

Oracle BI Publisher 12c R1: Fundamentals

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Practices for Lesson 2:
Introduction to Oracle BI Publisher 12c

Practices for Lesson 2: Overview

Practices Overview

Complete the following quizzes to test your understanding of the concepts taught in this lesson.

Fill in the Blanks

1. BI Publisher breaks apart the three report-design components—_____ , _____ , and _____ —and treats them separately at design time.
2. Using _____ , you can generate documents that can then be delivered via multiple delivery channels based on the recipient's choice.
3. Oracle BI Publisher _____ is available for quick downloading and installation, but not for Oracle BIEE Integrated features.
4. The Oracle _____ hardware is a single server that is optimally configured for in-memory analytics for BI workloads.
5. The trial version of Oracle BI Publisher includes self-contained WebLogic Server and _____ .

State whether the following statements are true or false

1. Oracle BI Foundation Suite is composed of Oracle BI EE, BI Publisher, Oracle Essbase, Oracle Scorecard, and Strategy Management.
True/False
2. BI Publisher cannot extract data from multiple data sources.
True/False
3. BI Publisher has the ability to publish multiple times by using the same data source.
True/False
4. BI Publisher cannot support:
 - a. Chinese, Japanese, Korean
 - b. Bidirectional languages
 - c. Unicode
 - d. Multiple Language Support
True/False
5. There is no way to use Oracle Reports as Oracle BI Publisher reports.
True/False

Practices for Lesson 2: Solution

Fill in the Blanks

1. BI Publisher breaks apart the three report-design components—data logic, layout, and translation—and treats them separately at design time.
2. Using Oracle BI Publisher, you can generate documents that can then be delivered via multiple delivery channels based on the recipient's choice.
3. Oracle BI Publisher trial edition is available for quick downloading and installation, but not for the Oracle BIEE Integrated features.
4. The Oracle Exalytics In-Memory Machine hardware is a single server that is optimally configured for in-memory analytics for BI workloads.
5. The trial version of Oracle BI Publisher includes self-contained WebLogic Server and Java Derby database.

State whether the following statements are true or false

1. Oracle BI Foundation Suite is composed of Oracle BI EE, BI Publisher, Oracle Essbase, Oracle Scorecard, and Strategy Management.
True
2. BI Publisher cannot extract data from multiple data sources.
False
3. BI Publisher has the ability to publish multiple times by using the same data source.
True
4. BI Publisher cannot support:
 - a. Chinese, Japanese, Korean
 - b. Bidirectional Languages
 - c. Unicode
 - d. Multiple Language Support
False
5. There is no way to use Oracle Reports as Oracle BI Publisher reports.
False

**Practices for Lesson 3: BI
Publisher: Technology and Architecture**

Practices for Lesson 3: Overview

Practices Overview

Complete the following quizzes to test your understanding of the concepts taught in this lesson.

Fill in the Blanks

1. The various functional components for BI Publisher are _____, _____, and _____.
2. _____ includes a guided workflow for creating simple reports.
3. _____ enables you to build a single document from multiple data source and template combinations, or create individual documents for each combination.
4. _____ enables you to split a single report based on a key in the report data and deliver the report based on a second key in the report data.
5. _____ converts RTF eText templates to XSL and merges the XSL with XML to produce text output for EDI and EFT transmissions.

State whether the following statements are true or false

1. BI Publisher's multitier architecture does not include a client tier, a middle tier, and a data tier.
True/False
2. BI Publisher Enterprise Server Architecture provides a complete, easy-to-use, template-based reporting and publishing solution.
True/False
3. RTF Processor merges XSL and XML data file to produce multiple output documents.
True/False
4. You cannot burst reports with conditional triggers.
True/False
5. XML data, by its nature, generates large objects and files, and these can cause serious memory issues during processing. BI Publisher has a stream-based implementation that reduces memory footprint, thereby enabling large XML input files to be processed.
True/False

Practices for Lesson 3: Solution

Fill in the Blanks

1. The various functional components for BI Publisher are BI Publisher Server, Data Model Editor, Report Editor, Layout Editor, and Template Builder.
2. Create Report Wizard includes a guided workflow for creating simple reports.
3. Document Processor enables you to build a single document from multiple data source and template combinations, or create individual documents for each combination.
4. Bursting enables you to split a single report based on a key in the report data and deliver the report based on a second key in the report data.
5. RTF Processor converts RTF eText templates to XSL and merges the XSL with XML to produce text output for EDI and EFT transmissions.

State whether the following statements are true or false

1. BI Publisher's multitier architecture does not include a client tier, a middle tier, and a data tier.
False (BI Publisher's multitier architecture includes client, middle, and data tiers.)
2. BI Publisher Enterprise Server Architecture provides a complete, easy-to-use, template-based reporting and publishing solution.
True
3. RTF Processor merges XSL and XML data file to produce multiple output documents.
False (FO Engine)
4. You cannot burst the reports with conditional triggers.
False
5. XML data, by its nature, generates large objects and files, and these can cause serious memory issues during processing. BI Publisher has a stream-based implementation that reduces memory footprint, thereby enabling large XML input files to be processed.
True

Practices for Lesson 4: Getting Started with BI Publisher

Practices for Lesson 4: Overview

Goal

To explore the BI Publisher UI, to create and save a simple report based on a sample data model, and to create another report against the BIEE subject area.

Practices Overview

You log in to BI Publisher, browse the Catalog, and explore preferences. You create and save a simple report based on an existing data model and view it.

Time

30–40 minutes

Practice 4-1: Signing In to BI Publisher and Setting Preferences

Assumptions

You create a simple report based on a predefined data model, add layouts, and save the report in your private folder.

Practice Overview

In this practice, you will log in to BI Publisher as a user with BI Administrator privileges. You explore your preferences, browse the Catalog, and open a predefined report.

Tasks

1. Open BI Publisher. Enter the URL for BI Publisher in a browser window by using the following format: `http://<hostname>:<port>/xmlpserver/`.
Example: <http://localhost:9502/xmlpserver/>.
Your instructor can provide you with the correct URL, username, and password.
2. Sign in. On the sign-in screen for BI Publisher, enter the username and password for the user with BI Administrator privileges.

Username: weblogic

Password: weblogic1

ORACLE® BI Publisher Enterprise

Sign In
Please enter username and password

Username

Password

Accessibility Mode

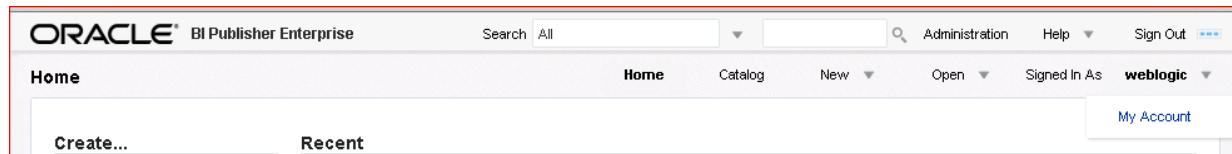
Sign In

English (United States)

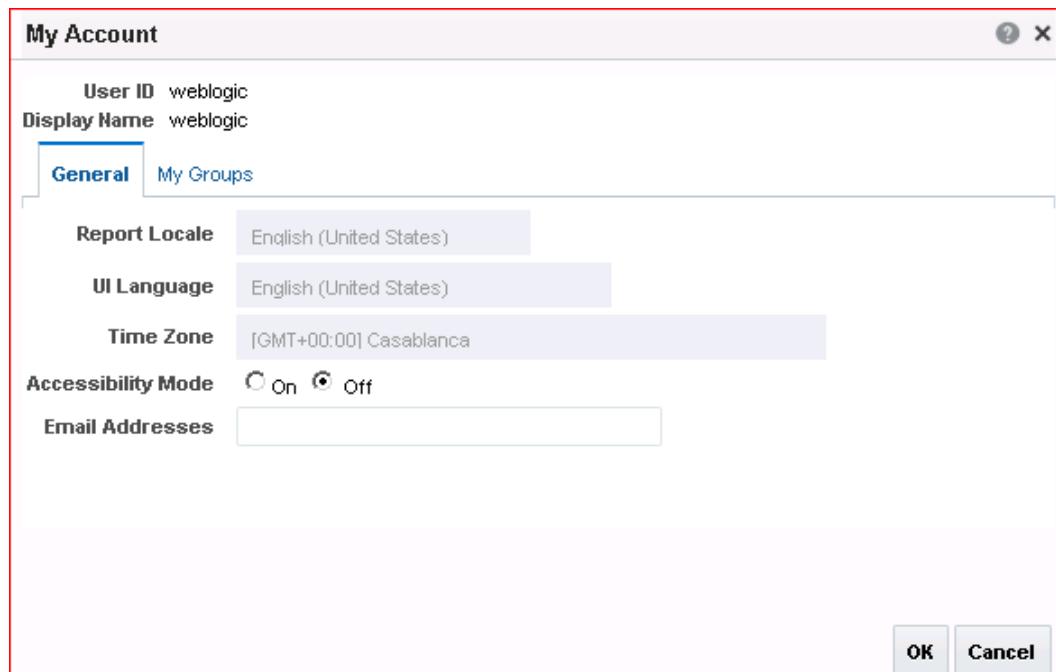
Oracle BI Publisher 12.2.1.0.0
Copyright © 2003, 2015, Oracle and/or its affiliates. All rights reserved.

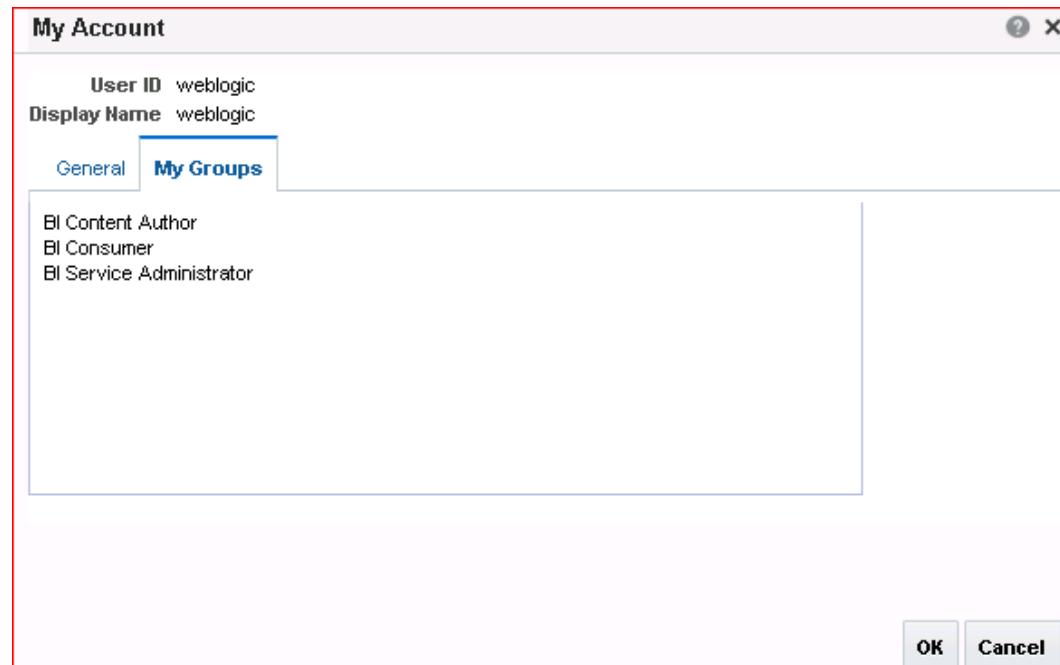
3. Click **Sign In**. When you sign in, the **Home** page appears.

4. Set your preferences. To set your preferences, click the “Signed in as <user>” link, and select My Account from the drop-down list.



5. The My Account dialog box appears with two tabs: General and My Groups. The Password tab is enabled only when you use BI Publisher Security. Review the settings on these tabs, accept the defaults, and do not change anything—your lab environment uses Fusion Middleware Security and already has all the appropriate settings.





Note: If you are running BI Publisher integrated with a security model other than BI Publisher, these preferences may be inherited from the other security model, and you will not be able to change them.

Click **Cancel**.

Practice 4-2: Creating and Modifying JDBC Connections

Practice Overview

In this practice, you create a JDBC connection for the OE schema (part of the Oracle database in the classroom environment) and you modify an existing JDBC connection for Demo Files.

Assumptions

To perform the tasks in this practice, you should have:

- Administrative privileges
- Oracle Database 12 (or Oracle Database 11g) installed along with the sample schemas, HR and OE, unlocked
- Oracle BI Enterprise Edition 12c installed (including Oracle BI Publisher 12c Enterprise Edition)
- All Oracle BI EE services and Oracle Database up and running

Tasks

1. Log in to BI Publisher (if not already logged in) as a user with BI Administrator privileges.
2. To define a JDBC connection, click the **Administration** link located on the right side of the BI Publisher page.



3. The Administration page appears. Note the different sections available on the Administration page. Click **JDBC Connection** in the Data Sources section.

Data Sources

- JDBC Connection
- JNDI Connection
- File
- LDAP Connection
- OLAP Connection
- Web Service Connection
- HTTP Connection

System Maintenance

- Server Configuration
- Scheduler Configuration
- Scheduler Diagnostics
- Report Viewer Configuration
- Manage Cache

Security Center

- Security Configuration
- Roles and Permissions
- Digital Signature

Runtime Configuration

- Properties
- Font Mappings
- Currency Formats

Delivery

- Delivery Configuration
- Printer
- Fax
- Email
- WebDAV
- HTTP
- FTP
- Content Server
- CUPS Server

Integration

- Oracle BI Presentation Services

4. The **Data Sources** page appears. In the JDBC section, click **Add Data Source** to create a JDBC connection to your database.

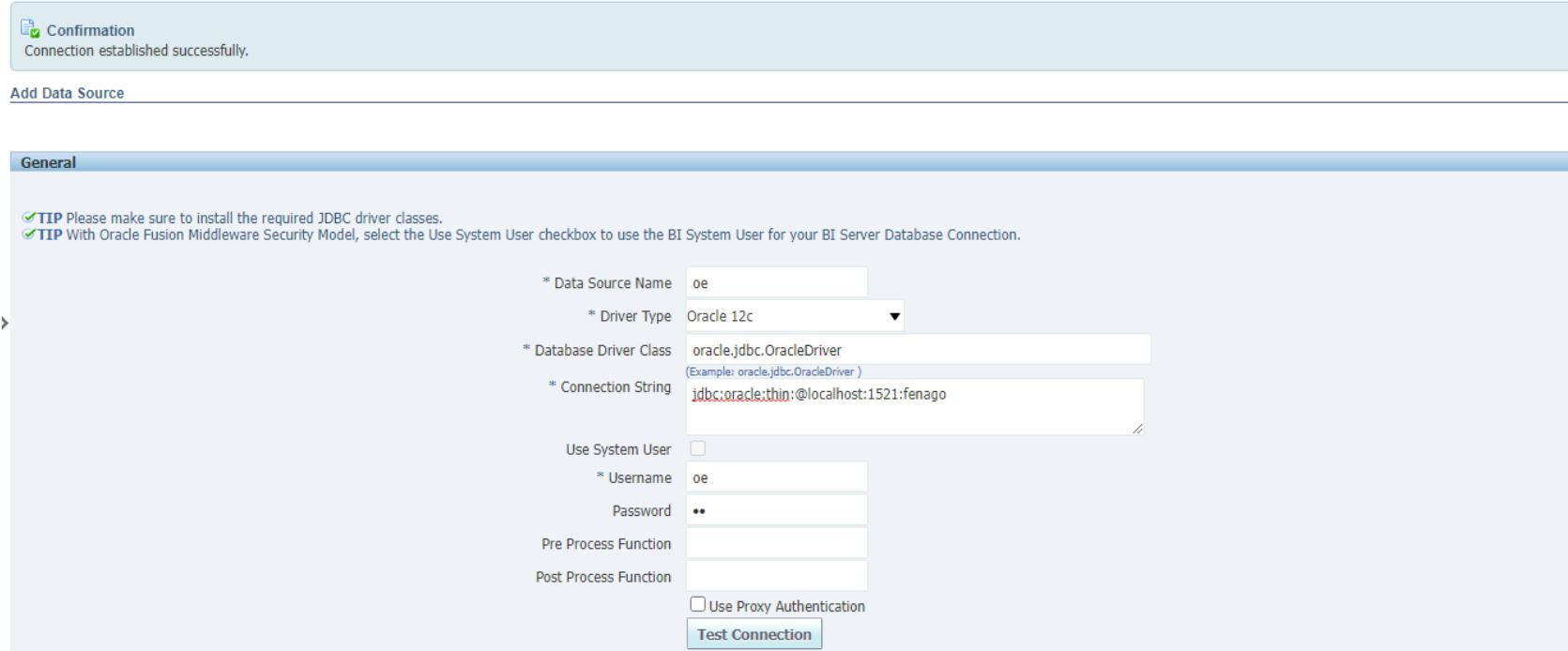
Data Source Name	Connection String	Delete
demo	jdbc:oracle:thin:@localhost:1521:orcl	
Oracle BI EE	jdbc:oraclebi://EDVMR1PO:9514/	

5. On the Add Data Source page, enter the following details:

Step	Name	Values
a.	Data Source Name	oe (Enter in lowercase.)
b.	Driver Type	Select Oracle 12c. This is the driver type for the classroom database.
c.	Database Driver Class	Enter <code>oracle.jdbc.OracleDriver</code> This is a driver class for the classroom database.
d.	Connection String	Provide the database connection detail in the format <code><hostname>:<port>:<sid></code> . Note: For your practice, the string should look like this: <code>jdbc:oracle:thin:@localhost:1521:fenago</code> However, confirm these details with your instructor.
e.	Username	oe (database username; enter in lowercase)
f.	Password	oe (database user password; enter in lowercase)

Your Data Source page should look like the following screenshot.

Administration > JDBC > Add Data Source



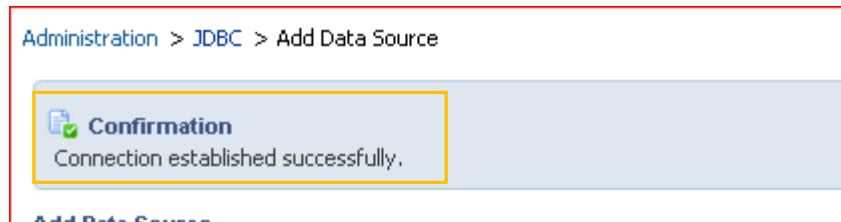
The screenshot shows the 'Add Data Source' page with a confirmation message: 'Confirmation Connection established successfully.' Below this, the 'General' tab is selected. The form fields are as follows:

- * Data Source Name: oe
- * Driver Type: Oracle 12c
- * Database Driver Class: oracle.jdbc.OracleDriver
(Example: oracle.jdbc.OracleDriver)
- * Connection String: jdbc:oracle:thin:@localhost:1521:fenago
- Use System User:
- * Username: oe
- Password: ••
- Pre Process Function: (empty)
- Post Process Function: (empty)
- Use Proxy Authentication
- Test Connection** button

TIP messages at the top of the form:

- Please make sure to install the required JDBC driver classes.
- With Oracle Fusion Middleware Security Model, select the Use System User checkbox to use the BI System User for your BI Server Database Connection.

- Do not click **Apply** or **Cancel** after entering the preceding details. Click **Test Connection**. If the connection is established properly, a confirmation message appears directly beneath the Administration tab as indicated in the following screenshot.



- Click **Apply** when the connection is properly established. The data source appears in the Data Sources table.

Data Sources		
JDBC	JNDI	File
LDAP	OLAP	Web Services
HTTP	Content Server	
Add Data Source		
Data Source Name	Connection String	Delete
oe	jdbc:oracle:thin:@localhost:1521:fenago	
Oracle BI EE	jdbc:oracle:thin:@oracleclass.wqjd0lbk03du3fq5oq4sahjfbh.cx.internal.cloudapp.net:9504/	

- Click “Add Data Source” button again and input Data source name “**demo**” and set random username/password for now and save it. We will update it to points to the OE schema in database, because other practices will use this association. Click the link for **demo**.

Data Sources		
JDBC	JNDI	File
LDAP	OLAP	Web Services
HTTP	Content Server	
Add Data Source		
Data Source Name	Connection String	Delete
demo	jdbc:oracle:thin:@[host]:[port]:[sid]	
oe	jdbc:oracle:thin:@localhost:1521:fenago	
Oracle BI EE	jdbc:oracle:thin:@oracleclass.wqjd0lbk03du3fq5oq4sahjfbh.cx.internal.cloudapp.net:9504/	

9. On the “Update Data Source: demo” page, enter the following details:

Step	Name	Values
a.	Driver Type	Select Oracle 12c. This is the driver type for the classroom database.
b.	Database Driver Class	Enter <code>oracle.jdbc.OracleDriver</code> . This is a driver class for the classroom database.
c.	Connection String	Provide the database connection detail in the format <code><hostname>:<port>:<sid></code> . Note: For your practice, the string should look like this: <code>jdbc:oracle:thin:@localhost:1521:fenago</code> However, confirm these details with your instructor.
d.	Username	oe (database username)
e.	Password	oe (database user password)

Your Data Source page should look like the following screenshot:

The screenshot shows the 'Update Data Source: oe' dialog box. The 'General' tab is active. The 'Driver Type' dropdown is set to 'Oracle 12c'. The 'Database Driver Class' input field contains 'oracle.jdbc.OracleDriver'. The 'Connection String' input field contains 'jdbc:oracle:thin:@localhost:1521:ord'. The 'Use System User' checkbox is unchecked. The 'Username' field contains 'oe' and the 'Password' field contains '*****'. There are also fields for 'Pre Process Function' and 'Post Process Function' which are empty. At the bottom, there is a 'Test Connection' button.

10. Click **Test Connection**. If the connection is established properly, the confirmation message appears.

11. Click **Apply** when the connection is properly established. The data source appears in thea Sources table.

The screenshot shows the Oracle BI Publisher Administration interface. The top navigation bar includes links for Home, Catalog, New, Open, Signed In As (set to weblogic), and Help. Below the navigation is a breadcrumb trail: Administration > JDBC. The main content area is titled "Data Sources" and features a tab bar with JDBC selected, along with JNDI, File, LDAP, OLAP, Web Services, and HTTP. A button labeled "Add Data Source" is visible. The data table lists three data sources:

Data Source Name	Connection String	Delete
demo	jdbc:oracle:thin:@localhost:1521:ord	[Delete icon]
oe	jdbc:oracle:thin:@localhost:1521:ord	[Delete icon]
Oracle BI EE	jdbc:oraclebi://EDVMR1PO:9514/	[Delete icon]

Practice 4-3: Exploring the Catalog and Viewing a Predefined Report

Overview

In the next few steps, you browse the Catalog and open a predefined report.

Tasks

1. Click the **Catalog** link on the global header. The Catalog page appears with the folders displayed in a tree structure on the left pane and object details on the right.

The screenshot shows the BI Publisher Catalog interface. On the left, there is a tree view of 'Folders' under 'Shared Folders'. Under 'Sample Lite', there are 'Subject Area Contents' and 'KPIs'. Under 'Published Reporting', there is a single item. On the right, a list of objects is displayed with their details and actions:

- Product Listing**: Last Modified 4/28/16 6:52 AM, Created By weblogic. Data Model: Product List DM -Layouts: XPT. Actions: Open, Schedule, Jobs, Job History, Edit, More.
- Product Sales - OBIEE Semantic Layer**: Last Modified 4/28/16 6:52 AM, Created By weblogic. Data Source: Direct connection to OBIEE Sample Sales Lite subject area. Features: List filters, Interactive charts. Actions: Open, Schedule, Jobs, Job History, Edit, More.
- Salary Report - Checkboxes**: Last Modified 8/2/18 9:45 PM, Created By weblogic. Data Model: Salary Parameter Datamodel (Requires that the "demo" JDBC connection in BI Publisher is set up.) Features: Multiple layout types; Cascading Parameters using checkboxes to display LOVs; Bursting. Actions: Open, Schedule, Jobs, Job History, Edit, More.
- Salary Report - No Parameters**: Last Modified 4/28/16 6:52 AM, Created By weblogic. Salary report with no parameters. Sources data from XML file. Actions: Open, Schedule, Jobs, Job History, Edit, More.
- Salary Report**: Last Modified 8/3/18 11:35 PM, Created By weblogic. Data Model: Salary Parameter Datamodel (Requires that the "demo" JDBC connection in BI Publisher is set up.) Features: Multiple layout types; Cascading parameters displayed as menu with search. Bursting. Actions: Open, Schedule, Jobs, Job History, Edit, More.
- Sales Performance Report**: Last Modified 4/28/16 6:52 AM, Created By weblogic. Data Source - Sales Performance Data Model; Features - Cascading parameters displayed on vertical region using radio button controls; Drill-down charts. Actions: Open, Schedule, Jobs, Job History, Edit, More.

Catalog objects, such as reports and data models, are organized into folders. Shared Folders contain objects that can be used by others in reports, dashboards, and so on. My Folders contains private objects. Note that Sample Lite is contained within Shared Folders. Sample Lite is installed out of the box.

2. Navigate to Shared Folders > Sample Lite > Published Reporting > Reports. Click the **Open** link below “Salary Report – Checkboxes” (as shown in the preceding screenshot).

3. Salary Report - Checkboxes runs and appears in a browser window.

Salary Report - Checkboxes

Department

- All
- Administration
- Marketing
- Purchasing
- Human Resources
- Shipping
- IT
- Public Relations
- Sales
- Executive
- Finance
- Accounting

Employee

All

Apply

The report data is displayed with parameters. The reports display parameters when it has parameters defined in the data model or report editor.

Note: You can select different values for the Department drop-down list, such as Sales or Purchasing; and similarly select employees for these departments to view the data. The data in the report changes according to your selections. Because these parameters are connected (cascading parameters), when you select a specific department, the employees belonging to that department appear. Note that you can select a specific employee as well.

Name	Job Title	Manager	Department	Salary
Den Raphaely	Purchasing Manager	Steven King	Purchasing	11,000.00
Alexander Khoo	Purchasing Clerk	Den Raphaely	Purchasing	3,100.00
Shelli Baida	Purchasing Clerk	Den Raphaely	Purchasing	2,900.00
Sigal Tobias	Purchasing Clerk	Den Raphaely	Purchasing	2,800.00
Guy Himuro	Purchasing Clerk	Den Raphaely	Purchasing	2,600.00
Karen Colmenares	Purchasing Clerk	Den Raphaely	Purchasing	2,500.00
TOTAL				24,900.00

All the predefined layouts for the report appear as different tabs.

Note: The Sample Lite folder contains a set of predefined sample reports and other Catalog objects. You can open and view any of these reports.

4. View the report by using any of the supported formats.

Click the **View** icon in the Report Viewer and select any of the formats, such as HTML, PDF, RTF, Excel, or PowerPoint.

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Salary Report

Name	Job Title	Manager	Department	Salary
Den Raphaely	Purchasing Manager	Steven King	Purchasing	11,000.00
Alexander Khoo	Purchasing Clerk	Den Raphaely	Purchasing	3,100.00
Shelli Baida	Purchasing Clerk	Den Raphaely	Purchasing	2,900.00
Sigal Tobias	Purchasing Clerk	Den Raphaely	Purchasing	2,800.00
Guy Himuro	Purchasing Clerk	Den Raphaely	Purchasing	2,600.00
Karen Colmenares	Purchasing Clerk	Den Raphaely	Purchasing	2,500.00
TOTAL				24,900.00

Click the other tabs to view the different styles of layouts associated with this data. For example, click Batch Manager Salary to view a financial style.

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Salary Expense Report

Manager Den Raphaely

Name	Job Title	Manager	Department Name	Salary
Alexander Khoo	Purchasing Clerk	Den Raphaely	Purchasing	3,100.00
Shelli Baida	Purchasing Clerk	Den Raphaely	Purchasing	2,900.00
Sigal Tobias	Purchasing Clerk	Den Raphaely	Purchasing	2,800.00
Guy Himuro	Purchasing Clerk	Den Raphaely	Purchasing	2,600.00
Karen Colmenares	Purchasing Clerk	Den Raphaely	Purchasing	2,500.00
TOTAL				13,900.00

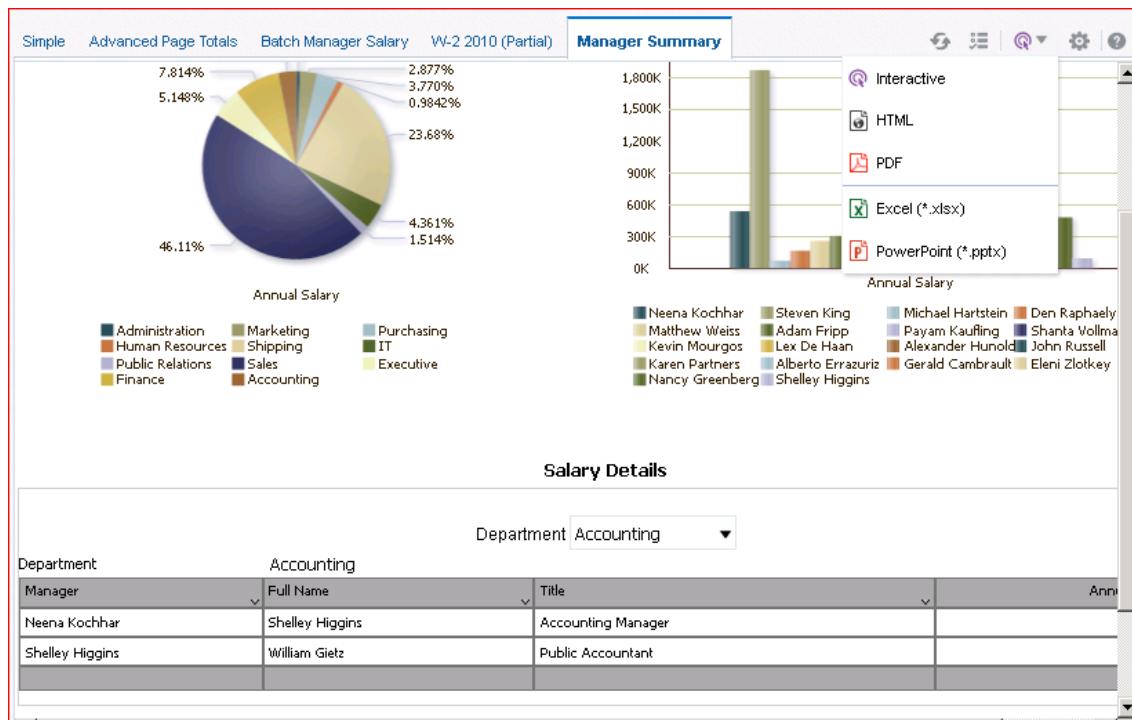
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Salary Expense Report

Manager Steven King

Name	Job Title	Manager	Department Name	Salary
Den Raphaely	Purchasing Manager	Steven King	Purchasing	11,000.00
TOTAL				11,000.00

Observe that, based on the layout you have chosen, report view options change. This layout has only HTML, PDF, and PowerPoint views. Click Manager Summary to see an interactive view.



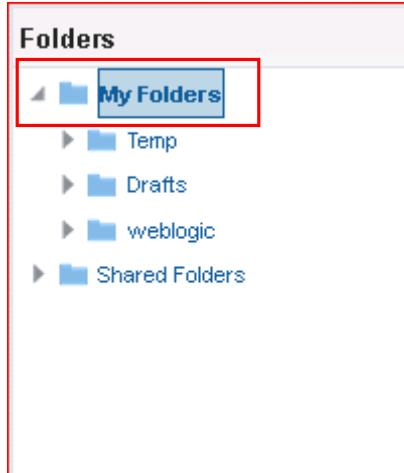
Practice 4-4: Creating a Private Folder

Overview

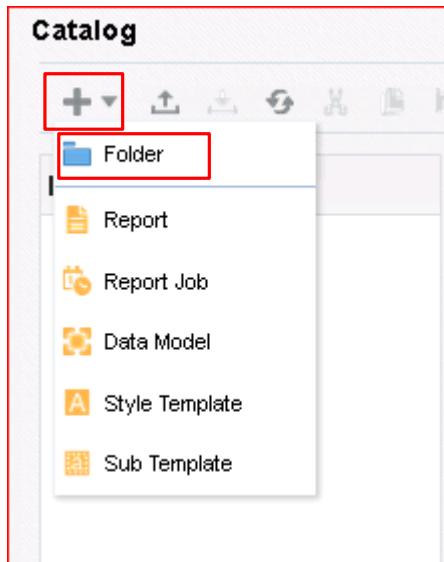
In this practice, you create a private folder in the Catalog. You will use this folder to save your objects.

Tasks

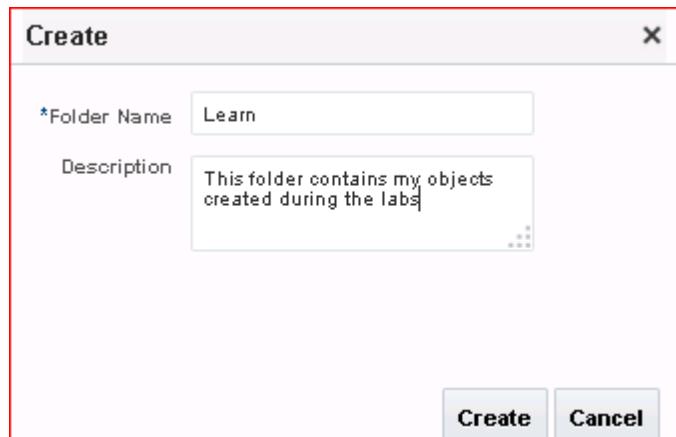
1. Click the **Catalog** link and select **My Folders**.



2. Click **New > Folder** to create a new folder under My Folders.



3. The Create dialog box appears. Enter **Learn** in the Folder Name text box and, optionally, enter a Description. Click **Create**.



4. Your new folder appears in the Catalog folder tree and in the work area. All objects that you create during your practice sessions (data models, reports, and so on) should be saved to this folder except for the objects that you will add to your dashboard and the files that are stored locally.

The screenshot shows the Catalog interface. On the left, there's a sidebar with a 'Folders' section. Under 'Folders', 'My Folders' is selected and expanded, showing sub-folders: 'Learn', 'Temp', 'Drafts', 'weblogic', and 'Shared Folders'. The 'Learn' folder is expanded, showing its details: 'Last Modified 8/6/18 9:44 PM' and 'Created By weblogic'. Below this, it says 'This folder contains my objects created during the labs'. At the top, there's a navigation bar with tabs like Home, Catalog, New, Open, and Signed In As.

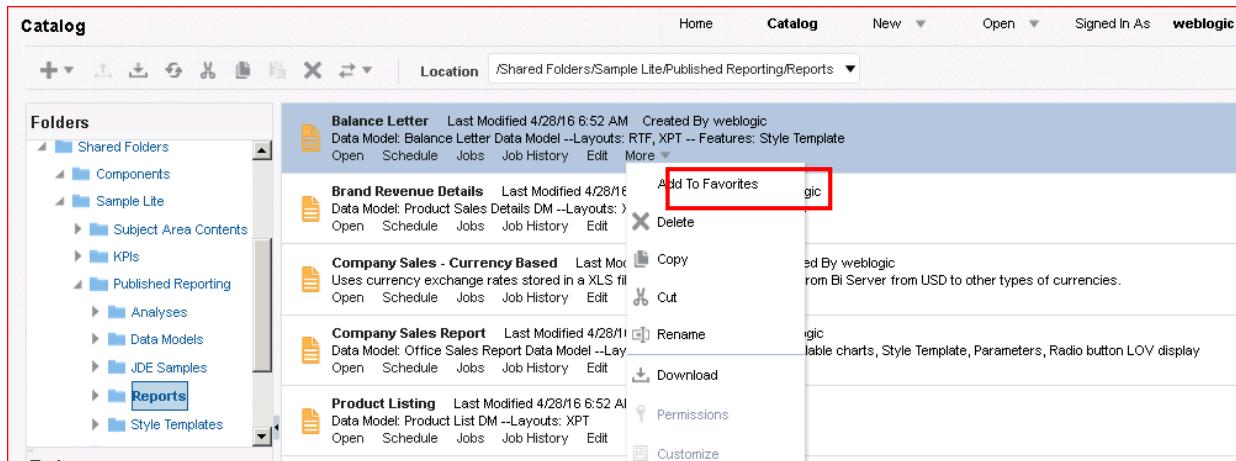
Practice 4-5: Managing Favorites

Overview

In this practice, you will add an existing report to the Favorites region and view it on the Home page.

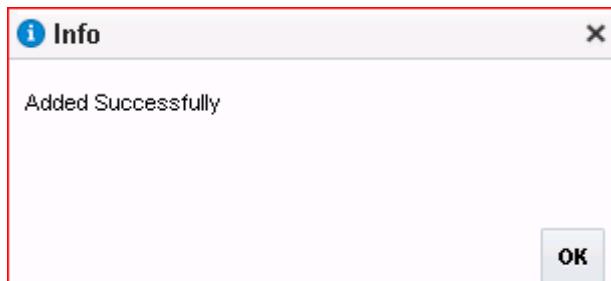
Tasks

1. Locate the **Balance Letter** report in the Catalog and click the **More** link.



2. Click **Add To Favorites** in the **More** Menu.

An information window is displayed. Click OK. The report is now added to the **Favorites** section.



3. Navigate to the Home page to view the report under the **Favorites** section.



Note: There are several ways to add objects to the Favorites region:

- You can also add a report to the Favorites section from Report Viewer. Use the Actions menu, and then click **Add to My Favorite**.
- You can also use the **Manage** link in the Favorites section of the Home page for adding and managing favorites.

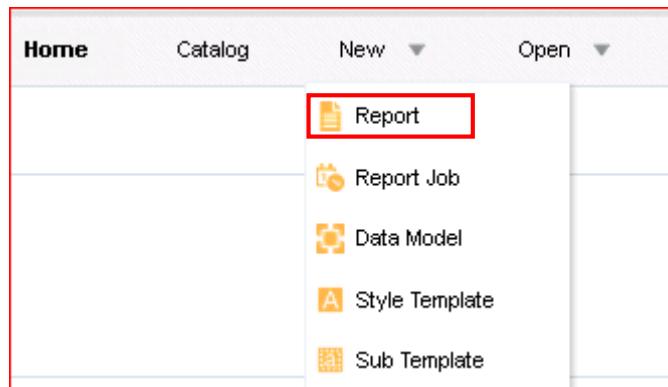
Practice 4-6: Creating a Simple Report Based on a Predefined Data Model

Overview

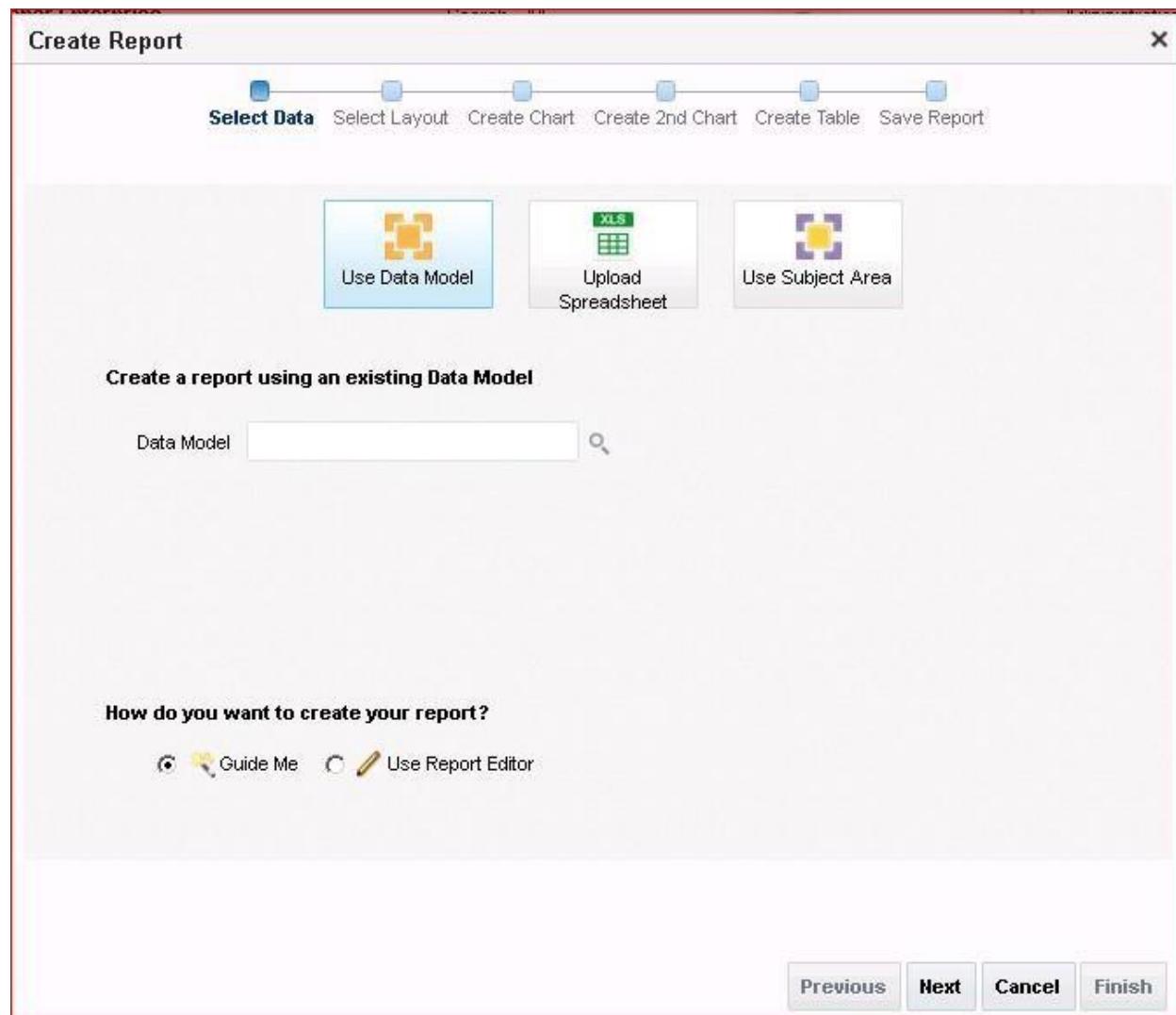
In this practice, you create a simple report against an existing (predefined) data model, Salary Report Parameter, and view it in Report Viewer. This report will have a simple chart and table. You use the Report Wizard to create the new report.

Tasks

1. Click New > Report in the global header.



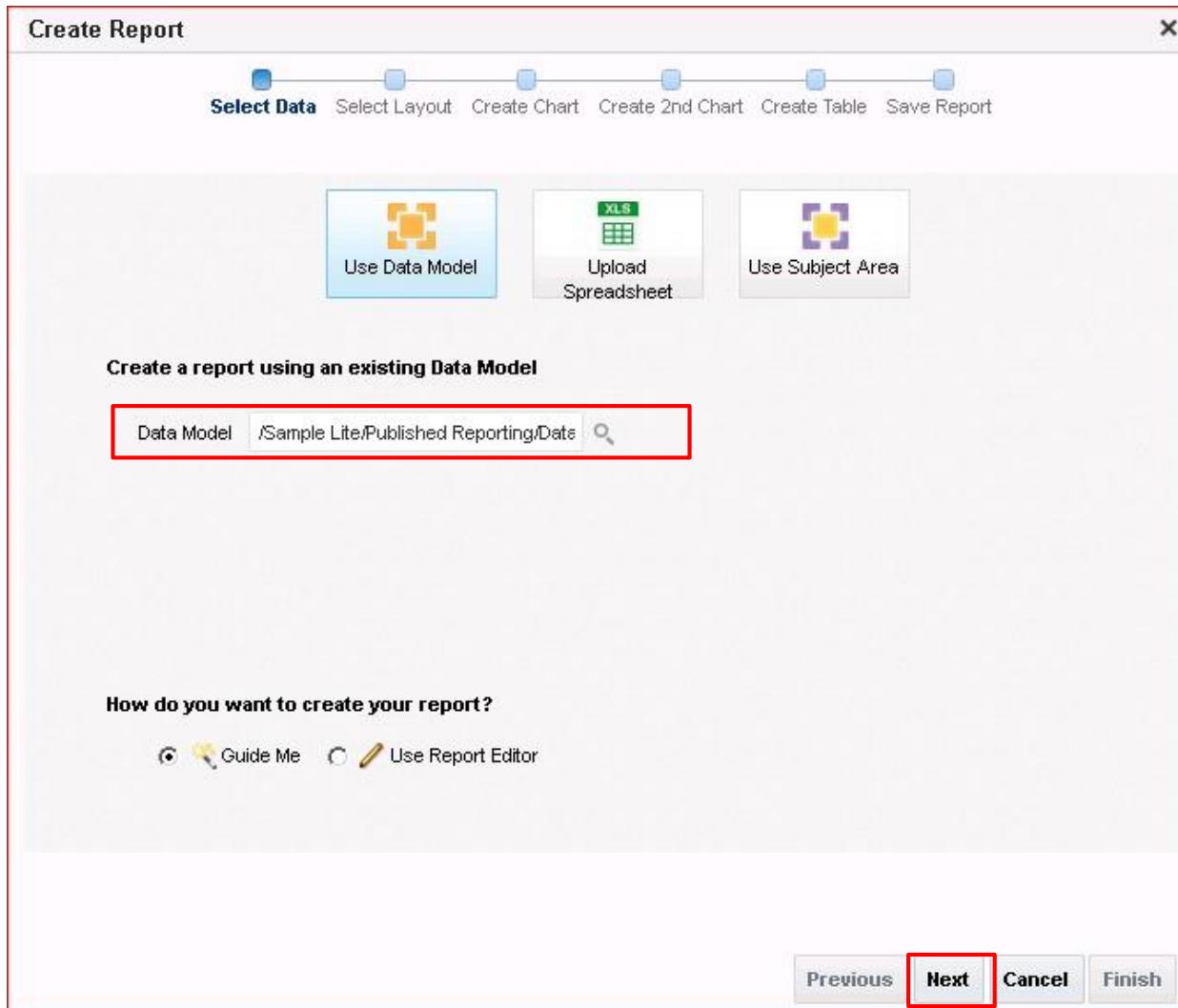
2. The Create Report window is opened. You can select the data using any of the available choices: Use Data Model, Upload Excel Spreadsheet, or Use Subject Area. You create a report by using the existing data model—*Salary Parameter Datamodel*.



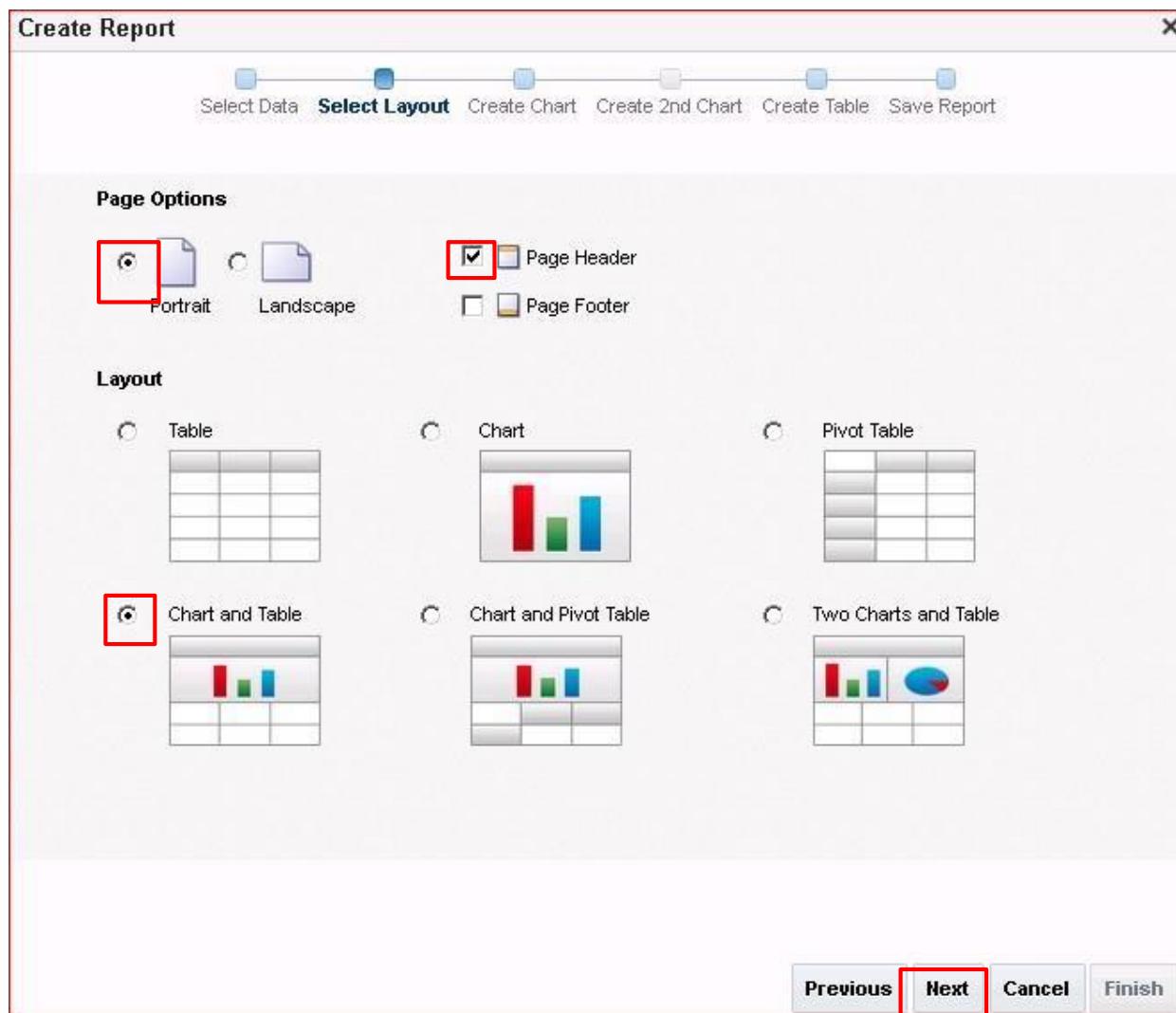
Click the Search icon beside the Data Model selection field to select an existing data model from the Catalog.

3. Select the data model from the Catalog folder: Shared Folders > Sample Lite > Published Reporting > Data Models > Salary Parameter Datamodel and click **Open**.

T4. his is reflected in the Report Wizard's Data Model field. Click **Next**.



5. After you select the data source for the report, select the report page options and report layout to define how data is displayed in the report. In Page Options, select **Portrait** for the page orientation.

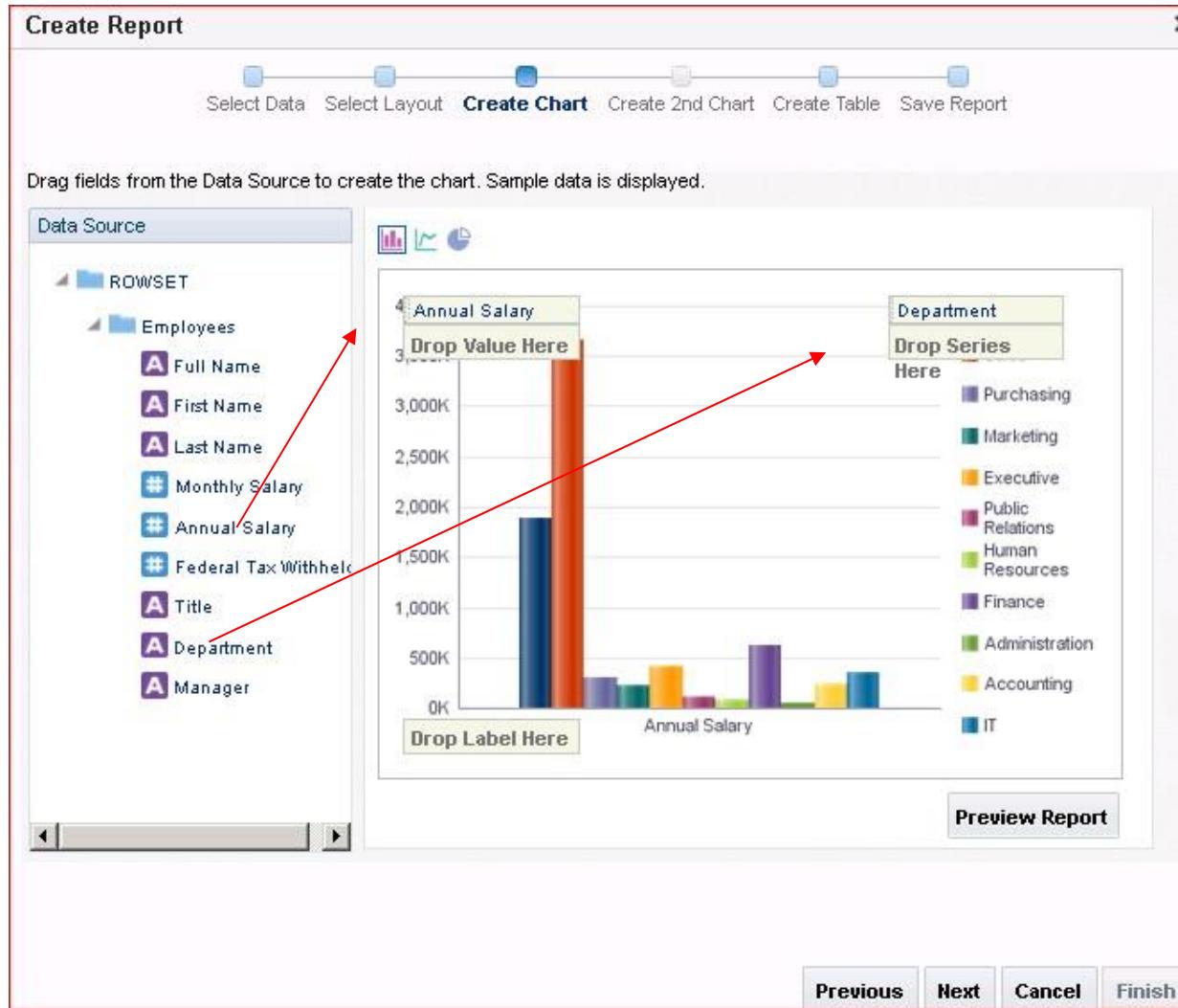


6. Select **Page Header** to display the page header.
7. From Layouts, select **Chart and Table**. You can choose any of the combinations based on your requirement.
8. Click **Next**. The layout that you select on the Select Layout page drives the remaining pages that you must complete in order to create the report.
9. Because you have selected the Chart and Table layout, the Create Chart page opens. The Chart Layout page supports three types of charts. Select **Bar Chart**.

Add columns to the chart by dragging and dropping them from the Data Source pane to the chart area.

36

- Drag Annual Salary on to Drop Value Here.
- Drag Department on to Drop Series Here.



- Click **Next** in the Report Wizard to create a table.

12. The Create Table page is displayed with the columns that you previously selected for the chart. You will edit this table by adding and removing required columns.

Create Report

Select Data Select Layout Create Chart Create 2nd Chart **Create Table** Save Report

Drag fields from the Data Source to create the table. Sample data is displayed.

Data Source

- ROWSET
 - Employees
 - Full Name
 - First Name
 - Last Name
 - Monthly Salary
 - Annual Salary
 - Federal Tax Withheld
 - Title
 - Department
 - Manager

Department	Annual Salary
Shipping	96000
Shipping	98400
Shipping	94800
Shipping	78000
Shipping	69600
Sales	132000
Sales	126000
Sales	168000
Sales	162000
Sales	144000
	7924800

Show Grand Totals Row

Preview Report

The screenshot shows the 'Create Report' interface with a red border around the main content area. At the top, there's a navigation bar with six buttons: 'Select Data', 'Select Layout', 'Create Chart', 'Create 2nd Chart', 'Create Table' (which is highlighted in blue), and 'Save Report'. Below the navigation is a message: 'Drag fields from the Data Source to create the table. Sample data is displayed.' To the left is a 'Data Source' tree view showing a 'ROWSET' node expanded to show an 'Employees' node, which contains various fields like 'Full Name', 'First Name', 'Last Name', etc. To the right is a table with two columns: 'Department' and 'Annual Salary'. The table contains sample data for shipping and sales employees. At the bottom left is a checkbox for 'Show Grand Totals Row', and at the bottom right is a 'Preview Report' button.

13. Remove the column **Annual Salary** from this table by selecting the column and clicking the remove option as shown.

The screenshot shows the 'Create Report' interface in BI Publisher. The top navigation bar includes 'Select Data', 'Select Layout', 'Create Chart', 'Create 2nd Chart', 'Create Table', and 'Save Report'. Below the navigation is a message: 'Drag fields from the Data Source to create the table. Sample data is displayed.' A 'Data Source' panel on the left lists fields under 'ROWSSET' and 'Employees'. Under 'Employees', fields include 'Full Name', 'First Name', 'Last Name', 'Monthly Salary', 'Annual Salary' (which is highlighted with a red border), 'Federal Tax Withheld', 'Title', 'Department', and 'Manager'. To the right is a table preview with two columns: 'Department' and 'Annual Salary'. The 'Annual Salary' column contains sample data: Shipping (96000, 98400, 94800, 78000, 69600), Sales (132000, 126000, 160000, 162000, 144000), and a total row (7924800). An 'X' button is visible at the top right of the 'Annual Salary' column header.

Department	Annual Salary
Shipping	96000
Shipping	98400
Shipping	94800
Shipping	78000
Shipping	69600
Sales	132000
Sales	126000
Sales	160000
Sales	162000
Sales	144000
	7924800

14. Add data to the table. Along with the existing Department column, add Manager, Full Name, and Monthly Salary by dragging the data elements to the table. The columns are displayed in a simple tabular format and the column widths are automatically adjusted based on the number of selected columns.

Create Report

Select Data Select Layout Create Chart Create 2nd Chart **Create Table** Save Report

Drag fields from the Data Source to create the table. Sample data is displayed.

Department	Manager	Full Name	Monthly Salary
Shipping	Steven King	Matthew Weiss	8000
Shipping	Steven King	Adam Fripp	8200
Shipping	Steven King	Payam Kaufling	7900
Shipping	Steven King	Shanta Vollman	6500
Shipping	Steven King	Kevin Mourgos	5800
Sales	Steven King	Gerald Cambrault	11000
Sales	Steven King	Eleni Zlotkey	10500
Sales	Steven King	John Russell	14000
Sales	Steven King	Karen Partners	13500
Sales	Steven King	Alberto Errazuriz	12000
			660400

Data Source

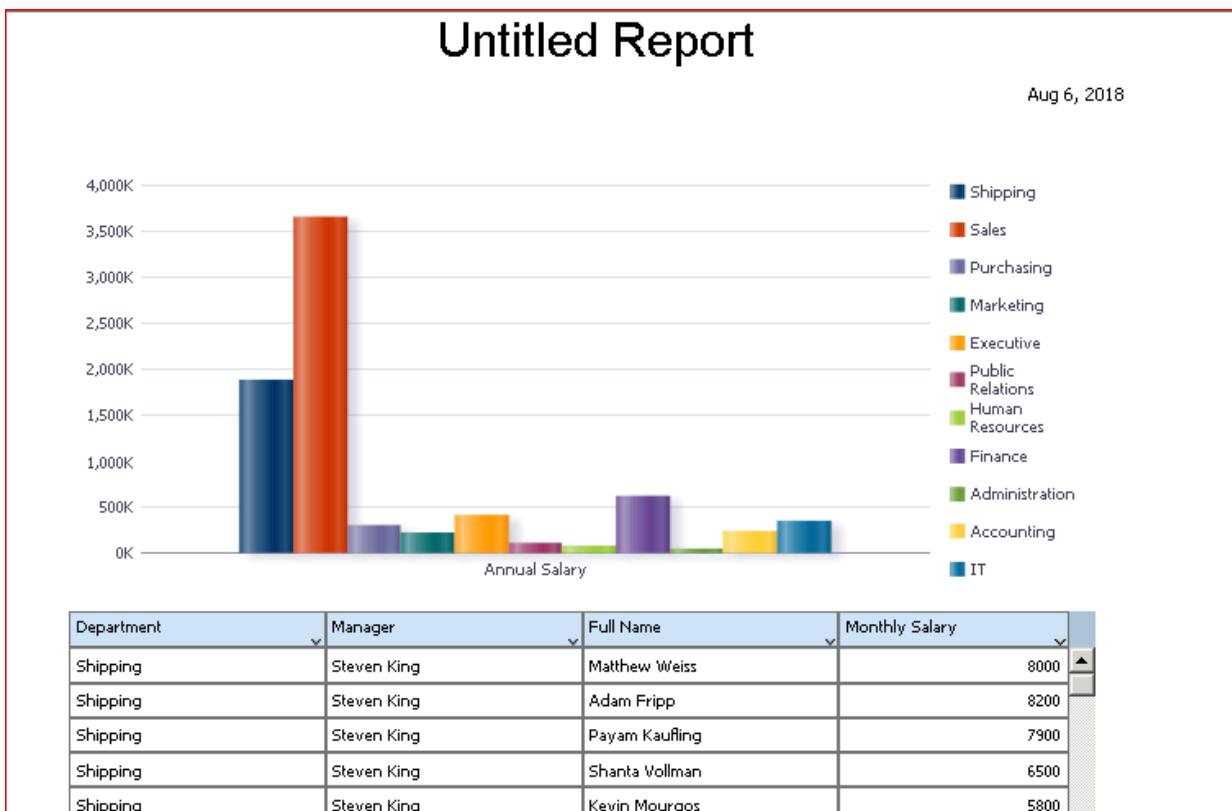
- ROWSET
 - Employees
 - A Full Name**
 - A First Name**
 - A Last Name**
 - # Monthly Salary**
 - # Annual Salary**
 - # Federal Tax Withheld**
 - A Title**
 - A Department**
 - A Manager**

Show Grand Totals Row

Preview Report

Previous Next Cancel Finish

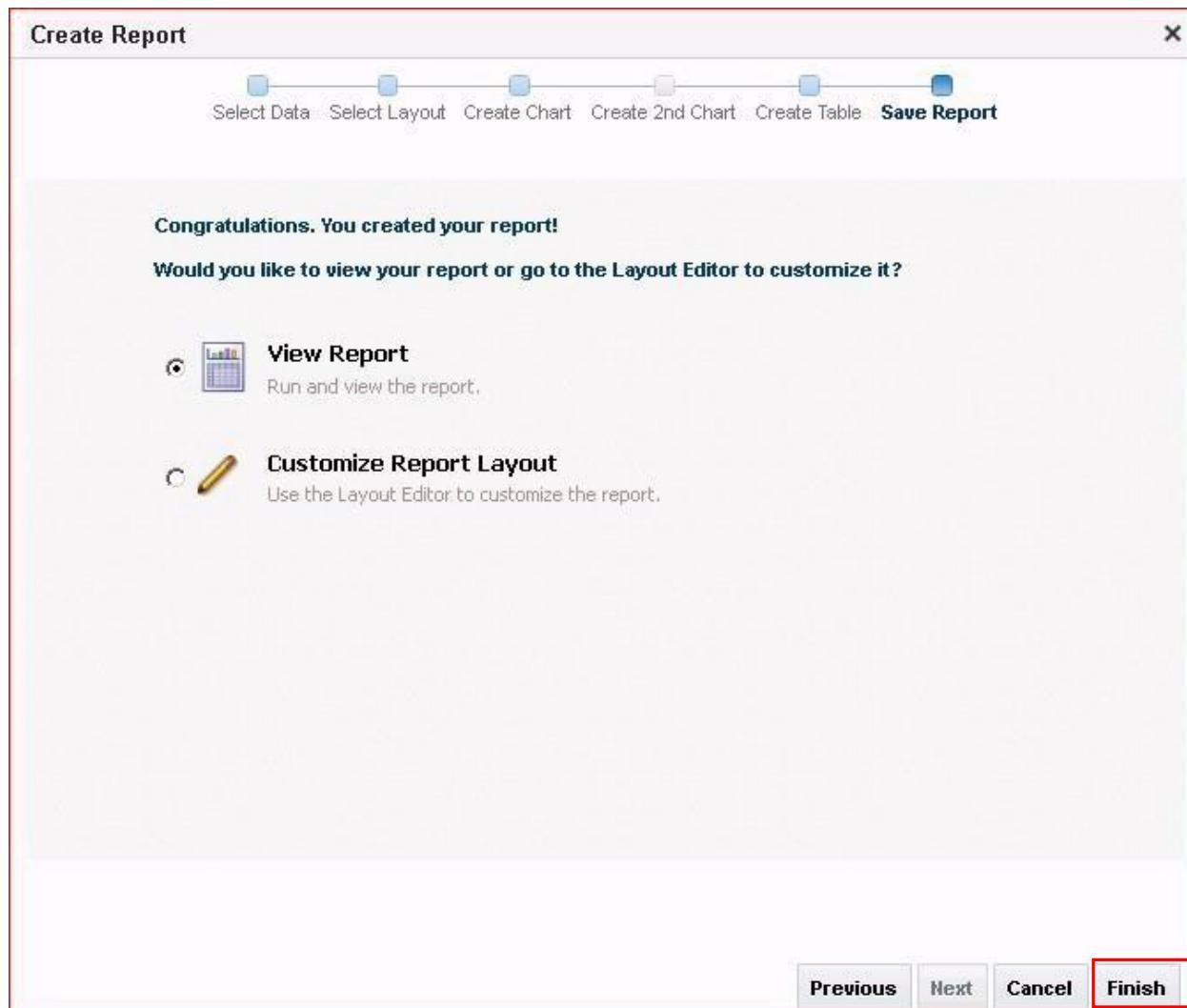
15. Click **Preview Report** to view the report in the interactive viewer.



16. Close the viewer's browser window.

17. Click **Next** in the Report Wizard to proceed to saving the report.

18. To run the report you just created, click **View Report** and then click **Finish**. The final page prompts you to save the report.

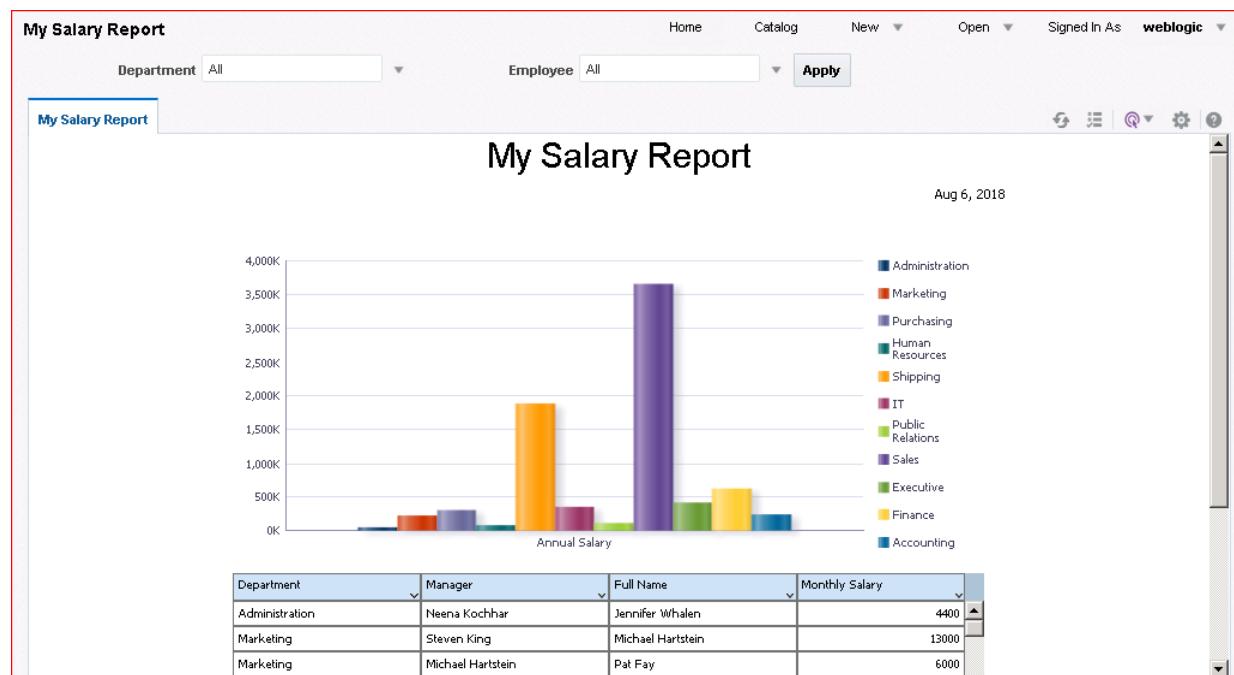


Note: If you select the Customize Report Layout option, the final page prompts you to save the report. After saving, the report is opened in the Layout Editor for further editing.

19. In the Save As dialog box, select the folder **My Folders > Learn**.

20. Name the report **My Salary Report**. Click **Save**.

21. The report is displayed in the report viewer. By default, the report header takes its name from the report file name you have given. You can edit this using the Layout Editor.



Practice 4-7: Creating a Simple Report Based on BI EE Subject Area

Assumptions

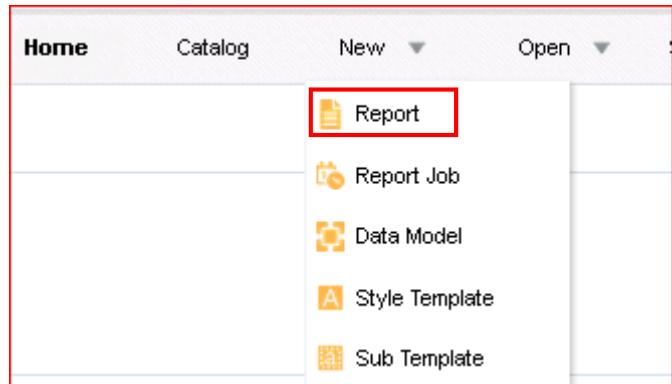
You create a simple report against the OBIEE subject area and view the report.

Practice Overview

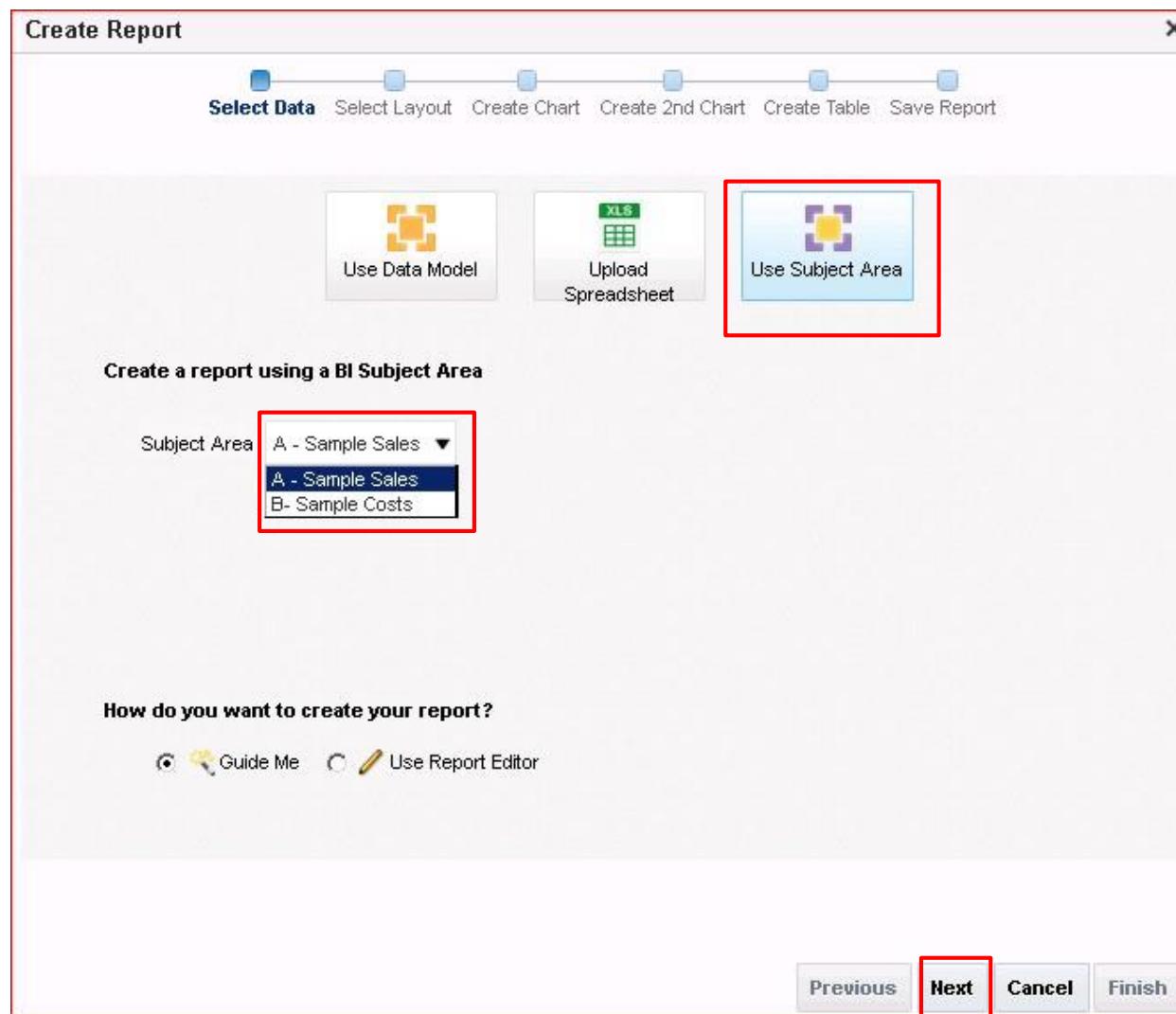
In this practice, you create a report using the OBIEE subject area for the report data.

Tasks

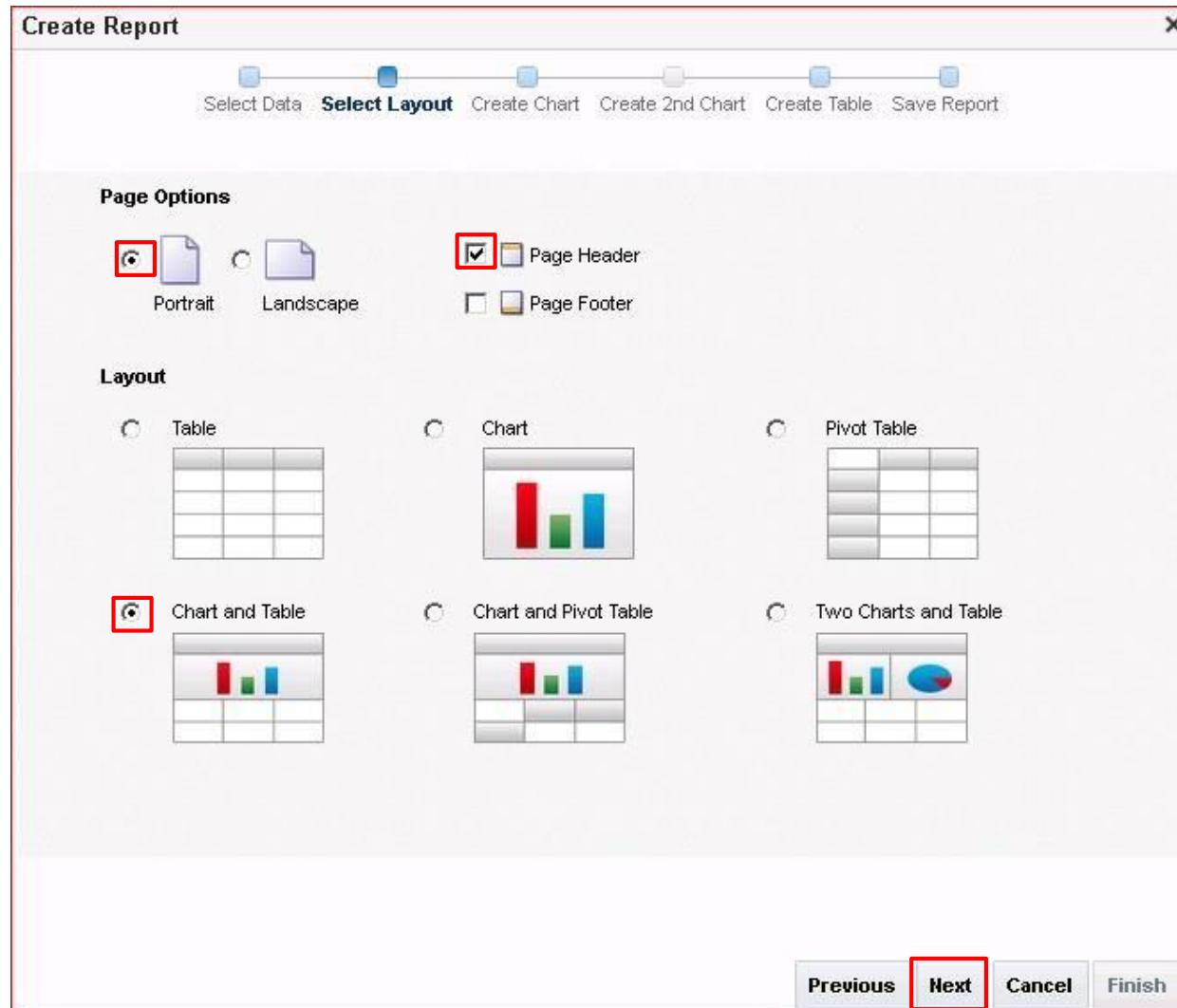
1. Click New > Report in the global header.



2. The Create Report window is opened. You will create a report by using the subject area. Select **Sample Sales Lite** from the Subject Area list. Click Guide Me and click **Next**.

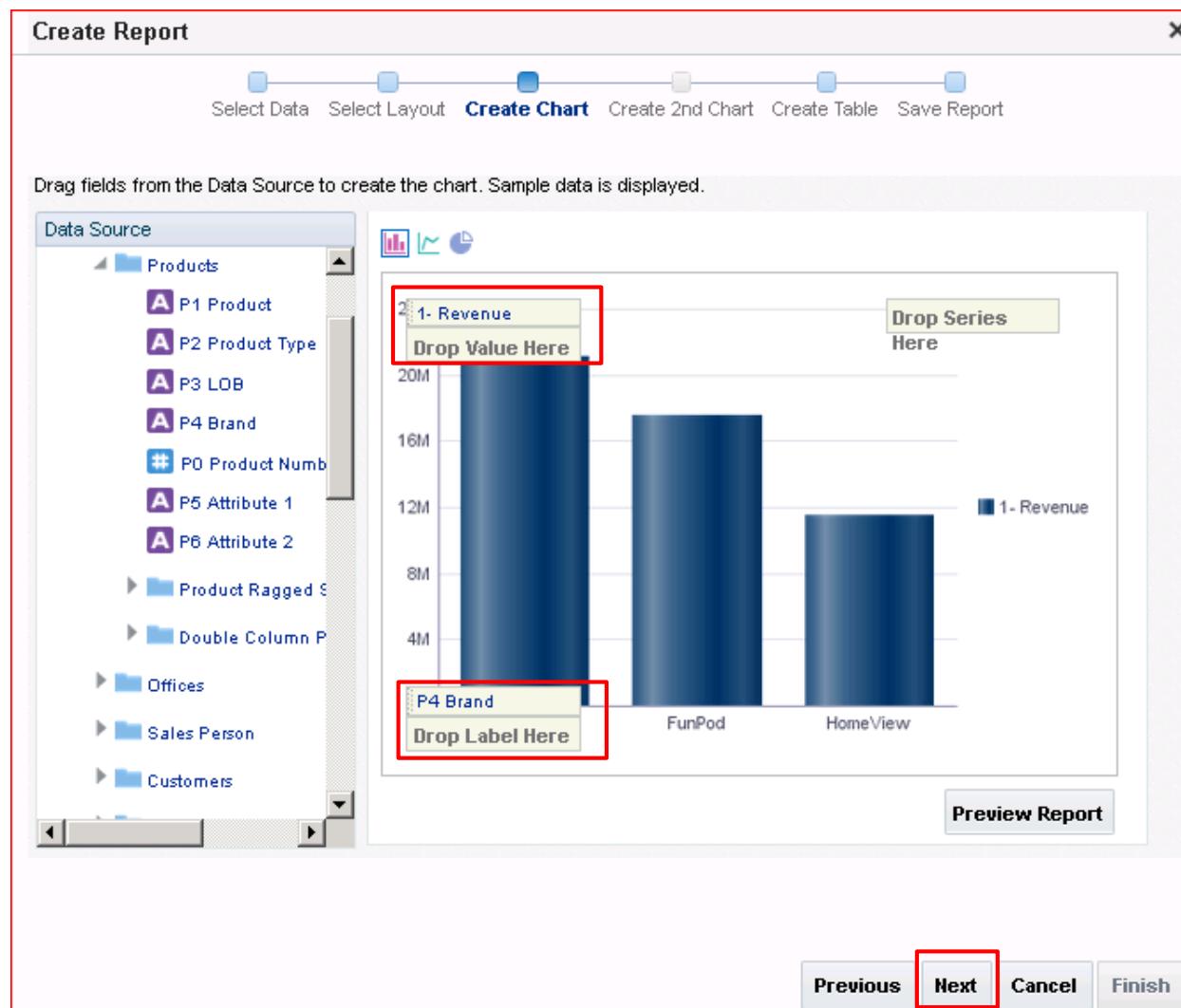


3. In Page Options, select **Portrait** for the page orientation. Select **Page Header** to display the page header. From the Layout section, select **Chart and Table**. You can choose any of the combinations based on your requirement.



4. Click **Next**. The layout that you select in the Layout section drives the remaining pages that you must complete in order to create the report.
5. Create a chart from the selected subject area data. Select Bar Chart as the chart type.

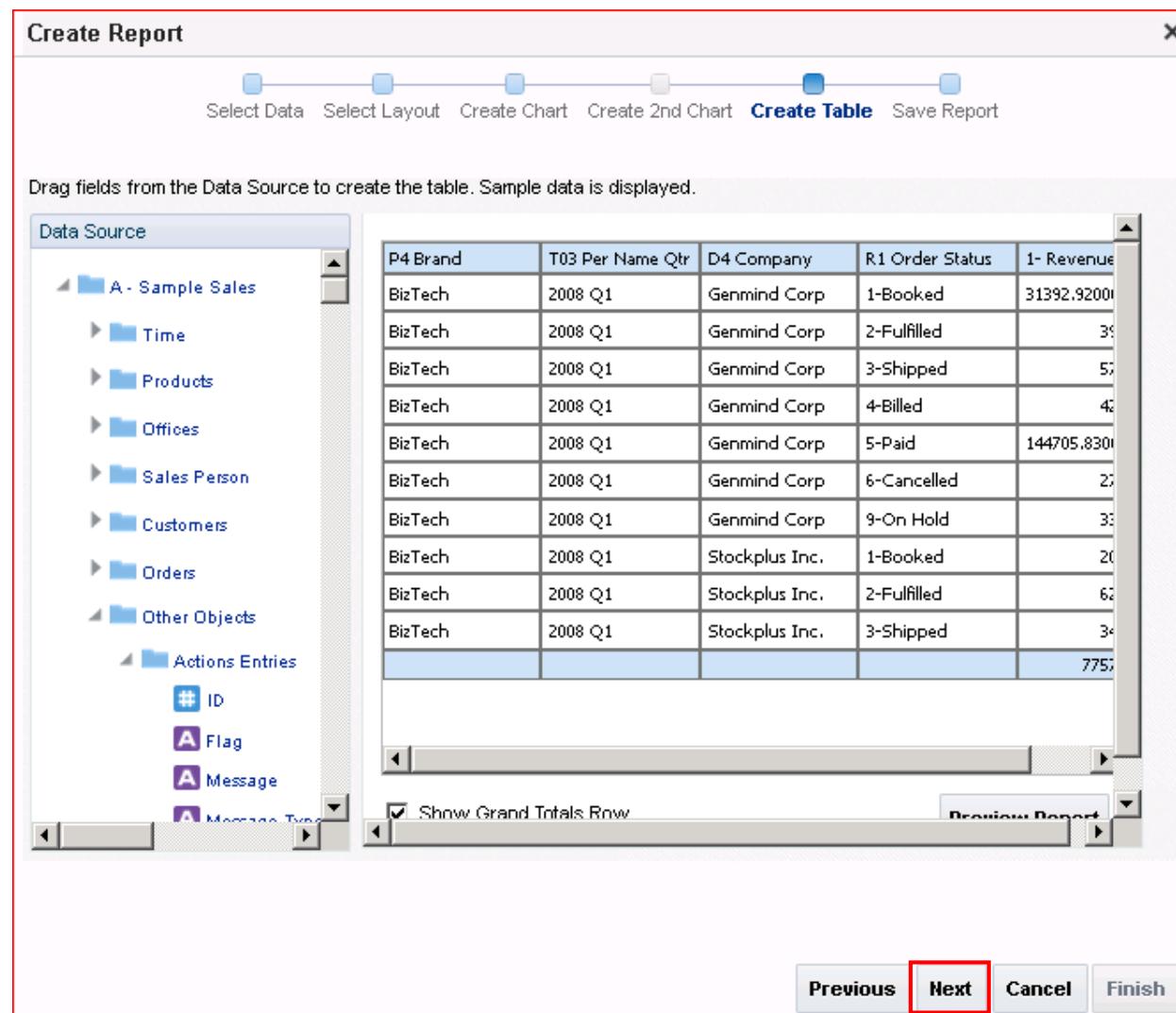
6. Drag the data elements Product: Brand and Base Facts: Revenue, as shown in the screenshot, to the Drop Label Here and Drop Value Here areas in the chart.



7. Click **Next**.
8. The Create Table step is displayed.

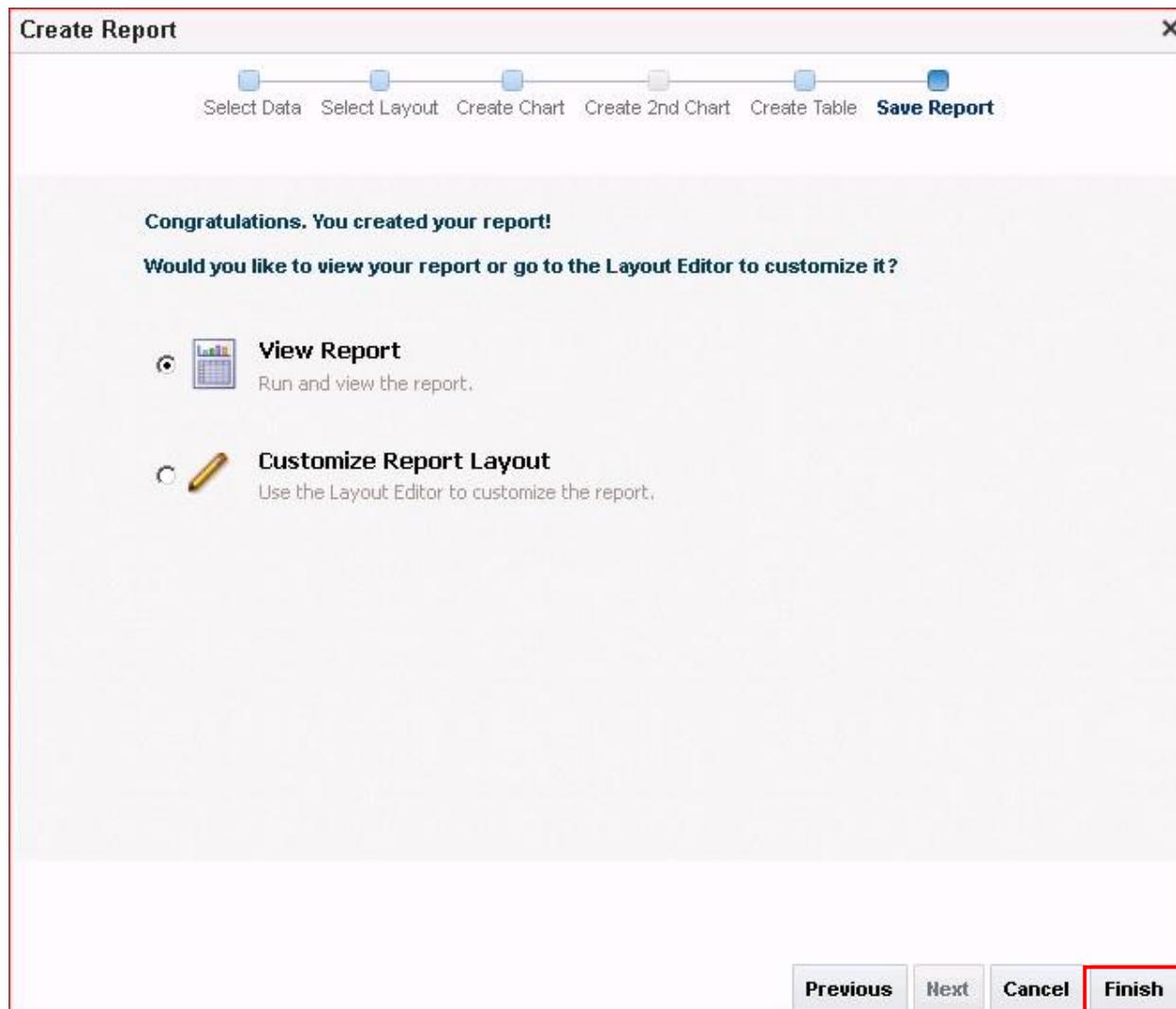
9. Add Brand and Revenue, if they are not already present. Add other required columns to the table. Drag data elements from the data source to the table columns, per the following table:

Data Element	Table Column
Time	Per Name Qtr
Offices	Company
Orders	Order Status



10. Click **Next** in the Report Wizard to proceed to saving the report.

11. To run the report you just created, click **View Report** and then click **Finish**. The final page prompts you to save the report.



12. Save the report as **My Revenue Report** in My Folders > Learn.

13. The report is now displayed in the Report Viewer window.



Practices for Lesson 5: Using Data Model Editor

Practices for Lesson 5: Overview

Goal

To explore the BI Publisher Data Model Editor and to create and edit a data model based on a SQL Query data set, and create a report for the same

Practices Overview

You define a private JDBC connection, and you create and save a data model and a report based on a SQL Query data set.

Time

60 - 75 minutes

Practice 5-1: Opening the Data Model Editor and Creating a Private Connection

Overview

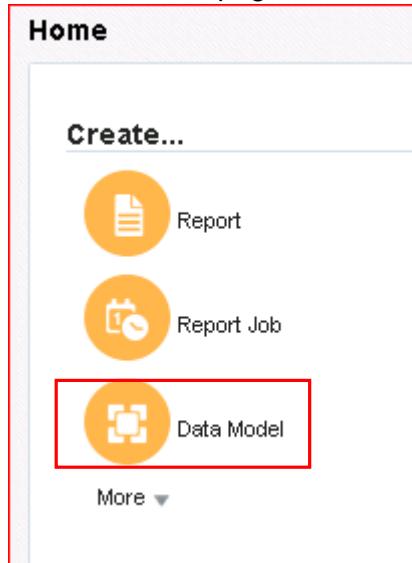
In this practice, you create a private JDBC connection.

Assumptions

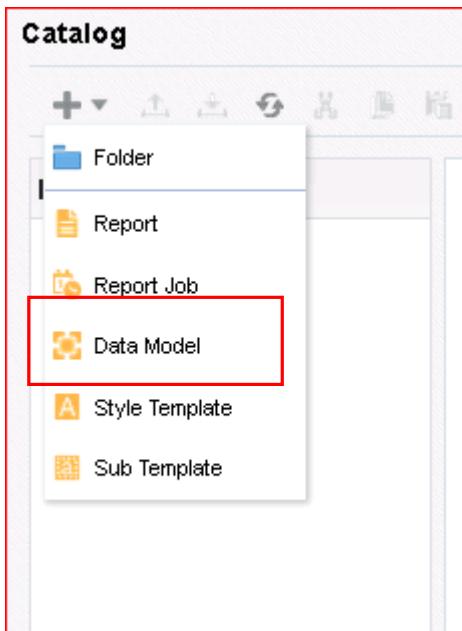
You will use the folder My Folders directly to save the objects created in this practice.

Tasks

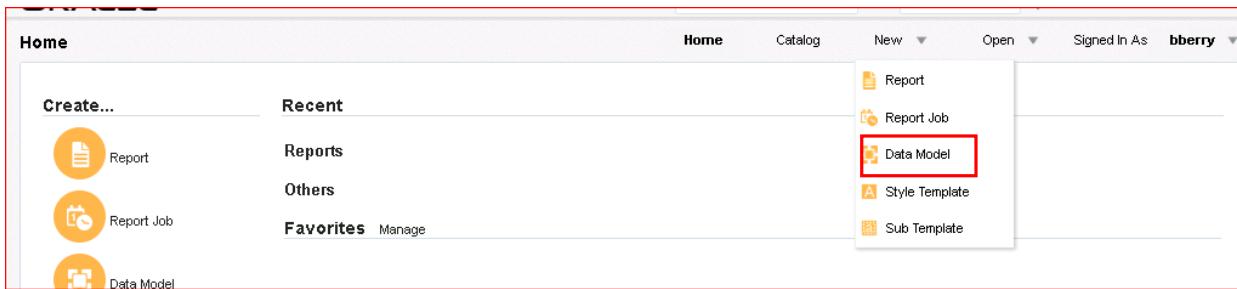
1. Log in to BI Publisher as username `weblogic` and password `weblogic1`.
2. Choose one of the following ways to open the Data Model Editor:
 - From the Home page: Create section > Data Model



- From the Catalog page: New > Data Model



- From the global header: New > Data Model



3. The Data Model Editor appears. This page is composed of two panes: Properties on the right and Data Model on the left.

The screenshot shows the Oracle Data Model Editor interface. On the left, there's a sidebar titled 'Data Model' with a 'Properties' section containing links like 'Data Sets', 'Event Triggers', 'Flexfields', etc. The main area is titled 'Properties' and contains various configuration options: 'Description' (text input), 'Default Data Source' (dropdown), 'Oracle DB Default Package' (button), 'Database Fetch Size' (input), 'Query Time Out' (input), 'Scalable Mode' (dropdown set to 'Instance Level'), 'Enable SQL Pruning' (dropdown set to 'Instance Level'), 'Enable SQL session trace' (dropdown set to 'Instance Level'), 'SQL Trace Name' (input), 'Backup Data Source' (checkboxes for 'Enable Backup Connection', 'Switch to Backup Data Source when Primary Data Source is unavailable', and 'Use Backup Data Source only'), and 'XML Output Options' (checkboxes for 'Include Parameter Tags', 'Include Empty Tags for Null Elements', and 'Include Group List Tag').

Click Manage Private Data Sources.

Note: You need to have the Data Model Developer privilege or BI Author role to create this connection.

4. The Manage Private Data Sources window appears. Observe that you see only the JDBC and OLAP tabs. By default, the JDBC tab is displayed. Click **Add Data Source**.

Note: If you log in with administrative privileges, you can see other tabs.

The screenshot shows the 'Manage Private Data Sources' window. At the top, there's a header with tabs for 'JDBC', 'OLAP', 'Web Services', and 'HTTP'. Below the tabs, there's a button labeled 'Add Data Source'. A table below has columns for 'Data Source Name' and 'Connection String', with a 'Delete' column on the right. The entire window is enclosed in a red border.

5. The Manage Private Data Sources dialog box appears.

Enter the private connection name, and the required fields. Provide the following details:

- a. Data Source Name: MyJDBC
- b. Driver Type: Oracle 12c
- c. Database Driver Class: oracle.jdbc.OracleDriver
- d. Connection String: jdbc:oracle:thin:@localhost:1521:fenago
- e. Username and Password: oe/oe

Manage Private Data Sources

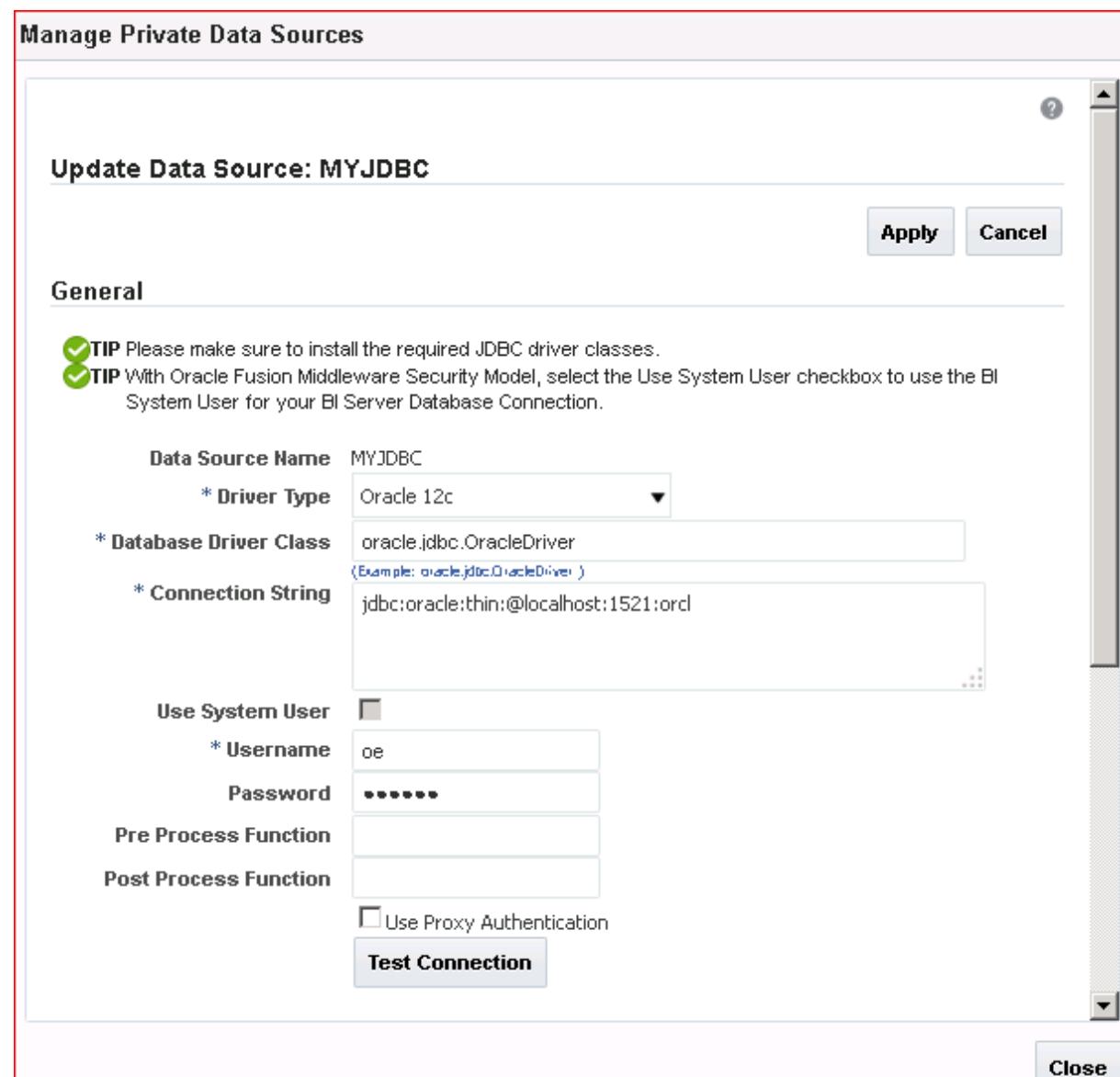
Update Data Source: MYJDBC

General

TIP Please make sure to install the required JDBC driver classes.
TIP With Oracle Fusion Middleware Security Model, select the Use System User checkbox to use the BI System User for your BI Server Database Connection.

Data Source Name	MYJDBC
* Driver Type	Oracle 12c
* Database Driver Class	oracle.jdbc.OracleDriver (Example: oracle.jdbc.OracleDriver)
* Connection String	jdbc:oracle:thin:@localhost:1521:orcl
Use System User	<input type="checkbox"/>
* Username	oe
Password	*****
Pre Process Function	
Post Process Function	
<input type="checkbox"/> Use Proxy Authentication	
Test Connection	

Close



6. Click Test Connection. A confirmation prompt is displayed.

Manage Private Data Sources

Confirmation
Connection established successfully.

Add Data Source

General

TIP Please make sure to install the required JDBC driver classes.
TIP With Oracle Fusion Middleware Security Model, select the Use System User checkbox to use the BI System User for your BI Server Database Connection.

* **Data Source Name**: MYJDBC

* **Driver Type**: Oracle 12c

* **Database Driver Class**: oracle.jdbc.OracleDriver
(Example: oracle.jdbc.OracleDriver)

* **Connection String**: `jdbc:oracle:thin:@localhost:1521:orcl`

Use System User:

* **Username**: oe

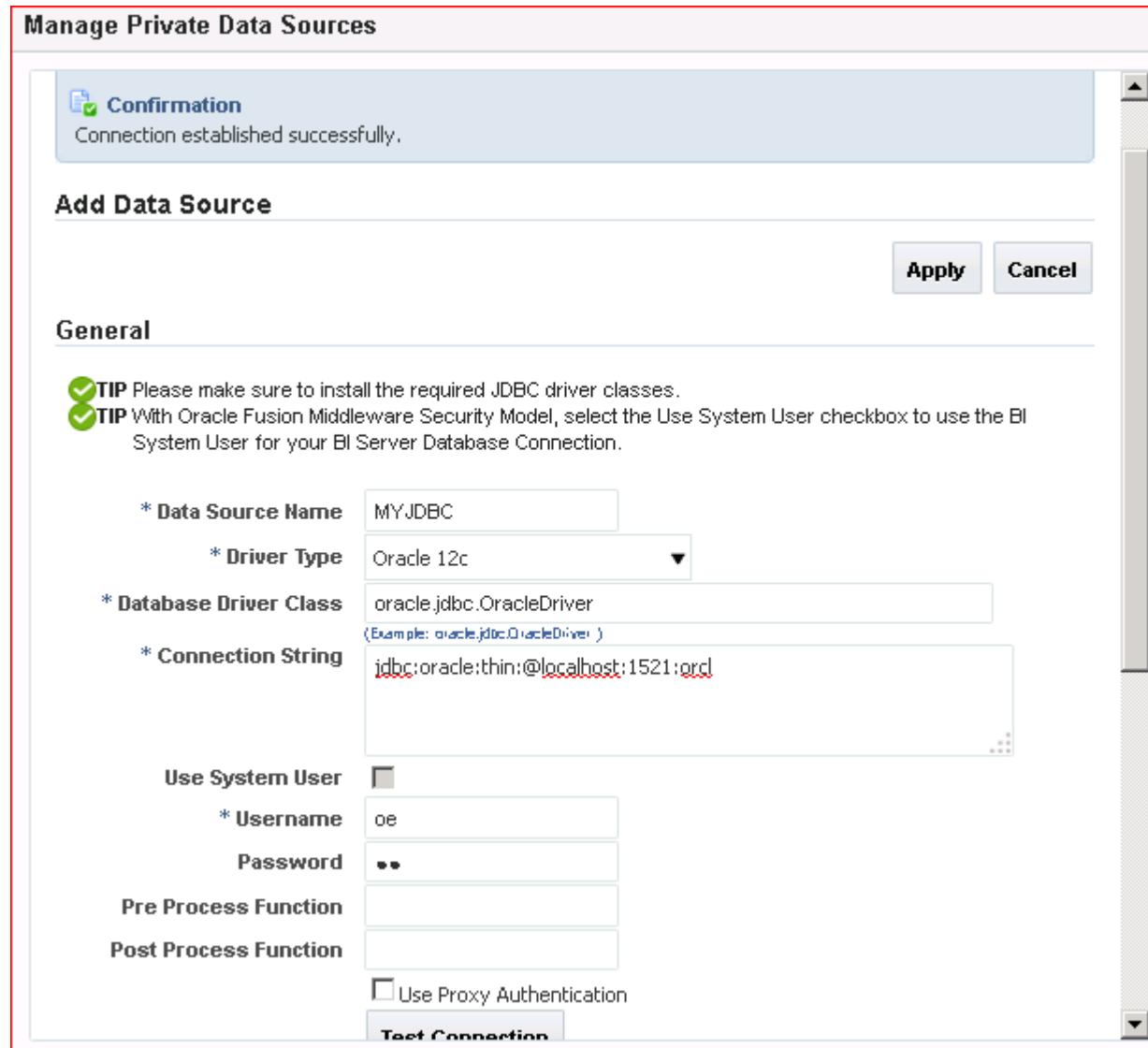
Password: **

Pre Process Function:

Post Process Function:

Use Proxy Authentication

Test Connection



The screenshot shows the 'Add Data Source' dialog box from the Oracle BI Data Model Editor. The 'General' tab is selected. At the top, there are two tips: one about installing JDBC drivers and another about using the BI System User. Below these are fields for 'Data Source Name' (MYJDBC), 'Driver Type' (Oracle 12c), 'Database Driver Class' (oracle.jdbc.OracleDriver), and 'Connection String' (jdbc:oracle:thin:@localhost:1521:orcl). Under 'Use System User', a checkbox is checked. Below it are fields for 'Username' (oe) and 'Password' (two asterisks). There are also 'Pre Process Function' and 'Post Process Function' input fields, both currently empty. At the bottom, there is a checkbox for 'Use Proxy Authentication' and a 'Test Connection' button.

7. Click Apply and click Close. The private data source connection is now available for use in data sets as a defined data source.

Manage Private Data Sources

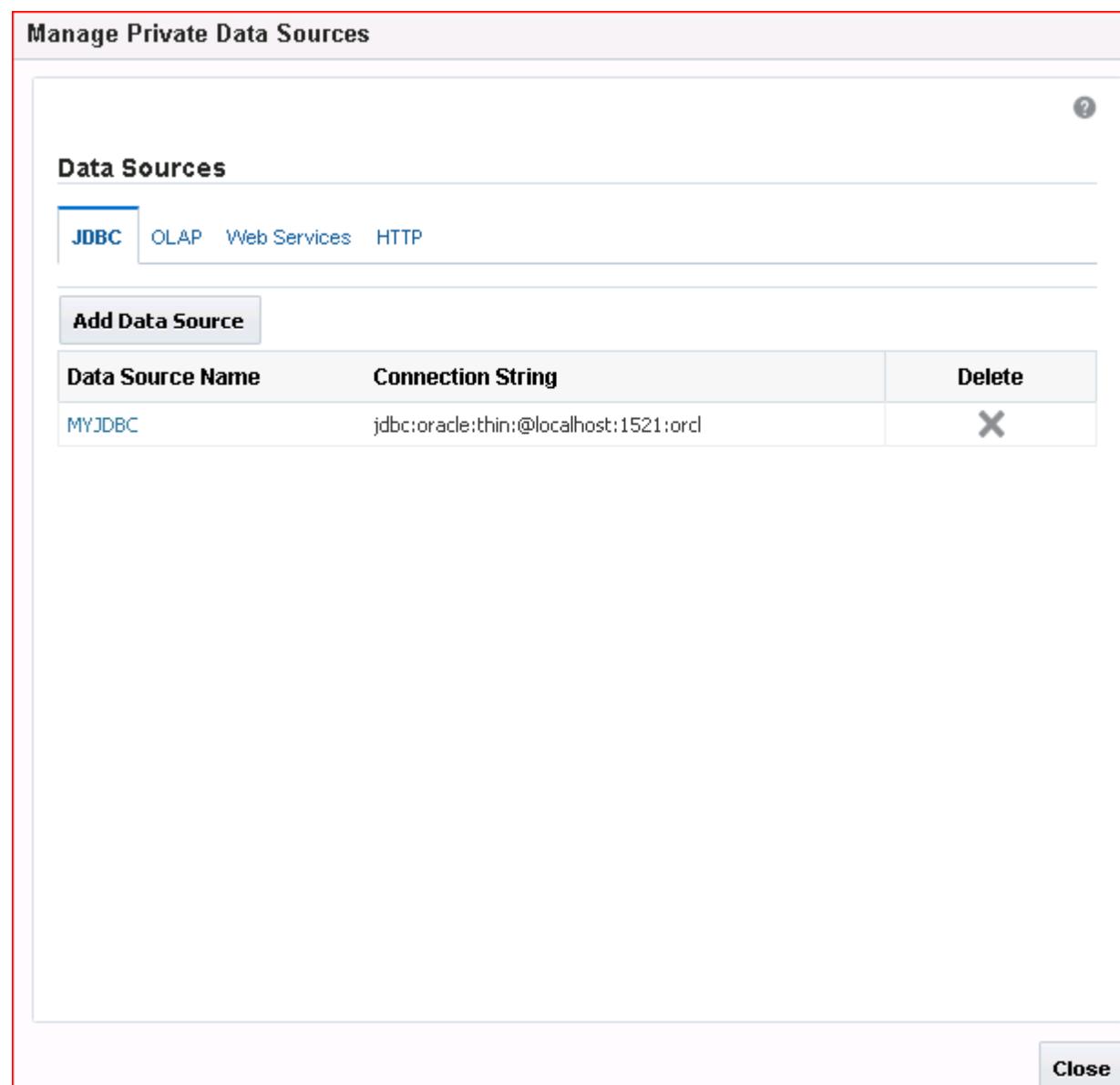
Data Sources

JDBC OLAP Web Services HTTP

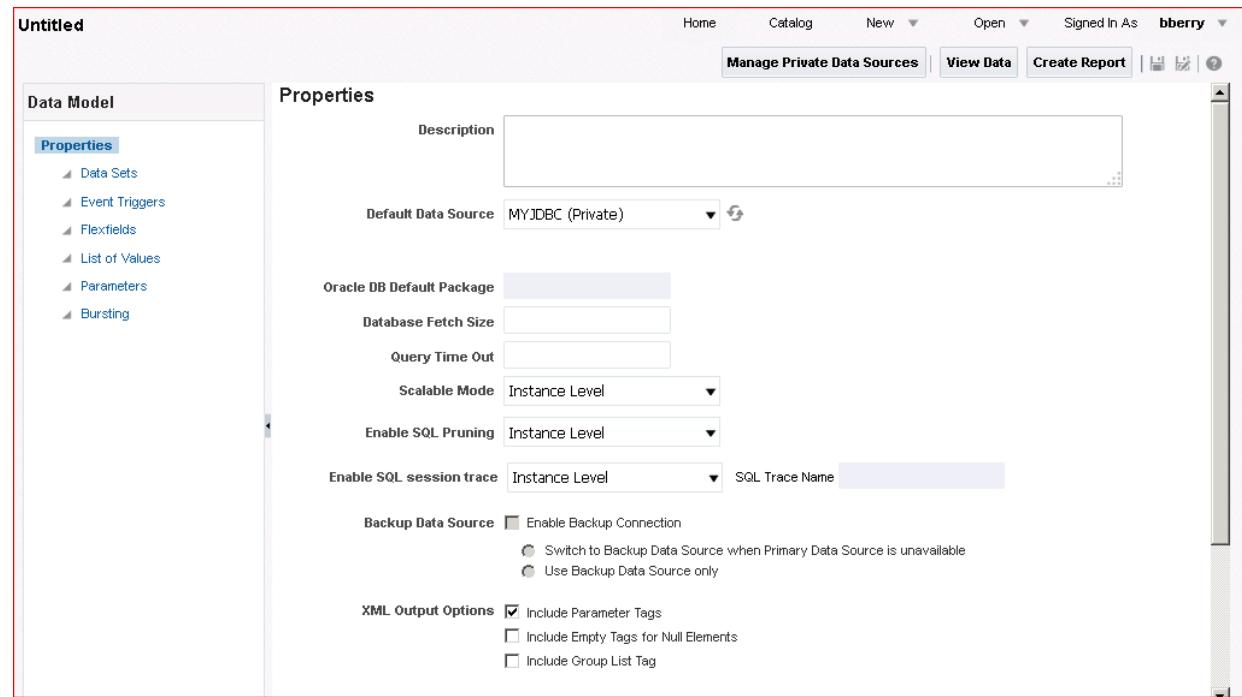
Add Data Source

Data Source Name	Connection String	Delete
MYJDBC	jdbc:oracle:thin:@localhost:1521:ord	X

Close



8. In the Data Model Editor, observe that the default data source is listed as MyJDBC (Private), indicating that this is a private connection.



Ensure that the Include Parameter Tags check box is selected for XML Output Options.

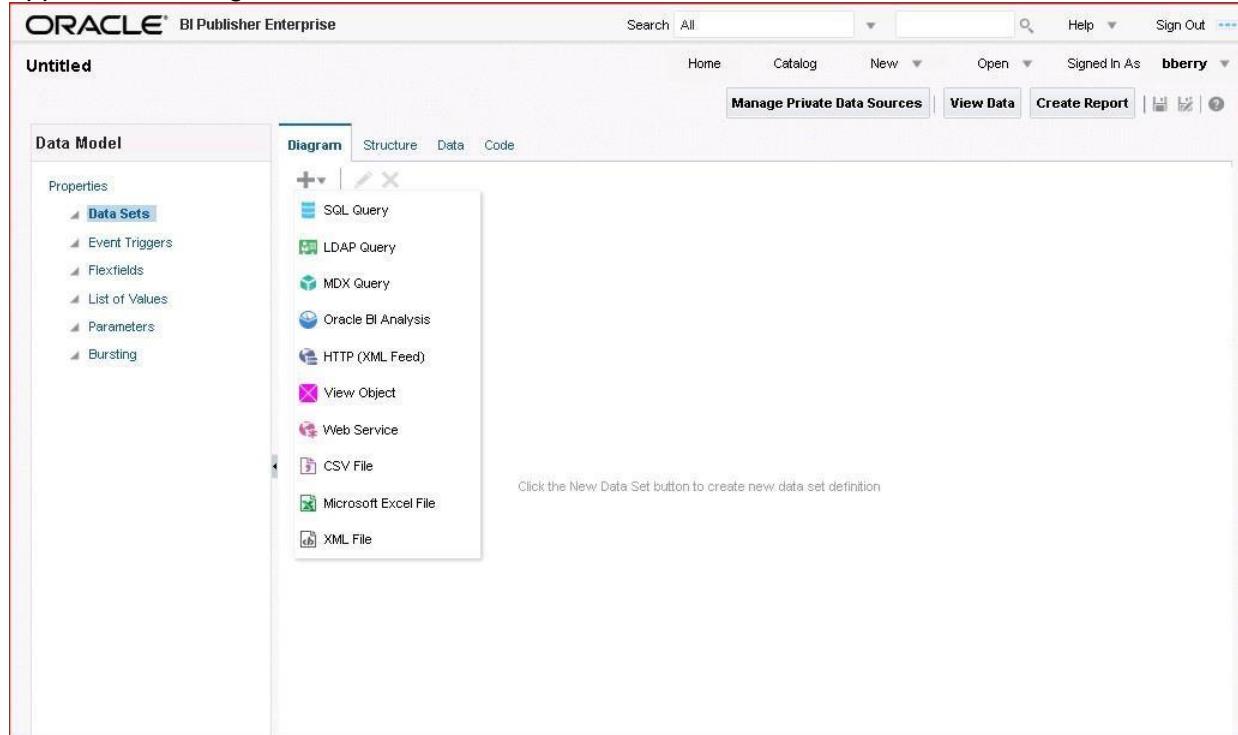
Practice 5-2: Defining a SQL Query Data Set

Overview

In this practice, you create a SQL query data set.

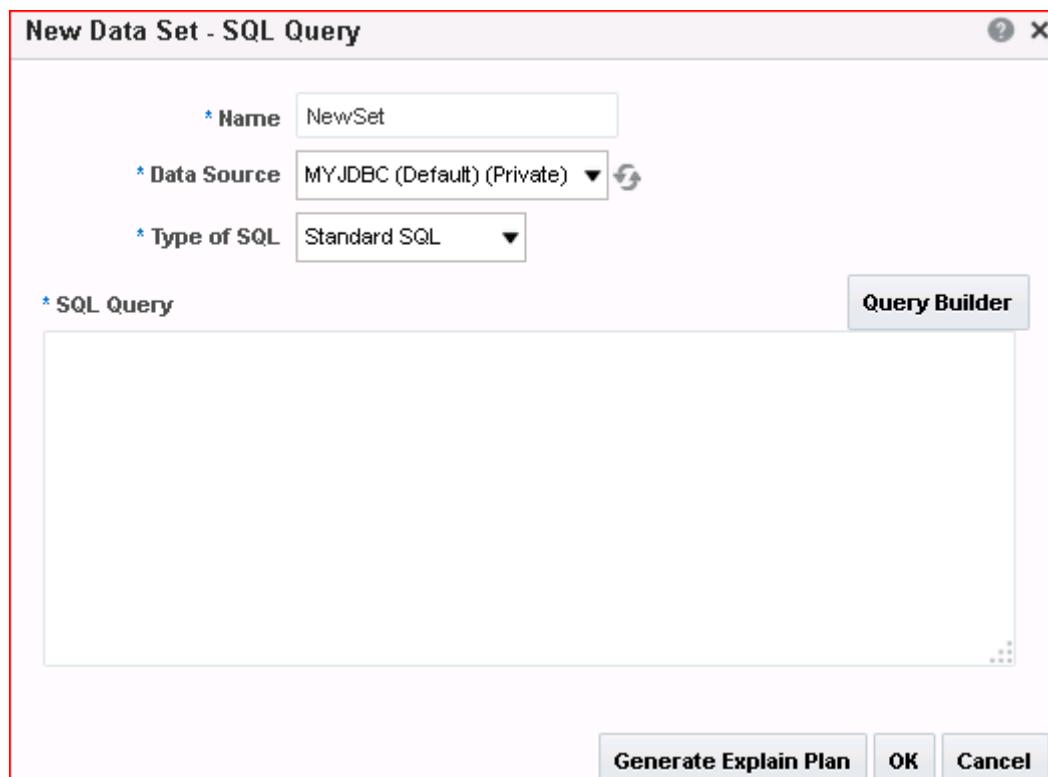
Tasks

1. In the Data Model pane on the left, select Data Sets. The working pane for Data Sets appears on the right.



2. From the New Data Set drop-down list, select SQL Query as the type of data set.

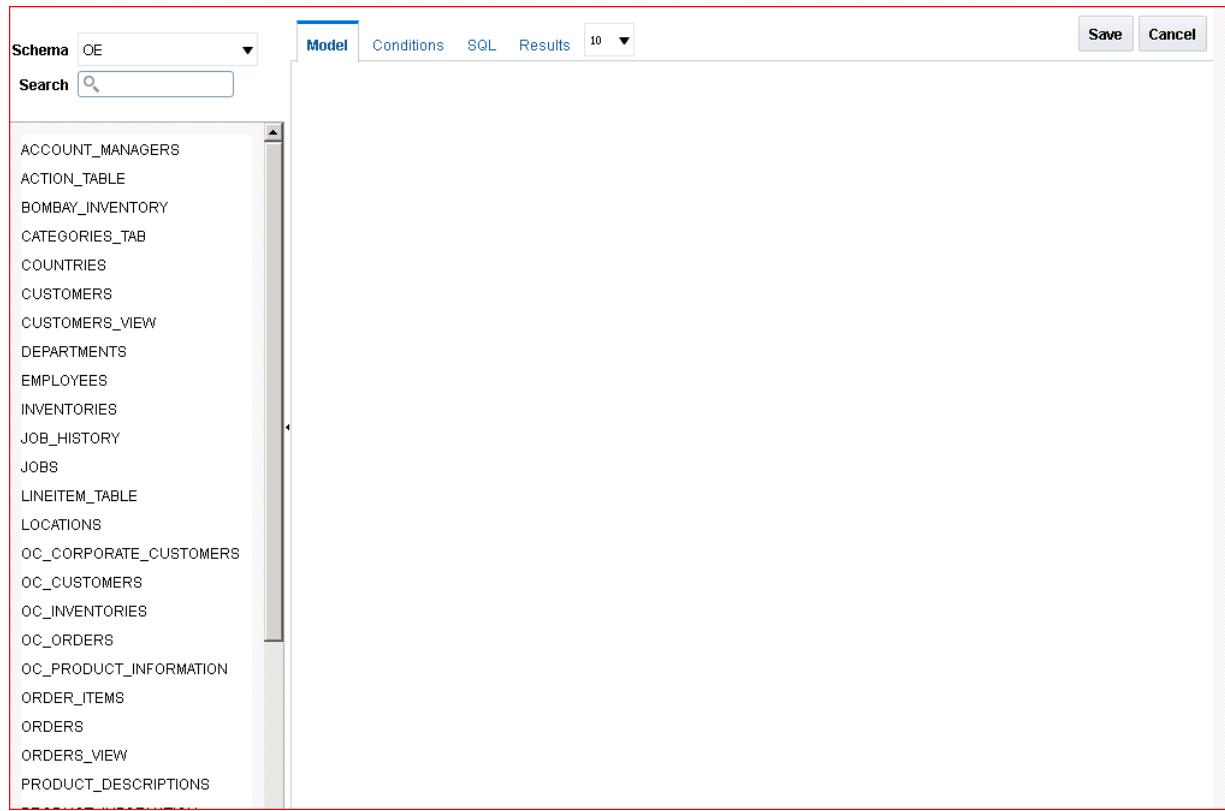
3. The New Data Set - SQL Query dialog box appears. Enter the name NewSet for the data set.



If you are not using the default data source for this data set, select the required data source from the list. In this example, you use the default data source MyJDBC (Private).

4. Click Query Builder to create a query.

The Query Builder window appears, displaying the **oe** schema objects in the left pane. Note the four tabs (links) on the right: Model, Conditions, SQL, and Results.



5. Click the DEPARTMENTS and EMPLOYEES tables to add them to the Model canvas on the right.

6. Define a join between these two tables as follows:

Step	Instructions
a.	Click the empty box to the right of the attribute type column for DEPARTMENT_ID in the DEPARTMENTS table. The box turns grey. 
b.	Click the empty box to the right of the attribute type column for DEPARTMENT_ID in the EMPLOYEES table. A fine line appears, indicating that a join has been created.

7. Select the check box to the left of the following columns from each table to select the column:
- **DEPARTMENT_NAME** from DEPARTMENTS
 - **FIRST_NAME, LAST_NAME, EMAIL, HIRE_DATE**, and **SALARY** from EMPLOYEES

The screenshot shows the Oracle Database Data Model Editor interface. At the top, there are tabs for 'Model', 'Conditions', 'SQL', and 'Results', with 'Model' being the active tab. To the right of the tabs are 'Save' and 'Cancel' buttons. Below the tabs, there are two tables: 'DEPARTMENTS' on the left and 'EMPLOYEES' on the right. Both tables have a header row with column names and data types. The 'DEPARTMENTS' table has four rows: 'LOCATION_ID' (number), 'MANAGER_ID' (number), 'DEPARTMENT_NAME' (alpha), and 'DEPARTMENT_ID' (number). The 'EMPLOYEES' table has five rows: 'FIRST_NAME' (alpha), 'LAST_NAME' (alpha), 'EMAIL' (alpha), 'PHONE_NUMBER' (alpha), and 'HIRE_DATE' (date). Checkboxes are located to the left of each column name. In the 'DEPARTMENTS' table, the checkbox for 'DEPARTMENT_NAME' is checked. In the 'EMPLOYEES' table, the checkboxes for 'FIRST_NAME', 'LAST_NAME', 'EMAIL', and 'HIRE_DATE' are checked. A red box surrounds both tables.

DEPARTMENTS	
<input type="checkbox"/>	LOCATION_ID
<input type="checkbox"/>	MANAGER_ID
<input checked="" type="checkbox"/>	DEPARTMENT_NAME
<input type="checkbox"/>	DEPARTMENT_ID

EMPLOYEES	
<input checked="" type="checkbox"/>	FIRST_NAME
<input checked="" type="checkbox"/>	LAST_NAME
<input checked="" type="checkbox"/>	EMAIL
<input type="checkbox"/>	PHONE_NUMBER
<input checked="" type="checkbox"/>	HIRE_DATE

8. Click the **Results** tab to view the query results, and then click **Save**.



The screenshot shows the Oracle Data Model Editor interface. The top navigation bar has tabs: Model, Conditions, SQL, and Results. The Results tab is selected, indicated by a blue border. To its right is a dropdown menu set to 10 rows. On the far right are Save and Cancel buttons. The main area displays a table of employee data:

DEPARTMENT_NAME	LAST_NAME	FIRST_NAME	EMAIL	HIRE_DATE	SALARY
Administration	Whalen	Jennifer	JWHALEN	2003-09-17 00:00:00.0	4400
Marketing	Hartstein	Michael	MHARTSTE	2004-02-17 00:00:00.0	13000
Marketing	Fay	Pat	PFAY	2005-08-17 00:00:00.0	6000
Purchasing	Raphaely	Den	DRAPHEAL	2002-12-07 00:00:00.0	11000
Purchasing	Khoo	Alexander	AKHOO	2003-05-18 00:00:00.0	3100
Purchasing	Baida	Shelli	SBAIDA	2005-12-24 00:00:00.0	2900
Purchasing	Tobias	Sigal	STOBIAS	2005-07-24 00:00:00.0	2800
Purchasing	Himuro	Guy	GHIMURO	2006-11-15 00:00:00.0	2600
Purchasing	Colmenares	Karen	KCOLMENA	2007-08-10 00:00:00.0	2500
Human Resources	Mavris	Susan	SMAVRIS	2002-06-07 00:00:00.0	6500

9. The New Data Set - SQL Query dialog box reappears. Observe that the SQL code is automatically created for you and is reflected in the SQL Query pane of the dialog box.



The screenshot shows the New Data Set - SQL Query dialog box. It has several input fields at the top: Name (NewSet), Data Source (MYJDBC (Default) (Private)), and Type of SQL (Standard SQL). Below these is a large text area labeled SQL Query containing the following SQL code:

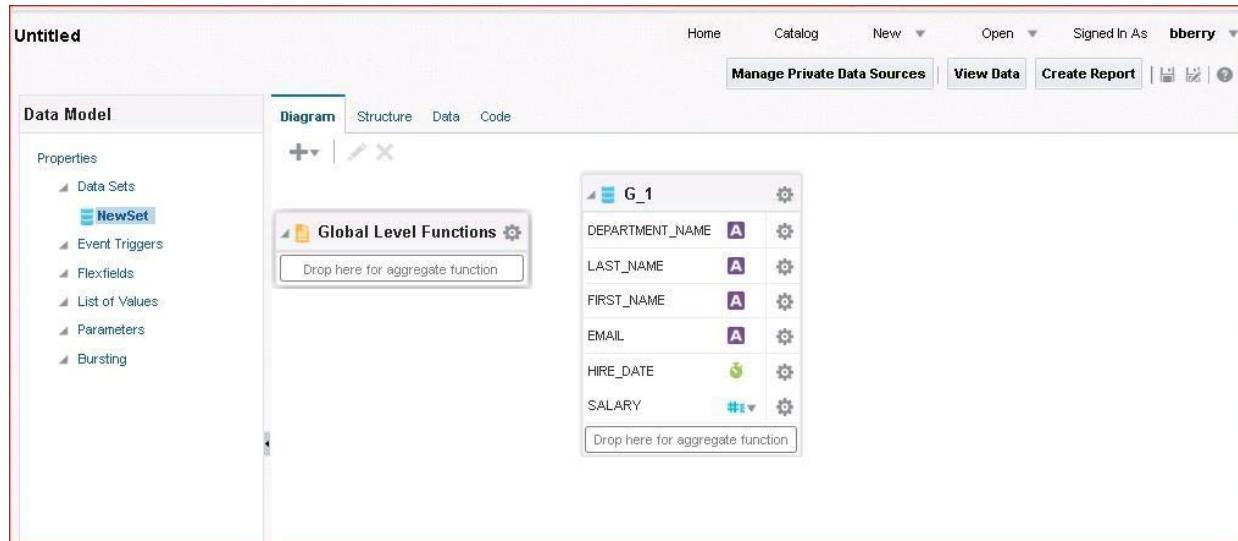
```

select "DEPARTMENTS"."DEPARTMENT_NAME" as "DEPARTMENT_NAME",
"EMPLOYEES"."LAST_NAME" as "LAST_NAME",
"EMPLOYEES"."FIRST_NAME" as "FIRST_NAME",
"EMPLOYEES"."EMAIL" as "EMAIL",
"EMPLOYEES"."HIRE_DATE" as "HIRE_DATE",
"EMPLOYEES"."SALARY" as "SALARY"
from "OE"."EMPLOYEES" "EMPLOYEES",
"OE"."DEPARTMENTS" "DEPARTMENTS"
where "DEPARTMENTS"."DEPARTMENT_ID"="EMPLOYEES"."DEPARTMENT_ID"

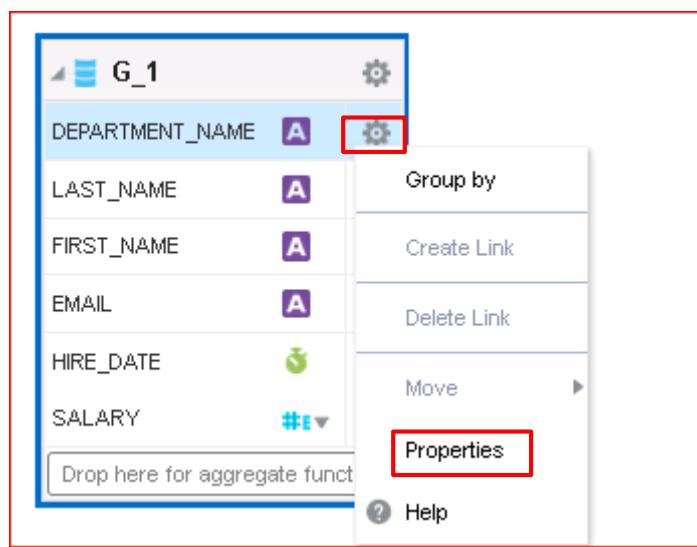
```

At the bottom are three buttons: Generate Explain Plan, OK, and Cancel.

10. Click **OK** to add this data set to the data model. The Diagram tab reappears with your data set.



11. Change the names of the columns to make them user-friendly. Click the double-headed arrow (next to DEPARTMENT_NAME and select **Properties**.



The Edit Properties dialog box appears.

12. Enter Department Name as the Display Name.

Edit Properties - DEPARTMENT_NAME

*Column Name	DEPARTMENT NAME
*Alias	DEPARTMENT_NAME
Display Name	Department Name
Data Type	String
Sort Order	No Ordering
Value If Null	

OK Cancel

13. Click OK

14. Use the Structure tab to change the display names for each of the following columns:

Step	Column Name	Value
a.	FIRST_NAME	First Name
b.	LAST_NAME	Last Name
c.	EMAIL	Email
d.	HIRE_DATE	Hire Date
e.	SALARY	Salary

Diagram **Structure** Data Code

Table View | Output

Data Source	XML Tag Name	XML View		Business View		
		Sorting	Value If Null	Display Name	Data Type	
Report Data						
Data Structure	DATA_DS					
NewSet	G_1					
A DEPARTMENT_NAME	DEPARTMENT_NAME			Department Name	A	
A LAST_NAME	LAST_NAME			Last Name	A	
A FIRST_NAME	FIRST_NAME			First Name	A	
A EMAIL	EMAIL			Email	A	
G HIRE_DATE	HIRE_DATE			Hire Date	G	
#S SALARY	SALARY	↓		Salary	#E	

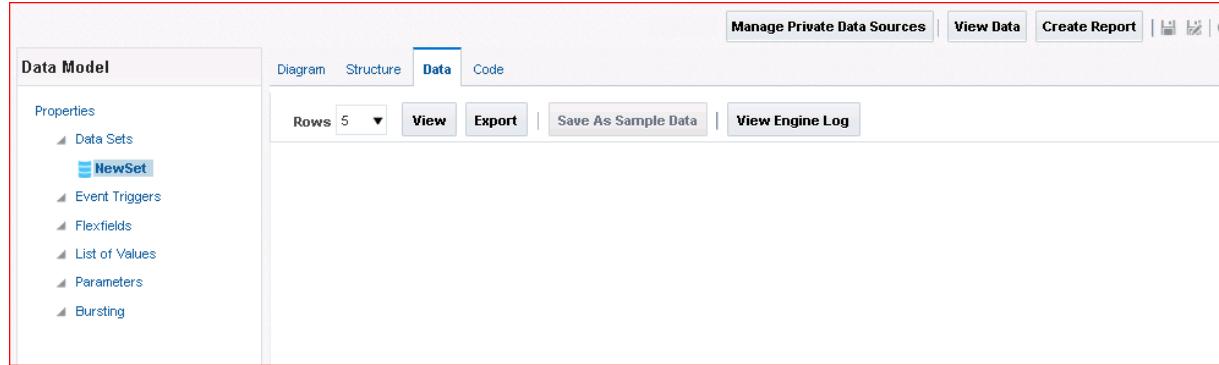
Practice 5-3: Viewing the Output and Saving Sample Data for the Data Model

Overview

In this practice, you view the data and save the sample data. You also save the data model.

Tasks

1. Click the **Data** tab.



2. Select the number of rows that you want to display for the data, and click **View**.

The screenshot shows the Data Model Editor with the 'Data' tab selected. At the top, there are buttons for 'Manage Private Data Sources', 'View Data', 'Create Report', 'Diagram', 'Structure', 'Data' (which is highlighted in blue), and 'Code'. Below these are buttons for 'Rows' (set to 5), 'View', 'Export', 'Save As Sample Data', and 'View Engine Log'. The main area displays a hierarchical tree view under 'DATA_DS'. The first node is 'G_1' with the following children:

- DEPARTMENT_NAME (**Administration**)
- LAST_NAME (**Whalen**)
- FIRST_NAME (**Jennifer**)
- EMAIL (**JWHALEN**)
- HIRE_DATE (2003-09-17T00:00:00.000+00:00)
- SALARY (**4400**)

The second node is 'G_1' with the following children:

- DEPARTMENT_NAME (**Marketing**)
- LAST_NAME (**Hartstein**)
- FIRST_NAME (**Michael**)
- EMAIL (**MHARTSTE**)
- HIRE_DATE (2004-02-17T00:00:00.000+00:00)
- SALARY (**13000**)

The third node is 'G_1' with the following child:

- DEPARTMENT_NAME (**Marketing**)
- LAST_NAME (**Fay**)

3. Click **Save As Sample Data**. You receive a confirmation prompt that this data is saved as sample data. Click **OK**.

The screenshot shows the same Data Model Editor interface as the previous one, but with the 'Save As Sample Data' button highlighted in the toolbar. A modal dialog box titled 'Info' is displayed in the center, containing the message 'Saved as Sample Data' and an 'OK' button. The background interface remains the same, showing the 'DATA_DS' tree view.

4. Click the Properties node in the left pane to view the Properties page. You can see that the sample.xml file is listed under the Attachment section.

This is the sample data that you just saved.

The screenshot shows the 'Properties' tab selected in the left sidebar of the Data Model Editor. The main area contains various configuration options:

- Oracle DB Default Package: [Input Field]
- Database Fetch Size: [Input Field]
- Query Time Out: [Input Field]
- Scalable Mode: Instance Level
- Enable SQL Pruning: Instance Level
- Enable SQL session trace: Instance Level, SQL Trace Name: [Input Field]
- Backup Data Source:
 - Enable Backup Connection
 - Switch to Backup Data Source when Primary Data Source is unavailable
 - Use Backup Data Source only
- XML Output Options:
 - Include Parameter Tags
 - Include Empty Tags for Null Elements
 - Include Group List Tag
- XML Tag Display: Upper Case

Attachment section:

- Sample Data: sample.xml
- Schema: [Upload Button]
- Data Files: [List]
- Delete: [Delete Button]

5. Click the Save icon to save the data model.

The screenshot shows the 'Save As' dialog box. On the left is a 'Catalog' tree view with the following structure:

- My Folders
 - Temp
 - Drafts
 - My DataModel
- Shared Folders

On the right side of the dialog, there are fields for 'Name' and 'Description'. The 'Name' field contains 'NewDMSQL'. At the bottom are 'Save' and 'Cancel' buttons.

Select My Folders in the Save As dialog box, and provide the name NewDMSQL.

Practice 5-4: Editing the Data Model to Add a Parameter and an LOV

Overview

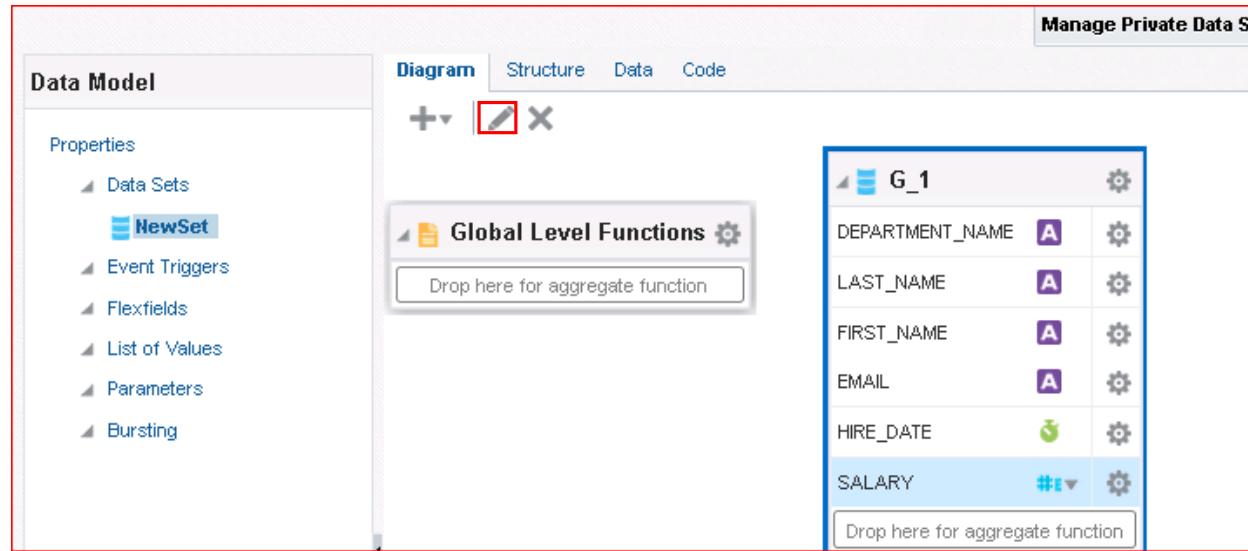
In this practice, you add a parameter and a list of values (LOV) to your NewDMSQL data model.

Tasks

1. Add a bind parameter for the Department Name column.

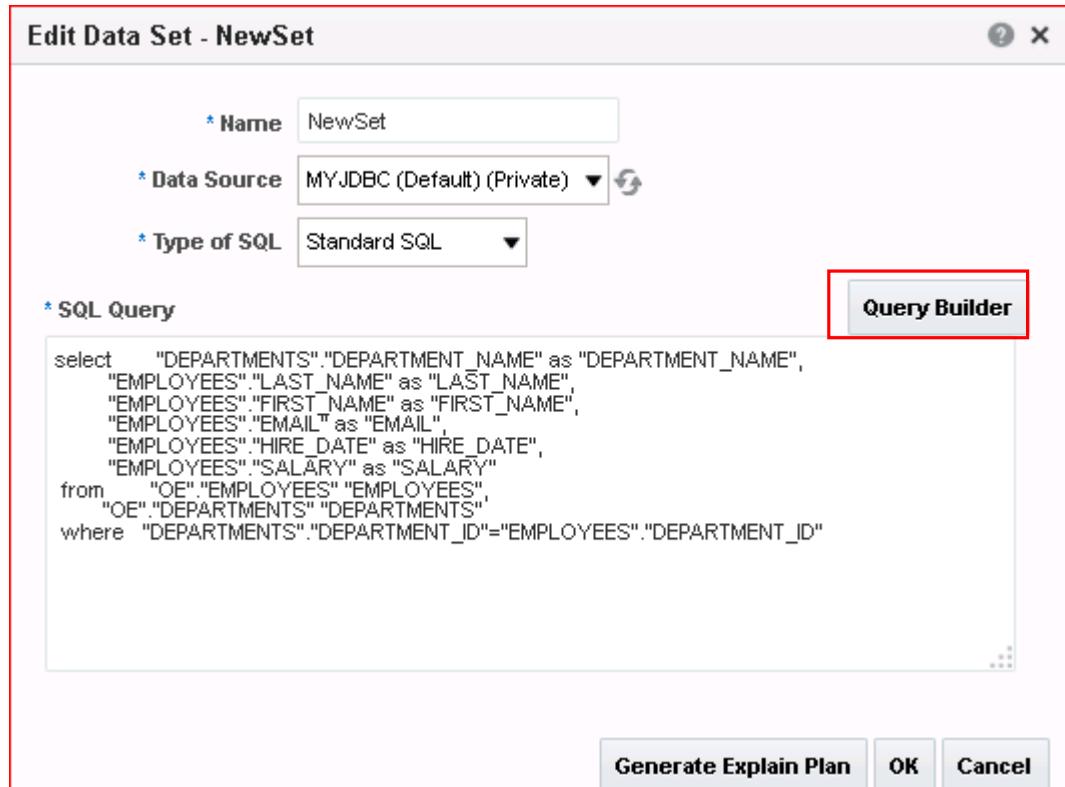
You can add a parameter by clicking the Parameters node in the Data Model pane and entering the details for the parameter, or by using the Query Builder - Conditions tab.

To edit the query by using Query Builder, select the **NewSet** data set and click **Edit** ().



The screenshot shows the Oracle Data Model Editor interface. On the left, the 'Data Model' pane is open, displaying a tree structure with nodes like 'Properties', 'Data Sets' (with 'NewSet' selected), 'Event Triggers', 'Flexfields', 'List of Values', 'Parameters', and 'Bursting'. In the center, the 'Diagram' tab is active, showing a table structure named 'G_1' with columns: DEPARTMENT_NAME, LAST_NAME, FIRST_NAME, EMAIL, HIRE_DATE, and SALARY. The 'SALARY' column has a dropdown arrow icon, indicating it is a parameter. Below the table, there are two boxes labeled 'Drop here for aggregate function'. On the right, a 'Manage Private Data Sc...' button is visible.

2. Click **Query Builder** when the Edit Data Set – NewSet dialog box appears.



3. Click the **Conditions** tab and, in the Condition text box for Department Name, enter **IN (:P_DNAME)**.

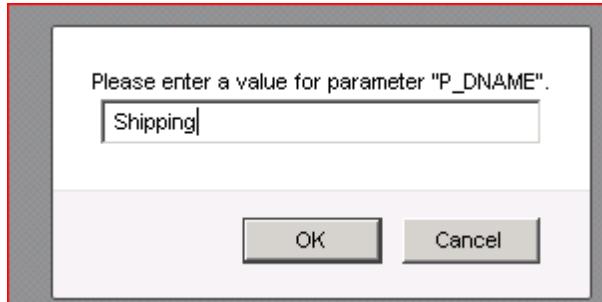
This creates a bind parameter, **P_DNAME**, on the Department Name column.

The “**IN**” condition allows the parameter to accept all or multiple values for the Department Name column.

Column	Alias	Object	Condition	Sort Type
DEPARTMENT_NAME	DEPARTMENT_NAME	DEPARTMENTS	IN (:P_DNAME)	ASC
LAST_NAME	LAST_NAME	EMPLOYEES		ASC
FIRST_NAME	FIRST_NAME	EMPLOYEES		ASC
EMAIL	EMAIL	EMPLOYEES		ASC
HIRE_DATE	HIRE_DATE	EMPLOYEES		ASC
SALARY	SALARY	EMPLOYEES		ASC

4. Click the **Results** tab to view the query results.

5. You are prompted to enter a value for the parameter.



Enter **Shipping** and click **OK**.

6. The results appear.

DEPARTMENT_NAME	LAST_NAME	FIRST_NAME	EMAIL	HIRE_DATE	SALARY
Shipping	Weiss	Matthew	MWEISS	2004-07-18 00:00:00.0	8000
Shipping	Fripp	Adam	AFRIPP	2005-04-10 00:00:00.0	8200
Shipping	Kaufling	Payam	PKAUFLIN	2003-05-01 00:00:00.0	7900
Shipping	Vollman	Shanta	SVOLLMAN	2005-10-10 00:00:00.0	6500
Shipping	Mourgos	Kevin	KMOURGOS	2007-11-16 00:00:00.0	5800
Shipping	Nayer	Julia	JNAYER	2005-07-16 00:00:00.0	3200
Shipping	Mikkilineni	Irene	IMIKKILI	2006-09-28 00:00:00.0	2700
Shipping	Landry	James	JLANDRY	2007-01-14 00:00:00.0	2400
Shipping	Markle	Steven	SMARKLE	2008-03-08 00:00:00.0	2200
Shipping	Bissot	Laura	LBISSOT	2005-08-20 00:00:00.0	3300

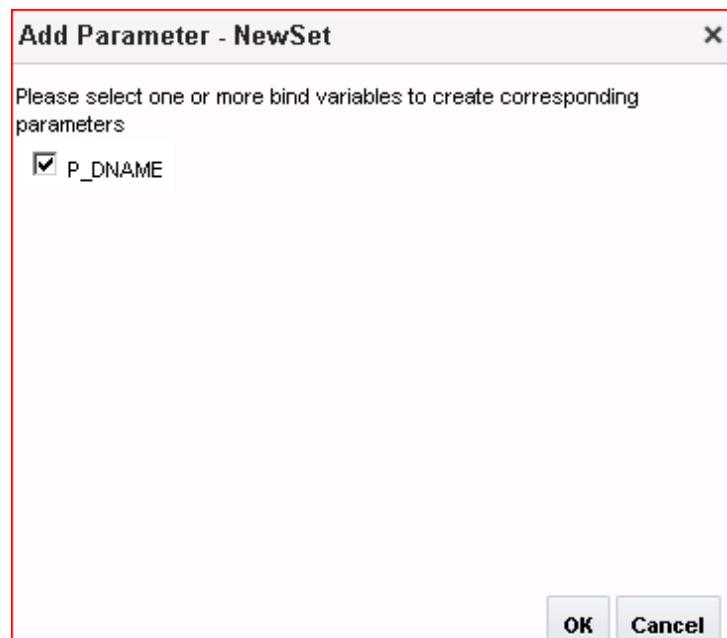
Click **Save**.

7. The Edit Data Set dialog box reappears. Notice that your parameter is reflected in the SQL Query pane.



Click **OK**.

8. A message dialog box appears asking you to select the bind variable for the parameter that you created. Select **P_DNAME** and click **OK**.



The bind parameter appears in the Data Model pane.

Name	Data Type	Default Value	Parameter Type	Row Placement	Reorder
P_DNAME	String		Text	1	▲▼

P_DNAME: Type: Text

Display Label:

Text Field Size:

Options:

- Text field contains comma-separated values
- Refresh other parameters on change

9. The next step is to create an LOV. Select **List of Values** in the Data Model pane.

10. The List of Values pane appears in the workspace on the right.

Click **Create a new list of values** (+) as indicated in the screenshot.

Name	Type	Data Source	Reorder
DepName	SQL Query	MYJDBC (Private)	▲▼

New_List_of_Value 1: Type: SQL Query

Options: Cache Result

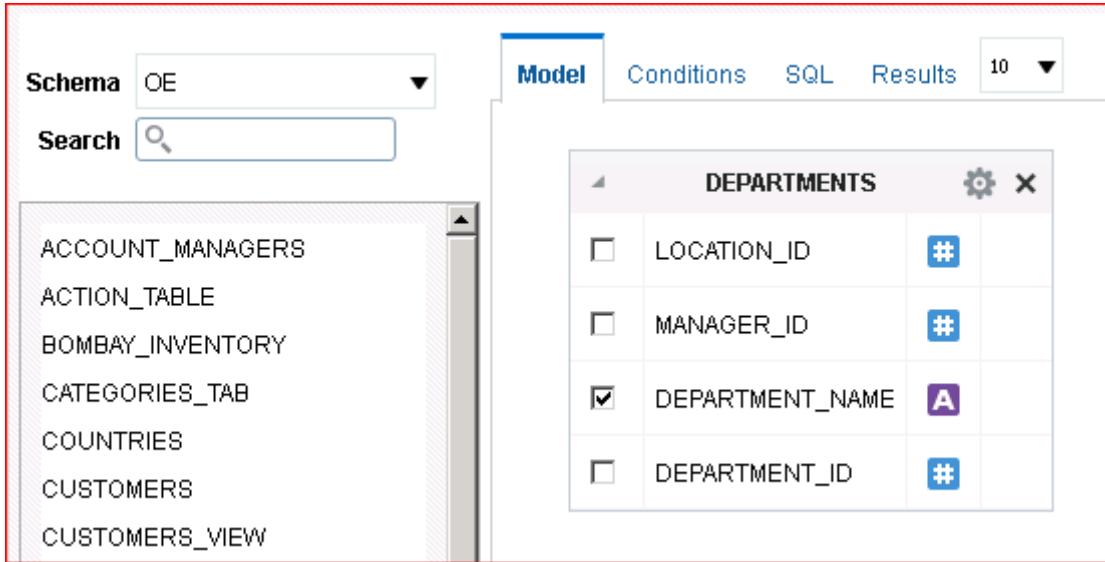
SQL Query:

QueryBuilder

11. In the **List of Values** table, enter the following details:

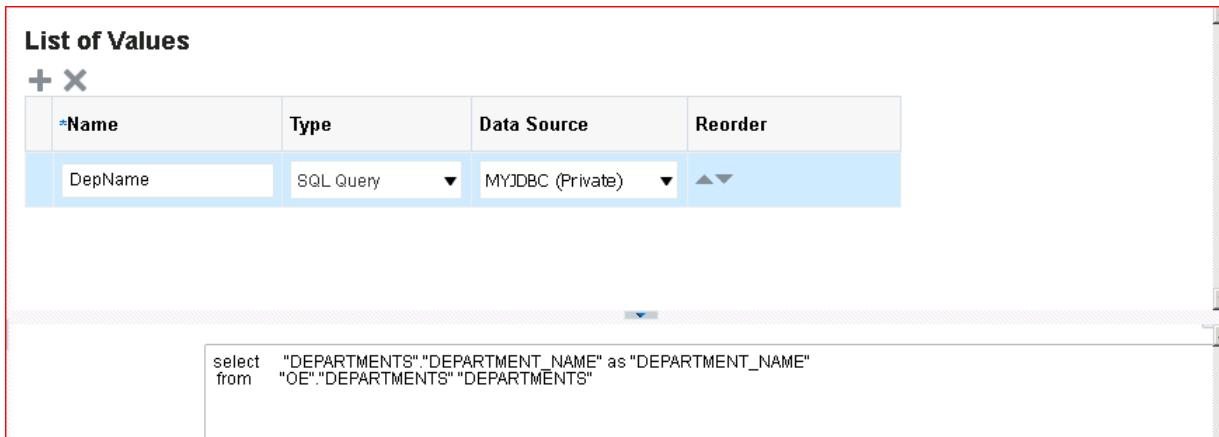
Step	Field Name	Values
a.	Name	DepName
b.	Type	SQL Query
c.	Data Source	MyJDBC (Private)

12. Click **Query Builder** () to define the query that returns Department Name values for the LOV.
Query Builder appears.



The screenshot shows the Oracle Data Model Editor interface. The top navigation bar includes 'Model' (which is selected), 'Conditions', 'SQL', and 'Results'. A dropdown menu shows '10' with a downward arrow. On the left, a sidebar lists various tables: ACCOUNT_MANAGERS, ACTION_TABLE, BOMBAY_INVENTORY, CATEGORIES_TAB, COUNTRIES, CUSTOMERS, and CUSTOMERS_VIEW. The main area displays the 'DEPARTMENTS' table with four columns: LOCATION_ID, MANAGER_ID, DEPARTMENT_NAME, and DEPARTMENT_ID. The 'DEPARTMENT_NAME' column has a checked checkbox next to it, indicating it is selected for the LOV.

13. Click **DEPARTMENTS** and select **DEPARTMENT_NAME** in the table.
14. Click **Save**.
The List of Values pane reappears with the query for the LOV reflected in the SQL Query pane at the bottom of the page.



The screenshot shows the 'List of Values' pane. It contains a table with a single row. The row has columns for Name ('DepName'), Type ('SQL Query'), Data Source ('MYJDBC (Private)'), and Reorder. Below the table, the SQL query is displayed in a code editor:

```
select "DEPARTMENTS"."DEPARTMENT_NAME" as "DEPARTMENT_NAME"
from "OE"."DEPARTMENTS" "DEPARTMENTS"
```

15. Now you set the properties for the `P_DNAME` parameter to use this LOV.

Select `P_DNAME` in the Parameters node of the Data Model pane.

Observe that the bottom pane for the parameter is not displaying any list of values, because the parameter type is yet to be chosen.

The screenshot shows the Oracle Data Model Editor's Parameters workspace. On the left, the Properties sidebar lists various nodes like Data Sets, Event Triggers, Flexfields, List of Values, and Parameters. Under Parameters, 'P_DNAME' is selected. The main area displays a table with columns: Name, Data Type, Default Value, Parameter Type, Row Placement, and Reorder. The 'Parameter Type' column for P_DNAME has a dropdown menu open, showing 'Text', 'Menu' (which is highlighted in blue), and 'Date'. Below the table, a section titled 'P_DNAME: Type: Text' contains fields for 'Display Label' and 'Text Field Size', and two optional checkboxes: 'Text field contains comma-separated values' and 'Refresh other parameters on change'.

16. Enter **Shipping** in the Default Value text box for `P_DNAME` and select **Menu** as the Parameter Type.

17. In the lower half of the Parameters workspace, select the following:

Step	Field Name	Values or Actions
a.	Display Label	Enter Department Name
b.	List of Values	Select DepName
c.	Multiple Selection	Select the check box.
d.	Can select all	Select the check box.
e.	All Values Passed	Select the option button.

Parameters

P_DNAME: Type: Menu

Name	Data Type	Default Value	Parameter Type	Row Placement	Reorder
P_DNAME	String	Shipping	Menu	1	▲▼

Display Label: Enter Department Name

List of Values: DepName

Number of Values to Display in List: 100

Options:

- Multiple Selection
- Can select all
- NULL Value Passed
- All Values Passed

Refresh other parameters on change

18. Click the Save icon to save the data model. Note that, at any time, you can use the Save As icon to save the data model with a new name.

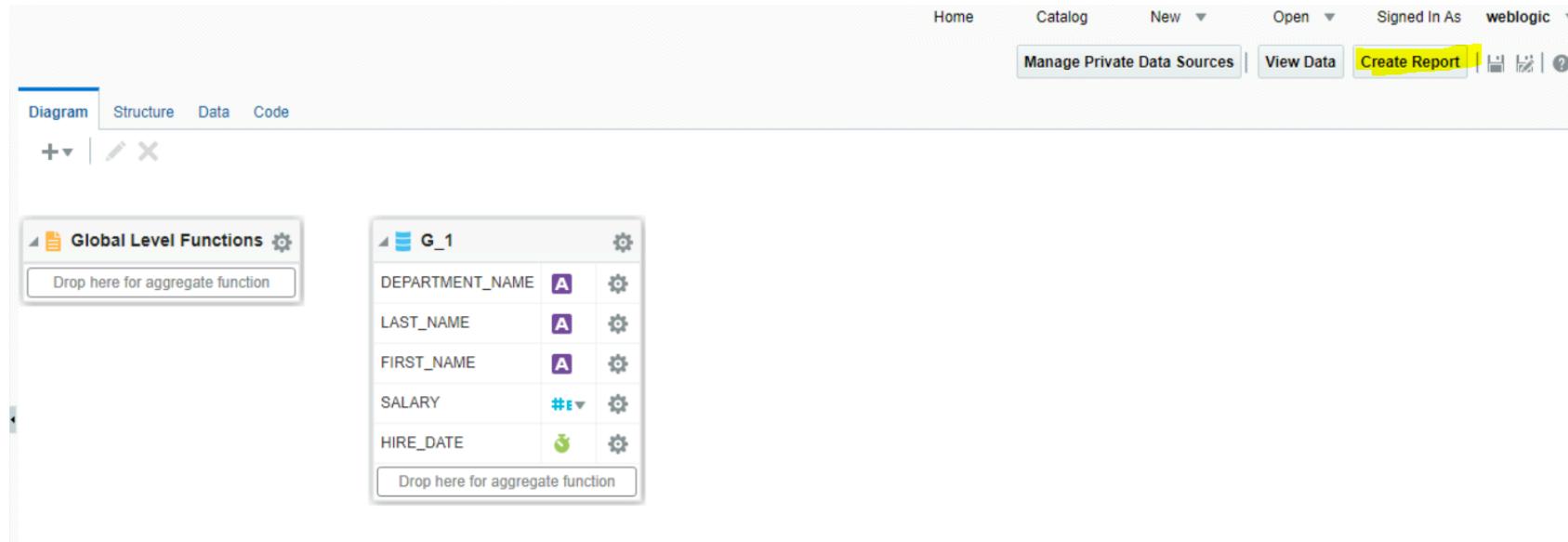
Practice 5-5: Creating a Report Based on the NewDMSQL Data Model

Overview

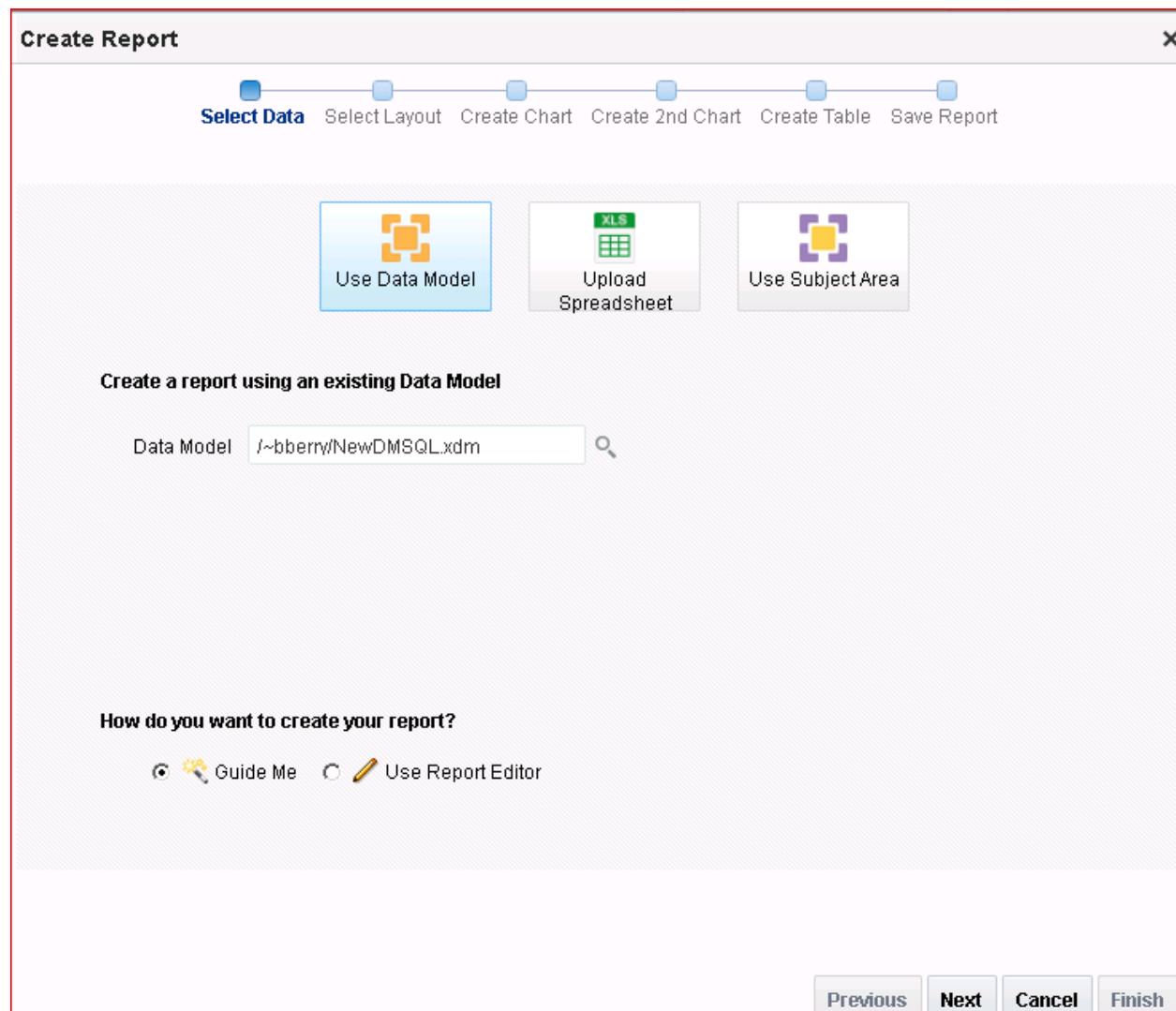
In this practice, you use the Create Report Wizard to create a report using the NewDMSQL data model, and then you view the report in Report Viewer.

Tasks

1. Click Create Report on the toolbar.

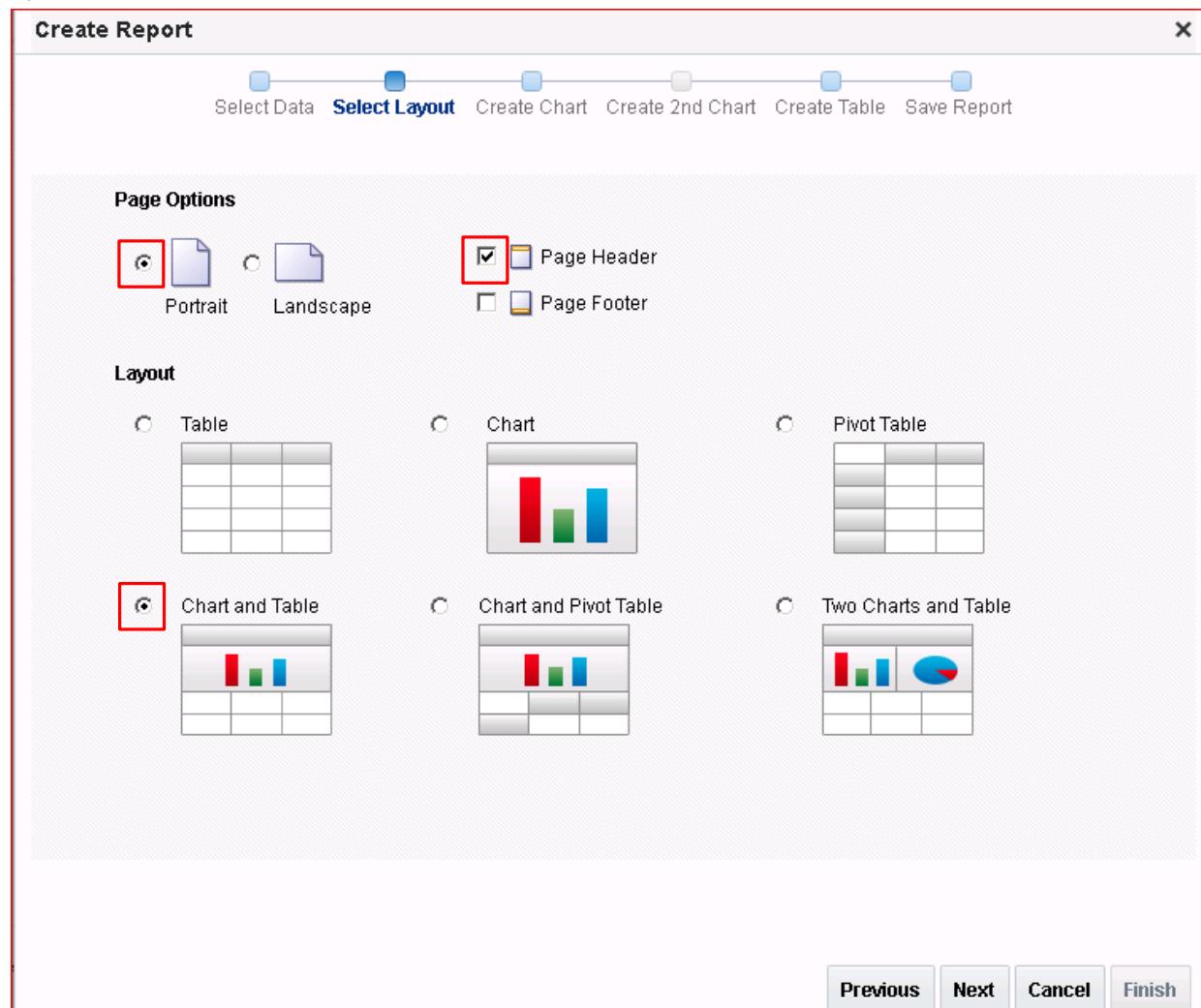


2. This launches the Report Wizard to create a new report and automatically populates the Data Model field with the current data model name.



3. Click Next to select the layout and other components for the report.

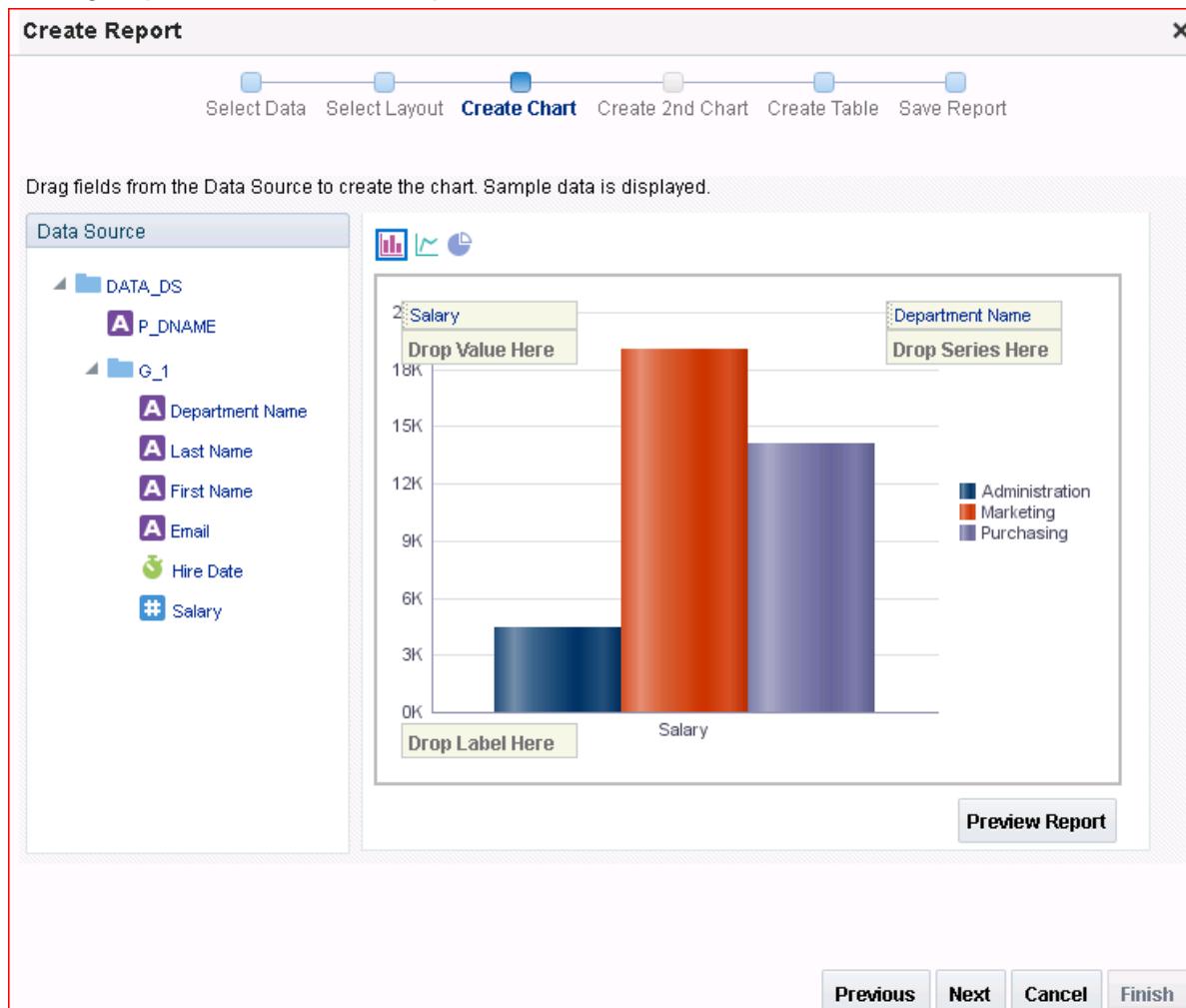
4. Select the options as shown in the screenshot to include a chart and a table in the Portrait layout.



5. Click Next.

6. Select Bar Chart and drop the values as given below:

- Drag Salary to Drop Value Here.
- Drag Department Name to Drop Series Here.



The chart is displayed with the selected data.

7. Click Next to select columns for the table.

8. Add the columns First Name, Email, and Hire Date to the table (after Department Name).

Create Report

Select Data Select Layout Create Chart Create 2nd Chart **Create Table** Save Report

Drag fields from the Data Source to create the table. Sample data is displayed.

Data Source

	Department Name	First Name	Email	Hire Date	Salary
A	Administration	Jennifer	JWHALEN	2003-09-17T00:00:	
A	Marketing	Michael	MHARTSTE	2004-02-17T00:00:	
A	Marketing	Pat	PFAY	2005-08-17T00:00:	
A	Purchasing	Den	DRAPHEAL	2002-12-07T00:00:	
A	Purchasing	Alexander	AKHOO	2003-05-18T00:00:	

Department Name First Name Email Hire Date Salary

Administration Jennifer JWHALEN 2003-09-17T00:00:

Marketing Michael MHARTSTE 2004-02-17T00:00:

Marketing Pat PFAY 2005-08-17T00:00:

Purchasing Den DRAPHEAL 2002-12-07T00:00:

Purchasing Alexander AKHOO 2003-05-18T00:00:

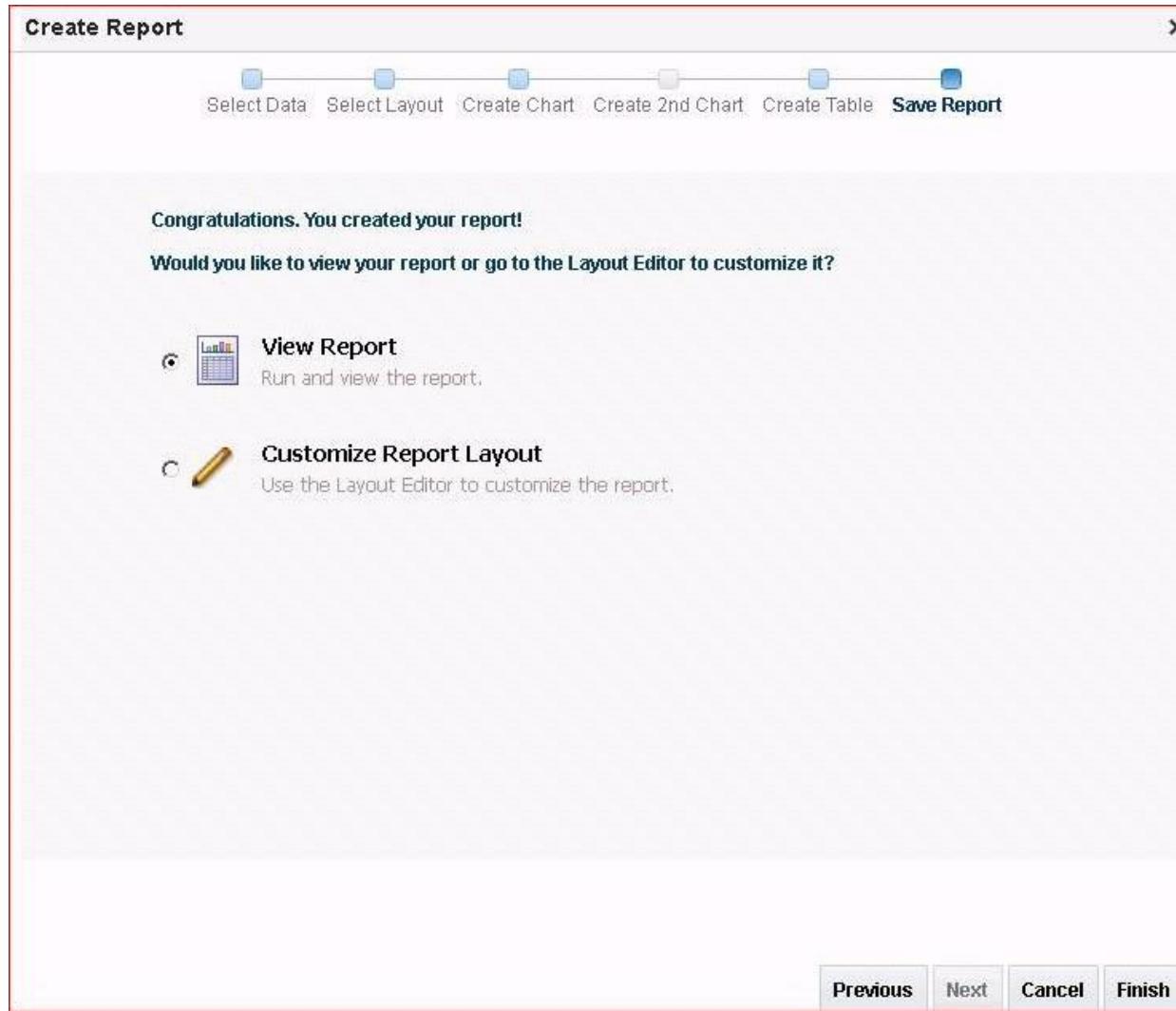
Show Grand Totals Row **Preview Report**

Previous Next Cancel Finish

The screenshot shows the 'Create Report' wizard in Oracle Database Report Builder. The current step is 'Create Table'. The 'Data Source' pane on the left lists fields from 'DATA_DS': P_DNAME, G_1, Last Name, First Name, Email, Hire Date, and Salary. The main pane shows a sample data grid with five rows of employee information. The bottom navigation bar includes 'Previous', 'Next', 'Cancel', and 'Finish' buttons.

9. Click Next.

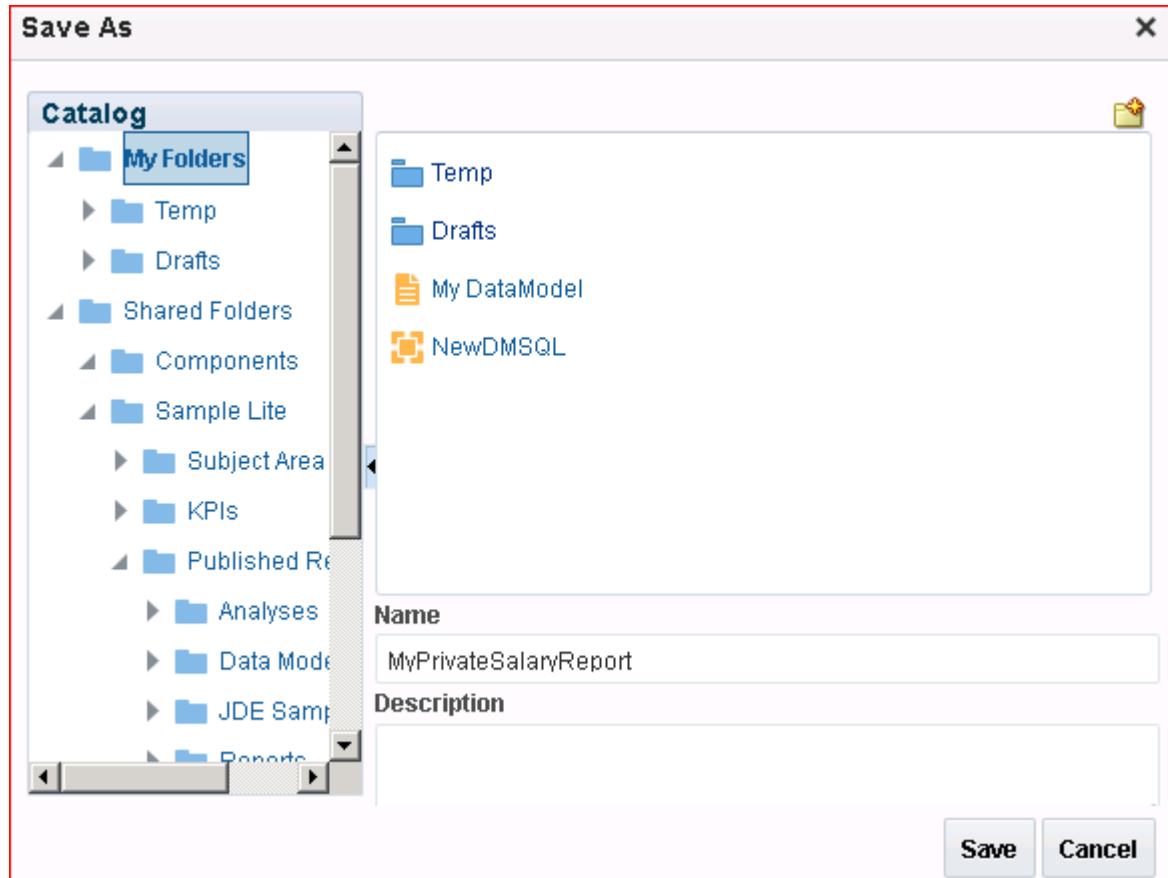
10. You are prompted to save the report to complete the last step in the Create Report Wizard.



Click View Report.

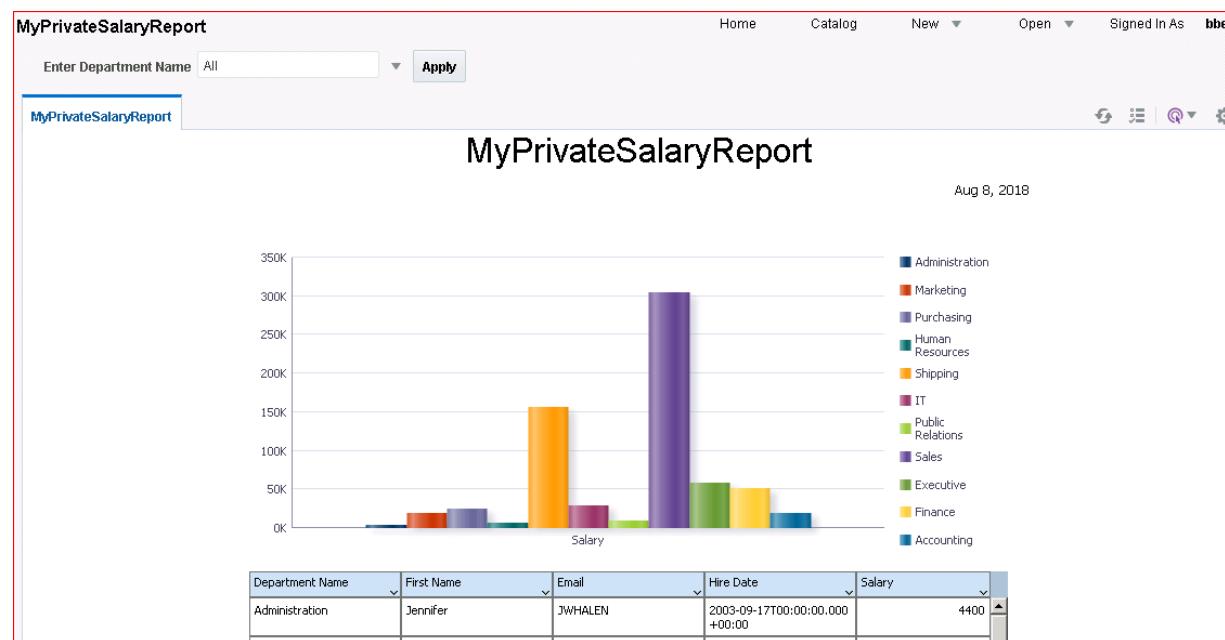
11. Click Finish to save the report.

12. Save the report as MyPrivateSalaryReport under My Folders.



The report is saved and displayed in the Report Viewer window.

Observe that you can change the default parameter display in Report Viewer. The following screenshot shows the report with all departments selected.



You can edit the report to change the layout, data model, scheduling properties, and so on.

Use the Actions menu to select various options to edit the report.



Layout Editor options are covered in “Practices for Lesson 5: Working with Layout Editor.”

Practices for Lesson 6: Working with Layout Editor

Practices for Lesson 6: Overview

Goal

To explore BI Publisher Layout Editor and to create and save BI Publisher report layouts

Practices Overview

You explore Layout Editor's capabilities by opening an existing report and formatting the layout, which contains data tables, charts, conditional formatting, and so on.

Time

75–85 minutes

Practice 6-1: Adding a Chart to a Predefined Layout

Overview

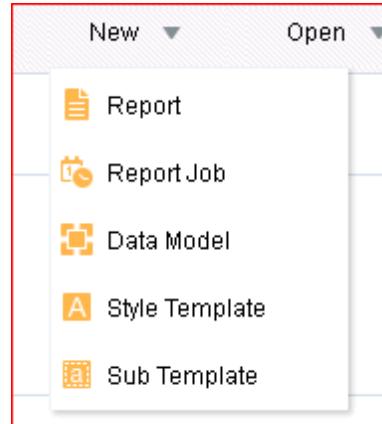
In this practice, you will use the Report Wizard to create a report based on the Salary Report Datamodel. You will edit this report in Layout Editor.

Assumptions

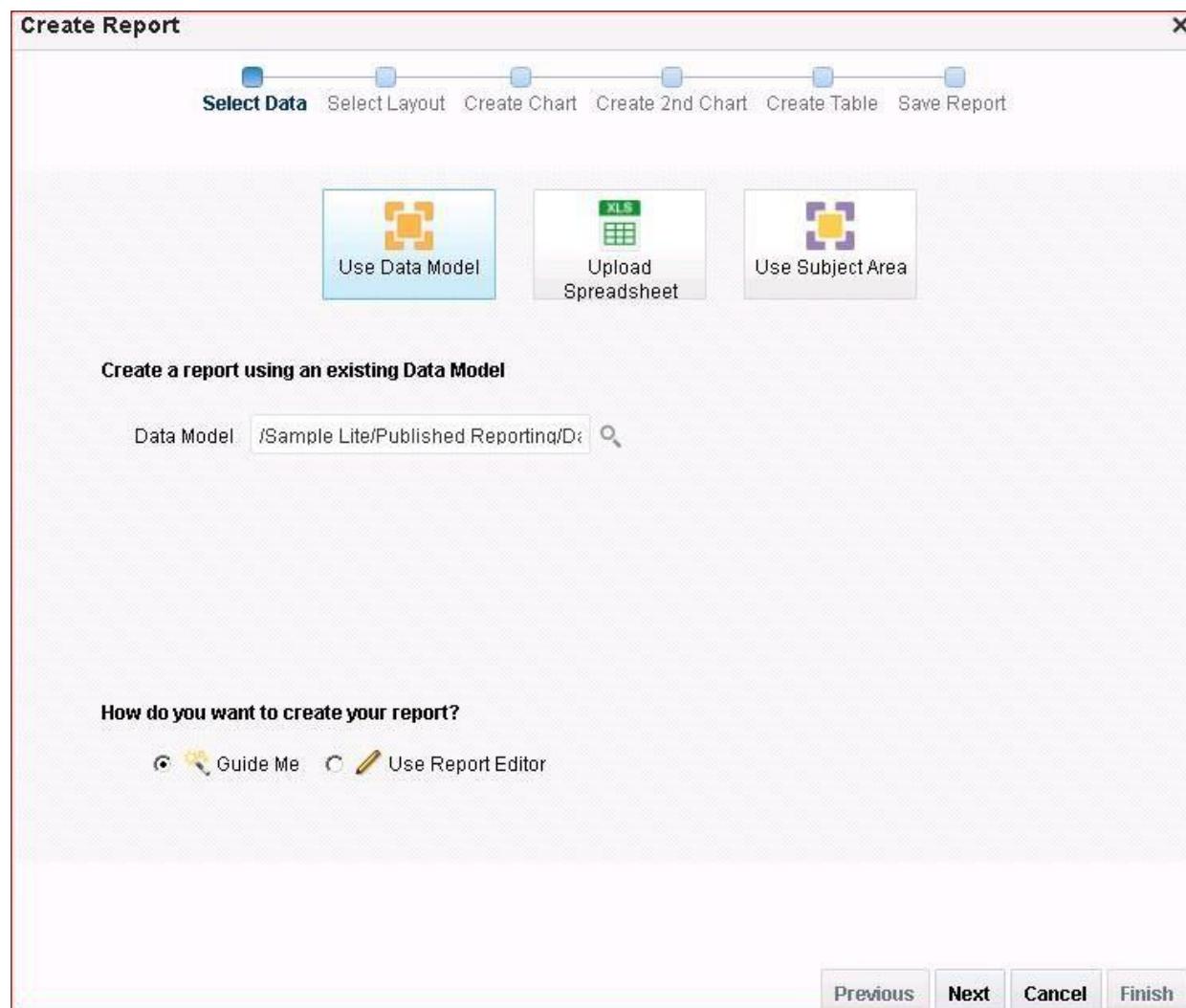
- You are familiar with using Create Report Wizard to create a simple report.
- The data model selected for the report is Salary Parameter Datamodel (Shared Folders > Sample Lite > Published Reporting > Data Models > Salary Report Datamodel).

Tasks

1. Log in to BI Publisher with the username `weblogic` and password `weblogic1`.
2. Click **New > Report** in the global header.



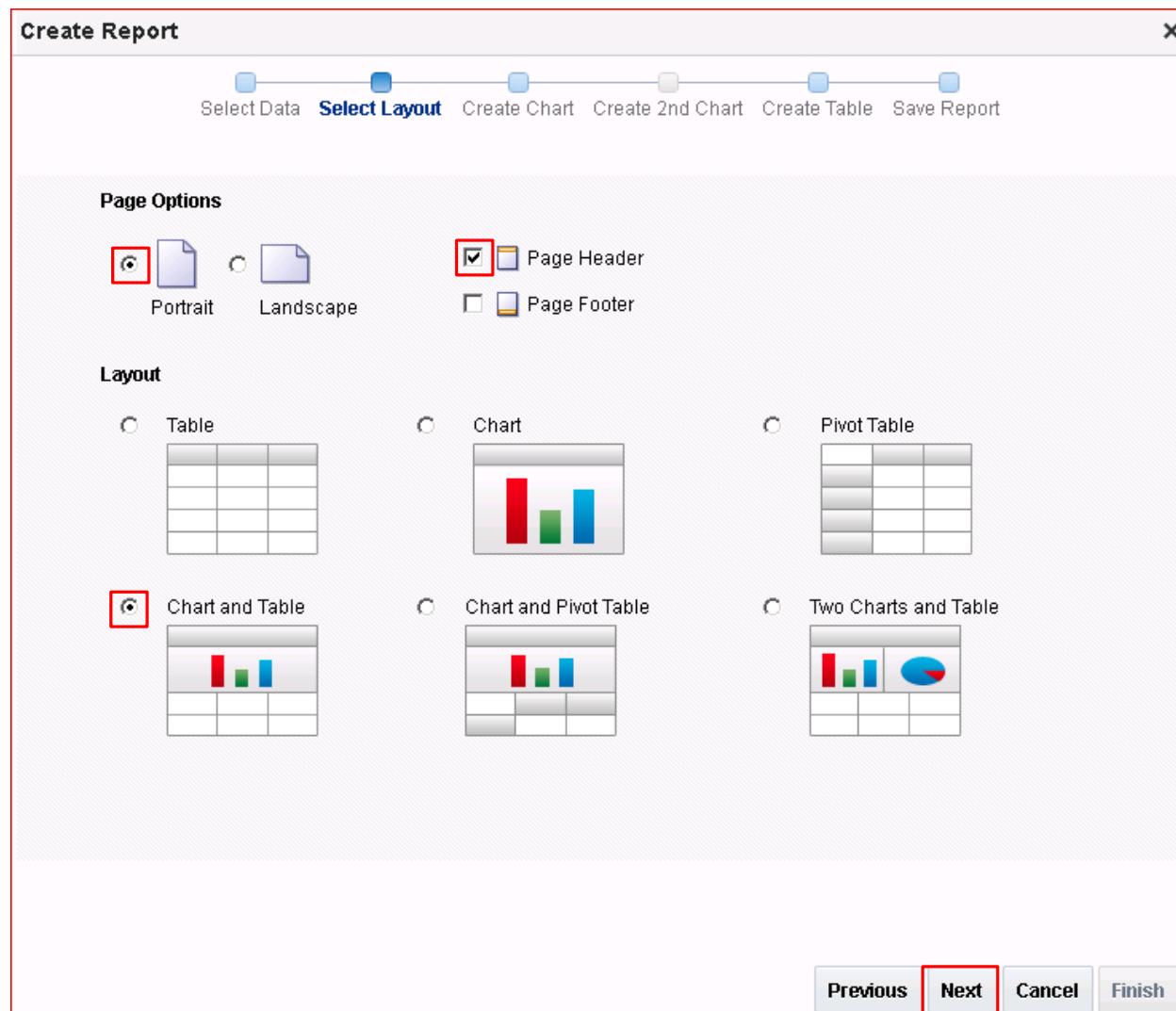
3. The Create Report window is opened. You create a report by using the existing data model
 - *Shared Folders > Sample Lite > Published Reporting > Data Models > Salary Report Data Model.*



4. Click **Next**.

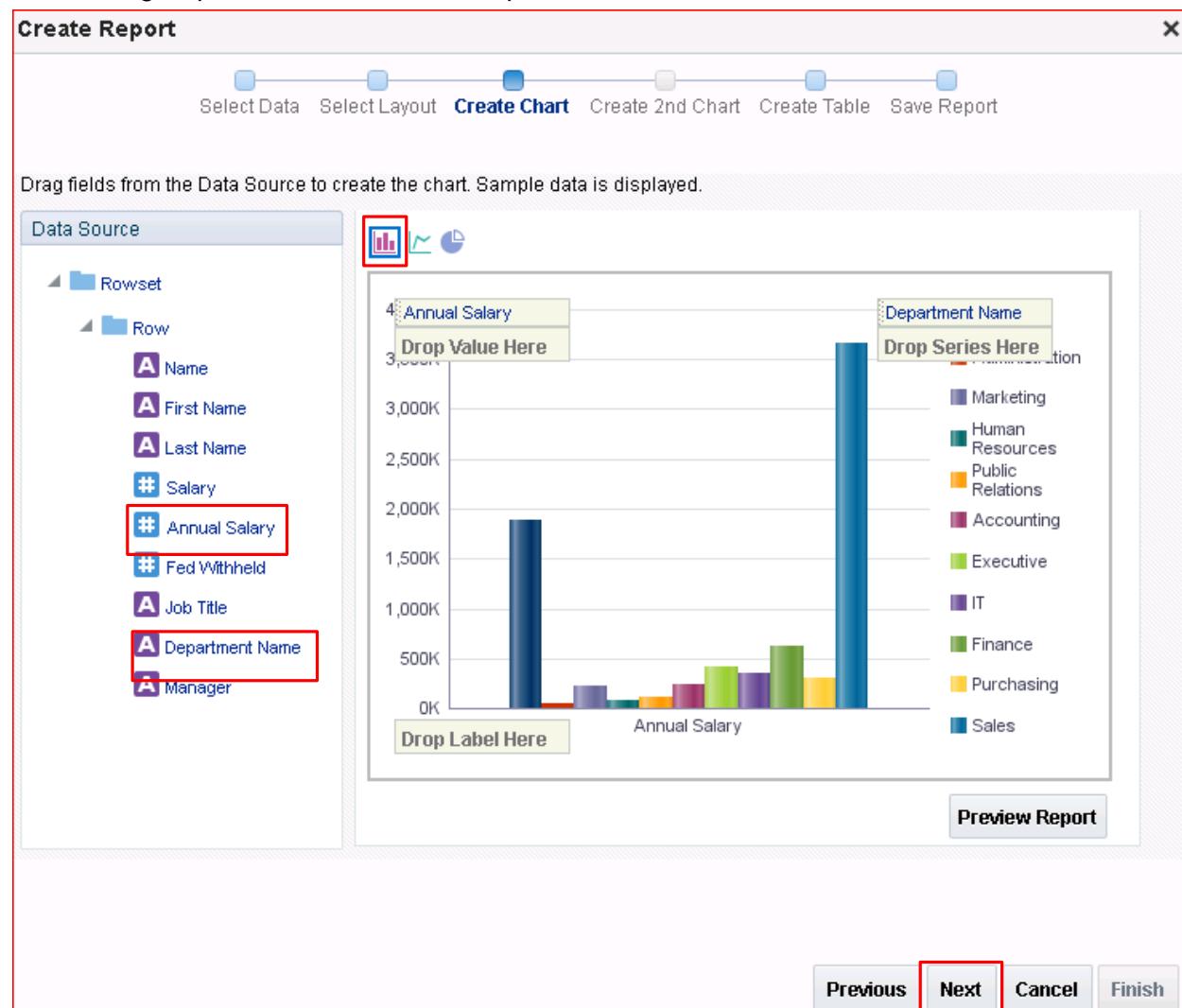
5. In the layout selection step, select:

- Portrait
- Page Header
- Chart and Table



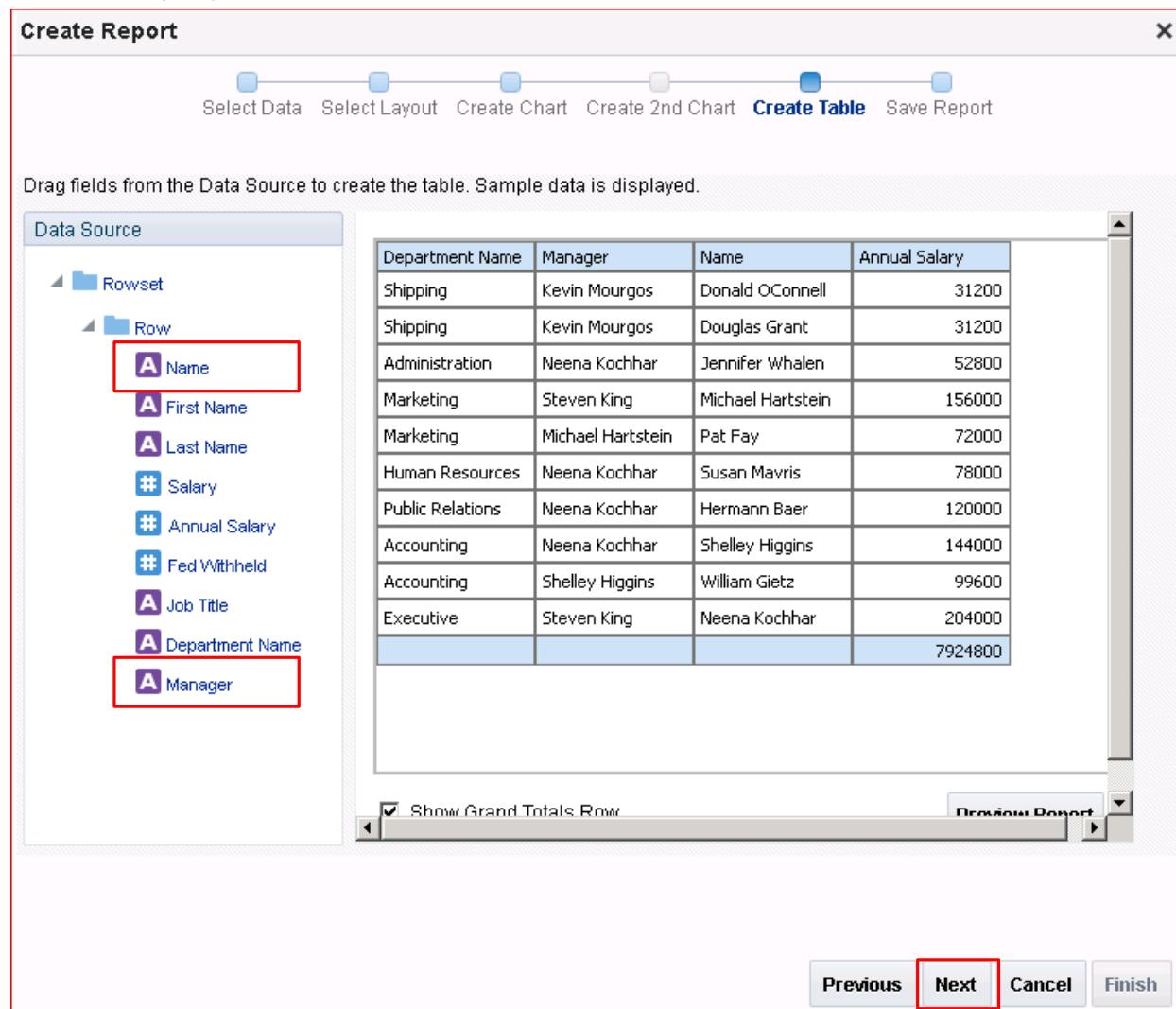
6. Click **Next**. The layout that you select on the Select Layout page drives the remaining pages that you must complete in order to create the report.
7. Because you have selected Chart and Table layout, the Create Chart page opens. Select **Bar Chart**.

8. Add columns to the chart by dragging them from the Data Source pane to the chart area.
 - a. Drag Annual Salary on to Drop Value Here.
 - b. Drag Department Name on to Drop Series Here.



9. Click **Next**. The Create Table page is displayed with the columns that you previously selected for the chart. You will edit this table by appending the required columns.

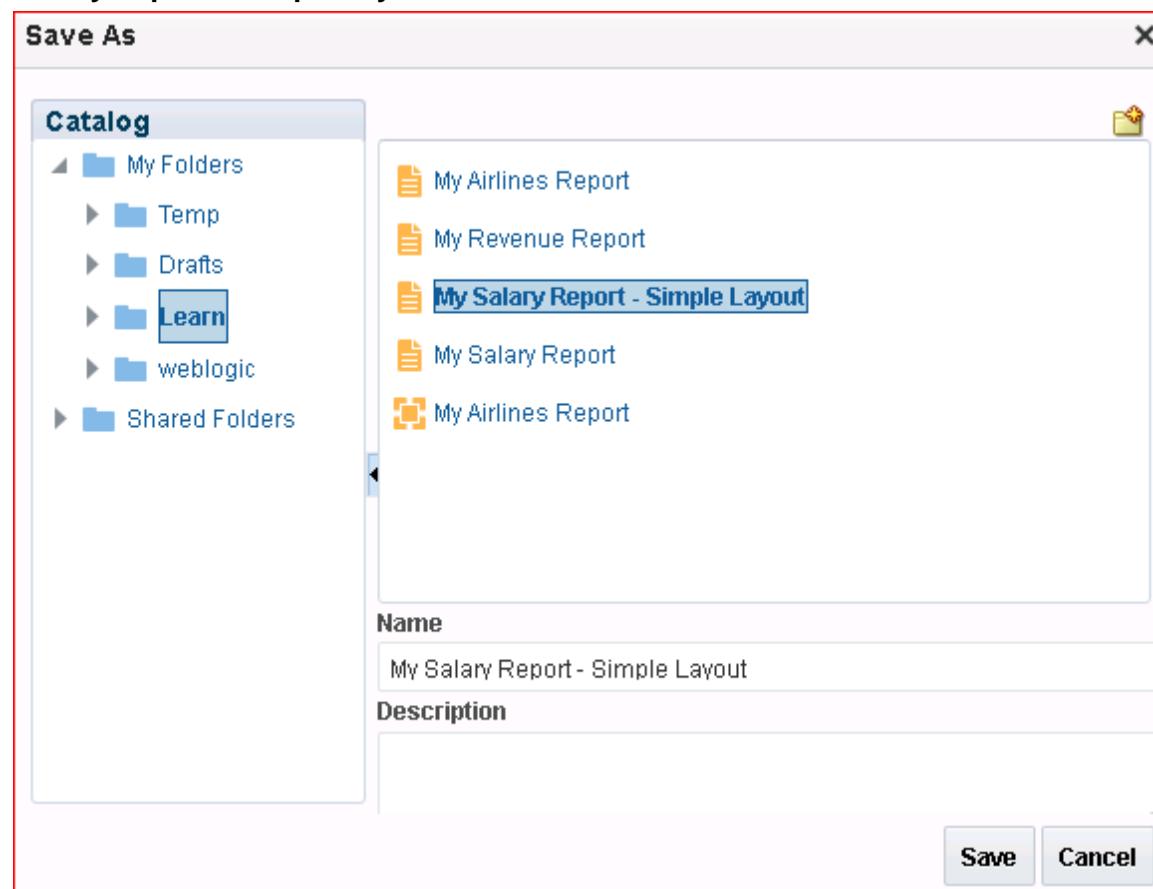
10. Along with the existing columns, add Manager and Name by dragging the data elements to the table. The columns are displayed in a simple tabular format and the column widths are automatically adjusted based on the number of selected columns.



11. Click **Next** in the Report Wizard to proceed to saving the report. You can edit the table with more formatting in Layout Editor after saving the report.
 12. Click **Customize Report Layout** and then click **Finish**. The final page prompts you to save the report.

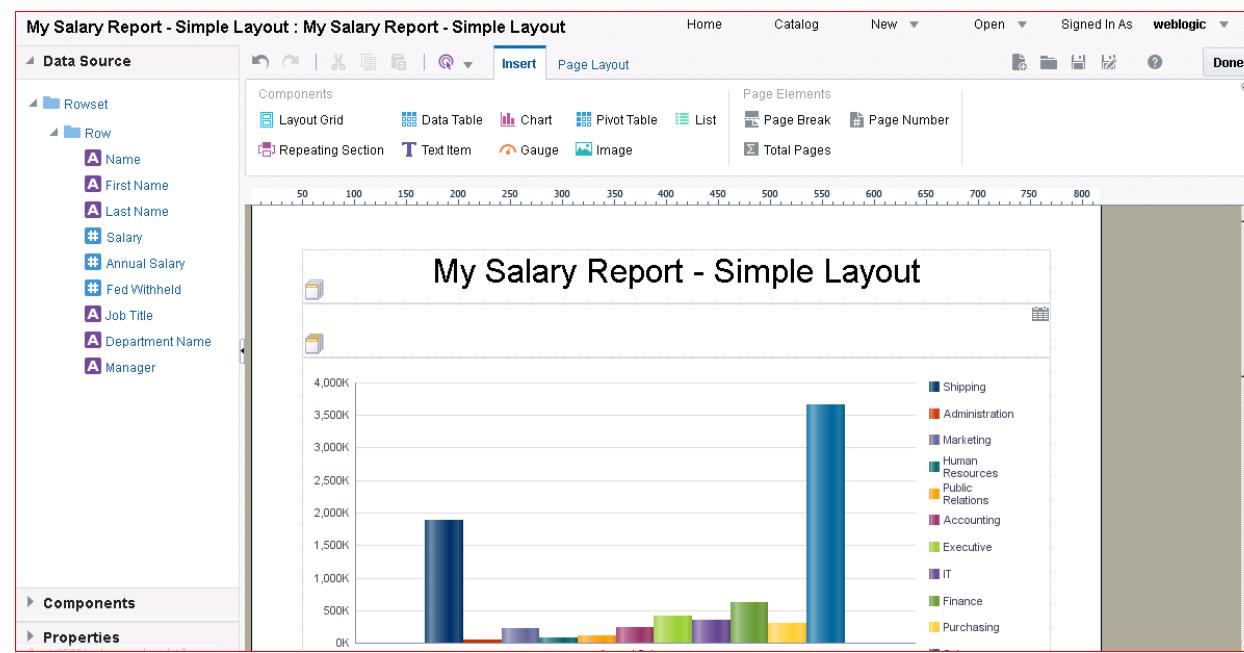
Note: Because you selected the Customize Report Layout option, after saving the report, it is opened in Layout Editor for further editing. In addition, the Learn folder is available again.

13. In the Save As dialog box, select the folder My Folders > Learn. Name the report **My Salary Report – Simple Layout**.



14. The report is opened in Layout Editor for you to further customize it. Observe the various sections—Data Source, Components, and Properties—that enable you to create a pixel-perfect layout.

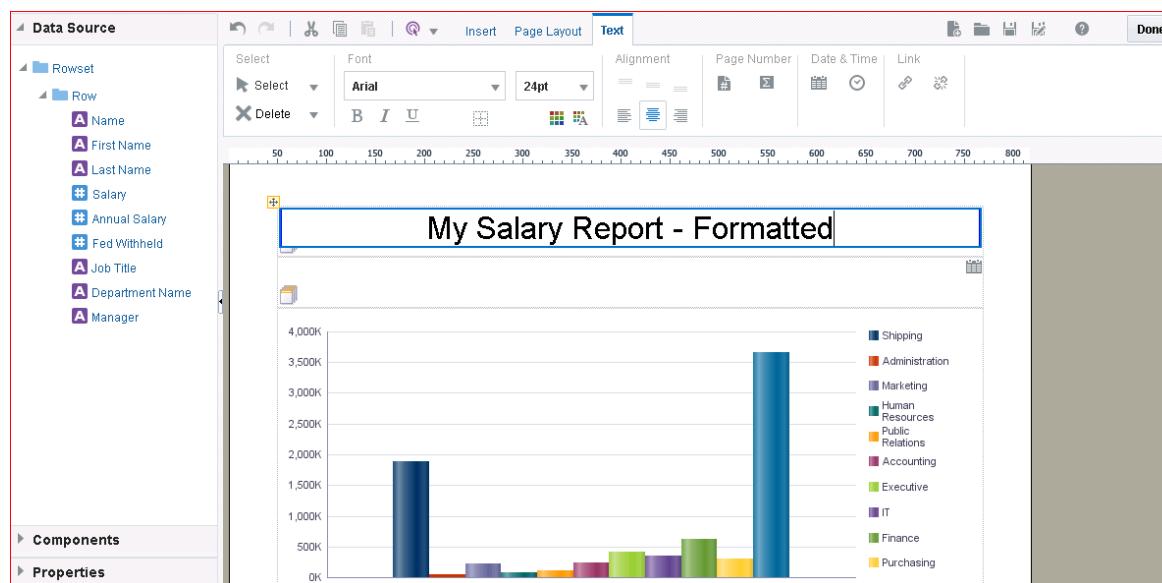
Data Source displays the data available, because this is a predefined layout with a chart and table structure in place.



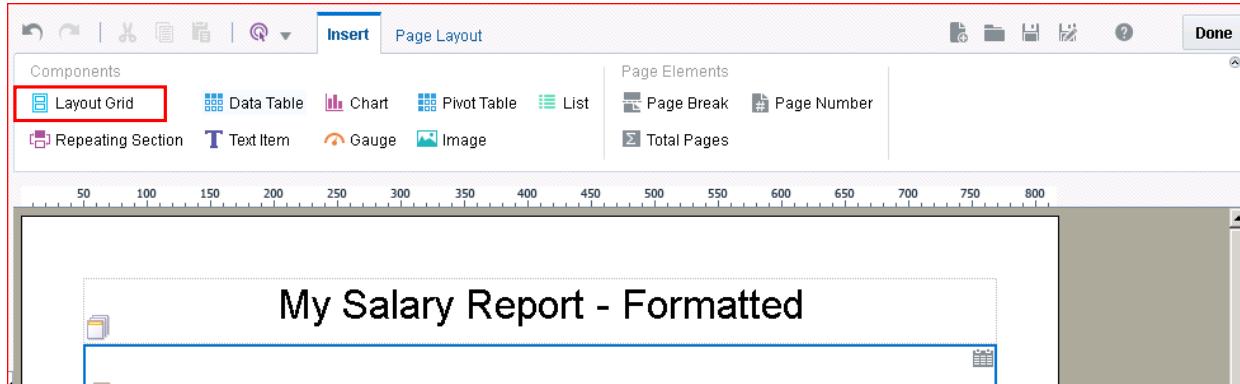
By default, the report name is displayed as the layout name.

15. To edit the title of the report, do the following:

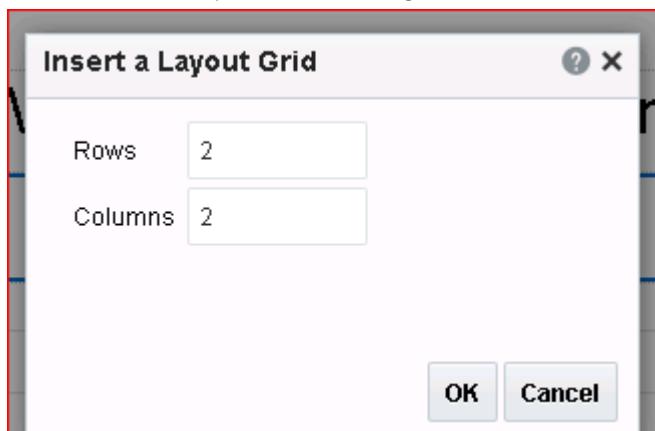
- Select the existing report title. The Text options are highlighted.
- Edit the text for the title to change it to My Salary Report – Formatted.
- Edit the Title font format as well.



16. Insert a grid below the title. Select the title grid and click **Insert > Layout Grid**.



17. In the Insert a Layout Grid dialog box, select 2 rows and 2 columns, and then click OK.



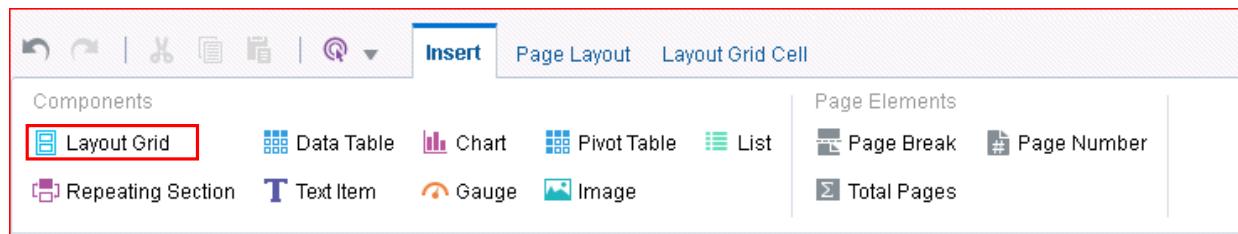
18. Select the top row, and insert a Text Item. Enter **Salary by Job Title** and format the text as:

- Font: Tahoma
- Size:12
- Type: Bold
- Color: Grey 808080

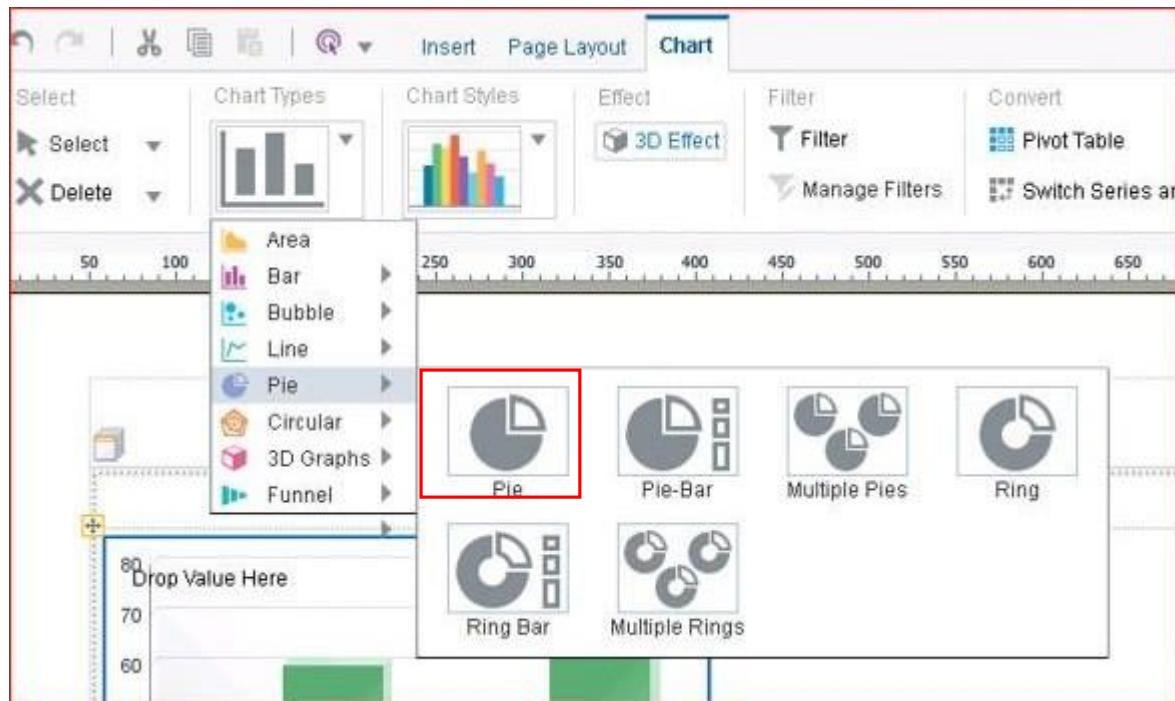


19. Add a new pie chart to this report.

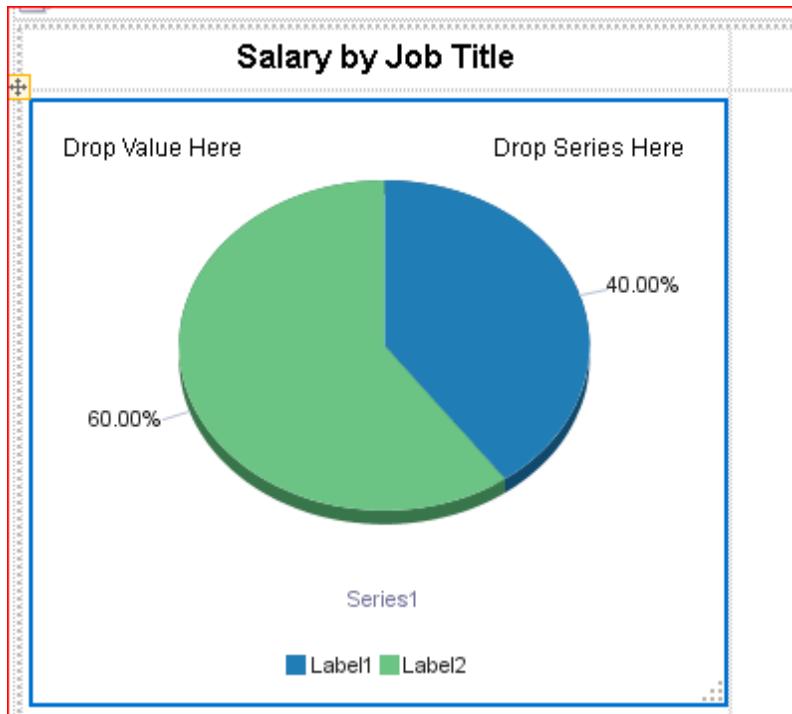
Select the next row in the same column and insert a chart item.



20. Select Chart Types: Pie > Pie to select a pie chart.

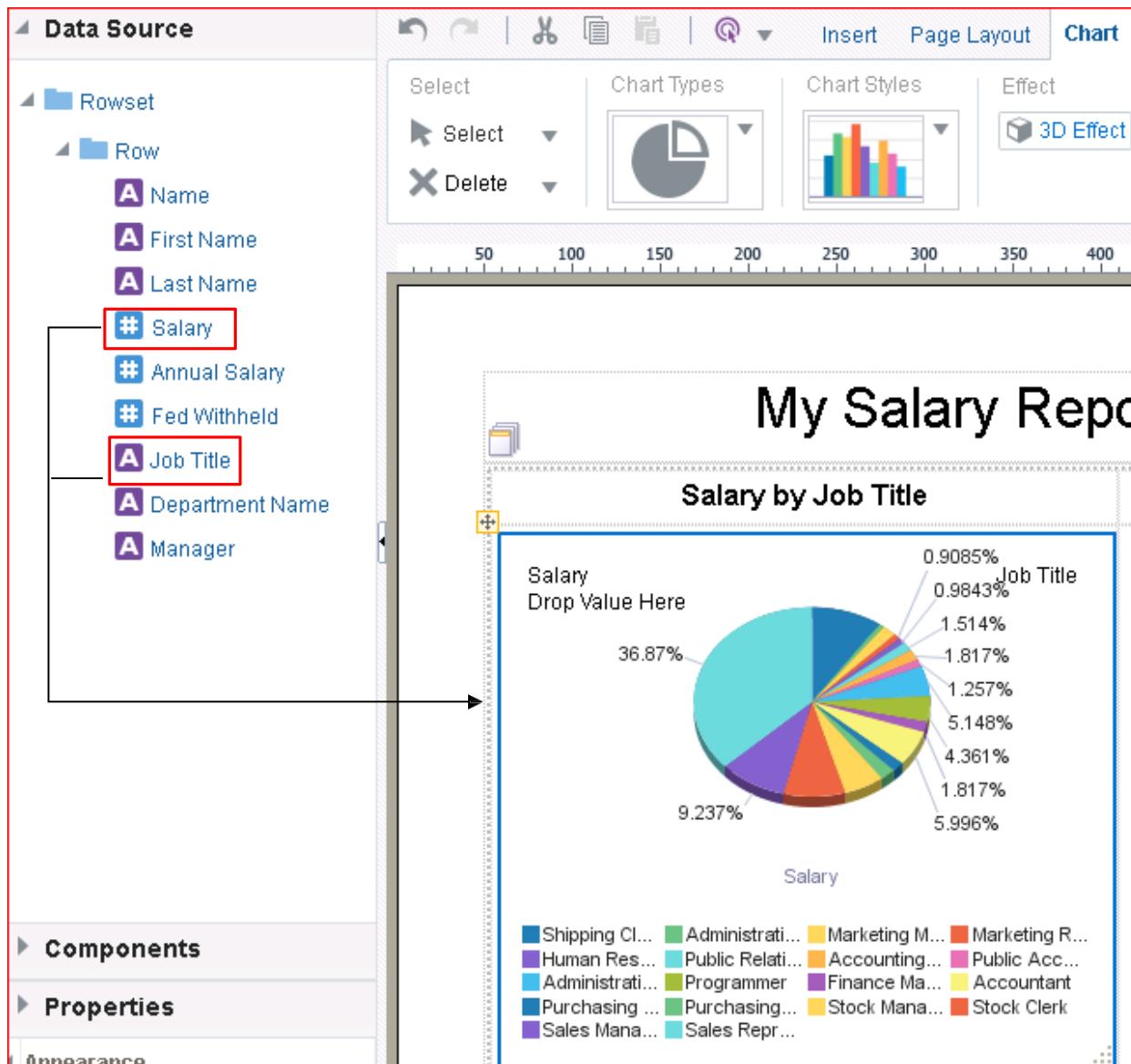


A chart is inserted in the row.



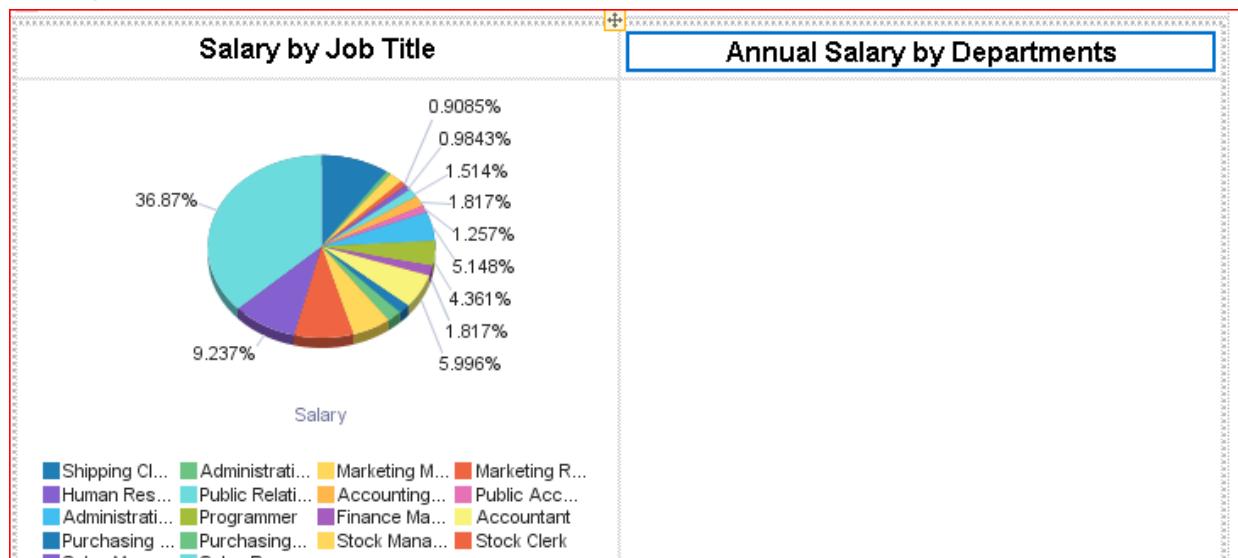
21. Add the data elements from the Data Source pane to the pie chart.
a. Drag Salary to Drop Value Here.

- b. Drag Job Title to Drop Series Here.



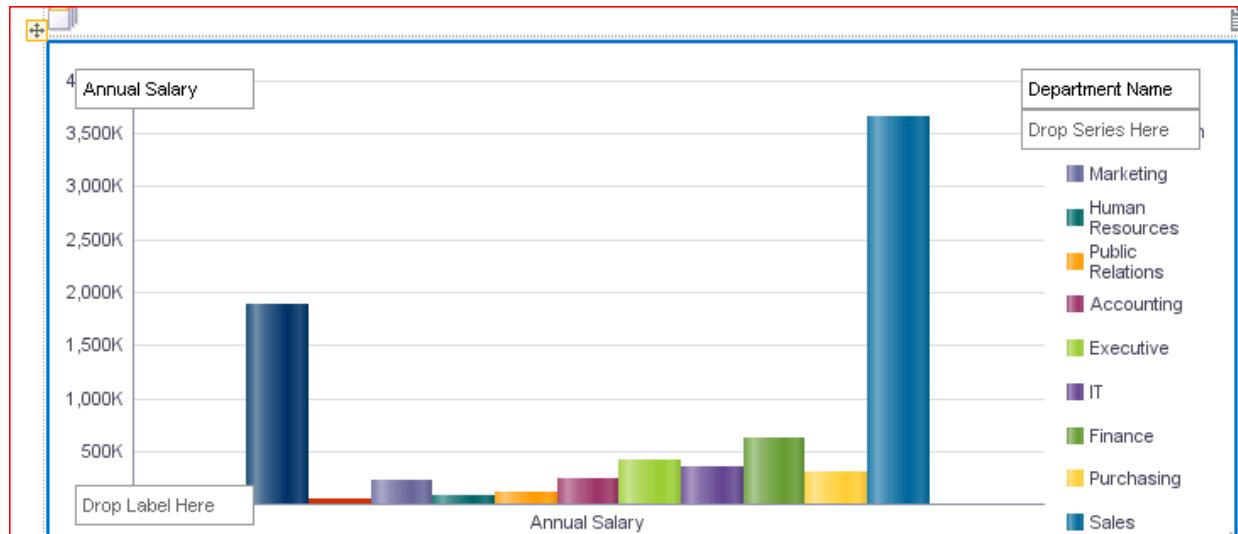
The pie chart displaying the salary for various job titles is displayed.

22. Move the existing bar chart that was created with the Report Wizard to the column next to the pie chart. Add the title Annual Salary by Departments to the column and format it similar to the pie chart title.



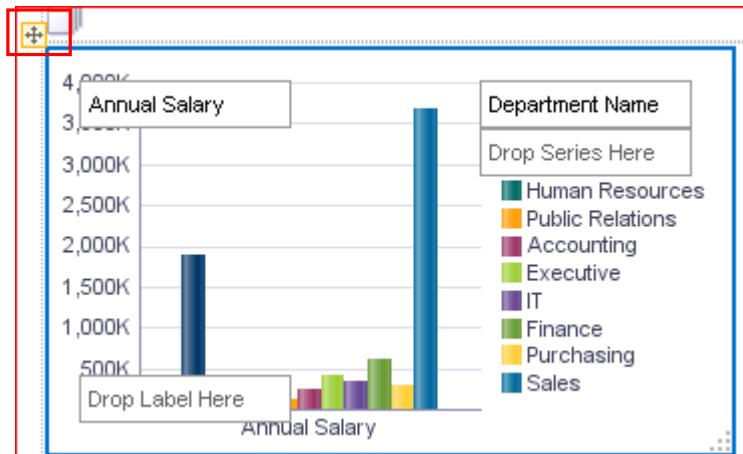
Note: You cannot add the existing bar chart to this column with its current size. The chart has to fit in a thin column.

23. Select the bar chart as shown in the following screenshot:

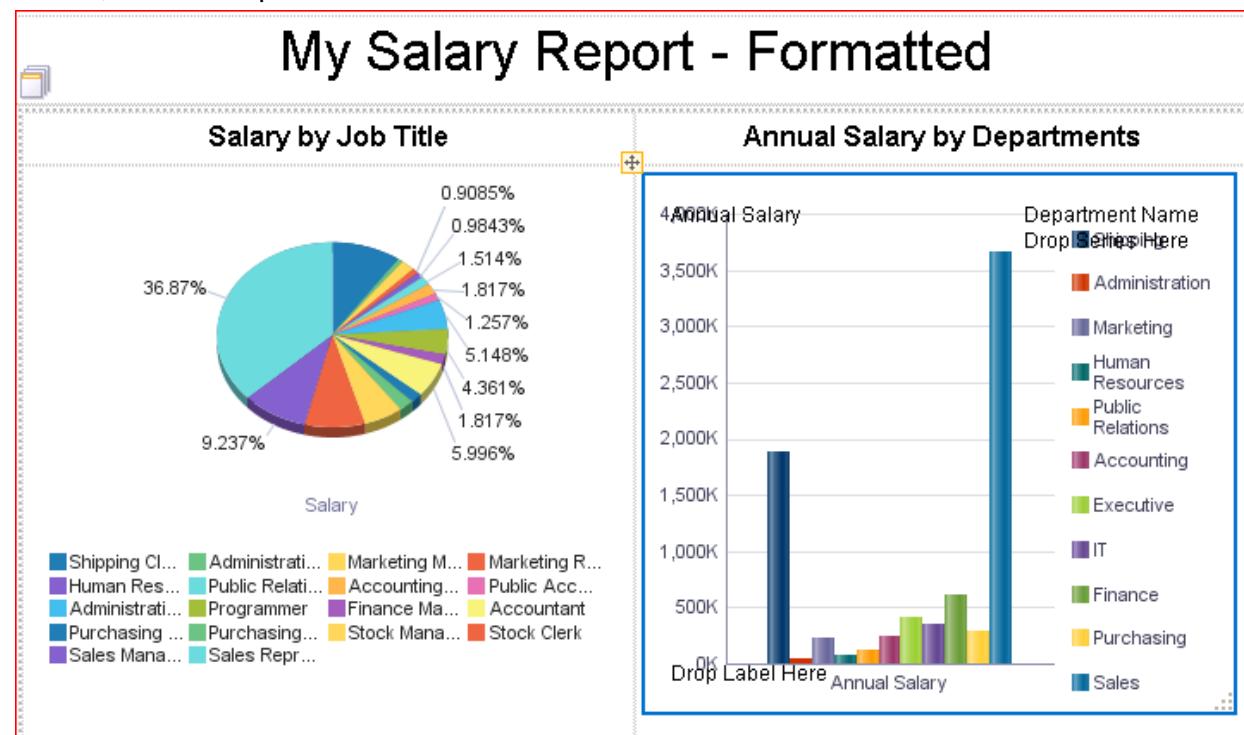


You will see a resizing cursor to change the size of the chart. Use this resizing cursor to make the chart small enough to fit into the column next to the pie chart.

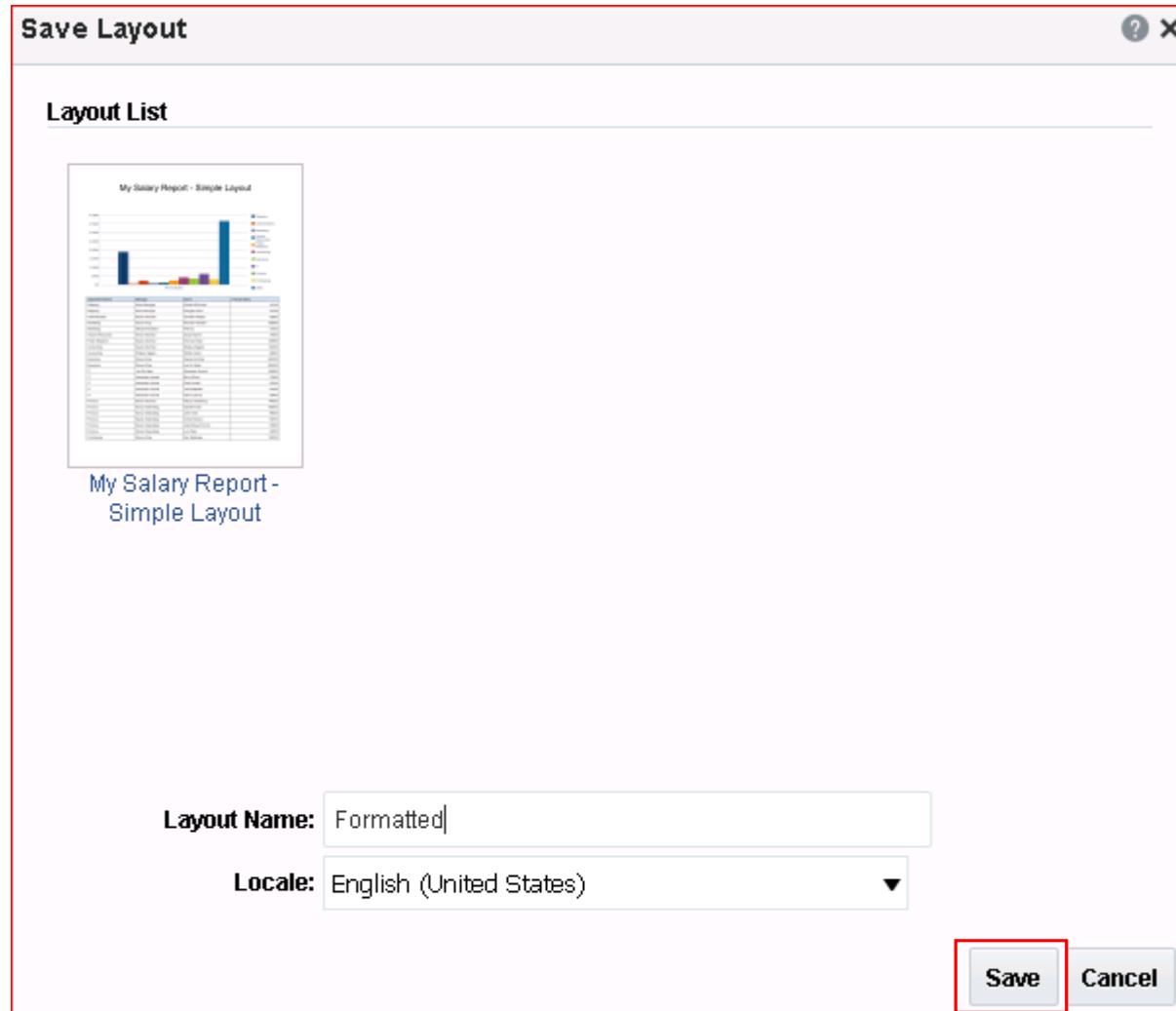
The resized chart is refreshed and displayed.



24. Select the chart. You will see a movement cursor on the chart. Drag the chart to the column above, next to the pie chart.



25. Click the Save As Icon to save the layout as **Formatted**.



You can see the list of layouts for the report. The current list has the default layout that you were editing until now.

26. Click Save to save and return to Layout Editor.

Practice 6-2: Editing the Table

Overview

In this practice, you edit the existing data table created from the Report Wizard to enhance it.

Assumptions

You successfully saved the report layout from Practice 5-1 as Formatted. The same layout is opened for editing now.

Tasks

1. Edit the existing data table and format the data. Resize the column width to add more columns to the table.

Department Name	Manager	Name	Annual Salary
Shipping	Kevin Murgos	Donald O'Connell	31200
Shipping	Kevin Murgos	Douglas Grant	31200
Administration	Neena Kochhar	Jennifer Whalen	52800
Marketing	Steven King	Michael Hartstein	156000
Marketing	Michael Hartstein	Pat Fay	72000
Human Resources	Neena Kochhar	Susan Mavris	78000
Public Relations	Neena Kochhar	Hermann Baer	120000
Accounting	Neena Kochhar	Shelley Higgins	144000
Accounting	Shelley Higgins	William Gietz	99600
Executive	Steven King	Neena Kochhar	204000
			7924800

- a. To do this, place your cursor between two columns. The column indicator turns blue, and sizing handles appear.
- b. Drag the column indicators for **Department Name**, **Manager**, **Name**, and **Annual Salary** to the left, reducing some of the column space.

2. Add another data element Job Title from the data source pane between the Manager and Name columns.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Kevin Mourgos	Shipping Clerk	Donald O'Connell	31200
Shipping	Kevin Mourgos	Shipping Clerk	Douglas Grant	31200
Administration	Neena Kochhar	Administration Assistant	Jennifer Whalen	52800
Marketing	Steven King	Marketing Manager	Michael Hartstein	156000
Marketing	Michael Hartstein	Marketing Representative	Pat Fay	72000
Human Resources	Neena Kochhar	Human Resources Representative	Susan Mavris	78000
Public Relations	Neena Kochhar	Public Relations Representative	Hermann Baer	120000
Accounting	Neena Kochhar	Accounting Manager	Shelley Higgins	144000
Accounting	Shelley Higgins	Public Accountant	William Gietz	99600
Executive	Steven King	Administration Vice President	Neena Kochhar	204000
				7924800

3. Format the Annual Salary column. Click any data value cell for the **Annual Salary** column. This selects the entire column. Click the **Column** tab and from the Data Formatting dropdown list, select **(\$1,234.57) (Currency)**.

Formatting is applied to the column:

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Kevin Mourgos	Shipping Clerk	Donald O'Connell	\$31,200.00
Shipping	Kevin Mourgos	Shipping Clerk	Douglas Grant	\$31,200.00
Administration	Neena Kochhar	Administration Assistant	Jennifer Whalen	\$52,800.00
Marketing	Steven King	Marketing Manager	Michael Hartstein	\$156,000.00
Marketing	Michael Hartstein	Marketing Representative	Pat Fay	\$72,000.00
Human Resources	Neena Kochhar	Human Resources Representative	Susan Mavris	\$78,000.00
Public Relations	Neena Kochhar	Public Relations Representative	Hermann Baer	\$120,000.00
Accounting	Neena Kochhar	Accounting Manager	Shelley Higgins	\$144,000.00
Accounting	Shelley Higgins	Public Accountant	William Gietz	\$99,600.00
Executive	Steven King	Administration Vice President	Neena Kochhar	\$204,000.00
				\$792,480.00

4. Change the sort order for Annual Salary to ascending. Keep the Annual Salary column selected.

Click the **Ascending Order** icon as indicated in the following screenshot:

The screenshot shows the Microsoft Word ribbon with the 'Column' tab selected. In the ribbon, there is a 'Sort' button with an upward arrow icon, which is highlighted with a red box. Below the ribbon is a table with columns for Job Title, Name, and Annual Salary. The 'Annual Salary' column is highlighted with a red box. The table data is as follows:

Job Title	Name	Annual Salary
Shipping Clerk	Donald O'Connell	\$31,200.00
Shipping Clerk	Douglas Grant	\$31,200.00
Administration Assistant	Jennifer Whalen	\$52,800.00
Marketing Manager	Michael Hartstein	\$156,000.00
Marketing Representative	Pat Fay	\$72,000.00
Human Resources Representative	Susan Mavris	\$78,000.00
Public Relations Representative	Hermann Baer	\$120,000.00
Accounting Manager	Shelley Higgins	\$144,000.00
Public Accountant	William Gietz	\$99,600.00
Administration Vice President	Neena Kochhar	\$204,000.00
		\$7,924,800.00

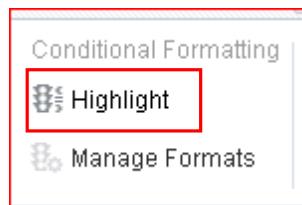
The column re-sorts in ascending order.

The screenshot shows the same table after sorting the 'Annual Salary' column in ascending order. The values in the 'Annual Salary' column are now ordered from lowest to highest. The table data is as follows:

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00

5. Add conditional formatting to the Annual Salary column. Conditional formats allow you to highlight data fields based on a condition.

With the Annual Salary column still selected, click **Conditional Formatting > Highlight** on the Column tab.

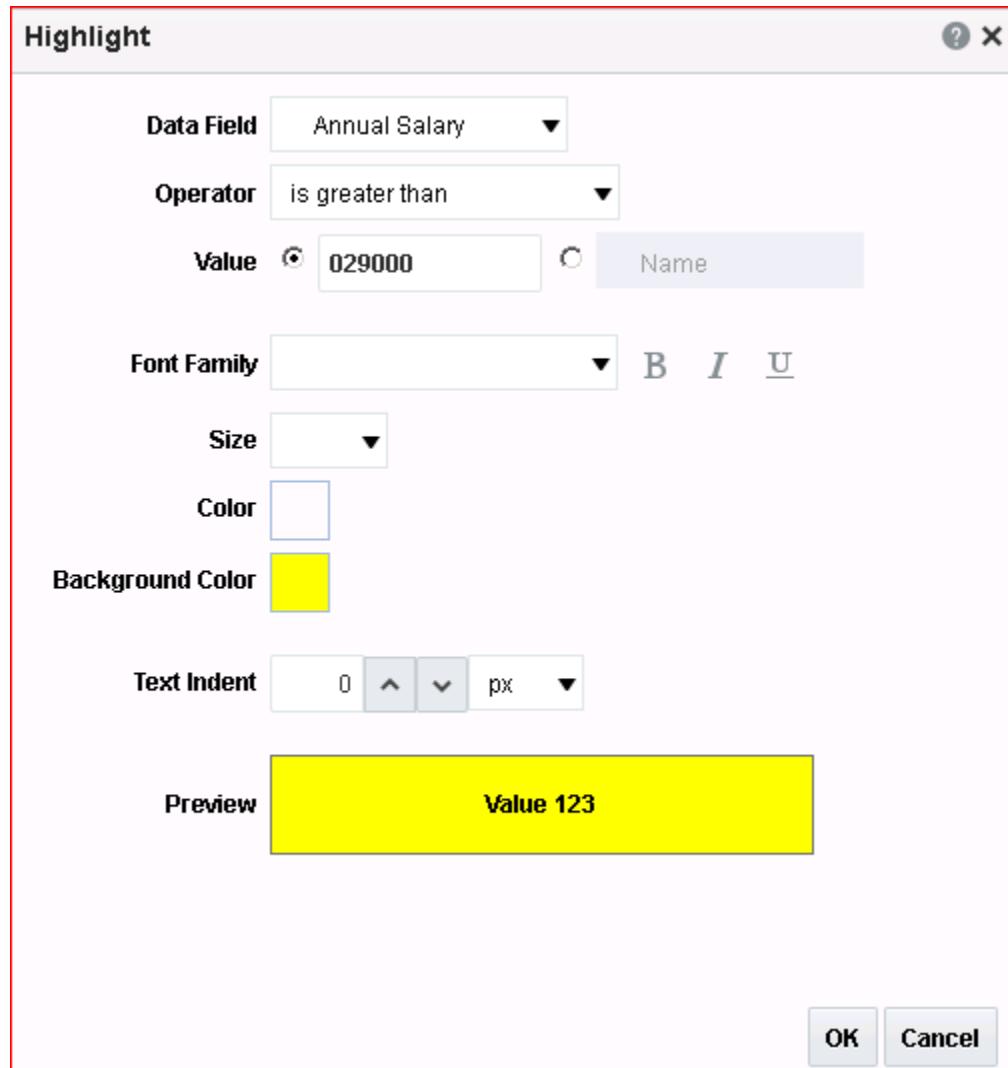


The Highlight dialog box appears.

6. In the Highlight dialog box, enter the following attributes:

Step	Attribute	Choices or Values
a.	Operator	is greater than or equal to
b.	Value	29000
c.	Background Color	Bright Yellow (ffff00)

The Highlight dialog box should look like this:



Click **OK** in the Color Picker and then click **OK** again.

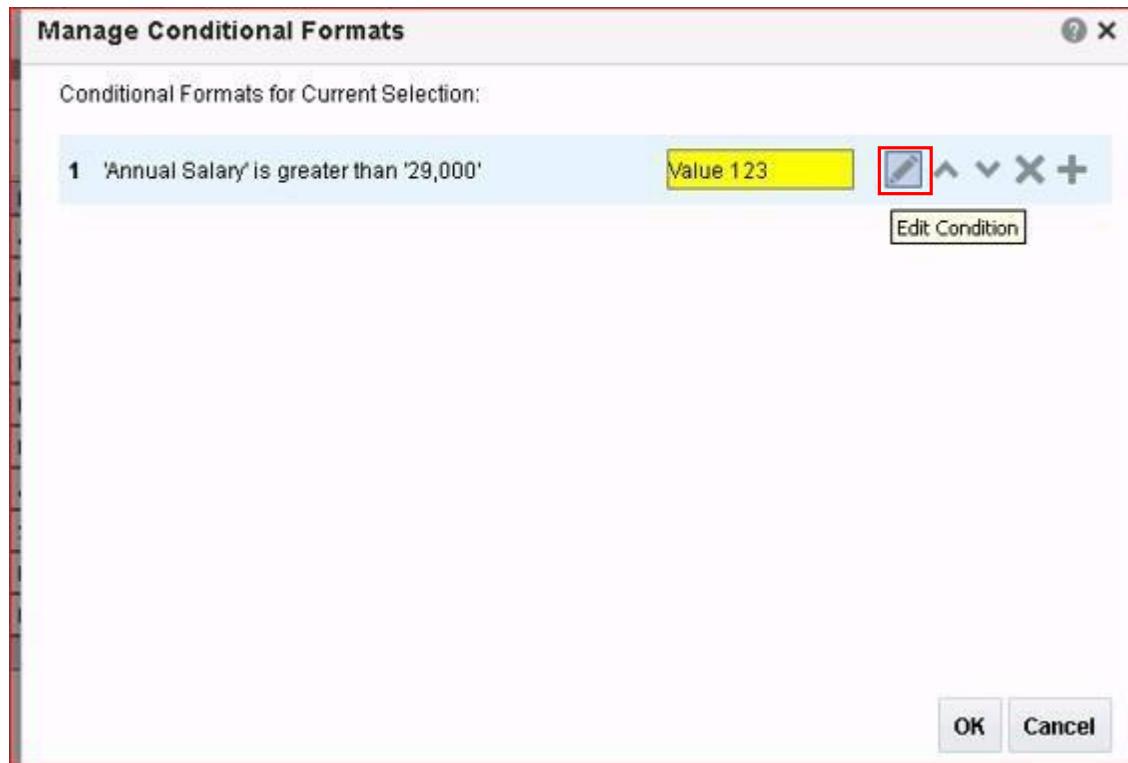
7. Notice that Manage Formats now appears in the Conditional Formatting section.

The screenshot shows the Excel ribbon with the 'Conditional Formatting' tab selected. The 'Manage Formats' button is highlighted with a red box. Below the ribbon, a table of employee names and annual salaries is displayed. A red arrow points from the 'Manage Formats' button in the ribbon to the yellow-highlighted row for Karen Colmenares in the table.

Name	Annual Salary
TJ Olson	\$25,200.00
Steven Markle	\$26,400.00
Hazel Philtanker	\$26,400.00
James Landry	\$28,800.00
Ki Gee	\$28,800.00
Karen Colmenares	\$30,000.00
James Marlow	\$30,000.00
Joshua Patel	\$30,000.00
Peter Vargas	\$30,000.00
Martha Sullivan	\$30,000.00
	\$7,924,800.00

This allows you to edit the existing conditional formats. Click **Manage Formats**.

8. In the Manage Conditional Formats dialog box, click the Edit Condition icon and change the highlight color to green.



In the Highlight dialog box, change the highlight color and click OK. The edited condition will look like this.



Click OK to return to Layout Editor. The table highlights the rows with the set condition in green.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00

9. Similarly add another condition on Annual Salary as follows:

Step	Attribute	Choices or Values
a.	Operator	is less than
b.	Value	26000
c.	Background Color	Red

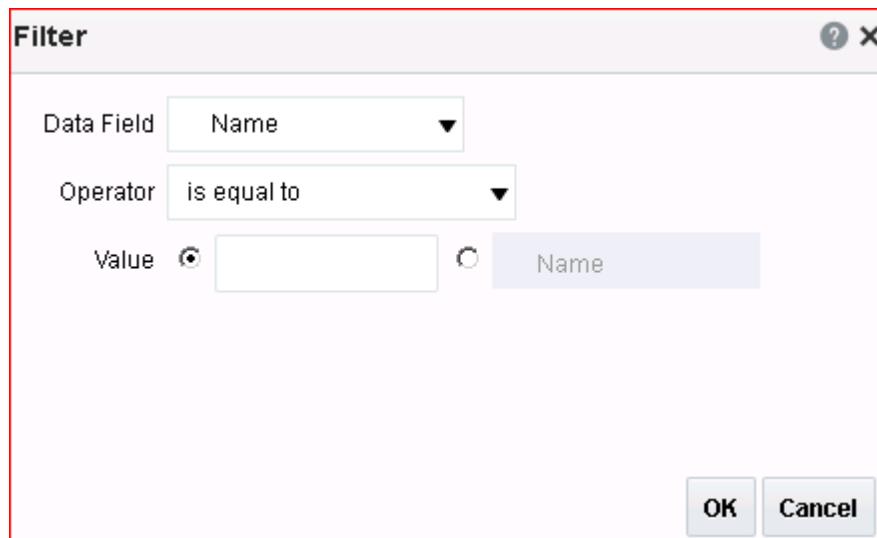
The table now looks like this:

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00

Add a filter to this table. Select the table as shown in the image. Click **Select > Table**.

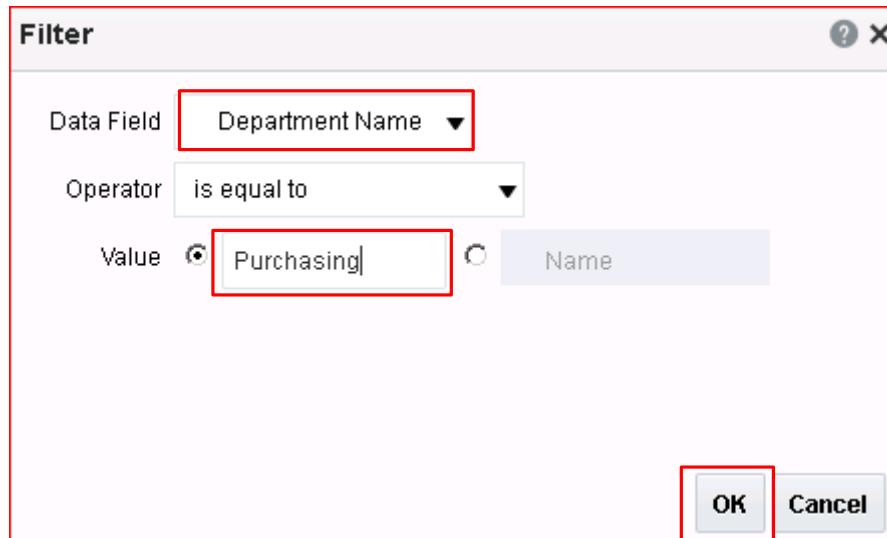
Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00

10. When you select the table, all the table elements are available for editing. Select Filter. The Filter dialog box appears:



In the Filter dialog box, change or enter the following attributes:

Step	Attribute	Choices or Values
a.	Data Field	Department Name
b.	Operator	is equal to
c.	Value	Purchasing



Note: All elements are available for selection from the Data Field drop-down list.

Click **OK**. The table should look like this:

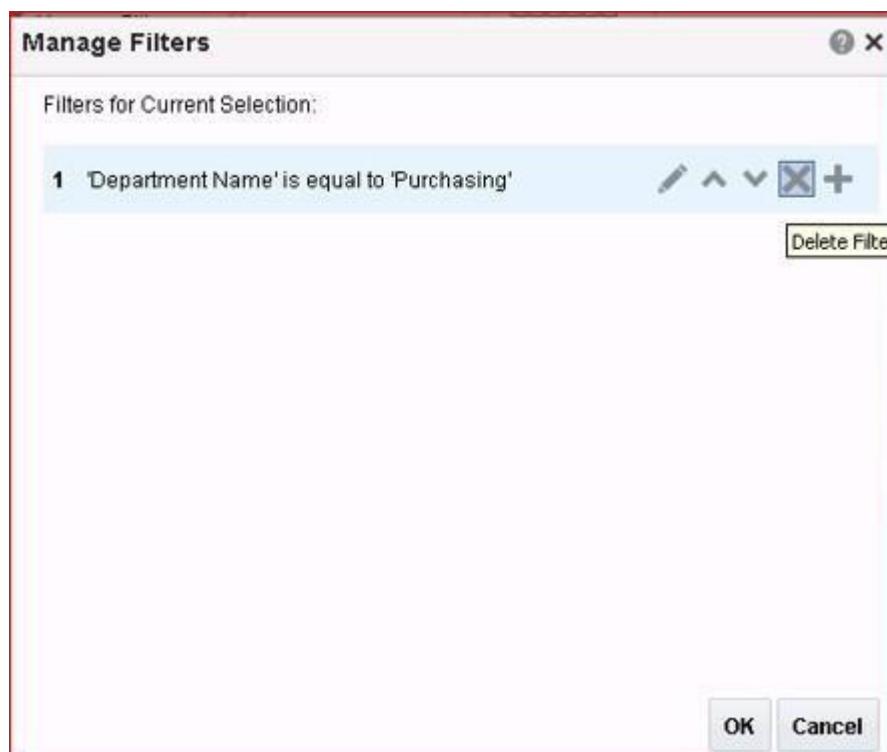
Department Name	Manager	Job Title	Name	Annual Salary
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Purchasing	Den Raphaely	Purchasing Clerk	Guy Himuro	\$31,200.00
Purchasing	Den Raphaely	Purchasing Clerk	Sigal Tobias	\$33,600.00
Purchasing	Den Raphaely	Purchasing Clerk	Shelli Baida	\$34,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Alexander Khoo	\$37,200.00
Purchasing	Steven King	Purchasing Manager	Den Raphaely	\$132,000.00
				\$298,800.00

Observe that the Manage Filters option is enabled after you added a filter.

11. Remove the Department filter from your report layout.

Click **Manage Filters** in the Filter section. The Manage Filters dialog box appears.

12. In the Manage Filters dialog box, click the **Delete** icon and click **OK**.



13. All values reappear in the data table with the applied conditional format as earlier. Click **Save**.

Practice 6-3: Adding Repeating Sections

Overview

In this practice, you add repeating sections to the table from the previous practice.

Repeating sections are used to create classic banded reports, as well as repeating pages or sections for different data elements, such as Group Above/Outline.

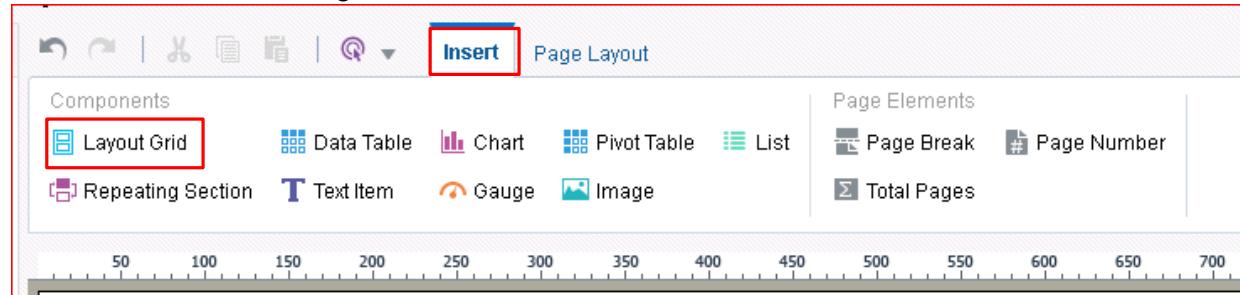
Repeating sections repeat the components within the section of the layout based on the occurrence of an element in the data.

Assumptions

You successfully saved the report layout from the previous practice as Formatted. The same layout is opened for editing now.

Tasks

1. In Layout Editor, select the next grid below the table and click **Insert > Layout Grid**.
Insert two rows with a single column.



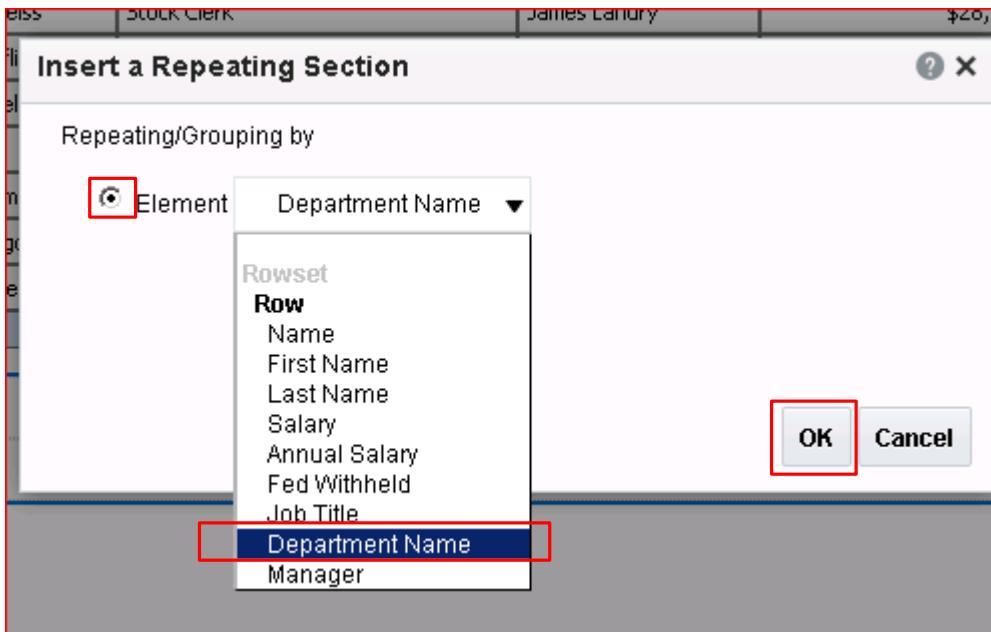
2. Provide a title for this table by inserting a text item in the first row of the layout grid.
Enter **Salary Details** and format the title.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00
Salary Details				

3. Select the second row of the layout grid, click the **Insert** tab, and select **Repeating Section**.

The screenshot shows the Microsoft Power BI Layout Editor interface. The top navigation bar includes 'Layout', 'Format', 'Insert' (which is selected), 'Page Layout', and 'Layout Grid'. The 'Insert' tab's ribbon contains icons for various components: Layout Grid, Data Table, Chart, Pivot Table, List, Repeating Section (highlighted with a red box), Text Item, Gauge, and Image. Below the ribbon is a toolbar with standard icons like back, forward, cut, copy, and paste. The main workspace displays a layout grid with a repeating section inserted. The repeating section is represented by a blue-bordered box containing the text 'Salary Details'. The layout grid also contains a table with salary data and a horizontal bar chart at the bottom. A status bar at the bottom shows 'OK' and 'Annual Salary'.

4. The “Insert a Repeating Section” dialog box appears.



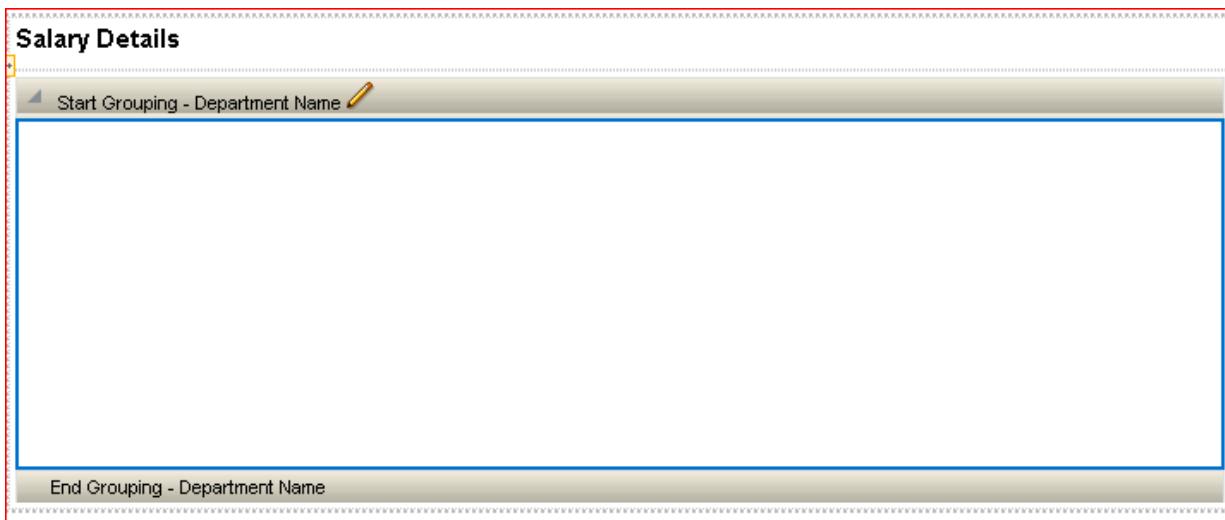
The Element option allows you to specify the data item that repeats for each group.

You use Group Detail when you have nested groups, such as “state within country for the United States.”

Select **Department Name** from the Element drop-down list and click **OK**.

The repeating section area appears in the design area.

5. The layout should look like this:



Drag the previously edited data table to this area.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philanthropist	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,000.00
Shipping	Payam Kaufling	Stock Clerk	Ki Geisler	\$28,000.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
End Grouping - Department Name				
Shipping	Shanta Vollman	Stock Clerk	James Marlow	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Joshua Patel	\$30,000.00
			Peter Vargas	\$30,000.00

The table is placed between the Start Grouping and End Grouping area of the repeating section.

Salary Details				
Start Grouping - Department Name				
Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00

6. Select the **Department Name** data column and then click the **Column** tab. Select Grouping > Group Left.

The screenshot shows the Microsoft Word ribbon with the 'Column' tab selected. Below the ribbon, the 'Grouping' section of the 'Column' tab is highlighted. A dropdown menu is open, showing options: 'No Grouping' (selected), 'Group Above', and 'Group Left'. The 'Group Left' option is highlighted with a red box. The main content area displays a table titled 'Salary Details' with data grouped by department. The first column, 'Department Name', is bolded and has a blue border, indicating it is the current selection.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
Shipping	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
Shipping	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
Shipping	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
Shipping	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
Purchasing	Den Raphaely	Purchasing Clerk	Karen Colmenares	\$30,000.00
Shipping	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
Shipping	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
Shipping	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
Shipping	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
				\$7,924,800.00

The table with the grouping should look like this:

The screenshot shows the same 'Salary Details' table after applying the 'Group Left' grouping. The 'Department Name' column is bolded and has a blue border, and the entire column is highlighted with a blue box. The data rows are grouped under the 'Shipping' header. The 'Annual Salary' column for the 'Shipping' group is highlighted with a red box.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
	Payam Kaufling	Stock Clerk	Hazel Philtanker	\$26,400.00
	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00
	Matthew Weiss	Shipping Clerk	Martha Sullivan	\$30,000.00
	Payam Kaufling	Shipping Clerk	Randall Perkins	\$30,000.00
				\$7,924,800.00

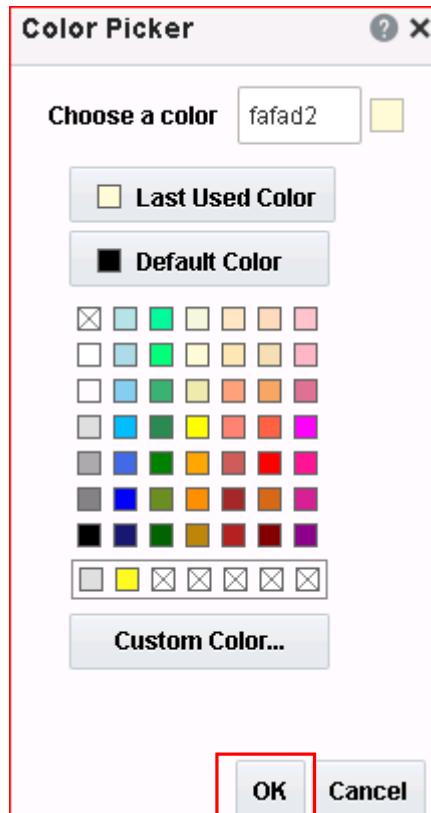
7. Now, you format the table to display colored alternate rows.

Select the table and click Properties.

The screenshot shows the 'Table' properties dialog box. In the 'Misc' section, the 'Alternate Row Color' dropdown is highlighted with a red box. The color swatch shows a light yellow. Below the dialog, a table titled 'Salary Details' is displayed with alternating row colors. The first row (Shipping department) has a light blue background, while the second row (Sales department) has a light orange background. The third row (Sales department) has a light green background, and the fourth row (Sales department) has a light blue background again.

Department Name	Manager	Job Title	Name	Annual Salary
Shipping	Adam Fripp	Stock Clerk	TJ Olson	\$25,200.00
	Matthew Weiss	Stock Clerk	Steven Markle	\$26,400.00
	Payam Kaufling	Stock Clerk	Hazel Philander	\$26,400.00
	Matthew Weiss	Stock Clerk	James Landry	\$28,800.00
	Payam Kaufling	Stock Clerk	Ki Gee	\$28,800.00
	Adam Fripp	Stock Clerk	James Marlow	\$30,000.00
	Shanta Vollman	Stock Clerk	Joshua Patel	\$30,000.00
	Kevin Mourgos	Stock Clerk	Peter Vargas	\$30,000.00

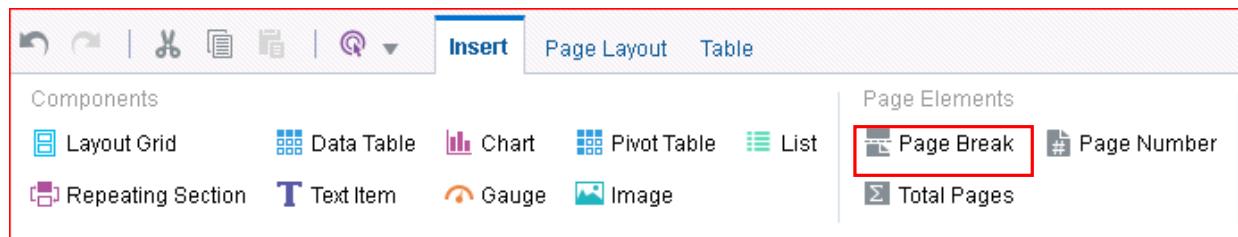
8. Select the Alternate Row Color option and pick a light yellow color from the Color Picker.



Click OK.

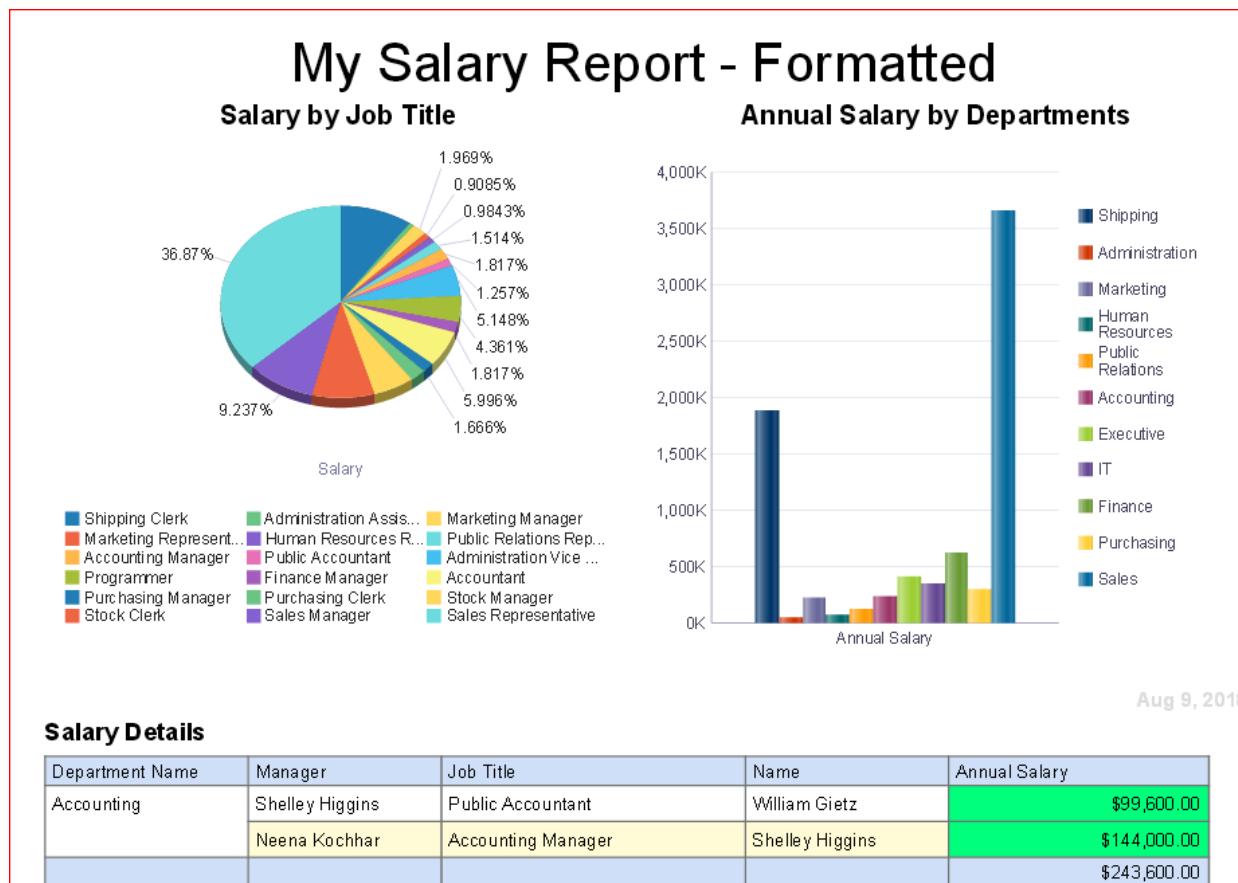
9. Add a page break to the repeating sections.

Select the table. Click **Page Break** under the Page Elements section.



10. Save the layout and select PDF from the preview options.

11. The report is displayed in a new browser window in PDF format.



Observe that the report has multiple pages, and is displaying page 1. Explore the other pages.

12. Close the window. Save the layout and return to Report Viewer.

Practice 6-4: Creating a Layout with a Gauge and a Pivot Table

Overview

In this practice, you create a layout that contains a gauge and a chart. You convert the chart into a pivot table, and you add a static image to the layout.

Assumptions:

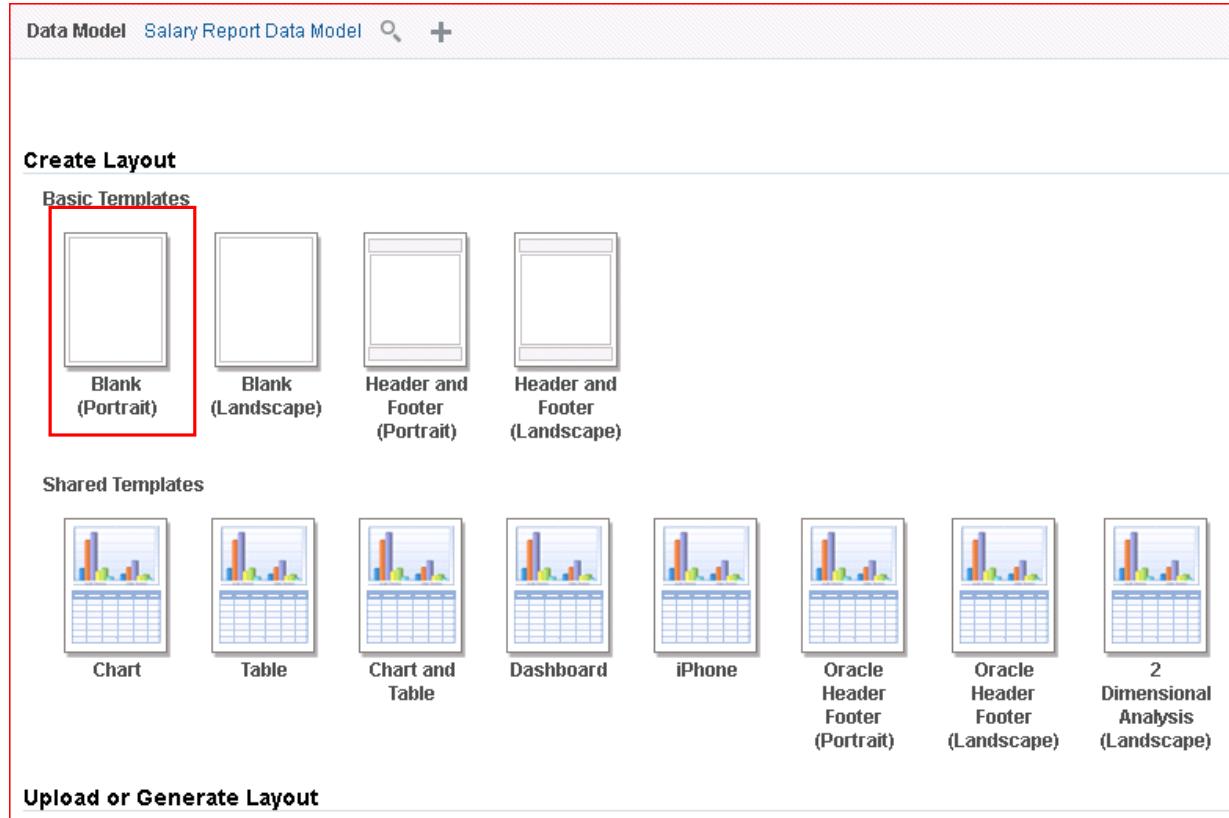
You are logged in to BI Publisher.

Tasks

1. In the Report Editor, click **Add New Layout**.

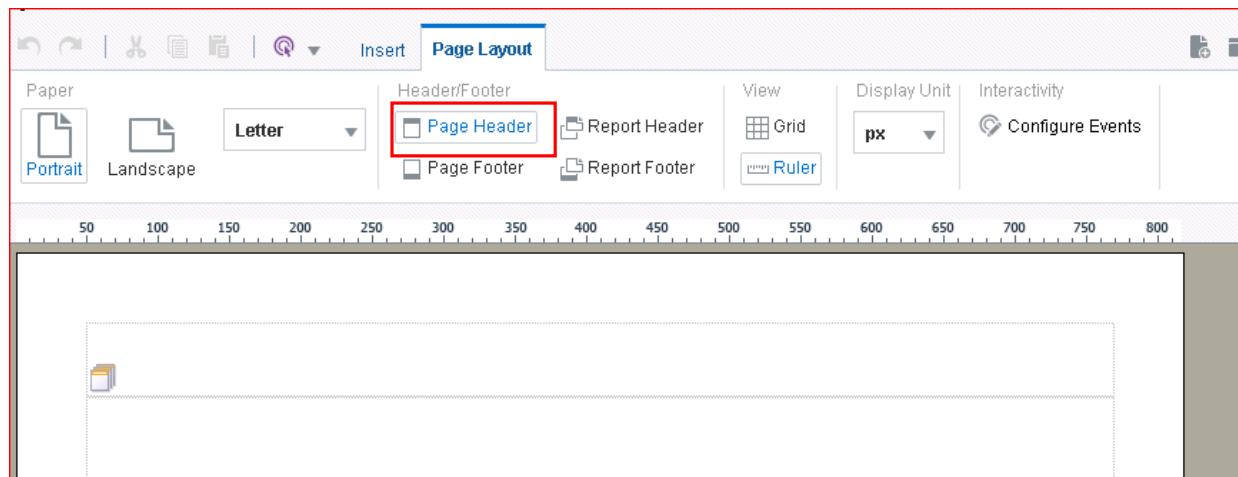


2. Select **Blank Portrait** from the Basic Templates section.

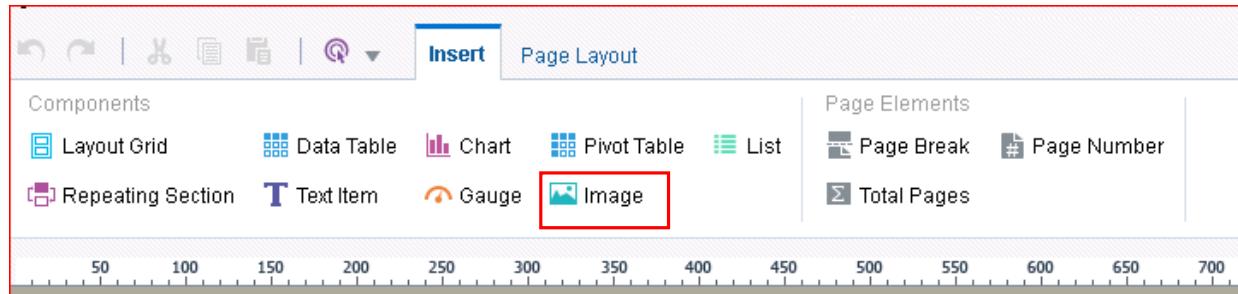


3. On the Page Layout tab, click **Page Header**. The page header appears.

Select the **Page Header** object.

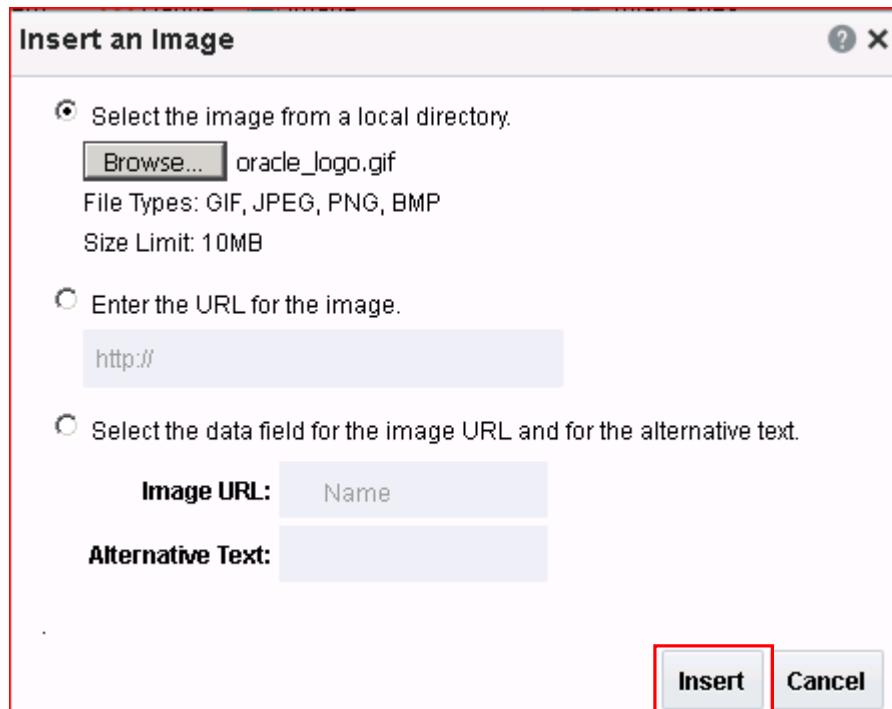


4. Click the **Insert** tab. Click **Image**.



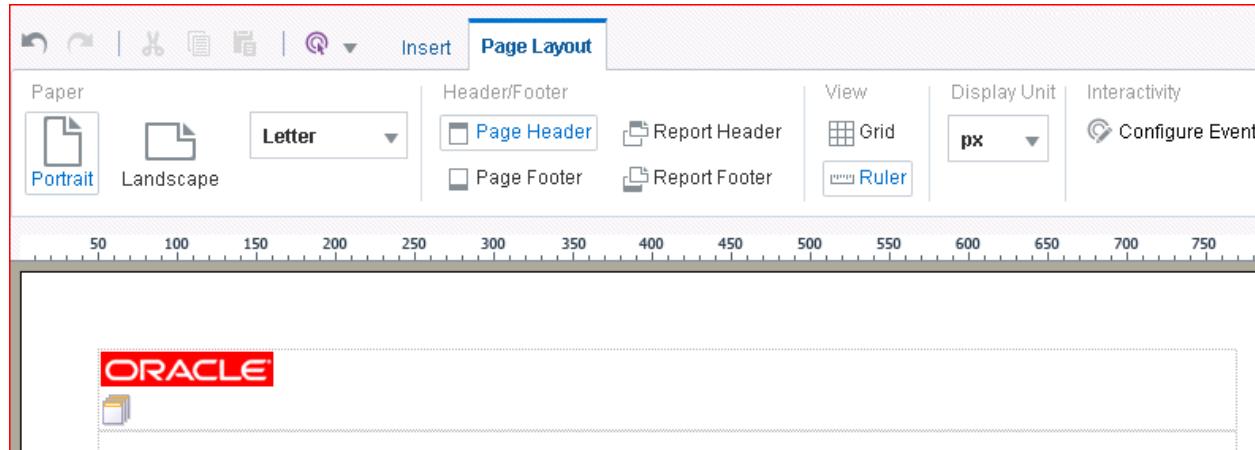
5. The "Insert an Image" dialog box appears. Click **Browse** to select the image.

Navigate to Desktop/oracleBI folder and select oracle_logo.gif. Click

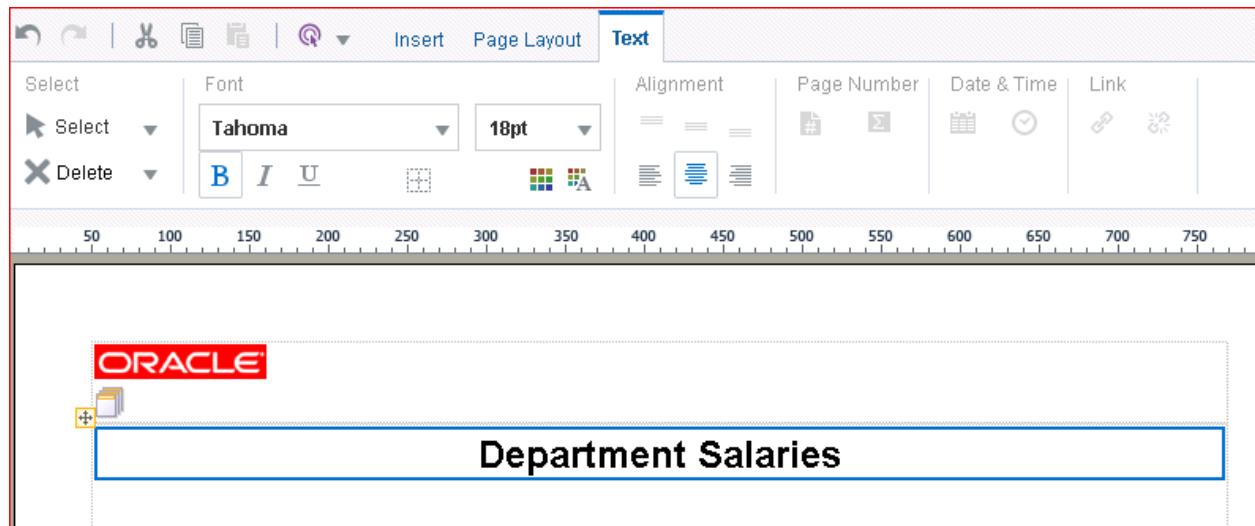


Insert.

6. The image appears in the header.



7. Select the header and Insert **Text Item**. Double-click in the Text Item and enter **Department Salaries**. Format the title as you choose. The layout should look similar to this:



8. Insert a layout grid with five rows and 1 column.

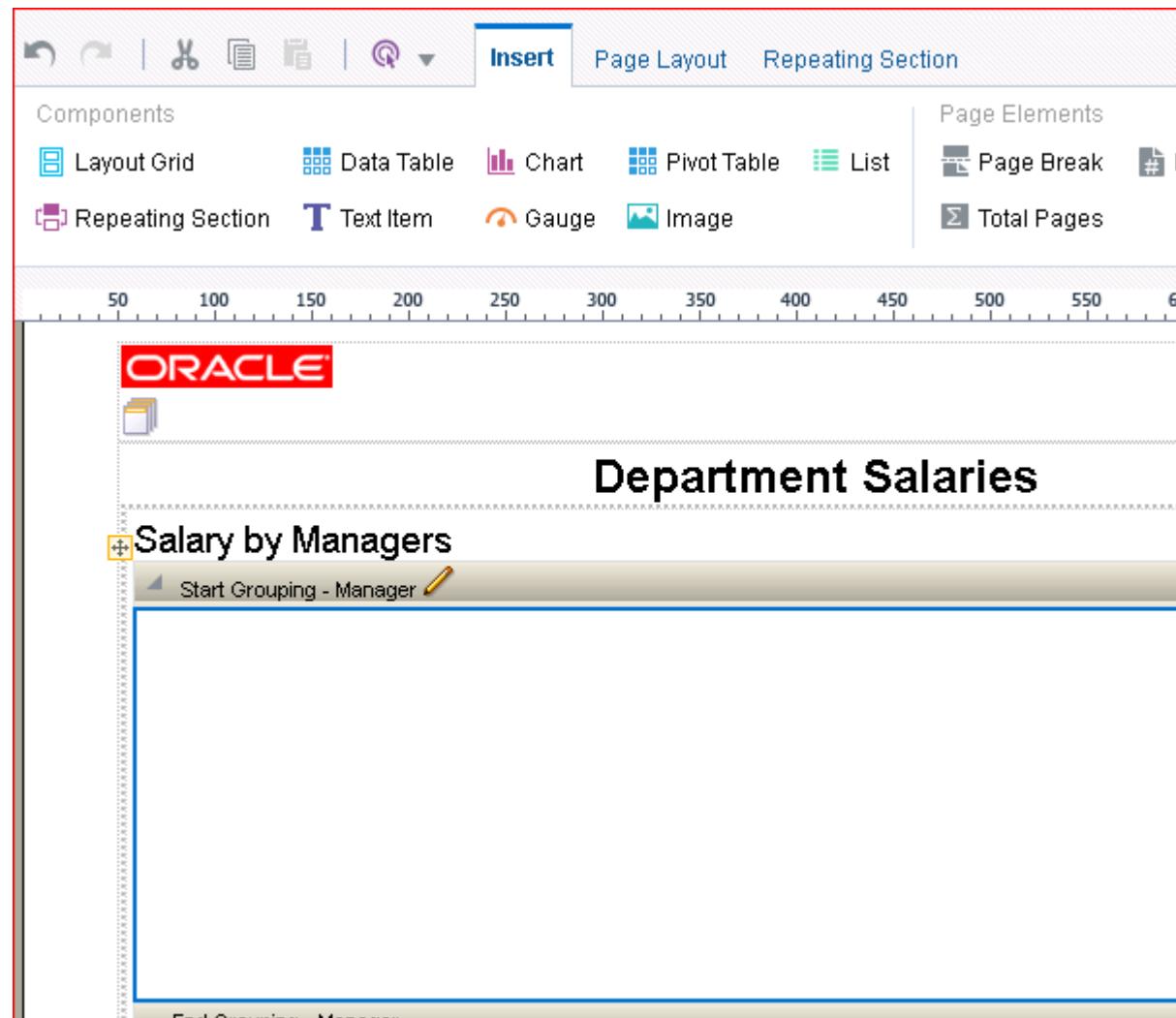
9. In the first row, provide the subtitle “Salary by Managers” to the gauge that you are going to create. Format it similar to the subtitles that you created in the previous practices.

The screenshot shows the Oracle BI Publisher Layout Editor interface. At the top, there's a ribbon bar with various icons and tabs like Insert and Page Layout. Below the ribbon is a toolbar for Text, which includes options for Select, Delete, Font (set to Tahoma 14pt), Alignment, and Page Number. A horizontal ruler is visible at the bottom of the toolbar. The main workspace contains a report page with the Oracle logo at the top. Below the logo is a section titled "Department Salaries". Inside this section, there is a subtitle "Salary by Managers" enclosed in a blue rectangular box. The entire workspace is framed by a red border.

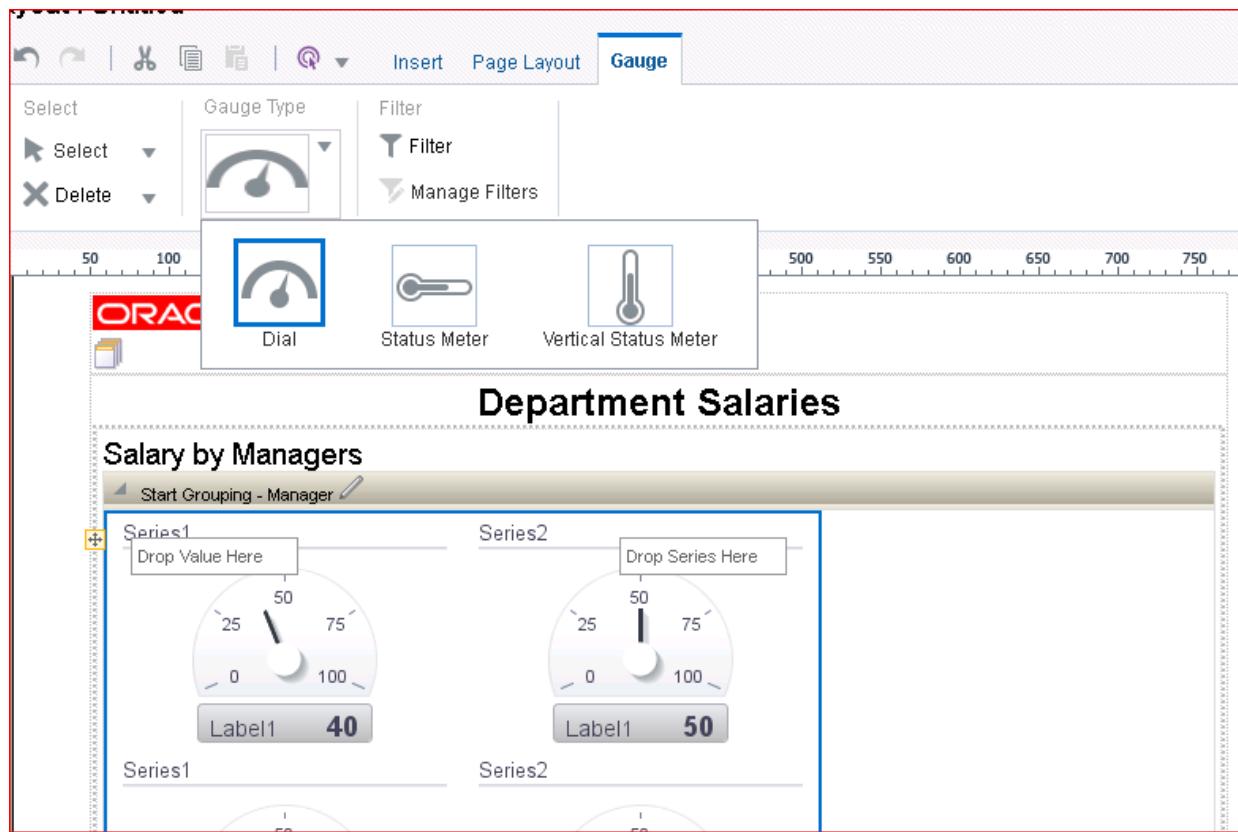
10. Add a repeating section below the subtitle as you did in the previous practice, selecting Manager as the repeating element. Your layout should look like this:

This screenshot shows the same Layout Editor workspace after adding a repeating section. The "Salary by Managers" subtitle is now part of a repeating group. Above the subtitle, a grey bar indicates the start of the grouping with the text "Start Grouping - Manager". Below the subtitle, another grey bar indicates the end of the grouping with the text "End Grouping - Manager". The rest of the page content is currently empty, represented by a large white area.

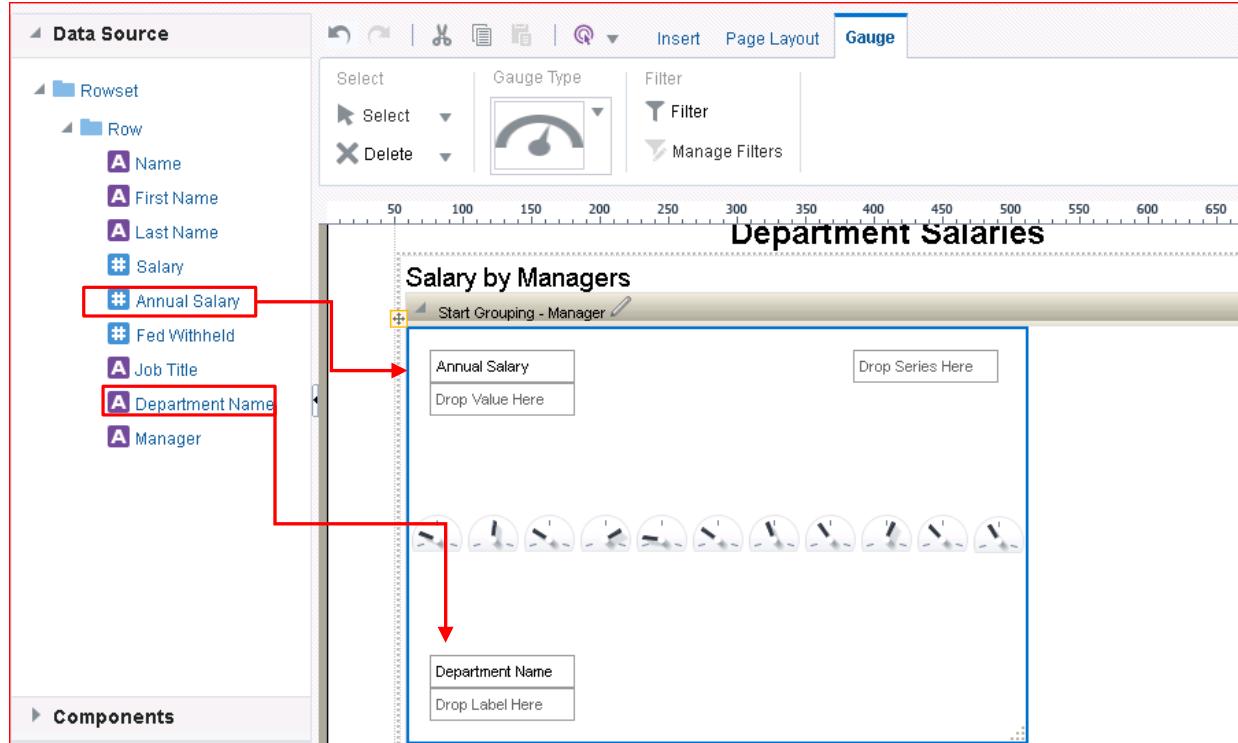
11. Select the repeating section and then click the **Insert** tab. Click **Gauge**.



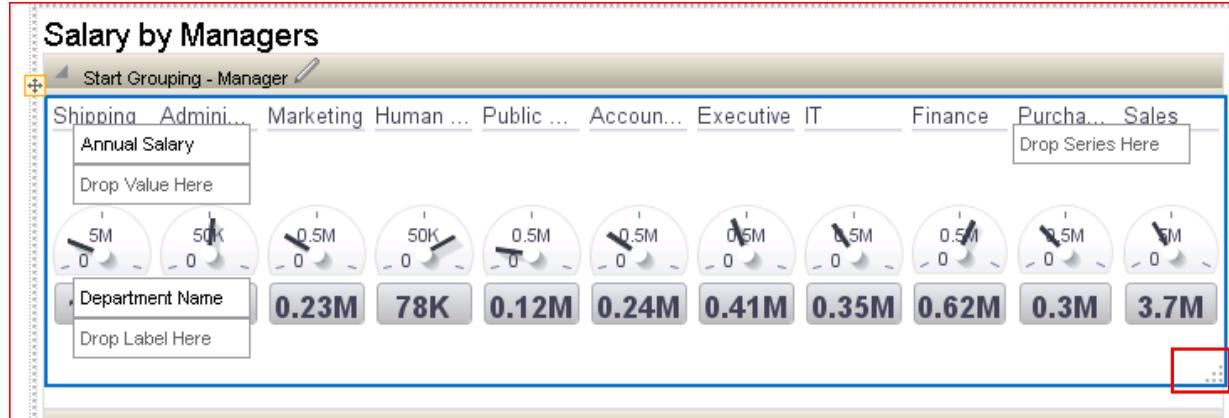
A gauge appears within the repeating section.



12. Drag **Annual Salary** to Drop Value Here and **Department Name** to Drop Label Here.



13. You can resize the gauge to fit it in the display area.



14. Add a pivot table to this layout.

A pivot table provides views of multidimensional data in tabular form. It supports multiple measures and dimensions, and subtotals at all levels. Layout Editor converts the label, series, and value elements of a chart into the appropriate rows, columns, and data elements of a pivot table. No formatting is applied to the pivot table.

Note that when the pivot table is selected, a Pivot Table tab appears. You use this tab to apply filters, totals, and so on.

Provide the subtitle Salary Pivot to the grid and format it as you have done previously for other subtitles.

The screenshot shows the SAP Fiori Launchpad with the 'Layout Editor' application selected. The top navigation bar includes icons for back, forward, search, and help, followed by 'Insert', 'Page Layout', and 'Layout Grid'. The 'Components' pane on the left lists various objects: Layout Grid, Data Table, Chart, **Pivot Table** (which is highlighted with a red box), List, Repeating Section, Text Item, Gauge, and Image. The main workspace displays a card titled 'Department Salaries' with a subtitle 'Salary by Managers'. Below the subtitle is a grouping section labeled 'Start Grouping - Manager' with a pencil icon. A horizontal menu bar shows department names: Shipping, Admini..., Marketing, Human ..., Public ..., Accoun..., Executive, IT, Finance, Purcha..., Sales. Underneath the menu are ten circular gauge charts with numerical values: 1.9M, 53K, 0.23M, 78K, 0.12M, 0.24M, 0.41M, 0.35M, 0.62M, 0.3M, and 3.7M. Below the gauges is an 'End Grouping - Manager' section. At the bottom of the card is a subtitle 'Salary Pivot' with a red box highlighting the first two letters 'Sa'.

15. Select the grid row, click the **Insert** tab, and then click **Pivot Table**, or drag the Pivot Table object from the Components pane. A pivot table is displayed.

The screenshot shows the SAP Fiori Launchpad with the 'Layout Editor' application selected. The top navigation bar includes icons for back, forward, search, and help, followed by 'Insert', 'Page Layout', and 'Pivot Table' (which is highlighted with a red box). The 'Components' pane on the left lists various objects: Select, Filter, Row Grand Total, Row Subtotal, Column Grand Total, Column Subtotal, Convert, Delete, Filter, Manage Filters, and Switch Row. The main workspace displays a card titled 'Salary Pivot' with a subtitle 'Salary Pivot'. The subtitle is formatted with bold text and a red box around the first two letters 'Sa'. The card contains a table grid with three columns and four rows. The first column has the text '[Drop Rows Here]'. The second column has the text '[Drop Columns Here]'. The third column has the text '[Drop Data Here]'. The entire subtitle and the first row of the table are also highlighted with a red box.

16. Add the data elements from the Data Source pane. Drag:

- Department Name to Drop Rows Here
- Job Title to Drop Columns Here
- Annual Salary to Drop Data Here

The pivot table will look like this:

The screenshot shows the Microsoft Excel ribbon with the 'Pivot Table' tab selected. In the 'Data Source' pane on the left, several data elements are listed under 'Rowset' and 'Row': Name, First Name, Last Name, Salary, Annual Salary, Fed Withheld, Job Title, Department Name, and Manager. The 'Salary' item is highlighted with a red box and has a red arrow pointing to the 'Data' section of the Pivot Table. The 'Job Title' item is also highlighted with a red box and has a red arrow pointing to the 'Columns' section. The 'Department Name' item is highlighted with a red box and has a red arrow pointing to the 'Rows' section. The 'Manager' item is also highlighted with a red box and has a red arrow pointing to the 'Data' section. The main area displays a 'Salary Pivot' table with data grouped by Department Name (Shipping, Administration, Marketing, Human Resources, Public Relations, Accounting, Executive) and Job Title (Shipping Clerk, Administration Assistant, Marketing Manager, Marketing Representative). The data values are: Shipping (64300.0, 0, 0, 0), Administration (0, 4400.0, 0, 0), Marketing (0, 0, 13000.0, 0), Human Resources (0, 0, 0, 0), Public Relations (0, 0, 0, 0), Accounting (0, 0, 0, 0), Executive (0, 0, 0, 0).

	Shipping Clerk	Administration Assistant	Marketing Manager	Marketing Representative
Shipping	64300.0	0	0	0
Administration	0	4400.0	0	0
Marketing	0	0	13000.0	0
Human Resources	0	0	0	0
Public Relations	0	0	0	0
Accounting	0	0	0	0
Executive	0	0	0	0

17. Convert a pivot table to a chart. For this, you use a copy of the pivot table that you just created. Use the Copy and Paste icons in Layout Editor to copy the pivot table.

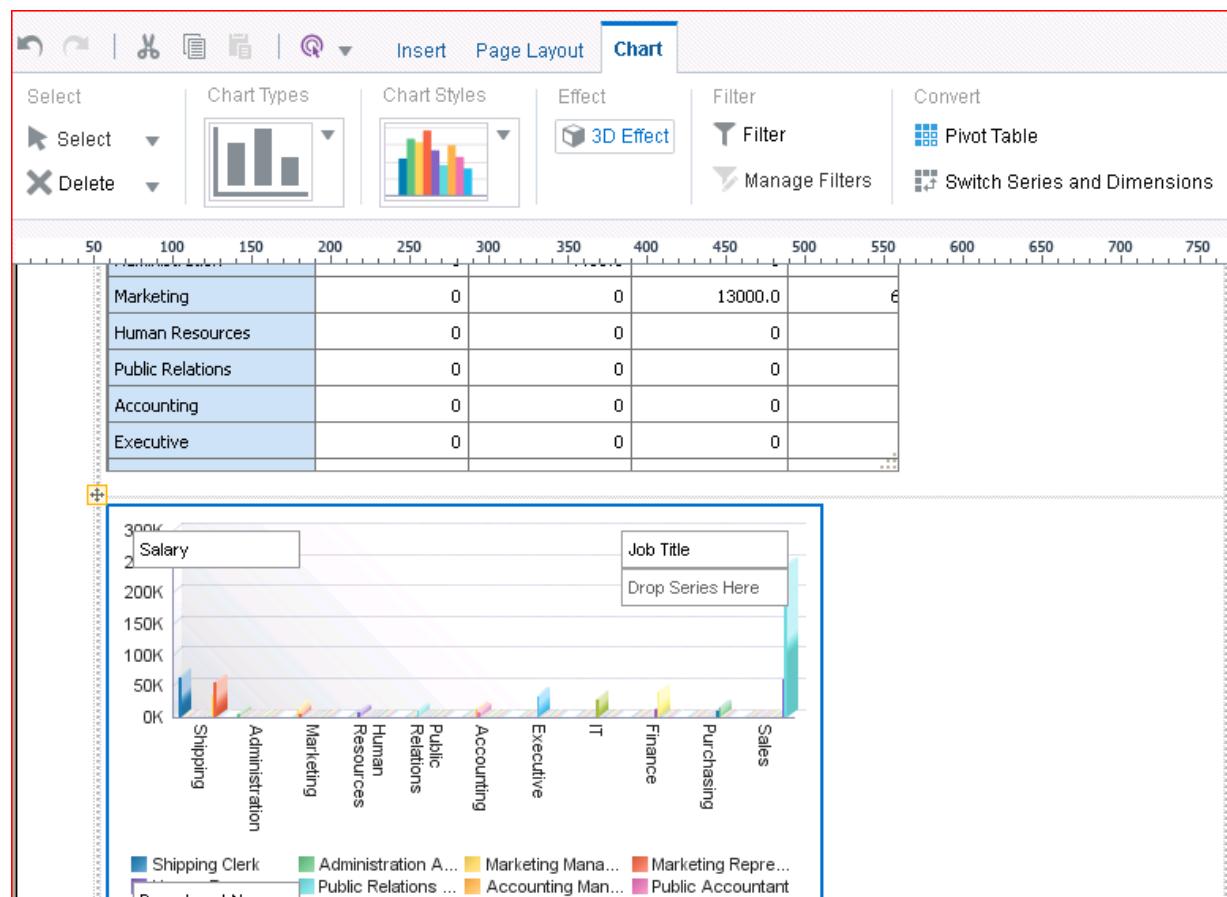
The screenshot shows the Microsoft Word Layout Editor interface. The ribbon at the top has tabs for Home, Insert, Page Layout, and Pivot Table. The Pivot Table tab is currently selected. Below the ribbon, there are several toolbars and a status bar. The main area displays a pivot table with data for various departments and roles, such as Shipping Clerk, Administration Assistant, Marketing Manager, and Marketing Representative. The 'Convert' section of the ribbon is highlighted with a red box around the 'Convert to Chart' button. A red arrow points from the bottom of the first pivot table down to the second one.

18. Select the next grid and paste the table.

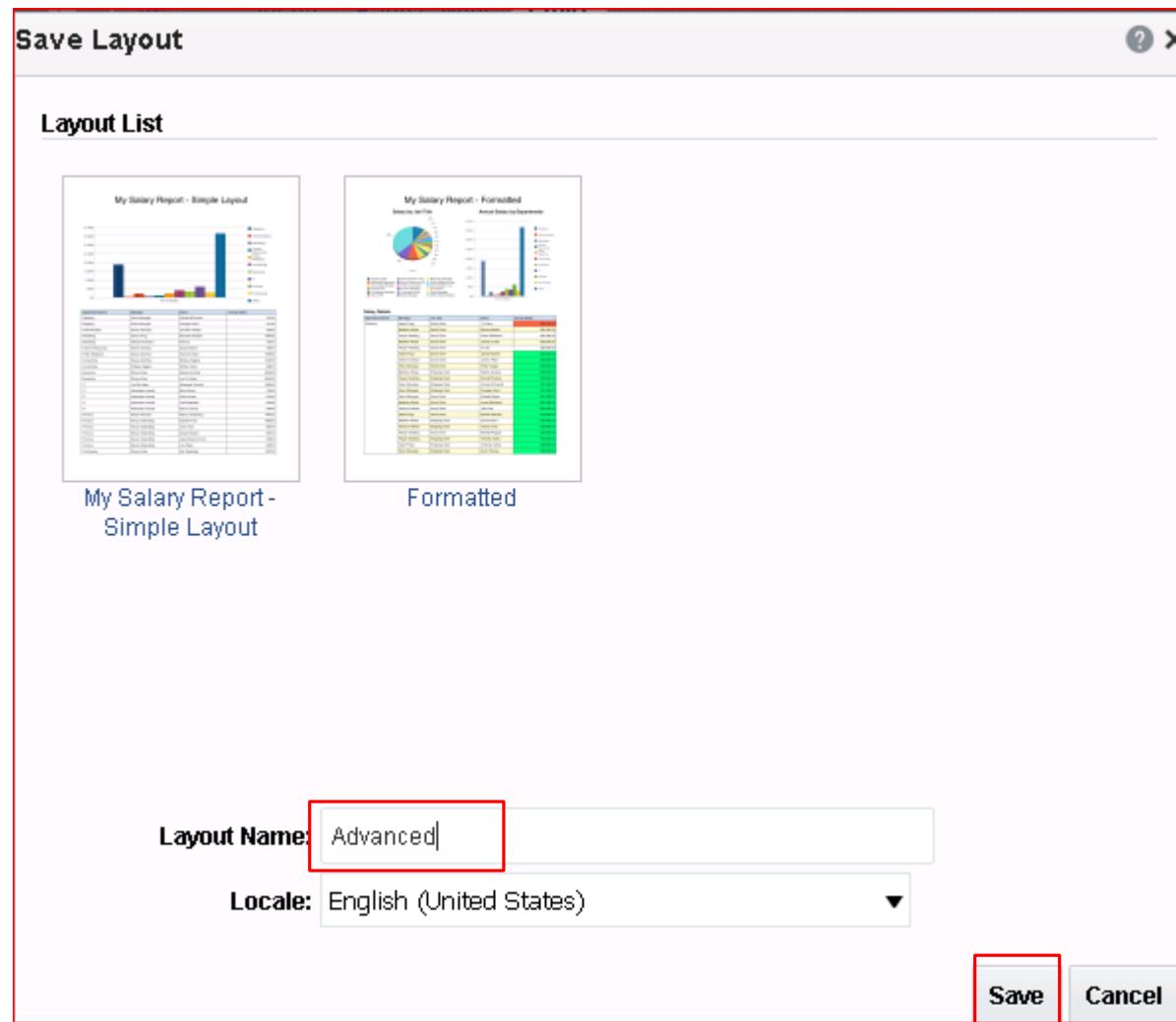
This screenshot shows the Microsoft Word Layout Editor with two identical pivot tables displayed side-by-side. Both tables have the same data structure and rows. The second pivot table's ribbon is shown, with the 'Convert' tab selected and the 'Convert to Chart' button highlighted with a red box. A red arrow points from the bottom of the first table to the second one, indicating the user is selecting the second table for conversion.

Observe that when you select a pivot table, the options to convert the table to a chart or to switch rows and columns are enabled.

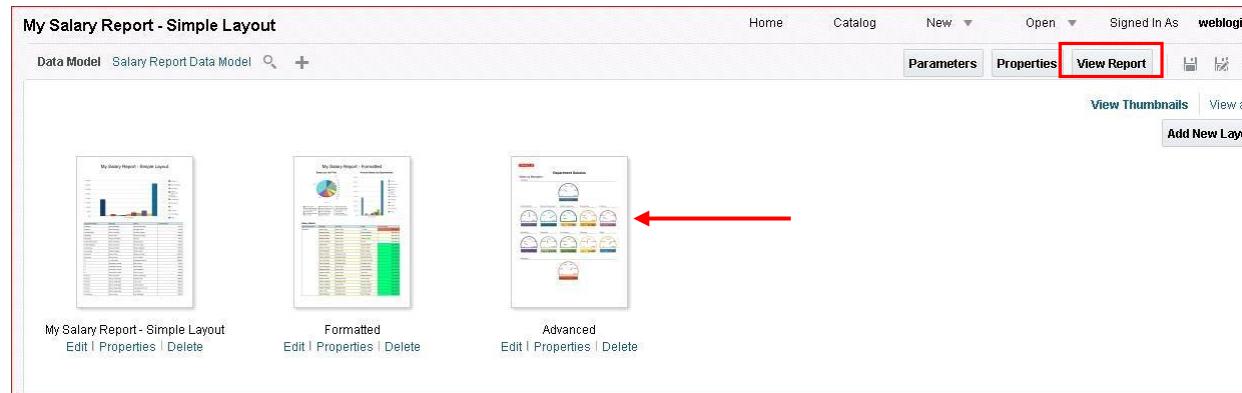
19. Click Convert to Chart. A copy of the pivot table is converted to a chart and displayed. Similarly, you can convert a chart element to a pivot table in Layout Editor.



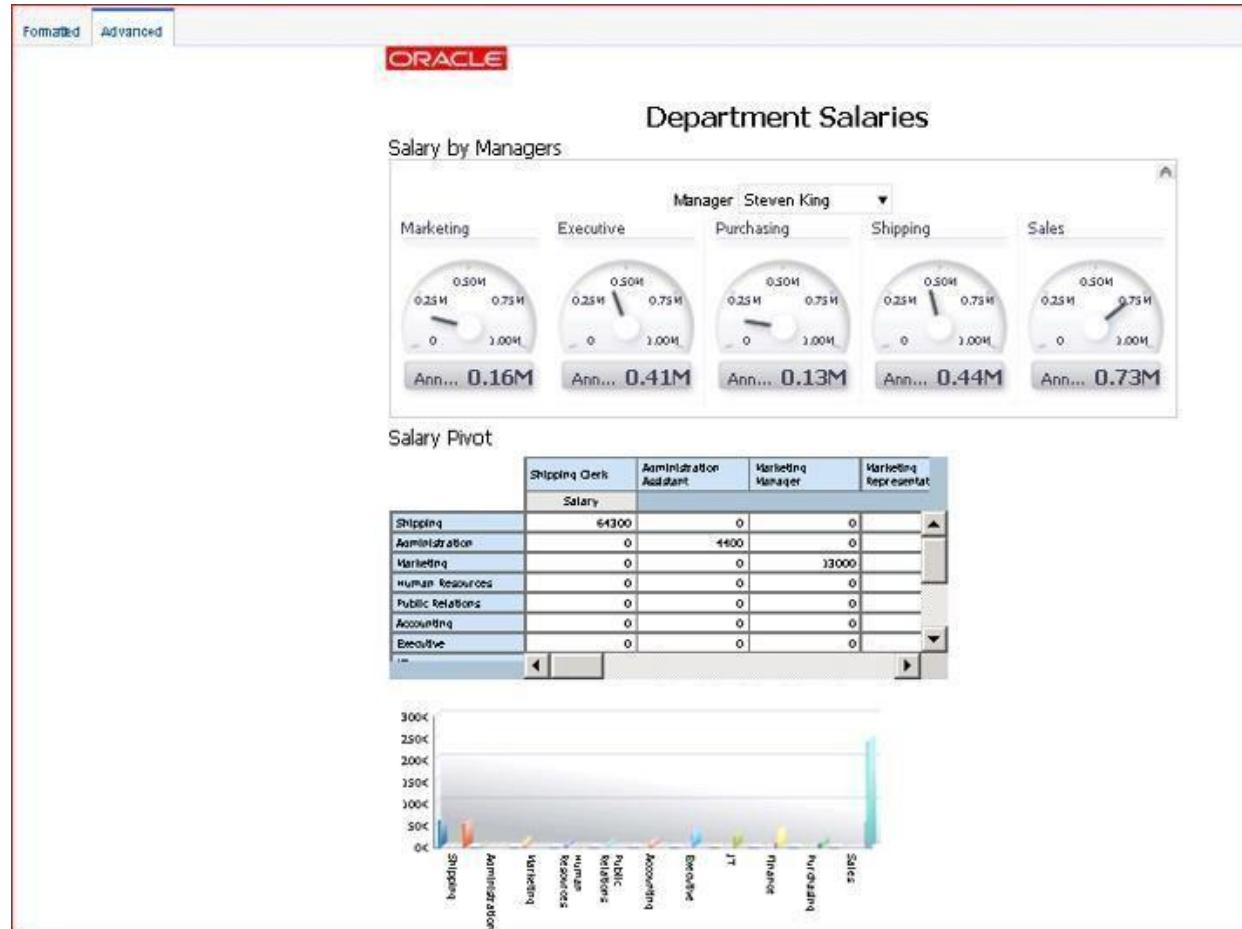
20. Click Save to save the layout with the name Advanced.



21. The layout now displays the saved name in the layout title bar. Click **Return**.
22. The Report Editor window opens. Observe that all the available layouts for the report are displayed.



- Save the report and click the View Report icon.
23. The report is displayed in Report Viewer with the gauge, pivot table, and the chart created by converting the pivot table.



Note: You can drill down through the data further to suit your requirements. The gauge reflects the data values for the manager Steven King.

Practice 6-5: Creating a Boilerplate

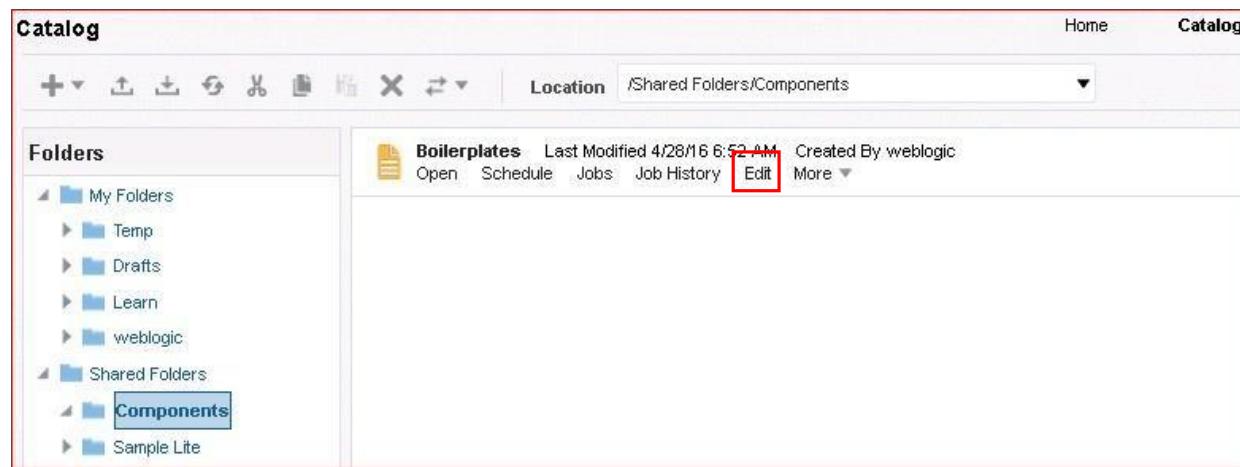
Overview

In this practice, you create a boilerplate template available for use by all users.

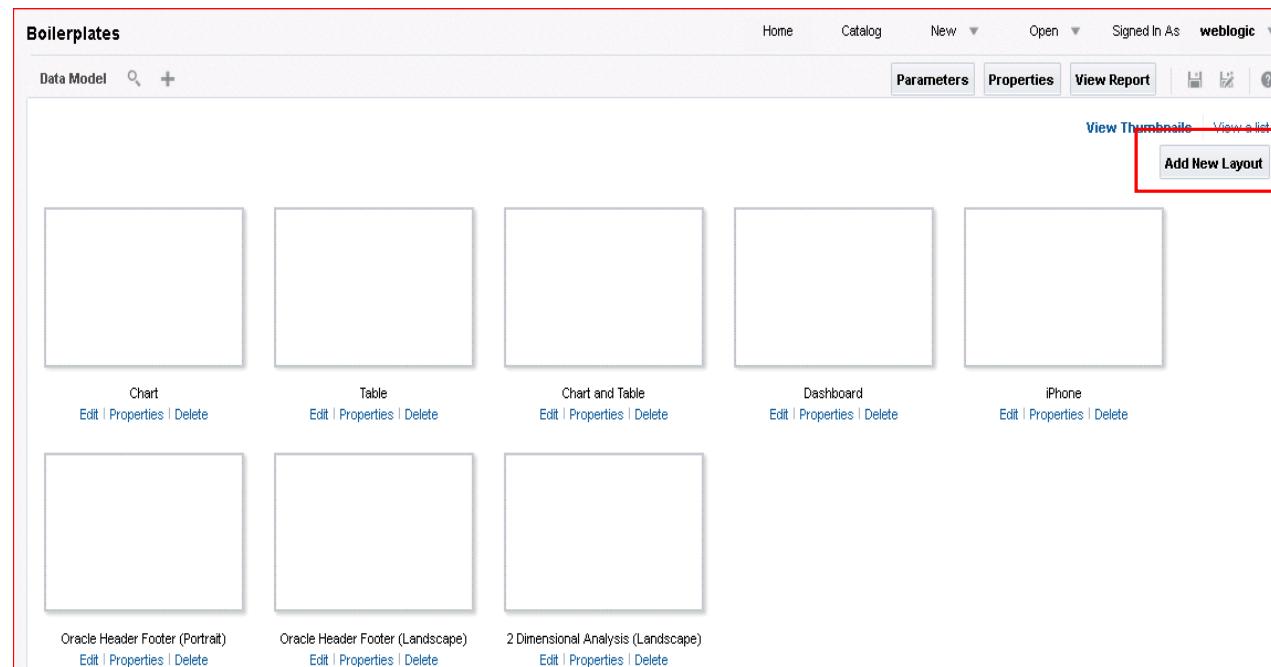
When a predefined layout does not suit your business needs, you can create a boilerplate template—a predefined template that you or your administrator designs or uploads for all users or for your personal use.

Tasks

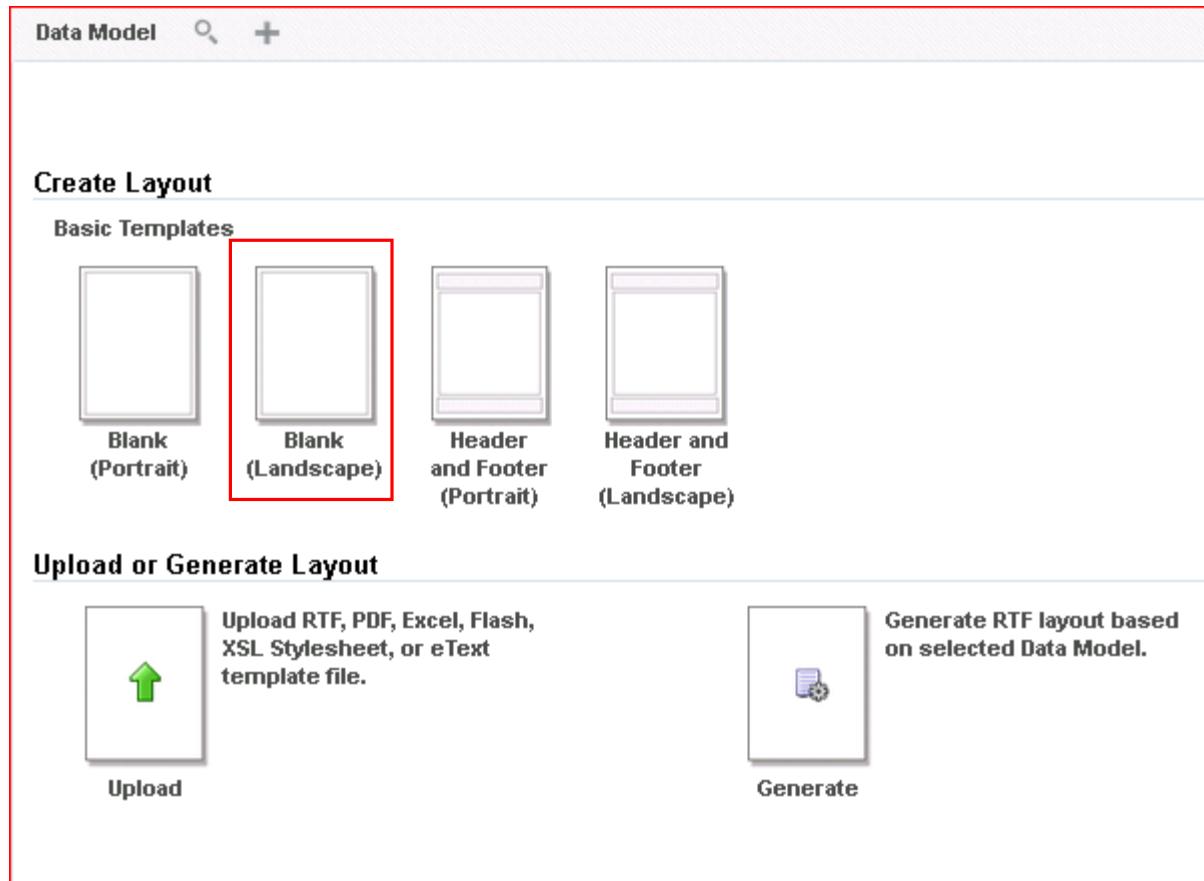
1. Click the **Catalog** link on the global header, and navigate to \Shared Folders\Components.
2. Click the **Edit** link under Boilerplates.



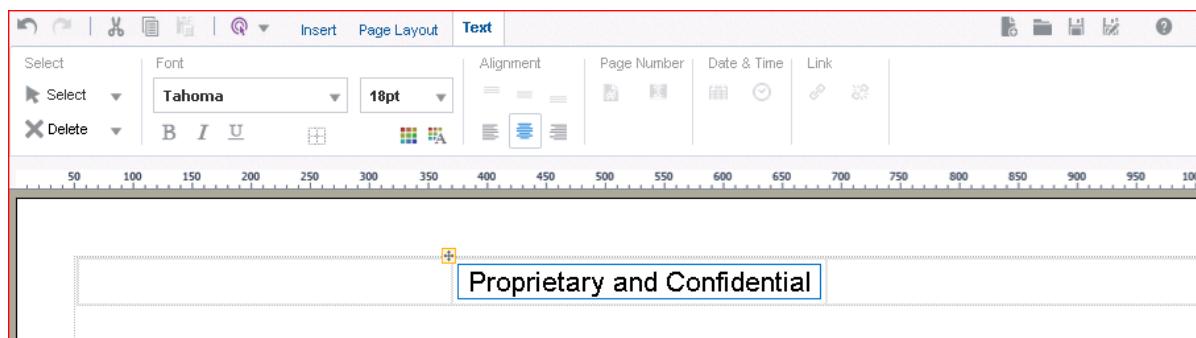
3. Report Editor appears. BI Publisher provides predefined layouts for use as skeleton-type boilerplates, such as Chart or Mobile Apple iPhone. You can, however, create your own templates to use as boilerplates.



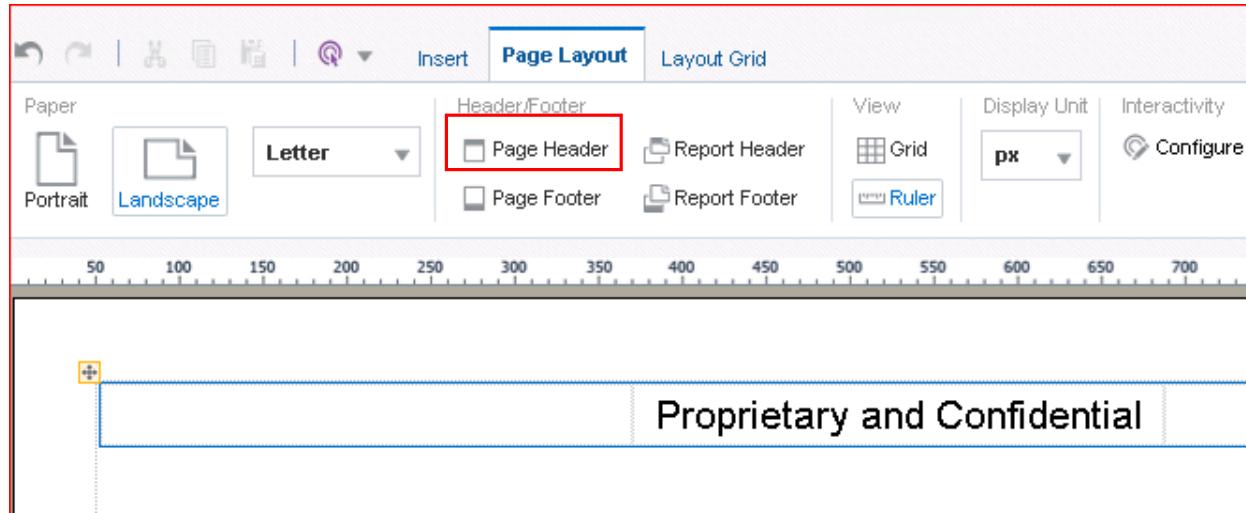
4. Click **Add New Layout**. You can upload your own layout created by using Template Builder for MS Word (you will practice this later in the course) or design a new layout by using Layout Editor.



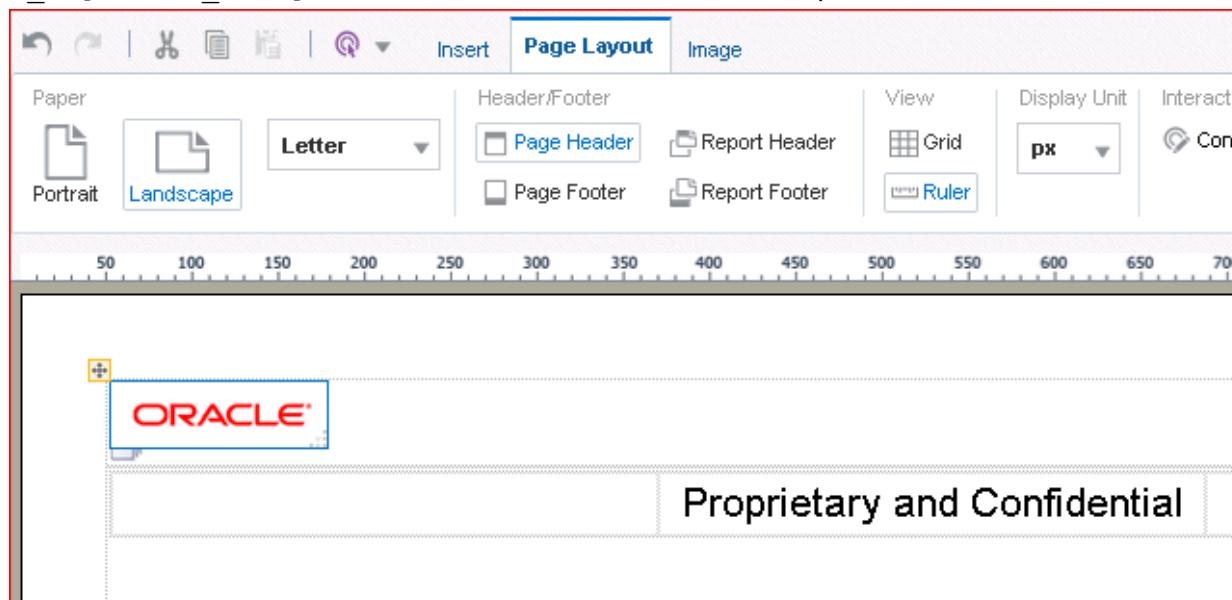
5. Select **Blank (Landscape)**.
6. The Layout Editor appears. Because you do not have a data model for the template, the Data Source pane is blank.
- Just as you added components previously, begin to design your new boilerplate template. Create a layout grid with three columns and a single row.
 - Add Text Item to the center column and enter **Proprietary and Confidential**.



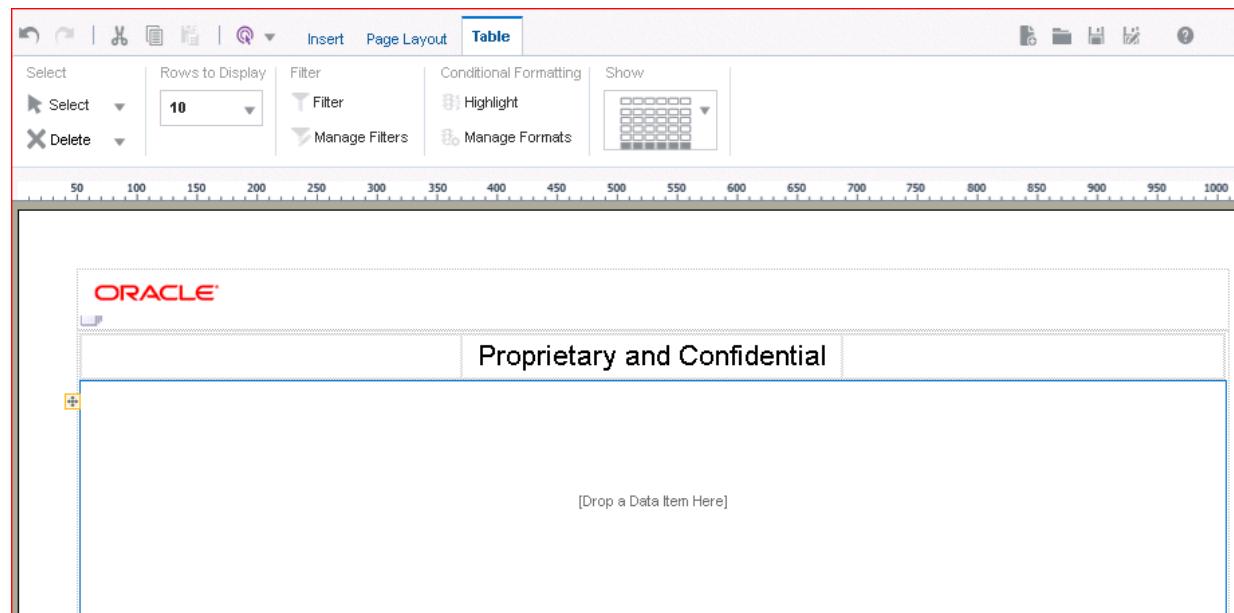
7. Click Page Layout > Page Header.



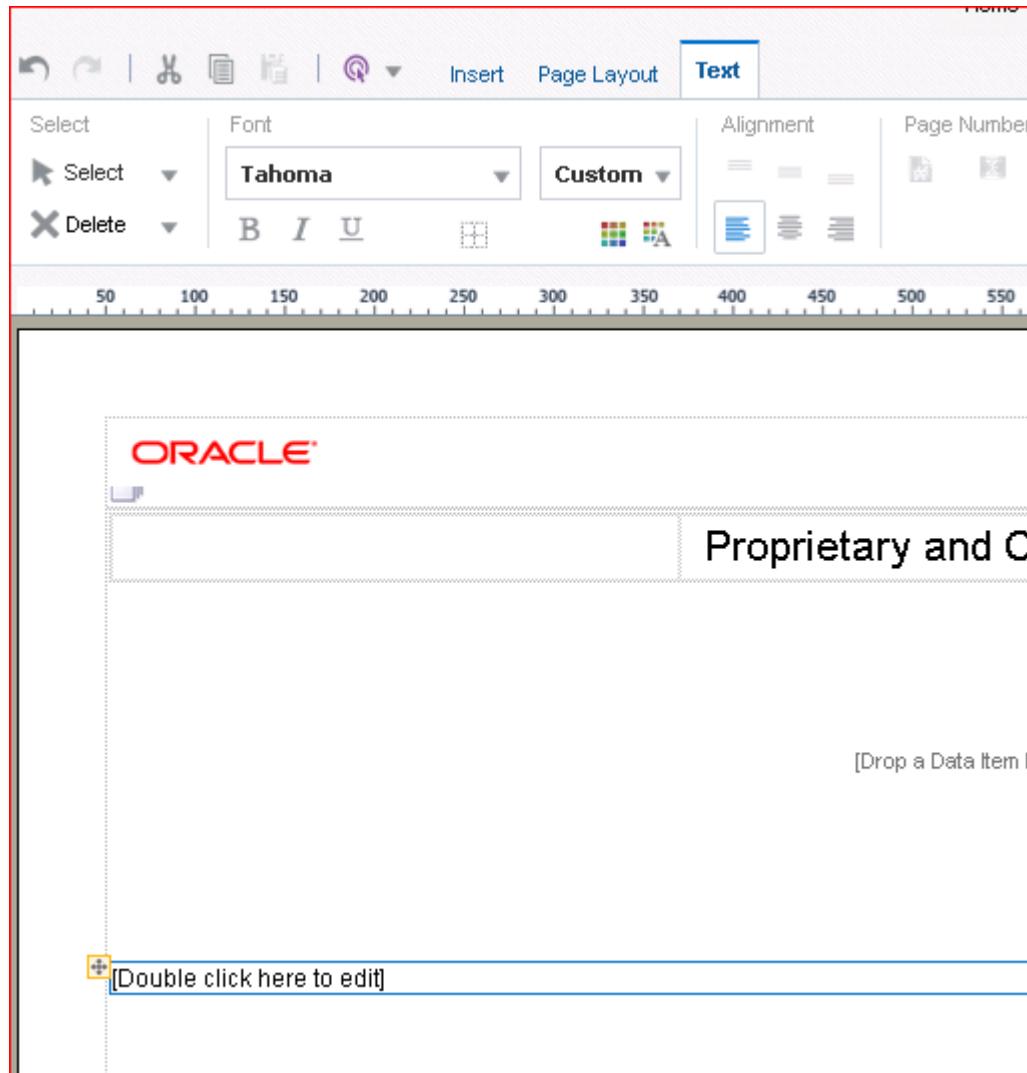
8. Insert an image in this page header. Navigate to and select the **Oracle** corporate image, O_signature_clr.gif, located in oracleBI folder on Desktop



9. Drag the **Data Table** object to below the row with “Proprietary and Confidential.” When an end user opens this template for use, he or she can add any columns to the “Drop a Data Item Here” section for their report.



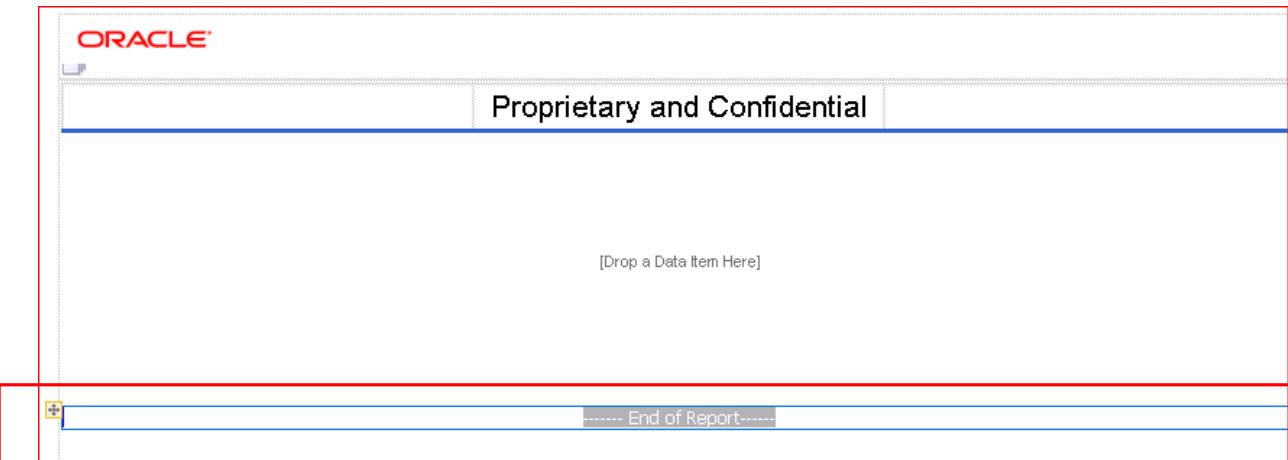
10. Drag a **Text Item** object below the data table.



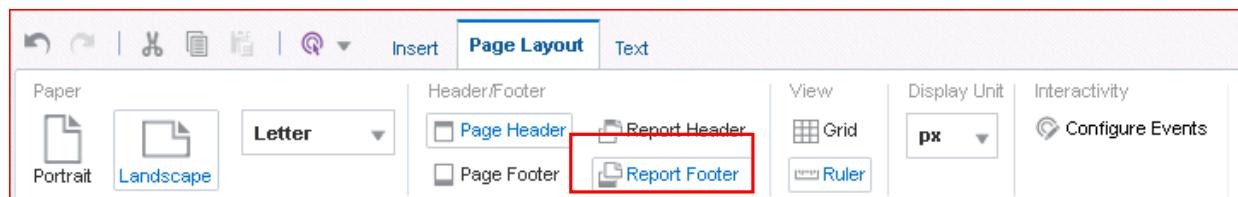
11. Double-click in the Text Item object and enter -- **End of Report**--.



12. Your template should look similar to this:

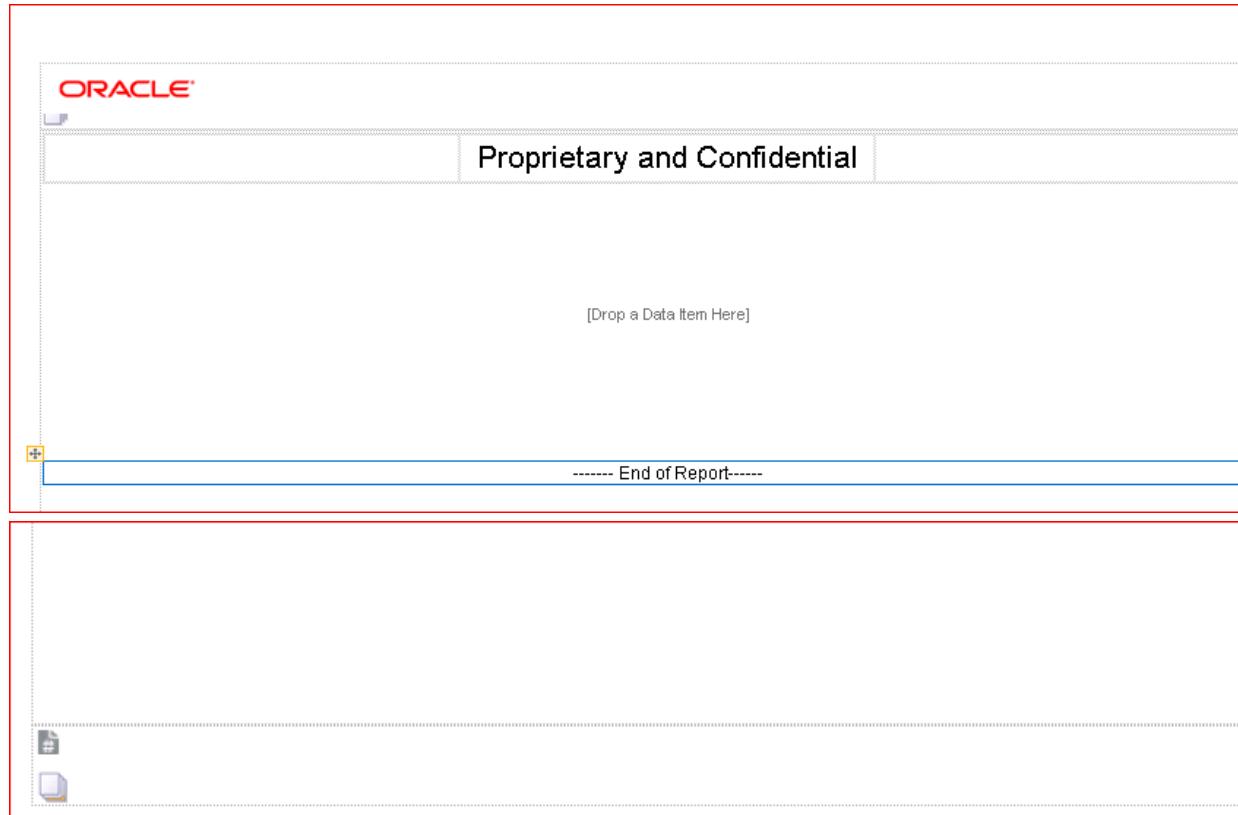


13. Click the **Page Layout** tab and click **Report Footer**.

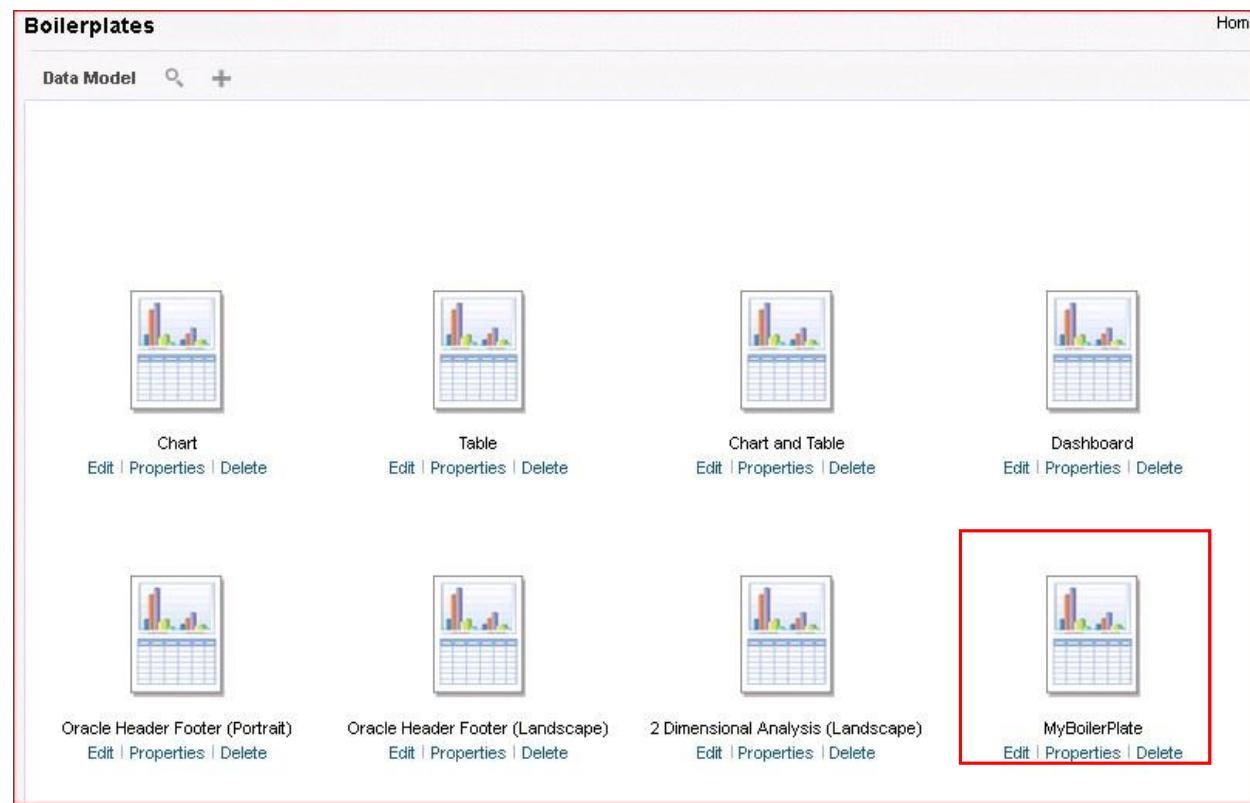


14. Click the **Insert** tab and then click **Page Number**. Page number appears in the Report Footer section.

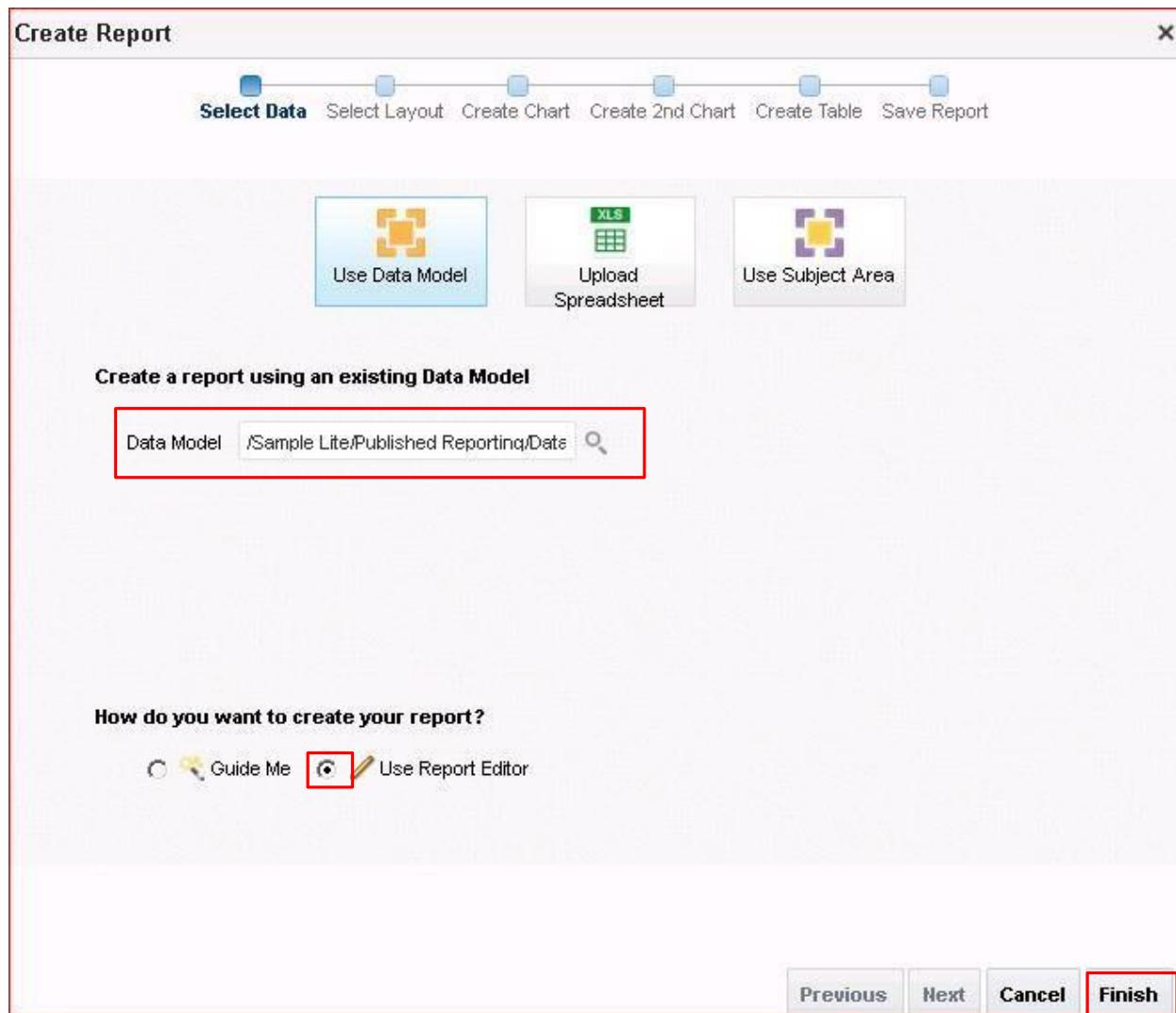
The layout template should look like this:



15. Click the Save icon and, in the Layout Name text box, enter **MyBoilerplate** and click **Save**.
16. Click **Return**. Your boilerplate appears in Report Editor and is now ready for use.

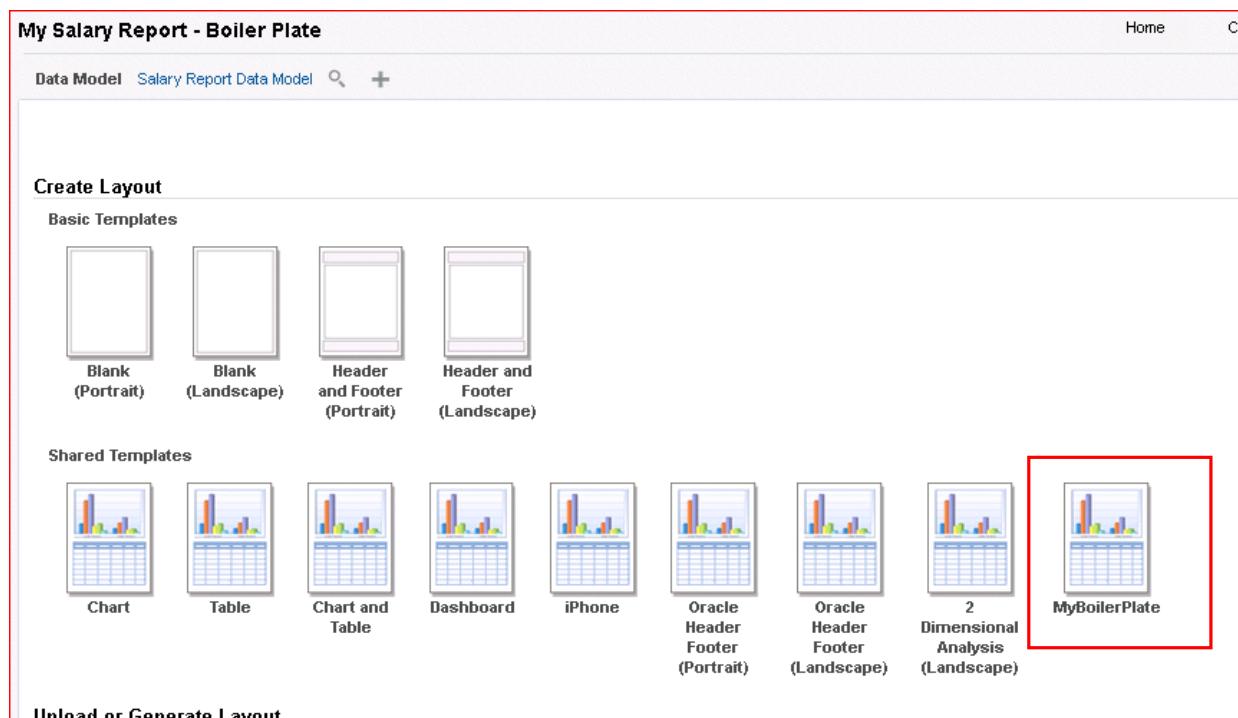


17. Create a new report and select the data model Shared Folders > Sample Lite > Published Reporting > Data Models > Salary Report Datamodel.

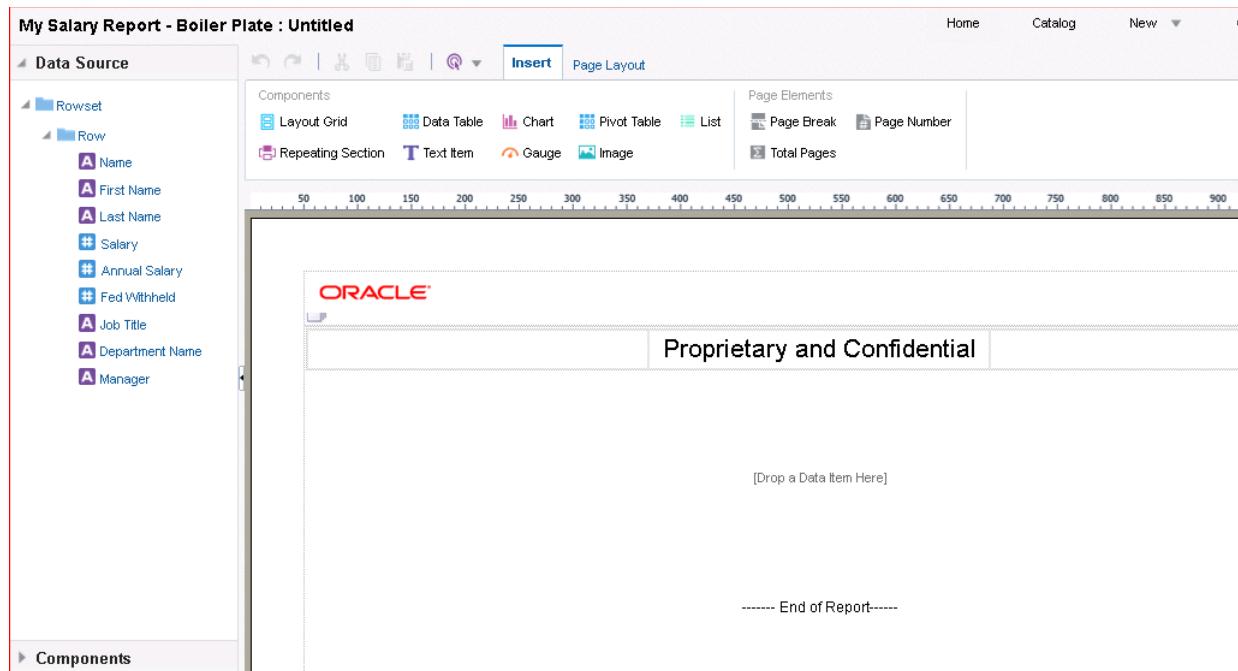


18. Select the User Report Editor option; this will guide you to save the report. Click the Finish button to save the report.
19. Save the report as My Salary Report – Boiler Plate under My Folders > Learn.

20. The report is opened in the Report Editor window. Select **MyBoilerplate** from the Shared Templates section.



21. This will open Layout Editor for the report. Observe that you have the data elements available because the boilerplate layout is now associated with a data source (data model).



22. Add the data elements to the table to suit your requirements.

Drag the elements from the data source to the grid "Drop a Data Item Here" area.

In this example, Department Name, Manager, Job Title, and Annual Salary are added. Format the Annual Salary column to display currency. Save the layout template as BP.

Department Name	Manager	Job Title	Annual Salary
Shipping	Kevin Mourgos	Shipping Clerk	\$31,200.00
Shipping	Kevin Mourgos	Shipping Clerk	\$31,200.00
Administration	Neena Kochhar	Administration Assistant	\$52,800.00
Marketing	Steven King	Marketing Manager	\$156,000.00
Marketing	Michael Hartstein	Marketing Representative	\$72,000.00
Human Resources	Neena Kochhar	Human Resources Representative	\$78,000.00
Public Relations	Neena Kochhar	Public Relations Representative	\$120,000.00
Accounting	Neena Kochhar	Accounting Manager	\$144,000.00
Accounting	Shelley Higgins	Public Accountant	\$99,600.00
Executive	Steven King	Administration Vice President	\$204,000.00
			\$7,924,800.00

- Click **Return** to return to Report Editor.

Report Editor displays the layout that you created just now, using the boilerplate template.

24. Save the report and click the View Report icon. The report is displayed in Report Viewer.

My Salary Report - Boiler Plate

Home Catalog New ▾

BP ORACLE®

Proprietary and Confidential

Department Name	Manager	Job Title	Annual Salary
Shipping	Kevin Murgos	Shipping Clerk	\$31,200.00
Shipping	Kevin Murgos	Shipping Clerk	\$31,200.00
Administration	Neena Kochhar	Administration Assistant	\$52,800.00
Marketing	Steven King	Marketing Manager	\$156,000.00
Marketing	Michael Hartstein	Marketing Representative	\$72,000.00
Human Resources	Neena Kochhar	Human Resources Representative	\$78,000.00
Public Relations	Neena Kochhar	Public Relations Representative	\$120,000.00
Accounting	Neena Kochhar	Accounting Manager	\$144,000.00
Accounting	Shelley Higgins	Public Accountant	\$99,600.00
Executive	Steven King	Administration Vice President	\$204,000.00
			\$7,924,800.00

----- End of Report-----

1

**Practices for Lesson 7: Using
Template Builder to Create
RTF Templates**

Practices for Lesson 7: Overview

Goal

To export data for Balance letter datamodel in xml format

Practice 7-1: Export Data

Overview

In this practice, you will export sample XML data

Tasks

1. Downloading the data model xml file: Edit the Balance Letter Datamodel. Connect to BI Publisher and Navigate to the Balance Letter Datamodel found in Shared Folders -> Sample Lite -> Published Reporting -> Data Models.

The screenshot shows the Oracle BI Publisher Catalog interface. A red box highlights the main content area. On the left, there is a tree view labeled 'Folders' with categories: Components, Sample Lite (expanded), Subject Area Contents, KPIs, Published Reporting (expanded), Analyses, and Data Models (selected). To the right, a list of data models is displayed:

- Annual Appraisal DM Last Modified 4/28/16 6:52 AM Created By weblogic
Data Source: XML Data File
Edit More
- Balance Letter Datamodel** Last Modified 4/28/16 6:52 AM Created By weblogic
Data Source Type: XML file -- Features: Pre-structured data
Edit **More** (The 'More' link is highlighted with a red box)
- Brand Revenue Details DM Last Modified 4/28/16 6:52 AM Created By weblogic
Data Source Type: BI Server Sample Sales Lite subject area -- Structure: Hierarchical XML
Edit More
- Company Sales - Currency Based Last Modified 4/28/16 6:52 AM Created By weblogic
Data Sources: Sample Sales BI Server subject area; XLS File
Edit More

2. Click Data Tab and view the data. Click the Export Tab to export the xml file.

Balance Letter Datamodel

Data Model

Properties

Diagram Structure **Data** Code

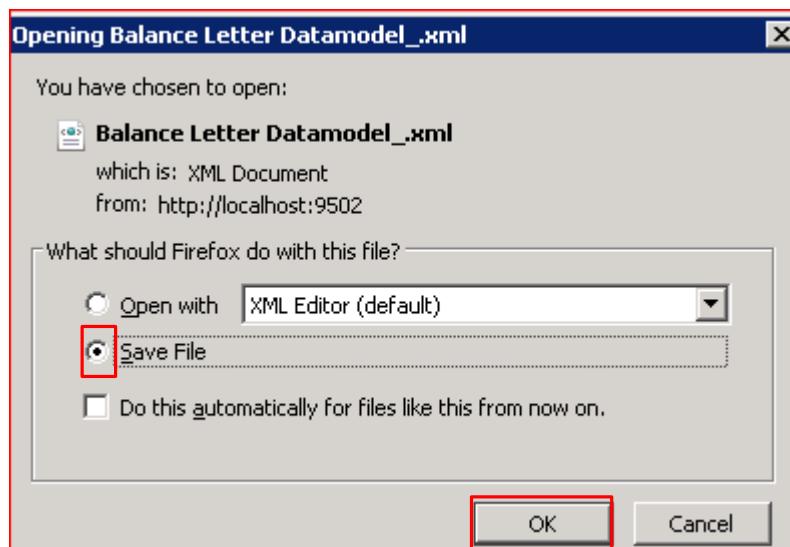
Rows 5 View **Export** Save As Sample

ARXCOBLX

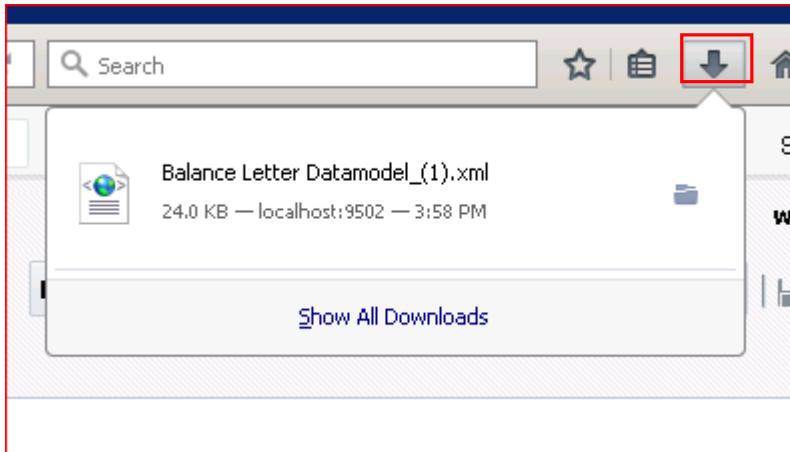
G_CUSTOMER

CUSTOMER_NUMBER (1005)
CUSTOMER_NAME (Vision Operations)
ADDRESS_LINE1 (5645 Main Street)
ADDRESS_LINE2
ADDRESS_LINE3
ADDRESS_LINE4
CITY (Jacksonville)
STATE (FL)
ZIP (32209-1234)

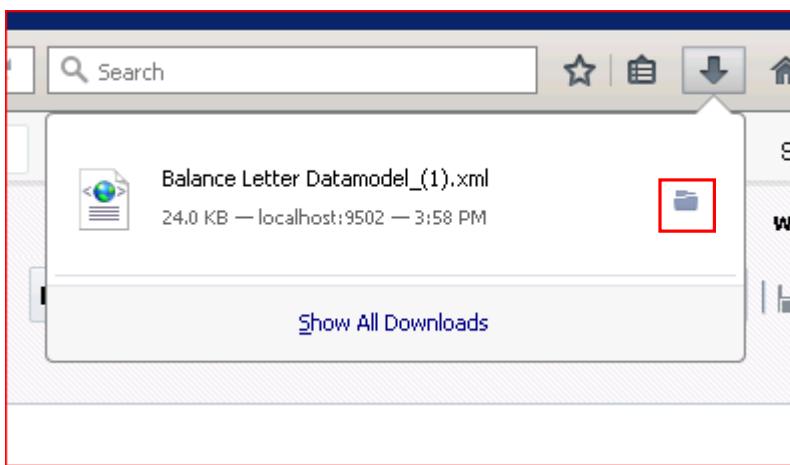
3. Select the Save File option. Click the OK button.



4. Click the Arrow at the top-right corner to display the saved file.



5. Click the Open Containing Folder icon to navigate to the Balance Letter Datamodel.xml saved file location.



**Practices for Lesson 8: BI
Publisher Server:
Administration and Security**

Practices for Lesson 8: Overview

Goal

To explore Administration within BI Publisher and perform administrative tasks, such as reviewing roles and permissions and configuring the email server

Practices Overview

You will perform administrative tasks that include:

- Configuring data sources
- Reviewing user roles and permissions
- Configuring the email server (the Oracle classroom environment uses hMailServer)
- Configuring delivery options

Time

30 minutes

Practice 8-1: Defining a File Data Source

Overview

In this practice, you define a file as the data source for BI Publisher. You may define an existing XML or MS Excel file that is stored in a directory to which BI Publisher can connect. Other data sources accessible to BI Publisher include JDBC, JNDI, OLAP, and LDAP. Note that you have already defined one data source (JDBC) in the “Using Data Model Editor” practice.

Assumptions

You have defined the JDBC connection.

Tasks

1. Log in to BI Publisher. Click **Administration**.
2. Click **File** in the Data Sources section.

The screenshot shows the Oracle BI Publisher Enterprise Administration interface. The top navigation bar includes links for Home, Catalog, New, Open, Signed In As (set to weblogic), and Sign Out. The main content area is titled "Administration". On the left, there's a sidebar with sections for Data Sources (JDBC Connection, JNDI Connection, File, LDAP Connection, OLAP Connection, Web Service Connection, HTTP Connection), Security Center (Security Configuration, Roles and Permissions, Digital Signature), Delivery (Delivery Configuration, Printer, Fax, Email, WebDAV, HTTP, FTP, Content Server, CUPS Server), and System Maintenance (Server Configuration, Scheduler Configuration, Scheduler Diagnostics, Report Viewer Configuration, Manage Cache). The right side contains sections for Runtime Configuration (Properties, Font Mappings, Currency Formats) and Integration (Oracle BI Presentation Services). A vertical scroll bar is visible on the right side of the main content area.

The Data Sources page appears. The File tab lists the existing file sources, if any.

The screenshot shows the "Data Sources" page under the "File" tab. The top navigation bar has links for Home and Catalog. Below it, a breadcrumb trail shows "Administration > File". The main content area is titled "Data Sources" and features a tab bar with JDBC, JNDI, File, LDAP, OLAP, Web Services, and HTTP. The "File" tab is currently selected. A button labeled "Add Data Source" is at the top left. Below it is a table with two rows:

Data Source Name	Directory	Delete
demo_files	\$(xdo.server.config.dir)/repository/DemoFiles	
Samples Data Files	\$(xdo.server.config.dir)/repository/DemoFiles	

3. Click **Add Data Source**. The Add Data Source page appears.

The screenshot shows the 'Add Data Source' page with the 'General' tab selected. It has fields for 'Data Source Name' and 'Full Path of Top-level Directory'. A note below the path field states: 'Users can access files in this directory and any subdirectories.' There are 'Apply' and 'Cancel' buttons at the bottom.

4. Provide the display name and path for the data source file. The display name appears in the Data Source selection list within the Data Model Editor. The path is generally the full path to the top-level directory on your server. This enables users to access files in this directory and any subdirectories.

Enter the following:

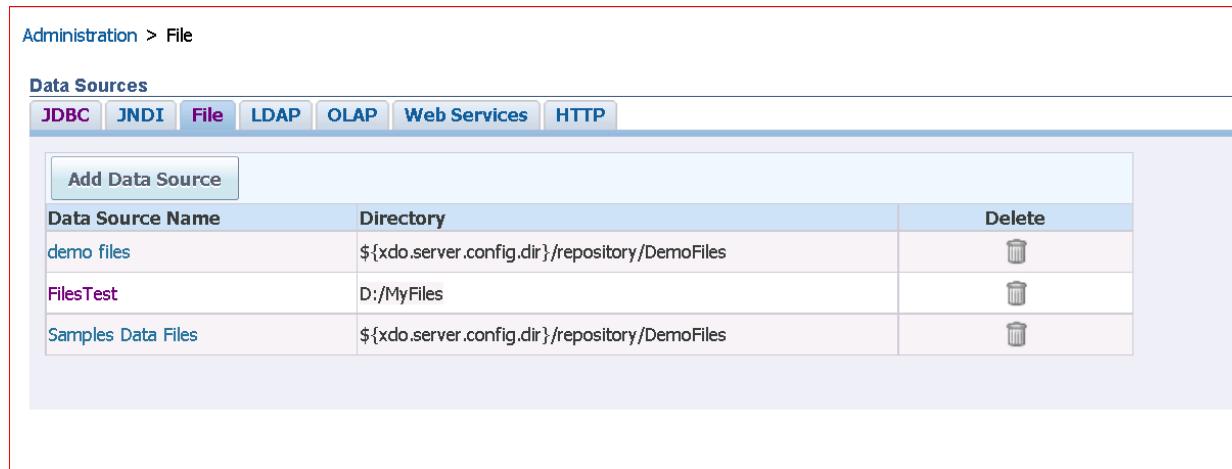
The screenshot shows the 'Add Data Source' page with the 'General' tab selected. The 'Data Source Name' is set to 'FileTest' and the 'Full Path of Top-level Directory' is set to 'D:\MyFiles'. A note below the path field states: 'Users can access files in this directory and any subdirectories.' There are 'Apply' and 'Cancel' buttons at the bottom.

In general, you can also define the file data source to any directory on your system that has your XML and other template files.

5. You can define security for this data source. You use the shuttle buttons () to move roles from the Available Roles pane to the Allowed Roles pane. Only users assigned to the roles on the Allowed Roles pane are able to create or view reports from this data source. Select **BI Service Administrator Role** and **BI Content Author Role** and click the shuttle button to move them to the Allowed Roles pane.

The screenshot shows the 'Security' page with the 'Available Roles' pane containing 'BI Consumer' and the 'Allowed Roles' pane containing 'BI Content Author' and 'BI Service Administrator'. Between the panes are shuttle buttons: 'Move', 'Move All', 'Remove', and 'Remove All'. At the top left is a checkbox for 'Allow Guest Access'. At the bottom right are 'Apply' and 'Cancel' buttons.

6. Click **Apply** to save your changes. The data source appears in the list of available data sources.



The screenshot shows the 'Administration > File' section of the Oracle BI Publisher interface. Under the 'Data Sources' tab, there is a table listing three data sources:

Data Source Name	Directory	Delete
demo files	\${xdo.server.config.dir}/repository/DemoFiles	
FilesTest	D:/MyFiles	
Samples Data Files	\${xdo.server.config.dir}/repository/DemoFiles	

An 'Add Data Source' button is visible at the top left of the table area.

Practice 8-2: Reviewing Permissions Assigned to Default BI Publisher Users

Overview

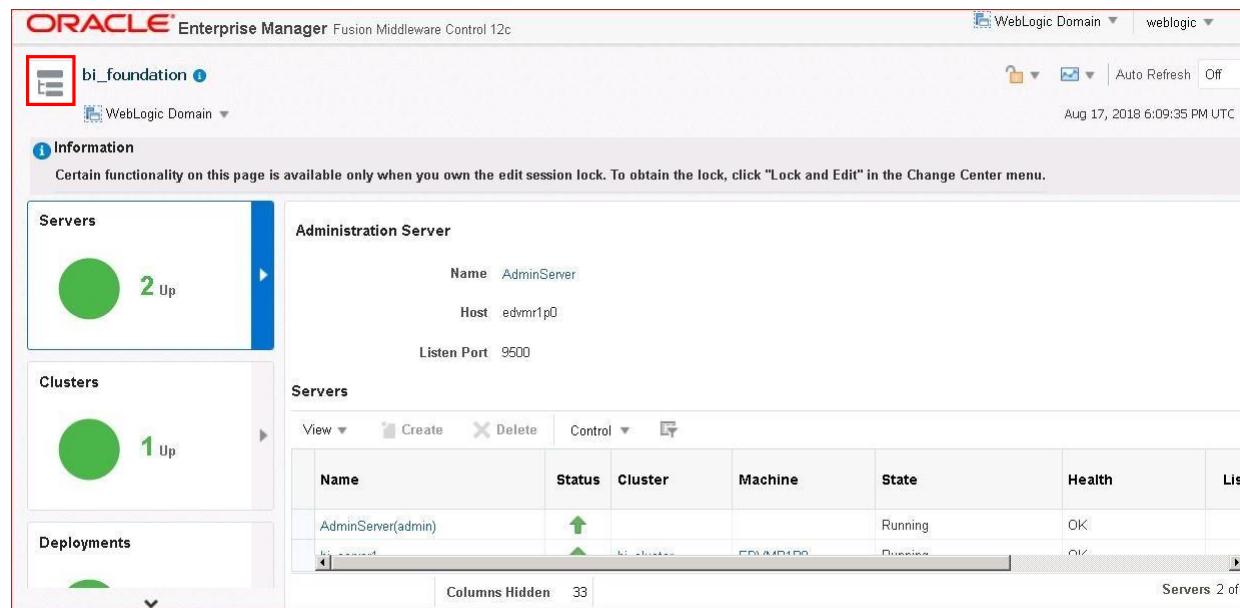
In this practice, you review the permissions allocated to BI Publisher users. BI Publisher users are created in WebLogic; therefore, you can only review the assigned permissions. This practice is designed to emphasize the differences between earlier version of BI Publisher and the current version, BI Publisher 12c.

Assumptions

The default users were created during installation.

Tasks

1. Log in to <http://localhost:9500/em> as an administrative user. In this case, log in as User: weblogic Password: weblogic1. Click Target Navigator and expand Business Intelligence, and click biinstance.



ORACLE® Enterprise Manager Fusion Middleware Control 12c

Target Navigation

View ▾

- ▶ Application Deployments
- ◀ WebLogic Domain
 - ▶ bi_foundation
 - AdminServer
 - ▶ bi_cluster
 - ◀ Business Intelligence
 - ▶ biinstance
 - ▶ Coherence Clusters
 - ▶ Metadata Repositories

You own the edit session lock. To obtain the lock, click "Lock and Edit".

server

Name AdminServer

Host edvmr1p0

Listen Port 9500

Create Delete Control ▾

Status Cluster Machine

This screenshot shows the Oracle Enterprise Manager interface for Fusion Middleware Control 12c. On the left, the 'Target Navigation' sidebar lists various system components like Application Deployments, WebLogic Domain, Business Intelligence, and Coherence Clusters. Under 'WebLogic Domain', the 'bi_foundation' and 'Business Intelligence' sections are expanded. The 'biinstance' node under 'Business Intelligence' is highlighted with a red box. The main panel displays configuration details for an 'AdminServer' instance, including its name ('AdminServer'), host ('edvmr1p0'), and listen port ('9500'). A 'Control' button with a dropdown menu is visible. At the bottom, tabs for 'Status', 'Cluster', and 'Machine' are shown.

2. Your screen will look like the following:

ORACLE® Enterprise Manager Fusion Middleware Control 12c

biinstance ⓘ

Business Intelligence Instance ▾

Overview Availability Configuration Diagnostics Security

System Shutdown & Startup

100% Up (5)

System Components

System Status

All components are available

Diagnostics

Most Recent Errors

Severity Message

No recent errors to report

Capacity Manager

Responsiveness

Request Processing Time

Average Query Time

This screenshot shows the Oracle Enterprise Manager interface for a specific 'biinstance'. The top navigation bar includes 'Overview', 'Availability', 'Configuration', 'Diagnostics', and 'Security'. The 'Overview' tab is active. The main content area features several cards: 'System Shutdown & Startup' (green circle, 100%, 5 up), 'System Status' (green arrow, 'All components are available'), 'Diagnostics' (empty card), 'Most Recent Errors' (empty card), 'Capacity Manager' (green arrow, 'Request Processing Time'), and 'Responsiveness' (green arrow, 'Average Query Time').

3. Expand Business Intelligence Instance and select Security > Application Roles.

The screenshot shows the Oracle Enterprise Manager interface for Fusion Middleware Control 12c. The top navigation bar has 'biinstance' selected. Below it, under 'Business Intelligence Instance', the 'Security' link is highlighted with a red box. A dropdown menu from 'Security' shows 'Application Policies' and 'Application Roles', both of which are also highlighted with red boxes. The main content area displays a green circular progress bar with '100%' and 'Up (5)' text, and a section titled 'System Components'.

Notice the Default BI Application Roles.

The screenshot shows the 'Application Roles' page in Oracle Enterprise Manager. The top navigation bar includes 'WebLogic Domain' and 'weblogic'. The main content area shows a search interface with 'Application Stripe' set to 'obi'. Below it is a table listing three application roles:

Role Name	Display Name	Description
BIServiceAdministrator	BI Service Administrator	This role confers privileges required to administer the sample application.
BIContentAuthor	BI Content Author	Users with this role can create most types of content.
BIConsumer	BI Consumer	Users granted this role can consume content but are restricted in what they can create.

You can also select Application Policies to view the Default BI Policies.

4. On the BI Publisher Administration page, click **Roles and Permissions** in the Security Center section.



5. The preconfigured roles and permissions for the authenticated user `weblogic` appear. Observe that the roles for BI Service Administrator, BI Content Author, and BI Consumer are preconfigured. These are called “seeded” application roles in Oracle Fusion Middleware.

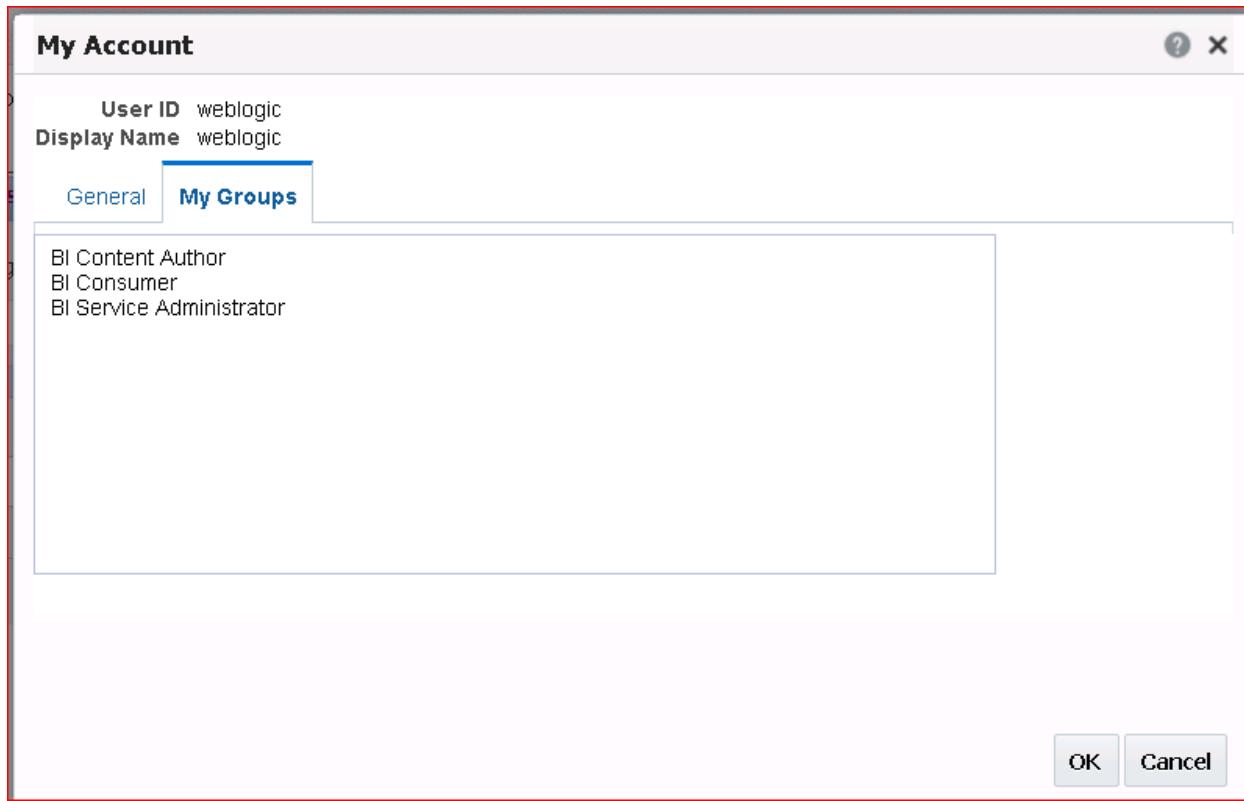
A screenshot of the 'Roles and Permissions' page. At the top, there is a search bar for 'Role Name' and a 'Search' button. Below the search bar, there is a table listing three preconfigured roles:

Role Name	Description	Add Data Sources
BI Consumer	Users granted this role can consume content but are restricted in what they can create.	
BI Content Author	Users with this role can create most types of content.	
BI Service Administrator	This role confers privileges required to administer the sample application.	

6. You can also check the account privileges for your user ID. Click the **Signed in as <user>** link, and select **My Account**.



The My Account dialog box appears. Click the My Groups tab. Note that the weblogic user is assigned to three roles: BI Service Administrator, BI Content Author, and BI Consumer.



7. Click **Cancel**.

Practice 8-3: Configuring the Email Server as a Delivery Option

Overview

In this practice, you set up hMailServer as a delivery option for BI Publisher, so that you can send reports as email attachments.

Assumptions

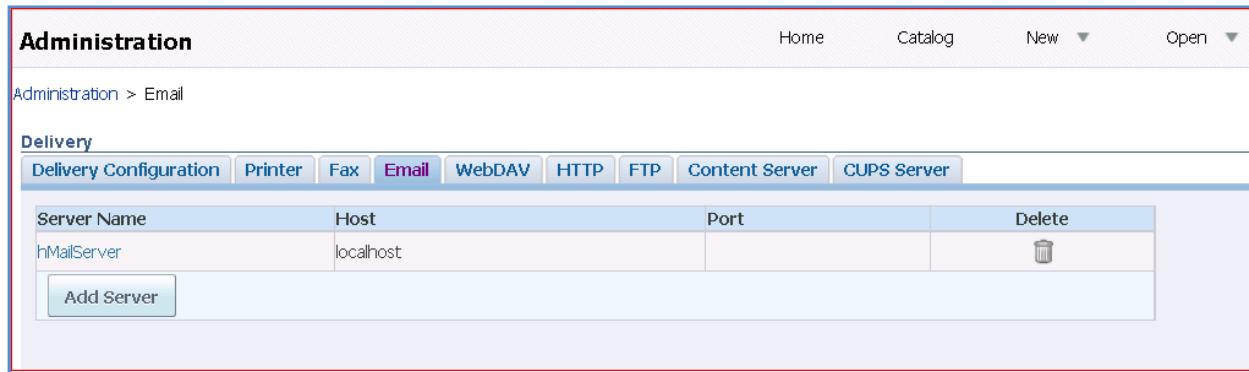
You are still logged in to BI Publisher.

Tasks

1. To begin this practice, the services for hMailServer must be running. Start hMailServer.
Click Start > Programs > hMailServer > Service > Start Service.
2. Click the Administration link.
3. Click **Email** in the Delivery section.



4. The Email tab of the Delivery page appears. Click **Add Server**.



5. On the Add Server page, enter the following details:

Step	Field	Value
a.	Name	hMailServer
b.	Host	localhost
c.	Username	user@localhost
d.	Password	Leave this field empty.

The Add Server page should look like this:

The screenshot shows the 'Add Server' dialog box. At the top right are buttons for 'Test Connection', 'Apply', and 'Cancel'. Below is the 'General' tab, which contains fields for 'Server Name' (set to 'hmailServer'), 'Host' (set to 'localhost'), 'Port' (empty), and 'Secure Connection' (set to 'None'). Below the general tab is the 'Security' tab, which contains fields for 'Username' (set to 'user@localhost') and 'Password' (empty).

6. Click **Apply**.

7. Your server appears in the table. To edit the settings, click the desired server name link.

The screenshot shows the 'Delivery Configuration' page with the 'Email' tab selected. A table displays a single server entry: 'hmailServer' under 'Server Name', 'localhost' under 'Host', and an empty field under 'Port'. There is a 'Delete' button next to the host entry. Below the table is a 'Add Server' button.

In the practices for Lesson 9, “Scheduling and Bursting Reports,” you will review the Scheduler configuration and diagnostics.

**Practices for Lesson 9:
Scheduling and Bursting
Reports**

Practices for Lesson 9: Overview

Goal

To explore the scheduling and bursting capabilities of BI Publisher

Practices Overview

You examine the BI Publisher Scheduler, schedule a report, and review the report job. You also add a scheduling trigger and review the report. You add a bursting definition for a sample report.

In this practice, you do the following:

- Review the Scheduler configuration.
- Schedule a report.
- Edit the report.
- Schedule the report with a trigger.
- Review the report job history.
- Review the data model for the report containing bursting definition.
- Add bursting definition to a sample report and review the bursting results.

Assumptions

- Oracle BI Publisher is up and running.
- “My Files” is downloaded and unzipped.
- You are familiar with the Data model Editor and Create Report Wizard.
- You logged in with the BI Administrator role.

Time:

35–45 minutes

Practice 9-1: Examining BI Publisher Scheduler and Scheduling a Report

Overview

In this practice, you explore BI Publisher Scheduler and schedule a BI Publisher report.

Assumptions

To perform the tasks in this practice, you should have administrative privileges.

Tasks

1. Navigate to the Administration page.
2. On the Administration page in the System Maintenance section, click **Scheduler Configuration** to examine the JNDI connection.

The screenshot shows the Oracle BI Administration interface. At the top, there's a navigation bar with tabs: Home, Catalog, New ▾, and Open ▾. Below the navigation bar, there are several sections: Data Sources (JDBC Connection, JNDI Connection, File, LDAP Connection, OLAP Connection, Web Service Connection, HTTP Connection), System Maintenance (Server Configuration, Scheduler Configuration, Scheduler Diagnostics, Report Viewer Configuration, Manage Cache, all with the Scheduler Configuration link highlighted by a red box), Security Center (Security Configuration, Roles and Permissions, Digital Signature), Runtime Configuration (Properties, Font Mappings, Currency Formats), Delivery (Delivery Configuration, Printer, Fax, Email, WebDAV, HTTP, FTP, Content Server, CUPS Server), and Integration (Oracle BI Presentation Services).

3. The Schedule Configuration page appears. Examine the Database Connection area.

Administration > Scheduler Configuration

System Maintenance

Scheduler Configuration Scheduler Configuration Scheduler Diagnostics Report Viewer Configuration Manage Cache

Apply Cancel

Scheduler Selection

Scheduler: Quartz

Enable Public Output Option

Quartz Clustering

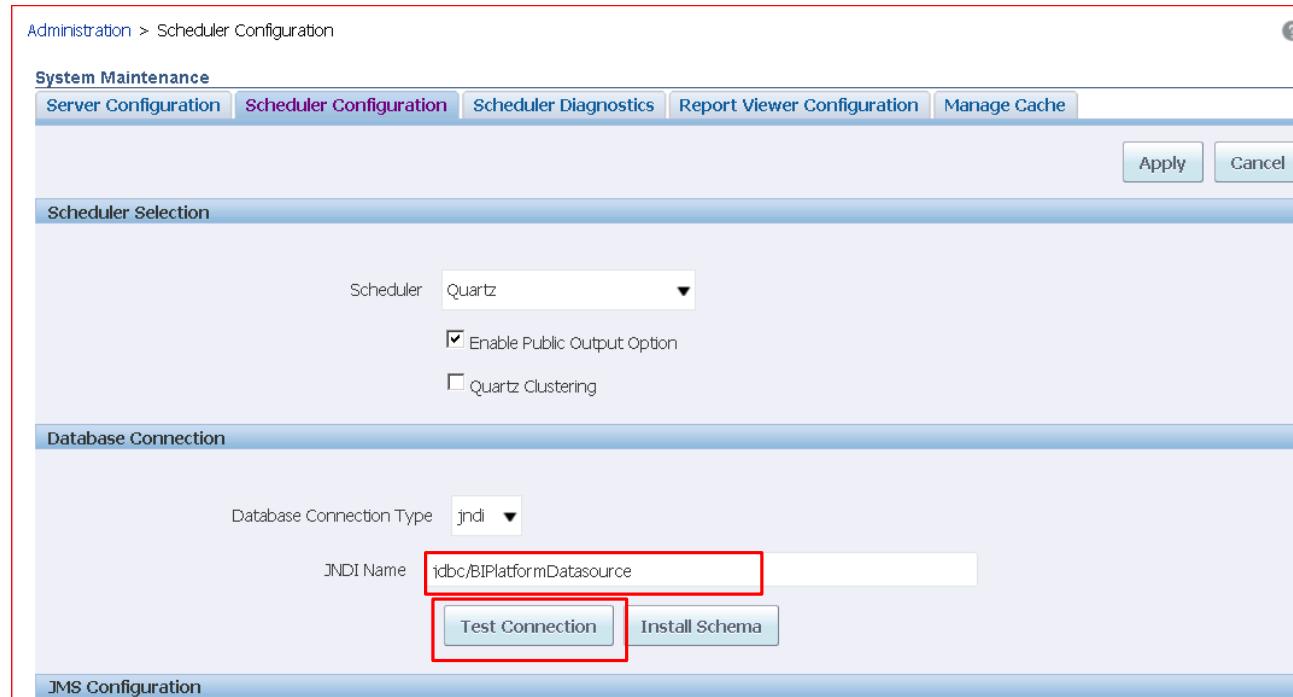
Database Connection

Database Connection Type: jndi

JNDI Name: **1dbc/BIPPlatformDatasource**

Test Connection **Install Schema**

JMS Configuration



4. Click **Test Connection**. A confirmation message appears if the database connection is successfully established. Click **Cancel**.

Administration > Scheduler Configuration

Confirmation
Connection established successfully.

System Maintenance

Server Configuration Scheduler Configuration Scheduler Diagnostics Report Viewer Configuration Manage Cache

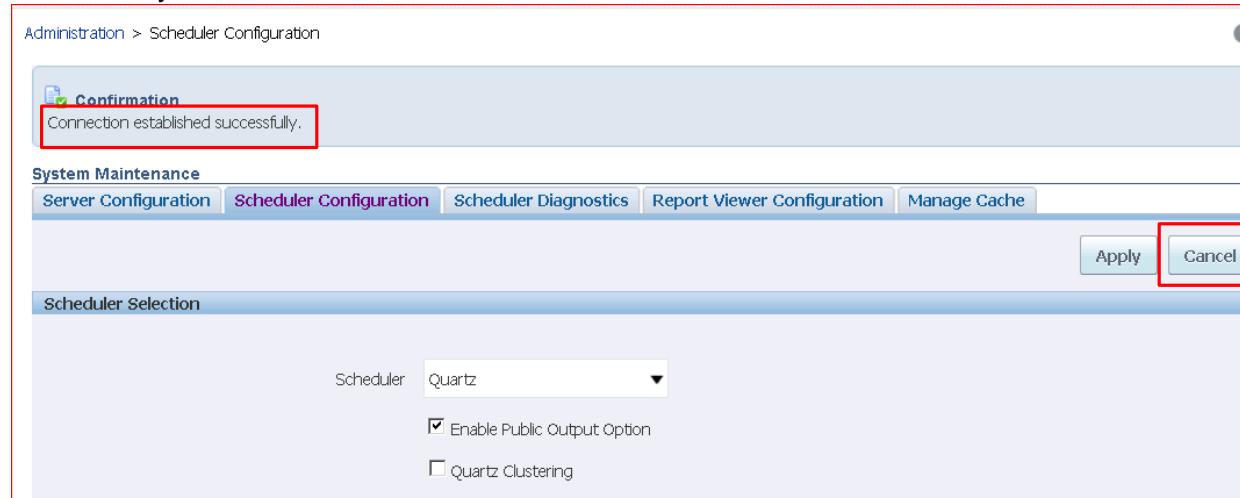
Apply Cancel

Scheduler Selection

Scheduler: Quartz

Enable Public Output Option

Quartz Clustering



5. Click the **Scheduler Diagnostics** tab. Review the results. The **Result** area must show "passed" as indicated in the following screenshot.

The screenshot shows the 'Scheduler Diagnostics' tab selected in the navigation bar. The 'Result' section displays 'Passed'. Below it is a table with columns: Diagnostic Item, Value, Status, and Details. The table lists various JMS-related configurations, all marked as 'Passed'.

Diagnostic Item	Value	Status	Details
Enterprise Scheduler		Passed	
--JMS		Passed	
----JMS Cluster Config	D:/Oracle/Middleware/Oracle_Home/user_projects/domains/bi_foundation/bidata/components/bipublisher/repository/Admin/Scheduler/jms_cluster_config.properties	Passed	
----JMS_PROVIDER_TYPE	WebLogic	Info	WebLogic JMS is selected.
----JMS_WEBLOGIC_VERSION	10.3	Info	
----JMS_WEBLOGIC_JNDI_FACTORY	weblogic.jndi.WLInitialContextFactory	Info	
----JMS_WEBLOGIC_JNDI_URL	cluster:t3://bi_cluster	Info	
----JMS_WEBLOGIC_SECURITY_MO DE	Oracle BI	Info	weblogic
----BIP_CONNECTION_FACTORY_NA ME	BIP.JMS.CF	Info	

6. Select the report Salary Report from the Catalog.
(File path: Shared Folders > SampleLite > Published Reporting > Reports > Salary Report)

The screenshot shows the 'Catalog' page. In the left sidebar, under 'Folders', the 'Reports' folder is selected. In the main pane, a list of reports is shown. The 'Salary Report' item is highlighted with a red box around its name. The 'Schedule' link next to the report is also highlighted with a red box.

Click **Schedule**.

7. The Schedule Report Job page appears with the report name displayed.

Schedule Report Job

Overview

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start immediately

Outputs View bursting definition
Destination
Notification

General Output Schedule Notification Diagnostic

Report /Sample Lite/Published Reporting/Rep

Parameters

Department All Employee All

Observe that the overview displays the parameters with “All” for Department and Employee.

8. On the **Output** tab, select both the check boxes for “Make Output Public” and “Save Data for Republishing.” Make sure that the **Use Bursting Definition to Determine Output & Delivery Destination** option is deselected.

Schedule Report Job

Overview

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start immediately

Outputs Output1
Destination
Notification

Output General Schedule Notification Diagnostic

Use Bursting Definition to Determine Output & Delivery Destination
 Make Output Public
 Save Data for Republishing

Output

Name	Layout	Format	Locale
Output1	Simple	PDF	English (United States)

9. On the **Schedule** tab, select **Daily** from the Frequency drop-down list and then enter 1 for Every day(s). Check the Start and the End date and time. Make sure that the report does not run immediately.

Schedule Report Job

Overview

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start on Sep 5, 2018 4:46:34 PM Recur Daily

Outputs Output1
Destination
Notification

General Output **Schedule** Notification Diagnostic

Define Schedule Time

Frequency Daily

Every 1 day(s)

Start Sep 5, 2018 4:46:34 PM [GMT+00:00] Casablanca

End Sep 10, 2018 3:46:34 PM [GMT+00:00] Casablanca

Define Schedule Trigger

Use Trigger

10. On the **Notification** tab, select the Notify By Email check box and enter `user@localhost.com` as the email address. This is the same email address that you created in the “Administration and Security” practice.

Schedule Report Job

Overview

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start on Sep 5, 2018 4:46:34 PM Recur Daily

Outputs Output1
Destination
Notification Email

Return **Submit**

General Output Schedule **Notification** Diagnostic

Notify By Email **Email Address** user@localhost.com

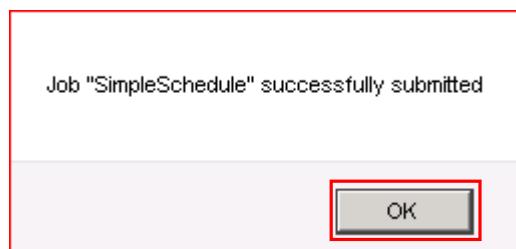
When Report completed
 Report completed with warnings
 Report failed
 Report skipped

11. Click **Submit**.

12. Enter SimpleSchedule in the Report Job Name text box. Notice the schedule details in the dialog box. Click **OK**.



13. An alert message window appears, indicating that your job has been successfully submitted. Click **OK**.



Practice 9-2: Reviewing and Editing a Scheduled Job

Overview

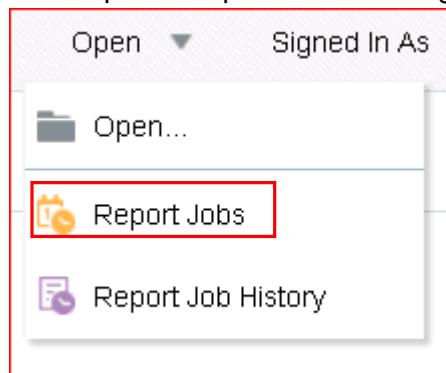
In this practice, you edit the previously scheduled report, add a schedule trigger to the report job, and view the job details.

Assumptions

To perform the tasks in this practice, you should have scheduled the Salary Report – Search report in the previous practice.

Tasks

1. Click Open > Report Jobs on the global header.



2. The Manage Report Jobs page appears. Your scheduled job, SimpleSchedule, appears in the Report Jobs table with Active status. Click **SimpleSchedule**.

A screenshot of the 'Manage Report Jobs' page. The page has a header with navigation links like Home, Catalog, New, Open, and Signed In As. Below the header is a search bar with a dropdown for 'Select time zone to view jobs' set to 'Casablanca'. There are 'Filters' and 'Report Jobs' sections. The 'Report Jobs' section contains a table with columns: Report Job Name, Report Name, Status, Start Time, End Time, Frequency, Owner, Scope, Edit, and History. A row in the table is highlighted with a red box and labeled 'SimpleSchedule'. The 'Edit' and 'History' buttons for this row are also highlighted with red boxes.

3. Note that the parameters for **department** and **employee** are set to *. You can also see Active Start Date, Report Job Schedule, and so on.

SimpleSchedule

- Report Job ID: 1013
- Owner: weblogic
- Report Name: /Sample Lite/Published Reporting/Reports/Salary Report.xdo
- Notification: Email when successful, Email when has warning, Email when failed, Email when skipped
- Report Job Schedule: Run every day(s)
- Report Scope: Public
- Active Start Date: Sep 5, 2018 4:46:34 PM [GMT+00:00] Casablanca
- Active End Date: Sep 10, 2018 3:46:34 PM [GMT+00:00] Casablanca
- Trigger Data Model
- Trigger Name
- Trigger Retry Limit
- Trigger Pause Time
- Trigger Parameters

Report Parameters

- Employee: All
- Department: All

Click the **Edit** icon () next to Report Job ID.

4. The Schedule Report Job page appears. On the **General** tab, change the parameters for Department to **Marketing, Purchasing, and Shipping**.

Schedule Report Job

Overview

- General: Created by weblogic
- Report Name: /Sample Lite/Published Reporting/Reports/Salary Report.xdo
- Schedule: Start on Sep 5, 2018 4:46:34 PM Recur Daily
- Outputs: Output1
- Destination:
- Notification: Email

General **Output** **Schedule** **Notification** **Diagnostic**

Report: /Sample Lite/Published Reporting/Rep

Parameters

Department	Marketing;Purchasing;Shipping	Employee	All
<input type="checkbox"/> All			
<input type="checkbox"/> Administration			
<input checked="" type="checkbox"/> Marketing			
<input checked="" type="checkbox"/> Purchasing			
<input type="checkbox"/> Human Resources			
<input checked="" type="checkbox"/> Shipping			

5. Click the **Schedule** tab, and change Frequency to Once.

6. Select the **Run Now** option.

The screenshot shows the 'Schedule Report Job' page. At the top, there are navigation links: Home, Catalog, New ▾, Open ▾, Signed In As weblogic ▾. Below these are buttons: Return, Submit, and Submit As New (which is highlighted with a red box). The main area has tabs: General, Output, **Schedule** (highlighted with a red box), Notification, Diagnostic. Under the Schedule tab, there's a section titled 'Define Schedule Time'. It shows 'Frequency' set to 'Once' (highlighted with a red box) and 'Run Now' checked (highlighted with a red box). A 'Start' button is followed by a date and time field: Sep 5, 2018 4:46:34 PM [GMT+00:00] Casablanca.

7. Click **Submit As New**. (This option submits the job with all of the current options and parameters.)

8. Name the report **ScheduleNow** and click **OK**.

The screenshot shows the 'Submit As New' dialog box. It lists various configuration options: Report /Sample Lite/Published Reporting/Reports/Salary Report.xdo, Parameters Department:Marketing;Purchasing;Shipping, Employee:All, Schedule Start immediately, Output Output1, Notification Email, Trigger Data Model, Trigger Name, Trigger Retry Limit, Trigger Pause Time, Trigger Parameters. At the bottom, there is a 'Report Job Name' field containing 'ScheduleNow' (highlighted with a red box). Below the field are 'OK' and 'Cancel' buttons, with 'OK' highlighted with a red box.

9. Click **OK** again in the confirmation window.

10. Click Open > Report Jobs. Only one iteration of the scheduled job **SimpleSchedule** appears in the Report Jobs table.

The screenshot shows the 'Manage Report Jobs' interface. At the top, it says 'Last Refreshed Sep 05, 2018 04:14:07 PM Western European Summer Time'. Below that is a dropdown for 'Select time zone to view jobs' set to [GMT+00:00] Casablanca. There are 'Filters' and 'Report Jobs' sections. Under 'Report Jobs', there is a table with one row for 'SimpleSchedule'. The table columns are: Report Job Name, Report Name, Status, Start Time, End Time, Frequency, Owner, Scope, Edit, and History. The 'SimpleSchedule' row has values: SimpleSchedule, /Sample Lite/Published Reporting/Reports/Sala..., Active, Sep 05, 2018 04:46:34 PM, Sep 10, 2018 03:46:34 PM, Repeats Daily, weblogic, Public, and a History link.

11. Click Open > Report Job History. **ScheduleNow** is listed because it is already executed.

The screenshot shows the 'Report Job History' interface. At the top, it says 'Last Refreshed Wed Sep 05, 2018 04:29:36 PM Western European Summer Time'. Below that is a dropdown for 'Time Zone used for filters and display' set to [GMT+00:00] Casablanca. There are 'Filters' and 'Report Job Histories' sections. Under 'Report Job Histories', there is a table with one row for 'ScheduleNow'. The table columns are: Report Job Name, Report Name, Status, Start Processing, End Processing, Owner, and Scope. The 'ScheduleNow' row has values: ScheduleNow, Salary Report.xdo, Success, Sep 05, 2018 04:27:56 PM, Sep 05, 2018 04:27:59 PM, weblogic, and Public. The 'Report Job Name' column for 'ScheduleNow' is highlighted with a red box.

12. Click **ScheduleNow**. Notice that only three departments have been selected. Observe the schedule details as well.

Report Job History

General Information		Report Job Execution Information	
Report Job ID	1015	Report Job Status	Success
Report Job Name	ScheduleNow	Start Processing Time	9/5/18 4:27:56 PM WEST
Owner	weblogic	End Processing Time	9/5/18 4:27:59 PM WEST
Report Name	Salary Report	Time Elapsed	3.391 seconds
Report Scope	Public		
Report Job Schedule	9/5/18 4:27:56 PM WEST		
Active Start Date			
Active End Date			
Trigger Data Model			
Trigger Name			
Trigger Retry Limit			
Trigger Pause Time			
Trigger Parameters			

Report Parameters

Employee	All
Department	Marketing;Purchasing;Shipping

Output & Delivery

Status		Output Name	Template	Format	Locale	Time Zone	Calendar
All		Output1	Simple	PDF	English (United States)	[GMT+00:00] Casablanca	Gregorian

Practice 9-3: Adding Schedule Triggers to a Report Job

Overview

In this practice, you edit the previously scheduled report to add a schedule trigger, and view the job details.

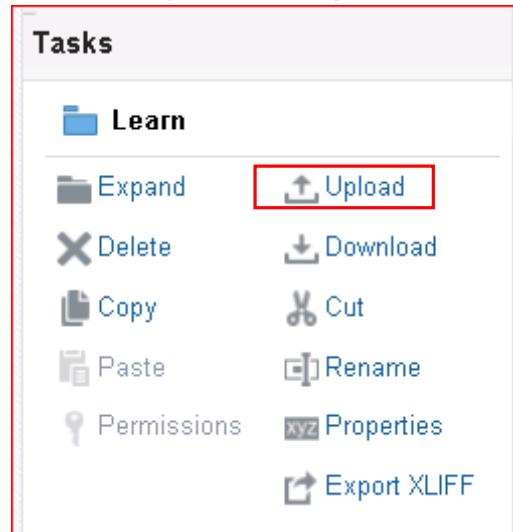
Assumptions

To perform the tasks in this practice, you should have scheduled the Salary Report – Search report in Practice 8-1.

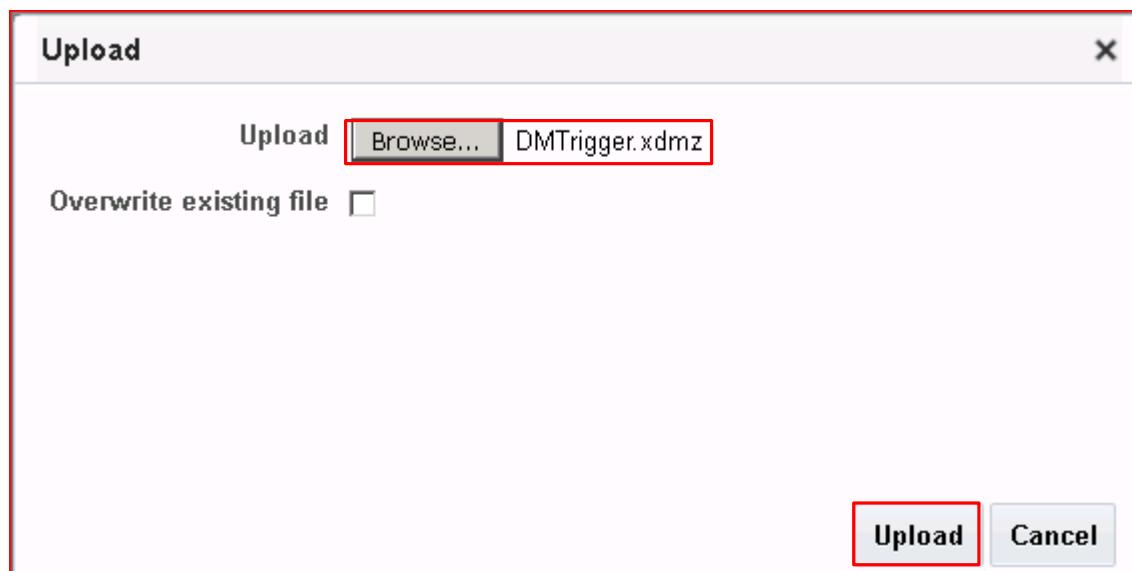
Uploading a Data Model

Note: The Data Model that you upload in this section includes parameters and a trigger for scheduling.

1. Click **Catalog** on the global header.
2. Navigate to My Folders > Learn.
3. In the Tasks pane, click **Upload**.



4. In the Upload dialog box, click **Browse**, navigate to the local folder D:\MyFiles, and select DMTrigger.xdmz.



5. Click **Open** and then click **Upload**.
 6. Verify that the data model file appears in the folder.

File	Last Modified	Created By
my REVENUE report	8/8/18 10:57 PM	Created By weblogic
My Salary Report - Boiler Plate	8/9/18 9:55 PM	Created By weblogic
My Salary Report - Simple Layout	Last Modified 8/9/18 9:04 PM	Created By weblogic
My Salary Report	Last Modified 8/6/18 10:21 PM	Created By weblogic
Salary Report	Last Modified 8/13/18 7:49 PM	Created By weblogic
Simple Customer Balance	Last Modified 8/17/18 8:19 PM	Created By weblogic
CSVDM	Last Modified 8/17/18 8:36 PM	Created By weblogic
DMTrigger	Last Modified 9/5/18 4:39 PM	Created By weblogic
My Airlines Report	Last Modified 8/6/18 10:38 PM	Created By weblogic

Submitting a Job with a Trigger

1. Click **Open > Report Jobs** on the global header.

2. Click the Edit icon for the listed job from the previous practice—SimpleSchedule. (The steps are as given in the previous practice.)

The screenshot shows the 'Manage Report Jobs' interface. At the top, there's a header with 'Home', 'Catalog', 'New', 'Open', 'Signed In As weblogic'. Below the header, it says 'Last Refreshed Sep 05, 2018 04:14:07 PM Western European Summer Time'. There's a 'Return' button and a help icon. A dropdown menu shows 'Select time zone to view jobs [GMT+00:00] Casablanca'. Under 'Filters', there are fields for 'Report Job Name' (Contains), 'Report Name' (Contains), 'Status' (All), 'Start Time' (Equals Or Later Than), and 'End Time' (Equals Or Earlier Than). There are also 'Owner' and 'Scope' filters. Below the filters are 'Search' and 'Reset' buttons. The main area is titled 'Report Jobs' with a table. The table has columns: Report Job Name, Report Name, Status, Start Time, End Time, Frequency, Owner, Scope, Edit, and History. One row is visible for 'SimpleSchedule', which is active and scheduled to run daily. The 'Edit' column for this row is highlighted with a red box.

3. In Schedule Report Job, on the General tab, select the parameters as given previously (Marketing, Purchasing, and Shipping).
 4. Click the **Schedule** tab.
 5. Keep the frequency as **Once** and select **Run Now**.

The screenshot shows the 'Schedule Report Job' interface. At the top, there's a header with 'Home' and 'Catalog'. Below the header, there's an 'Overview' section with 'General' (Created by weblogic), 'Report Name' (/Sample Lite/Published Reporting/Reports/Salary Report.xdo), 'Outputs' (Output1), 'Destination', and 'Notification' (Email). Below the overview, there are tabs: General, Output, **Schedule**, Notification, and Diagnostic. The 'Schedule' tab is selected. Under the 'Schedule' tab, there's a 'Define Schedule Time' section. It shows 'Frequency' set to 'Once' (highlighted with a red box) and 'Run Now' (radio button selected). The 'Start' field shows 'Sep 5, 2018 3:46:34 PM' and a time zone dropdown set to '[GMT+00:00] Casablanca'. Below this, there's a 'Define Schedule Trigger' section with a 'Use Trigger' checkbox.

6. Select the **Use Trigger** check box. Additional options appear.

Schedule Report Job

Home Catalog New Open

Return

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start immediately

Outputs Output1
Destination
Notification Email

General Output **Schedule** Notification Diagnostic

Define Schedule Trigger

Use Trigger
A schedule trigger allows you to conditionally execute an occurrence of a job. When the schedule time occurs, the schedule trigger returns data, the job will proceed. If no data is returned the occurrence of that job is skipped.

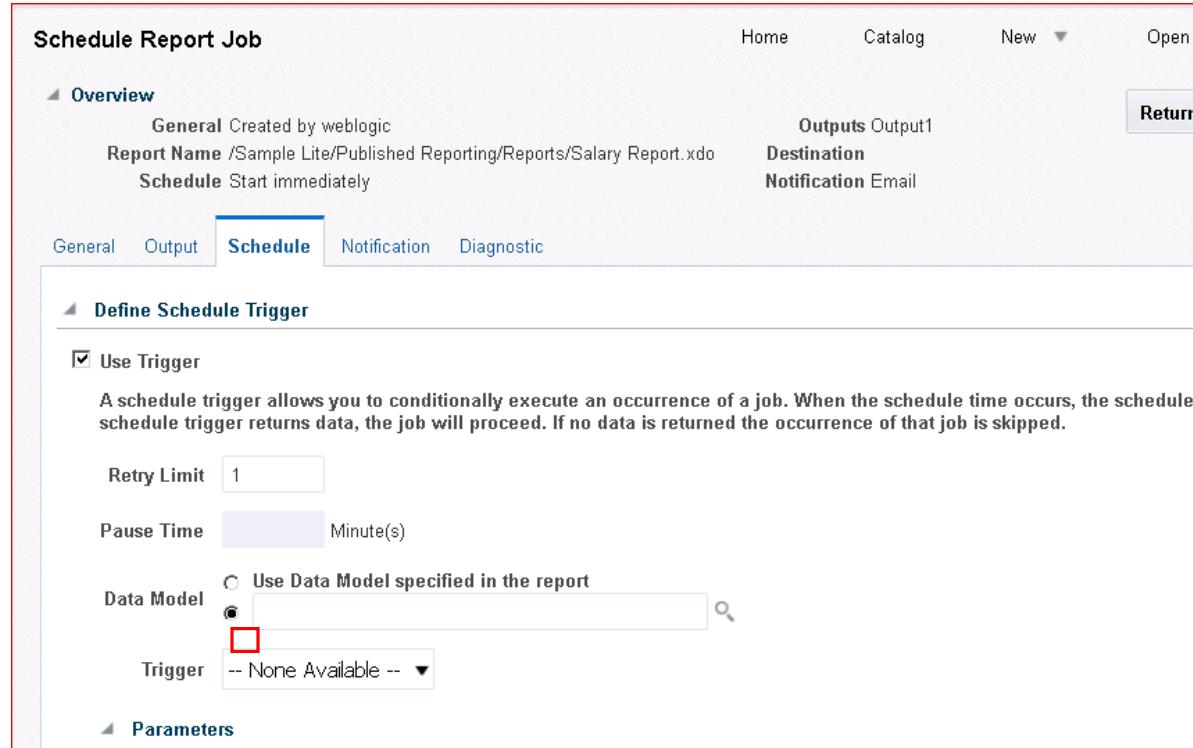
Retry Limit 1

Pause Time Minute(s)

Data Model Use Data Model specified in the report

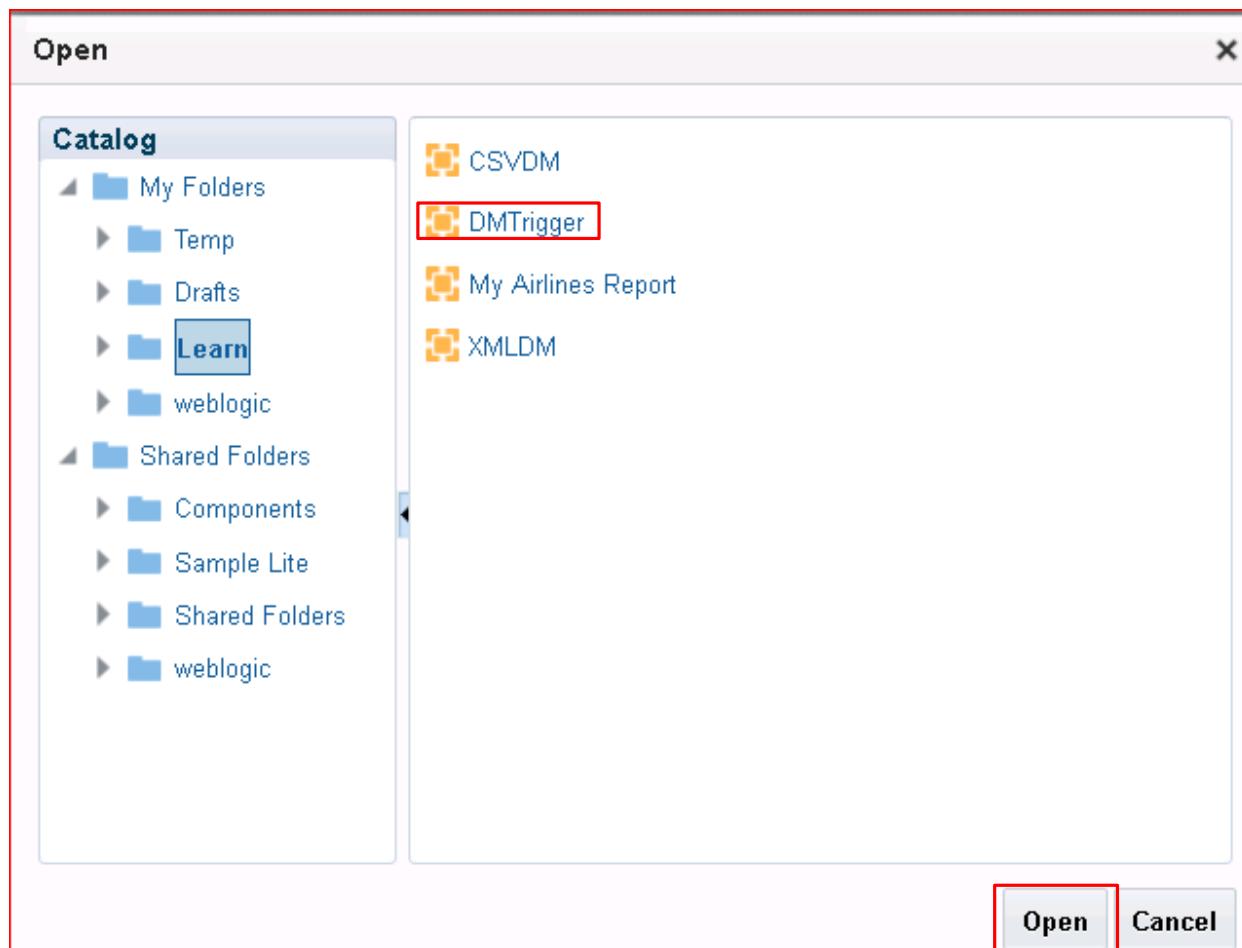
Trigger -- None Available -- ▾

Parameters



7. Select the second option for Data Model and click **Browse** ().

Navigate to the **My Folders > Learn** folder and select **DMTrigger**. This is the same data model you uploaded previously.



8. Click **Open**. The data model appears in the selection field, and a trigger associated with this data model is listed in the Trigger drop-down list.

Schedule Report Job

Home Catalog

Overview

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start immediately

Outputs Output1
Destination
Notification Email

General Output **Schedule** Notification Diagnostic

Define Schedule Trigger

Use Trigger
A schedule trigger allows you to conditionally execute an occurrence of a job. When the schedule time schedule trigger returns data, the job will proceed. If no data is returned the occurrence of that job is s

Retry Limit

Pause Time Minute(s)

Data Model
 Use Data Model specified in the report
 /~/weblogic/Learn/DMTrigger.xdm

Trigger

Parameters

9. Click the **Trigger** drop-down list and select **salaryTrig**. Once again, an additional option Parameter appears.

Schedule Report Job

General Created by weblogic

Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo

Schedule Start immediately

Outputs C

Destination D

Notification E

General **Output** **Schedule** **Notification** **Diagnostic**

Define Schedule Trigger

Use Trigger

A schedule trigger allows you to conditionally execute an occurrence of a job. When the schedule trigger returns data, the job will proceed. If no data is returned the occurrence

Retry Limit 1

Pause Time Minute(s)

Data Model

- Use Data Model specified in the report
- /~/weblogic/Learn/DMTrigger.xdm

Trigger salaryTrig ▼

Parameters

salary	2000
--------	------

Note: The default SQL selection statement for SalTrig is
select 1 from dual where:sal >2000.

If the trigger parameter is equal to or less than 2000, the statement will be false and the report will not be executed; it will have a status of Skipped.

10. Keep the default value and click **Submit As New**.
11. Name your job **TriggeredSchedule** and submit the same report job again.

12. Change the value for the **salary** text field to 3000.

Schedule Report Job

Overview

General Created by weblogic
Report Name /Sample Lite/Published Reporting/Reports/Salary Report.xdo
Schedule Start immediately

Outputs Output
Destination
Notification Email

General **Output** **Schedule** **Notification** **Diagnostic**

Define Schedule Trigger

Use Trigger

A schedule trigger allows you to conditionally execute an occurrence of a job. When the schedule trigger returns data, the job will proceed. If no data is returned the occurrence of the job will be skipped.

Retry Limit 1

Pause Time Minute(s)

Data Model Use Data Model specified in the report /~/weblogic/Learn/DMTrigger.xdm

Trigger salaryTrig ▾

Parameters

salary	3000
--------	------

13. Click **Submit As New** and name this job TriggeredSchedule2.
 14. Click Open > Report Job History on the global header. Both the report jobs appear in the Report Job Histories table.

Report Job Histories

[4 Total Report Output]

Report Job Name	Report Name	Status	Start Processing	End Processing	Owner	Scope
TriggeredSchedule2	Salary Report.xdo	Success	Sep 05, 2018 04:57:42 PM	Sep 05, 2018 04:57:42 PM	weblogic	Public
TriggeredSchedule	Salary Report.xdo	Skipped	Sep 05, 2018 04:56:25 PM	Sep 05, 2018 04:56:26 PM	weblogic	Public
SimpleSchedule	Salary Report.xdo	Success	Sep 05, 2018 04:46:34 PM	Sep 05, 2018 04:46:34 PM	weblogic	Public
ScheduleNow	Salary Report.xdo	Success	Sep 05, 2018 04:27:56 PM	Sep 05, 2018 04:27:59 PM	weblogic	Public

Observe the following:

- The report job **TriggeredSchedule** has a status Skipped, and not executed, because the trigger parameter returned false.
- The report job **TriggeredSchedule2** has a status Success, and executed, because the trigger parameter is greater than 2000, and returned true.

Practice 9-4: Creating a Report for Bursting and Scheduling the Report to Burst to File Location

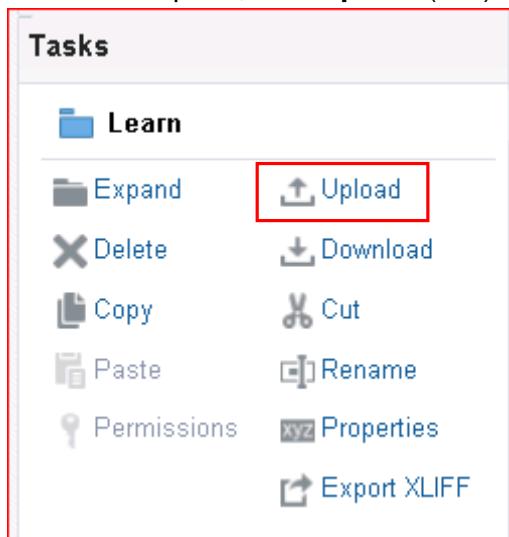
Overview

In this practice, you upload a data model, modify the data model to add bursting, create a new report, and then schedule the report to burst to a file location. You also define the bursting properties for a report.

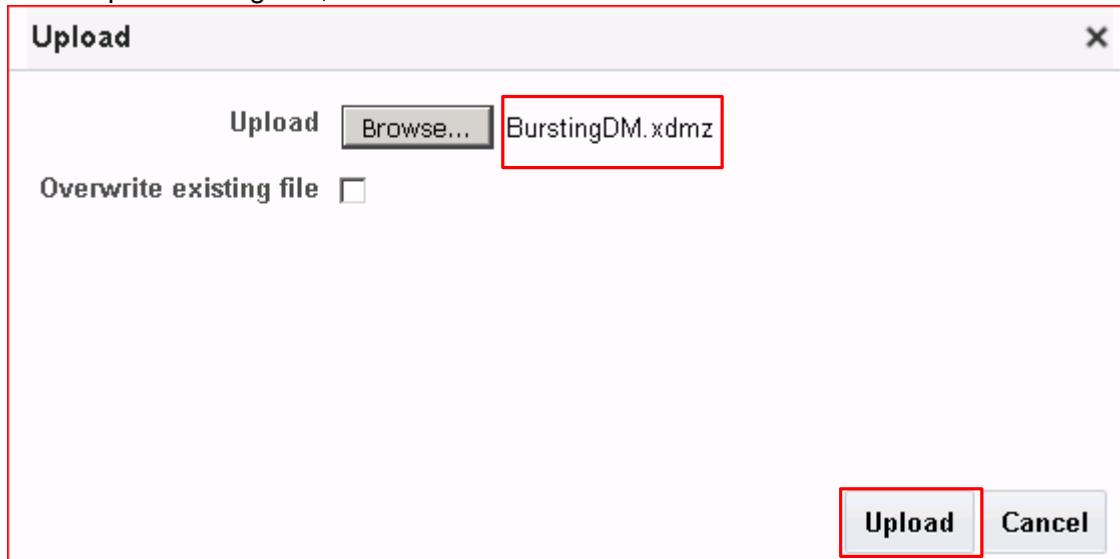
Tasks

1. From the Catalog, navigate to My Folders > Learn.

2. In the Tasks pane, click **Upload** ().

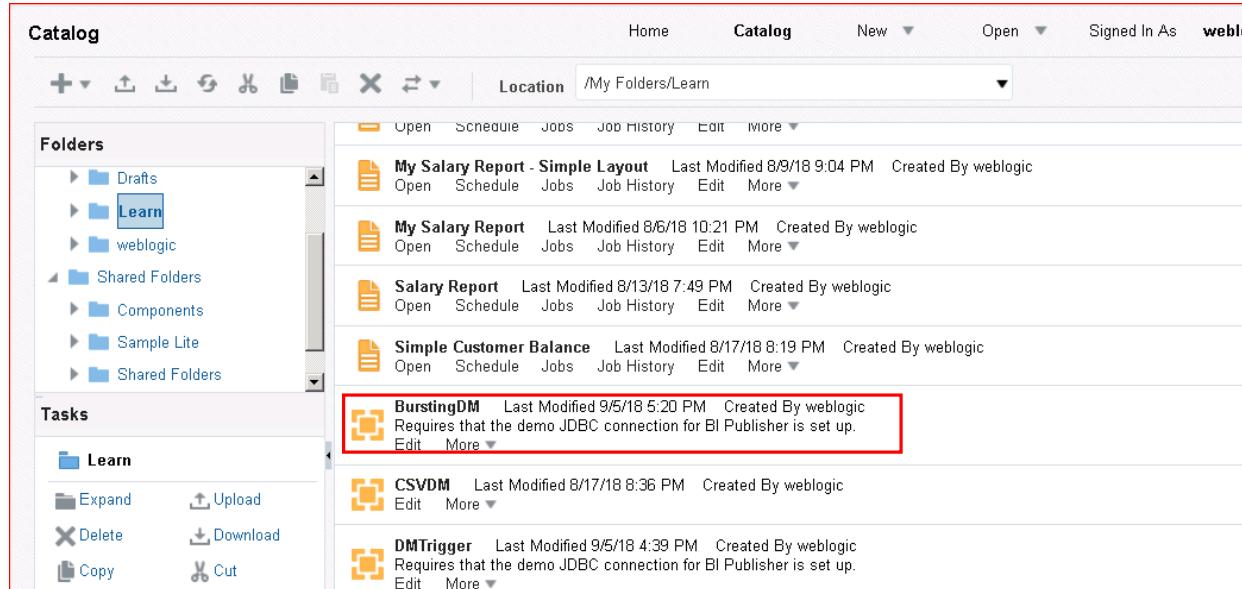


3. In the Upload dialog box, click **Browse**.



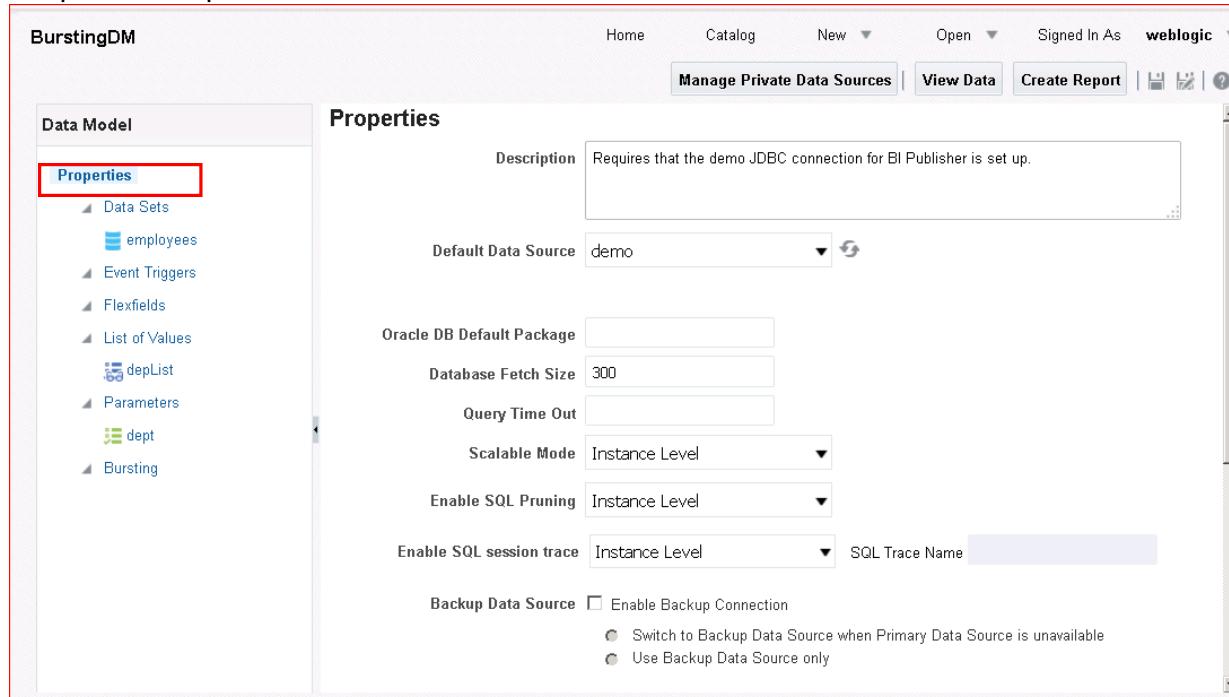
4. Navigate to the MyFiles local folder, and open **BurstingDM.xdmz**. This is a prebuilt data model. Click **Open**.
5. Click **Upload**.

6. The data model appears in the Learn folder. Click **Edit** to edit the data model.



The screenshot shows the Oracle BI Publisher Catalog interface. The top navigation bar includes Home, Catalog, New, Open, and Signed In As (weblogic). The Location bar shows /My Folders/Learn. The main area has two sections: Folders and Tasks. The Folders section lists Drafts, Learn (selected and highlighted in blue), and weblogic. The Tasks section lists Learn, Expand, Delete, Copy, BurstingDM (selected and highlighted in red), CSVDM, and DMTrigger. The BurstingDM item has a tooltip: "Requires that the demo JDBC connection for BI Publisher is set up." Below the tasks are buttons for Upload, Download, and Cut.

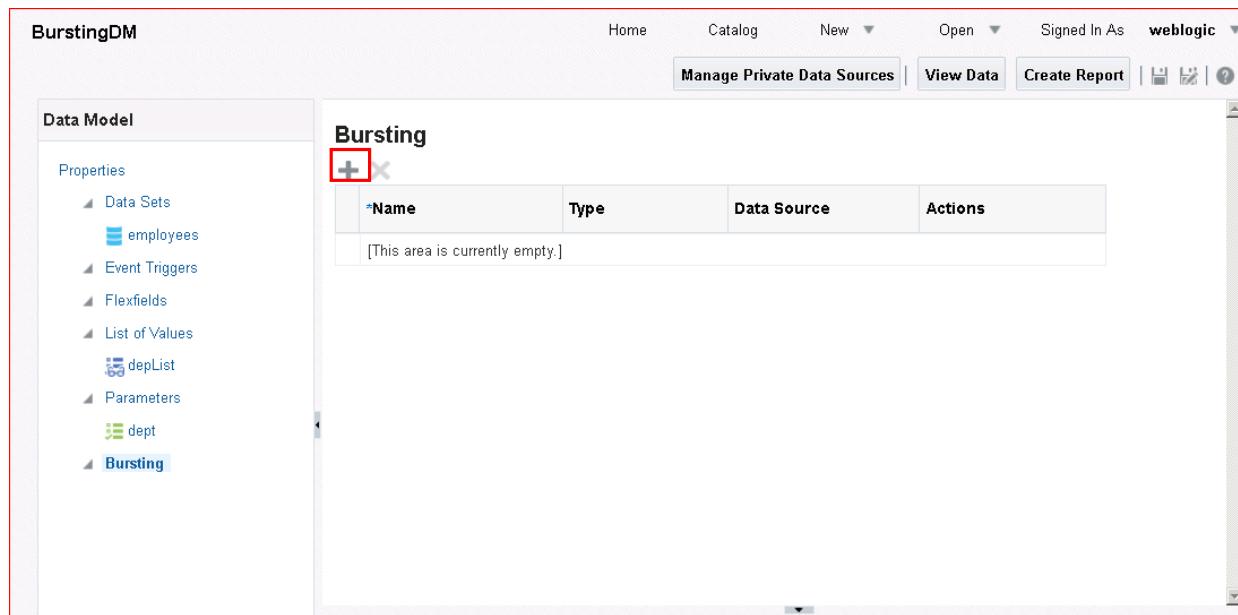
7. The data model is opened in the data model editor. Observe the data source settings and the predefined parameters.



The screenshot shows the Data Model Properties editor for the BurstingDM data model. The left sidebar shows sections like Data Model, Properties (selected and highlighted in red), Data Sets (employees, dept), Event Triggers, Flexfields, List of Values (depList), Parameters, and Bursting. The main Properties panel includes fields for Description (Requires that the demo JDBC connection for BI Publisher is set up.), Default Data Source (demo), Oracle DB Default Package, Database Fetch Size (300), Query Time Out, Scalable Mode (Instance Level), Enable SQL Pruning (Instance Level), Enable SQL session trace (Instance Level), SQL Trace Name, Backup Data Source (checkbox checked), and options for Switch to Backup Data Source when Primary Data Source is unavailable or Use Backup Data Source only.

8. Click the **Bursting** node in the Data Model pane.

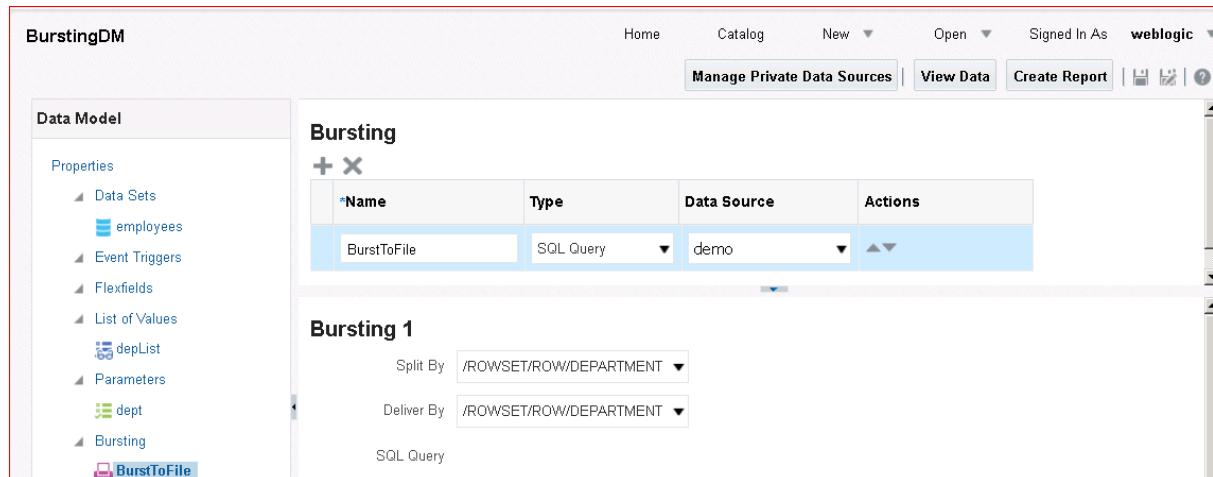
Click the Add icon () in the Bursting pane.



9. The Bursting pane expands and provides an additional definition area.

10. Enter the following information in the two Bursting panes:

Step	Attribute or Field	Choices or Values
a.	Name	BurstToFile
b.	Type	SQL Query
c.	Data Source	demo
d.	Split By	/ROWSET/ROW/DEPARTMENT_NAME
e.	Deliver By	/ROWSET/ROW/DEPARTMENT_NAME



11. In the SQL Query pane below the Query Builder button, copy and paste the following code:

```
select
d.department_name KEY,
'SimpleRTF' TEMPLATE,
'RTF' TEMPLATE_FORMAT,
'en-US' LOCALE,
'PDF' OUTPUT_FORMAT,
'FILE' DEL_CHANNEL,
'D:\Learn' PARAMETER1,
d.department_name || '.pdf' PARAMETER2
from departments d
```

Bursting

+ X

*Name	Type	Data Source	Actions
BurstToFile	SQL Query	demo	▲▼

Bursting 1

Split By /ROWSET/ROW/DEPARTMENT ▼

Deliver By /ROWSET/ROW/DEPARTMENT ▼

SQL Query

```
select
d.department_name KEY,
'SimpleRTF' TEMPLATE,
'RTF' TEMPLATE_FORMAT,
'en-US' LOCALE,
'PDF' OUTPUT_FORMAT,
'FILE' DEL_CHANNEL,
'D:\Learn' PARAMETER1,
d.department_name || '.pdf' PARAMETER2
from departments d
```

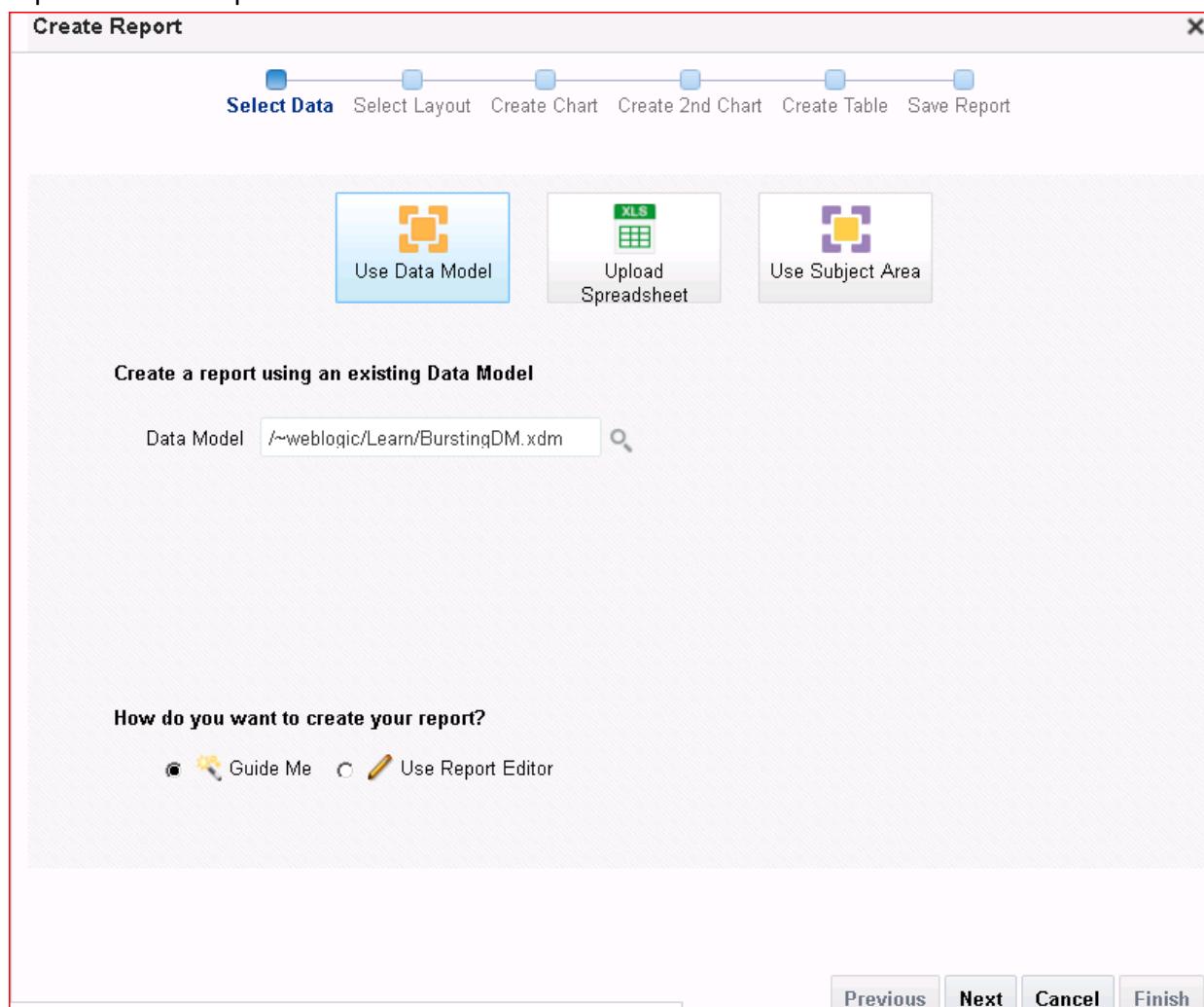
Your output will be delivered to a local directory D:\Learn. Notice that the code shows PDF as the selected output format.

12. View the data output and save the sample data. Save the data model.

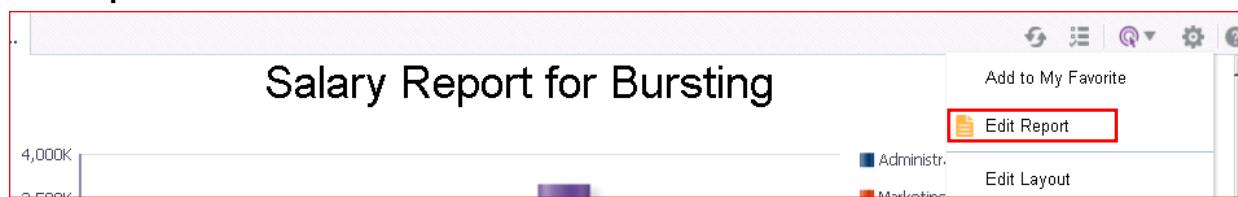
The screenshot shows the Oracle Database Data Modeler application window titled "BurstingDM". The top navigation bar includes "Home", "Catalog", "New", "Open", "Signed In As weblogic", and "Manage Private Data Sources", "View Data", "Create Report", and other icons. The main area is divided into sections: "Data Model" (Properties, Data Sets, Event Triggers, Flexfields, List of Values, Parameters, dept, Bursting, BurstToFile), "Diagram", "Structure", "Data" (selected), and "Code". The "Data" tab displays a "Department All" dropdown, a "Rows 5" dropdown, and buttons for "View", "Export", "Save As Sample Data" (which is highlighted with a red box), and "View Engine Log". Below these are sections for "ROWSET" and "ROW", each listing various employee attributes like NAME, FIRST_NAME, LAST_NAME, SALARY, ANNUAL_SALARY, FED_WITHHELD, JOB_TITLE, DEPARTMENT_NAME, and MANAGER, followed by their corresponding values in parentheses.

13. Click **Create Report** to create a new report based on this data model.

14. The Create Report Wizard is opened with the current data model for bursting. Create the report with the help of the wizard.



15. Save it as "Salary Report for Bursting."
16. The report is displayed in Report Viewer. Use the Actions menu to edit the report. Click **Edit Report**.

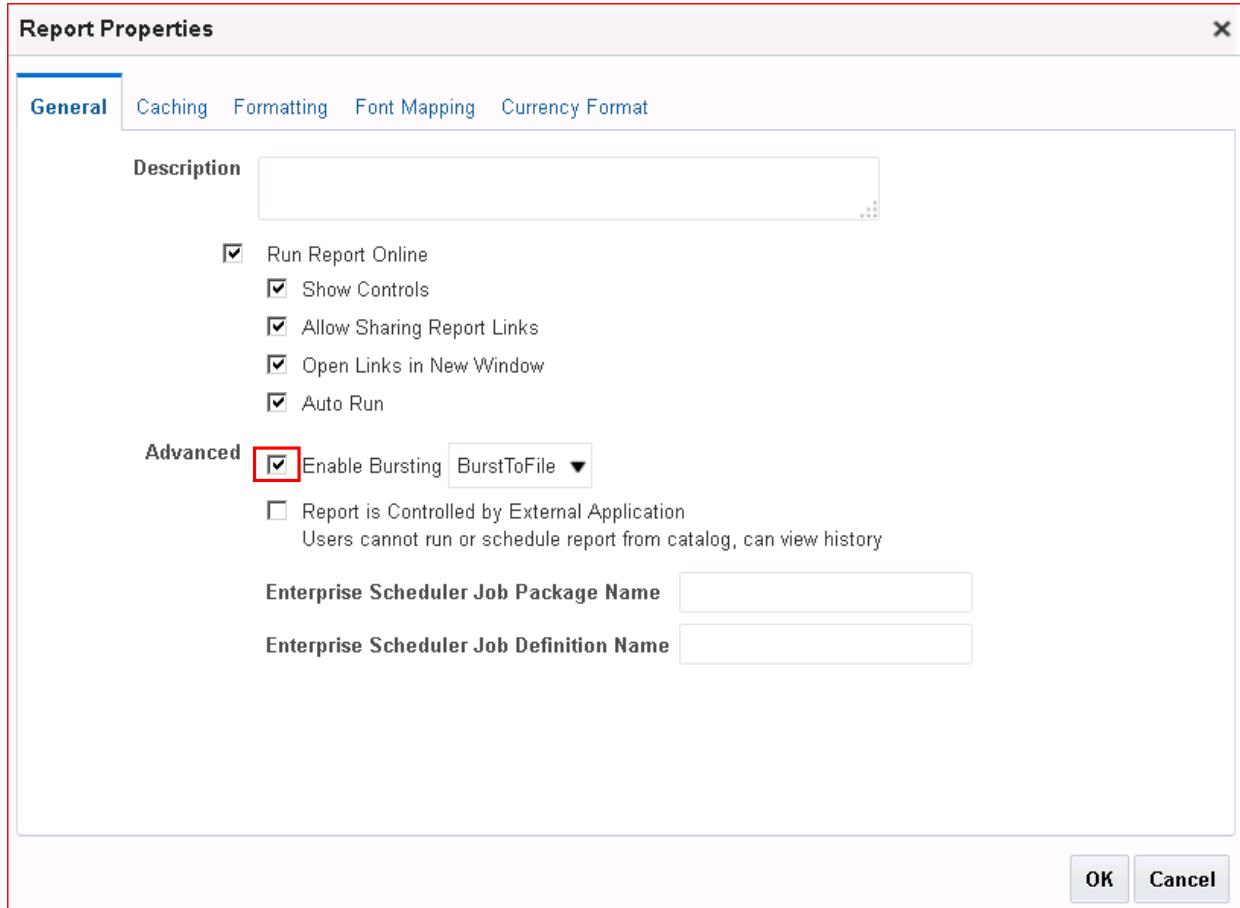


17. The report is displayed in Report Editor.



Click the **Properties** link (). The Report Properties dialog box appears.

18. On the **General** tab in the Advanced area, select the **Enable Bursting** check box and ensure that "BurstToFile" is selected from the drop-down list.



19. Click **OK**.
20. Save and view the report.
21. In the Report Viewer window, click **Schedule** from the actions menu.

22. The Schedule Report Job window is opened with the report selected. On the General tab, specify the Department parameters for display as Administration, Purchasing, and Shipping.

Schedule Report Job Home

Overview

General Created by weblogic
Report Name /~weblogic/Learn/Salary Report for Bursting.xdo
Schedule Start immediately

Outputs View bursting defin
Destination
Notification

General **Output** **Schedule** **Notification** **Diagnostic**

Report /~weblogic/Learn/Salary Report for Bu 🔍

Parameters

Department	Administration;Purchasing;Sh
<input type="checkbox"/> All	
<input checked="" type="checkbox"/> Administration	
<input type="checkbox"/> Marketing	
<input checked="" type="checkbox"/> Purchasing	
<input type="checkbox"/> Human Resources	
<input checked="" type="checkbox"/> Shipping	

Search ... F12

23. On the **Output** tab, select the “Use Bursting Definition to Determine Output & Delivery Destination” check box to enable bursting. Other options for output will be hidden when this check box is selected.

Schedule Report Job

Home Catalog New Open Signed In As weblogic

Overview

General Created by weblogic
Report Name /~weblogic/Learn/Salary Report for Bursting.xdo
Schedule Start immediately

Outputs View bursting definition
Destination
Notification

Return Submit ?

Output General Schedule Notification Diagnostic

Use Bursting Definition to Determine Output & Delivery Destination
 Make Output Public
 Save Data for Republishing

Output
Output is determined by bursting definition.

Destination
Destination is determined by bursting definition.

24. On the **Schedule** tab, select the options **Once** and **Run now**.

25. Submit the report.

26. Name the job **BurstingtoFile**. Click **OK**.

Submit

Report /~weblogic/Learn/Salary Report for Bursting.xdo
Parameters Department:Administration;Purchasing;Shipping
Schedule Start immediately
Output View bursting definition
Notification
Trigger Data Model
Trigger Name
Trigger Retry Limit
Trigger Pause Time
Trigger Parameters

Report Job Name

OK Cancel

27. After you receive confirmation, open Report Job History from the global header.

28. The Report Job Histories table displays the bursting job submitted.

The screenshot shows the 'Report Job History' page with a red border around the main content area. At the top, there are navigation links: Home, Catalog, New, Open, Signed In As (weblogic), Return, and Help. Below the navigation is a message: 'Last Refreshed Wed Sep 05, 2018 06:14:30 PM Western European Summer Time'. A dropdown menu for 'Time Zone used for filters and display' is set to [GMT+00:00] Casablanca. Under 'Filters', there are four search fields: 'Report Job Name' (Contains), 'Report Path' (Contains), 'Schedule Context' (Contains), 'Start Processing' (Equals Or Lat), 'End Processing' (Equals Or Earl), and 'Status' (All). Below the filters are 'Search' and 'Reset' buttons. The main section is titled 'Report Job Histories' and contains a table with the following data:

Report Job Name	Report Name	Status	Start Processing	End Processing	Owner	Scope
BurstingtoFile	Salary Report for Bursting.xdo	Success	Sep 05, 2018 06:14:22 PM	Sep 05, 2018 06:14:24 PM	weblogic	Private
TriggeredSchedule2	Salary Report.xdo	Success	Sep 05, 2018 04:57:42 PM	Sep 05, 2018 04:57:42 PM	weblogic	Public

[5 Total Report Output]

Click the job name **BurstingtoFile** to view the details.

29. The Report Job History details are displayed. Observe that the output has been split by the parameters selected while scheduling the report.

The screenshot shows the 'Output & Delivery' page with a red border around the main content area. At the top, there are links: XML Data, Diagnostic Log, Republish. A dropdown menu for 'Status' is set to All. Below the status is a table with the following data:

Output Name	Template	Format	Locale	Time Zone
BurstingtoFile	SimpleRTF	PDF	English (United States)	
BurstingtoFile	SimpleRTF	PDF	English (United States)	
BurstingtoFile	SimpleRTF	PDF	English (United States)	

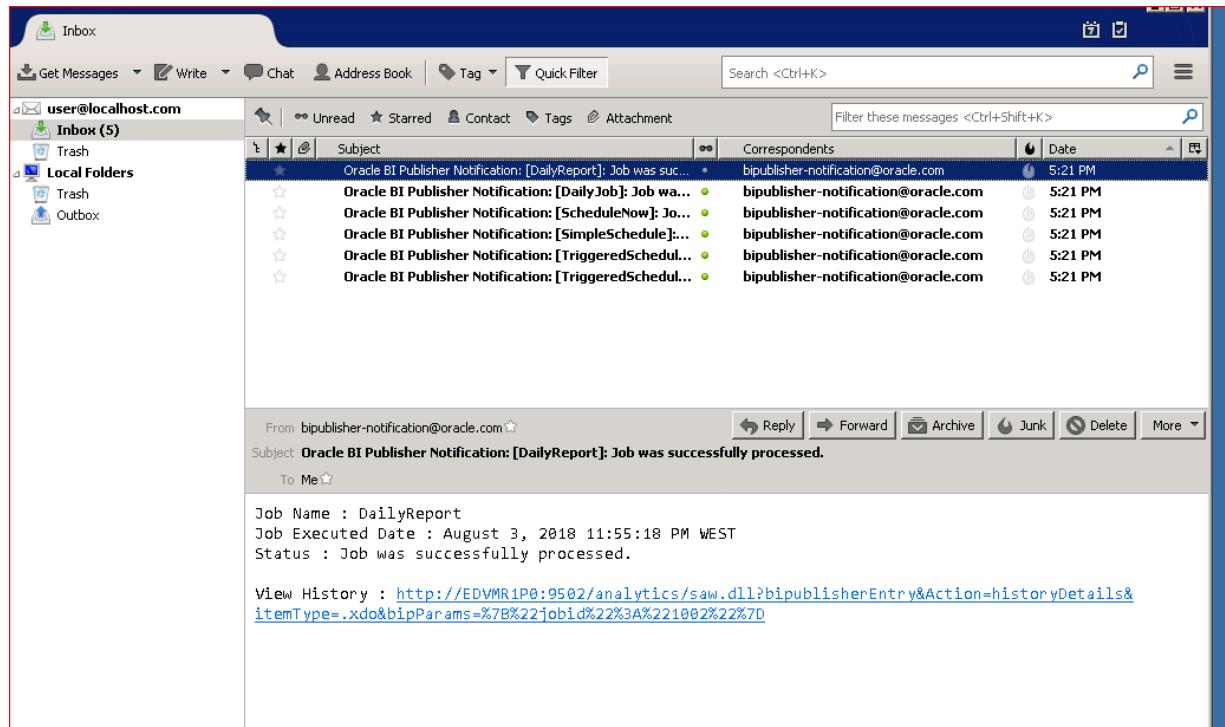
30. Expand any of the BurstingtoFile output names and you will see the PDF file name and location.

The screenshot shows the 'Output & Delivery' configuration screen. At the top, there are tabs for 'XML Data' and 'Diagnostic Log'. Below that is a status dropdown set to 'All'. The main area displays two 'BurstingtoFile' entries. The first entry is expanded, revealing its template as 'SimpleRTF', format as 'PDF', locale as 'English (United States)', and time zone as 'English (United States)'. It also shows a 'Split Key and Value' section with 'Purchasing' selected. Under 'Delivery 1: File', it specifies a directory of 'D:\Learn' and a file name of 'Purchasing.pdf'. The 'Last Updated' timestamp is '9/5/18 6:14:24 PM WEST'. A green checkmark indicates the status is successful. The second 'BurstingtoFile' entry is collapsed.

31. Navigate to the D:/Temp folder and review the contents.

The screenshot shows a Windows File Explorer window with the path 'Computer > WINNT (D:) > Learn'. The left sidebar shows 'Favorites' (Desktop, Downloads, Recent Places), 'Libraries' (Documents, Music, Pictures, Videos), and 'Computer' (WINNT (D:), CD Drive (E:)). The main pane lists files in the 'Learn' folder, which includes 'Administration.pdf', 'Balance Letter Datamodel_.xml', 'Balance Letter Start.rtf', 'Employees by Department DM_.xml', 'Manager Financials report.rtf', 'Purchasing.pdf', 'Retail Sales.rtf', 'RetailSales.xml', 'Salary Report.rtf', 'Shipping.pdf', 'test.rtf', and 'test.xls'. Three specific files are highlighted with red boxes: 'Administration.pdf', 'Purchasing.pdf', and 'Shipping.pdf'.

32. If you have time, open Mozilla Thunderbird and check whether you have received the notifications.



33. Click the URL provided in the notification. If necessary, modify the URL by changing the machine name to **localhost**. You will be on the Report Job History page.

The screenshot shows the 'Report Job History' page. At the top, it displays general information about the report job, including the Report Job ID (1002), Report Job Name (DailyReport), Owner (weblogic), Report Name (Salary Report), Report Scope (Private), and Report Job Schedule (8/3/18 11:55:17 PM WEST). It also shows the Report Job Execution Information, which includes the Report Job Status (Success), Start Processing Time (8/3/18 11:55:17 PM WEST), End Processing Time (8/3/18 11:55:18 PM WEST), and Time Elapsed (1.235 seconds).

The page is divided into sections: Report Parameters and Output & Delivery. Under Report Parameters, it shows Employee (All) and Department (All). Under Output & Delivery, it shows XML Data, Diagnostic Log, and Republish. A table for Output & Delivery lists one output entry: Output Name (Output1), Template (Simple), Format (PDF), Locale (English (United States)), Time Zone ([GMT+00:00] Casablanca), Calendar (Gregorian), and Status (Success).

Practices for Lesson 10:
Integrating BI Publisher with
Oracle BI Enterprise Edition

Practices for Lesson 10: Overview

Goal

To create BI Publisher reports based on BI Server and BI Analysis as data sources, and add the reports to the Oracle BI EE dashboard. You will also export these reports in MS Excel from the dashboard.

Practices Overview

You begin by reviewing the System Maintenance – Sever Configuration page. You create a report based on a BI Server SQL query. You create an Oracle BI analysis and then create a data model and a BI Publisher report based on the BI analysis. You then add these reports to an Oracle BI EE dashboard and download the data to MS Excel.

Time

35–45 minutes

Practice 10-1: Viewing Presentation Catalog Integration Details

Overview

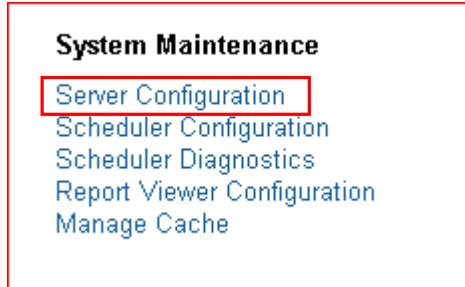
In this practice, you open the Administration page and view server configuration details.

Assumptions

You have enabled integration with Oracle BI EE.

Tasks

1. Log in to BI Publisher.
2. Click Administration > Server Configuration, located in the System Maintenance grouping.



3. The System Maintenance > Server Configuration page appears. As mentioned in the lesson, this page allows you to configure BI Publisher to use the Presentation Catalog. Review the details, but **do not** make any changes.

The screenshot shows the 'Administration > Server Configuration' page. The 'Catalog' tab is selected. The 'Catalog' section displays the following information:

- Catalog Type: Oracle BI EE Catalog
- Server Version: v7
- Connection protocol: TCP
- BI Publisher repository: D:/Oracle/Middleware/Oracle_Home/user_projects/domains/bi_foundation/bidata/components/bipublisher/repository
- BI Search URL: http://EDVMR1P0:9505/bisearch/rest/BISearchQueryService/search
- BI Search Group name: bisearch_ws
- BI Search Timeout (millisecond): 6000

At the bottom of the catalog section, there is a 'General Properties' tab. At the top right of the catalog section, the 'Apply' and 'Cancel' buttons are visible, with the 'Cancel' button highlighted by a red box.

4. Click **Cancel**.

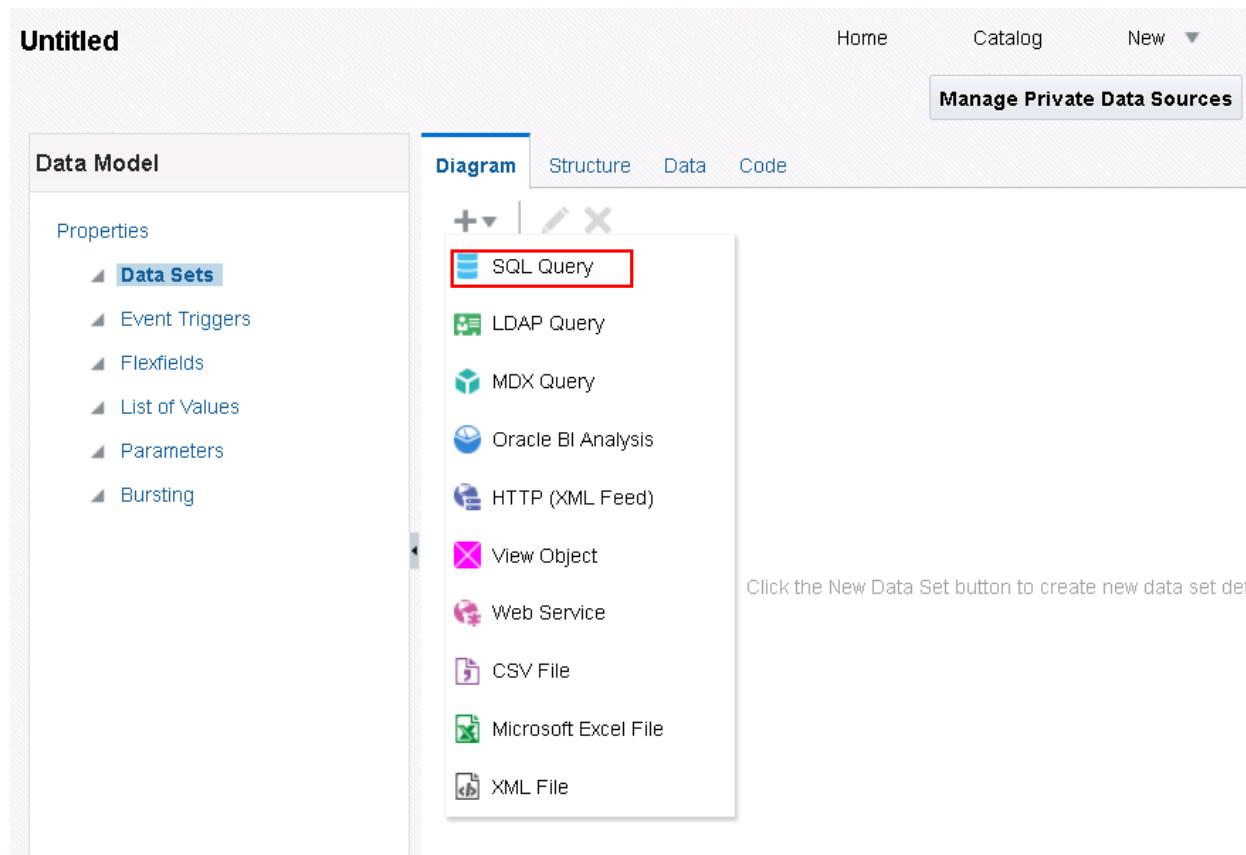
Practice 10-2: Creating a Data Model and Report Based on an Oracle BI Server SQL Data Set

Overview

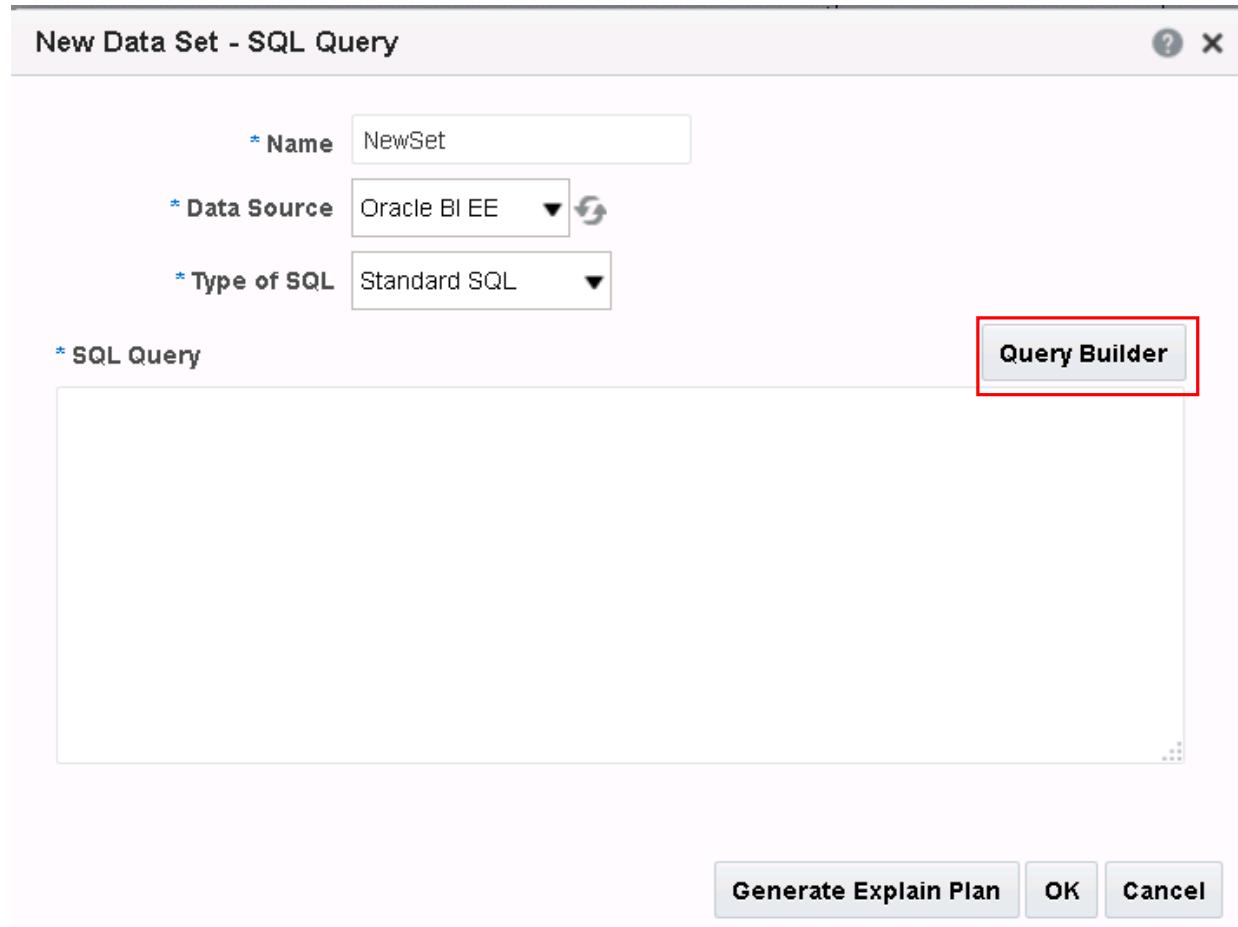
In this practice, you create a data model and report from an Oracle BI Server SQL data set.

Tasks

1. Log back in to BI Publisher and then click New > Data Model.
2. In the Data Model pane, select **Data Sets**, and then click **Data Sets > SQL Query**.

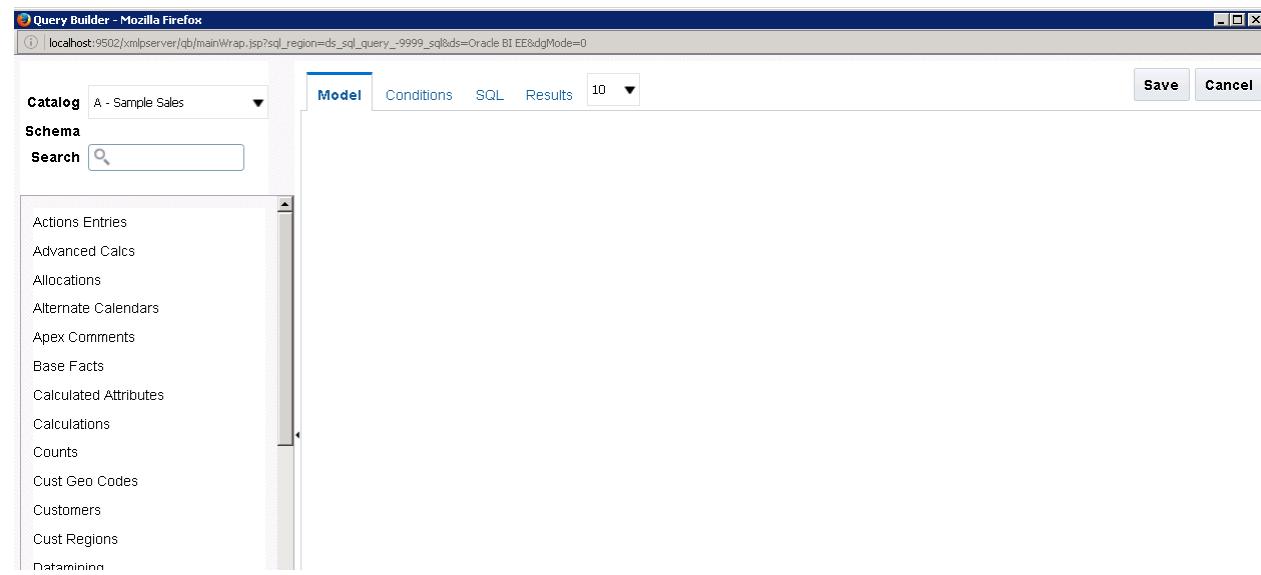


3. In the New Data Set – SQL Query dialog box, enter **NewSet** in the Name text box.



4. Select **Oracle BI EE** as the Data Source. Observe that you have selected Oracle BI EE as the data source unlike the usual **demo** or the private JDBC connections that you have used earlier.

5. Click **Query Builder**. The Query Builder window opens with the schema available for the selected data source.



6. In Query Builder, select the following tables: **Time**, **Orders**, **Products**, **Orders Dates**, and **Base Facts**.
7. Select the following columns from each table:

Step	Table Name	Column
a.	Time	Per Name Qtr
b.	Orders	Order Status
c.	Products	Product
d.	Orders Dates	Order Date
e.	Base Facts	Billed Quantity
f.	Base Facts	Discount Amount

The Model pane should look like this:

The Model pane displays five data sources:

- Time:** Contains items T00 Calendar Date, T01 Per Name Week, T02 Per Name Month, T03 Per Name Qtr (checked), T04 Per Name Half, and T05 Per Name Year.
- Orders:** Contains items R1 Order Status (checked), R2 Order Type, R3 Order Currency, R5 Order Discount Rate, R6 Transactional Order Number, and R0 Order Key.
- Products:** Contains items P1 Product (checked), P2 Product Type, P3 LOB, P4 Brand, P0 Product Number, P5 Attribute 1, and P6 Attribute 2 (checked).
- Orders Dates:** Contains items R11 Order Date-Time (checked), R12 Order Month, R13 Order Year, R14 Billed Date (checked), and R15 Billed Month.
- Base Facts:** Contains items 1- Revenue, 2- Billed Quantity (checked), 3- Discount Amount (checked), 4- Paid Amount, and 5- Target Revenue.

Note that you do not have to create any joins, because they are created in OBI EE.

- Click **Conditions**. Sort first on **Per Name Qtr** and then on **Product**.

Column	Alias	Object	Condition	Sort Type	Sort Order	Show	Function
T03 Per Name Qtr	T03 Per Name Qtr	Time		ASC	1	<input checked="" type="checkbox"/>	
R1 Order Status	R1 Order Status	Orders		ASC		<input checked="" type="checkbox"/>	
P1 Product	P1 Product	Products		ASC	2	<input checked="" type="checkbox"/>	
2- Billed Quantity	2- Billed Quantity	Base Facts		ASC		<input checked="" type="checkbox"/>	
3- Discount Amount	3- Discount Amount	Base Facts		ASC		<input checked="" type="checkbox"/>	
R11 Order Date-Time	R11 Order Date-Time	Orders Dates		ASC		<input checked="" type="checkbox"/>	

9. Click **SQL** to view the code.

Model Conditions **SQL** Results 10 ▾

Only use default schema

```
select    "Time"."T03 Per Name Qtr" as "T03 Per Name Qtr",
          "Orders"."R1 Order Status" as "R1 Order Status",
          "Products"."P1 Product" as "P1 Product",
          "Base Facts"."2- Billed Quantity" as "2- Billed Quantity",
          "Base Facts"."3- Discount Amount" as "3- Discount Amount",
          "Orders Dates"."R11 Order Date-Time" as "R11 Order Date-Time"
     from    "A - Sample Sales"."Base Facts" "Base Facts",
             "A - Sample Sales"."Orders" "Orders",
             "A - Sample Sales"."Products" "Products",
             "A - Sample Sales"."Orders Dates" "Orders Dates",
             "A - Sample Sales"."Time" "Time"
    order by "Time"."T03 Per Name Qtr" ASC, "Products"."P1 Product" ASC
```

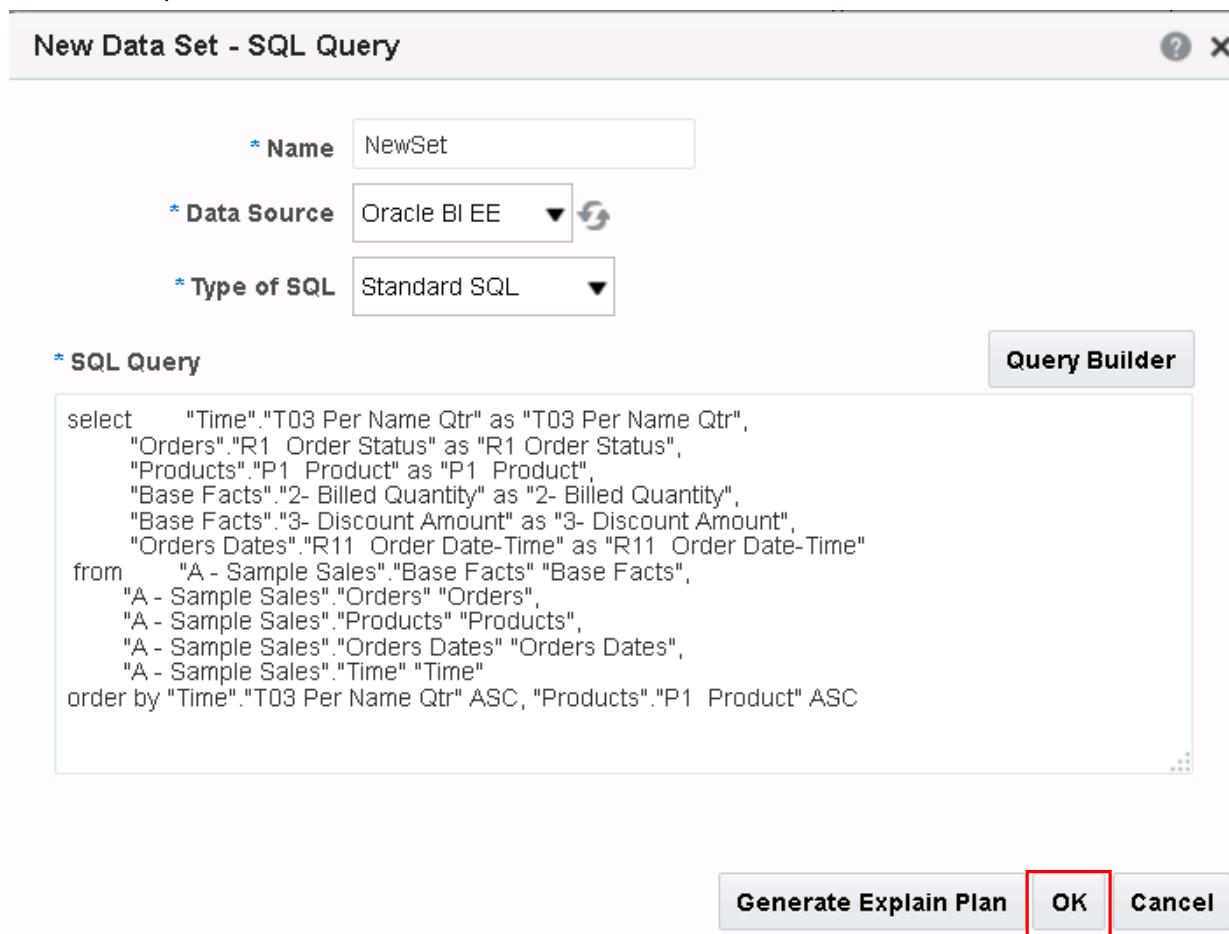
10. Click **Results**. The results appear.

Model Conditions SQL **Results** 10 ▾

T03 Per Name Qtr	R1 Order Status	P1 Product	2- Billed Quantity	3- Discount Amount	R11 Order Date-Time
2008 Q1	5-Paid	7 Megapixel Digital Camera	390	40.0	2007-12-19 00:00:00.0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	193	0.0	2007-12-22 00:00:00.0
2008 Q1	5-Paid	7 Megapixel Digital Camera	253	0.0	2007-12-25 00:00:00.0
2008 Q1	9-On Hold	7 Megapixel Digital Camera	279	0.0	2007-12-26 00:00:00.0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	338	58.0	2007-12-31 00:00:00.0
2008 Q1	1-Booked	7 Megapixel Digital Camera	349	0.0	2008-01-04 00:00:00.0
2008 Q1	5-Paid	7 Megapixel Digital Camera	293	71.0	2008-01-04 00:00:00.0
2008 Q1	6-Cancelled	7 Megapixel Digital Camera	241	0.0	2008-01-06 00:00:00.0
2008 Q1	4-Billed	7 Megapixel Digital Camera	311	26.0	2008-01-07 00:00:00.0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	448	44.0	2008-01-10 00:00:00.0

11. Click **Save**.

12. Click **OK** in the New Data Set – SQL Query dialog box. The new data set appears in the data model pane.



13. Click the Structure tab to change the display names for the data elements. Change the display names as given below:

Step	Data Source Column Name	Display Name
a.	PER NAME QTR	Qtr
b.	ORDER STATUS	Order Status
c.	PRODUCT	Product
d.	BILLED QUANTITY	Billed Qty
e.	DISCOUNT AMOUNT	Disc Amt
f.	ORDER DATE	Order Date

The Structure tab should look like this:

The screenshot shows the BI Publisher interface with the 'Structure' tab selected. At the top, there are tabs for 'Diagram', 'Structure' (which is highlighted in blue), 'Data', and 'Code'. Below the tabs, there are two main sections: 'Table View' and 'Output'. The 'Table View' section contains a table with columns for Data Source, XML Tag Name, Sorting, Value If Null, Display Name, and Data Type. The table rows correspond to the data elements listed in the table above, with their display names changed according to the instructions. The 'Business View' section is visible on the right side of the table.

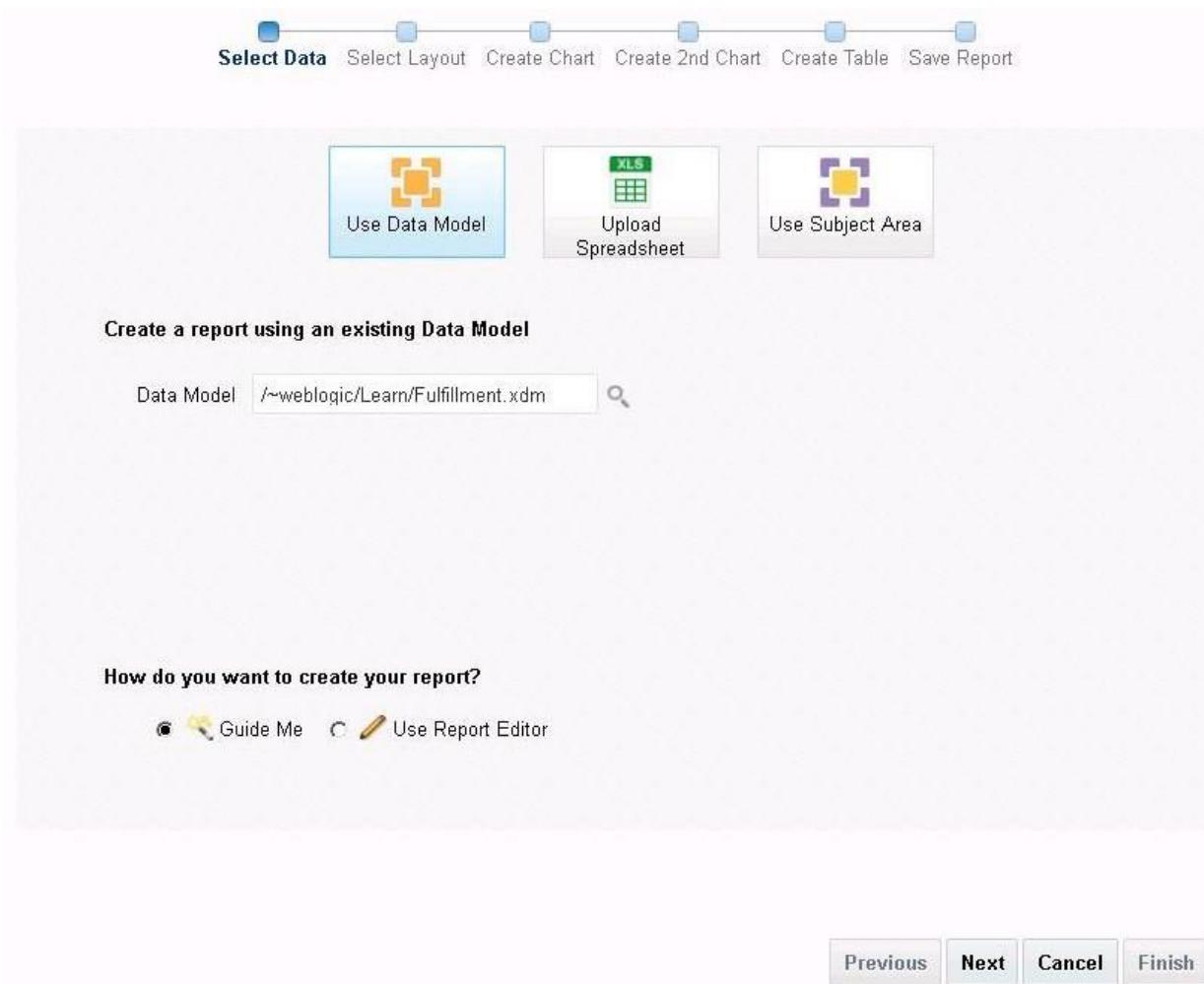
Data Source	XML View			Business View	
	XML Tag Name	Sorting	Value If Null	Display Name	Data Type
Report Data					
Data Structure	DATA_DS				
NewSet	G_1				
T03 Per Name Qtr	T03_Per_Name_Qtr			Qtr	A
R1 Order Status	R1_Order_Status			Order Status	A
P1 Product	P1_Product			Product	A
#2-Billed Quantity	2_Billed_Quantity			Billed Qty	#
#E3- Discount Amount	3_Discount_Amt			Disc Amt	#E
R11 Order Date-Time	R11_Order_Date_Time			Order Date	o

14. Click the Data tab to view the data and select 5 Rows, and click View.

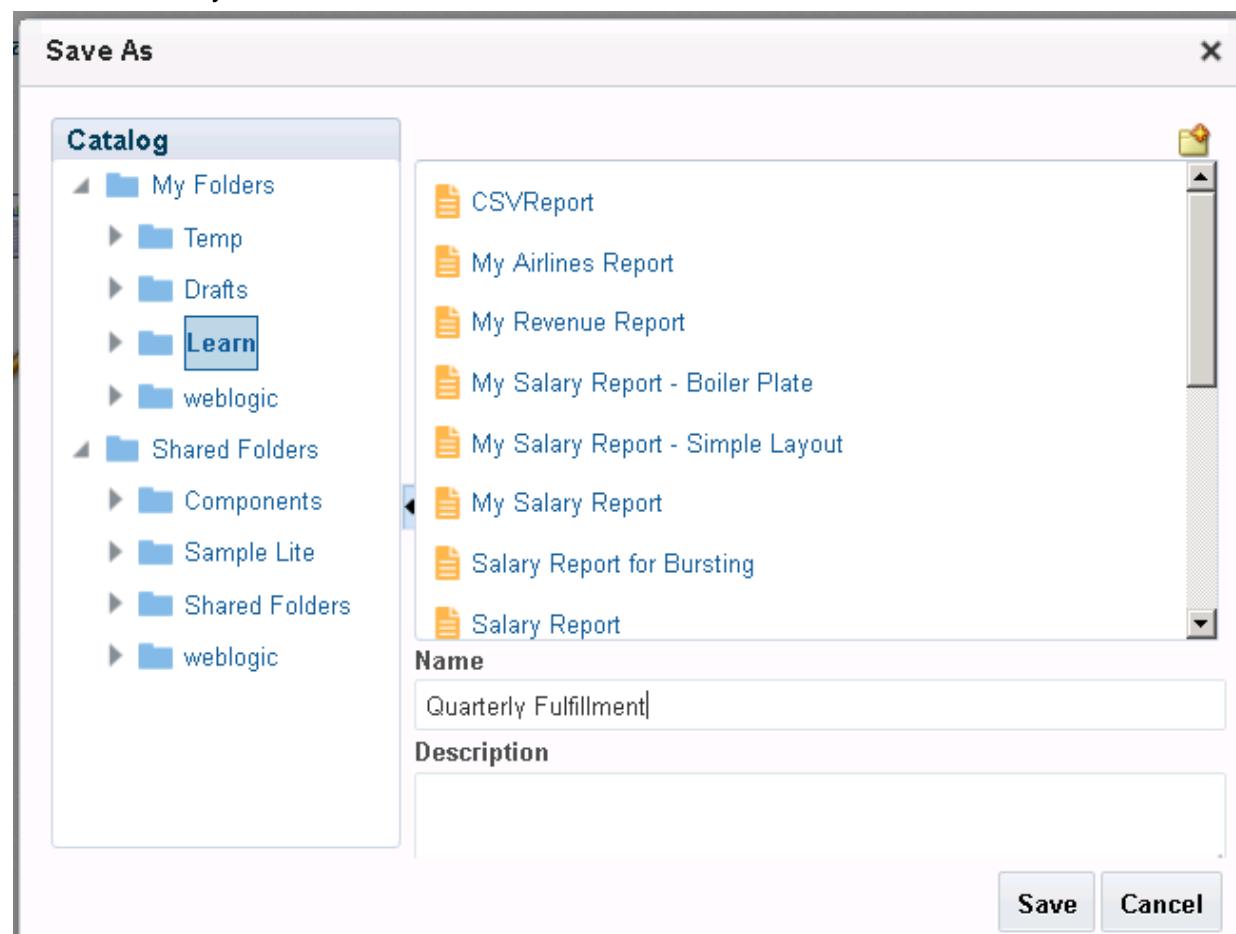
The screenshot shows the Oracle BI Publisher interface with the 'Data' tab selected. The top navigation bar includes 'Diagram', 'Structure', 'Data' (highlighted with a red box), and 'Code'. Below the navigation is a toolbar with 'Rows 5' dropdown, 'View' (highlighted with a red box), 'Export', 'Save As Sample Data' (highlighted with a red box), and 'View Engine Log'. The main content area displays a tree structure under 'DATA_DS'. The first node is 'G_1' with the following children:
T03_PER_NAME_QTR (2008 Q1)
R1_ORDER_STATUS (5-Paid)
P1_PRODUCT (7 Megapixel Digital Camera)
_2_BILLED_QUANTITY (390)
_3_DISCOUNT_AMOUNT (40.0)
R11_ORDER_DATE_TIME (2007-12-19T00:00:00.000+00:00)
The second 'G_1' node has similar structure but with different values for R1_ORDER_STATUS (2-Fulfilled) and _2_BILLED_QUANTITY (193). The third 'G_1' node has the same structure as the first two.
The bottom of the interface has a note: 'The data is displayed in a tree format. Click the Save As sample data. Save the data model as **Fulfillment** in the folder My Folders/Learn.'

15. Click **Create Report** to create a new report from this data model.

16. The Create Report Wizard is opened.



17. Follow the steps in the wizard to create the report and save the report as Quarterly Fulfillment in My Folders/Learn.



18. After saving, the report is displayed in the Report Viewer.

The screenshot shows a report viewer interface with a top navigation bar containing 'Home', 'Catalog', 'New ▾', 'Open ▾', and 'Signed In'. Below the navigation is a toolbar with icons for search, refresh, and other functions. The main content area is titled 'Quarterly Fulfillment' and displays a table with the following data:

Qtr	Order Status	Product	Billed Qty	Disc Amt
2008 Q1	5-Paid	7 Megapixel Digital Camera	390	40
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	193	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	253	0
2008 Q1	9-On Hold	7 Megapixel Digital Camera	279	0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	338	58
2008 Q1	1-Booked	7 Megapixel Digital Camera	349	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	293	71
2008 Q1	6-Cancelled	7 Megapixel Digital Camera	241	0
2008 Q1	4-Billed	7 Megapixel Digital Camera	311	26
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	448	44
			5358213	1600000

Practice 10-3: Creating an Oracle BI Analysis

Overview

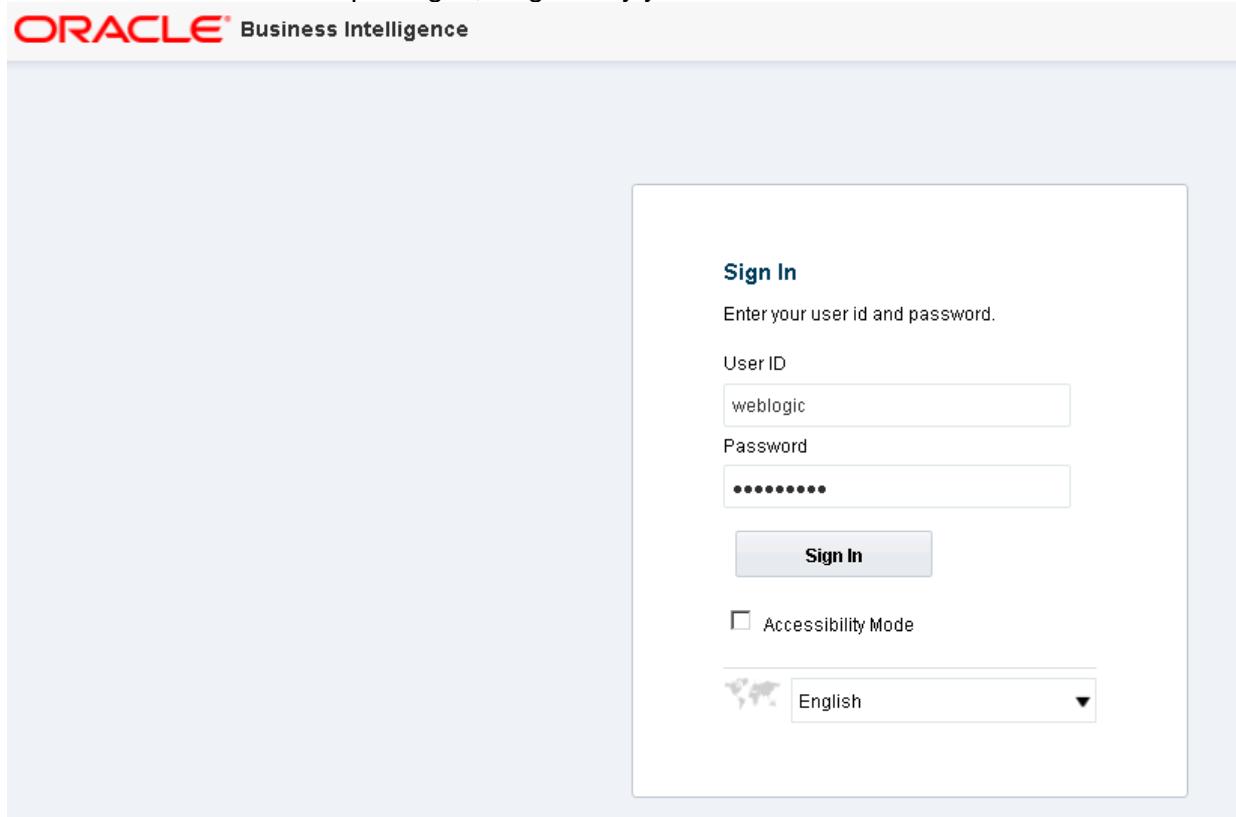
In this practice, you create a simple sales analysis by using Oracle BI Analytics, the analysis component of Oracle BI EE.

Assumptions

You have enabled integration with Oracle BI, allowing you to access the Presentation Catalog. This allows you to create an Oracle BI analysis as a data source.

Tasks

1. Open Oracle BI EE. Enter the URL for Oracle BI EE in a browser window by using the following format:
<http://<hostname>:<port>/xmlpserver/>. Example: <http://localhost:9502/analytics/>.
Your instructor can provide you with the correct URL.
2. Sign in. On the sign-in screen for Oracle BI EE, enter the username and password for a user with BI Administrator privileges, as given by your instructor.



3. Click **Sign In**. When you sign in, the Home page or your personal dashboard page, My Dashboard, appears. Oracle BI EE has many of the same features that you use in BI Publisher, such as the global header or the Create section.

The screenshot shows the Oracle Business Intelligence Enterprise Edition (BI EE) Home page. At the top, there is a navigation bar with the Oracle logo, a search bar, and links for Home, Catalog, Favorites, Dashboards, New, and Open. Below the navigation bar, there are two main sections: 'Create...' on the left and 'Recent' and 'Most Popular' on the right.

Create...

- Data Exploration & Discovery
Visual Analyzer Projects
- Analysis and Interactive Reporting
Analysis Dashboard More ▾
- Mobile Application
Mobile App
- Published Reporting
Report Report Job More ▾
- Actionable Intelligence
Agent Action
- Performance Management
Scorecard KPI KPI Watchlist

Recent

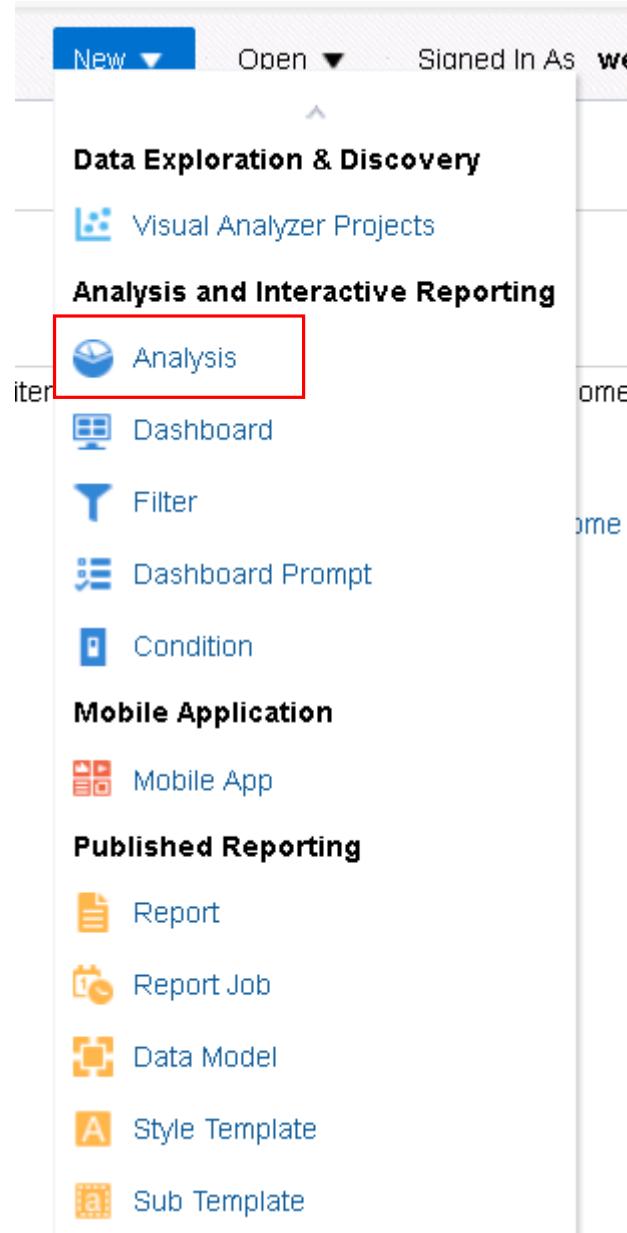
Recently opened or edited items will be displayed here.

Most Popular

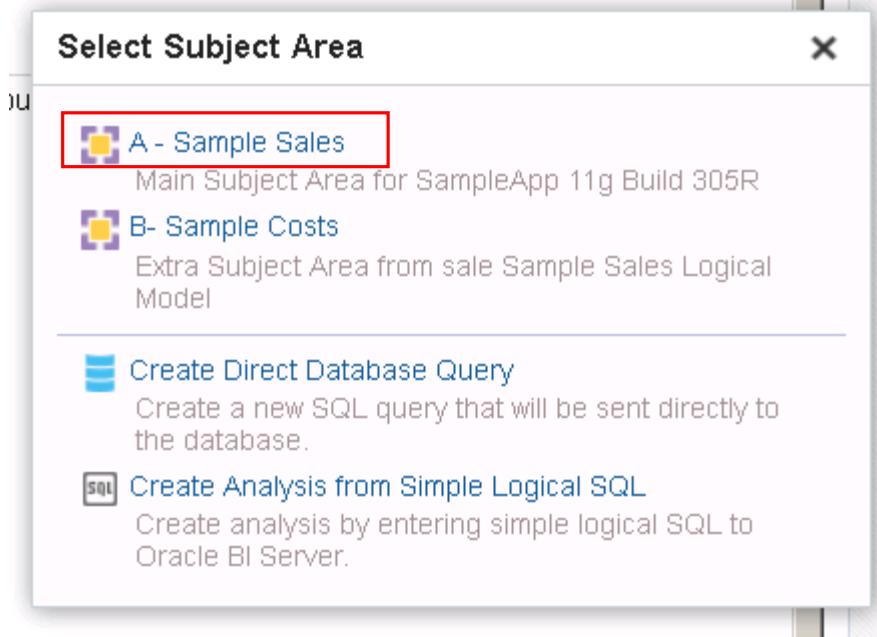
No recommendations are currently available. Most Popular items will be displayed when available.

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4. Click the **Home** link on the global header and then click **New > Analysis**.



- From the Select Subject Area dialog box, click **Sample Sales Lite**. A subject area contains folders, measure columns, attribute columns, hierarchical columns, and hierarchy levels that represent information about your organization's business.



- The Analysis Editor appears. You build your analysis by using the Criteria tab, and you review your analysis on the Results tab.

The screenshot shows the Oracle Business Intelligence Analysis Editor interface. The top navigation bar includes "ORACLE Business Intelligence", "Search All", "Advanced", "Administration", "Help", and "Sign Out". The main workspace has tabs for "Criteria", "Results", "Prompts", and "Advanced", with "Criteria" selected. On the left, a tree view under "Subject Areas" shows "A - Sample Sales" expanded, revealing categories like Time, Products, Offices, Sales Person, Customers, Orders, Other Objects, and Facts. Below this, the "Catalog" section shows "List All". On the right, the "Selected Columns" panel has a placeholder "Drop Columns Here". At the bottom, the "Filters" panel is visible.

7. To build your query, you select columns from the Subject Area pane. Expand the **Offices** table.

The screenshot shows the Oracle BI Publisher Criteria interface. At the top, there are tabs for Criteria, Results, Prompts, and Advanced. Below the tabs is a toolbar with search, sort, and filter icons. The main area is divided into several panes:

- Subject Areas**: A tree view of available tables and dimensions. The **Offices** table is expanded, and its sub-table **D4 Company** is selected and highlighted with a red box.
- Selected Columns**: A pane where selected columns are listed. It currently contains no items.
- Filters**: A pane where filters can be applied.
- Catalog**: A pane for managing catalog items.

8. Double-click the **Company** column to add the column to the Selected Columns pane.
Company appears in the Selected Columns pane.

The screenshot shows the Oracle BI Publisher Selected Columns pane. It displays the columns that have been selected for the query:

- Offices
- D4 Company

9. Expand the **Time** table.

10. Double-click the **Per Name Year** column. Per Name Year appears in the Selected Columns pane.

The screenshot shows the Oracle BI Publisher interface with the 'Untitled' workspace selected. The top navigation bar includes Home, Catalog, Favorites, Dashboards, New, Open, and Signed In As (weblogic). The 'Criteria' tab is active. The left sidebar under 'Subject Areas' shows a tree structure for 'A - Sample Sales' under 'Time', including 'Time', 'Alternate Calendars', 'More Time Objects', 'T00 Calendar Date', 'T01 Per Name Week', 'T02 Per Name Month', 'T03 Per Name Qtr', 'T04 Per Name Half', and 'T05 Per Name Year'. The 'Selected Columns' pane on the right lists 'Offices' and 'Time' under the 'Time' category. A red box highlights the 'T05 Per Name Year' item in both the sidebar and the selected columns list. Below the 'Selected Columns' pane is a 'Filters' section.

11. Similarly, expand the **Products** table and add **Product** and **Product Type**.
 12. Expand the **Facts -> Base-Facts** table and add **Revenue** and **Target Revenue**. The Selected Columns pane should look like this:

This screenshot shows the 'Selected Columns' pane with the following structure:

Offices	Time	Products	Base Facts		
D4 Company	T05 Per Name Year	P1 Product	P2 Product Type	1- Revenue	5- Target Revenue

The 'Time' and 'Products' sections have been expanded to show their respective components. The 'Base Facts' section also contains additional items.

13. Click the **Results** tab. By default, a compound layout, containing a Title view and a Table view, is created for your analysis.

The screenshot shows the BI Publisher Compound Layout interface. At the top, there is a toolbar with various icons for printing, saving, and navigating. Below the toolbar, the title "Compound Layout" is displayed. The layout contains two views: "Title" and "Table". The "Title" view has a single row with a placeholder "Title". The "Table" view displays a data grid with the following columns: D4 Company, T05 Per Name Year, P1 Product, P2 Product Type, 1-Revenue, and 5-Target Revenue. The data rows show information for Genmind Corp in 2008 across various product categories and types.

D4 Company	T05 Per Name Year	P1 Product	P2 Product Type	1-Revenue	5-Target Revenue
Genmind Corp	2008	7 Megapixel Digital Camera	Camera	499,696	235,500
		Bluetooth Adaptor	Accessories	208,483	92,500
		CompCell RX3	Cell Phones	213,072	113,500
		Game Station	Fixed	360,877	171,000
		HomeCoach 2000	Fixed	200,806	96,000
		Install	Install	16,627	8,500
		KeyMax S-Phone	Smart Phones	116,698	67,000
		LCD 36X Standard	LCD	489,144	262,500

Note: If you add a hierarchy level or hierarchical column when building the analysis, the default compound layout will contain a Pivot Table view. Pivot tables are beyond the scope of this practice.

14. Click Delete (X) to remove the Title view.

The screenshot shows the BI Publisher Compound Layout interface after the "Title" view has been deleted. Only the "Table" view remains, which displays the same data grid as the previous screenshot. The "Delete" icon for the "Title" view is highlighted with a red box.

D4 Company	T05 Per Name Year	P1 Product	P2 Product Type	1-Revenue	5-Target Revenue
Genmind Corp	2008	7 Megapixel Digital Camera	Camera	499,696	235,500
		Bluetooth Adaptor	Accessories	208,483	92,500
		CompCell RX3	Cell Phones	213,072	113,500
		Game Station	Fixed	360,877	171,000
		HomeCoach 2000	Fixed	200,806	96,000
		Install	Install	16,627	8,500
		KeyMax S-Phone	Smart Phones	116,698	67,000
		LCD 36X Standard	LCD	489,144	262,500

Observe that although you have removed the Title view from the Compound Layout, it is still available in the Views pane.



15. Save the analysis. Click **Save** (). Save the analysis as Company Product Revenue by Year in the Learn folder. Click **OK**.

The name of your analysis appears on the tab.

A screenshot of the Oracle BI Publisher analysis results page titled 'Company Product Revenue by Year'. The 'Results' tab is selected. On the left, the 'Subject Areas' tree shows 'A - Sample Sales' expanded, with 'Time', 'Products', 'Offices', 'Sales Person', and 'Customers' listed. The main area displays a 'Compound Layout' containing a table with the following data:

D4 Company	T05 Per Name Year	P1 Product	P2 Product Type	1-Revenue	5-Target Revenue
Genmind Corp	2008	7 Megapixel Digital Camera	Camera	499,696	235,500

16. Click **Sign Out**.

Practice 10-4: Creating a Data Model and Report Based on an Oracle BI Analysis

Overview

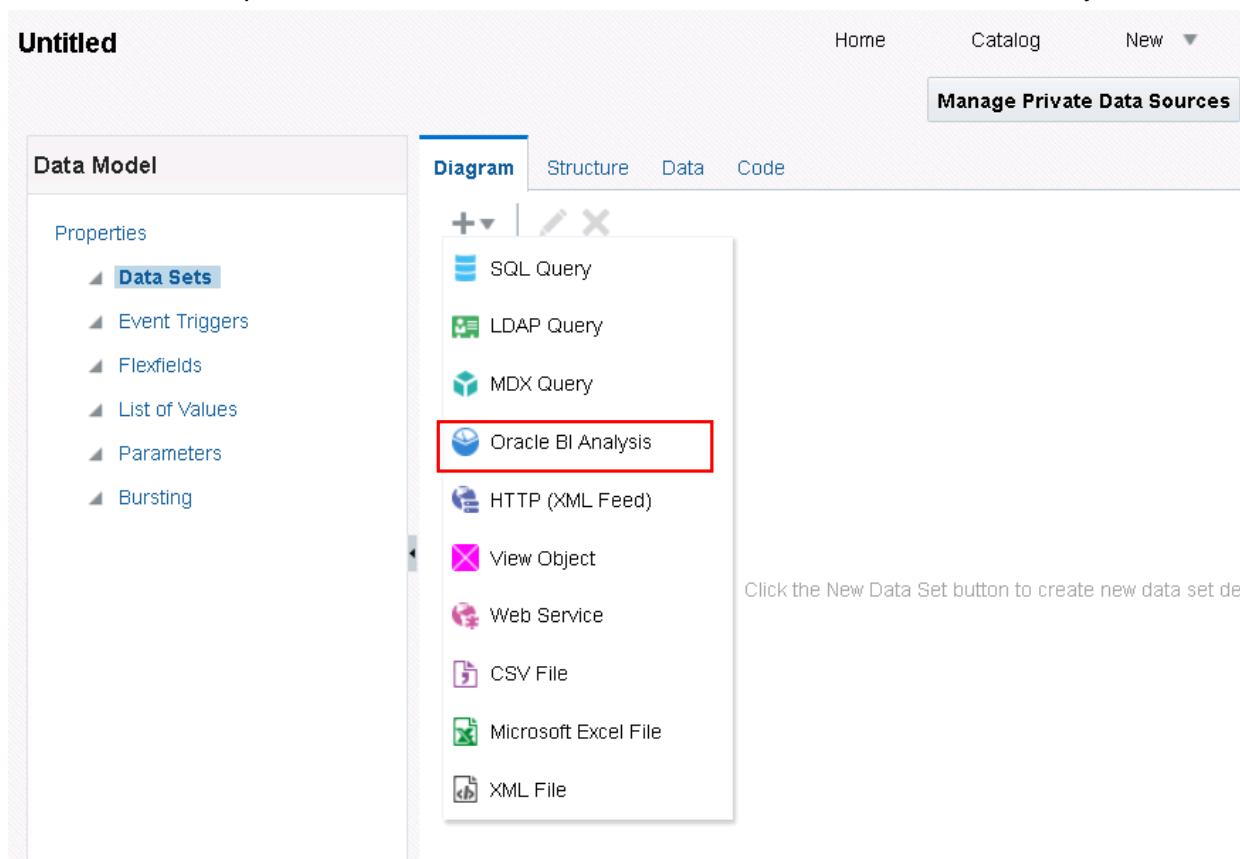
In this practice, you create a data model and report from an Oracle BI analysis data set.

Assumptions

You have successfully created the Oracle BI analysis. You will use this analysis to create a data set for this practice.

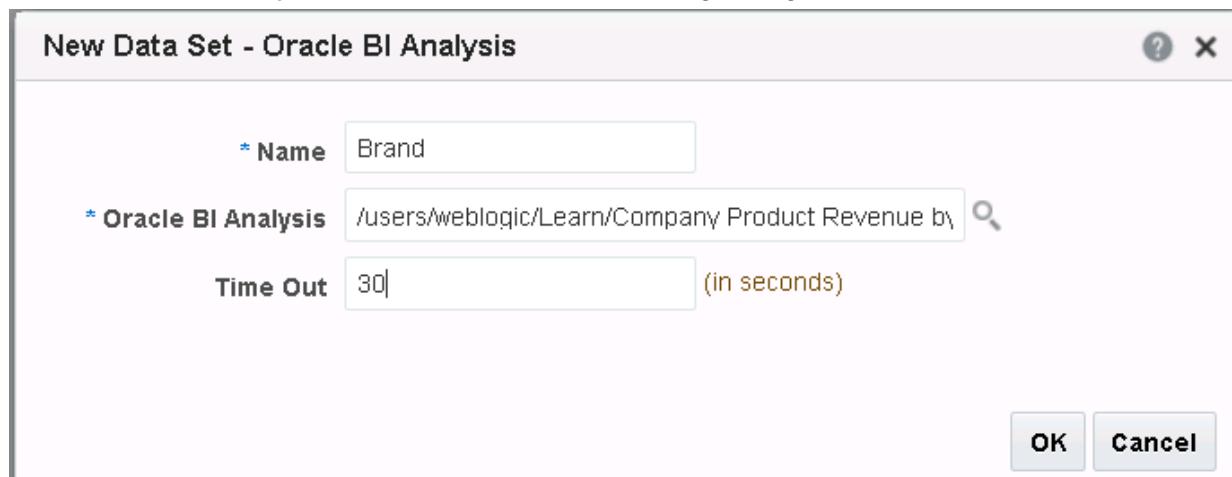
Tasks

1. Log back in to BI Publisher
2. Click **New > Data Model**.
3. In the Data Model pane, select **Data Sets** and then click Data Sets > Oracle BI Analysis.



4. In the New Data Set – Oracle BI Analysis dialog box, enter `Brand` in the Name text box.

5. Click the **Search** icon (🔍). Navigate to the \My Folders\Learn and select **Company Product Revenue by Year** from the Oracle BI Catalog dialog box.



6. Enter 30 in the Time Out text box.
 7. Click **OK** in the New Data Set – Oracle BI Analysis dialog box to return to Data Model Editor.

The screenshot shows the Oracle BI Data Model Editor. The left sidebar has a tree view under 'Properties' with nodes like Data Sets (selected), Event Triggers, Flexfields, List of Values, Parameters, and Bursting. The main workspace shows a 'Diagram' tab selected. On the left, there's a 'Global Level Functions' component with a placeholder 'Drop here for aggregate function'. On the right, there's a table named 'G_1' with 6 columns. Columns 4 and 5 contain aggregate function icons (#E▼). The table has rows for Column0 through Column5.

- After you have added the Oracle BI analysis as your data set, the data set name appears in the Data Model pane. Column names for the data set are inherited from Presentation Services and are not meaningful to the end user because they appear as a combination of column type and column name (for example, Column0). Edit the columns to display names that are more meaningful. You can use the Structure view to edit the XML tags and display names. The Structure view has two modes: Table View and Output. Table View displays element properties in a table and enables you to update XML element alias names, presentation names of the elements, sorting, null values, and reset options.

Table View | Output

Data Source	XML View			Business View	
	XML Tag Name	Sorting	Value If Null	Display Name	Data Type
Report Data					
Data Structure	DATA_DS				
Brand	G_1				
A c37f3c1ddbe5b5377	Column0			"Offices"."D4_Comp	A
A cfcbd2d633096b003	Column1			"Time"."T05_Per_Nan	A
A ca58e3281dc17af5a	Column2			"Products"."P1_Proc	A
A c1f6026c56ac0f555	Column3			"Products"."P2_Proc	A
#E c1602b9216c75161e	Column4			"Base_Facts"."1_Re	#E
#E	Column5			"Base_Facts"."5_Tar	#E

The Output view provides a clear view of the XML structure that will be generated. The Output view is not updatable.

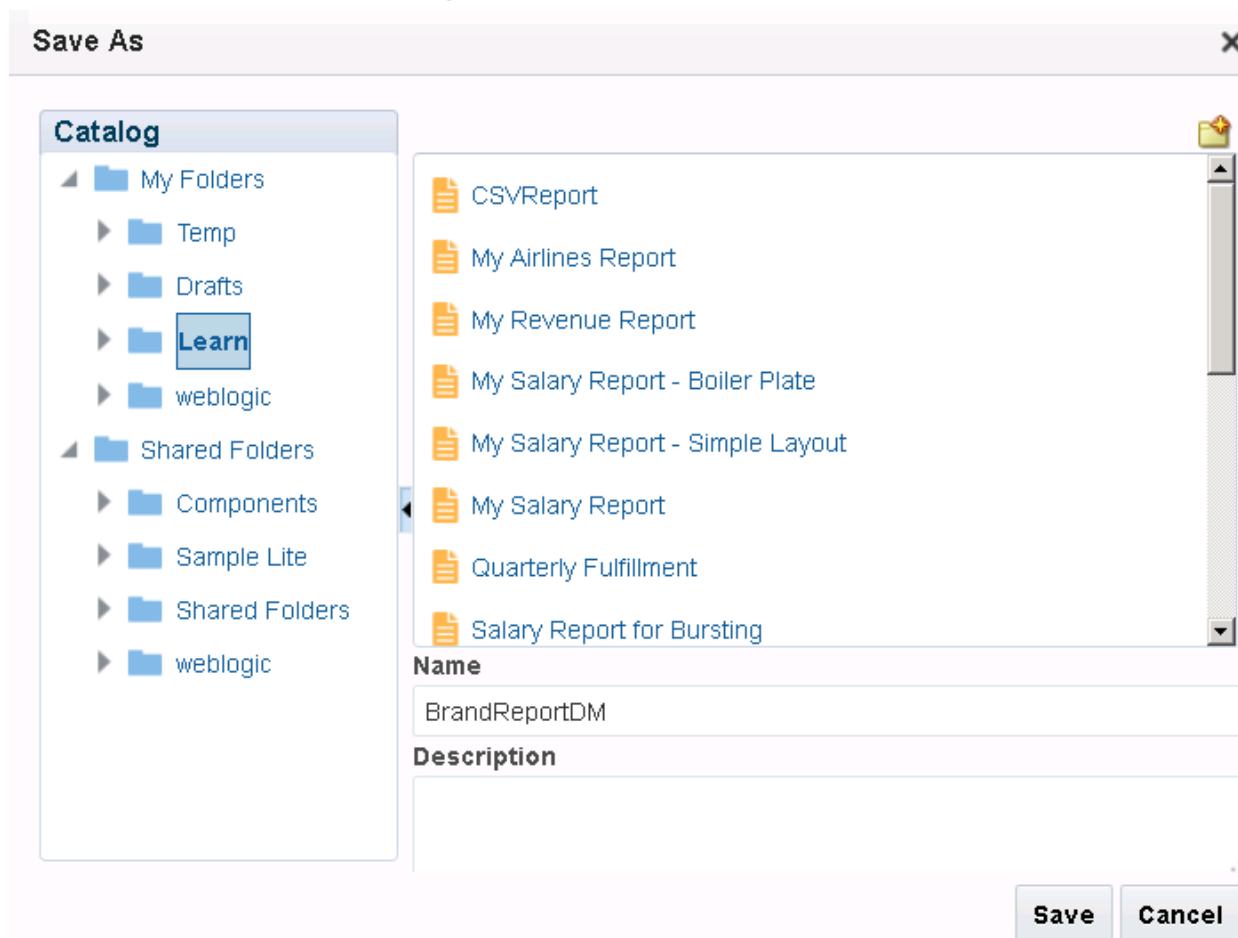
9. Click the **Data** tab. This opens the Data view for the data set. Select the required number of rows for display and click View to see the data associated with this analysis.

The screenshot shows the Oracle BI Publisher Data view interface. At the top, there is a navigation bar with tabs: Diagram, Structure, Data (which is selected and highlighted in blue), and Code. Below the navigation bar, there is a toolbar with buttons for Rows (set to 5), View, Export, Save As Sample Data (which is highlighted with a red box), and View Engine Log. The main content area displays a data set named DATA_DS, which contains two groups, G_1 and G_2. Group G_1 contains five data rows: COLUMN0 (Genmind Corp), COLUMN1 (2008), COLUMN2 (7 Megapixel Digital Camera), COLUMN3 (Camera), and COLUMN4 (499696.28). Group G_2 contains five data rows: COLUMN0 (Genmind Corp), COLUMN1 (2008), COLUMN2 (Bluetooth Adaptor), COLUMN3 (Accessories), and COLUMN4 (208483.42).

Group	Column 0	Column 1	Column 2	Column 3	Column 4
G_1	COLUMN0 (Genmind Corp)	COLUMN1 (2008)	COLUMN2 (7 Megapixel Digital Camera)	COLUMN3 (Camera)	COLUMN4 (499696.28)
G_1	COLUMN0 (Genmind Corp)	COLUMN1 (2008)	COLUMN2 (Bluetooth Adaptor)	COLUMN3 (Accessories)	COLUMN4 (208483.42)

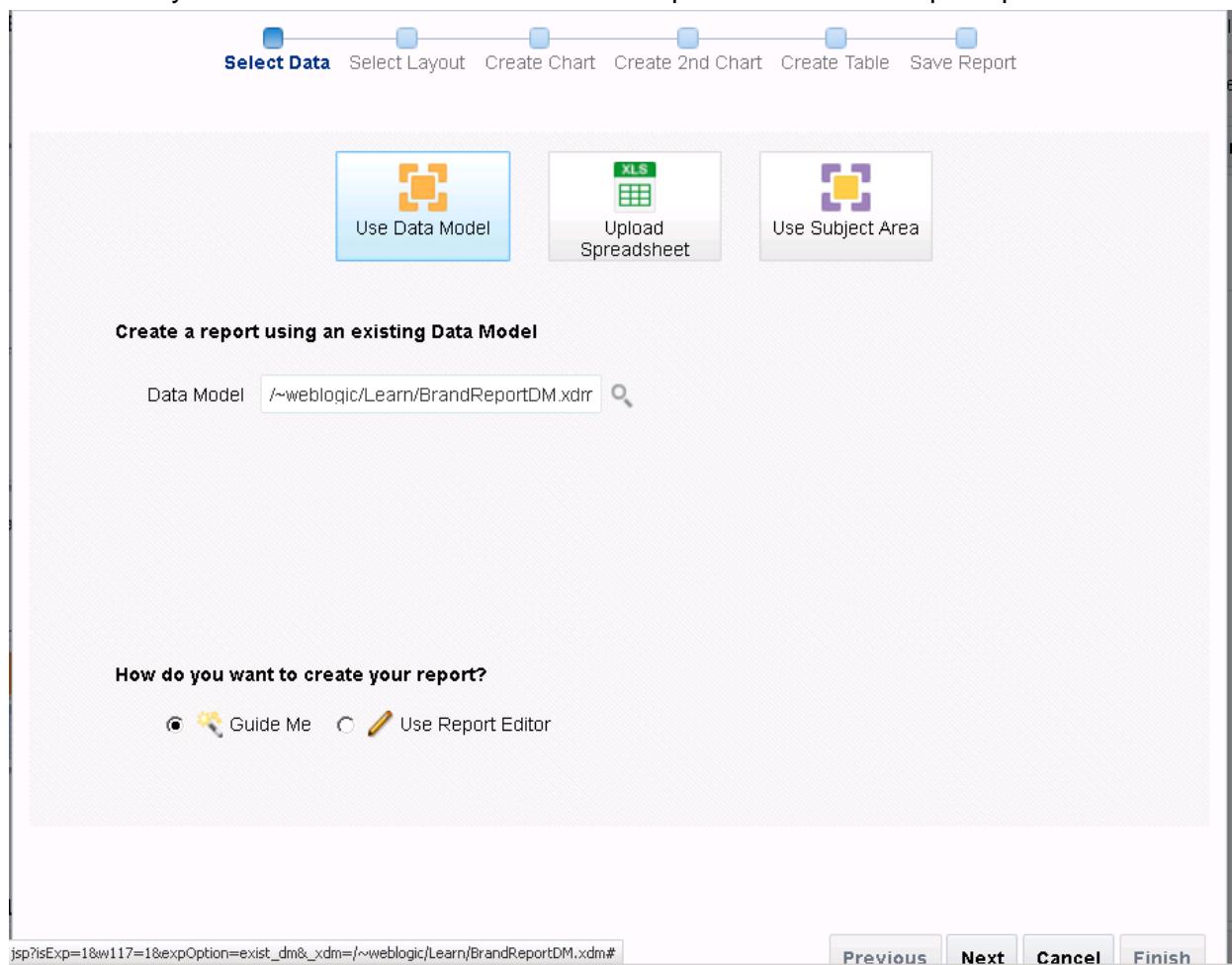
10. After the data is displayed, click Save As Sample Data. You will receive a confirmation. Close the confirmation message.

11. Save the data model as **BrandReportDM** in the **Learn** folder.



12. Click Create Report. This opens the Create Report Wizard.

13. Observe that the Create Report Wizard is selected with the data model that you created with the analytic data source. Select the Guide Me option to create a simple report.



14. Complete the wizard steps to create the report.
15. Save the report as **Brand Revenue** in the **Learn** folder.

16. Because you chose the View option while saving the report, it will be opened in Report Viewer.



Practice 10-5: Adding a BI Publisher Report to an Oracle BI EE Dashboard

Overview

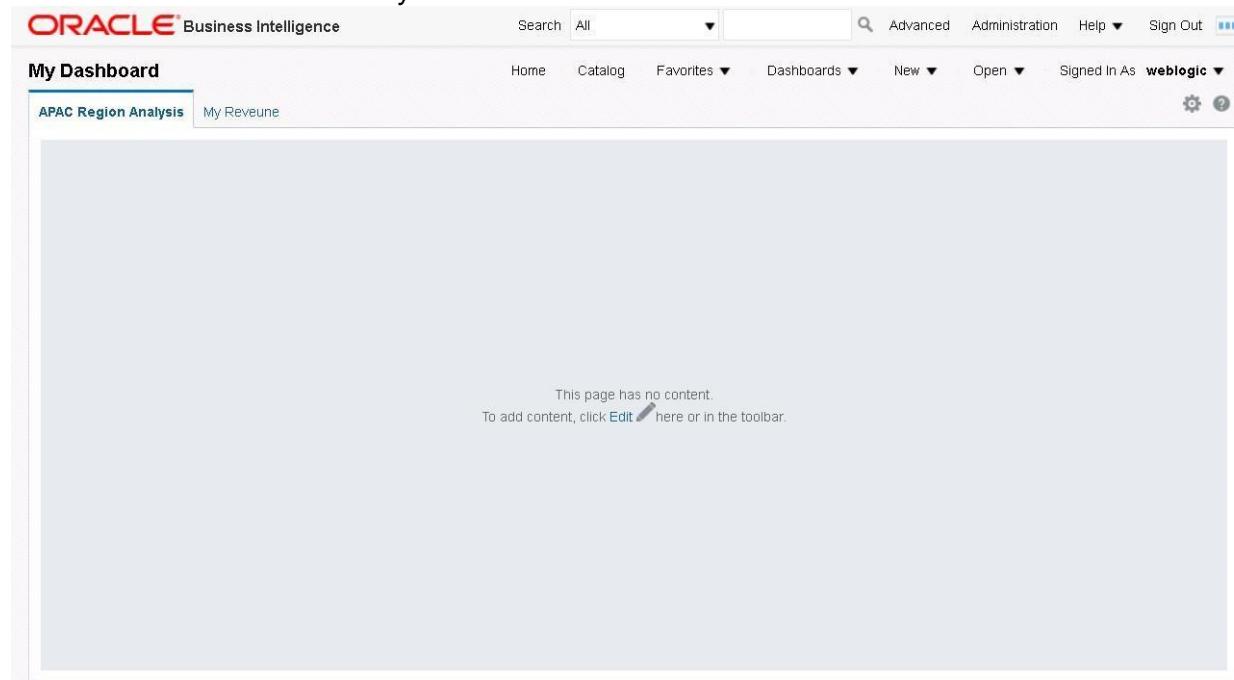
In this practice, you add a BI Publisher report created from an Oracle BI analysis and BI Server data set to an Oracle BI EE dashboard.

Assumptions

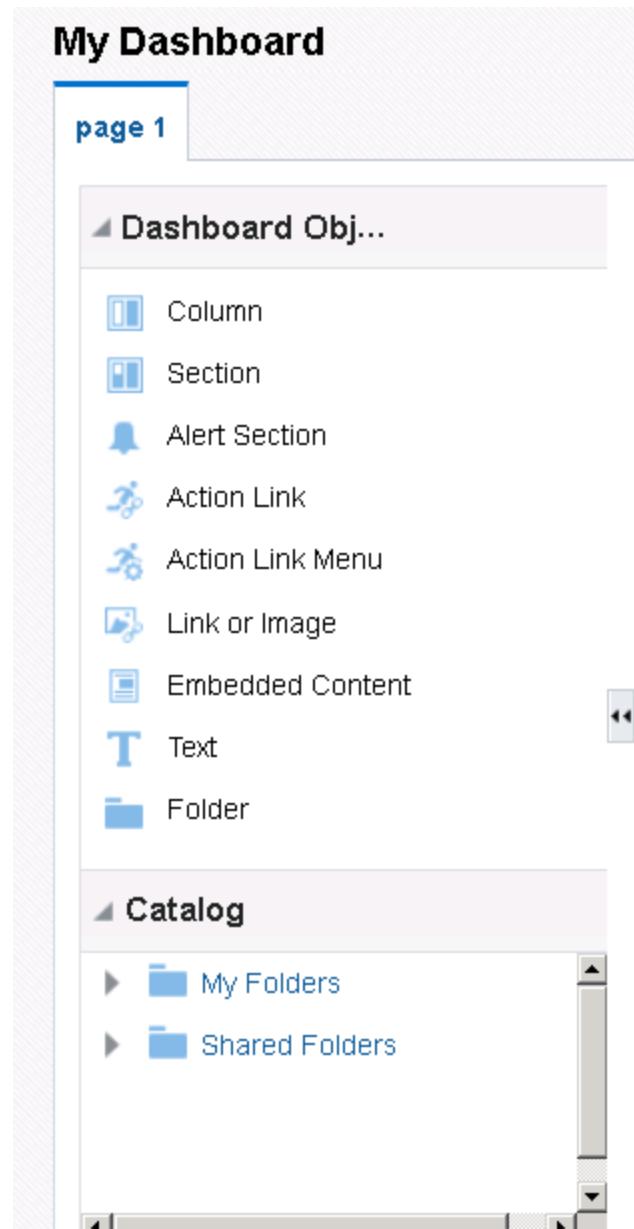
You have successfully created the BI Publisher report in the previous reports. You will add these reports to the Oracle BIEE dashboard.

Tasks

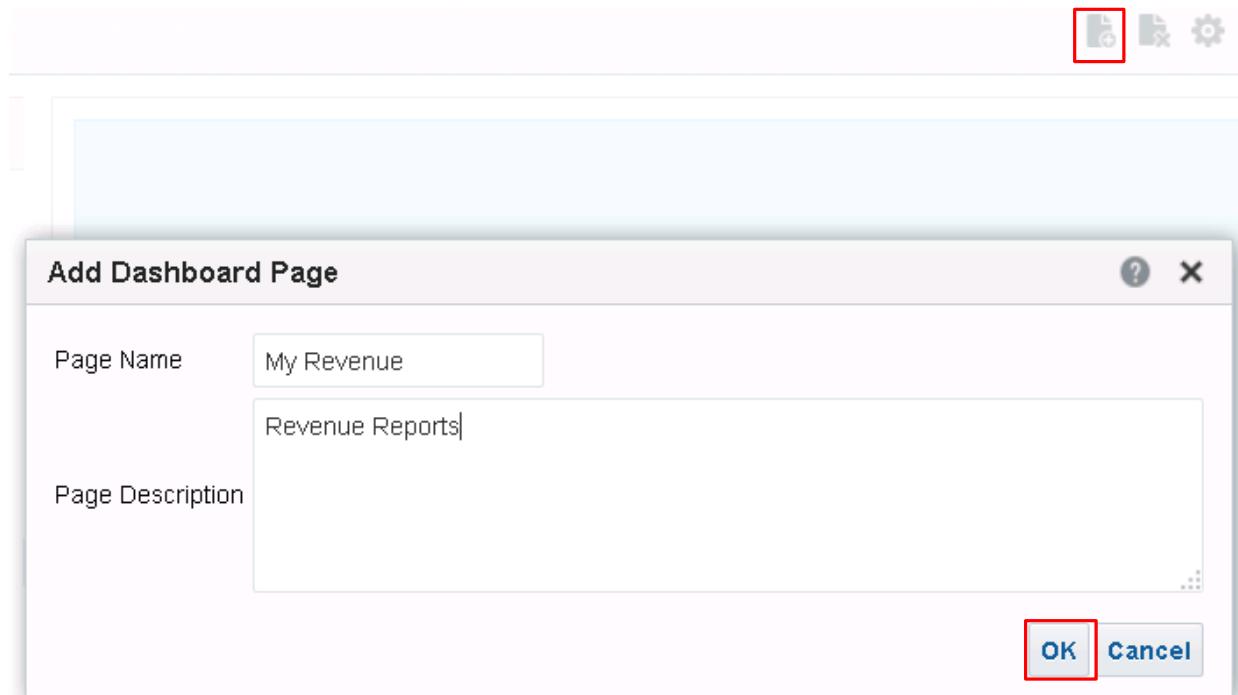
1. Open a new browser window. Log in to Oracle BI EE. (Enter <http://localhost:7001/analytics> in the address bar.)
2. Enter your credentials in the User ID and Password text boxes in the Oracle BI EE Sign In window and click **Sign In**.
3. Click Dashboard and select My Dashboard.



4. Click **Page Options** () > **Edit Dashboard** or click **Edit** () to edit the dashboard. The Dashboard Editor appears. The Dashboard Editor is composed of three areas: the Dashboard Objects pane, Catalog pane, and the work area (Drop Content Here).



5. When you open a new dashboard, a new page, named page 1, is available by default. You can either rename this page or add a new page. In this example, you add a new page. Click the Add a New Page icon to add a new dashboard page My Revenue.



Enter the name My Revenue for the new dashboard page and click **OK**.

6. Drag and add column element and sections to the new My Revenue page.

The screenshot shows the Oracle BI Publisher interface with a dashboard titled 'My Dashboard'. The top navigation bar includes 'Home', 'Catalog', 'Favorites ▾', 'Dashboards ▾', 'New ▾', 'Open ▾', and 'Signed In As weblogic'. Below the navigation is a toolbar with icons for preview, run, and dashboard management. The main area shows a list of dashboard objects on the left, with 'Column' and 'Section' highlighted with red boxes. On the right, there is a 'Column 1' section containing a 'Section 1' panel.

7. In the Catalog pane, navigate to My Folders > Learn and select the report Brand Revenue, which you created in the previous practice.

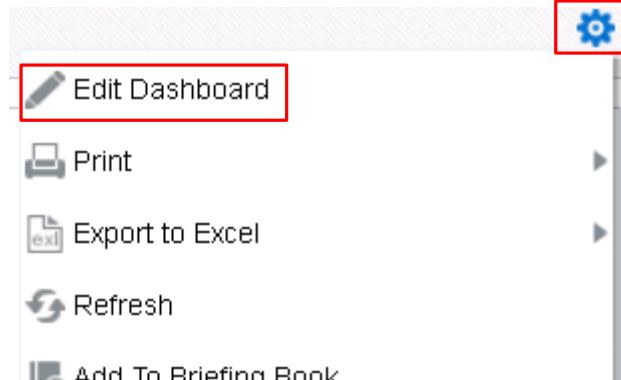
The screenshot shows the Oracle BI Publisher interface. On the left, there's a sidebar titled 'My Dashboard' with tabs for 'page 1' and 'My Revenue'. Below these are sections for 'Dashboard Obj...' and 'Catalog'. Under 'Catalog', there's a tree view of 'My Folders' containing 'My Dashboard', 'Temp', 'Drafts', and 'Learn'. Under 'Learn', the 'Brand Revenue' report is highlighted with a red box. At the top right, there are several buttons: 'Home', 'Catalog', 'Favorites ▾', 'Dashboards ▾', 'New ▾', 'Open ▾', 'Signed In As weblogic ▾', and a 'Run' button which is also highlighted with a red box. To the right of the catalog tree is a large canvas area divided into 'Section 1' and 'Section 2', both currently empty.

8. Drag it to the Dashboard Editor canvas on the right. You can also add any other relevant reports. The reports appear on the My Revenue page.
 9. Click Save.
 10. Click Run.

The report is displayed in the dashboard.



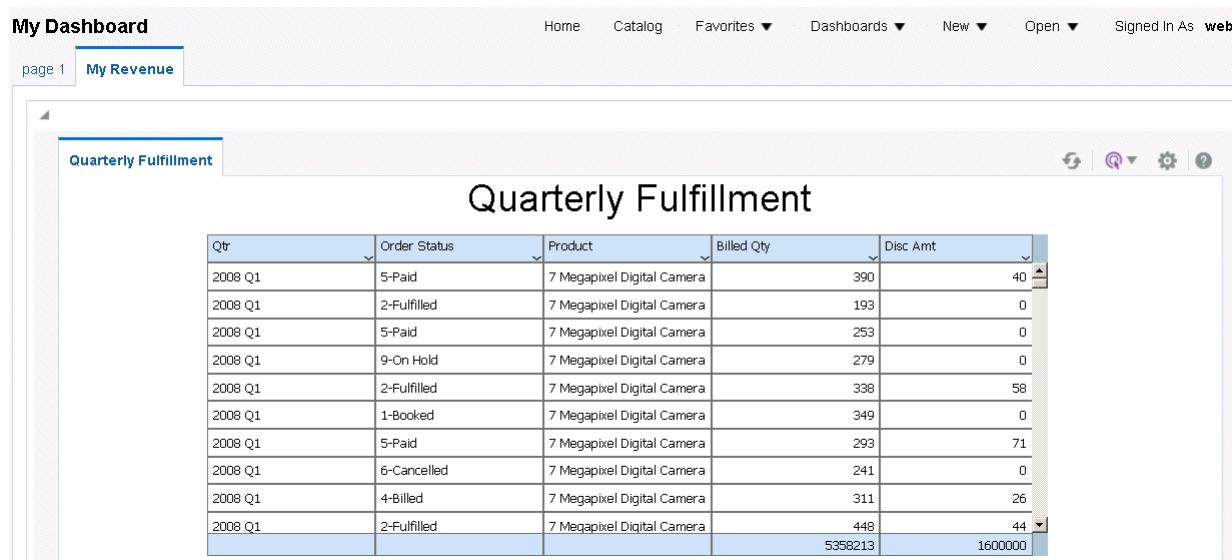
11. Click **Page Options** () > **Edit Dashboard** or click **Edit** () to edit the dashboard.



12. Select **Quarterly Fulfillment**, the report you created earlier, and drag it to the dashboard.

13. Click **Save** and click **Run** to open My Dashboard to view your report.

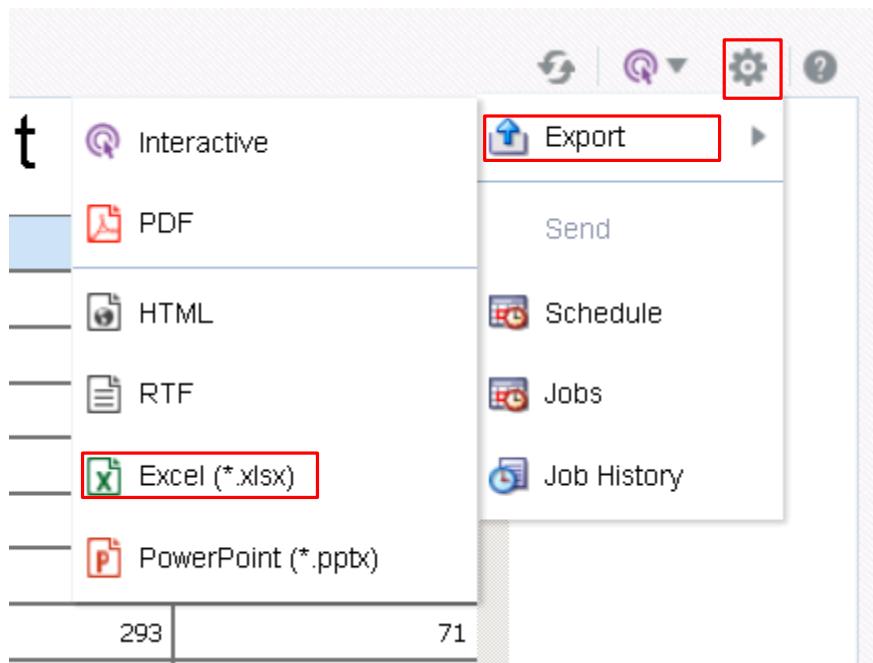
The reports are displayed in the dashboard.



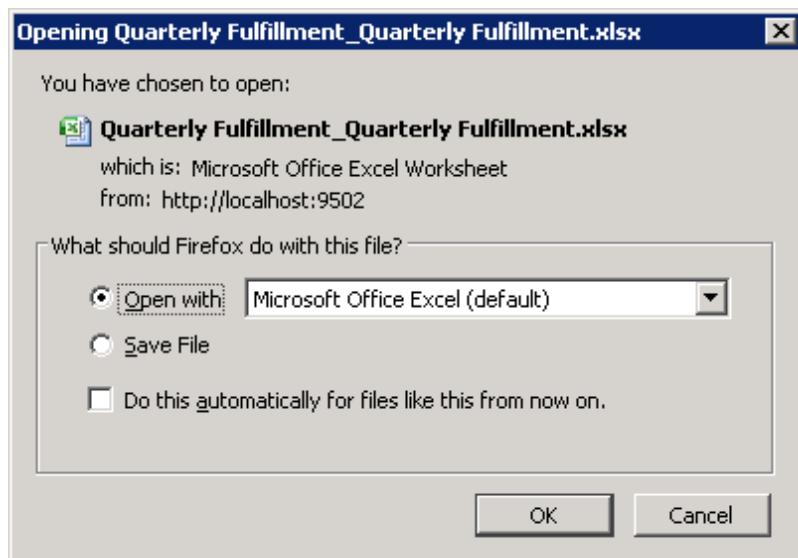
The screenshot shows the Oracle BI Enterprise Edition interface. At the top, there's a navigation bar with links for Home, Catalog, Favorites, Dashboards, New, Open, and Signed In As (web). Below the navigation bar, there are two tabs: 'page 1' and 'My Revenue'. A search bar and a toolbar with various icons are also present. The main content area displays a report titled 'Quarterly Fulfillment'. The report has a header with columns: Qtr, Order Status, Product, Billed Qty, and Disc Amt. The data table below contains 10 rows of fulfillment details for 7 Megapixel Digital Cameras across different quarters and order statuses.

Qtr	Order Status	Product	Billed Qty	Disc Amt
2008 Q1	5-Paid	7 Megapixel Digital Camera	390	40
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	193	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	253	0
2008 Q1	9-On Hold	7 Megapixel Digital Camera	279	0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	338	58
2008 Q1	1-Booked	7 Megapixel Digital Camera	349	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	293	71
2008 Q1	6-Cancelled	7 Megapixel Digital Camera	241	0
2008 Q1	4-Billed	7 Megapixel Digital Camera	311	26
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	448	44
			5358213	1600000

14. When the report is displayed in the dashboard, use the Action menu to export the report data to an MS Excel file. Select Export>Excel (*.xlsx).



15. Open or save the file in your local folder to open it.



The report data is exported to Excel format. Select the downloaded file to open it in MS Excel.

A screenshot of Microsoft Excel showing a table titled "Quarterly Fulfillment". The table has 5 columns: Qtr, Order Status, Product, Billed Qty, and Disc Amt. The data consists of 22 rows, each representing a fulfillment record for a 7 Megapixel Digital Camera in 2008 Q1. The table is displayed in a read-only mode, as indicated by the status bar at the bottom.

Qtr	Order Status	Product	Billed Qty	Disc Amt
2008 Q1	5-Paid	7 Megapixel Digital Camera	390	40
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	193	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	253	0
2008 Q1	9-On Hold	7 Megapixel Digital Camera	279	0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	338	58
2008 Q1	1-Booked	7 Megapixel Digital Camera	349	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	293	71
2008 Q1	6-Cancelled	7 Megapixel Digital Camera	241	0
2008 Q1	4-Billed	7 Megapixel Digital Camera	311	26
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	448	44
2008 Q1	5-Paid	7 Megapixel Digital Camera	206	41
2008 Q1	5-Paid	7 Megapixel Digital Camera	294	18
2008 Q1	5-Paid	7 Megapixel Digital Camera	302	0
2008 Q1	3-Shipped	7 Megapixel Digital Camera	346	56
2008 Q1	5-Paid	7 Megapixel Digital Camera	245	27
2008 Q1	5-Paid	7 Megapixel Digital Camera	326	2
2008 Q1	9-On Hold	7 Megapixel Digital Camera	113	38
2008 Q1	9-On Hold	7 Megapixel Digital Camera	373	18
2008 Q1	1-Booked	7 Megapixel Digital Camera	227	0
2008 Q1	2-Fulfilled	7 Megapixel Digital Camera	237	0
2008 Q1	5-Paid	7 Megapixel Digital Camera	245	0

Practices for Lesson 11:
Creating Data Models and BI
Publisher Reports Based on
Other Data Sources

Practices for Lesson 11: Overview

Goal

To create BI Publisher reports based on an XML file and a CSV file

Practices Overview

You create two BI Publisher reports. The first report is based on an XML file and the second is based on a CSV file.

Time

15–25 minutes

Practice 11-1: Creating a BI Publisher Report Based on an XML File

Overview

You can use an XML data file stored in a directory that has been set up by your administrator as a data source; however, no metadata is available from file data sets. When you set up data sources, you define a file directory as a data set. You place XML documents in the file directory to access directly as data sources for your reports.

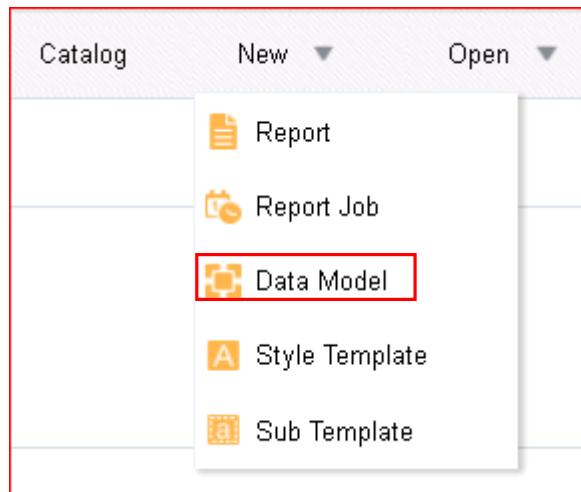
Assumptions

To perform the tasks in this practice, you must have access to the demo files provided with BI Publisher. This demo file is generally found in the

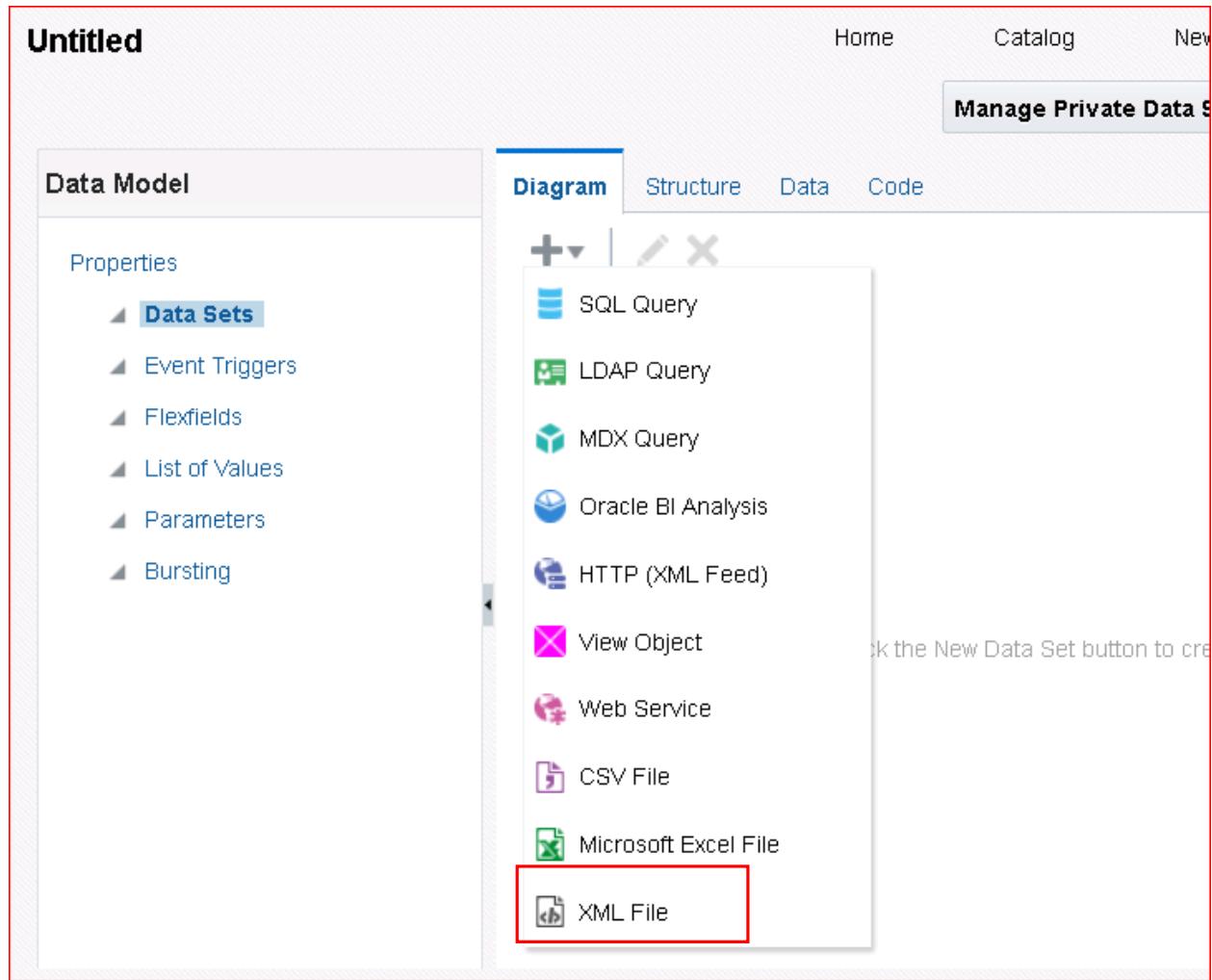
`<drive>:\<FusionMdeWare_home>\user_projects\domains\bifoundation_domain\config\bipublisher\repository\DemoFiles` directory.

Tasks

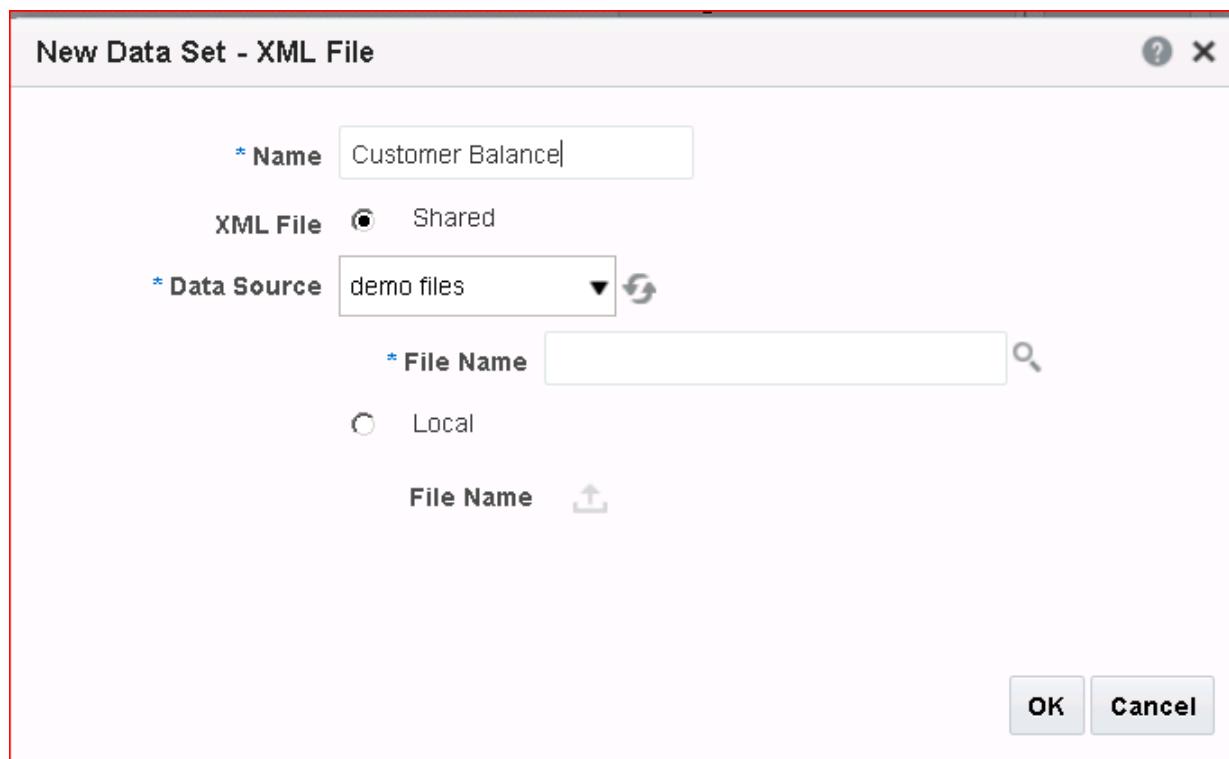
1. Log in to BI Publisher.
2. Click New > Data Model.



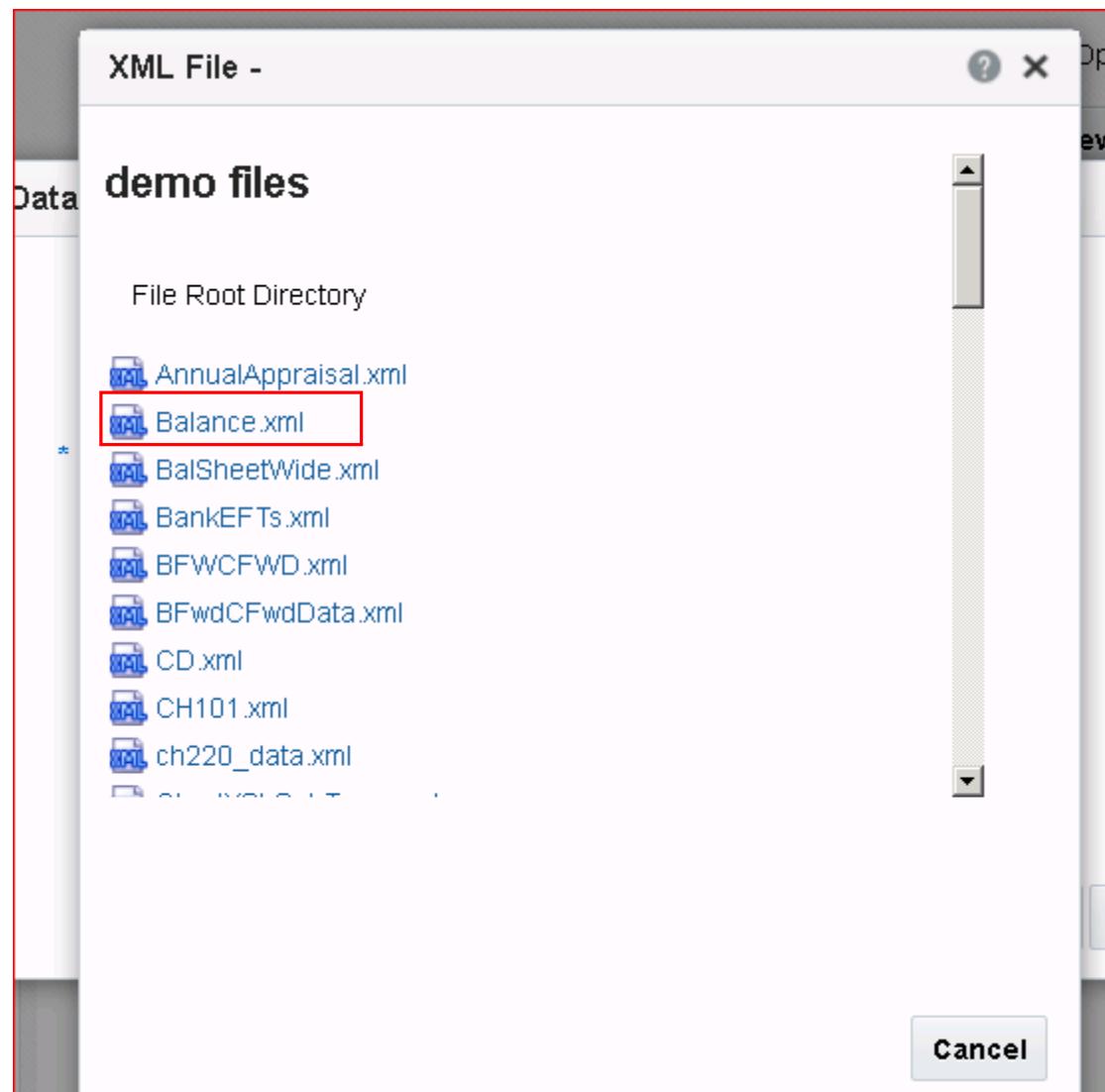
3. In the Data Model pane, select **Data Sets**, and then click Data Sets > XML File.



4. In the New Data Set – File dialog box, enter **Customer Balance** in the Name text box.



5. Click the **Search** icon (🔍) and select **Balance.xml** in the webpage dialog box.



6. Click **OK**.

7. The new data set appears in the Data Model pane. Click **Data** to view the output data.

The screenshot shows the Oracle BI Publisher interface with the title bar "Untitled". The top navigation bar includes "Home", "Catalog", "New", "Open", "Signed In As", and "weblogic". Below the navigation is a toolbar with "Manage Private Data Sources", "View Data", "Create Report", and other icons. The main workspace is titled "Data Model". It has tabs "Diagram", "Structure", "Data" (which is selected and highlighted with a red box), and "Code". On the left, a "Properties" panel lists "Data Sets" (with "Customer Balance" selected), "Event Triggers", "Flexfields", "List of Values", and "Parameters". In the center, there is a data item named "G_1" represented by a yellow box with a gear icon. Below the box, a message says "No metadata available for elements".

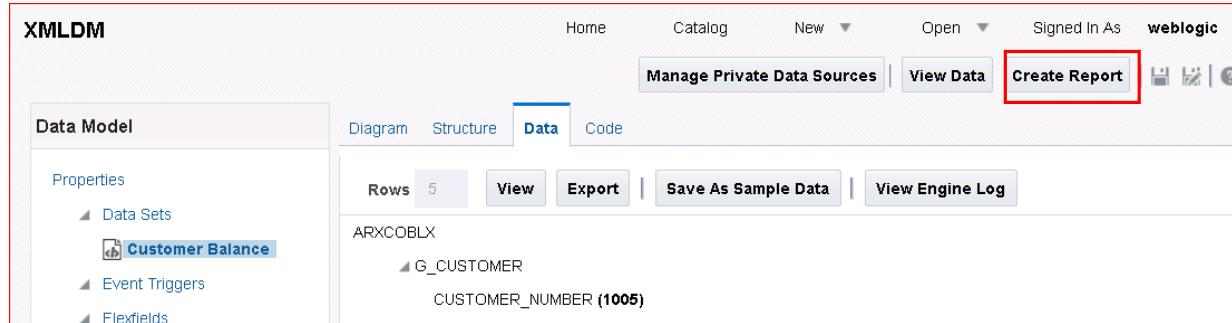
8. Click View to see the data.

The screenshot shows the Oracle BI Publisher Data Model Editor interface. The title bar says "Untitled". The top menu has items like Home, Catalog, New, Open, Signed In As, and weblogic. Below the menu is a toolbar with buttons for Manage Private Data Sources, View Data, Create Report, and a refresh icon. The main area has tabs for Diagram, Structure, Data (which is selected), and Code. Under Data, there are buttons for Rows (5), View (highlighted with a red box), Export, Save As Sample Data (highlighted with a red box), and View Engine Log. On the left, there's a "Data Model" sidebar with sections for Properties, Data Sets, Event Triggers, Flexfields, List of Values, Parameters, and Bursting. A "Customer Balance" dataset is selected. The main pane displays a hierarchical structure under ARXCOBLX, specifically G_CUSTOMER, with fields like CUSTOMER_NUMBER (1005), CUSTOMER_NAME (Vision Operations), ADDRESS_LINE1 (5645 Main Street), and so on.

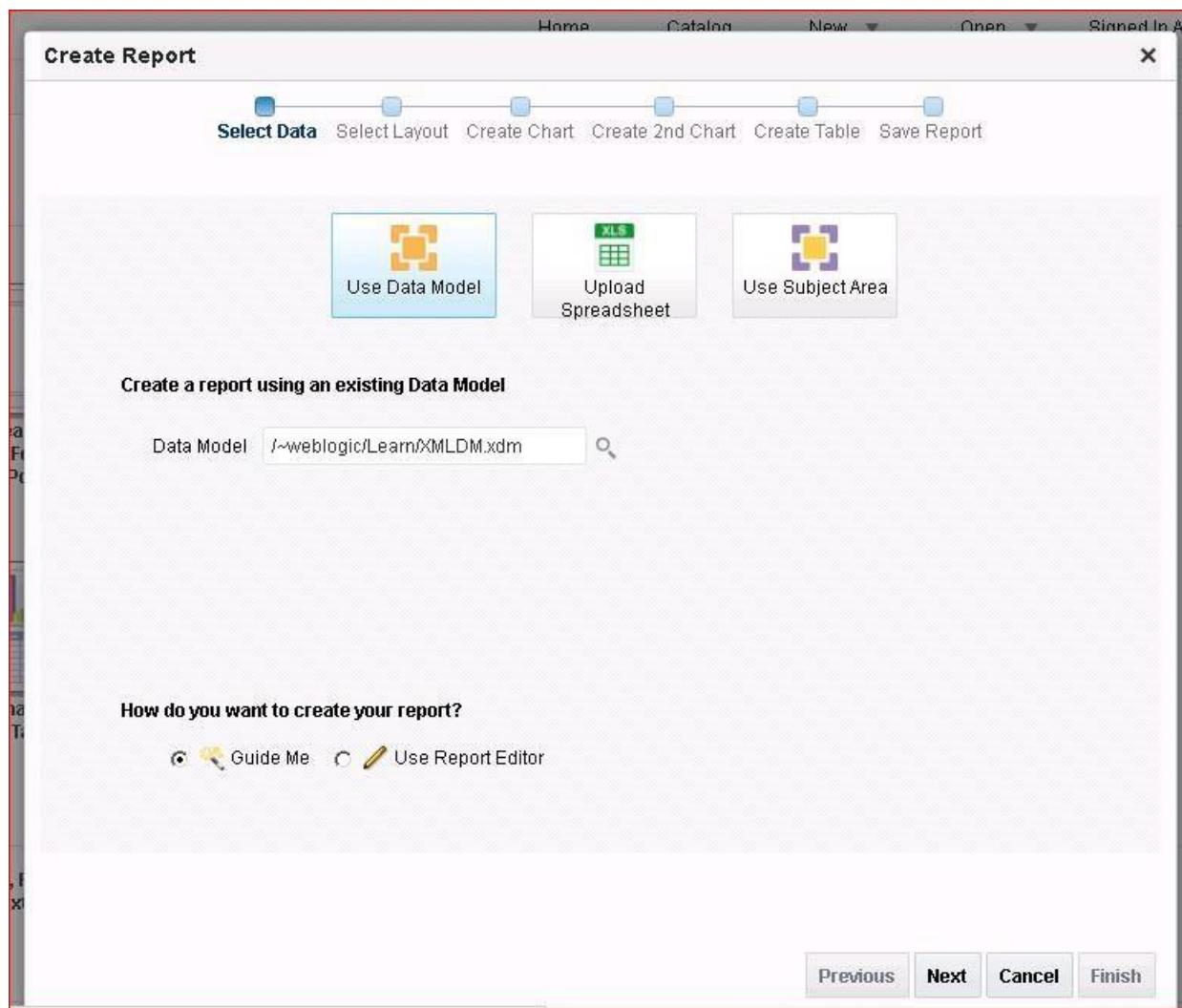
Save the sample data and then save the data model **XMLDM** in the **Learn** folder.

The screenshot shows the "Save As" dialog box. On the left is a "Catalog" sidebar with sections for My Folders (Temp, Drafts, Learn, weblogic) and Shared Folders (Components, Sample Lite, Shared Folders, weblogic). The "Learn" folder is selected. The main pane lists several reports: My Airlines Report, My Revenue Report, My Salary Report - Boiler Plate, My Salary Report - Simple Layout, My Salary Report, Salary Report, and My Airlines Report. Below the list are "Name" and "Description" fields, both empty. At the bottom are "Save" and "Cancel" buttons, with "Save" highlighted with a red box.

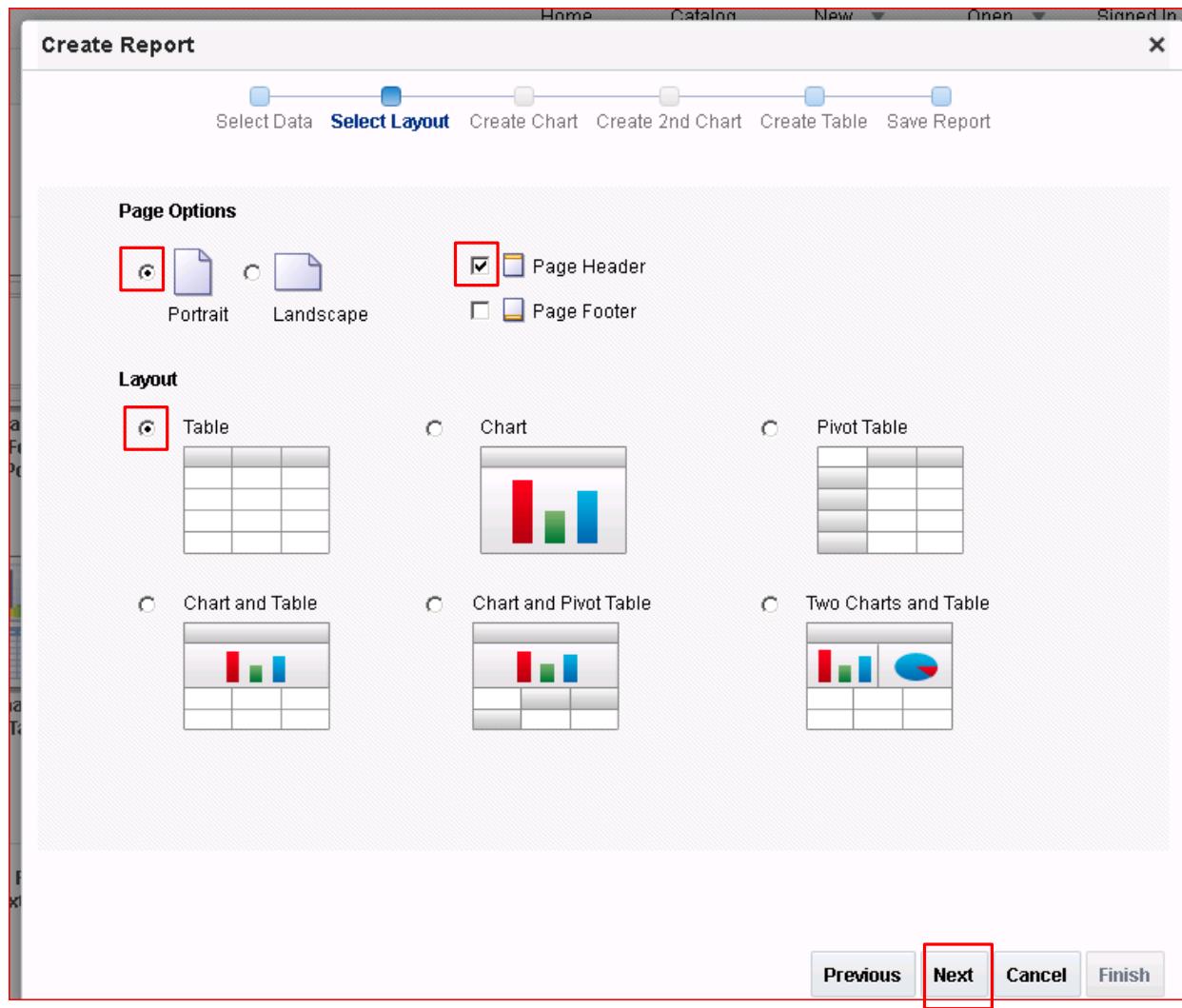
9. Click Create Report.



10. The Create Report Wizard is opened. Observe that the data model that you just created is selected.



11. Click Next to select the layout as shown below. Select a simple layout with a table.



12. Click Next.
13. Drag the fields from the data source to create a table as shown below.
14. Select the fields as given below.

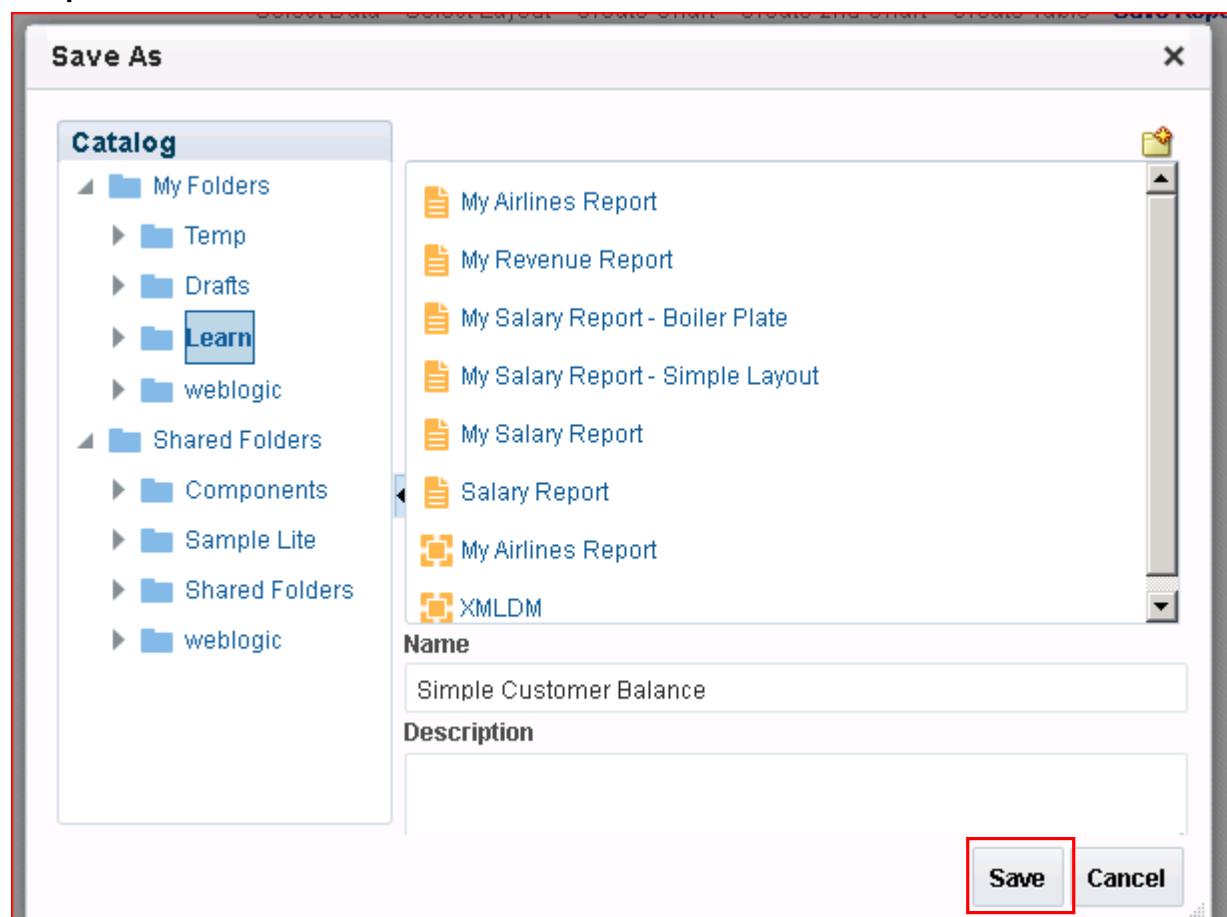
No	Fields
a.	Customer Number
b.	Trx Number
c.	Transaction Date
d.	Trans Amount
e.	Trans Amount Remaining

15. The table will look like this.

The screenshot shows the 'Create Report' dialog box with a red border. At the top, there is a progress bar with six steps: 'Select Data', 'Select Layout', 'Create Chart', 'Create 2nd Chart', 'Create Table' (which is highlighted in blue), and 'Save Report'. Below the progress bar, a message says 'Drag fields from the Data Source to create the table. Sample data is displayed.' On the left, a 'Data Source' tree view shows categories like 'G Currency', 'A Trx Currency Code', and 'G Invoices' expanded, with various fields listed under each. On the right, a table grid displays sample data with columns: Customer Number, Trx Number, Transaction Date, Trans Amount, and Trans Amou. At the bottom of the dialog, there is a checkbox labeled 'Show Grand Totals Row' with a red box drawn around it, and a 'Preview Report' button. At the very bottom, there are buttons for 'Previous', 'Next' (which is highlighted in red), 'Cancel', and 'Finish'.

Deselect the Show Grand Totals Row check box.

16. Click **Next**. Select the **View Report** option while saving the report. Save the report as **Simple Customer Balance** in the **Learn** folder.



17. The report is opened in Report Viewer:

The screenshot shows the 'Simple Customer Balance' report in the Report Viewer. At the top, it says 'Simple Customer Balance' and 'Aug 17, 2018'. Below is a table with the following data:

Customer Number	Trx Number	Transaction Date	Trans Amount	Trans Amount Remaining
1005	502444	2003-12-06	19125	19125
1005	502445	2003-12-06	12375	12375
1005	1.0019903E7	2003-11-18	132733.84	132733.84
1005	1.0020178E7	2003-11-20	71577.42	71577.42
1005	1.0020219E7	2003-11-21	89344.81	89344.81
1005	502394	2003-11-22	11250	11250
1005	1.002028E7	2003-11-24	128654.96	128654.96
1005	1.002031E7	2003-11-25	120653.2	120653.2
1005	1.0020319E7	2003-11-26	147328.21	147328.21
1005	234	2003-12-02	53.35	53.35

Practice 11-2: Creating a BI Publisher Report Based on a CSV file

Overview

You can use a flat or CSV file stored in a directory that has been set up by your administrator as a data source. (This demo directory is similar to the practice you completed previously.)

The supported CSV file delimiters are Comma, Pipe, Semicolon, and Tab.

The CSV files that you use as input to the BI Publisher data engine must be UTF-8 encoded and cannot contain empty column headers.

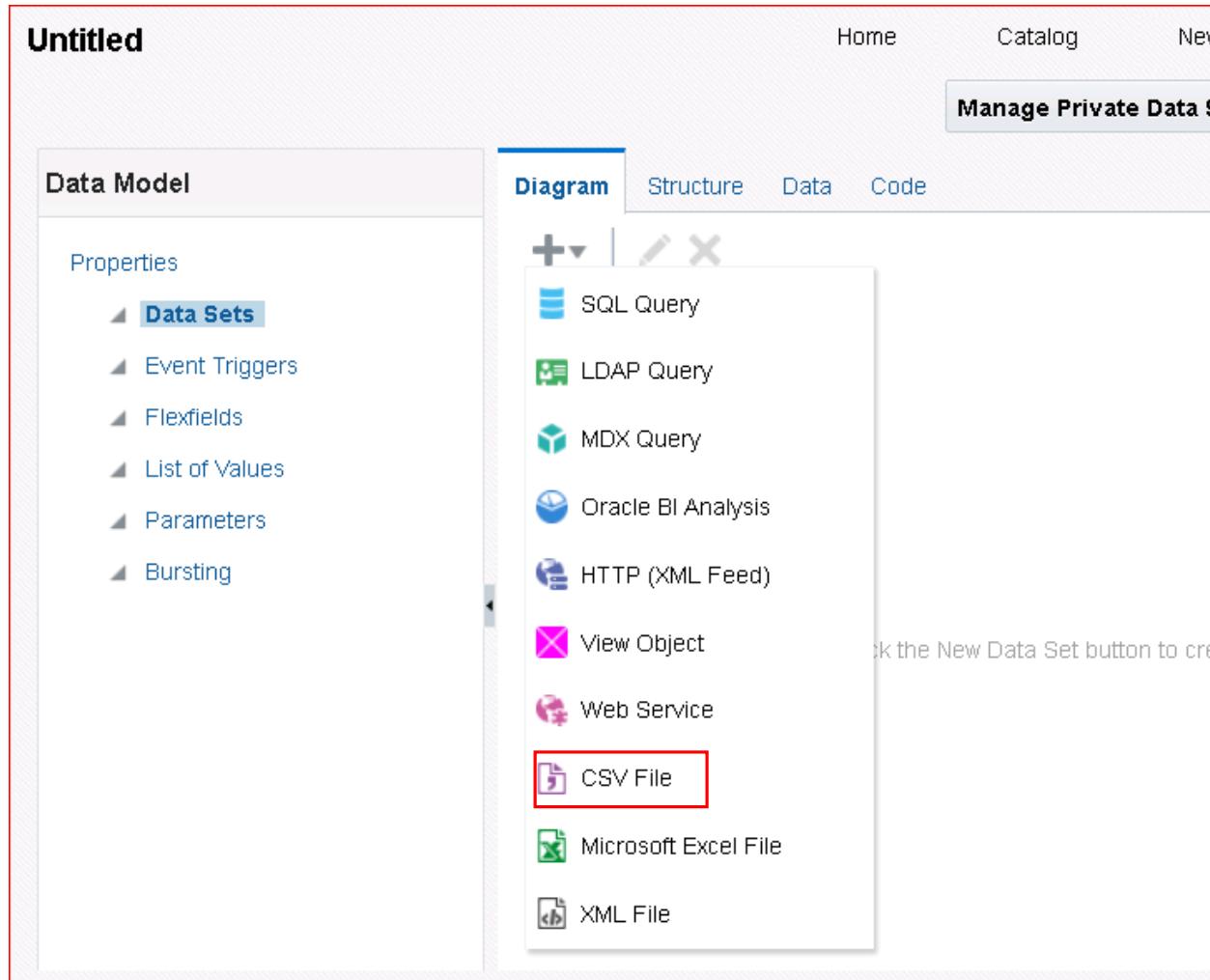
Assumptions

The CSV files that you use should be either in the file location that you have defined before or uploaded to the data model from a local directory. This example uses a local file. This file is available in the MyFiles local folder.

Tasks

1. Click New > Data Model.

2. In the Data Model pane, select **Data Sets**, and then click Data Sets > CSV File.

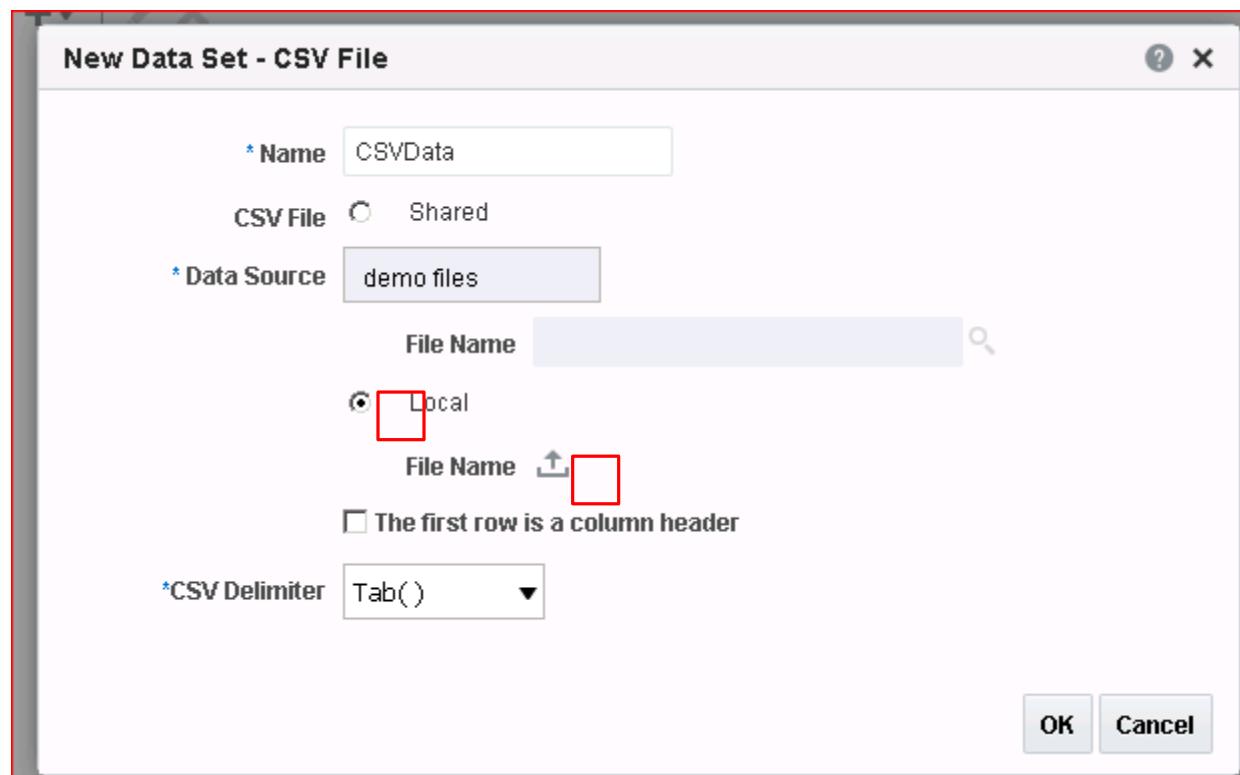


3. In the New Data Set – CSV File dialog box, enter **CSVData** in the Name text box.

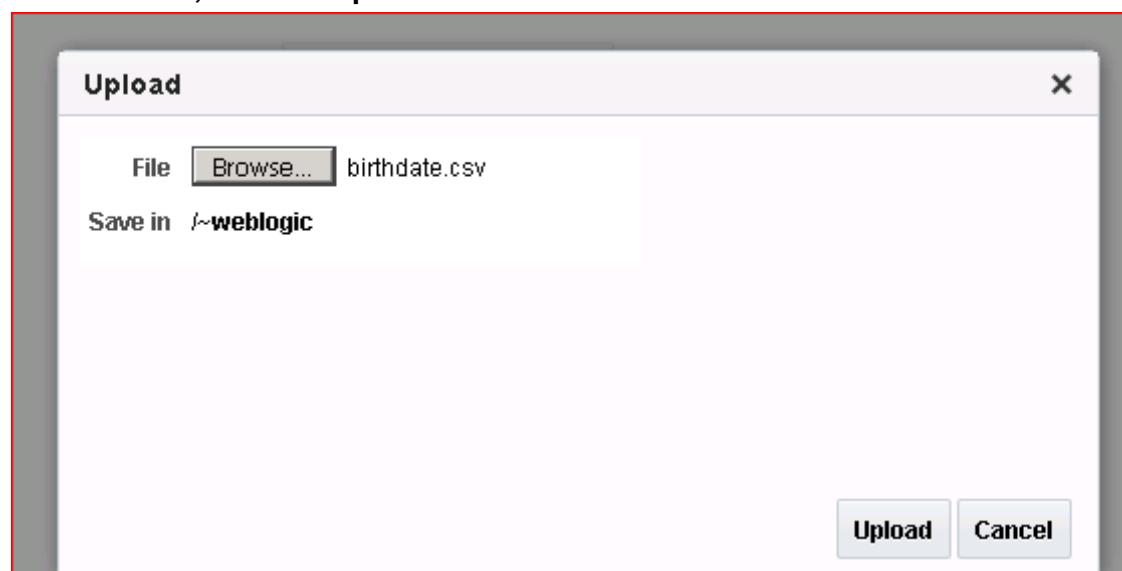
4. Select the **Local** option and click **Upload** ().

Note: If the CSV file is shared, it must be stored in the

`\<FMW_home>\user_projects\domains\bifoundation_domain\config\bipublisher\repository\DemoFiles` directory.



5. In the Upload dialog box, click **Browse**, navigate to the MyFiles local folder, select **birthdate.csv**, and click **Open**.



6. Click **Upload**.

7. Select Tab () as the CSV Delimiter.

8. Click **OK**.

9. The data set is listed in the Data Model pane.

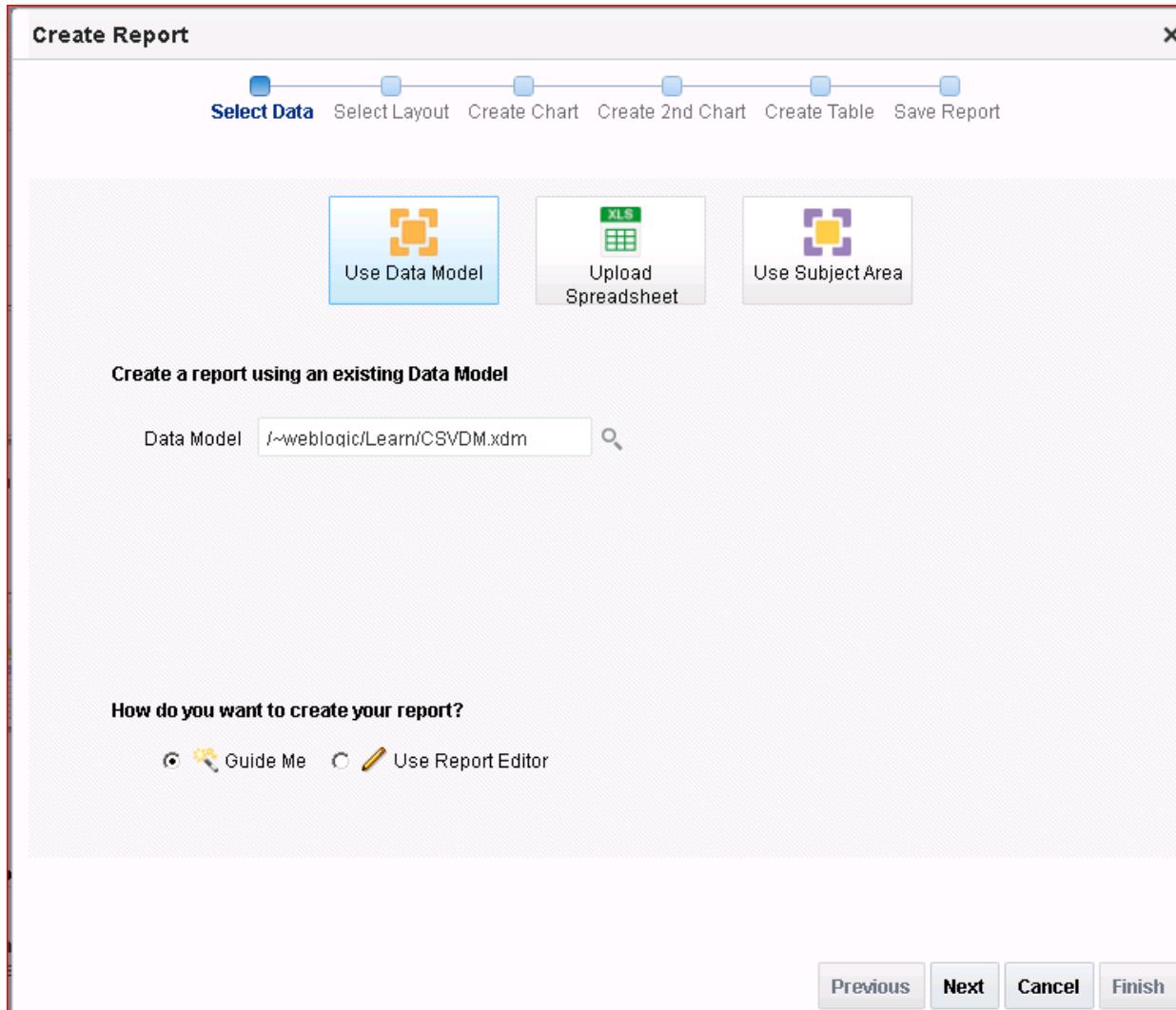
The screenshot shows the Oracle BI Publisher Data Model pane. On the left, a tree view under 'Properties' shows 'CSVData' is selected. The main area displays a table structure for a dataset named 'G_1'. The table has three columns: 'column1', 'column2', and 'column3'. Each column has a dropdown menu icon ('A▼') and a settings gear icon. Below the table, there are two placeholder boxes: 'Drop here for aggregate function'.

10. Click **Data** and then click **View**. The data is displayed in a tree view.

The screenshot shows the Data Model pane with the 'Data' tab selected. The 'View' button is highlighted with a red box. The 'Save As Sample Data' button is also highlighted with a red box. The data is presented in a hierarchical tree view under 'DATA_DS'. The tree structure shows four levels: 'G_1' (with three entries), 'COLUMN1' (with three entries), 'COLUMN2' (with three entries), and 'COLUMN3' (with three entries). The data values are: (1, fred, 1-Jan-2012), (2, sally, 1-Sep-2012), and (3, sue, 1-May-2012).

11. Save the sample data.
12. Save the data model as **CSVDM** in the **Learn** folder.
13. Click **Create Report** to create a report based on this data model.

14. In the Create Report Wizard, follow the steps to create a simple report layout.



15. Save the report as **CSVReport** in the Learn folder.
16. Select the View Report option while saving. The report is displayed in Report Viewer.

The screenshot shows the Report Viewer interface with the title 'CSVReport' and a timestamp 'Aug 17, 2018'. The report displays a table with five rows of data:

NAME	BIRTHDAY
fred	1-Jan-2012
sally	1-Sep-2012
sue	1-May-2012