BICG University

11g - Course 301
“Dashboard/Report Application Development” Day 1
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Capgemini Overview

Revenue 2010: €8,697 million
Operating Margin: €587 million
Operating Profit: €489 million
Profit for the Period: €280 million
Net Cash: €1,063 million

“Cap Gemini S.A.” is a member of the CAC40, listed in Paris
ISIN code: FR0000125338

Note: Our brand name is “Capgemini” but the name of our share on the stock exchange is “Cap Gemini S.A.”

Revenue by Discipline

- Technology Services: 41.5%
- Outsourcing Services: 36.3%
- Consulting Services: 5.9%
- Local Professional Services: 16.3%

Revenue by Industry

- Consumer Products, Retail & Distribution: 27.6%
- Public Sector: 27.2%
- Financial Services: 18.4%
- Energy & Utilities: 10.9%
- Telecom, Media & Networks: 8.3%
- Other: 7.6%
Capgemini’s Oracle Analytic Practice (OAP)

- Premier provider of Business Intelligence (BI) and Enterprise Performance Management (EPM) Services focused exclusively on Oracle
  - Oracle Pillar Partner, Oracle Certified, Oracle Deputy CTO, Oracle PTS and Oracle Partner Advisory Council

- Successfully completed over 340 Oracle BI, BI Apps, Data Warehousing and EPM Projects
  - Full life cycle activities - training, implementation, extended support

- Oracle 11G Beta Test Partner
  - 1 of 5 Global Systems Integrators asked to participate

- 120+ experienced EPM/BI Consultants
  - Enhanced by Development/Solution Center (DSC)
Course Welcome

Welcome to Capgemini’s BICG University “11g Dashboard/Report Application Development” Course!

Capgemini’s BICG University’s comprehensive training program reflects the best practices developed after more than 200 implementations of Oracle BI Enterprise Edition (formerly Siebel Analytics). Our curriculum is designed to not only provide a functional understanding of the variety of Oracle BI and data warehousing tools, it also provides a wealth of advice, tips, and tricks designed to fully take advantage of all aspects of OBIEE before, during and after a project.

Our classes operate in an “immersion” environment, designed to allow the student to become fully engaged in all aspects of the class curriculum through a series of real world exercises. Unlike other training organizations that use trainers who have never actually implemented the software or built a data warehouse, Capgemini taps into our wealth of experienced consultants to act as trainers and mentors. The best practices, tips and tricks developed by our team will allow you to push your data warehouse and Oracle BI Enterprise Edition implementations to the limit.

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Realizing that successful projects are about people, not just technology, 90% of BICG’s customers utilize BICG University as their education partner through out their project lifecycle to maximize their business results. BICG University meets the education needs of all project stakeholders through a broad array of OBI courses:

10g Training Courses
OBIEE 101: Dashboard Fundamentals
OBIEE 201: Answers for Power Users
OBIEE 301: Dashboard/Report Application Development
OBIEE 350: Advanced Dashboard/Report Application Development
OBIEE 390: OBI Springboard
OBIEE 401: Repository/Metadata Application Development
OBIEE 402: Server Architecture
OBIEE 501: BI Publisher for Power Users

11g Training Courses
OBIEE 11-101: Dashboard Fundamentals
OBIEE 11-201: Analysis for Power Users
OBIEE 11-301: Dashboard/Report Application Development
OBIEE 11-350: Advanced Dashboard/Report Application Development
OBIEE 11-401: Repository/Metadata Application Development
OBIEE 11-402: Server Architecture
OBIEE 11-501: BI Publisher for Power Users

BI Publisher Training Courses
OBIEE 11-501: BI Publisher for Power Users
OBIEE 501: BI Publisher for Power Users

BI Applications Training Courses
OBIEE 601: Introduction to BI Applications
OBIEE 602: Introduction to Informatica for the BI Applications
OBIEE 603: Data Administration Console for the BI Applications
OBIEE 604: Customization of the BI Applications

Endeca:
Endeca 701: Endeca Information Discovery App Dev

For More Information Please Contact : Elinor Poole
Please adhere to the following guidelines to ensure that you get the most out of this course:

- We know that everyone is balancing job responsibilities outside of training. Try to keep interruptions to a minimum.

- You will have a morning break, afternoon break, and sufficient time for lunch. If you need to take a phone call or attend a meeting please try to do so during scheduled breaks.

- If you do have to step out and miss the instructor’s presentation of an exercise try to get caught up from someone else in the class. Instructors can help you get caught up if there is time during class but if you get too far behind you may have to just observe for the rest of the time. This is especially important during two day classes where some of the work done in Day 1 is used in Day 2.

- Please mute cell phones.

- If attending an online class please mute your phone or microphone unless you need to speak to the instructor.
The “Key” to our Exercise

Throughout our exercises, you’ll occasionally see yellow “Post-it” notes sprinkled throughout. These are topics that we may call out and discuss in class, or we might suggest that you review others on your own time. These “notes” are designed to further your knowledge about the Oracle BI Enterprise Edition; on BI Best Practices; on “Tips and Tricks” to enable you to rapidly develop applications using OBIEE; and other notable topics. We strongly believe that the better educated you are on each of these topics, the better prepared you’ll be.

Our “notes” key is below:

**Light Bulb:** These notes will provide advice, tips or tricks that we’ve developed over the years, or points to ponder.

**Green Plus Sign:** These indicate an alternative way to complete a task or a short cut.

**Drafting Table:** These are exercises that we’ll be working on in class. At BICG we believe in following standards and best practices, but we don’t believe in limiting creativity. These exercises are your chance to flex your creative muscles!
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 minutes</td>
<td>Exercise #1 Basics: Creating an Analysis</td>
<td>12</td>
</tr>
<tr>
<td>25 minutes</td>
<td>Exercise #2 Filtering, Totals, and Formatting Tabular Views</td>
<td>28</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Exercise #3 Graphing Basics</td>
<td>40</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Exercise #4 Intermediate Graphing and Graph Formatting Basics</td>
<td>48</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Morning Break</td>
<td></td>
</tr>
<tr>
<td>20 minutes</td>
<td>Exercise #5 Pivot Table Basics</td>
<td>60</td>
</tr>
<tr>
<td>20 minutes</td>
<td>Exercise #6 Adding Calculations and Binning</td>
<td>71</td>
</tr>
<tr>
<td>20 minutes</td>
<td>Exercise #7 Right Click</td>
<td>91</td>
</tr>
<tr>
<td>30-60 minutes</td>
<td>Lunch Break</td>
<td></td>
</tr>
<tr>
<td>20 minutes</td>
<td>Exercise #8 Conditional Formatting Basics</td>
<td>105</td>
</tr>
<tr>
<td>20 minutes</td>
<td>Exercise #9 Advanced Formatting of Tabular Views</td>
<td>116</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Exercise #10 Column Selector Basics</td>
<td>131</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Afternoon Break</td>
<td></td>
</tr>
<tr>
<td>20 minutes</td>
<td>Exercise #11 View Selector Basics</td>
<td>139</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Exercise #12 Dashboard Basics</td>
<td>150</td>
</tr>
<tr>
<td>45 minutes</td>
<td>Exercise #13 Combining View Selectors and Column Selectors</td>
<td>161</td>
</tr>
</tbody>
</table>
Dashboard/Report
Application Development

Getting Started
Logging into the Training Website
Logging into OBI EE

Go to the following URL to get to the training website:

http://obiee.biconsultinggroup.com:7001/analytics

You will see the following login screen. Your User ID and Password will be provided by the instructor at the start of the course.
Dashboard/Report
Application Development

Exercise #1
Basics: Creating An Analysis
Exercise Objectives:

In this lesson we will review the fundamentals of using OBIEE to create an analysis.

Content:
1. Navigating the User Interface (UI)
2. Creating a Basic Table
3. Changing Column Properties
4. Viewing and Editing from the Compound Layout
5. Table View Properties
6. Saving an Analysis
Why Use This Feature?

**Formatting** - Formatting results allows you to apply varying background colors to your result set that make the data easier to read.

*For example:* Using the “Green Bar” function in a table view makes it easier to distinguish one row of data from another.

<table>
<thead>
<tr>
<th>Cust Regions</th>
<th>Products</th>
<th>Base Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P4 Brand</td>
<td>Billed Quantity</td>
</tr>
<tr>
<td>AMERICAS</td>
<td>BizTech</td>
<td>$7,768,708.7</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$6,317,107.3</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$4,031,188.3</td>
</tr>
<tr>
<td>APAC</td>
<td>BizTech</td>
<td>$5,384,625.6</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$4,519,475.9</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$2,984,981.0</td>
</tr>
<tr>
<td>EMEA</td>
<td>BizTech</td>
<td>$7,846,665.7</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$6,663,416.8</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$4,483,830.7</td>
</tr>
</tbody>
</table>
Navigating the UI

The Oracle BI EE Home page provides you with an intuitive, task-based entry way into Oracle BI EE’s functionalities. The Home page is divided into sections that allow you to quickly begin a specific task, locate an object, or access technical documentation. You can always access the Home page by clicking the Home page link on the global header. From the home page you can quickly:

1. Create new content starting with the Create section in the upper left.
2. Browse existing reports, dashboards, scorecards etc.
3. Review end user documentation in the Get Started section.
4. Open or edit your own private recently accessed content.
5. Open or access the overall most popular content that you have visibility to.
6. Open or access analyses that you have designated as Favorites.

💡 The recommended browser for taking this course is Firefox.
The global header, shown above contains links and options that allow you to quickly begin a task or locate a specific object within the Oracle BI Presentation catalog. Many of the options that are available via the global header are also available within the Home page.

The advantage of the global header is that it is always available from the user interface. When you are viewing a dashboard or working within one of the task editors, you can use the global header to quickly begin a new task, search the catalog, access product documentation, or view a different object without having to return to the Oracle BI EE Home page.

The global header also contains Favorites. These work just like bookmarks in a browser. You can mark analyses and dashboards as favorites. You can re-order them within the Favorites dropdown. Favorites are also displayed with a star when shown on the home page. The 0.1 General Index – Main Index is displayed with a star in the Most Popular section below.
Creating a new Analysis

Subject Areas are collections of metrics and attributes that can be reported together in a meaningful way.

Any analyses or dashboards that you have accessed recently can be opened from here.

The overall most popular content that you have visibility to can be opened from here.

1. Select the **New** Icon on the Global Header.
2. Select **Analysis** from the dropdown list.
3. Select the subject area **A - Sample Sales**.
Selecting Columns

Once a subject area is selected, a “Pick List” appears on the left of the screen, organizing metrics and attributes into tables.

When double clicked, the selected metric or attribute appears in the Selected Columns section.

Any filters will appear in this section. In this case, no filters have been added. We will be adding a filter in a future exercise.

The instructions for how to add columns to an analysis are listed in this section.

1. Open the Customers table and expand the Cust Regions folder.
2. Double click the C50 Region column.
3. Open the Products table and double click the P4 Brand column.
4. Scroll down and open the Facts table and expand the Base Facts folder.
5. Double click the 2 – Billed Quantity and 1 – Revenue columns.
Changing Column Properties

Each column in your analysis has a properties icon with the following selections:

**Sort** – Ascending or Descending by this column.

**Edit Formula** – Allows users to create their own calculated columns and apply functions such as Rank, etc.

**Column Properties** – This is where we can format data by adding currency symbols, changing fonts, colors and add conditional formatting to columns.

**Filter** – We can add filters to the data to limit the report results to a specific data set.

**Delete** – This will remove the column from the report.

1. Hover over the Properties icon on the **Billed Quantity** column.

2. Click **Column Properties**.
Changing Column Properties

There are a lot of different formatting settings available through the column properties box. We will be doing a few more settings in future exercises. For this exercise

We will want to add custom headings for two of our columns in this analysis.

1. Click the **Column Format** tab.
2. Click the **Custom Headings** checkbox.
3. Enter **Billed Quantity** in the Column Heading box.
4. Click the **OK** button.
1. Hover over the Properties icon on the 1 – **Revenue** column.
2. Click **Column Properties**.
1. Click the **Column Format** tab.
2. Click the **Custom Headings** checkbox.
3. Enter **Revenue** in the Column Heading box.
4. Click the **OK** button.
The compound layout contains different views of the data as well as views such as title views. At this point we have the title view and the tabular view in the compound layout. Each view contains the following icons:

- **Format Container** – Change the formatting of the view including background color and border or set alignment.
- **Edit View** – Use this icon to put the view into edit mode if you want to make changes to it.
- **Remove View from Compound Layout** – This icon is used to remove views from the compound layout. The view is not deleted from the analysis but simply removed from the compound layout.

1. Click the **Results** tab (it is to the right of the **Criteria** tab).
2. Click the **Edit View** icon to put the table into edit mode.
We are now editing the table view from the compound layout. You can make your changes to the table and then click the Done button to return to the compound layout.

The table editor now contains a Preview pane so that you can see how your table view will look on a dashboard. You can re-size this pane as necessary to see other panes.

The Layout pane is where you arrange your columns in the table. You can also add a Table Prompt or put a column in the Sections.

The Table View Properties icon allows you to make basic changes to the table such as adding green bar styling or modifying column headings.

To cancel changes made to a view and return to the compound layout without saving those changes, click the Revert button to undo your changes and then click the Done button.

1. Click the Table View Properties icon.
Changing Table View Properties

1. Change the Display Folder & Column Headings option to As Separate Rows.
2. Click the Enable the alternating row “green bar” styling checkbox.
3. Click the OK button to close the dialog box.
4. Click the Done button to return to the compound layout.

This setting is used to display the columns “table headings” (which are actually the names of the folder in which the “column” is contained) as separate parent rows on the table. This allows a nice method of organizing columns for better readability.

Adding “green bar” styling is a BICG best practices standard for tabular views and pivot table views.

Alternating row “green bar” styling will color every other row white. This also improves readability on your table view.
Saving Analysis

There are two save Icons. The first one is a Save. You will be prompted for where to save an analysis and what to call it when using this for the first time. After that you will be able to click the Save and the current analysis will be saved and you will not be prompted for any changes. The second icon is a Save As. Every time you click this you will be prompted for where to save the analysis and what to name it.

My Folders is a private folder object that only you have access to. We will be saving all analysis created today into this folder. Shared folders contain analysis that are displayed on the shared dashboards.

1. Click the Save icon.
2. Click the New Folder icon.
3. Enter Day 1 Analyses and click the OK button.
4. Type Exercise #1 into the Name box.
5. Click the OK button.
The analysis has been saved and is open to the compound layout.

Due to this being a training environment the data for certain columns may vary slightly from what is displayed in the course materials.
Dashboard/Report
Application Development

Exercise #2

Filtering, Totals, and Formatting
Tabular Views
Exercise Objectives:

In this lesson we will review slightly more advanced topics of analysis development, including basic formatting, adding filters, adding totals and sub-totals, and the basics of navigating through the view editors and the compound layout editor.

Content:

1. Filtering
2. Dragging and Dropping Columns
3. Totals/Subtotals
**Why Use This Feature?**

**Filters** - Filters allow you to limit the data in an analysis to return a specific subset of data. Filters are also very useful during development to temporarily limit your result set down to a manageable amount of data while you create you Tables, Pivot Tables, or Graphs.

*For example:* You may want to create a filter that only returns data where the Region = ”AMERICAS” and “APAC”

![Edit Filter](image)

**Totals** - The use of totals in you result sets allow you to quickly roll up rows and columns as well as add Grand Totals. Additionally, adding color to your result sets can make data that needs more attention stand out.

*For example:* Totals allow the user to quickly total sales by Region. Grand totals allow the user to quickly see sales totals for All Regions.
Filtering the Analysis

1. Click the Criteria tab.
2. Hover over the Properties icon on the C50 Region column.
3. Click Filter from the dropdown list.

Analysis can easily be filtered by hovering over the column properties icon and selecting Filter. This will open the filter dialogue box.

You can also add filters on columns that are not contained in your analysis by clicking the Create Filter icon.
The operator column can be used to include, exclude, set a range, or many other options for filtering.

1. Click the dropdown arrow by the Value box.
2. Select two regions from the resulting list - **AMERICAS** and **APAC**.
3. Click the OK button.
4. Click the Results tab to open the compound layout.
Editing the Table View

Now we are only seeing two regions in our analysis because we just added the filter.

1. Click the **Edit** icon on the Table View to put the table into edit mode.
Changing Column Order

1. Practice dragging and dropping the columns to re-order the column order. The top example shows moving the columns in the Preview pane using the gray handle.

2. The next example shows moving columns in the Layout pane by clicking the column and watching for the dark blue line. When dragging, a dark blue bar indicates where the column will end up.

3. Make sure the column order is **C50 Region**, **P4 Brand**, **Billed Quantity**, and **Revenue** before continuing.
Adding a Grand Total

Clicking on the “Sigma” button to the right of the Columns and Measures section will add a grand total line to the table.

1. Click the Sigma icon to the right of the Columns and Measures section.  
2. Choose After from the dropdown list.
Clicking the “Sigma” button on any column, will add a sub-total break whenever a new element appears in the list.

1. Click the sigma button to the right of the C 50 Region column to add a sub-total break after each region.
2. Click the Done button to return to the compound layout.
The analysis now has sub-totals wherever there is a “break” in the elements in the first column.

And a grand-total at the bottom of the table.
Adding a View to the Compound Layout and Saving the Analysis

When you click the New View icon you see additional “views” that can be added to the compound layout such as Column Selectors and View Selectors. We will be adding these in a future exercise.

1. Click the **New View** icon on the top of the screen.
2. Choose **Filters** from the dropdown list.
3. Click the **Save As** icon (it is to the right of the Save icon).
4. Make sure it says **My Folders/Day 1 Analyses** in the folder box.
5. Enter **Exercise #2** for the name and click the **OK** button.
We now have a Filters view at the bottom of the compound layout which displays any filtering being done on the analysis. New views are always placed at the bottom of the compound layout. You can drag and drop to re-arrange them. This compound layout contains three views, a Title, Table, and Filters view. Each view has a Format, Edit, and Delete icon in the right hand corner.
Dashboard/Report Application Development

Exercise #3
Graphing Basics
Exercise Objectives:

In this exercise we will review the basics of creating Graph views.

Content:

1. Graphing Basics
2. Graph Types
3. Adding a Graph to the Compound Layout
Graphs allow users the ability to represent data in various visual formats. Graphs can be very useful in pointing out data that needs attention or show area of the best performance.

*For example:* A vertical bar chart that shows all regions side by side. Within OBIEE you have the ability to create graphs that show the roll up values of data visually and allow the user the ability to “Drill” to the specific data in a table or pivot table view.
1. Click the **New View** icon on the top of the screen.
2. Choose **Graph** from the dropdown list.
3. Choose **Pie** from the dropdown list.
All new views get placed at the bottom of the compound layout. The graph has been put at the bottom under the Filters view. This view, like all others in the compound layout has three icons: Format, Edit, and Delete. After we edit this chart we will drag and drop it to be above the Filters view.

1. Click the **Edit** icon on the Graph view to put the view into edit mode. ✍️
1. Click the available effects dropdown and choose 3D.
2. Click Done to return to the compound layout.
Saving the Analysis

1. Drag the Graph view so that it is above the Filters View. Watch for the blue line above the Filters view to indicate that it will land there when you drop it.

2. Click the Save As icon (it is to the right of the Save icon).

3. Enter Exercise #3 for the name and click the OK button.

4. Click the Preview icon so that you can see what your analysis will look like once it is placed on a dashboard.

It is always a good idea to do a preview while working on an analysis. You can see how the analysis will look once it is on a dashboard and also test any behavior.
Exercise #3

<table>
<thead>
<tr>
<th>Cust Regions</th>
<th>Products</th>
<th>Billed Quantity</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>C50 Region</td>
<td>P4 Brand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMERICAS</td>
<td>BizTech</td>
<td>833,228</td>
<td>9,526,360</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>632,627</td>
<td>8,374,090</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>641,339</td>
<td>8,133,929</td>
</tr>
<tr>
<td>AMERICAS Total</td>
<td></td>
<td>2,107,194</td>
<td>26,034,379</td>
</tr>
<tr>
<td>APAC</td>
<td>BizTech</td>
<td>547,097</td>
<td>6,282,312</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>416,937</td>
<td>5,557,104</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>435,882</td>
<td>5,523,936</td>
</tr>
<tr>
<td>APAC Total</td>
<td></td>
<td>1,399,916</td>
<td>17,363,352</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>3,507,110</td>
<td>43,397,730</td>
</tr>
</tbody>
</table>

Billed Quantity, Revenue

C50 Region is equal to **AMERICAS, APAC**
Dashboard/Report Application Development

Exercise #4
Intermediate Graphing and Graph Formatting Basics
Exercise Objectives:

In this exercise we will review the basics of creating graph views.

Content:

1. Intermediate Graph Types
2. Graph Formatting
1. Click the **Edit** icon on the Graph view to put the view into edit mode.
1. Click the **Available Graph** types dropdown and choose Bar.
2. Click the Subtypes dropdown and choose **Stacked Vertical**.
3. Click the available effects dropdown and choose **2D**.
4. Drag and drop the Layout window up so that you can see more of the Layout pane.
You can put columns into the Graph Prompts section to provide a dropdown for users to choose which values to see in the graph.

You can put columns into the Sections section to create a graph for each value in that column.

You can move columns around in the Bar Graph section to determine which columns are displayed in the Vertical and Horizontal Axis. You can also use the Excluded section for any columns you don’t want displayed in your graph.

1. Drag **P4 Brand** to the **Vary Color By** section. Drag the column onto the ‘Vary Color By...’ words. When they turn blue you can drop the column.

2. Drag **Billed Quantity** to the **Excluded** section.
1. Drag and drop the Layout window down so that you can see more of the Preview pane.

2. Your graph should look like the one displayed above.

3. Click the **Graph Properties** icon.
Setting Graph Properties

You can use the Canvas Width and Height settings to adjust the size of your graph.

The default location for the Legend is to the right of the graph.

1. Enter 450 in the Canvas Width box.
2. Click the Legend Location dropdown and choose Top.
3. Click the Titles and Labels tab.
1. Uncheck the 'Use measure name as graph title' checkbox and enter Region - Brand Summary in the Title box.

2. Click the Format button by Vertical Axis Labels in the Labels section.
1. Choose **Thousands(k)** from the **Abbreviate** dropdown list.
2. Click the **OK** button.
3. Click the **OK** button.
1. Drag and drop the Layout window down so that you can see more of the Preview pane.

2. Your graph should look like the one displayed above.

3. Click **Done** to return to the compound layout.
Saving the Analysis

1. Click the **Save As** icon (it is to the right of the Save icon).

2. Enter **Exercise #4** for the name and click the OK button.

3. Click the **Preview** icon so that you can see what your analysis will look like once it is placed on a dashboard.

It is always a good idea to do a preview while working on an analysis. You can see how the analysis will look once it is on a dashboard and also test any behavior.
## Exercise #4

<table>
<thead>
<tr>
<th>Cust Regions</th>
<th>Products</th>
<th>Base Facts</th>
<th>P4 Brand</th>
<th>Billed Quantity</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAS</td>
<td>BizTech</td>
<td></td>
<td>833,228</td>
<td>9,526,360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td></td>
<td>632,627</td>
<td>8,374,090</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td></td>
<td>641,339</td>
<td>8,133,929</td>
<td></td>
</tr>
<tr>
<td><strong>AMERICAS Total</strong></td>
<td></td>
<td></td>
<td>2,107,194</td>
<td>26,034,379</td>
<td></td>
</tr>
<tr>
<td>APAC</td>
<td>BizTech</td>
<td></td>
<td>547,097</td>
<td>6,282,312</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td></td>
<td>416,937</td>
<td>5,557,104</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td></td>
<td>435,882</td>
<td>5,523,936</td>
<td></td>
</tr>
<tr>
<td><strong>APAC Total</strong></td>
<td></td>
<td></td>
<td>1,399,916</td>
<td>17,363,352</td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td></td>
<td>3,507,110</td>
<td>43,397,730</td>
<td></td>
</tr>
</tbody>
</table>

### Region - Brand Summary

<table>
<thead>
<tr>
<th>Region</th>
<th>BizTech</th>
<th>FunPod</th>
<th>HomeView</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAS</td>
<td><img src="chart1.png" alt="AMERICAS Revenue Chart" /></td>
<td><img src="chart2.png" alt="AMERICAS Revenue Chart" /></td>
<td><img src="chart3.png" alt="AMERICAS Revenue Chart" /></td>
</tr>
<tr>
<td>APAC</td>
<td><img src="chart4.png" alt="APAC Revenue Chart" /></td>
<td><img src="chart5.png" alt="APAC Revenue Chart" /></td>
<td><img src="chart6.png" alt="APAC Revenue Chart" /></td>
</tr>
</tbody>
</table>

C50 Region is equal to AMERICAS, APAC
Dashboard/Report
Application Development

Exercise #5
Pivot Table Basics
Exercise Objectives:

In this lesson we will review the fundamentals of using pivot tables, including basic formatting and adding totals and sub-totals.

Content:

1. Pivot Table Basics
2. Totals and Sub-Totals
Why use Pivot Tables? Pivot tables are a great solution for handling result sets with a large number of columns. Pivot Table views should be used to deliver results in an analysis or dashboard instead of using a Table view. The Table view can only represent data in rows and columns. Pivot Tables allow the ability to display data in various ways, such as displaying Columns across the page, and allowing users to move data elements from rows to column and columns to rows to meet their particular reporting needs.

**For Example:** We want to see Sales by Billed Quantity, Revenue & Brand for each Region.
1. Close the Preview window that was open for the last exercise.

2. Click the New View icon on the top of the screen.

3. Choose Pivot Table from the dropdown list.
Editing the Pivot Table

All new views get placed at the bottom of the compound layout. This view, like all others in the compound layout has three icons: Format, Edit, and Delete.

1. Click the Edit icon on the Pivot Table view to put the view into edit mode.
Working in the Pivot Table Editor

1. Drag and drop the Layout window up so that you can see more of the Layout pane.

2. The Layout pane is where you arrange your columns in the pivot table. You can also add a Prompt or put a column in the Sections.

3. The Preview pane will display what your pivot table will look like once placed on a dashboard.

4. The Pivot Table View properties icon allows you to make basic changes to the pivot table such as adding alternating row “green bar” styling.

1. Drag and drop the Layout window up so that you can see more of the Layout pane.

2. Drag the P4 Brand column to the Columns section (NOTE: this can be done in the layout pane or in the preview pane).

3. Drag Measure Labels to the Rows section.
Basic Formatting, and Adding Totals and Sub-Totals

Anywhere a sigma symbol appears, you are able to add a row, column, section or other total or subtotal. Clicking the sigma button on rows, will add a total to the bottom of the pivot table,

While clicking the sigma button on columns will add a new set of total columns off to the right.

1. Click the **Sigma** icon in the rows section and select the option for displaying totals **After**. 

2. Click the **Sigma** icon in the columns section and select the option for displaying totals **After**. 

3. Click the **Pivot Table View Properties** icon.
Setting Pivot Table Properties

1. Click the Enable alternating row “green bar” styling checkbox.
2. Click the OK button.
Adding New Metrics or Attributes to the Pivot Table

You’ll notice that while you’re in the pivot table editor, the “Pick List” is still available on the left side of the screen. Using the pick list, you are able to add any additional metric or attribute to the pivot table, without returning to the criteria tab. When adding a new element, it will drop into the “rows” by default.

1. Expand the Time table and double click the T05 Per Name Year column.

2. This will add it to the right of Measure Labels in the Rows section. Drag it to the to the left of Region.

3. Click the Done button to return to the compound layout.
1. Drag the Pivot Table so that it is above the Filters View.
2. Highlight the Table in the Views box on the lower left and click the Rename icon. Enter Simple Table as the name.
3. Rename the Graph to Stacked Bar Graph and rename the Pivot Table to Simple Pivot Table.
4. Click the Save As icon (it is to the right of the Save icon).
5. Enter Exercise #5 for the name and click the OK button.

To recover the original name of a view simply erase the customized name and click the OK button.
1. In the current release of OBIEE you are able to rename views which can help developers document different types of views and what they are used for. Later in the course we will rename views in a view selector for users to see a more user-friendly name when the view is displayed.
Dashboard/Report Application Development

Exercise #6

Adding Calculations and Binning
Exercise Objectives:

In this exercise we will review the powerful ability to add custom calculations directly.

Content:

1. Adding Calculations.
2. Formatting the Data Type of Columns.
Calculations are great for prototyping. You can very quickly and easily set up a calculation and then review it with other developers or your users. One thing to keep in mind is that when you create calculations in an analysis those calculations can be used in that analysis only. For calculation that would be could be / should be used for multiple analyses, those should be created in the repository or in your data source. Once the calculation is made “public” it can be easily reused and modified.

**For example:** We want to create a custom column with a customer calculation that lets us divide Revenue by Billed Quantity.

```plaintext
"Base Facts"."1- Revenue"/"Base Facts"."2- Billed Quantity"
```
Often users will need to evaluate groups of data together so you can combine those groups on the analysis using a bin. Binning allows you to create custom groupings of the data without doing complicated queries. Users will also have the ability to drill into the bin to see the data at the detailed level.

For example: In this exercise we’ll create a bin that lets us create a custom group that contains a subset of the regions. Imagine if you were a sales person for a large company that does sales nationally but you were a manager for just a few regions. You could create a Bin that contains only the regions you are responsible for so that you wouldn’t have to look at all regions and could focus on the ones you need to.

<table>
<thead>
<tr>
<th>Region</th>
<th>P4 Brand</th>
<th>2- Billed Quantity</th>
<th>1- Revenue</th>
<th>Revenue Per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAS</td>
<td>BizTech</td>
<td>833,228</td>
<td>9,526,360</td>
<td>$11.43</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>632,627</td>
<td>8,374,090</td>
<td>$13.24</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>641,339</td>
<td>8,133,929</td>
<td>$12.68</td>
</tr>
<tr>
<td>APAC</td>
<td>BizTech</td>
<td>547,097</td>
<td>6,282,312</td>
<td>$11.48</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>416,937</td>
<td>5,557,104</td>
<td>$13.33</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>435,882</td>
<td>5,523,936</td>
<td>$12.67</td>
</tr>
<tr>
<td>EMEA</td>
<td>BizTech</td>
<td>843,486</td>
<td>9,691,328</td>
<td>$11.49</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>646,419</td>
<td>8,568,806</td>
<td>$13.26</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>660,206</td>
<td>8,342,135</td>
<td>$12.64</td>
</tr>
</tbody>
</table>
Creating a new Analysis

Subject Areas are collections of metrics and attributes that can be reported together in a meaningful way.

Any analyses or dashboards that you have accessed recently can be opened from here.

The most popular dashboards and analyses that you have authority to view can be opened from here.

1. Select the New Icon on the Global Header.
2. Select Analysis from the dropdown list.
3. Select the subject area A - Sample Sales.
Selecting Columns

Once a subject area is selected, a “Pick List” appears on the left of the screen, organizing metrics and attributes into tables.

When double clicked, the selected metric or attribute appears in the Selected Columns section.

Any filters will appear in this section. In this case, no filters have been added. We will be adding a filter in a future exercise.

The instructions for how to add columns to an analysis are listed in this section.

1. Open the Customers table and expand the Cust Regions folder.
2. Double click the C50 Region column.
3. Open the Products table and double click the P4 Brand column.
4. Scroll down to the Facts table and expand the Base Facts folder.
5. Double click the 2 - Billed Quantity and 1 - Revenue columns.
6. Add the 1 - Revenue column again. This column should appear twice in your criteria tab.
7. Hover over the Properties icon on the second 1- Revenue column and choose Edit Formula.
The Edit Column Formula window ("column formula editor") can be used to create or modify calculations...

...and create bins, which creates ad-hoc “buckets” of attributes, such as combining products, markets, or dates into new groups.

Column names can be renamed, which is usually necessary when creating a new calculation.

The column formula editor itself can be used free-form or can be used to select from prepackaged formulas similar to using Excel’s calculation wizard.

A series of calculation options are at the bottom of the editor, including basic math functions, advanced functions, the ability to add an embedded filter into a calculation, etc.
1. Add a divide by sign after the 1 - Revenue column. Click at the end of the column formula (after the divide sign). Open the Base Facts folder in the Facts table and highlight the 2 - Billed Quantity column.

2. Click the Add Column icon (blue arrow) to move this column into the column formula box.

3. Click the Custom Headings checkbox.

4. Change the Column Heading name to Revenue per Unit.

5. Click the OK button.
1. Hover over the Properties icon on the Revenue per Unit column and choose **Column Properties**.
Changing the Data Format

1. Click on the **Data Format** tab.
2. Check the **Override Default Data Format** check box.
3. Change the number type to **Currency**, and choose the U.S. dollar symbol.
4. Select two decimal places, and the 1000's separator.
5. Click the **OK** button.
6. Click the **Results** tab.
### Compound Layout

**Title**

<table>
<thead>
<tr>
<th>P4 Brand</th>
<th>2- Billed Quantity</th>
<th>1- Revenue</th>
<th>Revenue per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICAS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BizTech</td>
<td>833,228</td>
<td>9,526,360</td>
<td>$11.43</td>
</tr>
<tr>
<td>FunPod</td>
<td>632,627</td>
<td>8,374,090</td>
<td>$13.24</td>
</tr>
<tr>
<td>HomeView</td>
<td>641,339</td>
<td>8,133,929</td>
<td>$12.68</td>
</tr>
<tr>
<td><strong>APAC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BizTech</td>
<td>547,097</td>
<td>6,282,312</td>
<td>$11.48</td>
</tr>
<tr>
<td>FunPod</td>
<td>416,937</td>
<td>5,557,104</td>
<td>$13.33</td>
</tr>
<tr>
<td>HomeView</td>
<td>435,882</td>
<td>5,523,936</td>
<td>$12.67</td>
</tr>
<tr>
<td><strong>EMEA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BizTech</td>
<td>843,486</td>
<td>9,691,328</td>
<td>$11.49</td>
</tr>
<tr>
<td>FunPod</td>
<td>646,419</td>
<td>8,568,806</td>
<td>$13.26</td>
</tr>
<tr>
<td>HomeView</td>
<td>660,206</td>
<td>8,342,135</td>
<td>$12.64</td>
</tr>
</tbody>
</table>

1. Click the **Criteria** tab.
Accessing the Calculation / Bin Editor

Each column on the criteria tab has multiple options, including the ability to format the column, modify the underlying calculation, filter the column, or remove the column.

1. Hover over the Properties button on the Region column and choose Edit Formula.
Accessing the Bins Tab

The “Bins” tab will be empty, when first accessed.

1. Click on the Bins tab.

2. Click the Add Bin button.

Clicking the “Add Bin” button will begin the binning process.
Creating a Bin

You’ll notice that the dialogue box to create the bin, is identical to the filter window accessible from the criteria tab, including the ability to select all, or limited choices, and to set an operator (such as is equal to, or is not equal to).

1. Click the dropdown arrow by the Value box.
2. Select two regions from the resulting list - AMERICAS and APAC.
3. Click the OK button.
Naming the Bin

Once you’ve hit the OK button on the previous window, the “Edit Bin Name” will pop-up.

1. Enter the name **My Regions**.
2. Click the **OK** button.
Saving the Bin

The “binning” rule has now been added to the bin tab. You can add an additional bin at this point, or you could select to automatically “bin” (or you can use the phrase “bucket” or “group”) all other selections in that column.

1. Click the OK button.
2. Click the Results tab.
Viewing the Bin

The newly created bin will appear within its appropriate column.

If you want to test how the bin will behave, make sure you go into Preview mode. If you click the bin while you are in the Results tab you will get extra columns and filters in your analysis.

1. Click the Criteria tab.
1. Hover over the **Properties** button on the Region column and choose **Edit Formula**.

2. Click the **Bins** tab.
1. Check the box to create a bin for all other values, and name that new bin Other Regions.

2. Click the OK button.

3. Click the OK button.

4. Click the Results tab.

5. Click the Save As icon (it is to the right of the Save icon).

6. Enter Exercise #6 for the name and click the OK button.

7. Click the Preview icon to see how your analysis will look and behave on the dashboard.
## Exercise #6

<table>
<thead>
<tr>
<th>C50 Region</th>
<th>P4 Brand</th>
<th>2- Billed Quantity</th>
<th>1- Revenue</th>
<th>Revenue per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Regions</td>
<td>BizTech</td>
<td>1,380,325</td>
<td>15,808,672</td>
<td>$11.45</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>1,049,564</td>
<td>13,931,194</td>
<td>$13.27</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>1,077,221</td>
<td>13,657,865</td>
<td>$12.68</td>
</tr>
<tr>
<td>Other Regions</td>
<td>BizTech</td>
<td>843,486</td>
<td>9,691,328</td>
<td>$11.49</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>646,419</td>
<td>8,568,806</td>
<td>$13.26</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>660,206</td>
<td>8,342,135</td>
<td>$12.64</td>
</tr>
</tbody>
</table>
Dashboard/Report Application Development

Exercise #7
Right Click
Exercise #7

Exercise Objectives:

In this overview we will introduce the features available through right-click.

Content:

1. Sort Columns
2. Filter
   • Remove/Add Members
3. Subtotal/Grand Total
4. Exclude/Hide/Move Columns
5. Add Custom Calculated items
This release of OBIEE has provided easier access to key features through right-click functionality. Users can do right click from the dashboard and developers can use right click for quick development. In this exercise we will explore the following features:

Sort Columns – Users can set sort orders on individual columns.

Filter/Conditions – Easily set filters and conditions on columns.

Subtotal/Grand Total – Quickly add Sub Totals and Grand Totals to columns.

Exclude/Hide/Move Columns – Hide and Remove columns from an analysis.

Add Custom Calculated Items – Users can add their own calculations to columns.
Users are able to perform right click functionality from the dashboard. Developers can control what users are able to do by going to the Interactions tab under Analysis Properties displayed to the right.

1. Create a new analysis using **Sample Sales** with the columns shown above.

2. Click the **Results** tab.
Sort Columns

Instead of setting sorting in the Criteria tab, right click allows you to sort columns directly in the compound layout.

1. Sort **1-Revenue** column by right-clicking on the column header, then selecting -> **Sort Column** -> **Sort Ascending**.
Instead of setting up the filter in the Criteria tab right click allows you to filter columns from the Compound Layout.

1. Right click on the P1 Product column header, then select -> Keep Only -> Based on a Custom Condition.

2. Click the Condition Type dropdown and select Name contains ‘abc’ option under Match.
As you may have noticed, there are two different ways to filter members.

Keep Only – the user decides which members to KEEP based on criteria

Remove – the user decides which members to REMOVE based on criteria

1. Select **Keep only** in the **Action** pull-down list.

2. Type **LCD** in the **Text** field, then click **OK**.
1. Right-click on **P1 Products** column header, then -> **Add Members**...

2. Highlight **7 Megapixel Digital Camera** and click the single blue arrow **Move icon**. Repeat these steps to add **Bluetooth Adaptor**.

3. Click **OK**.
1. Right-click on the P1 Product column header, then → Show Row level Grand Total → After Values.

Rather than editing the table view to add totals the developer can add totals while in the compound layout using right click.
1. Hide the 2-Billed Quantity column by right-clicking on the column header, then → Hide Column.
1. Clear the ascending sort by right-clicking on the 1-Revenue column header, then -> Sort Column -> Clear All Sorts in View
1. Right-click on the P1 Product column header, then -> Add Custom Calculated Item.

2. Type in Total Revenue for This Period for the Display Name.

3. Select Sum from the Functions pull-down list.

4. Highlight the products shown above and click the Move blue arrow icon.

5. Click OK.
1. Add a Selection Steps view to your analysis.
2. Save the analysis as **Exercise #7**.
3. Click the Preview icon.
1. We added a Selection Steps view so that we could see in what order the filters were applied. For more information about Selection Steps, check out our OBIEE 11-350: Advanced Dashboard/Report Application Development course!
Dashboard/Report Application Development

Exercise #8
Conditional Formatting Basics
Exercise Objectives:

In this lesson we will review the basics of using conditional formatting as it pertains to tabular and pivot table views.

Content:

1. Conditional Formatting Basics
This feature allows you to add formatting such as images or background color when the data in your analysis meets certain criteria or conditions. The benefit of this to the user is it helps them quickly interpret the data by evaluating the formatting rather than just looking at lines of data. This is a very effective way of spotlighting data.

**For example:** I want to add images to my data set to allow me to quickly see the percentage of change between last year’s sales and this year’s sales. Looking at the image below I can quickly tell which areas have improved sales from last year and which have decreased in sales.

<table>
<thead>
<tr>
<th>C50 Region</th>
<th>P4 Brand</th>
<th>1Y Revenue</th>
<th>123 Rev Pct Var to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICAS</strong></td>
<td>BizTech</td>
<td>$3,165,746.99</td>
<td>-0.1%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$2,906,942.79</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$2,382,606.39</td>
<td>-11.0%</td>
</tr>
<tr>
<td><strong>APAC</strong></td>
<td>BizTech</td>
<td>$2,160,900.15</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$1,952,008.84</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$1,700,274.55</td>
<td>-8.0%</td>
</tr>
<tr>
<td><strong>EMEA</strong></td>
<td>BizTech</td>
<td>$3,432,738.88</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$3,104,155.68</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$2,694,625.73</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>
Creating a new Analysis

1. Select the New icon on the Global Header.
2. Select Analysis from the dropdown list.
3. Select the subject area A - Sample Sales.
1. Open the Time table and double click the **T05 Per Name Year** column.

2. Open the **Customers** table and expand the **Cust Regions** folder.

3. Double click the **C50 Region** column.

4. Open the **Products** table and double click the **P4 Brand** column.

5. Open the **Facts** table, expand the **Base Facts** folder and double click the **1 - Revenue** column.

6. Open the **Calculations** folder (in the **Facts** table) and expand the **Time Series** folder.

7. Double click the **123 Rev Pct Var to Period Ago** column.

8. Add a filter on **T05 Per Name Year** to show data from **2010** only.

9. Click the **Results** tab and click the Edit icon to put the table into edit mode.
1. Scroll down to the Layout frame and click the **More Options** icon on the T05 Per Name Year column.

2. Choose **Hidden** from the list.

3. Click **Done** to return to the compound layout.

4. Click the **Criteria** tab.
Accessing the Conditional Formatting Tab

The "Conditional Format" tab is accessible through the Column Properties dialogue box.

1. Hover over the 123 Rev Pct Var to Period Ago column and choose Column Properties.
2. Click the Conditional Format tab.
3. Click the Add Condition button and choose the 123 Rev Pct Var to Period Ago column from the dropdown list.

The reason you are required to select a column name from the "Add Condition" list, even though you had already selected the column when you clicked its "format column" icon, is because you may choose to format one column based on the values of another column.

Similar to the "Bin" editor, the Conditional Format screen is blank until you click the "Add Condition" button.
An operator can be set, including less than, greater than, between, etc…

...and a value can be entered to set the threshold for this condition.

1. Set the operator to **is less than or equal to**.
2. Enter **0** for the value.
3. Click the **OK** button.
Choose the Formatting

The next step is to format any data element that meets the condition that you’ve just set. Options include setting the font size, color, or effect or setting the background color of the cell, or adding an image, such as an up or down arrow. Each of these functions is selected by clicking the blank white cell to the right of the function label.

1. Click the white cell to the right of the Image label.
2. Scroll down and select the green checkbox icon family in the left column.
3. Select the radio button to the left of the red down arrow from the right column.
4. Click the OK button.
5. Click the OK button on the edit format dialogue box.

If the “Image” option is selected, a graphics dialogue box appears. Select a “family” of images from the left column, and select the specific image from the right column.
1. Back on the “Edit Column Format” dialogue box, you’ll now see the first condition that you’ve added.

2. To edit the conditions threshold, you can click the filter button.

3. To edit the conditions formatting, click the “format” button (looks like a small “A” and big “A”).

4. To remove the condition, select the “x”.

5. Add another condition, where **123 Rev Pct Var to Period Ago** shows a green up arrow if it is **greater** than 0.

6. Click the **OK** button twice.

7. Click the **OK** button and click the Results tab.

8. Add a filters view to the compound layout.

9. Click the **Save As** icon.

10. Enter **Exercise #8** for the name.

11. Click the **Preview** icon.
### Exercise #8

<table>
<thead>
<tr>
<th>C50 Region</th>
<th>P4 Brand</th>
<th>1- Revenue</th>
<th>123 Rev Pct Var to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERICAS</td>
<td>BizTech</td>
<td>$3,165,746.99</td>
<td>-0.1%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$2,906,942.79</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$2,382,606.39</td>
<td>-11.0%</td>
</tr>
<tr>
<td>APAC</td>
<td>BizTech</td>
<td>$2,160,900.15</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$1,952,008.84</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$1,700,274.55</td>
<td>-8.0%</td>
</tr>
<tr>
<td>EMEA</td>
<td>BizTech</td>
<td>$3,432,738.88</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>$3,104,155.68</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>$2,694,625.73</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>
Dashboard/Report Application Development

Exercise #9
Advanced Formatting of Tabular Views
Exercise Objectives:

In this lesson we will review advanced formatting topics particular to tabular reports. Tabular requests are often included as at least one of the options under view selectors for each request, and it is a best practice to apply certain formatting such as adding and formatting “parent” columns.

Content:

1. Adding Parent Columns to a Tabular View.
2. Formatting Columns, using Borders and Colors.
You can add colors and borders to table headings and use that same formatting on other table views on the dashboard. This creates a nice uniform look. You can also give custom names to the table headings that are displayed above the column headings.

**For example:** Changing column headings and backgrounds can create a visual grouping of columns. The use of color in table headings is a nice way to apply your business colors for a uniform look and feel to your tables.

<table>
<thead>
<tr>
<th>Customer.Region</th>
<th>Products.Brand</th>
<th>This Year.Billed Quantity</th>
<th>This Year.Revenue</th>
<th>Last Year.Period Ago Rev</th>
<th>Last Year.Rev Pct Yr to Period.Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICAS</strong></td>
<td>BizTech</td>
<td>261,385</td>
<td>$3,155,746.99</td>
<td>3,169,540</td>
<td>-0.1%</td>
</tr>
<tr>
<td></td>
<td>FurPod</td>
<td>217,235</td>
<td>$2,906,942.79</td>
<td>2,782,959</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>157,489</td>
<td>$2,382,606.39</td>
<td>2,677,480</td>
<td>-11.0%</td>
</tr>
<tr>
<td><strong>APAC</strong></td>
<td>BizTech</td>
<td>176,044</td>
<td>$2,160,900.15</td>
<td>2,091,002</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>FurPod</td>
<td>145,733</td>
<td>$1,952,008.84</td>
<td>1,745,657</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>117,695</td>
<td>$1,730,274.55</td>
<td>1,846,239</td>
<td>-6.0%</td>
</tr>
<tr>
<td><strong>EMEA</strong></td>
<td>BizTech</td>
<td>280,929</td>
<td>$3,432,738.88</td>
<td>3,202,622</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>FurPod</td>
<td>230,763</td>
<td>$3,104,155.68</td>
<td>2,772,277</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>193,980</td>
<td>$2,694,825.73</td>
<td>2,710,213</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>
Adding New Columns to a Tabular View

New columns can be added either while on the criteria tab or while editing the table. We are adding them via the table view so that we can control where the columns are placed. You can also specify if new columns get added to existing views or new views only. This setting is found on the Data tab in Analysis Properties displayed below. You can access these properties via the compound layout.

1. Click the Edit icon on the table view for Exercise #8.
2. Open the Facts table, expand the Base Facts folder and add the 2-Billed Quantity column.
3. Expand the Calculations folder and the Time Series folder (also in the Facts table). Add the 121 Period Ago Rev column.
4. Drag and drop the two new metrics into the order shown above.
5. Click the Table View Properties icon.
Adding Folder Headings to a Tabular View

The “Display Folder & Column Headings” option allows you to display not only the “column” headings that you selected from the pick list; it also allows you to display the table headings that the selection came from. The default setting is to show only column headings.

1. Click the Display Folder and & Column Headings dropdown.
2. Select As Folder.Column from the drop-down list.
3. Click the OK button.
4. Click the Done button to return to the compound layout.
### Formatting Parent Column Headings

<table>
<thead>
<tr>
<th>Cost Regions, C5D Region</th>
<th>Products, P4 Brand</th>
<th>Base Facts, 1- Billed Quantity</th>
<th>Base Facts, 1- Revenue</th>
<th>Time Series, 121 Period Ago Rev</th>
<th>Time Series, 123 Rev Pct Yer to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICAS</strong></td>
<td>BizTech</td>
<td>261,365</td>
<td>$3,155,745.99</td>
<td>3,169,548</td>
<td>-0.1%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>217,238</td>
<td>$2,096,940.79</td>
<td>2,782,939</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>157,489</td>
<td>$2,382,506.39</td>
<td>2,577,460</td>
<td>-11.0%</td>
</tr>
<tr>
<td><strong>APAC</strong></td>
<td>BizTech</td>
<td>175,044</td>
<td>$2,160,900.15</td>
<td>2,091,002</td>
<td>3.5%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>145,733</td>
<td>$1,952,008.84</td>
<td>1,745,657</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>117,695</td>
<td>$1,700,274.55</td>
<td>1,840,239</td>
<td>-8.0%</td>
</tr>
<tr>
<td><strong>EMEA</strong></td>
<td>BizTech</td>
<td>280,929</td>
<td>$3,432,738.88</td>
<td>3,202,622</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>230,763</td>
<td>$3,104,155.68</td>
<td>2,772,277</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>193,980</td>
<td>$2,694,625.73</td>
<td>2,710,215</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

The resulting analysis will have “parent” columns added (the names of the tables where the attribute or metric were stored) in addition to the name of the column.

1. Click the **Criteria** tab.
1. Hover over the Properties button on the C50 Region column and choose **Column Properties**.
The “Column Format” tab is used to set properties and formatting for table and column headings. The format option to the right of the Table Heading and Column Heading labels and entry boxes allows you to format these headings.

Several of these screens under the “Edit Column Format” dialogue box look similar, so you’ll want to be careful on which tab and format buttons you hit. For example, if you tried to set formatting for the parent column, but you did it from the “Style” tab, the data will be formatted, rather than the column or parent headings.

1. Click the **Column Format** tab.

2. Select the **Format** icon to the right of the **Column Heading** box. (looks like a small “A” and big “A”).
Adding Colors and Borders

Typical formatting for headings include adding a background color…

…and putting a border around the heading.

1. Select a background color for the column heading.
2. Add a border around the column heading.
3. Click the OK button.

It is a BICG best practice to use subdued colors for all backgrounds (and charts, or other color formatting), which appeal to the eye better than primary or other brash colors.
1. Click the **Custom Headings** checkbox.
2. Enter **Customer** for the Folder Heading.
3. Enter **Region** for the Column Heading.
4. Click the **OK** button.
Adding Colors and Borders

1. Format the **P4 Brand** column with a different color and a border.

2. Change the **P4 Brand** column name to **Brand**.

3. Click the **Results** tab.

4. Your table should resemble the one displayed above.

5. Click the **Criteria** tab.
Changing Parent Column Heading Names

1. Open Column Properties for the 2 - Billed Quantity column.
2. Click the Column Format tab and then the Format icon to the right of the Column Heading box.
3. Choose a background color and add a border.
4. Click the Copy Cell Format icon.
5. Click the OK button.
6. Click the Custom Headings checkbox and change the Folder Heading to This Year.
7. Change the Column Heading to Billed Quantity.
8. Click the OK button.

You can use these icons to erase formatting, copy current formatting, or paste column formatting to another column.
1. Open Column Properties for the 1 - Revenue column.
2. Click the Column Format tab and then the Format button to the right of the Column Heading box.
3. Click the Paste Cell Format icon.
4. Click the OK button.
5. Click the Custom Headings checkbox and change the Folder Heading to This Year.
6. Change the Column Heading to Revenue.
7. Click the OK button.
1. Click the **Results** tab.
2. Your table should resemble the one displayed above.
3. Click the **Criteria** tab.
Result!

1. Format the 121 Period Ago Rev column with a new background color and border. Copy the formatting.

2. Rename the Folder Heading to Last Year.

3. Rename the Column Heading to Period Ago Rev.

4. Format the 123 Rev Pct Var to Period Ago column. While in the Edit Format screen, paste the formatting from the prior column.

5. Rename the Folder Heading to Last Year.

6. Rename the Column Heading to Rev Pct to Period Ago.

7. Click the Results tab.

8. Add a Filters view.

9. Save your analysis as Exercise #9.
Dashboard/Report Application Development

Exercise #10

Column Selector Basics
Exercise Objectives:

In this lesson we will review the powerful function of column selectors.

Content:

1. Basics of adding column selectors.
2. Using column selectors with a tabular view.
The Column Selector feature allows users to replace/swap columns within a single analysis to create a customized view of the data. Also, by using column selectors you can reduce the total number of analyses that you build since you can combine similar analyses into one and provide a column selector. Column selectors are a great way to maximize page real estate and minimize the need for users to scroll across analyses with a large number of columns while giving them the maximum flexibility with the data.

### Why Use This Feature?

The Column Selector feature allows users to replace/swap columns within a single analysis to create a customized view of the data. Also, by using column selectors you can reduce the total number of analyses that you build since you can combine similar analyses into one and provide a column selector. Column selectors are a great way to maximize page real estate and minimize the need for users to scroll across analyses with a large number of columns while giving them the maximum flexibility with the data.

<table>
<thead>
<tr>
<th>Customer.Region</th>
<th>Products.Brand</th>
<th>This Year Quantity</th>
<th>Year Revenue</th>
<th>Last Year.Period Ago Rev</th>
<th>Last Year.Rev Pct Var to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICAS</strong></td>
<td>BizTech</td>
<td>261,365</td>
<td>$3,165,746.99</td>
<td>3,169,548</td>
<td>-0.1%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>217,235</td>
<td>$2,906,942.79</td>
<td>2,782,959</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>157,489</td>
<td>$2,382,606.39</td>
<td>2,677,480</td>
<td>-11.0%</td>
</tr>
<tr>
<td><strong>APAC</strong></td>
<td>BizTech</td>
<td>176,044</td>
<td>$2,160,900.15</td>
<td>2,091,002</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>145,733</td>
<td>$1,952,808.84</td>
<td>1,745,657</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>117,695</td>
<td>$1,700,274.55</td>
<td>1,848,239</td>
<td>-8.0%</td>
</tr>
<tr>
<td><strong>EMEA</strong></td>
<td>BizTech</td>
<td>280,929</td>
<td>$3,432,738.88</td>
<td>3,202,622</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>230,763</td>
<td>$3,104,155.68</td>
<td>2,772,277</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>193,980</td>
<td>$2,694,625.73</td>
<td>2,710,215</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

### Why Use This Feature?

The Column Selector feature allows users to replace/swap columns within a single analysis to create a customized view of the data. Also, by using column selectors you can reduce the total number of analyses that you build since you can combine similar analyses into one and provide a column selector. Column selectors are a great way to maximize page real estate and minimize the need for users to scroll across analyses with a large number of columns while giving them the maximum flexibility with the data.

<table>
<thead>
<tr>
<th>Customer.Region</th>
<th>Products.Brand</th>
<th>This Year, Billed Quantity</th>
<th>This Year, Revenue</th>
<th>Last Year, Period Ago Rev</th>
<th>Last Year, Rev Pct Var to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMERICAS</strong></td>
<td>BizTech</td>
<td>261,365</td>
<td>$3,165,746.99</td>
<td>3,169,548</td>
<td>-0.1%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>217,235</td>
<td>$2,906,942.79</td>
<td>2,782,959</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>157,489</td>
<td>$2,382,606.39</td>
<td>2,677,480</td>
<td>-11.0%</td>
</tr>
<tr>
<td><strong>APAC</strong></td>
<td>BizTech</td>
<td>176,044</td>
<td>$2,160,900.15</td>
<td>2,091,002</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>145,733</td>
<td>$1,952,808.84</td>
<td>1,745,657</td>
<td>11.8%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>117,695</td>
<td>$1,700,274.55</td>
<td>1,848,239</td>
<td>-8.0%</td>
</tr>
<tr>
<td><strong>EMEA</strong></td>
<td>BizTech</td>
<td>280,929</td>
<td>$3,432,738.88</td>
<td>3,202,622</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>FunPod</td>
<td>230,763</td>
<td>$3,104,155.68</td>
<td>2,772,277</td>
<td>12.0%</td>
</tr>
<tr>
<td></td>
<td>HomeView</td>
<td>193,980</td>
<td>$2,694,625.73</td>
<td>2,710,215</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>
Adding a Column Selector

You will find lesser used views under the Other Views submenu.

1. Make sure you have the compound layout for Exercise #9 open from the last exercise.
2. Click the New View icon on the top of the screen.
3. Hover over Other Views.
4. Choose Column Selector from the dropdown list.
5. Click the Edit icon to put the Column Selector view into edit mode.
Using the Column Selector Editor

The Column Selector editor lists out each column included in the analysis.

Checking the checkbox within any column, allows that column to be “replaced” by other columns available in the pick list.

To add “selectable” columns to any existing column, that column will need to be “selected” which will be indicated by that column being displayed in yellow.

1. Check the **Include Selector** checkbox in the **Region** column.
2. Expand the **Products** table and double click the **P4 Brand** column.
3. Expand the **Customers** Table and open the **Cust Regions** folder. Double click the **C51 Area** column.
4. Expand the **Time** folder and double click the **T05 Per Name Year** column.
Adding Replacement Columns

If there is more than one column selector, it is a best practice to uncheck the checkbox to “Automatically refresh when a new column is selected”. This will give the user an OK button so that they can replace one or both columns and then refresh the analysis.

Labels can be added to any of the column selectors.

1. Check the Include Selector checkbox in the Brand column.
2. Open the Products Table and double click the P2 Product Type column.
3. Open the Customers table and Cust Region folder and double click C50 Region column.
4. Open the Time folder and double click the T05 Per Name Year column.
5. Uncheck the Automatically refresh ... checkbox.
6. Add a label Column #1: for the first column selector, and Column #2: for the second column selector.
7. Click the Done button to return to the compound layout.

You can also modify column properties of replacement columns using this icon such as changing the column heading or data format.

You can edit the formula of replacement columns using this icon.
1. Drag and drop the Column Selector so that it is above the table view.

2. Save the analysis as Exercise #10.

3. Click the Preview icon.
Result!

Exercise #10

<table>
<thead>
<tr>
<th>Products P2 Product Type</th>
<th>This Year, Billed Quantity</th>
<th>This Year, Revenue</th>
<th>Last Year,Period Ago Rev</th>
<th>Last Year,Rev Pct to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessories</td>
<td>171,387</td>
<td>1,883,113</td>
<td>1,757,673</td>
<td>7.1%</td>
</tr>
<tr>
<td>Audio</td>
<td>186,746</td>
<td>2,327,310</td>
<td>2,414,546</td>
<td>-3.6%</td>
</tr>
<tr>
<td>Camera</td>
<td>96,722</td>
<td>1,737,442</td>
<td>2,355,484</td>
<td>-27.2%</td>
</tr>
<tr>
<td>Cell Phones</td>
<td>160,836</td>
<td>2,310,782</td>
<td>2,031,028</td>
<td>13.8%</td>
</tr>
<tr>
<td>Fixed</td>
<td>239,086</td>
<td>3,299,769</td>
<td>2,812,974</td>
<td>17.3%</td>
</tr>
<tr>
<td>Install</td>
<td>169,872</td>
<td>1,185,223</td>
<td>1,419,866</td>
<td>-15.5%</td>
</tr>
<tr>
<td>LCD</td>
<td>83,544</td>
<td>2,263,291</td>
<td>2,260,526</td>
<td>0.1%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>124,559</td>
<td>1,095,991</td>
<td>1,420,694</td>
<td>-22.9%</td>
</tr>
<tr>
<td>Plasma</td>
<td>91,189</td>
<td>2,233,002</td>
<td>2,134,848</td>
<td>4.6%</td>
</tr>
<tr>
<td>Portable</td>
<td>257,923</td>
<td>2,925,896</td>
<td>2,102,436</td>
<td>39.2%</td>
</tr>
<tr>
<td>Smart Phones</td>
<td>199,369</td>
<td>2,238,182</td>
<td>2,259,924</td>
<td>-1.0%</td>
</tr>
</tbody>
</table>

T05 Per Name Year is equal to / is in 2010

If you don’t see the “OK” button to the right of your drop-downs, then you’ve left the “Automatically Refresh” option checked. Edit the Column Selector and uncheck this option.

1. Test the column selector by selecting T05 Per Name Year in the first column selector and P2 Product Type in the second column selector.

2. Click the OK button.
Dashboard/Report Application Development

Exercise #11
View Selector Basics
Exercise Objectives:

In this lesson we will review the fundamentals of using view selectors, including the process to add multiple views to the view selector, allowing the Dashboard user to select their favorite, or the most appropriate view.

Content:

1. Creating a view selector.
2. Adding the view selector to the compound layout, and removing other views.
View selectors allow users the ability to navigate from one view to another. One analysis can have multiple views that are “stacked” on top of each other, maximizing the amount of content you can have in a single analysis or on a dashboard.

**For example:** You want to give your users three views of the same data but don’t want to have them scrolling around on a page looking for the view they want to see. Instead, you allow the user the ability to select from a drop down list of available views.
Add a View Selector

1. Open Exercise #5.
2. Click the New View icon on the top of the screen.
3. Hover over Other Views.
4. Choose View Selector from the dropdown list.
5. Click the Edit icon to put the View Selector view into edit mode.
Using the View Selector Editor

1. Highlight the Stacked Bar Graph view in Available Views and use the move right arrow to move it into Views Included.

2. Do the same steps to add the Simple Table and Simple Pivot Table to Views Included.

3. Type Select a View into the caption text box.

The view selector displays all views that have been added to the analysis object, whether or not those objects have been added to the compound view.

By clicking the right arrow, views can be added to the view selector. Clicking the left arrow removes views that have already been added.

A caption can be added to the view selector (such as “Select a View”).

The results of the view selector will be displayed at the bottom of the screen.

It is a BICG best practice, to normally add a tabular, or pivot table view to each view selector, even if the predominant views are graphs. That’s to allow the user to both find the detailed numbers, as well as move to a more appropriate view in the event that a drill-down, or prompt selection causes the graph to become unreadable, for example, a pie chart with dozens of wedges.
1. **Confirm that the three views appear in the drop-down box under the Display Results checkbox.**

2. **Click the Done button to return to the compound layout.**
Removing the other Views from the Compound Layout

After returning to the compound layout, you’ll notice that not much has changed, other than your new view selector has been added to the bottom of the compound layout. To finish this exercise, we’re going to remove all other views, except for the view selector and the filters view.

That means removing the tabular layout by clicking the “x” button in the upper right hand corner of that view,

And removing the graph view,

And removing the pivot table view,

And leaving the view selector view.

For this exercise, we’re removing all of the original analysis views except for the view selector, but it’s perfectly acceptable to leave other views in the compound layout along with the view selector. For example, you may always want to leave a tabular view on the layout, below a view selector with multiple graph views.

1. Removing all views except for the Title, View Selector and Filters views.

2. Drag and drop the view selector so that it is above the filters view.
Testing the View Selector

1. Click the Preview icon.

It's a BICG best practice to always test the analysis using the preview button, rather than testing it from within an editor, or within the compound layout. That's because any changes done in the preview window, won't change the underlying analysis, but that's not true if you were to test the analysis otherwise. For example, if you were to drill down on the analysis in the compound layout, the drill-down will work, but if you then saved the analysis, you'd save the drilled down version of the analysis, not the version you built.
Testing the View Selector

Exercise #5

Select a View: Stacked Bar Graph
Region: E

In the preview window, the view selector will look and behave exactly as it will once it's dropped into a Dashboard.

1. Test all three views.
2. Close the preview window.
1. Highlight the **Stacked Bar Graph** view in the Views box on the lower left and click the Rename icon.

2. Enter **Units by Brand/Region** as the new name and click the OK button.

3. Using the same steps, rename your **Simple Table** to **Tabular Data** and rename your **Simple Pivot Table** to **Region by Year and Brand**.

4. Save the analysis as **Exercise #11**.

5. Click the Preview icon.
Result!

C50 Region is equal to **AMERICAS, APAC**
Dashboard/Report Application Development

Exercise #12
Dashboard Basics
Exercise # 12

Exercise Objectives:

In this lesson we will review the basics of creating a new Dashboard layout and adding analysis objects to that Dashboard.

Content:

1. Adding and manipulating columns in the Dashboard editor.
2. Dragging and dropping analysis objects onto the Dashboard.
Opening your “My Dashboard”

Any dashboards that you have accessed recently can be opened from here.

The most popular dashboards and analyses that you have authority to view can be opened from here.

The dashboards displayed under the Dashboards dropdown may vary from what is displayed depending on your user id.

1. Select the **Dashboards** icon on the Global Header.
2. Select **My Dashboard** from the dropdown list.
Opening the Dashboard Editor

When you have an empty dashboard page you can click the Edit link in the message saying “This page has no content....” to open the dashboard editor and add content. This message and link only appear on empty dashboard pages.

You can also open the dashboard editor by clicking the Page Options icon and choosing 'Edit Dashboard' from the dropdown. This option is always available.

1. Click the Page Options icon.
2. Choose Edit Dashboard from the dropdown list.
The following table contains an explanation of the different dashboard objects available.

<table>
<thead>
<tr>
<th>Object</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column</td>
<td>Used to align content on a dashboard. (Sections within columns hold the actual content.) You can create as many columns on a dashboard page as you need. Note that the columns used in the Dashboard builder are not related to the columns used in the Analysis editor.</td>
</tr>
<tr>
<td>Section</td>
<td>Used within columns to hold the content, such as action links, analyses, and so on. You can drag and drop as many sections as you need to a column.</td>
</tr>
<tr>
<td>Alert Section</td>
<td>Used to add a section in which to display Alerts from agents, if any. On users’ My Dashboard, an Alert section is added automatically to the first page, if you do not manually place one there. You cannot disable the appearance of an Alert section on the first page of users’ My Dashboard. You can add an Alert section to an additional dashboard page so that section will then appear on both dashboard pages.</td>
</tr>
<tr>
<td>Action Link</td>
<td>Used to add an action link. An action link is a link that you embed in an analysis, dashboard page, or KPI that, when clicked, runs an associated action.</td>
</tr>
<tr>
<td>Action Link Menu</td>
<td>Used to add an action link menu. An action link menu let users choose, from a list of action links, the right action to be executed.</td>
</tr>
<tr>
<td>Link or Image</td>
<td>Used to add text links and image links and specify what should happen when a user clicks them. For example, you can direct users to another Web site or dashboard, open documents, launch applications, or perform any other action that the browser supports. You can also add an image or text only, without any links.</td>
</tr>
<tr>
<td>Embedded Content</td>
<td>Used to add embedded content. Embedded content is any content that is displayed within a window (called a frame) inside the dashboard, as opposed to content that is accessed by clicking a link. Content that you might want to embed includes analyses, Excel charts, documents, Web sites, tickers from Web sites, and so on. When you embed content into a dashboard, the required HTML is automatically added to the target content.</td>
</tr>
<tr>
<td>Text</td>
<td>Used to add plain text or, if allowed at your site, HTML.</td>
</tr>
<tr>
<td>Folder</td>
<td>Used to add a view of a Catalog folder and its contents. For example, you might add a folder that contains a collection of saved analyses that you run frequently. Then from the dashboard, you can open the folder, navigate to a saved request, and click it to run it.</td>
</tr>
</tbody>
</table>
You can add analyses to the dashboard page through the Catalog pane. Your private analyses will be found under My Folders and any shared analyses will be found under Shared Folders.

All content including dashboard objects and analyses get added into the page layout area.

1. Drag and drop a Column object from the Dashboard Objects list and move it into the page layout area on the right.
Adding Columns to the Dashboard Layout

1. We want two columns side by side. Drag and drop another Column object from the Dashboard Objects list and move it to the left of the first column. Watch for the blue line to indicate when to drop it. NOTE: When dragging try to anchor it toward the middle of the first column. If you are too close to the top it will try to put it on top of the first column.
1. Open your **My Folders** folder in the Catalog object.

2. Open the **Day 1 Analyses** folder.

3. Drag and drop **Exercise #11** to the left column. Notice that a section was created automatically when we did this. Exercise #11 is now contained in Section 1 and both objects are in Column 1.
1. Drag and drop Exercise #10 to the column on the right. Notice that a section was created automatically when we did this. Exercise #10 is now contained in Section 2 and both objects are in Column 2.
1. Click the **Save** icon on the upper right corner of the page to save your dashboard page.

2. Click the **Run** icon to exit the dashboard editor.

You can use the Preview icon to see what your dashboard will look like prior to saving it.

Make sure you click the Save icon before clicking the Run icon or you will lose your unsaved changes.
Dashboard/Report Application Development

Exercise #13
Combining View Selectors and Column Selectors
Exercise Objectives:

In this lesson we will review many of the key things we’ve learned in developing tabular views, pivot tables, graphs, and view selectors.

Content:

1. Develop a multi-view request including a table view, pivot table, two graphs, and view selector.
1. Create a new analysis with the columns and filter displayed above.
Create a Tabular View

<table>
<thead>
<tr>
<th>Customer Area</th>
<th>This Year, Billed Quantity</th>
<th>This Year, Revenue</th>
<th>Last Year, Period Ago Rev</th>
<th>Last Year, Rev Pct to Period Ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>173,094</td>
<td>2,299,923</td>
<td>2,431,881</td>
<td>-5.4%</td>
</tr>
<tr>
<td>Central</td>
<td>66,750</td>
<td>858,047</td>
<td>971,544</td>
<td>-11.7%</td>
</tr>
<tr>
<td>East</td>
<td>97,867</td>
<td>1,285,908</td>
<td>1,364,285</td>
<td>-5.7%</td>
</tr>
<tr>
<td>Eastern</td>
<td>106,223</td>
<td>1,366,053</td>
<td>1,322,938</td>
<td>3.3%</td>
</tr>
<tr>
<td>Europe</td>
<td>285,982</td>
<td>3,732,381</td>
<td>3,643,680</td>
<td>2.4%</td>
</tr>
<tr>
<td>Middle East</td>
<td>173,456</td>
<td>2,198,645</td>
<td>2,035,109</td>
<td>8.0%</td>
</tr>
<tr>
<td>North</td>
<td>74,660</td>
<td>986,238</td>
<td>1,041,919</td>
<td>-5.3%</td>
</tr>
<tr>
<td>North Africa</td>
<td>18,483</td>
<td>253,239</td>
<td>264,971</td>
<td>-4.4%</td>
</tr>
<tr>
<td>North America</td>
<td>1,086,517</td>
<td>14,158,793</td>
<td>14,344,250</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Northern</td>
<td>623,890</td>
<td>8,066,393</td>
<td>7,672,171</td>
<td>5.1%</td>
</tr>
<tr>
<td>South</td>
<td>583,298</td>
<td>7,602,838</td>
<td>7,357,535</td>
<td>3.3%</td>
</tr>
<tr>
<td>South America</td>
<td>160,345</td>
<td>2,068,444</td>
<td>2,263,288</td>
<td>-8.6%</td>
</tr>
<tr>
<td>West</td>
<td>124,392</td>
<td>1,623,098</td>
<td>1,786,428</td>
<td>-9.1%</td>
</tr>
</tbody>
</table>

1. Format the table with a grand total and the folder and column names as displayed above.

2. Add conditional formatting on the Rev Pct to Period Ago column. Values less than or equal to zero get a red arrow; greater than zero gets a blue arrow.

3. T05 Per Name Year should be in the Excluded section.
# Create a Pivot Table View

1. Create a pivot table with **Area** and **Measure Labels** in the rows and **T05 Per Name Year** in the columns.

2. Make sure that totals have been added correctly on the rows and columns (row totals not displayed above).

3. Click the **Row Properties** icon and uncheck the option to **Display Heading**.

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Billed Quantity</td>
<td>87,095</td>
<td>85,999</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>1,146,053</td>
<td>1,153,870</td>
</tr>
<tr>
<td></td>
<td>Period Ago Rev</td>
<td>1,285,828</td>
<td>1,146,053</td>
</tr>
<tr>
<td></td>
<td>Rev Pct to Period Ago</td>
<td>-10.9%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Central</td>
<td>Billed Quantity</td>
<td>40,953</td>
<td>25,797</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>508,506</td>
<td>349,541</td>
</tr>
<tr>
<td></td>
<td>Period Ago Rev</td>
<td>463,038</td>
<td>508,506</td>
</tr>
<tr>
<td></td>
<td>Rev Pct to Period Ago</td>
<td>9.8%</td>
<td>-31.3%</td>
</tr>
<tr>
<td>East</td>
<td>Billed Quantity</td>
<td>57,902</td>
<td>39,965</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>745,143</td>
<td>540,765</td>
</tr>
<tr>
<td></td>
<td>Period Ago Rev</td>
<td>619,142</td>
<td>745,143</td>
</tr>
<tr>
<td></td>
<td>Rev Pct to Period Ago</td>
<td>20.4%</td>
<td>-27.4%</td>
</tr>
<tr>
<td>Eastern</td>
<td>Billed Quantity</td>
<td>48,859</td>
<td>57,364</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>623,475</td>
<td>742,578</td>
</tr>
<tr>
<td></td>
<td>Period Ago Rev</td>
<td>699,463</td>
<td>623,475</td>
</tr>
<tr>
<td></td>
<td>Rev Pct to Period Ago</td>
<td>-10.9%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Europe</td>
<td>Billed Quantity</td>
<td>148,729</td>
<td>137,253</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>1,936,141</td>
<td>1,796,240</td>
</tr>
<tr>
<td></td>
<td>Period Ago Rev</td>
<td>1,707,539</td>
<td>1,936,141</td>
</tr>
<tr>
<td></td>
<td>Rev Pct to Period Ago</td>
<td>13.4%</td>
<td>-7.2%</td>
</tr>
<tr>
<td>Middle East</td>
<td>Billed Quantity</td>
<td>83,169</td>
<td>90,287</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>1,031,105</td>
<td>1,167,541</td>
</tr>
<tr>
<td></td>
<td>Period Ago Rev</td>
<td>1,004,004</td>
<td>1,031,105</td>
</tr>
<tr>
<td></td>
<td>Rev Pct to Period Ago</td>
<td>2.7%</td>
<td>13.2%</td>
</tr>
<tr>
<td>North</td>
<td>Billed Quantity</td>
<td>40,561</td>
<td>34,099</td>
</tr>
</tbody>
</table>
1. Create a 3-D pie chart with **Billed Quantity** in the **Slice Size** section and **Area** in the **Slices** section.

2. Place the legend on top of the chart and set the canvas width to **450**.
1. Create a 2-D stacked vertical bar chart with Revenue in the Bars, Area and Measure Labels in the Vary Color By section, and T05 Per Name Year in the Group By section.

2. Remember to move the legend and adjust the canvas width to 450.
1. Build a view selector, and add all of the views that you've built.

2. Add a caption.

3. Return to the compound layout and remove the views that are included in the selector.
Result

1. Open each view in the **Views** box on the lower left and re-name using the names displayed above.

2. Save your analysis as **Exercise #13**.
1. **Dashboard** — A collection of customized information on an interactive web dashboard that provides analysis of key trends, exceptions, and key performance indicators. Multiple dashboards allow you to organize your information according to your company’s needs.

2. **Dashboard Page** — Dashboard content is organized into pages similar to tabs on a web page. The pages appear as tabs across the top of the dashboard. Multiple dashboard pages allow you to organize analyses within a dashboard.

3. **Analysis** — An analysis provides answers to business questions. It allows you to explore and interact with information and present and visualize information using charts, pivot tables, and reports. You can save, organize, and share the results.

4. **Dashboard Prompt** — A prompt allows you to filter data on the dashboard page by selecting the value(s) you want filtered.

5. **Drilling** — Provides the ability to analyze your information at different levels of granularity.

6. **View Selector** — Allows you to select from multiple views of the information associated with an analysis.

7. **Column Selector** — Allows you to replace and re-order columns in an analysis.

8. **Business intelligence** - The ability to use data to provide the right information to the right people at the right time. It gives organizations the ability to analyze, understand, and manage key performance indicators.

9. **Oracle Business Intelligence Enterprise** - A suite of enterprise Business Intelligence tools that provide interactive dashboards which allow organizations to analyze, customize, and deliver information.
Day 2 is another exciting day of creating advanced requests and further expanding your knowledge on page layout.
Capgemini’s Best Practice Dashboard Design Conventions

Oracle BI
Enterprise Edition
Dashboard & Report Design & Best Practices

Amy Mayer
Kevin McGinley

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- Fatal Mindsets
- Best Practice Tips, Tricks, and Shortcuts
- Design Standards

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