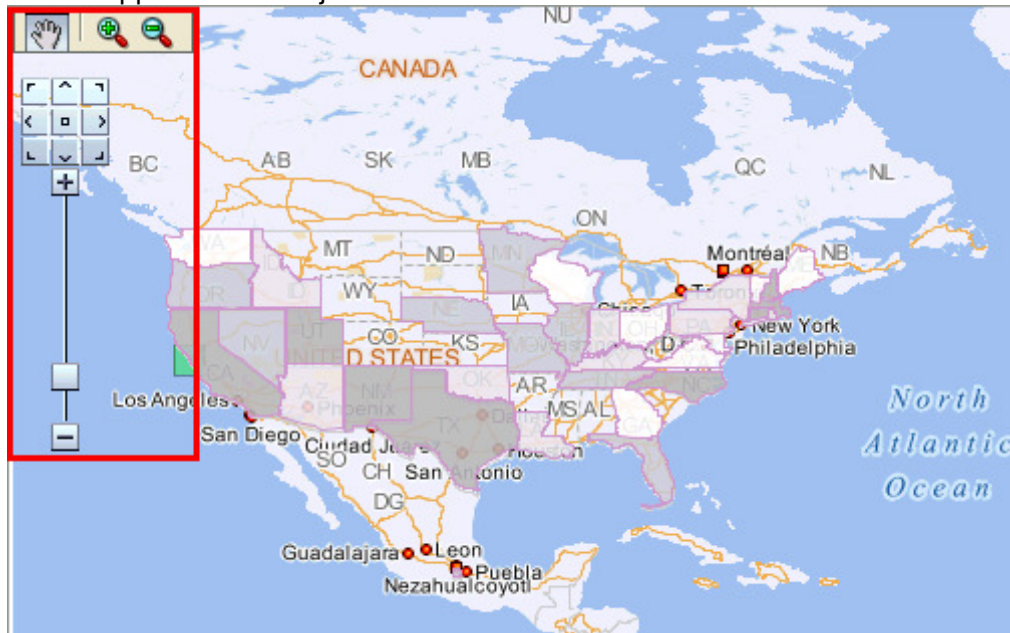
f. The layer has been mapped to a number of zoom layers, so that the state formats are available as you zoom in on the map of the United States. Click the **Edit View** button ✏ for the Map view to open the Map Editor.

g. On the toolbar, click the **Map Properties** button 🔲 to open the Map Properties dialog box. Maps have available properties similar to other views, particularly Graph views. Explore the available properties in the various tabs, including the Canvas Size options.

h. On the Tools tab, notice that you can turn on and off the Pan and Zoom tools, the Zoom Slider, and the distance information display. Leave the default settings.
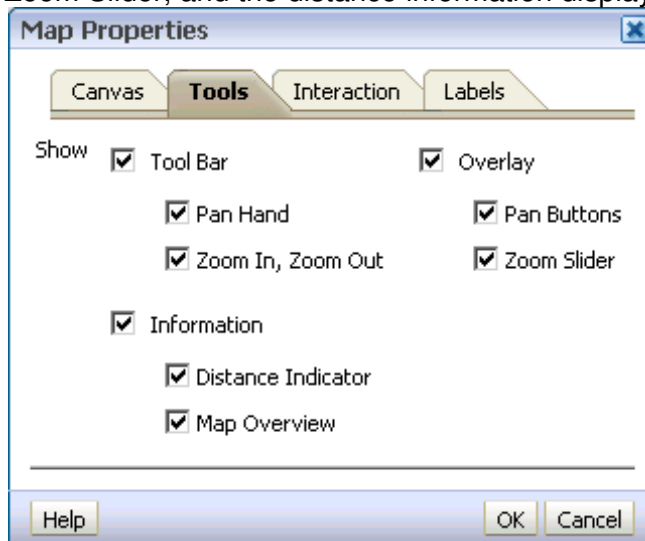
i. On the Interaction tab, deselect the **Automatically create formats when drilling** option. Because you currently have only one layer mapped, you cannot drill in the map, so this option is unnecessary for your map. In maps with multiple layers, for example, drilling from state to city would, if the option were set, automatically create a new format for the city layer that would then appear in the Map Formats list.

j. On the Labels tab, you can select and deselect labels for the layers to be displayed as the map is zoomed in and out. Leave the default setting and click **OK** to close the dialog box.

2. Edit the default Color Fill format.

a. Place your cursor over the Dollars (Color Fill) format and click the **Edit** button.

☑ ⊟ Dollars (Color Fill)   ✏️✖️

b. In the Color Fill dialog box, retain the automatic naming of the labels for the state, currently derived from the measure name by default.

c. Retain the default for the tool tips. You can select from the columns in the analyses to display their names when users place their cursors over column values in the map.

d. Notice that the Vary Color By drop-down list includes measures in your analysis that you can select to vary color by. Because you have only one measure, Dollars, in your analysis, leave this set as the value.

e. Experiment with the binning options in the Bin Type drop-down list. When you select the default, Percentile Binning, the bins are automatically broken into quartiles from Maximum to Minimum, as seen in the bottom of the dialog box. You can edit the default labels for each bin to clarify the results if desired. You can also increase or decrease the number of bins by making selections in the Bins drop-down list. Set the number of bins to **6**.

f. Experiment with the other types of binning. Value binning enables you to set minimum and maximum values and label bins. In Color Fill formats, you can also select Continuous Color Fill, in which a band of color is varied and applied to the ranks of the geographies in the map. After exploring, retain the percentage binning.

g. Use the Style drop-down list to select a series of colors for use in representing each bin in the map's states for ranking. Select an option in the drop-down list to add more distinctive colors than the shaded grays that came as defaults.

h. Select the **Allow Dashboard Users to Edit Thresholds** option. This option is available for Color Fill formats using percentile or value binning. It creates a color slider on the Map view, which users can use to set the thresholds for the binning. Note that because percentile binning does not allow threshold settings, when this option is selected and saved for the Map view, the Bin Type is automatically changed to Value Binning.

i.   Check your work in the Color Fill dialog box:

j.   Click **OK** and verify your changes.

k.   Use the slider to change the thresholds and experiment with your results.

l.   Change the Color Fill Format back to the default so that the "Allow Dashboard Users to Edit Thresholds" option is deselected.

m.   Click **Done** to return to the Compound Layout.

3.   Use the marquee zoom feature to zoom into a specific area of the map.

a.   Use the zoom and pan controls to center the United States in the Map view.

b.   Place the cursor over a region of the map to display an information window for that region for the data that is directly below the mouse cursor.

c. Click the **Zoom In** button   .

d.   Click and drag to use the marquee zoom. You can draw a box that delineates the area in which you want to zoom.

e.   Save the analysis as `My Map View`.

Practices for Lesson 9: Showing Results with Pivot Tables

Chapter 9

Practices for Lesson 9: Overview

Practices Overview

In these practices, you create Pivot Table views and explore their sorting, formatting, and other options. You use pivot tables to display running sums and measures as percentages of whole.

Practice 9-1: Working with Pivot Tables

Goal

In this practice, you use the Pivot Table view to display results in Oracle Business Intelligence.

Scenario

Use a Pivot Table view to take row, column, and section headings and swap them around to obtain different perspectives of the data. You create multiple drop-down lists for attributes, add totals, override default aggregation rules for measures, display an item's relative value, use calculations, and modify pivot table formatting.

Time

20-25 minutes

Task

1. Create an analysis and work with its Pivot Table view.

    a. Use the B – Supplier Sales subject area to create the following new analysis and associated filter:

Customer	Time	Product	Fact-Sales
⊞ 🏠 Customer - Region ⥮	≣ Year ⥮	≣ Generic ⥮	▤ Dollars ⥮

    ▽ Generic is equal to / is in Brown Sugar; Powdered Sugar; White Sugar
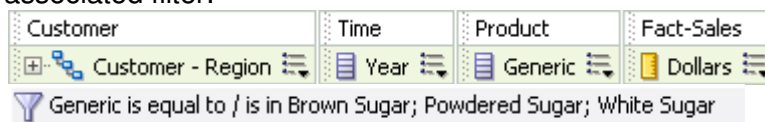
    b. Click the **Results** tab. Because your analysis includes a hierarchy, a pivot table appears by default in the compound layout.

    Pivot Table

			Dollars
Customer - Region	Year	Generic	
⊟ Customer Total	2008	Brown Sugar	$299,058
		Powdered Sugar	$113,529
		White Sugar	$190,418
	2009	Brown Sugar	$95,628
		Powdered Sugar	$43,874
		White Sugar	$64,593
⊞ Central	2008	Brown Sugar	$70,737
		Powdered Sugar	$17,756
		White Sugar	$26,161
	2009	Brown Sugar	$24,279
		Powdered Sugar	$5,800
		White Sugar	$8,652

    c. Click the **Edit View** button for the Pivot Table view to open the Pivot Table Editor.

d. Click the **Display Results** button ⊞ to hide the results preview, and then drag the Layout pane to the top of the Editor workspace.

e. Drag **Year** from Rows to the Pivot Table Prompts drop target to create a prompt for the pivot table.

f. Click the **Display Results** button to display the results preview and drag the Layout pane below the preview in the editor.

g. In the Layout pane, drag **Generic** to the Columns drop target. Make sure that Generic is below Measure Labels.

h. Check your work:

i. Your results should look similar to the following:

Year 2008 ▼

| Customer - Region | Dollars | | |
	Brown Sugar	Powdered Sugar	White Sugar
⊟ Customer Total	$299,058	$113,529	$190,418
⊟ Central	$70,737	$17,756	$26,161
⊞ Gulf	$2,086	$1,140	$1,771
⊞ LowerMidWest	$20,814	$5,789	$11,302
⊞ MidWest	$9,472	$3,664	$5,346
⊞ Texas	$36,668	$5,827	$6,069
⊞ UpperMidWest	$1,698	$1,336	$1,674
⊞ East	$152,494	$59,709	$81,377
⊞ West	$75,827	$36,064	$82,879

j. Move your cursor over the Dollars measure label, select its handle, and drag it below the column titles:

Year 2008 ▼

| Customer - Region | Brown Sugar | Powdered Sugar | White Sugar |
	Dollars	Dollars	Dollars△▽
⊟ Customer Total	$299,058	$113,529	$190,418
⊟ Central	$70,737	$17,756	$26,161
⊞ Gulf	$2,086	$1,140	$1,771
⊞ LowerMidWest	$20,814	$5,789	$11,302
⊞ MidWest	$9,472	$3,664	$5,346
⊞ Texas	$36,668	$5,827	$6,069
⊞ UpperMidWest	$1,698	$1,336	$1,674
⊞ East	$152,494	$59,709	$81,377
⊞ West	$75,827	$36,064	$82,879

k. Move the Dollars measure label back to its original position.

2. Add sorts to the pivot table. Because your analysis includes a hierarchical column on the row edge, you can sort members, measures, and rows.

a. Sort the members in the hierarchy using the header cell. Click the **Sort Descending** caret ▽

| Customer - Region△▽ | Dollars | | |
	Brown Sugar	Powdered Sugar	White Sugar
⊟ Customer Total	$299,058	$113,529	$190,418
⊟ Central	Sort Descending 0,737	$17,756	$26,161
⊞ Gulf	$2,086	$1,140	$1,771
⊞ LowerMidWest	$20,814	$5,789	$11,302
⊞ MidWest	$9,472	$3,664	$5,346
⊞ Texas	$36,668	$5,827	$6,069
⊞ UpperMidWest	$1,698	$1,336	$1,674
⊞ East	$152,494	$59,709	$81,377
⊞ West	$75,827	$36,064	$82,879

b. Your results should look similar to the following. Notice that sorting descending on the header cell applied sorting descending to all members of the hierarchy.

Customer - Region △▽	Dollars		
	Brown Sugar	Powdered Sugar	White Sugar
⊟ Customer Total	$299,058	$113,529	$190,418
⊟ West	$75,827	$36,064	$82,879
⊟ Northwest	$10,878	$6,878	$4,276
⊟ COREG EADES	$4,181	$3,072	$772
Royal Lunch	$1,566	$1,602	$176
Genny Anne Corp	$2,615	$1,470	$596
⊞ ALAN ZIFF	$6,697	$3,806	$3,504
⊞ Desert	$37,117	$10,727	$9,059
⊞ California	$27,832	$18,459	$69,545
⊟ East	$152,494	$59,709	$81,377
⊞ Yankee	$90,127	$40,395	$48,657
⊞ UpperSouth	$44,072	$8,996	$24,044
⊞ MidAtlantic	$14,104	$7,659	$6,242
⊞ Florida	$4,191	$2,659	$2,435
⊟ Central	$70,737	$17,756	$26,161
⊞ UpperMidWest	$1,698	$1,336	$1,674
⊞ Texas	$36,668	$5,827	$6,069

c. Select **Sort Columns Descending** for Customer Total. Notice that by sorting descending on Customer Total, Dollars for lower members in the hierarchy is not sorted ascending or descending.

Customer - Region △▽	Dollars		
	Brown Sugar	White Sugar	Powdered Sugar
⊟ Customer Total ◁ ▷	$299,058	$190,418	$113,529
⊟ West	$75,827	$82,879	$36,064
⊟ Northwest	$10,878	$4,276	$6,878
⊟ COREG EADES	$4,181	$772	$3,072
Royal Lunch	$1,566	$176	$1,602
Genny Anne Corp	$2,615	$596	$1,470
⊞ ALAN ZIFF	$6,697	$3,504	$3,806
⊞ Desert	$37,117	$9,059	$10,727
⊞ California	$27,832	$69,545	$18,459
⊞ East	$152,494	$81,377	$59,709
⊞ Central	$70,737	$26,161	$17,756

d. Click the **Sort Columns Ascending** caret ◁ to set an ascending sort on the West region using the single column on the row edge. Notice that the Generic columns are rearranged to match the column sort. Notice that the columns on the other edge are resorted.

Customer - Region △▽	Dollars		
	Powdered Sugar	Brown Sugar	White Sugar
⊟ Customer Total	$113,529	$299,058	$190,418
⊞ West ◁ ▷	$36,064	$75,827	$82,879
⊞ East ◁ ▷	$59,709	$152,494	$81,377
⊞ Central	$17,756	$70,737	$26,161

e. Experiment with other sorts on various edges of the pivot table.

3. Add totals to the pivot table.

   a. Return to the Layout pane, click the **Totals** button Σ in the Columns drop target and select **After**.

   b. Click the **Totals** button in the Rows drop target and select **After**.

   c. Your results should look similar to the following:

	Dollars			Dollars
	Powdered Sugar	Brown Sugar	White Sugar	
Customer - Region △▽				
⊟ Customer Total	$113,529	$299,058	$190,418	**$603,005**
⊟ West ◁ ▷	$36,064	$75,827	$82,879	**$194,770**
⊞ Northwest	$6,878	$10,878	$4,276	**$22,032**
⊞ Desert	$10,727	$37,117	$9,059	**$56,903**
⊞ California	$18,459	$27,832	$69,545	**$115,835**
⊞ East	$59,709	$152,494	$81,377	**$293,580**
⊞ Central	$17,756	$70,737	$26,161	**$114,655**
Grand Total	**$113,529**	**$299,058**	**$190,418**	**$603,005**

4. Override the default aggregation rule for the Dollars measure. The default aggregation rule is specified in the Oracle BI repository, or by the original author of a report. In this example, the default aggregation rule for Dollars is SUM.

   a. Navigate to the California sales district and note that the total dollar amount for the California sales district is **$115,835**. Compare this value with the value after you override the default aggregation rule in the next steps.

   b. In the Layout pane, click the **More Options** button 🔖 for the Dollars measure.

   c. Select **Aggregation Rule > Average**.
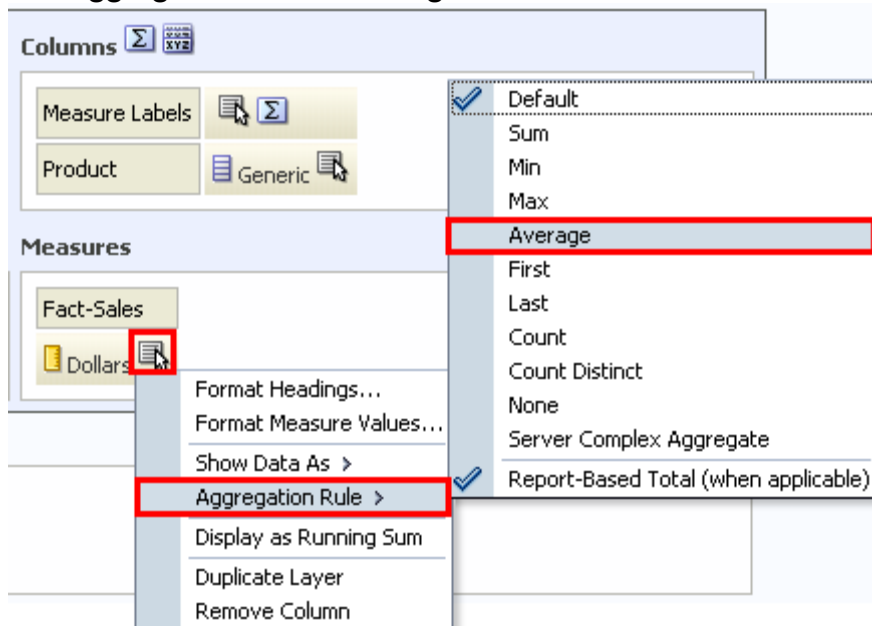
d. Check your results. Notice that the total dollar amount for all sales districts is now the average rather than the sum. For example, the total dollar amount for California is **$38,612**.

	Dollars			Dollars
	Powdered Sugar	Brown Sugar	White Sugar	
Customer - Region △▽				
⊟ Customer Total	$113,529	$299,058	$190,418	$201,002
⊟ West ◁▷	$36,064	$75,827	$82,879	$64,923
⊞ Northwest	$6,878	$10,878	$4,276	$7,344
⊞ Desert	$10,727	$37,117	$9,059	$18,968
⊞ California	$18,459	$27,832	$69,545	$38,612
⊞ East	$59,709	$152,494	$81,377	$97,860
⊞ Central	$17,756	$70,737	$26,161	$38,218
Grand Total	**$113,529**	**$299,058**	**$190,418**	**$201,002**

e. Experiment with some of the other available aggregation rules and notice how the value changes for total dollars.

f. After you finish, reset the aggregation rule to **Default** (which is set to Sum).

5. Add green bar styling and formatting to the Pivot table to make it more visually appealing.

a. Click the **Pivot Table View Properties** button 🔢 on the editor's toolbar. The Pivot Table Properties dialog box appears.

b. Select the **Enable alternating row "green bar" styling** option.

c. In the Alternate drop-down list, select **All Columns**.

d. If desired, click the **Set alternate format** button 🖼 to modify the formatting of the alternating rows.

e. Click **OK** to close the Pivot Table Properties dialog box.

f. Check your work. Your results should look similar to the following:

	Dollars			Dollars
	Powdered Sugar	Brown Sugar	White Sugar	
Customer - Region △▽				
⊟ Customer Total	$113,529	$299,058	$190,418	$603,005
⊟ West ◁▷	$36,064	$75,827	$82,879	$194,770
⊞ Northwest	$6,878	$10,878	$4,276	$22,032
⊞ Desert	$10,727	$37,117	$9,059	$56,903
⊞ California	$18,459	$27,832	$69,545	$115,835
⊞ East	$59,709	$152,494	$81,377	$293,580
⊞ Central	$17,756	$70,737	$26,161	$114,655
Grand Total	**$113,529**	**$299,058**	**$190,418**	**$603,005**

6. Add formatting for sections and section content. Include the column heading, set a page break for each time the section changes, and retain the default behavior, which is suppressing blank rows in the sections.

a. Move the **Year** column from Pivot Table Prompts to the Sections drop target. Notice that the Pivot table is now divided into two sections, one for each year.

b. In the Layout pane, click the **Section Properties** button 🔢 in the Sections drop target.

c. In the Insert Page Break drop-down list, select **Innermost Column**. Note that because you have only one column breaking the sections up, there is no difference in selecting

Innermost and Outermost Column. Also note that when you have more than two columns, you can determine the page break by selecting the column name—for example, Time.Year.

 d. Select the **Display Heading** option to display the section heading.

 e. Click **OK** to close the Section Properties dialog box.

 f. Check your work. Your results should look similar to the following:

7. Show dollars as a percentage of the total for each section.

 a. In the Layout pane, click the **More Options** button for **Dollars**.

 b. Select **Duplicate Layer**.
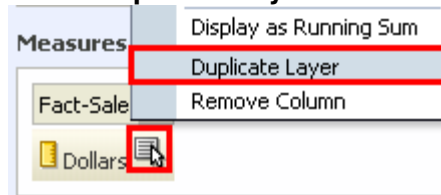
 c. Click the **More Options** button for the duplicate Dollars column that you just created, and select **Format Headings**. The Edit Format dialog box appears.

 d. In the Caption field, enter `% Dollars`.

 e. Click **OK**.

 f. Click the **More Options** button for % Dollars, and select **Show Data As > Percent of > Section**.
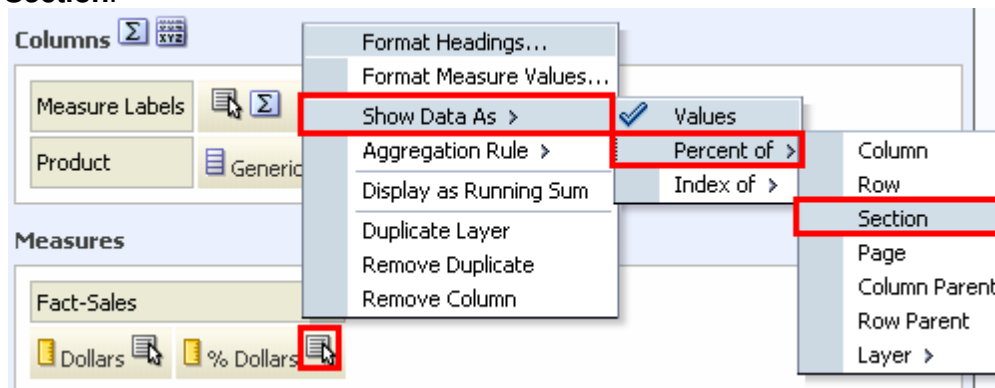
g. Your results should look similar to the screenshot. % Dollars displays the percentage of the section in which it is included. For example, in the Year 2008 section, the West region sold 13.7 percent of all of the White Sugar sold in that year, and 32.3 percent of all the sugar sold in that year.

Year 2008

	Dollars			% Dollars			Dollars	% Dollars
Customer - Region	Powdered Sugar	Brown Sugar	White Sugar	Powdered Sugar	Brown Sugar	White Sugar		
⊟ Customer Total	$113,529	$299,058	$190,418	18.8%	49.6%	31.6%	$603,005	100.0%
⊟ West ◁ ▷	$36,064	$75,827	$82,879	6.0%	12.6%	13.7%	$194,770	32.3%
⊞ Northwest	$6,878	$10,878	$4,276	3.5%	5.6%	2.2%	$22,032	11.3%
⊞ Desert	$10,727	$37,117	$9,059	5.5%	19.1%	4.7%	$56,903	29.2%
⊞ California	$18,459	$27,832	$69,545	9.5%	14.3%	35.7%	$115,835	59.5%
⊞ East	$59,709	$152,494	$81,377	9.9%	25.3%	13.5%	$293,580	48.7%
⊞ Central	$17,756	$70,737	$26,161	2.9%	11.7%	4.3%	$114,655	19.0%
Grand Total	$113,529	$299,058	$190,418	18.8%	49.6%	31.6%	$603,005	100.0%

8. Build a calculation that identifies combined dollar sales and percentages for powdered sugar and white sugar only.

a. In the Layout pane, click the **More Options** button for the Generic column.

b. Select **New Calculated Item**. The Calculated Item dialog box appears.

c. In the Display Label field, enter `Powdered & White`.

d. In the Function drop-down list, select **Sum**.

e. In the Available list, select the **Powdered Sugar** and **White Sugar** values and add them to the Selected list. Use the Search button 👓 to narrow the available members for your selection.

f. Click **OK**.

g. Verify that the calculated item is included in the results. There should be one calculated item for Dollars and one for % Dollars. The results show combined dollar sales and percentages for powdered sugar and white sugar only. For example, in Year 2008, combined sales of powdered sugar and white sugar in the West region was $118,943, which is 19.7% of all the sugar sold in that year.

Year 2008

Customer - Region ⬧	Dollars				% Dollars			
	Powdered Sugar	Brown Sugar	White Sugar	Powdered and White	Powdered Sugar	Brown Sugar	White Sugar	Powdered and White
⊟ Customer Total	$113,529	$299,058	$190,418	$303,947	18.8%	49.6%	31.6%	50.4%
⊞ West ◁ ▷	$36,064	$75,827	$82,879	$118,943	6.0%	12.6%	13.7%	19.7%
⊞ East	$59,709	$152,494	$81,377	$141,086	9.9%	25.3%	13.5%	23.4%
⊞ Central	$17,756	$70,737	$26,161	$43,917	2.9%	11.7%	4.3%	7.3%
Grand Total	**$113,529**	**$299,058**	**$190,418**	**$303,947**	**18.8%**	**49.6%**	**31.6%**	**50.4%**

h. Click **Done**.

i. Save the analysis as `My Pivot Table` in the My Sales folder.

Practice 9-2: Displaying Running Sums in Pivot Tables

Goal

In this practice, you display running sums in a Pivot table.

Scenario

You display a running sum for dollars from January through December of 2008, and a running sum for percentage of dollars from January through December of 2008.

Time

15-20 minutes

Task

You now build a pivot table that contains running sums for revenue throughout each month of the year 2008. You also create running sums of the percentage of revenue for the year for each month.

1. Use the B – Supplier Sales subject area to create the following analysis and associated filters.
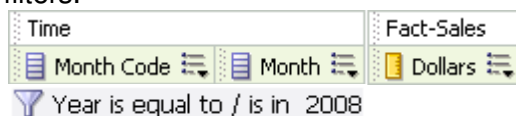
   Note: Use the **Create a Filter** button in the Filters pane to select the Year column from the SupplierSales subject area for your filter, so that it is not added to the selected columns for the analysis.

2. Set an ascending sort on the Month Code column, and then hide the column so that it does not appear in the results.

   a. Click the **More Options** button for the Month Code column and select **Sort > Sort Ascending**.

   b. Click the **More Options** button for the Month Code column and select **Column Properties**. The Column Properties dialog box appears.

   c. On the **Column Format** tab, select the **Hide** option.

   d. Click **OK**.

3. Add a pivot table with totals.

   a.   Click the **Results** tab. Because the analysis contains attribute columns, but no hierarchy columns, the Compound Layout defaults to a table view.

Month	Dollars
January	$3,717,076
February	$4,037,689
March	$4,074,544
April	$3,994,162
May	$4,151,576
June	$4,061,423
July	$4,136,359
August	$4,318,048
September	$3,935,722
October	$4,717,126
November	$3,727,565
December	$4,157,297

   b.   Click the **New View** button and select **Pivot Table**.

   c. Click the **Edit View** button for the Pivot Table view to open the Pivot Table Editor.

   d.   For consistency, because you just hid the **Month Code** column on the Criteria tab, click its **More Options** button and select **Hidden**. Another approach would be to drag the column to the Excluded drop point.

   e.   Click the **Totals** button for Rows and select **After**.
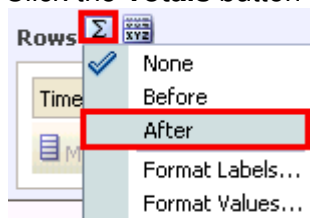
   f.   Check your results:

	Dollars
Month	
January	$3,717,076
February	$4,037,689
March	$4,074,544
April	$3,994,162
May	$4,151,576
June	$4,061,423
July	$4,136,359
August	$4,318,048
September	$3,935,722
October	$4,717,126
November	$3,727,565
December	$4,157,297
Grand Total	**$49,028,587**

4. Build a running sum column for the Dollars measure.

   a.   Click the **More Options** button for the Dollars measure and select **Duplicate Layer**.

   b.   Click the **More Options** button for the duplicate Dollars column and select **Format Headings**. The Edit Format dialog box appears.

c. In the Caption field, enter `Running Sum Dollars`.

d. Click **OK**.
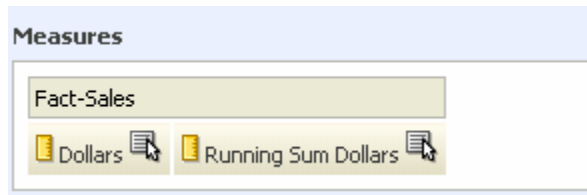
e. Click the **More Options** button for Running Sum Dollars and select **Display as Running Sum**.
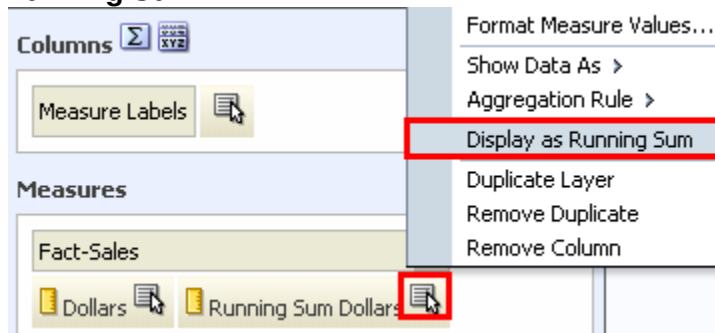
f. Notice that the Running Sum Dollars column now displays a running sum for dollars for each month from January through December of 2008, calculating a sum for the current month and the ones preceding it in the analysis. For example, the running sum for January is the same as the basic total for January, whereas the running sum for February is the total for January and February, and so on.

Month	Dollars	Running Sum Dollars
January	$3,717,076	$3,717,076
February	$4,037,689	$7,754,765
March	$4,074,544	$11,829,308
April	$3,994,162	$15,823,470
May	$4,151,576	$19,975,046
June	$4,061,423	$24,036,469
July	$4,136,359	$28,172,828
August	$4,318,048	$32,490,876
September	$3,935,722	$36,426,598
October	$4,717,126	$41,143,725
November	$3,727,565	$44,871,289
December	$4,157,297	$49,028,587
Grand Total	$49,028,587	$49,028,587

5. Build two additional columns to display the percentage and running sum for percentage.

a. Duplicate the **Dollars** measure again and change the new column's caption to `% Dollars`.

b. Click the **More Options** button for the % Dollars column and select **Show Data As >
Percent of > Column**. The column displays the percentage of total revenue earned in
each month.

Month	Dollars	Running Sum Dollars	% Dollars
January	$3,717,076	$3,717,076	7.6%
February	$4,037,689	$7,754,765	8.2%
March	$4,074,544	$11,829,308	8.3%
April	$3,994,162	$15,823,470	8.1%
May	$4,151,576	$19,975,046	8.5%
June	$4,061,423	$24,036,469	8.3%
July	$4,136,359	$28,172,828	8.4%
August	$4,318,048	$32,490,876	8.8%
September	$3,935,722	$36,426,598	8.0%
October	$4,717,126	$41,143,725	9.6%
November	$3,727,565	$44,871,289	7.6%
December	$4,157,297	$49,028,587	8.5%
Grand Total	$49,028,587	$49,028,587	100.0%

c. Duplicate the **% Dollars** measure and change the new column's caption to `Running
Sum % Dollars`.

d. Click the **More Options** button for the Running Sum % Dollars column and select
Display as Running Sum. The Running Sum % Dollars column now displays a
running sum for percentages through each month in the analysis.

Month	Dollars	Running Sum Dollars	% Dollars	Running Sum % Dollars
January	$3,717,076	$3,717,076	7.6%	7.6%
February	$4,037,689	$7,754,765	8.2%	15.8%
March	$4,074,544	$11,829,308	8.3%	24.1%
April	$3,994,162	$15,823,470	8.1%	32.3%
May	$4,151,576	$19,975,046	8.5%	40.7%
June	$4,061,423	$24,036,469	8.3%	49.0%
July	$4,136,359	$28,172,828	8.4%	57.5%
August	$4,318,048	$32,490,876	8.8%	66.3%
September	$3,935,722	$36,426,598	8.0%	74.3%
October	$4,717,126	$41,143,725	9.6%	83.9%
November	$3,727,565	$44,871,289	7.6%	91.5%
December	$4,157,297	$49,028,587	8.5%	100.0%
Grand Total	$49,028,587	$49,028,587	100.0%	100.0%

e. Click **Done**.

f. Delete the Table view from the Compound Layout and save the analysis as `My
Running Sum Table` in the My Sales folder.

Practices for Lesson 10: Measuring Results with Key Performance Indicators

Chapter 10

Practices for Lesson 10: Overview

Practices Overview

In this practice, you create a KPI and a stand-alone KPI watchlist.

Practice 10-1: Measuring Results with KPIs

Goal

In this practice, you create a KPI and stand-alone KPI Watchlist.

Scenario

KPIs are metrics to measure the performance of an organization relative to its strategic objectives. Create a KPI against ordered and shipped units, and then create a KPI Watchlist. Set dimensionality for product suppliers for your customers, customer region, and time.

Time

25-30 minutes

Task

1. Create a new KPI.

    a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    b. In the Global Header, select **New** > **KPI**.

    c. Select the **B - SupplierSales** subject area. The KPI Wizard appears.

2. Set General properties. The General Properties pane enables you to assign the business owner responsible for the KPI, include actual and target values for the KPI, and trend your data.

    a. In the Description field, enter `Compare units shipped with units ordered and trend on percentage change by quarter`.

    b. Leave the Business Owner set as it is.

    c. In the Actual Value drop-down list, expand the **Fact-Sales** folder and select **Units Shipped**.

    d. In the Target Value drop-down list, expand the **Fact-Sales** folder and select **Units Ordered**.

    e. Select the **Enable trending** option. The "Compare to prior" and Tolerance fields allow you to compare KPIs for prior periods and indicate an increase or decrease in performance.

    f. In the "Compare to prior" drop-down list, expand the **Time** folder and select **Quarter** to compare with the prior quarter.

    g. Enter `0.01` in the Tolerance field and select **% Change** from the drop-down list. The tolerance can be entered as a percent or an actual number that represents a difference (change) from the prior period. In this case, a tolerance of 1% is acceptable before the value is considered to be worsening or improving.

h. Check your work in the General Properties pane:

General Properties

A KPI is based on comparing actual and target performance. Define the source of actual and target values for this KPI.

Description	Compare units shipped with units ordered and trend on percentage change by quarter.
Business Owner	weblogic
Actual Value	"Fact-Sales"."Units Shipped" ▼ *fx* Writable ☐
Target Value	"Fact-Sales"."Units Ordered" ▼ *fx* Writable ☐
Data Format	(987,654,321.99) ✎

☑ Enable trending

|	
Compare to prior	"Time"."Quarter" ▼
Tolerance	0.01 % Change ▼

i. Click **Next** to navigate to the Dimensionality pane.

3. Set dimensionality for the KPI. The Dimensionality pane enables you to aggregate KPI values, target values, and ranges, using dimensions in the subject area. You can set specific values that essentially filter the results, a process called pinning. For this exercise, all dimensions should have the Not Pinned value.

a. Click **Add** to open the Add New Dimension dialog box.

b. Select **Time > Year** and click **OK** to add the dimension and column to the list of dimensions to qualify. You can also double-click the column to add it.
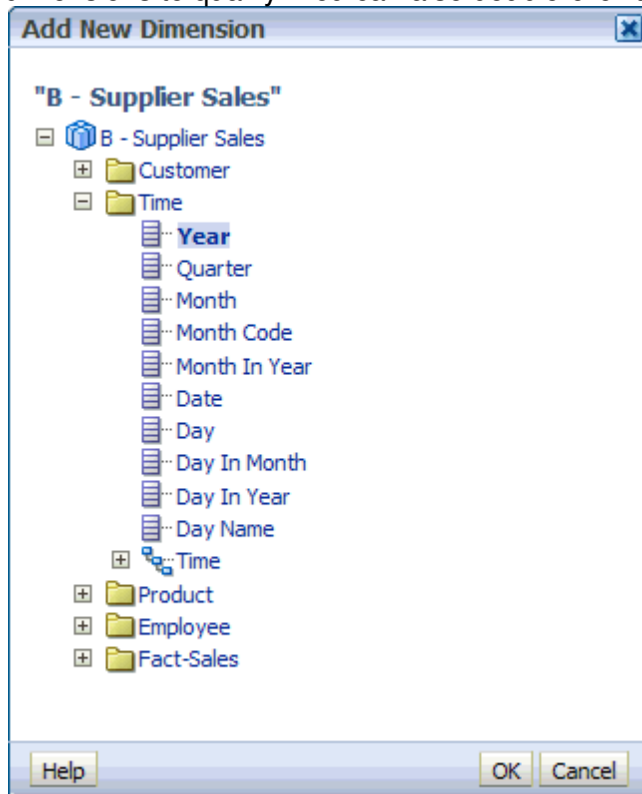
c. Add **Customer.Region**, **Customer.Customer**, **Product.Supplier**, and **Product.Generic** to the list of dimensions. Check your work:

d. Click **Next** to open the States pane.

4. Define KPI state. KPI status is determined by comparing the specified actual and target values and assigning the result to a range. The States pane enables you to indicate whether high, low, or target values are desirable; to specify statuses, symbols, and range thresholds for evaluating performance; to create or assign actions based on KPI status, and so on.

a. The Goal section provides a drop-down list that indicates how to evaluate the performance, whether high or low values are desirable, or if you wish to set a specific target value. Ensure that the default, **High Values are Desirable**, is selected.

b. The Thresholds section allows you to specify numerical values or measures that separate performance levels. Verify that **Thresholds** is checked and **define as % of target value** is selected. The alternative allows you to set measure values or use formulas in your thresholds.

c. The first threshold, which determines when the Warning status is applied, indicates by default that any amount 100% or greater is to be assigned a status of OK. Anything between 90% and 100% applies the Warning status. Note that, by default, the Critical status is applied to anything below 90%.

d. To add a new threshold and status, select the **Show advanced properties** option. This option allows you to add and delete status labels and corresponding thresholds, and to assign scores for the statuses, which map a value or function for use in Oracle BI Scorecard for determining objective and initiative scores.

e. Click the **Add threshold** button ✚ next to the Critical status and select **Add Below** to add a new threshold. Note that the default scores assigned to the statuses are redistributed to allow for the additional status.

f. Because the new threshold defaults automatically to 10% below the previous threshold, it is already set to the desired 80% for the application of a Super Critical status. In the Status Label for the new status, change Critical 2 to `Super Critical`.

g. Change the color for the Critical status from red to **orange** using the Color Selector.

h. Click the **red X** symbol for Super Critical to open the Graphics dialog box to change the symbol for the Super Critical status from a red X to a red flag.

i. Click the **Checkered Flag** icon to view the set of symbols for that icon and select the **red flag** option.
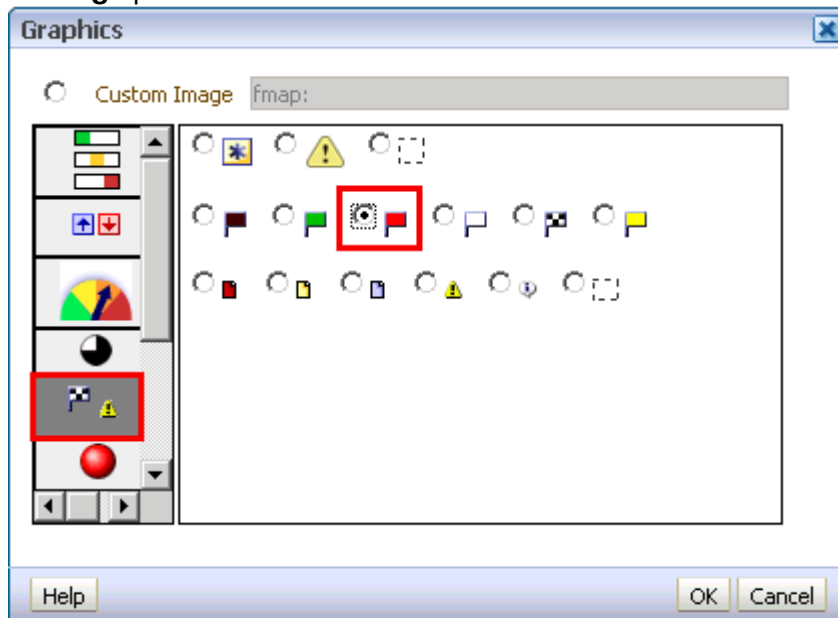
j. Click **OK**.

k. Deselect **Show Advanced Properties**.

l. Change the thresholds to **95%**, **85%**, and **75%**.

m. Check your work:

n. Click **Next** to open the Related Documents pane.

5. The Related Documents pane enables you to view and add links to BI objects and web pages that provide additional information about the KPI. Explore this pane.

a. Click the **Add** button. The Add a Related Document dialog box appears.

b. By default, you can add a BI object by browsing the Presentation Catalog. You can also link to an available web page using the full relative path. Click **Browse** and select the **Sales by State** analysis from the My Sales folder.

c. Name the related document **Sales by State analysis**.

d. Click **OK** to close the Add a Related Document dialog box.

e. Click **Next** to open the Custom Attributes pane.

6. The Custom Attributes pane allows you to create custom columns for the KPI. You can add a maximum of five custom columns. Explore this pane.

a. Click the **Add** button to add a custom attribute. You can provide a label for the attribute in the Label field.

b. In the Formula field for the attribute, click the down-arrow icon to select a column from the subject area to use in the attribute formula. Select the **Units Shipped** measure in the Fact-Sales folder.

c. You can use the **Formula** button to create and edit formulas with your custom attributes. For example, you can use time series functions to look at year ago units shipped.

d. Click **Remove** to remove the custom attribute, because it is not required for this KPI.

e. Click **Finish** and, in the Save As dialog box, save the KPI as `Units Ordered` in the My Sales folder.

f. Navigate to the Home page. You should see your KPI in the Recent section. Notice the "traffic light" icon for the KPI.
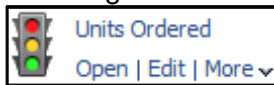
g. Click the **Open** link to run the KPI. Your results should look similar to the screenshot. Notice that most results fall within the OK (green) status, which indicates performance is above 95% of the target value.

Year	Region	Customer	Supplier	Generic	Actual	Target	Status	Variance	% Variance
2008	Central	2nd & Goal Sports Cafe	Arthur's	American Cheese Slices	1,027.00	1,045.00	✓	(18.00)	-2
				Cheddar Cheese	606.00	639.00	⚠	(33.00)	-5
				Egg Substitute	44.00	41.00	✓	3.00	7
				Key Lime Pie Filling	6.00	6.00	✓	0.00	0
				Lime Jello	3.00	3.00	✓	0.00	0
				Lo-Cal Pudding	16.00	14.00	✓	2.00	14
				Macaroni and Cheese	20.00	20.00	✓	0.00	0
				Pudding	46.00	45.00	✓	1.00	2
				Whipped Creme	7.00	5.00	✓	2.00	40
				Whipped Topping	393.00	370.00	✓	23.00	6
			Cook-in-Time	Balsamic Vinegar	12.00	12.00	✓	0.00	0
				Blackened Cajun Seasoning	2.00	2.00	✓	0.00	0
				Chorrizo Sausage	2.00	2.00	✓	0.00	0
				Cooking Wine	0.00	0.00	⚑	0.00	
				Frozen Leg of Lamb	1.00	1.00	✓	0.00	0
				HowNow Mud Pie	6.00	7.00	⚠	(1.00)	-14

h. Navigate to the results for customer **2nd & Goal Sports Café**, supplier **Arthur's**. Notice that Arthur's was not able to meet the requirements for Cheddar Cheese. That is, instead of the required target of 639 ordered units, they shipped an actual amount of 606 units. Because the variance from target is -5% (95% of target), the threshold is met for the Warning (yellow) status.

i. Navigate to the results for customer **2nd & Goal Sports Café**, supplier **Hearth**. Notice that Hearth was not able to meet the requirements for Yellow Cake Mix. That is, instead of the required target of 23 ordered units, they shipped an actual amount of 18. Because the variance from target is -22% (78% of target), the threshold is met for the Critical (orange) status.

j. Navigate to the results for customer **Acropolis Restaurant**, supplier **White**. Notice that White was not able to meet the requirements for Peppermint Mints. That is, instead of the required target of 19 ordered units, they shipped an actual amount of 13. Because the variance from target is -32% (68% of target), the threshold is met for the Super Critical (red) status.

7. Create a stand-alone KPI Watchlist. A KPI Watchlist is a collection and performance status report of KPIs to measure the progress of objectives or initiatives.

a. On the Home page, click the **KPI Watchlist** link under Performance Management in the Create section. A new watchlist appears.

b. In the Catalog pane, navigate to the **Units Ordered** KPI.

c. Drag the **Units Ordered** KPI from the Catalog pane to the Performance tab. The Add KPI dialog box appears.

d. In the Add KPI dialog box, you can select the specific value, assume the entire point-of-view (also known as the stakeholder category), or enter a variable. To select a value or variable, other than the entire point-of-view, you would click the drop-down list icon. For this practice, leave each value set to Use Point-of-View. By not pinning the Point-of-View, all values for the dimension become available to the end user for analysis.

e. By default, Units Orders should appear as the label. If not, enter `Units Ordered` as the label.

f. Click **OK**. The KPI Watchlist refreshes. Your KPI Watchlist should look similar to the screenshot (note that the screenshot does not include the entire watchlist).

g. The Point-of-View bar enables you to analyze the dimensionality of other columns. You can also toggle forward and backward by using the clock icons.

h. Select the following values from the Point-of-View bar:

Column Name	Value to Select
Time.Year	**2008**
Customer.Region	**Central**
Customer.Customer	**Acropolis Restaurant**
Product.Supplier	**White**
Product.Generic	**Peppermint Mints**

i. Notice that the results match those in the KPI and status is Super Critical.

Acropolis Restaurant ⌄	Central ⌄	Peppermint Mints ⌄	White ⌄	2008 ⌄

Objects ⌄ View ⌄							Su
Label	Status	Trend	Actual	Target	Variance	% Variance	
🚦 Units Ordered	🚩		13.00	19.00	(6.00)	-31.58%	
	Super Critical						

j. Change the Point-of-View bar from 2008 to **2009**. Notice that the status of the results is now OK.

Objects ⌄ View ⌄				
Label	Status	Trend	Actual	Target
🚦 Units Ordered	✓	⬇	3.00	3.00
	OK			

k. Use the clock icons to navigate to previously viewed dimensions and values and manipulate the Point-of-View bar to experiment with the KPI Watchlist.

l. Click **Show More Buttons** to display the Save button and save the KPI Watchlist as `KPI Watchlist` in the My Sales folder.

m. Navigate to the Home page. You should see your KPI Watchlist in the Recent section.

KPI Watchlist
Open | Edit | More ⌄

Practices for Lesson 12: Administering the Presentation Catalog

Chapter 12

Practices for Lesson 12: Overview

Practices Overview

In these practices, you administer the Oracle BI Presentation Catalog.

Practice 12-1: Administering Presentation Catalog Objects and Permissions with Users and Roles

Goal

In this practice, you administer access to objects in the Presentation Catalog, modify system privileges, and manage permissions for users and roles.

Scenario

You are the Oracle Business Intelligence administrator and must manage access and permissions for analyses, dashboards, and other objects so that users see only the appropriate information.

Time

15-20 minutes

Task

1. Sign in as a new user, Brian Berry, to authenticate the user.

    If necessary, start Oracle Business Intelligence Presentation Services. If Oracle Business Intelligence Presentation Services is already open, click **Sign Out** and then sign back in as `BBERRY` with password `BBERRY12`. This user has already been added to the Oracle BI security realm for this training environment.

    b. Verify that you are logged in as BBERRY. The current user is indicated at the far right of the Global Header.

2. Examine the roles assigned to BBERRY.

    a. Click **BBERRY** in the Global Header and select **My Account**.

    b. On the Preferences tab of the My Account dialog box, notice that the Starting Page is currently set to My Dashboard. Explore some of the other settings available on the Preferences tab.

    c. Click the **Roles and Catalog Groups** tab.

    d. Notice the system security roles assigned to BBERRY: BI Consumer Role and BI Author Role. These roles are default roles provided with Oracle Business Intelligence. These roles were assigned to this user as part of the training environment. A user assigned to BI Author Role is implicitly assigned to BI Consumer Role.

    e. Click **Cancel**.

    f. Click **Sign Out**.

3. Examine the roles assigned to an administrative user.

    a. Sign back in to Oracle BI using your username and password as provided by the instructor.

    b. Notice that an **Administration** link now appears in the Global Header. This is because your user has been assigned the BI Administrator Role.

    c. Select **<username> > My Account** to open the My Account dialog box.

d. Click the **Roles and Catalog Groups** tab.

e. Examine the roles assigned to the administrative user:
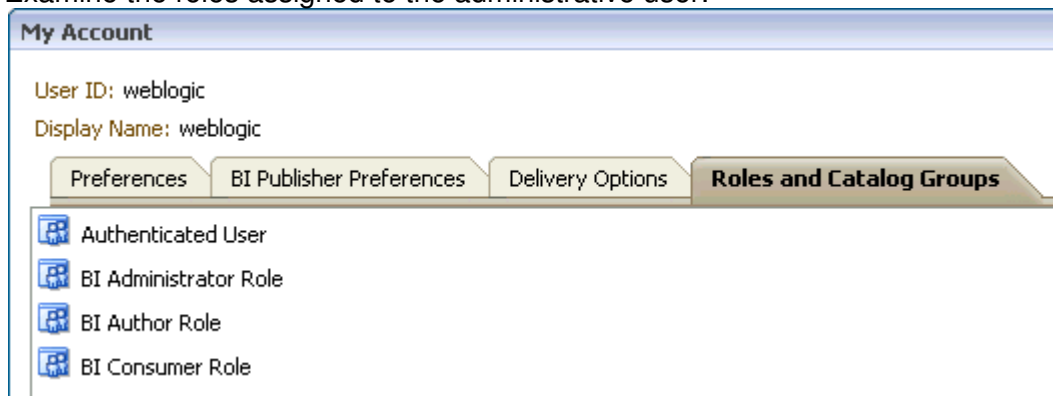
The user is an administrative user. This user is a member of the BI Administrators group, which is granted the BI Administrator Role, which in turn has the most expansive object permissions and system privileges assigned to it. The recommended methodology for assigning permissions is to use roles. The following three roles are provided as system roles in a default installation of BI EE:

BI Administrator Role: Grants administrative permissions necessary to configure and manage the Oracle Business Intelligence installation. Any member of the BI Administrators *group* is explicitly granted this role and implicitly granted the BI Author Role and BI Consumer Role.

BI Author Role: Grants permissions necessary to create and edit content for others to consume. Any member of the BI Authors *group* is explicitly granted this role and implicitly granted the BI Consumer Role.

BI Consumer Role: Grants permissions necessary to consume content created by others. Any member of the BI Consumers *group* is explicitly granted this role.

f. Click **Cancel** to close the My Account dialog box.

4. Explore the permissions for an analysis.

a. Click the **Catalog** link in the Global Header to navigate to the Catalog page.

b. In the Folders pane, select **My Folders > My Sales**.

c. In the object list, select the **Ranked Sales by State** analysis.

d. Notice that when you select an object in the catalog, the Tasks pane is populated with options that you can click to use, modify, or link to the object. Depending on your permissions, you can perform different tasks for a selected object. Some of these include creating shortcuts to an object for reference in other parts of the catalog, copying, renaming, archiving, and restoring. Explore the options available in the Tasks pane, and note that these are also available by clicking the More link for an object on the Catalog page or on the Home page.
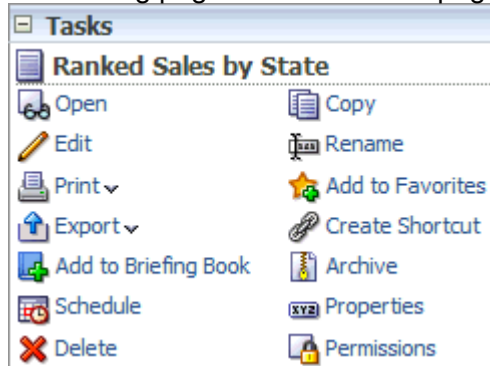
e. Click the **Permissions** task to set permissions on the analysis. After being created, a catalog object inherits the permissions set on the folder it is saved in. Therefore, for example, saving an analysis or dashboard in a shared folder would automatically make it available to other users with the appropriate role in the organization.

f. In the Permission dialog box, notice that the permissions are currently limited to the user who created the object. By default, the permissions for the object are set to Custom.
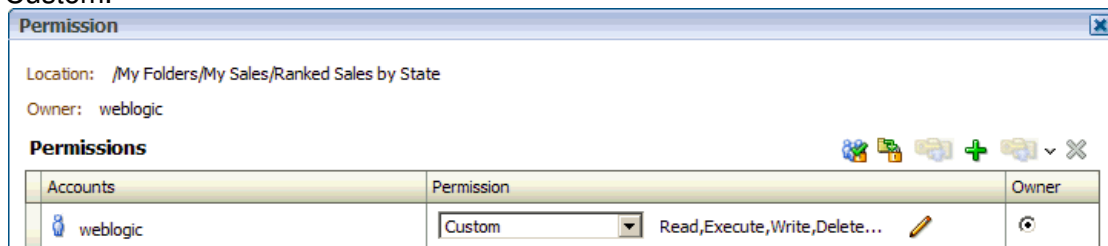
g. Click the **Edit** button ✎ to examine the custom settings that are applied by default for the object owner. The Custom Permissions dialog box appears, with the current custom permissions selected. Notice that all permissions are available for the object except Change Permissions and Set Ownership.
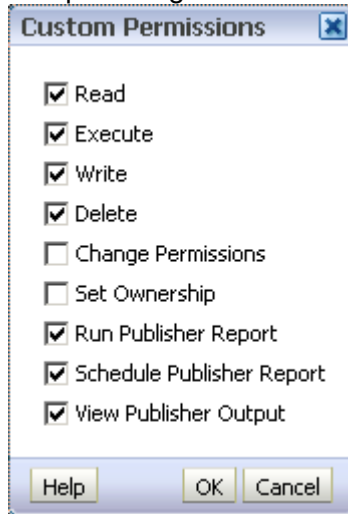
h. Click **Cancel**.

i. Click the **Permission** drop-down list and examine the different permissions you can assign to the object. Note that because you are working with analysis permissions, you do not see the Traverse permission, which is available for Catalog folders, and allows users to traverse the folder in the catalog.
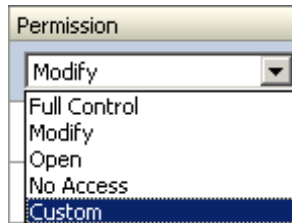
j. Select **Full Control**.

k. Click the **Replace with parent folder permissions** button ⧉ to reapply the folder permissions to the object, and then click the **Edit** button to examine the custom settings again. The original permissions are inherited from the parent folder, without the permission to change permissions or to set ownership. The benefit of using parent permissions is that it maintains a baseline consistent security across any objects created in the Catalog folder.

l. Click **Cancel** to close the Custom Permissions dialog box.

m. Reset the permissions for the object to **Full Control**. Doing so makes explicit the implicit privilege to assign permissions and ownership to other users and roles. Note that although this explicit privilege would need to be added for another user, your user is an administrator and retains this privilege across the system.

5. Add the BI Administrator Role to the analysis with privileges to modify, but not delete or assign privileges or ownership for, the analysis.

   a. To begin, click the **Add Users/Roles** button ✚. The Add Application Roles, Catalog Groups and Users dialog box appears.

   b. Application Roles should be selected by default in the List drop-down list. If not, select **Application Roles** to list only roles.

   c. In the Name field, enter `BI Administrator` and then click **Search**.

   d. From the list, select **BI Administrator Role** and click the **Effective Permissions** button 🎮 to display the permissions for the available and selected members. The role should appear in the Available Members list with No Access permissions.

Accounts	Permissions
🖳 BI Administrator Role	No Access

   e. Select **Modify** from the "Set Permission to" drop-down list. This setting pertains to any roles, users, or groups that you add to the Selected Members list.

   f. Select **BI Administrator Role** and click the **Move** button to add it to the Selected Members list. Your dialog box should look similar to the screenshot below. Notice that in the Selected Members list, the BI Administrator Role still appears with No Access privileges, despite your addition of the role with the Modify permission. This is because until you close the dialog box and save the changes you made, the role appears with its current permissions displayed.

g. Click **OK**.

h. In the Permission dialog box, notice that the BI Administrator role now appears with Modify permissions. Recall, however, that you do not want to allow members with the BI Administrator Role to delete the analysis, and this is included in the Modify permissions.

Accounts	Permission			Owner
👤 weblogic	Full Control ▼	Full Control		⦿
🖼 BI Administrator Role	Modify ▼	Read,Write,Delete,Travers...	🔒	○

i. Select **Custom** from the drop-down list and, in the Custom Permissions dialog box, deselect the **Delete** permission.

Custom Permissions ☒

☑ Read
☑ Execute
☑ Write
☐ Delete
☐ Change Permissions
☐ Set Ownership
☐ Run Publisher Report
☐ Schedule Publisher Report
☐ View Publisher Output

Help   OK   Cancel
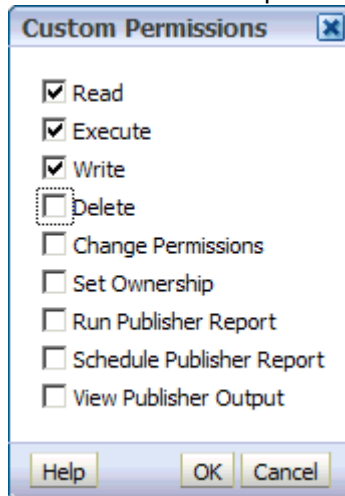
j. Click **OK** to close the Custom Permissions dialog box.

k. Notice that Delete no longer appears as a permission for BI Administrator Role.

Accounts	Permission			
👤 weblogic	Full Control ▼	Full Control		
🖼 BI Administrator Role	Custom ▼	Read,Execute,Write	✏	🔒

l. Click **OK** to close the Permission dialog box and save your changes.

6. Create a shortcut to the Ranked Sales by State analysis in Shared Folders so that the analysis is available to any users with appropriate permissions.

a. In the Folders pane, select **Shared Folders**.

b. In the toolbar, select **New > Folder** to open the New Folder dialog box.

c. Use your username to name the folder. For example, if the username provided by your instructor is weblogic, then name the folder `weblogic`. This is because in some Oracle University training environments multiple users will be accessing Shared Folders in the catalog. Naming a shared folder with your username will help you identify your objects in the catalog.

d. Click **OK** to close the New Folder dialog box.

e. Confirm that the folder with your username is added to Shared Folders in the Folders pane.

f. Select **My Folders > My Sales**.

g. Select the **Ranked Sales by State** analysis. Notice that the analysis name appears at the top of the Tasks pane to indicate the object on which any actions initiated in the Tasks pane are to be taken.

h. In the Tasks pane, click **Create Shortcut**.

i. Verify in the list that the new shortcut has been created. The shortcut should be automatically selected at the bottom of the object list. If not, select it.

Shortcut to Ranked Sales by State
Open | More ⌄

j. Drag the new shortcut from the list to **Shared Folders > <username>**.

k. Select **Shared Folders > <username>** and confirm that **Shortcut to Ranked Sales by State** is visible.

7. Explore another user's access to the shortcut object.

a. Sign out of Presentation Services and sign back in as Brian Berry using `BBERRY` as the username and `BBERRY12` as the password.

b. Navigate to the **Shared Folders > <username>** folder on the Catalog page.

c. Select **Shortcut to Ranked Sales by State**. The shortcut is visible because it is in a folder that is visible to any user with access to shared folders. However, notice also that limited links and tasks are available for the shortcut. For example, the Open link is not available. This user, Brian Berry, cannot open this analysis because the privileges were added to the BI Administrator Role and Brian Berry has only the BI Author Role and BI Consumer Role.

Shortcut to Ranked Sales by State
Properties | More ⌄
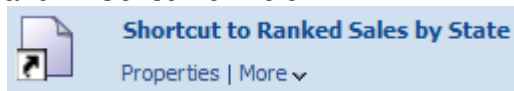
d. In the Tasks pane, notice that the only available option is to view this object's properties. All other options are disabled. The same is true for the More drop-down list.

8. Modify permissions for the analysis so that Brian Berry can use the shortcut to view and edit the analysis without being assigned the BI Administrator Role.

a. Sign out of Presentation Services and sign back in with your username and password.

b. Navigate to **My Folders > My Sales** and open the **Permission** dialog box for the **Ranked Sales by State** analysis.

c. Add the **BI Consumer Role** account with **Full Control**. Recall that BBERRY is a member of BI Consumer Role.

Accounts	Permission			Owner
BI Administrator Role	Custom	Read,Execute,Write	✏	○
weblogic	Full Control	Full Control		◉
BI Consumer Role	Full Control	Full Control	🔒	○

d. Members of BI Consumer Role do not have permission to access objects in your user's My Folders. To provide access, click the **Add Traverse Position Upstream** icon 🔒 in the Permission column next to BI Consumer Role. A check mark appears on the icon to indicate the change 🔒✓.

e. Click **OK** to save your changes.

f.   Sign out, and then sign back in with `BBERRY` as the username and `BBERRY12` as the password.

g.   On the Catalog page, navigate to Shared Folders > <username> and verify that the shortcut now includes the Open link.
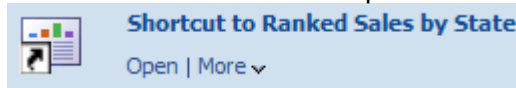
h.   In the Tasks pane, verify that Brian Berry now has wider privileges to work with the analysis.
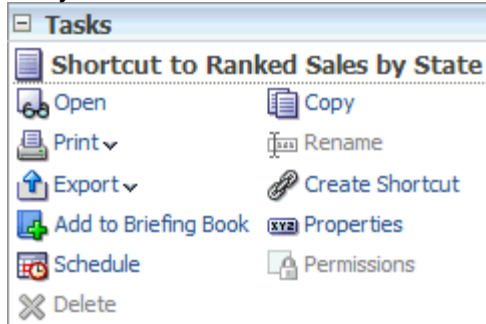
i.   Click **Open** to open the analysis.

j.   Notice that the analysis includes an Edit link at the bottom to open the analysis in the Analysis Editor. Click the **Edit** link to open the analysis in the Analysis Editor. Because Brian Berry has the BI Author Role, he has privileges to access the Analysis Editor, which allows him to open any analysis for which he has the appropriate permissions for editing.

9.   Change the privileges to deny the BI Author Role (and, with it, Brian Berry) access to the Analysis Editor. The other approach would be to have an administrator take the BI Author Role away from Brian Berry.

a.   Sign out of Presentation Services and sign back in with your username and password. If necessary, confirm that you do not want to save changes to the analysis.

b.   Click the **Administration** link. Recall that this link is available only to users with the BI Administrator Role.

c.   On the Administration page, under the Security section, click the **Manage Privileges** link.

d.   Review the privileges on the Manage Privileges page. By default, these privileges are assigned (and in some cases, explicitly denied) to roles, allowing for more streamlined management of system privileges. Specifically, notice that the Access to Answers privilege, which determines which users can access the Analysis Editor, is assigned to BI Author Role.

e. Click the **BI Author Role** link for the Access to Answers privilege.

Access	Access to Dashboards	BI Consumer Role
	Access to Answers	BI Author Role
	Access to Delivers	BI Author Role
	Access to Briefing Books	BI Consumer Role
	Access to Administration	BI Administrator Role
	Access to Segments	BI Consumer Role
	Access to Segment Trees	BI Author Role
	Access to List Formats	BI Author Role
	Access to Metadata Dictionary	BI Author Role
	Access to Oracle BI for Microsoft Office	BI Consumer Role
	Access to KPI Builder	BI Author Role
	Access to Scorecard	BI Consumer Role

f. In the Privilege dialog box, select Denied from the Permission drop-down list.

Privilege: Access to Answers

Hive: Access

Permissions

Accounts	Permission
BI Author Role	Granted
	Granted
	Denied

Help   OK   Cancel

g. Click **OK** and verify that the privilege is denied.

Access to Dashboards	BI Consumer Role
Access to Answers	**Denied:** BI Author Role
Access to Delivers	BI Author Role

h. Click the **Back** button on the right (not the browser back button) to save your changes.

i. Sign out.

j. Sign back in as `BBERRY/BBERRY12`.

k. On the Catalog page, open the **Ranked Sales by State** analysis by using the shortcut in Shared Folders > <username>.

l.   Click the **Edit** link at the bottom of the analysis. You should receive the following message.

ORACLE Business Intelligence

Access Prohibited
You are not currently authorized to use Oracle BI Answers.

If you would like to use this powerful capability, please contact this site's administrator.
Available Links: Dashboards
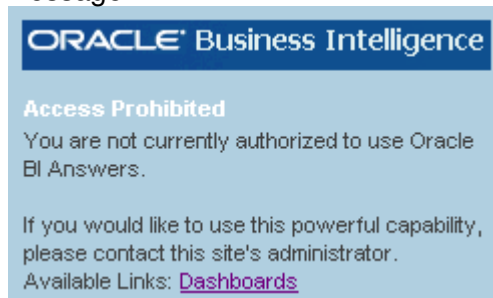
m.   Use the preceding steps to reverse your work and grant the Access to Answers privilege to BI Author Role.

Access to Dashboards	BI Consumer Role
Access to Answers	BI Author Role
Access to Delivers	BI Author Role

Practice 12-2: Working with Favorites

Goal

In this practice you work with favorites.

Scenario

Favorites functionality allows you to bookmark as favorites the catalog objects that you view regularly or want to view again at another time. After you flag objects as favorites, you can organize your favorites by creating categories and rearrange your favorites into the order that you find most intuitive. You can access a list of the objects that you marked as favorites and any categories that you created by clicking Favorites in the global header.

Time

15-20 minutes

Task

1. Add objects to favorites.

   a. You should still be signed in with your username and password. If not, sign in.

   b. Navigate to the **Customers – West Region 2009** analysis.

   c. Click the **More** link, and then click **Add to Favorites**.

   d. Click **Favorites** in the Global Header and confirm that **Customers – West Region 2009** has been added.

   e. Locate **Customer Sales – West Region 2009** on the Home page and click **Edit** to open the analysis in the Analysis Editor.

   f. In the Global Header, place the cursor over **Favorites** and click **Add to Favorites**.

   g. Confirm that the object is added to your favorites list.
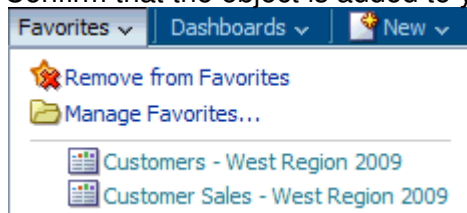
2. Access favorite objects.

   a. Return to the Home page.

   b. In the Global Header, place the cursor over the **Favorites** menu to display the list of objects you marked as favorites.

   c. Select **Customers – West Region 2009** from Favorites to open the analysis in the Analysis Editor. Oracle BI EE displays the selected object based on your permissions. For example, if you open an analysis to which you have write permission, then Oracle BI EE opens the object in the Analysis Editor.

3. Organize favorites.

   a. In the Global Header, place the cursor over the **Favorites** menu.

b. Click **Manage Favorites** to display the Manage Favorites dialog box.

c. Click the **New Category** button ⊞.

d. Name the category `West Region 2009` and click **OK**.

e. Expand Favorites in the left pane and confirm that the category is added.

f. Drag **Customers – West Region 2009** to the **West Region 2009** category to add the object to the category.

g. Repeat to add **Customer Sales – West Region 2009** to the **West Region 2009** category.

h. Double-click **West Region 2009** in the left pane to open the category and display the objects in the right pane.

i. Select **Customer Sales – West Region 2009** in the right pane and use the up arrow to move it above **Customers – West Region 2009**.

j. Note that there are icons to copy, paste, rename, delete, and sort favorites.

k. Click **OK** to close the Manage Favorites dialog box.

l. In the Global Header, place the cursor over the **Favorites** menu.

m. Expand the **West Region 2009** category and select **Customer Sales – West Region 2009** to open the object in the Analysis Editor.

n. Click **OK** if prompted about navigating away from this page.

4. Remove objects from Favorites.

   a. Navigate to the **Home** page.

   b. Notice that the object icons for **Customers – West Region 2009** and **Customer Sales – West Region 2009** have been updated with a gold star, indicating they are favorites.

   c. Click the **More** link for **Customer Sales – West Region 2009** and select **Remove from Favorites**. The gold star is removed from the object icon.

   d. Click the **Open** link for **Customers – West Region 2009**.

   e. In the Global Header, place the cursor over Favorites and select **Remove from Favorites**.

   f. Return to the Home page and confirm that the gold start is removed from **Customers – West Region 2009**.

   g. In the Global Header, select Favorites > Manage Favorites.

   h. In the right pane, select **West Region 2009**. Note that removing the favorite objects from this category did not delete the category.

   i. Click the **Remove from Favorites** button ✖ to remove the category from Favorites.

   j. Click **OK** to confirm that you want to delete West Region 2009 and all of its contents.

   k. Click **OK** to close the Manage Favorites dialog box.

   l. In the global header, click **Favorites** and confirm that all objects have been removed.

**Practices for Lesson 13:
Oracle BI Analyses:
Advanced Features**

Chapter 13

Practices for Lesson 13: Overview

Practices Overview

In these practices, you combine the results of analyses, execute a direct database analysis, and set the display of columns added in the Criteria tab.

Practice 13-1: Combining Analyses Using Set Operations

Goal

In this practice you combine the results of two analyses by using union, union all, intersect, and minus set operators.

Time

10-15 minutes

Task

1. Combine criteria from multiple analyses by using the Union set operator.

    a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    b. Use the B – Supplier Sales subject area to create the following analysis and filter:
        Customer.Customer, Fact-Sales.Dollars
        Dollars is between 5000 and 15000
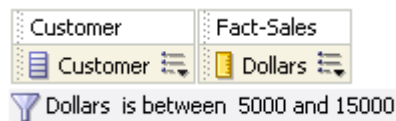
    c. In the Selected Columns pane, click the **Combine Results** button. The Subject Area list appears.

    d. Select the **C – SupplierSales DM** subject area. The Set Operations page appears.
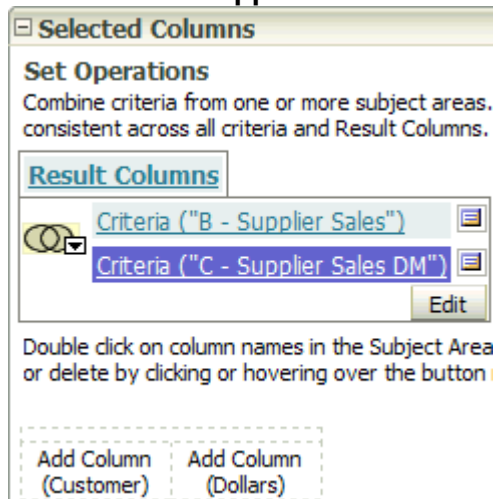
    e. Notice that the subject area has changed to C – Supplier Sales DM in the Subject Areas pane.

    f. Click column names in the Subject Areas pane to create the following analysis and filter:
        Customer, Dollars
        Dollars is between 10000 and 20000
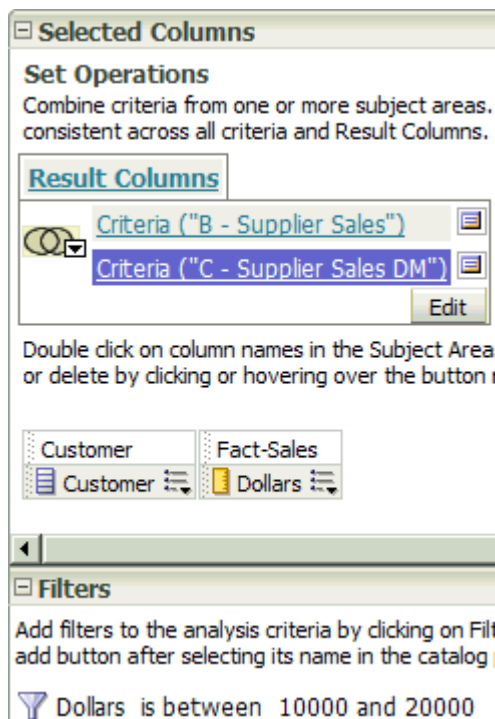
Please note that the number of columns and data types must be consistent.

g. Click the **Set** button and select the **Union** set operator.
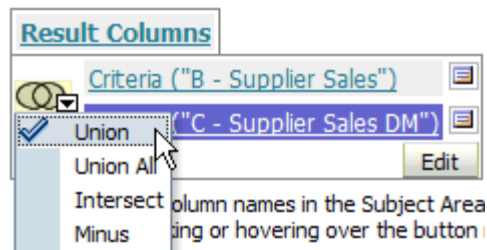
h. Click the **Results** tab to display the combined, nonduplicate rows (union) from all analyses. In this example, the table displays all customers with revenue between $5,000 and $20,000.

Customer	Dollars
A Site For Appetite	7,535
Barry T's	12,973
Billy's On Clifton	8,472
Black-Eyed Sally's	5,011
Cafe Lu Lu	5,240
Carolyn's Homestyle Kitchen	11,968
Espresso Royale Caffe	7,581
Paulette's Coffee Shop	11,787
Peter's Pub	14,939
Ranchito Segundo	6,314
Satterwhite Restaurant & Ctrng	9,533
Wafflers	17,616

2. Combine criteria from multiple analyses using the Union All set operator.

a. Click the **Criteria** tab.

b. Click the **Set** button and select the **Union All** set operator.

c. Click the **Results** tab to display all rows from all analyses (Union All). In this example, the table displays all customers with revenue between $5,000 and $20,000, and includes dollar values that meet criteria from both analyses.

Customer	Dollars
A Site For Appetite	7,535
Barry T's	12,973
	12,973
Billy's On Clifton	8,472
Black-Eyed Sally's	5,011
Cafe Lu Lu	5,240
Carolyn's Homestyle Kitchen	11,968
	11,968
Espresso Royale Caffe	7,581
Paulette's Coffee Shop	11,787
	11,787
Peter's Pub	14,939
	14,939
Ranchito Segundo	6,314
Satterwhite Restaurant & Ctrng	9,533
Wafflers	17,616

3. Combine criteria from multiple analyses by using the Intersect set operator.

    a. Click the **Criteria** tab.

    b. Click the **Set** button and select the **Intersect** set operator.

    c. Click the **Results** tab to display all rows that are common to both analyses (Intersect). In this example, the table displays all customers with revenue between $10,000 and $15,000.

Customer	Dollars
Barry T's	12,973
Carolyn's Homestyle Kitchen	11,968
Paulette's Coffee Shop	11,787
Peter's Pub	14,939

4. Combine criteria from multiple analyses by using the Minus set operator.

    a. Click the **Criteria** tab.

    b. Click the **Set** button and select the **Minus** set operator.

    c. Click the **Results** tab to display all rows from the first analysis that are not in the other analysis (Minus). In this example, the table displays all customers with revenue between $5,000 and $10,000.

Customer	Dollars
A Site For Appetite	7,535
Billy's On Clifton	8,472
Black-Eyed Sally's	5,011
Cafe Lu Lu	5,240
Espresso Royale Caffe	7,581
Ranchito Segundo	6,314
Satterwhite Restaurant & Ctrng	9,533

    d. Save the combined analysis as `Customers - Revenue between Five and Ten Thousand` in the My Sales folder.

    e. Leave the Analysis Editor open for the next practice.

Practice 13-2: Executing a Direct Database Analysis

Goal

In this practice, you create and issue a database analysis directly to a physical back-end database.

Scenario

Set the appropriate privilege to execute direct database analysis, and then create, display, and manipulate a direct database analysis.

Time

15-20 minutes

Task

1. Verify that the BI Administrator role has privileges to create and issue direct database analyses. Recall that your user is assigned the BI Administrator role. Any user can execute a direct database analysis, provided that the administrator has granted the user this privilege.

   a. Click the **Administration** link to open the Administration page.

   b. In the Security section, click the **Manage Privileges** link. The Privilege Administration window appears. In the **Answers** section (scroll down to it), locate the **Execute Direct Database Analysis** privilege. Notice that BI Administrator Role is assigned to this privilege.

Manage Privileges		
	Create Views	BI Author Role
	Create Prompts	BI Author Role
	Access Advanced Tab	BI Author Role
	Edit Column Formulas	BI Author Role
	Save Content with HTML Markup	BI Administrator Role
Answers	Enter XML and Logical SQL	BI Author Role
	Edit Direct Database Analysis	BI Administrator Role
	Create Analysis From Simple SQL	BI Administrator Role
	Create Advanced Filters and Set Operations	BI Author Role
	Save Filters	BI Author Role
	Execute Direct Database Analysis	BI Administrator Role

   c. Click **Home**.

2. Create and execute an analysis. You compare the results of this analysis with the results of a direct database analysis in the next step.

   a. Use the B – Supplier Sales subject area to create the following new analysis and associated filters:
   Customer, Dollars
   Region is equal to / is in East
   Dollars is greater than 2000000

Customer	Fact-Sales
Customer	Dollars

> Region is equal to / is in East
> AND Dollars is greater than 2000000

Note: If you add the Region column to your analysis to create the filter, delete it from the analysis after creating the filter. Recall that another way to do this is to click the Create a Filter button in the Filters pane and select More Columns, which opens a selection window for the current Subject Area, allowing you to select a column without adding it to the Selected Columns pane.

b. Click the **Results** tab.

Customer	Dollars
Bull Ring	$2,377,553
Johnny's	$3,153,640
Rib Pit	$2,566,985

3. Create and execute a direct database analysis.

a. Click the **New** button in the Global Header and select **Analysis**.

b. Click the **Create Direct Database Request** link.

> **Select Subject Area**
> 🗄 SupplierSales
> Analyze Sales and Shipment Data
>
> 🗄 Create Direct Database Request
> Create a new SQL request that will be sent directly to the database. The results of the request, if any, can be displayed and manipulated within Answers, and subsequently incorporated into Interactive Dashboards and Delivers.

c. Click **OK** to navigate away from this page.

d. In the Connection Pool field, enter `SupplierSalesCP`. This is the name of the connection pool specified in the Physical layer of the Oracle BI repository.

e. In the SQL Statement field, enter the following SQL statement. You can copy the SQL Statement from Direct Database Request.txt, which is located in D:\StudentFiles.

```
SELECT D1_customer2.Name, sum(D1_Orders2.Dollars)
FROM D1_customer2, D1_Orders2
WHERE ( D1_customer2.NewKey = D1_Orders2.CustKey and
D1_customer2.Region = 'East' )
GROUP BY D1_customer2.Name
having 2000000 < sum(D1_Orders2.Dollars)
```

f.   Your SQL statement should appear as follows:

Connection Pool
Enter the name of the Oracle BI Server connection pool you wish to use for this analysis. specified in the physical layer of the Oracle BI Server Administration program.

SupplierSalesCP

SQL Statement
Enter a database-specific SQL statement. This statement will be issued as-is to the datab when creating direct analysis as Oracle BI Server security rules can not be applied.

```
SELECT D1_customer2.Name, sum(D1_Orders2.Dollars)
FROM D1_customer2, D1_Orders2
WHERE ( D1_customer2.NewKey = D1_Orders2.CustKey and
D1_customer2.Region = 'East' )
GROUP BY D1_customer2.Name
having 2000000 < sum(D1_Orders2.Dollars)
```

g.   Click the **Validate SQL and Retrieve Columns** button and verify that the appropriate columns appear under Result Columns.

NAME	SUM("D1_ORDERS2"."DOLLARS")
varchar	double

h.   Click the **Results** tab and verify that you get results similar to those obtained in the previous step when you used an analysis.

NAME	SUM("D1_ORDERS2"."DOLLARS")
Rib Pit	2,566,985
Johnny's	3,153,640
Bull Ring	2,377,553

Practice 13-3: Setting Display of Columns Added in the Criteria Tab

Goal

In this practice, you set an analysis property to specify how column results are displayed when columns are added to an analysis in the Criteria tab.

Scenario

Set the appropriate analysis property to specify how column results are displayed when columns are added to an analysis in the Criteria tab.
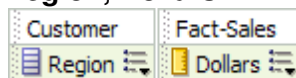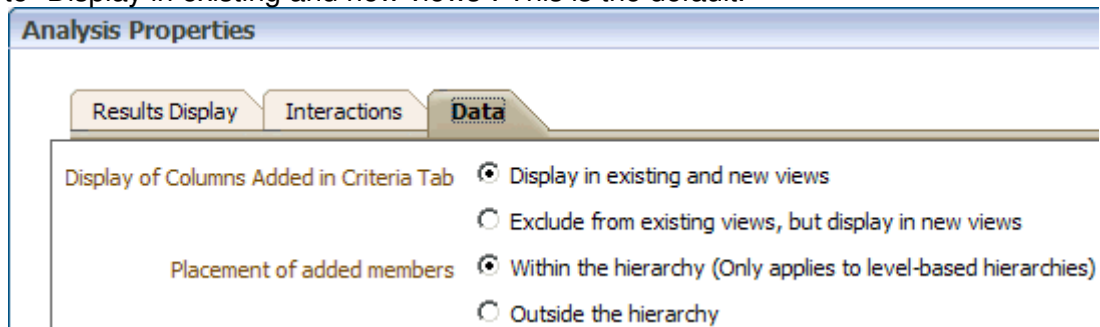
Time

15-20 minutes

Task

1. Set analysis properties to display columns in existing and new views when the columns are added in the Criteria tab.

    a. Use the B – Supplier Sales subject area to create the following new analysis:
    Region, Dollars

Customer	Fact-Sales
Region ⩫	Dollars ⩫

    b. Click the **Edit Analysis Properties** button ▦ to open the Analysis Properties dialog box.

    c. Select the **Data** tab.

    d. Notice the selection for "Display of Columns Added in Criteria Tab". Make sure it is set to "Display in existing and new views". This is the default.

    Analysis Properties

Results Display	Interactions	**Data**

    Display of Columns Added in Criteria Tab ⦿ Display in existing and new views

    ◯ Exclude from existing views, but display in new views

    Placement of added members ⦿ Within the hierarchy (Only applies to level-based hierarchies)

    ◯ Outside the hierarchy
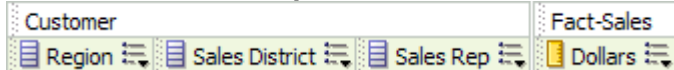
    e. Click **OK**.

    f. Click **Results**.

 | Region | Dollars |
    |--------|---------|
    | Central | $13,423,387 |
    | East | $25,460,351 |
    | West | $25,728,722 |

    g. Return to the **Criteria** tab.

    h. Add **Sales District** to the analysis.

    i. Click **Results**.

j. Confirm that the new column is displayed in the existing table view. Your results may vary slightly from the screenshot. This was the default behavior in versions of Oracle BI prior to 11*g* and is again the default behavior beginning with version 11.1.1.6. When the Criteria tab is used to add columns to existing views, the columns are automatically displayed in the results. Compare this to the next set of steps, in which columns added in the Criteria tab are excluded from the results of existing views.
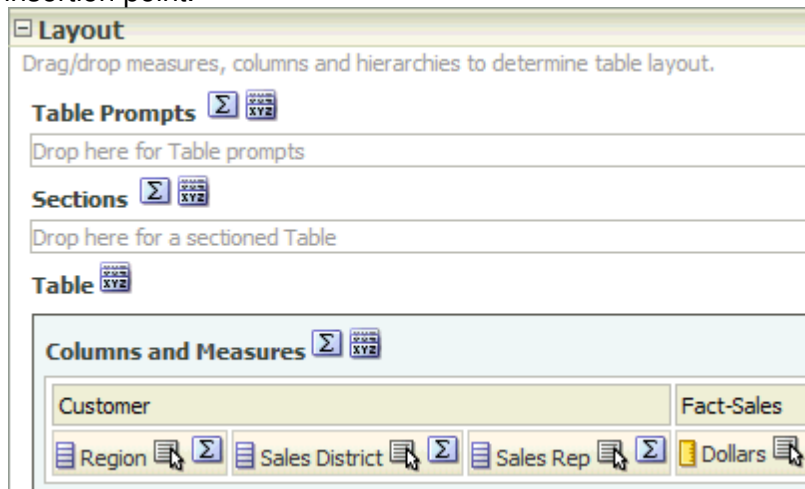
Region	Sales District	Dollars
Central	Gulf	$843,693
	LowerMidWest	$4,753,536
	MidWest	$2,452,673
	Texas	$4,125,482
	UpperMidWest	$1,248,003
East	Florida	$1,691,813
	MidAtlantic	$3,885,608
	UpperSouth	$6,388,423
	Yankee	$13,494,508
West	California	$16,448,806
	Desert	$7,069,864
	Northwest	$2,210,052

2. Set analysis properties to exclude columns from new views when the columns are added in the Criteria tab.

   a. Return to the **Criteria** tab.

   b. Click the **Edit Analysis Properties** button 🖵 to open the Analysis Properties dialog box.

   c. Select the **Data** tab.

   d. For "Display of Columns Added in Criteria Tab", select **Exclude from existing views, but display in new views**.

   e. Click **OK**.

   f. Double-click **Sales Rep** to add the column to the analysis.

Customer			Fact-Sales
Region ⮃	Sales District ⮃	Sales Rep ⮃	Dollars ⮃

   g. Click **Results**. Notice that the Sales Rep column does not appear in the results in the Table view.

   h. Click the **Edit View button** ✎ for the Table view to open the Layout pane.

i. Locate the Excluded section and notice that the Sales Rep column is added here. This was the default behavior for all 11*g* versions until version 11.1.1.6.
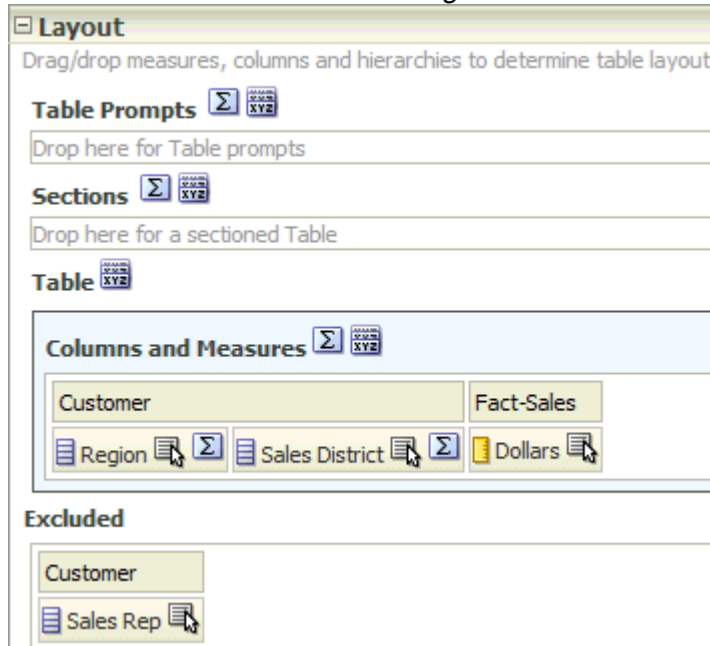
j. Drag the **Sales Rep** column from the Excluded section and insert it after the Sales District column in the Columns and Measures section. A blue line indicates the insertion point.

k. Notice that the results are updated accordingly.

Region	Sales District	Sales Rep	Dollars
Central	Gulf	MARY SILVER	$843,693
	LowerMidWest	CHRIS MUIR	$1,249,035
		GARY LISCIARELLI	$3,504,501
	MidWest	DALE AREND	$1,166,741
		LYLE IRWIN	$1,285,932
	Texas	GARY SMITH	$1,246,247
		JOSE CRUZ	$1,047,643
		RUBEN LOPEZ	$1,831,592
	UpperMidWest	ANDREW TAYLOR	$594,773
		BARBARA JENSEN	$477,633
		DICK SCHMIDT	$175,597
East	Florida	ANNE WILLIAMS	$865,118
		DONALD KIMBRIEL	$708,473
		PETER LEON	$118,222
	MidAtlantic	DALE FAIRWEATHER	$734,282
		GEORGE MASUR	$461,972
		PAULA MADISON	$1,864,628
		WALLY RAISANEN	$824,725

l. Do not save the analysis. There is no need to reset Analysis Properties to the default. The properties are reset to the default for each new analysis. The choice of display properties has been included to accommodate users who have become accustomed to using the Excluded pane.

Practices for Lesson 14: Creating Oracle Business Intelligence Dashboards

Chapter 14

Practices for Lesson 14: Overview

Practices Overview

In these practices, you add content you have created to your personal dashboard.

Practice 14-1: Adding Content and Pages to a Dashboard

Goal

In this practice, you populate your personal dashboard with content.

Scenario

Populate the default personal dashboard with analysis content created in previous practices and configure the dashboard and its properties. Then publish a dashboard page to share the content with other users.

Time

10-15 minutes

Task

1. Set your account settings so that your starting page is My Dashboard rather than the Home page.

   a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

   b. In the Global Header select **<Username> > My Account**.

   c. On the Preferences tab of the My Account dialog box, verify that **My Dashboard** is selected in the Starting Page drop-down list. If not, select it.
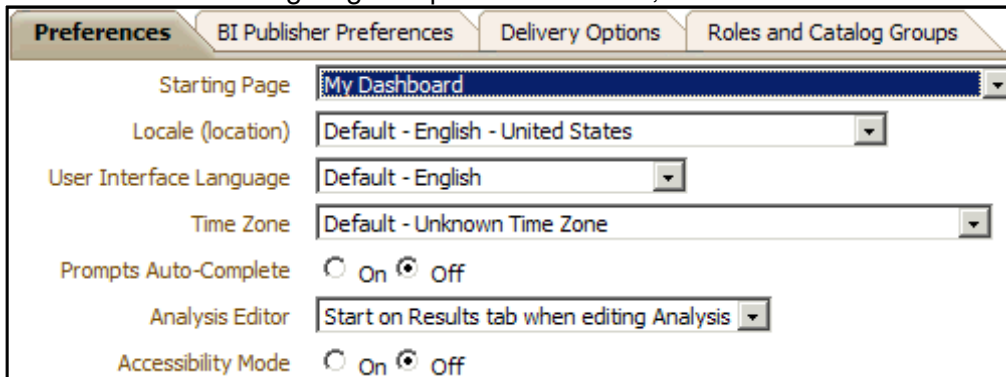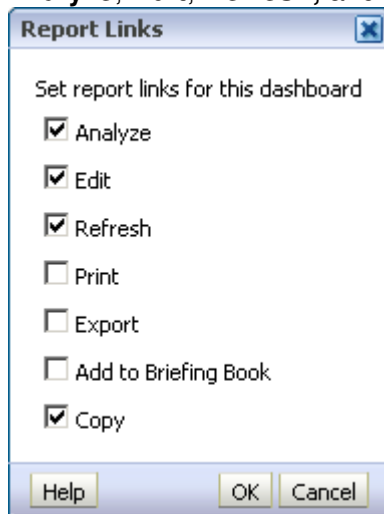

   d. Click **OK** to close the My Account dialog box.

   e. You should see the My Dashboard page. If not, click the **Dashboards** button in the Global Header and select **My Dashboard**.

   f. The dashboard is currently empty. Click the **Edit** link/icon to open the dashboard in the Dashboard Builder.
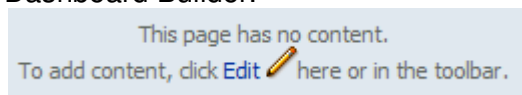
g. Notice that by default the Dashboard Builder displays an empty page (page 1).
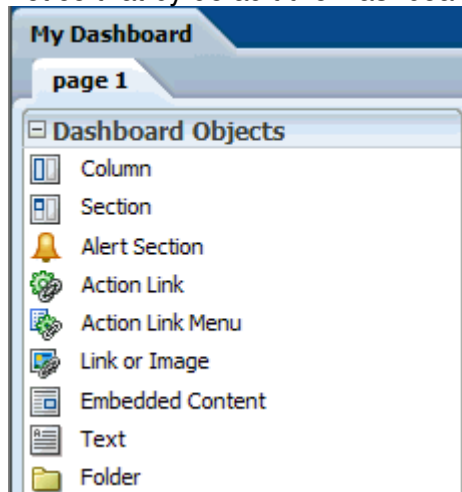
2. Rename page 1 of the dashboard and view and edit the dashboard properties options to make changes to the pages and appearance.

a. Click the **Tools** button and select **Dashboard Properties**.

b. In the Dashboard Properties dialog box, retain the default Style for the dashboard. Styles control how dashboards and results are formatted for display, such as the color of text and links and so on. When you select a style from the drop-down list, you are applying a preset cascading style sheet that controls overall dashboard appearance properties.

c. Click the **Edit** button for the Dashboard Report links. Using the options in this dialog box, you can add links for users to perform actions on the content of a dashboard. This setting affects the defaults of the entire dashboard. You can also set these properties for individual pages of the dashboard by clicking the Tools button and selecting Page Report Links. The default for page report links is Inherit Dashboard Settings. Select **Analyze**, **Edit**, **Refresh,** and **Copy**.
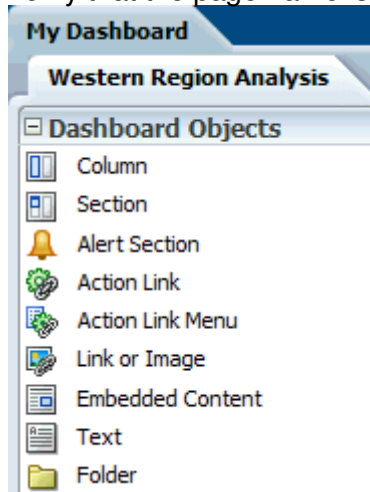

d. Click **OK** to close the Report Links dialog box.

e. In the Dashboard Pages section, select **page 1** in the pages list.

f. Click the **Rename** button to open the Rename dialog box.

g. Change the name to `Western Region Analysis`. Notice that you could choose to preserve references to the old name of this item. Leave this option unchecked.

h. Click **OK** to close the Rename dialog box and verify that the page name is changed.

Pages	Hide Page	Show Add To Briefing Book
Western Region Analysis	☐	☑

i. Notice that there are buttons to delete pages and reorder pages when there are multiple pages.

j. Notice also that you can hide a page, and choose to present an option to the user to add the page to a briefing book. This option is different from the Report Links that you just set, in that it acts on the entire dashboard page and the option appears in the Page Options menu. You learn more about briefing books in Lesson 19: Working with Oracle BI Briefing Books.

k. Click **OK** to close the Dashboard Properties dialog box.

l. Verify that the page name is changed in the dashboard.

My Dashboard
Western Region Analysis
⊟ **Dashboard Objects**
- Column
- Section
- Alert Section
- Action Link
- Action Link Menu
- Link or Image
- Embedded Content
- Text
- Folder

m. Click the **Save** button in the Dashboard Builder to save the dashboard.

3. Add content to the Western Region Analysis page.

a. Notice that the Page Layout pane initially has no content in it.

b. In the Catalog pane, expand **My Folders > My Sales**.

c. Drag the **Western Region Sales with Graph** analysis onto the Page Layout pane.
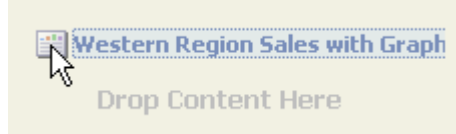

Notice that a column is added, within which a section is added containing the embedded analysis.
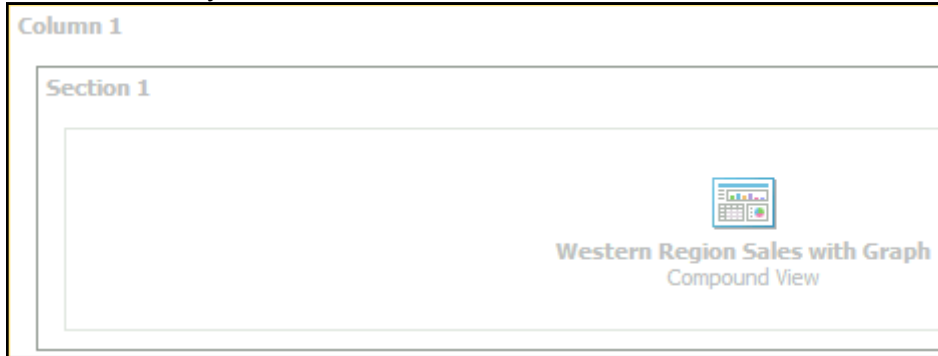

4. Explore the column formatting options.

   a. Hover over Column 1, click the **Properties** button ⬛, and select **Column Properties**.

   b. Notice that the Column Properties dialog box includes the same Cell, Border, and other formatting options and tools familiar from formatting containers and other analysis and interface elements.

   c. Set the background color to **light gray** and click **OK** to close the Column Properties dialog box.

5. Explore and modify section properties.

   a. Hover over Section 1, click the **Properties** button, and select **Format Section**.

   b. Notice that the Section Properties dialog box includes the same Cell, Border, and other formatting options and tools. Leave the default settings for the section and click **OK**.

   c. Click the **Properties** button and select **Rename**.

   d. In the Rename dialog box, enter `Western Region Sales` and click **OK**. The section name is updated.

   e. Click the **Properties** button and verify that **Drill in Place** is not selected. You do this because this analysis is set to drive master-detail events when drilling instead of drilling to the next level of the hierarchy. You use Drill in Place to show new results directly in the dashboard, replacing the original analysis. The area occupied by the original analysis resizes automatically to hold the new results.

   f. Verify that the **Collapsible** option is selected. You 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.

g. Set the **Show Section Header** and **Show Section Title** options, which display the title you created for the section in a header across the top of the section.
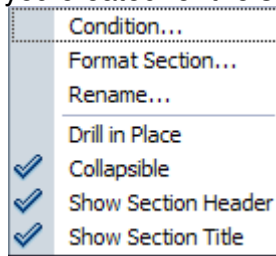
h. Save the dashboard.

i. Click the **Preview** button to display the results of your work so far. Your dashboard should look similar to the screenshot.
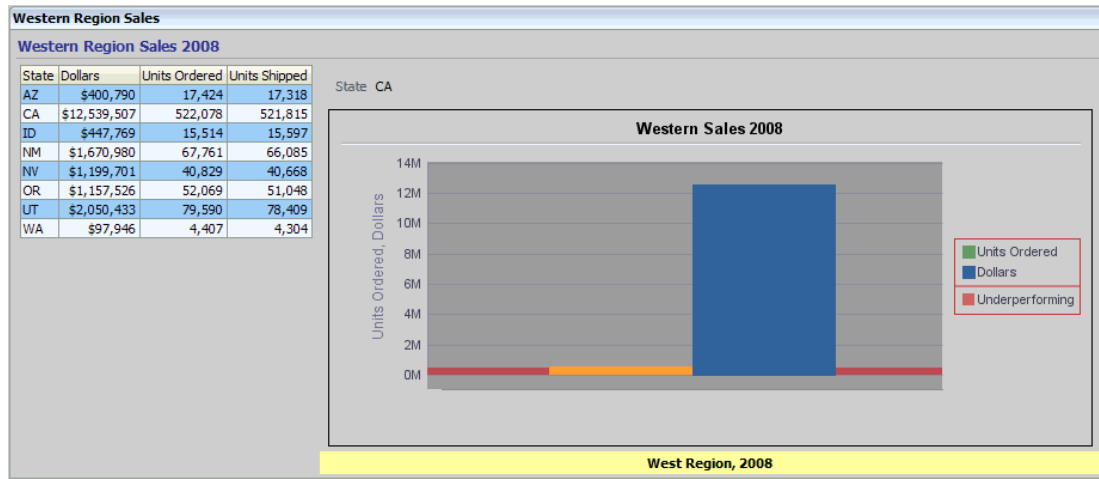

j. Close the preview browser window.

6. Set the Western Region Sales with Graph analysis to display in the section as a link that, when clicked, opens the analysis within the section.

a. Move your cursor over the analysis, click the **Properties** button ▣, and select **Display Results**.

b. Notice that by default the analysis is set to Embedded in Section, which means the analysis executes automatically and displays its results directly in the dashboard page.

c. Notice there are two other options to display results. Link - Within the Dashboard displays a link that users must click to execute the request and see the results within the dashboard. Link - In a Separate Window displays a link that users must click to execute the request and see the results in a new window.

d. Select **Display Results > Link - Within the Dashboard**.

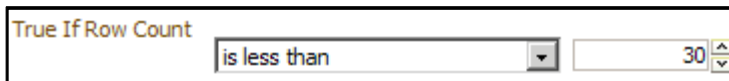e. Save the dashboard.

f. Click **Run** to test the change.
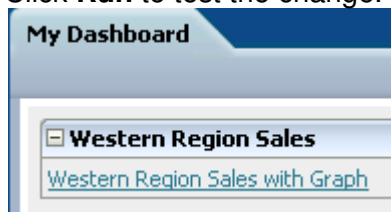
g. Click the **Western Region Sales with Graph** link to open the analysis in the section.

h. Click the **Return** link in the bottom left corner.

i. Click the **Page Options** button and select **Edit Dashboard** to return to the Dashboard Builder.

7. Rename the report in the dashboard.

a. Click the **Properties** button for the analysis and select **Rename**.

b. In the Rename dialog box, change the name to `Western Region Sales` and select the **Use Dashboard Object name as link text** option. This option is available when you rename an analysis in the Dashboard builder. You use this option to specify whether to use the new name of the analysis as the link text when you display analysis results as a link on a dashboard. Select this box to use the new name you specify. Deselect this box to use the name with which the analysis is stored in the catalog.

c. Click **OK**.

d. Save and run the dashboard to verify the change.

e. Return to the Dashboard Builder.

8. Explore the other analysis properties you can set.

a. Click the **Properties** button for the analysis.

b. The **Report Links** option allows you to override the default settings for the report links you have set for the overall dashboard.

c. The **Show View** option allows you to select any compiled view for the analysis to display in the dashboard. The default is to display the Compound View.

d. **Edit Analysis** opens the analysis in the Analysis Editor.

e. Reset the analysis to display embedded in the section instead of as a link.

f. Save the dashboard.

9. Set a condition on the section. If the condition returns a true for the Boolean value, then the section appears, if not it is collapsed.

a. Click the **Properties** button for the Western Region Sales section and select **Condition**.

b. In the Section Condition dialog box, click the **New Condition** button .

c. In the New Condition dialog box, select **Analysis** in the "Create condition based on" drop-down list and click **Browse**.

d. In the Select Analysis dialog box, browse to the My Sales folder and select the **Customers – West Region 2009** analysis.
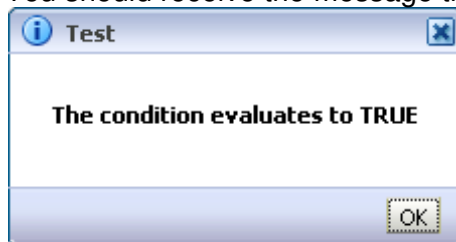
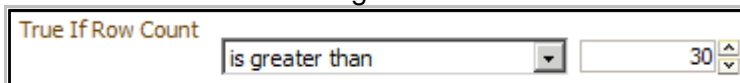e.   Click **OK**. The New Condition dialog box is populated with condition information from the analysis.
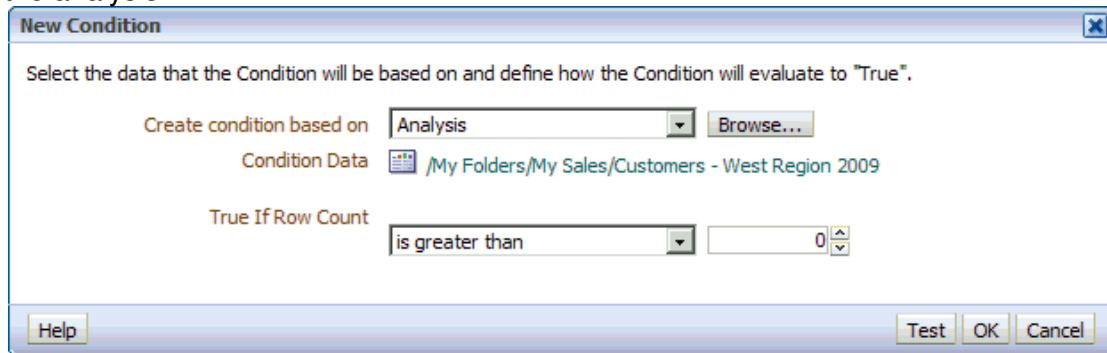

f.   Set "True If Row Count" is less than 30.

g.   Click **Test**.

h.   You should receive the message that the condition evaluates to TRUE.

i.   Click **OK** to close the Test.

j.   Click **OK** to close the New Condition dialog box.

k. Click **OK** to close the Section Condition dialog box.

l.   Save and run the dashboard. The section is displayed.

m.   Navigate back to the Dashboard Builder, click the **Properties** button for the section, and select **Condition**.

n.   In the Section Condition dialog box, click the **More** button » and select **Edit Condition**.

o.   Set "True If Row Count" is greater than 30.

p.   Click **Test**. You should receive the message that the condition evaluates to FALSE.
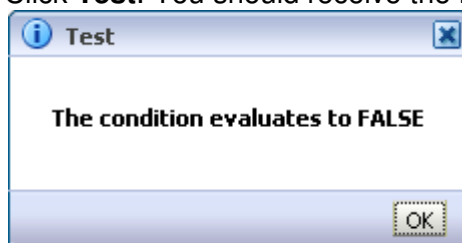
q.   Click **OK** to close the Test.

r.   Click **OK** to close the New Condition dialog box.

s. Click **OK** to close the Section Condition dialog box.

t. Save and run the dashboard. The section is not displayed because the condition evaluated to false.

u. Navigate back to the Dashboard Builder, click the **Properties** button for the section and select **Condition**.

v. In the Section Condition dialog box, click the **More** button » and select **Remove Condition**. Notice that you could also save the condition to the Catalog for reuse.

w. Click **OK**.

x. Save and run the dashboard and verify that the section is now visible.

10. Add a new page to My Dashboard.

a. Open the Dashboard Editor.

b. Click **Add Dashboard Page** 📲 to open the Add Dashboard Page dialog box.

c. Name the page `Customers West Region`.

d. Click **OK** to close the Add Dashboard Page dialog box.

e. The Customers West Region page is added to the dashboard.

11. Add content to the new page and modify the page properties.

a. In the Catalog pane expand My Folders > My Sales.

b. Drag **Customers – West Region 2009** into the Page Layout pane.

c. Drag **Product Sales** into the Page Layout pane and drop it below **Customer – West Region 2009** inside of Section 1 so that both analyses are in the same section.
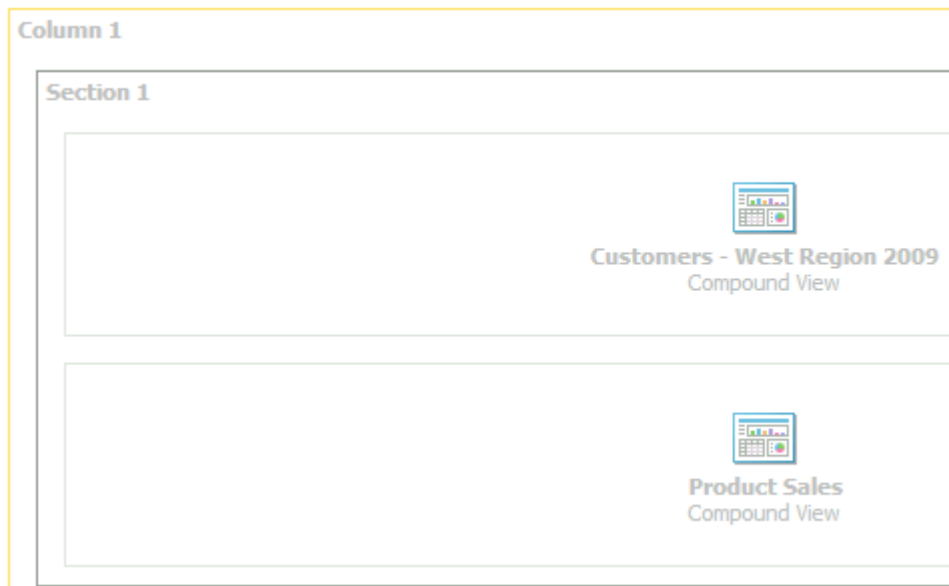
d. Rename Section 1 to `Customers West Region` and set section properties to show section title.

e.   Click **Horizontal Layout** to display the analyses horizontally within the section.

f.   Save and run the dashboard.

g.   Verify that the analyses are displayed horizontally in the Customers West Region page.

12. Verify that your personal dashboard is now set as the default start page, and then reset your default to Home Page.

a.   Sign out of Oracle Business Intelligence and then sign back in. You should default to My Dashboard upon sign in.

b.   In your account settings, change the default to **Home Page**.

c.   Sign out, sign back in, and verify that the sign in default is the Home page.

13. Create a new dashboard.

a.   Select **New > Dashboard**.

b.   Name the dashboard `Western Region Analysis Shared`

c.   Change the location to /**Shared Folders**/**<username>**; for example, /**Shared Folders**/**weblogic**.

d.   For content, select **Add content later (Create empty dashboard)**.

e.   Click **OK**.

f.   Navigate to **Shared Folders > <username> > Dashboards** and confirm that the new dashboard is visible.

g. Click **Open** to open the dashboard in a new browser window and confirm that the new dashboard currently has no content.

h. Close the new browser window.

14. Publish a page from My Dashboard to the Western Region Analysis Shared dashboard to share with other users.

   a. Navigate to My Dashboard and open Dashboard Builder.

   b. Select the **Customers West Region** page.

   c. Click the **Tools** button and select **Publish Page to Dashboard**.

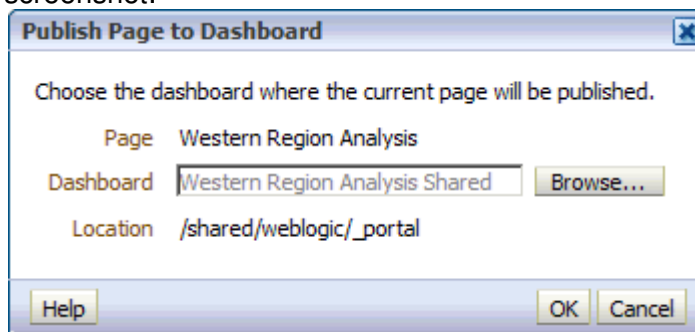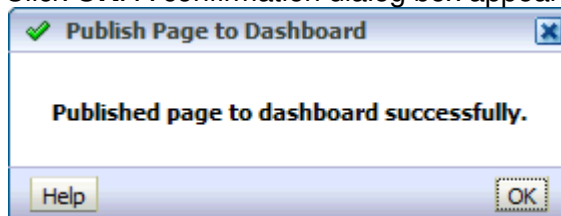   d. Click **OK** to continue when you receive the message about private reports.

Publish Page to Dashboard	
There are private reports on the dashboard page, do you still want to publish the page?	
Help	OK Cancel
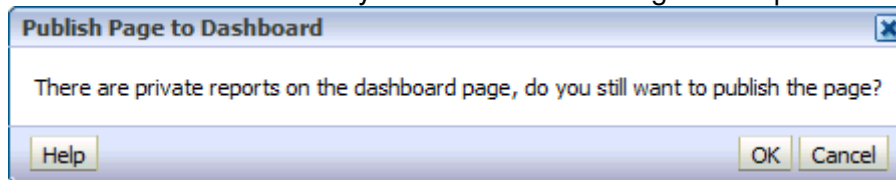
   e. The Publish Page to Dashboard dialog box opens.

   f. Click **Browse** in the Publish Page to Dashboard dialog box.

   g. In the Select Dashboard dialog box /**Shared Folders**/**<username>**/**Dashboards** should be selected. If not, navigate to that location.

   h. Select the **Western Region Analysis Shared** dashboard. This is the dashboard to which you will publish the page from your dashboard.

   i. Click **OK**. The Publish Page to Dashboard dialog box should look similar to the screenshot:

Publish Page to Dashboard	
Choose the dashboard where the current page will be published.	
Page Western Region Analysis	
Dashboard Western Region Analysis Shared Browse...	
Location /shared/weblogic/_portal	
Help	OK Cancel

   j. Click **OK**. A confirmation dialog box appears:

✔ Publish Page to Dashboard	
Published page to dashboard successfully.	
Help	OK

   k. Click **OK**.

   l. In the Global Header, select **Dashboards > <username> > Western Region Analysis Shared** to open the dashboard.

m. Click the **Western Region Analysis** dashboard page and verify that the Customers West Region dashboard page was successfully published to the shared dashboard.

n. Navigate to **Shared Folders > <username>** and verify that the two analyses are copied to this folder. When you publish a dashboard page personal content (such as analyses, prompts, and so on) is copied to a destination location that you specify and references are updated as appropriate.

o. Check the permissions for the analyses. Any user who is a member of the assigned application roles will have access to these objects.

15. Verify that other users have access to the shared dashboard.

a. Sign out and sign back in with user name `BBERRY` and password `BBERRY12`. Recall that BBERRY is a member of the BI Author application role.

b. In the Global Header, select **Dashboards > <username> > Western Region Analysis Shared** to open the dashboard.

c. Select the **Western Regions Analysis** page.

d. Verify that both analyses are displayed.

e. Sign out of Oracle BI.

Practices for Lesson 15: Configuring Oracle Business Intelligence Dashboards

Chapter 15

Practices for Lesson 15: Overview

Practices Overview

In these practices, you embed external content and alerts in your dashboard.

Practice 15-1: Embedding Content in a Dashboard

Goal

In this practice, you add content other than analyses to a dashboard.

Scenario

You have a dashboard with content generated by Oracle Business Intelligence analyses. You want to add additional content from sources other than an analysis. You embed an HTML link and an Alerts section.

Time

10-15 minutes

### Task

1. Add an Oracle web page as embedded content in a dashboard.

    a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    b. Click the **Open** button in the Global Header and select **My Dashboard – Western Region Analysis** in the Recent section.

    c. Click the **Page Options** button and select **Edit Dashboard**.

    d. Click the **Western Region Analysis** page.

    e. Drag the **Embedded Content** object from the Dashboard Objects pane into Column 1 below the Western Region Sales analysis.
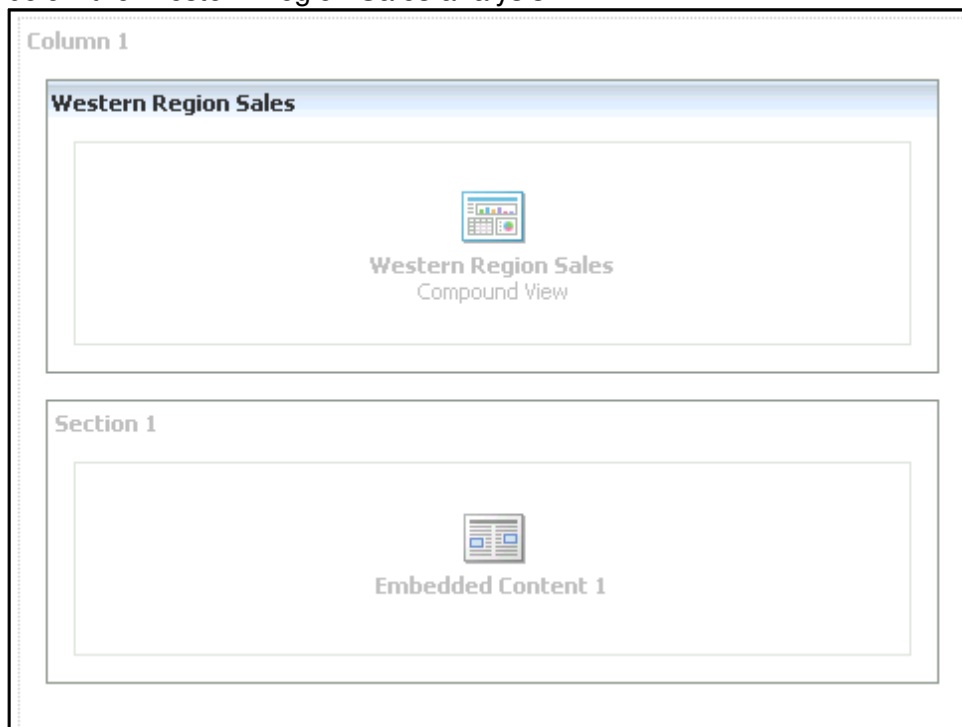
   f. Click the **Properties** button for the Embedded Content 1 object.

g. In the Embedded Content Properties dialog box, enter
`http://www.oracle.com/technology/tech/bi/index.html` in the URL field, set
the width to `1000px` and the height to `500px`. Do not select the Hide Scroll Bars option.

h. Confirm your settings:
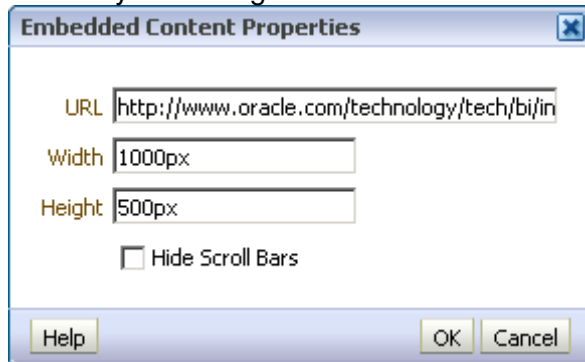
Note: The URL that you specify should begin with http:// unless you plan to use an item that is saved on the Web server. If you use a network path to indicate the location of the item, then ensure that you use the exact path. Items that are embedded on a shared dashboard must be located on a network drive that is accessible to all users.

i. Click **OK**.

j. Save the dashboard and then click **Run** to view the results in the dashboard. You may have to scroll down to see the embedded content, and scroll within the embedded web page using the scroll bars.

2. Add an Alert Section. This section will display any active alerts that are delivered to a user.

    a. Open the Dashboard Editor and select the **Western Region Analysis** page.

    b. Drag a **Column** object from the Dashboard Objects pane to the top of the Page Layout pane, above the other column.

    c. Drag an **Alert Section** object onto the new column. Notice that the Alerts Section object behaves like a Section object, but that its properties are similar to those of a column. Your Page Layout pane should look like this:
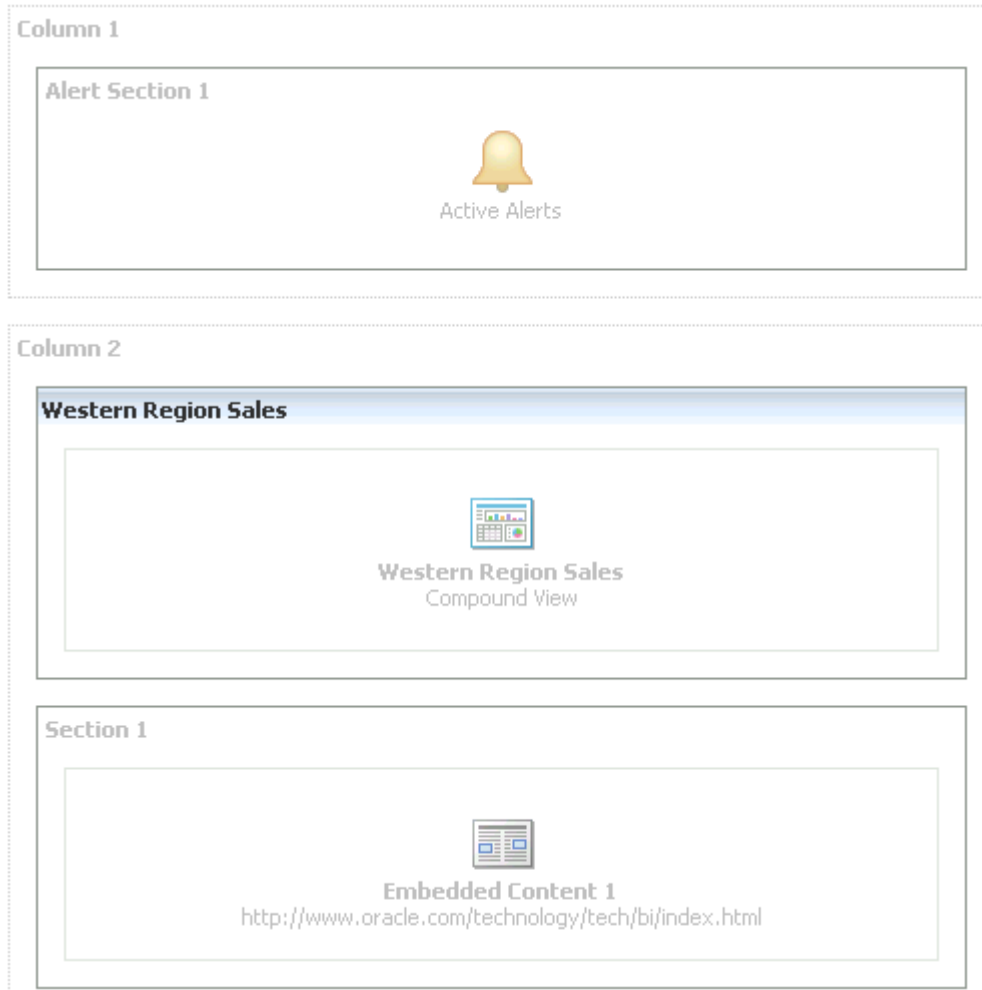
    d. Save and run the dashboard. Notice that the Alert section does not display in the dashboard. This is because you have no active alerts at this time.

Practices for Lesson 16: Creating Dashboard Prompts and Variables

Chapter 16

Practices for Lesson 16: Overview

Practices Overview

In these practices, you build dashboard prompts and declare and populate variables.

Practice 16-1: Using Prompts to Filter Dashboard Data

Goal

In this practice, you create prompts and add them to a dashboard.

Scenario

Add a presentation variable to an analysis to be populated by a dashboard prompt. Then, create a dashboard prompt and add it to a dashboard page, populating the variable. Finally, add a slider dashboard prompt to filter the revenue measure in the dashboard.

Time

10-15 minutes

Task

In an earlier practice, you created an inline column prompt and saved it with an analysis, allowing users to select different values to filter results. A named dashboard prompt for filtering data is created in the same way. In this practice, you create a variable dashboard prompt to declare and instantiate a Presentation variable, then test and populate the variable with values, which you then reference in different ways, including an analysis column and Title view as well as a filter in a separate analysis. Finally, you add a slider dashboard prompt to filter revenue on your dashboard.

1. Create new analyses with prompted columns.

   a. If necessary, open Oracle BI Presentation Services and sign in.

   b. Use the B – Supplier Sales subject area to create the following new analysis:
      Region, **Sales District**, **Dollars**.
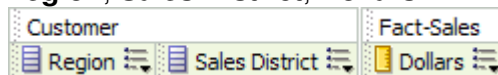
   c. Click the **More Options > Filter** for the Region column to open the New Filter dialog box.

   d. In the Operator field, select **Is Prompted**.

   e. Click **OK** to close the New Filter dialog box.

   f. Save the analysis as `Region District Dollars` in the My Sales folder.

   g. Use the B – Supplier Sales subject area to create the following new analysis:
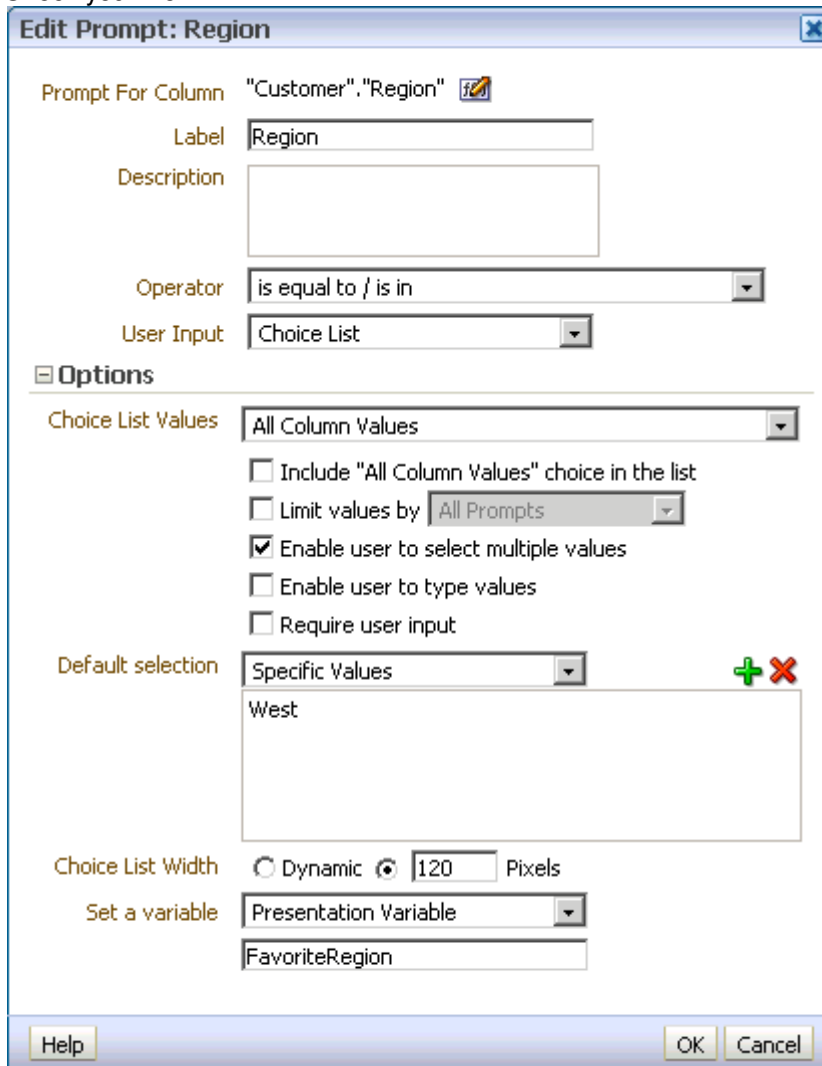   **Region**, **State**, **Dollars**.
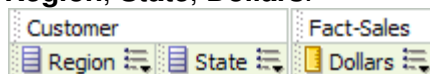
   h. Click the **More Options > Filter** for the Region column to open the New Filter dialog box.

   i. In the Operator field, select **Is Prompted**.

   j. Click **OK** to close the New Filter dialog box.

   k. Save the analysis as `Region State Dollars` in the My Sales folder.

2. Create a dashboard prompt that includes a presentation variable and filters results in a dashboard based on user selection of a region.

   a. In the Global Header, click the **New** button and select **Dashboard Prompt**.

   b. Select the **B - Supplier Sales** subject area from the Subject Area pop-up window.

   c. Click the **New** button and select **Column Prompt**. The Select Column dialog box appears.

   d. Expand **Customer** and double-click **Region** to select it and open the New Prompt: Region dialog box.

   e. Expand **Options**.

   f. Deselect "Enable user to type values".

   g. Set Default selection to **Specific Values** and use the Select Values button to select **West**.

   h. In the "Set a variable" drop-down list select **Presentation Variable**.

   i. In the text field enter `FavoriteRegion`.

   j. Check your work.

k. Click **OK** to close the New Prompt: Region dialog box.

Prompt Label	Type	Prompt For
Page 1	Page	
Region	Column value	Region

l. In the Display pane, open the **Region** choice list and verify that all three regions are visible.

m. In the Display pane, click the **Edit** button for the page to open the Edit Page Settings dialog box.

n. In the Title field enter `Region Prompt`.

o. In the Instruction field enter `Select a region from the list to filter your dashboard`.

p. In the Prompt Display field select **Place label above prompt**.

q. Check your work.

Edit Page Settings

Title `Region Prompt`

Instruction `Select a region from the list to filter your dashboard.`

Page Display Properties

Format

Prompt Display `Place label above prompt`

☐ Wrap label to fit

☐ Set width of all prompts to ○ Dynamic ◉ `120` Pixels

Prompt Buttons ☑ Show Apply button
☑ Show Reset button

`Place buttons below prompts`

☐ Apply display properties to all prompt pages

Help · OK · Cancel

r. Click **OK** to close the Edit Page Settings dialog box.

Display

Page 1

Region Prompt

Select a region from the list to filter your dashboard.

Region
--Select Value--

Apply · Reset

s. Save the prompt as `Region Prompt` in My Sales.

3. Create a new dashboard and add the dashboard prompt and analyses you created.

   a.   In the Global Header, click the **New** button and select **Dashboard**.

   b.   In the New Dashboard dialog box, enter `Dashboard:Region Sales` as the name.

   c.   Change the location to /**My Folders**/**My Sales**.

   d.   Click **OK** when you receive the warning 'This dashboard will not appear in the "Dashboards" menu'.

   e.   Select the **Add content now** option.

   f.   Click **OK**. The Dashboard Builder appears.

   g. Expand **My Folders > My Sales** in the Catalog pane.

   h.   Drag the **Region Prompt** object onto the Page Layout pane.

   i.   Drag the **Region State Dollars** analysis below Region Prompt in the same section.

   j.   Drag the **Region District Dollars** analysis below Region State Dollars in the same section.

   k.   Save and run the dashboard.

l. Confirm that the selected value for Region Prompt is **West** and that both analyses are updated as expected.

Region Prompt

Select a region from the list to filter your dashboard.

Region

West

Apply   Reset ∨

Region State Dollars

Region	State	Dollars
West	AZ	$518,476
	CA	$16,448,806
	ID	$601,308
	NM	$2,295,056
	NV	$1,558,309
	OR	$1,486,692
	UT	$2,698,022
	WA	$122,052

Region District Dollars

Region	Sales District	Dollars
West	California	$16,448,806
	Desert	$7,069,864
	Northwest	$2,210,052

m. Select a different value or values from Region Prompt, click **Apply**, and confirm that both analyses are updated as expected.

4. Reference the presentation variable in the title views of the analyses.

a. Open the Dashboard Editor.

b. Click the **Properties** button for the **Region State Dollars** analysis and select **Edit Analysis**.

c. In the Compound Layout, click the **Edit View** button for the Title view.

d. In the Title editor, deselect the **Display Saved Name** option.

e. In the Title field, enter `@{FavoriteRegion} Region State Dollars`.

Title

Title `@{FavoriteRegion} Region State Dollars`

☐ Display Saved Name

f.   Click **Done**.

Title	

@{FavoriteRegion} Region State Dollars

Table	

Region	State	Dollars
Central	IL	$1,285,932
	IN	$1,000,799
	LA	$843,693
	MN	$1,107,622
	MO	$2,129,840
	NE	$1,862,113
	OH	$165,942
	OK	$761,583
	TX	$4,125,482
	WI	$140,381

g.   Save the analysis.

h.   Repeat the steps to add the presentation variable to the Title view of the **Region District Dollars** analysis.

Title	

@{FavoriteRegion} Region District Dollars

Table	

Region	Sales District	Dollars
Central	Gulf	$843,693
	LowerMidWest	$4,753,536
	MidWest	$2,452,673
	Texas	$4,125,482
	UpperMidWest	$1,248,003
East	Florida	$1,691,813
	MidAtlantic	$3,885,608
	UpperSouth	$6,388,423
	Yankee	$13,494,508
West	California	$16,448,806
	Desert	$7,069,864
	Northwest	$2,210,052

i.   Save the analysis.

j. Navigate back to **Dashboard: Region Sales** and verify that the presentation variable is populated correctly in the title of the analyses.

5. Create a slider dashboard prompt. Slider prompts are useful for enabling real-time interaction with a data series.

   a. In the Global Header, Click the **New** button and select **Dashboard Prompt**.

   b. Select the **B - Supplier Sales** subject area from the Subject Area pop-up window.

   c. Click the **New** button   and select **Column Prompt**. The Select Column dialog box appears.

   d. Select **Fact-Sales > Dollars** to open the New Prompt dialog box. Slider prompts work with numeric columns.

   e. In the User Input drop-down list, select **Slider**.

   f. In the Operator field, select **is greater than**. This creates a thumb slider. To create a range slider, you would select the Between operator.

   g. Set the Lower Limit to **10,000** and the upper limit to **20,000,000**.

   h. Notice that you can add a spinbox to the slider. The user can click arrows to select a value. When the user clicks the spinbox's arrows, the slider resets to the same value. Deselect this option, but retain the default to compress values in the slider.

---

i.   Leave the defaults for the slider orientation and size and check your work:

j.   Click **OK**.

k.   Experiment with the slider in the Display pane.
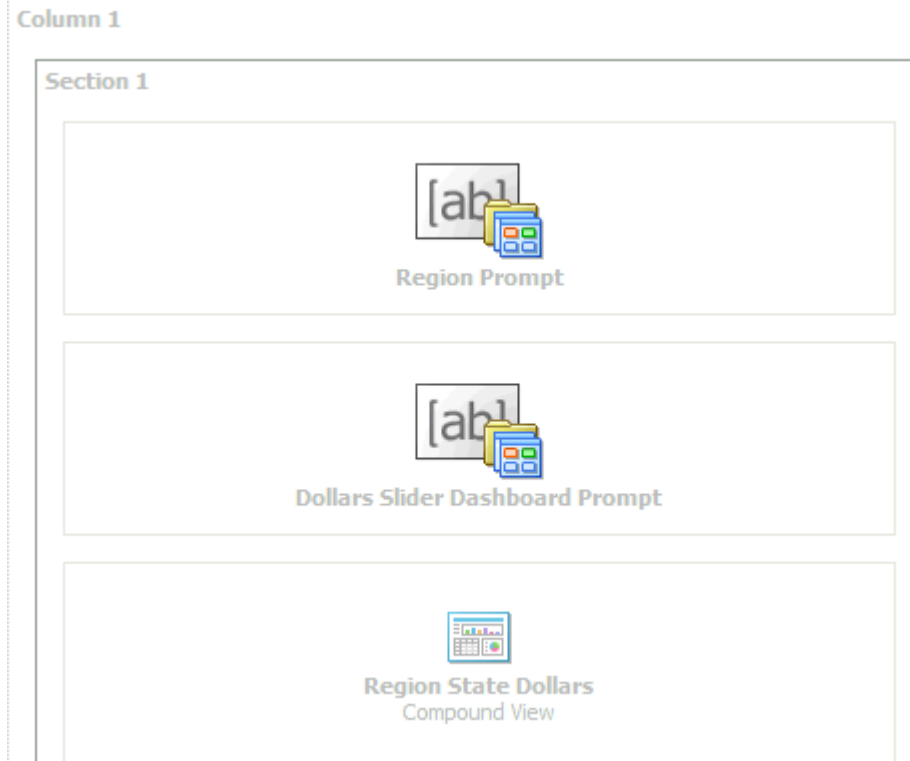

l.   Save the prompt as `Dollars Slider Dashboard Prompt` in the My Sales folder.

6.   Add the slider prompt to a dashboard.

a.   Navigate to **Dashboard: Region Sales** and open it in the Dashboard Builder.

b.   Add **Dollars Slider Dashboard Prompt** below Region Prompt.

c. Save the dashboard.

d.   Select **Properties > Edit Analysis** to open the **Region State Dollars** analysis in the Analysis Editor.

e.   On the Criteria tab, click the **More Options** button for the Dollars column and select **Filter**.

f.   In the New Filter dialog box, select **is prompted** as the operator.

g.   Click **OK** to close the New Filter dialog box.

h.   Save the analysis.

i.   Open the **Region District Dollars** analysis and repeat the steps to set the Dollars filter to **is prompted**.

j. Save the analysis.

k. Navigate back to **Dashboard: Region Sales**.

l. Use the drop-down list, slider, and Apply and Reset buttons to experiment with different combinations of the two dashboard prompts. Note that **Reset > Reset to last applied values** will reset the prompt to the last successfully run analysis using the prompt. **Reset > Reset to default values** will reset the prompt to the default value for the prompt.

Region Prompt

Select a region from the list to filter your dashboard.

Region

| East | ▼ |

Apply   Reset ⌄

* Dollars > ⊖ |———◊—————————————⊕
10K   10M   20M
3462818.18

Apply   Reset ⌄

East Region State Dollars

Region	State	Dollars
East	CT	$5,479,727
	NC	$3,996,973
	NH	$4,177,728

East Region District Dollars

Region	Sales District	Dollars
East	MidAtlantic	$3,885,608
	UpperSouth	$6,388,423
	Yankee	$13,494,508

7. Hide a prompt's apply and reset buttons.

   a. Open the Dashboard builder for **Dashboard: Region Sales**.

   b. Select **Tools > Dashboard Properties** to open the Dashboard Properties dialog box.

   c. Expand the list for "Prompt Apply Buttons". You use this list to specify if you want to include or exclude the prompt's Apply buttons on the dashboard at run time. This setting applies to the entire dashboard, but you can override this setting on individual dashboard pages.

   d. Notice there are three options:

Use page settings	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.

    e.   Select **Hide All Apply buttons**.

    f.   Expand the list for "Prompt Reset Buttons". You use this list to specify if you want to include or exclude the prompt's Reset buttons on the dashboard at run time. Similar to the setting for Prompt Apply Buttons, this setting applies to the entire dashboard, but you can override this setting on individual dashboard pages.

    g.   Select **Hide All Reset buttons**.

    h.   Click **OK** to close the Dashboard Properties dialog box.

    i.   Select **Tools > Prompts Buttons on Current Page**. This is where you would specify the same prompt settings for an individual page. There is only one page in this dashboard, so we have specified the prompt settings at the dashboard level.

    j.   Save and run the dashboard.

    k.   Notice that they Apply and Reset buttons are no longer visible.

    l.   Select prompt values using the drop-down list and slider and notice that the specified prompt value is immediately applied to the dashboard.

8. Display an Edit link with a prompt.

    a.   Return to the Dashboard Builder for **Dashboard: Region Sales**.

    b.   Place your cursor over the **Region Prompt** object in the Page Layout area to display the object's toolbar, click the **Properties** button 🔳, and select **Prompt Links** to open the Prompt Links dialog box.

    c. Select **Edit** to specify that this link should be displayed with the prompt at run time. When users with the proper privileges click the Edit link, the prompt is displayed in the "Prompt editor" where users can edit the prompt definition.

    d.   Leave Copy unselected. You would use this option to specify whether the Copy link is displayed with the prompt at run time. This link enables users to copy the prompt in its current state (that is, the prompt definition with the default or selected prompt values) to Microsoft Excel or Word, in which Oracle Business Intelligence Add-in for Microsoft Office has been installed and configured.

    e.   Click **OK** to close the Prompt Links dialog box.

    f.   Save and run the dashboard.

    g.   Notice that the Edit link is displayed for the **Region Prompt** object in the dashboard.

    h.   Click **Edit** to open the prompt in the Prompt editor.

9. Add a new column prompt.

    a.   Select **New > Column Prompt**.

b. Select **Product > Type** and click **OK** to open the New Prompt dialog box.

c. In the Label field enter `Product Type`.

d. Leave the Operator field set to **is equal to / is in**.

e. Leave the User Input field set to **Choice List**.

f. Expand **Options**.

g. Deselect **Enable user to select multiple values** and **Enable user to type values**.

h. Leave all other defaults as they are.

i. Check your work:
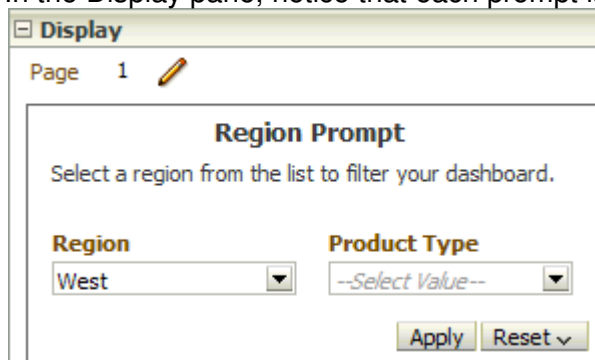
j. Click **OK** to close the New Prompt dialog box.

10. Change the prompt layout. You can specify a row-based or column-based layout for your prompts.

a. Select the **Column-based layout** button .

b. In the Display pane, notice that the prompt columns are displayed in a single column (one under the other).

c. Select **New Column** for the **Product Type** column prompt.

d. In the Display pane, notice that each prompt is now displayed in a different column.

e. Deselect **New Column** for the **Product Type** column prompt.

f. Select the **Row-based layout** button ▤.

g. In the Display pane, notice that the prompts are now displayed in a single row.

11. Edit the page settings for the prompt.

a. Select **Page1: Region Prompt**.

b. Click the **Edit** button to open the Edit Page Settings dialog box.

c. Change the title to `Region / Product Type Prompt`.

d. Change the instructions to `Select region and product type from the lists to filter your dashboard`.

e. Accept the remaining settings and click **OK** to close the Edit Page Settings dialog box.

f. Save the prompt.

12. Edit the analyses in the dashboard to use the new column prompt.

a. Navigate to **Dashboard: Region Sales** and confirm that the prompt changes have been applied.

> **Region / Product Type Prompt**
>
> Select region and product type from the lists to filter your dashboard.
>
> **Region**   **Product Type**
> West   --Select Value--
>
> Edit
>
> * Dollars >   10K   10M   20M
>   10000.00

b. Open the Dashboard Builder for **Dashboard: Region Sales**.

c. Select **Properties > Edit Analysis** for **Region State Dollars** to open the analysis in the Analysis editor.

d. Add **Product > Type** to the analysis.

> | Customer | | Product | Fact-Sales |
> |---|---|---|---|
> | Region | State | Type | Dollars |

e. Apply an "is prompted" filter to the Type column.

> Region is prompted
> AND Dollars is prompted
> AND Type is prompted

f. Save the analysis.

g. Repeat the steps to add the Type column with an "is prompted" filter for the **Region District Dollars** analysis.

> | Customer | | Product | Fact-Sales |
> |---|---|---|---|
> | Region | Sales District | Type | Dollars |
>
> Region is prompted
> AND Dollars is prompted
> AND Type is prompted

h. Save the analysis.

i. Return to **Dashboard: Region Sales**.

j. Confirm that the prompt has the display you defined, and that the prompts work as expected. Your results should look similar to the screenshot:

k. Click the down arrow for the **Product Type** drop-down list and then select **Search** to open the Select Values dialog box.

l. Leave **Starts** selected in the Name field, type **S** in the blank field, and click **Search** to search for product types starting with S.

m. Experiment with other matching level and value combinations and then select a value to close the Select Values dialog box and view the results in your dashboard. You compare this search functionality with auto-complete functionality in the next set of steps.

13. Enable auto-complete functionality for a prompt.

a. Select **<username> > My Account**.

b. On the Preferences tab, make sure **Prompts Auto-Complete** is set to **On**. The administrator has already modified the system configuration file to enable the auto-complete functionality for Oracle BI EE. If auto-complete is enabled for Oracle BI EE and for individual dashboards, users can disable the auto complete prompts functionality for their accounts by setting the Prompts Auto Complete field in the "My Account dialog: Preferences tab" to Off. Setting this option to Off overrides the system and dashboard settings, and no auto-complete functionality will appear for the user.

c. Click **OK** to close the My Account dialog box.

d. Open the Dashboard Builder for **Dashboard: Region Sales**.

e. Open **Dashboard Properties**.

f. Confirm that **Prompts Auto-Complete** is set to **Use user preference settings**. This is the default. If auto-complete is enabled for Oracle BI EE, then the dashboard designer can remove the auto complete functionality from individual dashboards by setting the Prompts Auto-Complete field to Off in the Dashboard Properties dialog. However, the auto-complete prompts functionality will be available for other dashboards where the Prompts Auto Complete setting is set to User Preference.

g. Click **OK** to close the Dashboard Properties dialog box.

h. Place your cursor over the **Region Prompt** object in the Page Layout area to display the object's toolbar, click the **Properties** button [XYZ], and select **Edit** to open the prompt in the Prompt editor.

i. Select the row for the **Product Type** prompt.

j. Click the **Edit** button to open the Edit Prompt dialog box.

k. Expand **Options**.

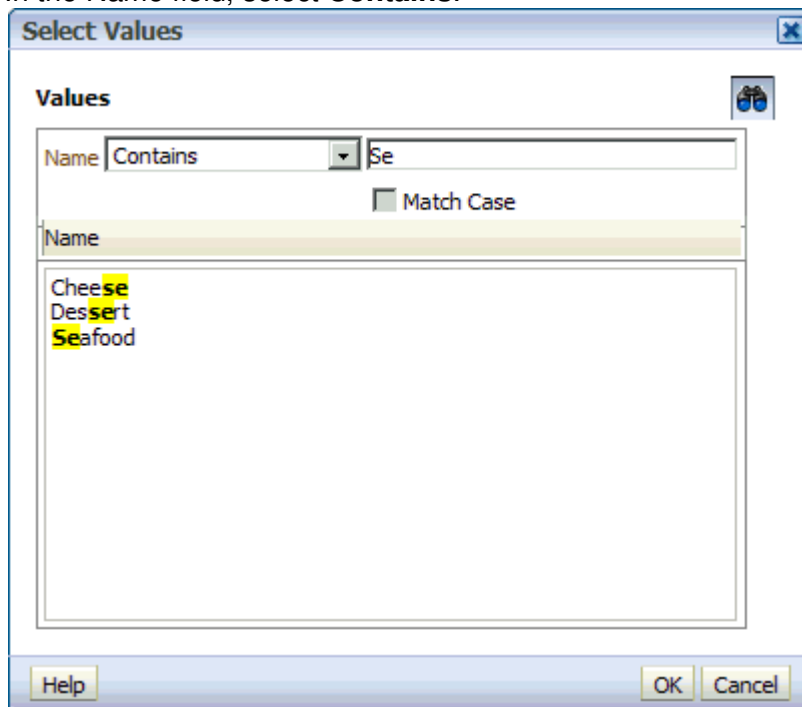l. Select **Enable user to type values**. Auto-complete is only available for the Choice List prompt type when this option is selected.

m. Click **OK** to close the Edit Prompt dialog box.

n. Save the prompt.

o. Return to **Dashboard: Region Sales**.

p.   Click the down arrow for the **Product Type** drop-down list and then select **Search** to open the Select Values dialog box.

q.   Notice that the Search button is no longer available.

r. Leave **Starts** selected in the Name field and type **S** in the blank field to search for product types starting with S.

Select Values ✖

Values 🔍

Name | Starts | ▾ | S

☐ Match Case

Name

Seafood
Snacks
Soup

Help   OK   Cancel
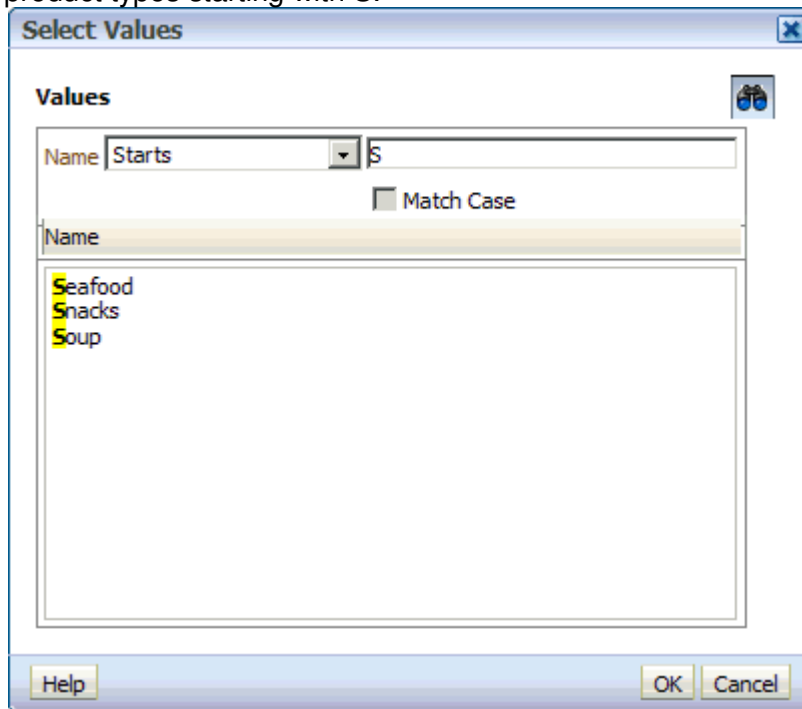
s.   Type **Se** to further narrow the search.

t.   In the Name field, select **Contains**.

Select Values ✖

Values 🔍

Name | Contains | ▾ | Se

☐ Match Case

Name

Cheese
Dessert
Seafood

Help   OK   Cancel

Explanation: When the administrator properly configures the prompts setting in the

Oracle BI EE instance configuration file, the auto-complete functionality highlights matching values when the user accesses the Select Values dialog to search for a prompt value. The administrator sets a default matching level. In this example, the default is Starts (StartsWith). However, the matching level is not determined by the preference set by the administrator. Instead, the user selects the matching level in the Select Values dialog. Match Case is not available because the auto-complete functionality is set to case-insensitive in the Oracle BI EE instance configuration file.

u. Experiment with other matching level and value combinations and then select a value to close the Select Values dialog box and view the results in your dashboard. The screenshot shows an example.

14. Save personal customizations for Dashboard: Region Sales.

a. Set the Region prompt to **West** and the Product Type prompt to **Baking**.

b. Select Page Options > Save Current Customization to open the Save Current Customization dialog box.

c. Name the customization `West Baking`.

d. Set "Save for" to **Me**.

e. Select **Make this my default for this page**.

f. Click **OK**.

g. Repeat the steps and add a second customization named `East Beverage`, but leave `West Baking` as the default.

h. Select Page Options > Edit Saved Customizations and check your work. You can use this dialog box to rename, modify, delete, and control access to your saved customizations.

i. Leave the settings as they are and click **OK** to close the Edit Saved Customizations dialog box.

j. Navigate to My Dashboard and then navigate back to Dashboard: Region Sales and confirm that your default saved customization is applied.

k. Select Page Options > Apply Saved Customization > East Beverage to apply the other saved customization.

Practices for Lesson 17: Using Oracle Business Intelligence Delivers

Chapter 17

Practices for Lesson 17: Overview

Practices Overview

In these practices, you use Oracle BI Delivers to create and run an agent.

Practice 17-1: Creating and Delivering an Agent

Goal
In this practice, you create an agent and deliver it to a dashboard.

Scenario
Create and test an agent that delivers an alert to a dashboard based on a condition.

Time
10-15 minutes

Task
1. Create an agent that delivers an analysis to a dashboard based on a condition.

    a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    b. Click **New > Agent** in the Global Header to navigate to the Agent Editor.

    c. In the Agent Editor, start on the General tab to specify the priority of the agent and how to send the delivery content.

    d. Set the following values:

Priority	**Normal**
Run As	**Recipient**

2. Set the schedule.

    a. Click the **Schedule** tab.

    b. Verify that scheduling is enabled.

    c. Set frequency to **Once**.

    d. Confirm that the start date and time are set to the current date and time.

    e. Leave all other settings as they are.

3. Set a condition.

    a. Click the **Condition** tab. You create a new condition because the conditions you created in an earlier practice, based on an analysis and on a KPI, were both inline conditions and are not available in the Catalog.

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b. Select the **Use a Condition** option and click **Create** to open the Create Condition dialog box.

c. Select **Analysis** in the "Create condition based on" drop-down list and click **Browse** to open the Select Analysis dialog box.

d. In the Select Analysis dialog box, navigate to the **My Sales** folder and select the **Customers – West Region 2009** analysis that will trigger the agent.

e. Click **OK** to close the Select Analysis dialog box.

f. In the Create Condition dialog box, select **is less than** in the "True If Row Count" operator drop-down list and enter **100** as the row count.
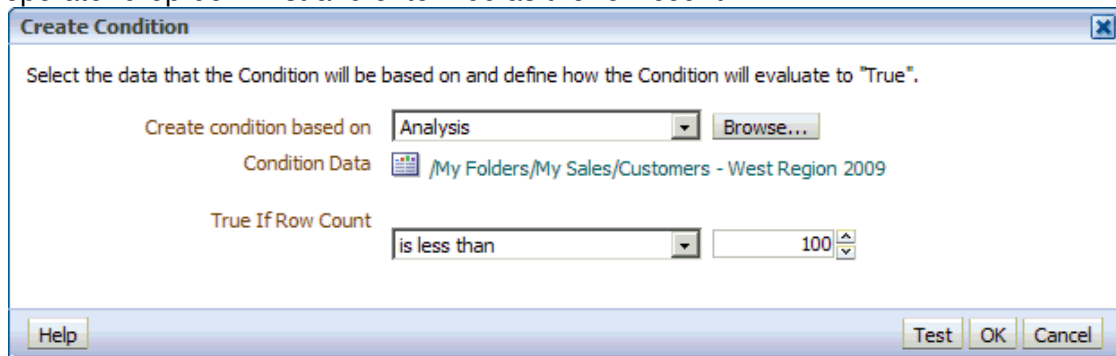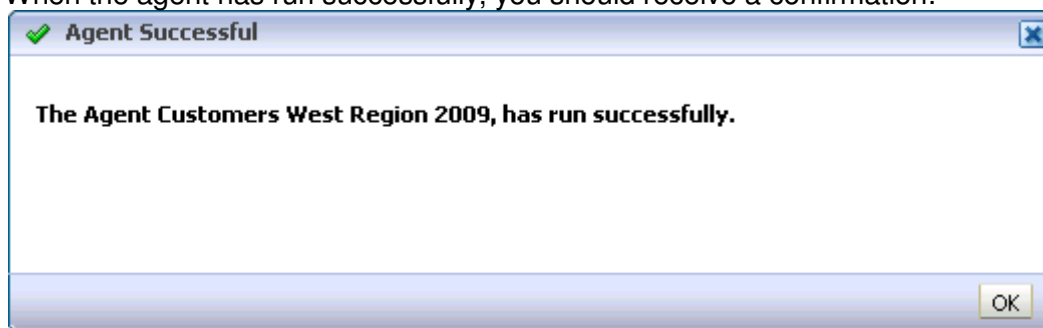

g. Click **Test** to test the condition.

h. Click **OK** in the Test message box with the message "The condition evaluates to True".

i. Click **OK** to close the Create Condition dialog box.

j. Verify your work:
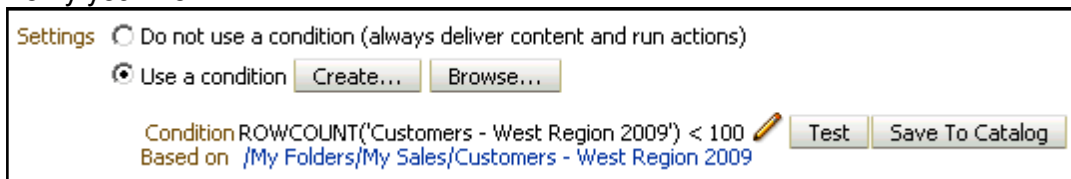
4. Click the **Delivery Content** tab to identify the content that will be delivered by the agent.

a. Enter `Customers West Region 2009` as the Subject.

b. Select **Analysis** in the Content drop-down list.

c. Click **Browse** to open the Choose Delivery Content dialog box.

d. Expand the **My Sales** folder.

e. Select the **Customers – West Region 2009** analysis.

f. Click **OK**.

g. Verify that **(Device default)** is selected in the Format drop-down list.

5. Click the **Recipients** tab to identify recipients of the agent.

a. Select your username, for example, **weblogic**.

b. Notice that you can add and delete recipients. For the purpose of this practice, leave only your username in the Select Recipients list.

c.   Notice the "Publish Agent for subscription" option, which allows other users to subscribe to the agent. You can also add users as subscribers and use the Unsubscribe button to remove them. Note that agents that are published for subscription must be saved in a shared folder so that they can be accessed by other subscribers. For the purpose of this practice, leave the "Publish Agent for subscription" option unchecked.

6.   Click the **Destinations** tab to select the destination for the agent.

a.   Under User Destinations, select the **Home Page and Dashboard** option.

b.   Deselect the **Devices** option.

7.   Save the agent.

a.   Click the **Save** button to save the agent. You do not add any actions to this agent.

b.   In the Save Agent dialog box, save the agent as `Customers West Region 2009` in the My Sales folder.

8.   Test the agent.

a.   Click the **Run Agent Now** button 🔄.

b.   Verify that the Agent is running in the Running Agent dialog box:
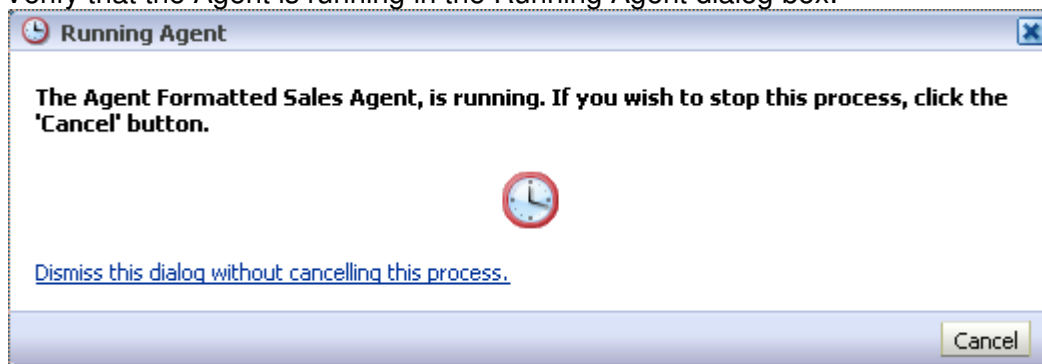
c.   When the agent has run successfully, you should receive a confirmation:

d.   Click **OK**.

9.   Verify that the agent ran successfully and generated alerts in the expected locations.

a.   Click the **Alerts** link in Global Header to open the Alerts dialog box.

b.   Place your cursor over the **Customer West Region 2009** link and notice that you can run, edit, or delete the alert using the available buttons.

c. Click the **Customer West Region 2009** alert's link to view the alert.

d. Notice that, as in the Alerts dialog box, you can edit or run the agent again using the available buttons.

e. Click **OK** to close the alert.

f. Click **OK** to close the Alerts dialog box.

g. Navigate to the Home page. The alert should appear as a link in the Alerts section.

h. Navigate to My Dashboard and verify that the alert appears on the Alerts section you added earlier.

i. Notice there are options to view or clear the agent, and the More button provides additional options to edit or run the agent, subscribe to this feed, or view all alerts.

Practices for Lesson 19: Working with Oracle BI Briefing Books

Chapter 19

Practices for Lesson 19: Overview

Practices Overview

In these practices, you create, edit, download, and view Briefing Books.

Practice 19-1: Working with Oracle BI Briefing Books

Goal

In this practice you create, save, and view a Briefing Book.

Scenario

You create static snapshot and updatable Briefing Books and view them both as PDF files and Web Archives.
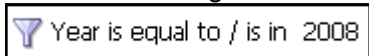
Time

10-15 minutes

Task

Oracle BI Briefing Books store static or updatable snapshots of dashboard pages, individual analyses, or BI Publisher reports. They can be downloaded and shared for offline printing and viewing in PDF or Mime HTML (MHTML) format, added to a dashboard page as a list, and updated, scheduled, and delivered by using agents.

1. Create and format a simple analysis and add it to a new page in your dashboard.

    a. If necessary, start Oracle Business Intelligence Presentation Services and sign in.

    b. Use the **B – Supplier Sales** subject area to create the following analysis:
        Quarter, **Sales Rep**, **New Weight Shipped**.

Time	Customer	Fact-Sales
目 Quarter ⟲	目 Sales Rep ⟲	目 Net Weight Shipped ⟲
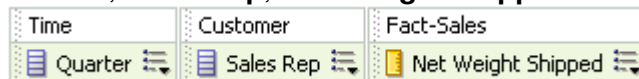
    c. Add the following filter:

    ⛉ Year is equal to / is in 2008

    d. In the Results tab, add a vertical bar graph view to the analysis.

    e. In the Compound Layout, drag the Graph view to the right of the Table view.

    f. Save the analysis as `Sales Rep Fulfillment` in the My Sales folder.

    g. Open My Dashboard in the Dashboard editor.

    h. Add a new dashboard page named `Sales Fulfillment`.

    i. Add the `Sales Rep Fulfillment` analysis to the page.

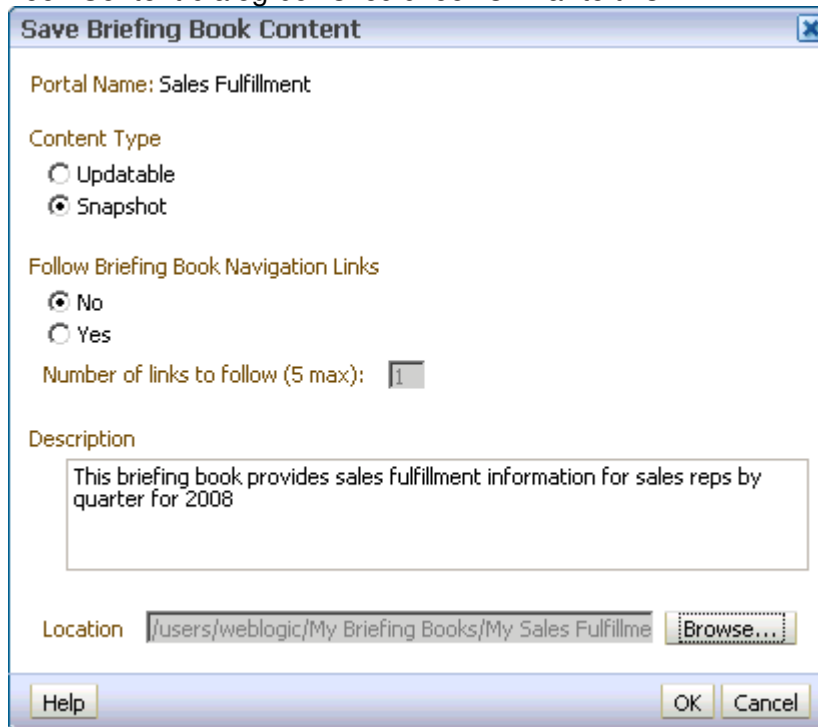j. Save and run the dashboard. The new dashboard page should look similar to the screenshot:
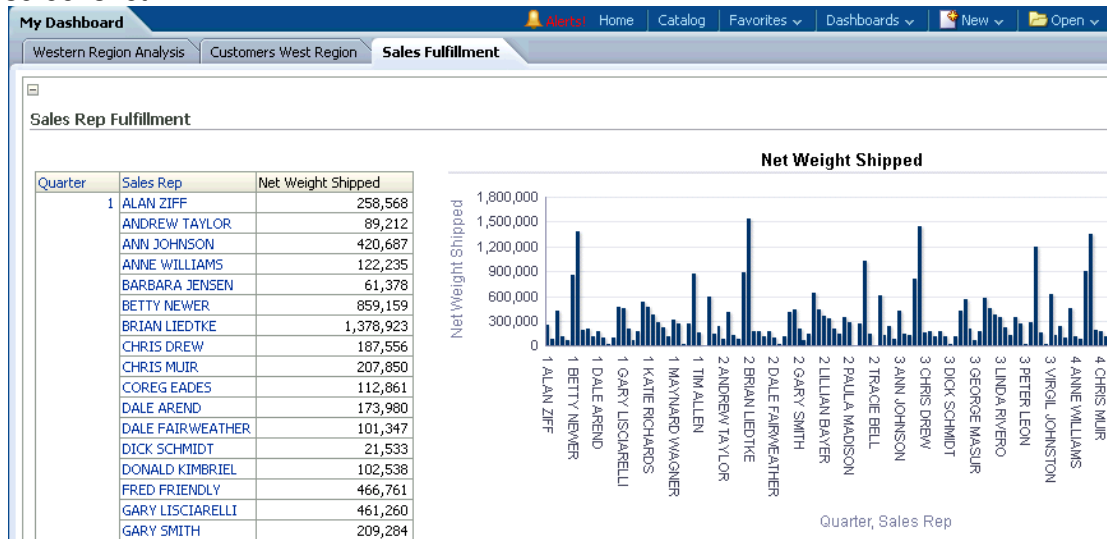
k. Scroll to the bottom and notice that the links for the dashboard do not include an "Add to Briefing Book" link. This is because of the default page settings for report links.

Analyze - Edit - Refresh - Copy

2. Create a new Briefing Book.

a. Click the **Page Options** button and then select **Add To Briefing Book** to open the **Save Briefing Book Content** dialog box. This dialog box allows you to create a new Briefing Book or add detail to an existing Briefing Book.

b. For Content Type, select **Snapshot**. The Snapshot option adds the content in its current state and preserves the original data. The Updatable option allows you to refresh the content whenever the Briefing Book is downloaded or when it is specified as an agent.

c. Enter a description for the Briefing Book, such as `This briefing book provides sales fulfillment information for sales reps by quarter for 2008`.

d. Click **Browse** to open Save As dialog box.

e. Create a new folder within My Folders named `My Briefing Books`.

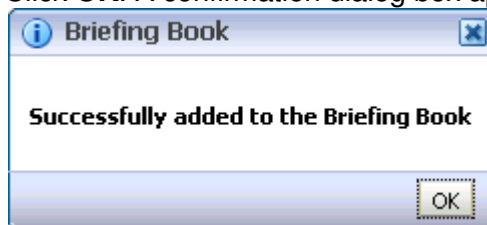f. Save the Briefing Book as `My Sales Fulfillment Briefing Book`.

g. Click **OK** to save the Briefing Book for the entire dashboard page. The Save Briefing Book Content dialog box should look similar to this:
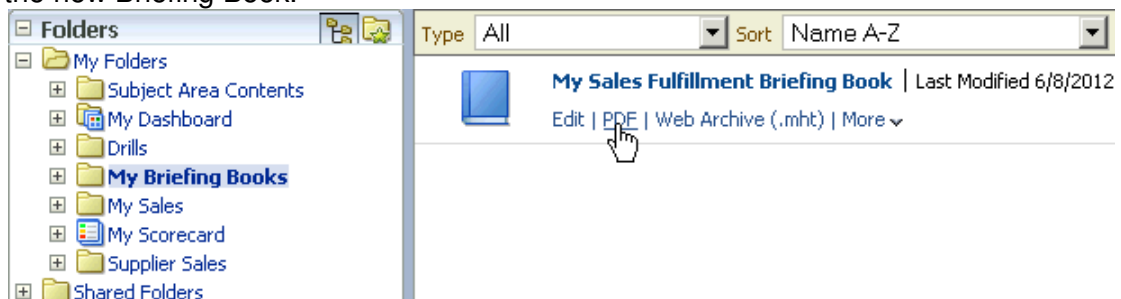

h. Click **OK**. A confirmation dialog box appears.
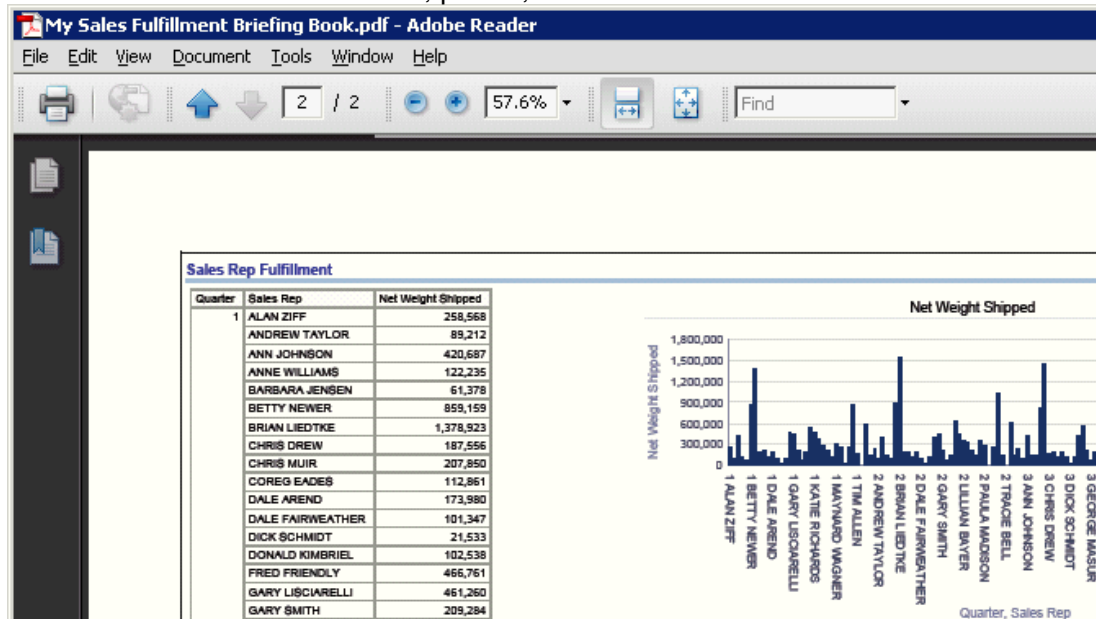

i. Click **OK**.

3. Verify that the Briefing Book was created.

a. In the Catalog page, navigate to the My Briefing Books folder and click the **PDF** link for the new Briefing Book.

b. When prompted by your browser, open the downloaded Briefing Book in Adobe Reader. You can share the PDF, print it, and so forth.

c. Close the PDF file, Adobe Reader, and the Downloads dialog box (if it is open).

4. Create an updatable Briefing Book from the Sales Rep Fulfillment analysis. Recall that the analysis is on a dashboard that defaulted to report links specified for the entire dashboard. In this set of steps, you update the analysis on the dashboard to include the Briefing Book link, and then create a new Briefing Book that is updatable.

a. Navigate to the Sales Fulfillment page of My Dashboard and open it in the Dashboard Editor.

b. Click the **Properties** icon for the Sales Rep Fulfillment analysis and select **Report Links**.

c. In the Report Links dialog box, select the **Customize** option to override the dashboard settings and enable selection of settings for this specific analysis.

d. Select the **Add to Briefing Book** check box and click **OK**.
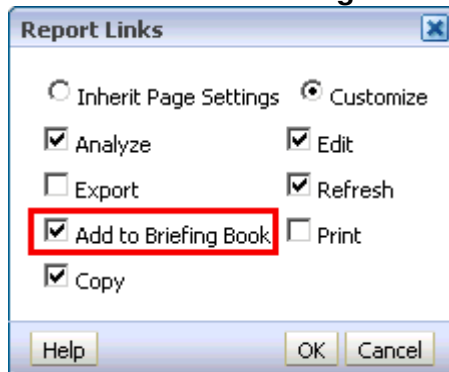
e. Save and run the dashboard. Notice that the Add to Briefing Book link is now available for this analysis.

f. Click the **Add to Briefing Book** link.

g. In the Save Briefing Book Content dialog box, accept the defaults, which include setting the Content Type as Updatable and the Follow Briefing Book Navigation Links to No.

h. Enter `Updatable sales fulfillment information for sales reps` as a description for the Briefing Book.

i. Click **Browse**.

j. In the Save As dialog box, save the Briefing Book as `Updatable Sales Rep Fulfillment` in the My Briefing Books folder.

k. Verify your work in the Save Briefing Book Content dialog box:

l. Click **OK** in the Save Briefing Book Content dialog box. You should get a confirmation message "Successfully added to the Briefing Book".

m. Click **OK** to close the confirmation message.

n. In the Catalog page, verify that the Briefing Book was created in the My Briefing Books folder.

5. Update the analysis and the corresponding briefing book.

    a. Edit the **Sales Rep Fulfillment** analysis by adding the Customer column to the Table view.

Quarter	Sales Rep	Customer	Net Weight Shipped
1	ALAN ZIFF	Chang's Mongolian Grill	61,950
		Globus Office	24,993
		Half-Shell Restaurant	152,711
		Times On Bay	18,914
	ANDREW TAYLOR	Barbies Cafe	1,119
		Berkeley Cafe	79,481

    b. Save the analysis.

    c. Navigate to My Dashboard.

    d. Notice that the Customer column is now part of the analysis on the Sales Fulfillment page.

    e. Scroll down and click the **Add to Briefing Book** link for the Sales Rep Fulfillment analysis to open the Save Briefing Book Content dialog box.

    f. Click **Browse**, navigate to the My Briefing Books folder, and select the **Updatable Sales Rep Fulfillment** Briefing Book.

    g. Click **OK**.

    h. Click **OK** to close the Save Briefing Book Content dialog box.

    i. Click **OK** to close the confirmation dialog box.

    j. In the Catalog page, navigate to the My Briefing Books folder.

    k. Click the **PDF** link for the **Updatable Sales Rep Fulfillment Briefing Book** and, when prompted by your browser, open the file with Adobe Reader.

    l. Notice that the newest iteration of your analysis has been added to the PDF. The first page of the PDF contains the Table of Contents, which now includes the newest version of the analysis on page 2.

    m. Scroll to the second page of the PDF. Notice that it contains the first version of the analysis that was added to the updatable Briefing Book.

Sales Rep Fulfillment

Quarter	Sales Rep	Net Weight Shipped
1	ALAN ZIFF	258,568
	ANDREW TAYLOR	89,212
	ANN JOHNSON	420,687
	ANNE WILLIAMS	122,235

n. Scroll to the third page, where the new updated version has been added, and confirm that the new column appears.

Sales Rep Fulfillment

Quarter	Sales Rep	Customer	Net Weight Shipped
1	ALAN ZIFF	Chang's Mongolian Grill	61,950
		Globus Office	24,993
		Half-Shell Restaurant	152,711
		Times On Bay	18,914
	ANDREW TAYLOR	Barbies Cafe	1,119
		Berkeley Cafe	79,481
		Glory Years Sports Bar & Grill	1,628
		K B's Burritos	474
		Melos Taverna	4,909
		Paulette's Coffee Shop	1,602

o. Close the PDF.