Create an Excel BI report and share on SharePoint 2013

Hands-On Lab

Lab Manual

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Create an Excel BI report and Share on SharePoint 2013

Estimated time to complete this lab: ~~30~~ 45 **minutes**

Lab Objectives

In this lab, you will explore the many new business intelligence features of Excel and SharePoint 2013. You will create and enhance parameterized Excel PivotTable based reports that consume data from PowerPivot, with a high level overview of the data model behind the PowerPivot data model. You will enhance the report by applying conditional formatting and adding a Timeline Slicer to filter data. You will also use the new Quick Explore feature to add relevant visualizations to the workbook. You will then publish the workbook to SharePoint and create a dashboard using components from the workbook. Using connected Web Parts and parameters, you will provide user interactivity to the dashboard. You will also leverage built-in features of Excel Services 2013 like Fields List and Quick Analysis to manipulate the structure of the published report directly in the browser.

After completing the exercises in this lab, you will be able to:

- Create parameterized Excel PivotTable report using a PowerPivot data model
- Enhance the report with Timeline Slicer and conditional formatting. Also use the new Quick Explore features to add relevant visualizations.
- Publish the Excel workbook to SharePoint 2013.
- Create a SharePoint dashboard page using Excel Web Access and Business Intelligence Semantic Model (BISM) Filter web parts based on PowerPivot Data Model.
- Define connections to allow filter values to pass to the **Excel Web Access** web part
- Explore the published Excel workbook

The completed Dashboard page will look like the following.

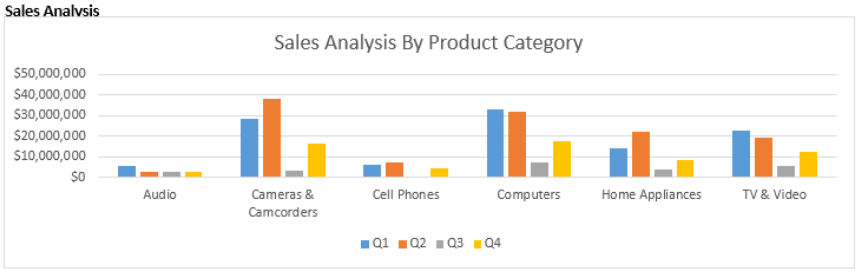
Geography

Sales Metrics

Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$14,748,114	141.0 %	10,127
Adventure Works	$21,657,506	115.7 %	3,867
Contoso	$36,228,674	108.5 %	31,091
Fabrikam	$32,957,831	128.0 %	6,736
Litware	$16,813,409	105.7 %	14,968
Northwind Traders	$3,927,813	112.4 %	6,025
Proseware	$14,248,909	121.6 %	3,954
Southridge Video	$8,819,327	100.5 %	4,716
The Phone Company	$6,133,713	21.3 %	6,926
Wide World Importers	$18,124,164	113.7 %	10,059
Grand Total	**$173,659,459**	**110.8 %**	**98,469**

Sales Analysis

Sales Analysis



Product Category	Q1	Q2	Q3	Q4	Trend	Grand Total
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284		$13,492,725
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721		$86,399,692
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287		$18,209,940
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816		$89,181,814
Home Appliances	$14,084,597	$22,069,050	$3,998,646	$8,276,636		$48,428,928
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733		$60,291,001
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478		$316,004,101

Technologies

- Excel 2013
- SharePoint 2013

Audience

- SharePoint Site Administrators and SharePoint IT Professionals

Scenario

This lab takes you through a tour of the new Excel 2013 BI user experience with emphasis on exploring new features, configuring options, and customization of PowerPivot reports and results.

Getting Started

Connect to the Lab Environment

Log on to the SharePoint (SP) virtual machine (VM) as Garth Fort, with the following credentials:

Username: CONTOSO\GarthF
Password: pass@word1

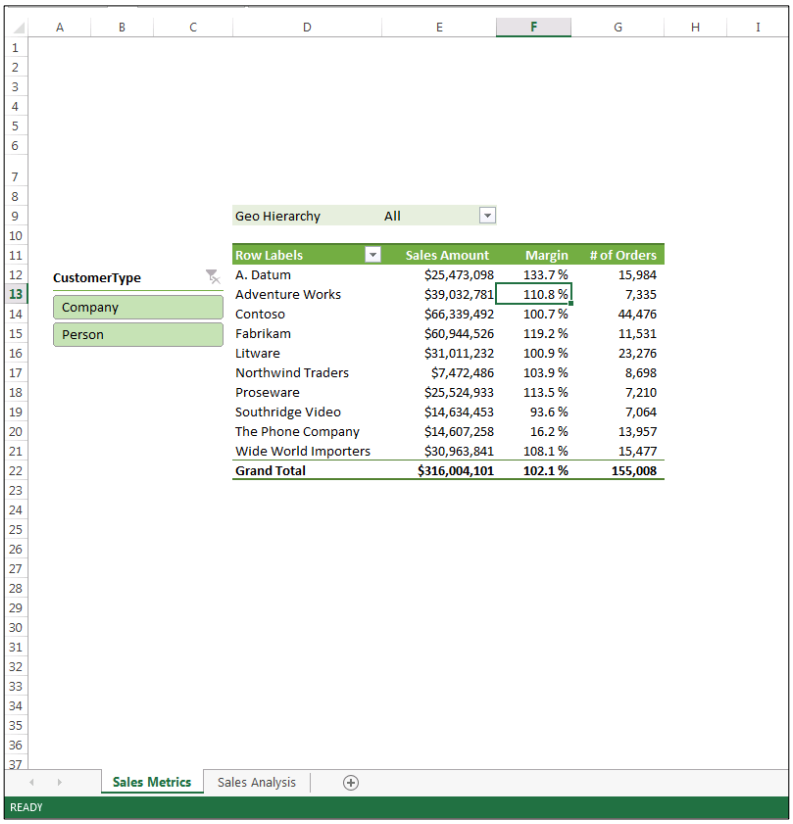
Open the Lab Environment

Open the HOL Excel Services.xlsx:

1. Click **Start**, and then click **Excel 2013**.
2. In Excel 2013, click **Open Other Workbooks**.
3. In the Open window, click **Computer**, and then click **Browse**.
4. In the Open dialog box, browse to **C:\HOLContent\BIHOL-Excel**.

5. Click the **HOL Excel Services – Begin** file, and then click **Open**.

   Note: If you get a security warning, click Enable Content.



Geo Hierarchy All

Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$25,473,098	133.7 %	15,984
Adventure Works	$39,032,781	110.8 %	7,335
Contoso	$66,339,492	100.7 %	44,476
Fabrikam	$60,944,526	119.2 %	11,531
Litware	$31,011,232	100.9 %	23,276
Northwind Traders	$7,472,486	103.9 %	8,698
Proseware	$25,524,933	113.5 %	7,210
Southridge Video	$14,634,453	93.6 %	7,064
The Phone Company	$14,607,258	16.2 %	13,957
Wide World Importers	$30,963,841	108.1 %	15,477
Grand Total	**$316,004,101**	**102.1 %**	**155,008**

CustomerType

Company

Person

Sales Metrics Sales Analysis

READY

Exercise 1: Examine the Data Model

Estimated completion time: **5 minutes**

Scenario

PowerPivot is a powerful data mashup and data exploration tool based on in-memory technologies providing unmatched analytical performance to process billions of rows at the speed of thought. The results can be shared with others using SharePoint.

This exercise starts with a partially completed Excel Pivot table report based on a PowerPivot based data model. Overview of the PowerPivot tables and the relationship between them will be explained. Also, we will see the relationship between tables, hierarchy, and Data Analysis Expressions (DAX) defined in the table.

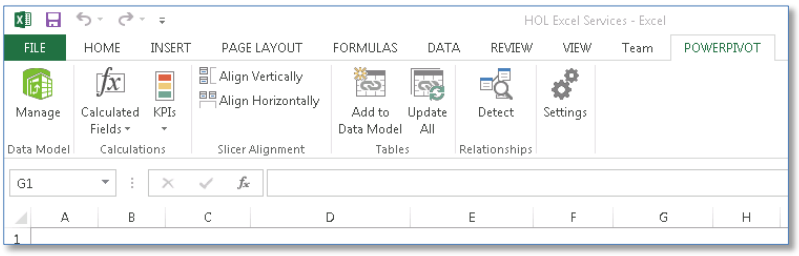
Task 1 – Explore the PowerPivot Model

In this task, you will investigate a PowerPivot data model, including a review of tables, a DAX equation, relationships, and a data hierarchy.

In Excel 2013, on the **POWERPIVOT** tab, in the **Data Model** group, click **Manage** to display the data on which this PivotTable Report is based.

~~Note~~NOTE:~~:~~ It may take 10-30 seconds to load the display.

~~1.~~



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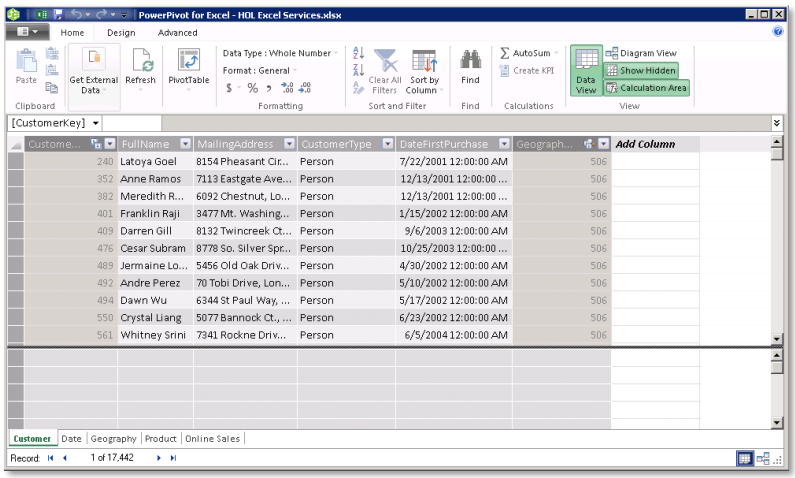
2.6. Notice the five tabs under the data field display:

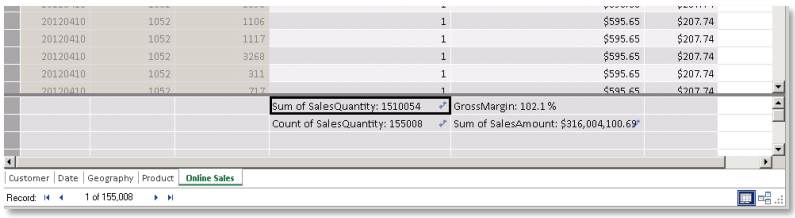
~~***Note:*** It may take 10-30 seconds to load the display.~~

- Customer
- Date
- Geography
- Product
- Online Sales

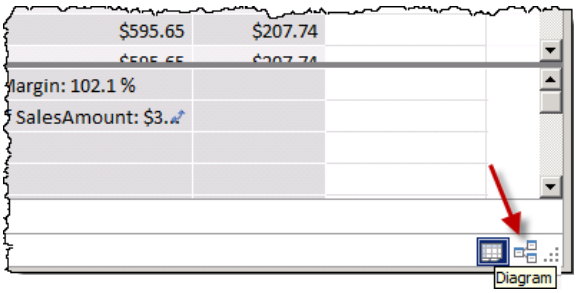
NOTE: By clicking each tab, you can explore the data.



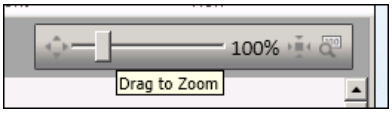
3.7. Click the **Online Sales** tab. See the DAX calculations defined for the measure data.

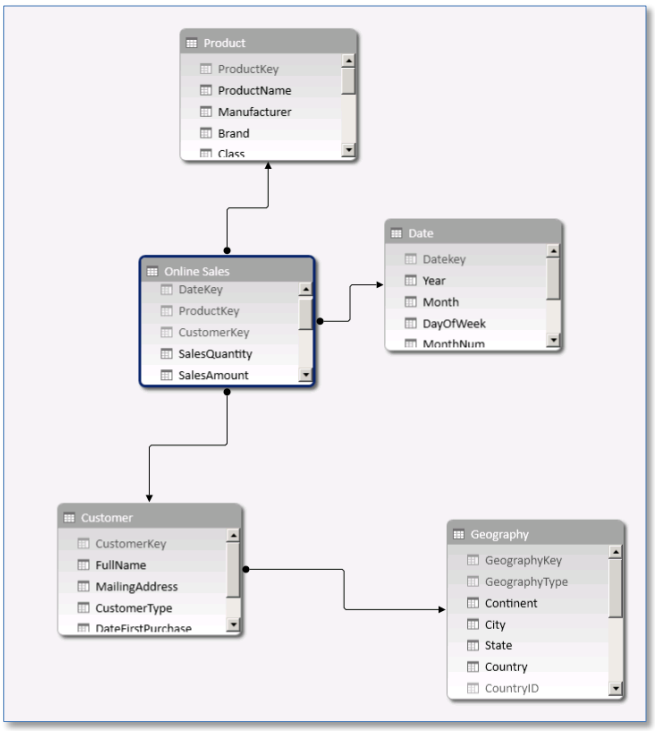


4.8. Click **Diagram** in lower right corner. ***Note:*** if necessary, maximize the window to allow the icons to show on screen.



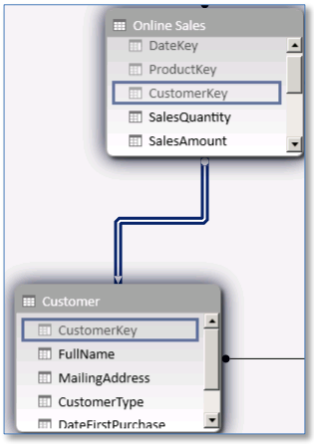
All five dimensions in this data model display. This shows the relationship between the different tables. ***Note:*** you can use the zoom control in upper right corner to change the view.





5.9. Click the **arrow** between **Customer** and **Online Sales**.

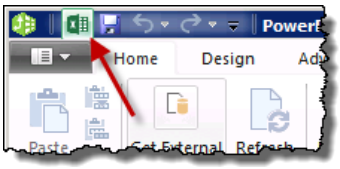
Note the blue box around the columns used for relating the tables (you may have to scroll the table lists to view the related tables).



6.10. Click the **Geography** table and note the **Geo Hierarchy**.

NOTE: You may need to enlarge the table to view more contents.

7.11. To return to Excel, click the **Switch to Workbook** icon in upper left corner of window.



By completing this exercise, you have learned about the PowerPivot data model and how it can be used as a data source for pivot table and free form reports. Inside the power pivot data model, you viewed table relationships, hierarchy and DAX calculations defined in the data model.

Exercise 2: Enhance the PivotTable and Free-Form Reports

Estimated completion time: **15 minutes**

Scenario

PowerPivot can leverage the existing Excel features like Pivot Table, Pivot Chart and Slicers to create reports and get the answers we need from the PowerPivot data.

Slicers allow you to filter data visually. The **Excel 2013 Timeline Slicer** is a graphical date range selector to filter data in PivotTables, Pivot Charts, and free form reports by time (Year, Quarter, Month, Date).

Excel 2013 Data Bars represent data graphically inside the cell, and helps compare data cells more effectively and efficiently by adding colored data bars to represent the value in a cell. A longer bar represents a higher value.

Sparklines are tiny charts in worksheet cells that provide visual representations of data. Data presented in a row or column is useful, but patterns can be hard to spot at a glance. Use Sparklines to show trends in a series of values, or to highlight maximum and minimum values.

In this exercise, you will:

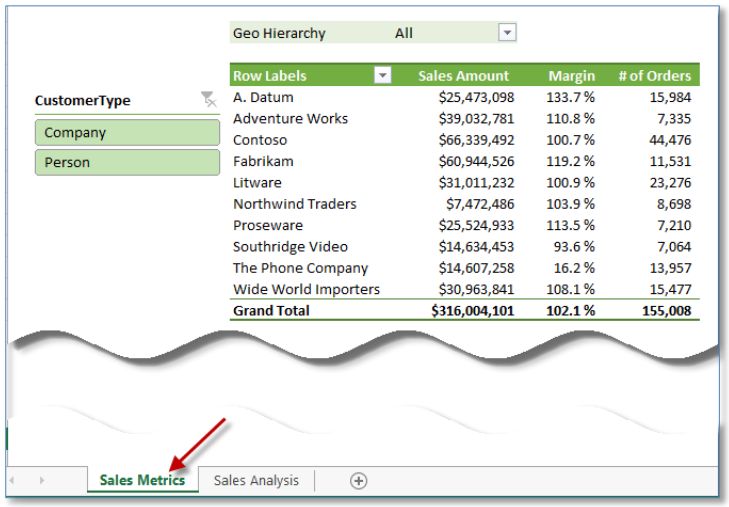
- Add and connect a **timeline slicer** to the PivotTable (new feature in Excel 2013).
- Add conditional format for the PivotTable report with **Data Bars**.
- Add **SparkLines** to the Free-Form report.
- Add a recommended chart based on the data in Free-Form Report (new feature in Excel 2013).

.

Task 1 - Insert a Timeline Slicer

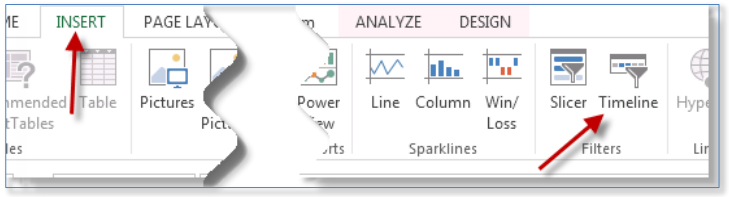
In this task, you will add a **Timeline Slicer** to the **Sales Metrics** table in the workbook.

1. In Excel 2013, if not already selected, click the **Sales Metrics** tab.



2. Click on any cell in the Pivot table (cell range D11:G22). Then, o~~O~~n the **INSERT** tab, in the **Filters** group, click **Timeline**.

   NOTE: If you do not click on the pivot table before you insert the Timeline filter, the pivot table data will not update when you make changes with the Timeline filter. To correct this, select the Timeline, and t~~.~~ Then, on the **TIMELINE OPTIONS** tab, in the **Timeline** group, click **Report Connections**. Click the **SalesMetrics** check box, and then click **OK.**



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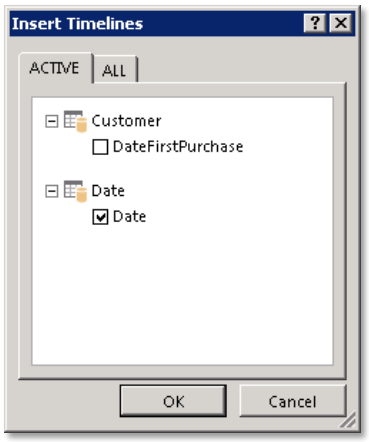
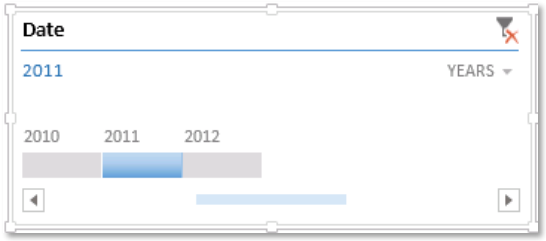
3. in the **Existing Connections** dialog box, **click** on the **Data Model** tab, and then **click** Open**.**
4. In the **Insert Timelines** dialog, on the **All** tab, click **Date** check box, and then click **OK**.

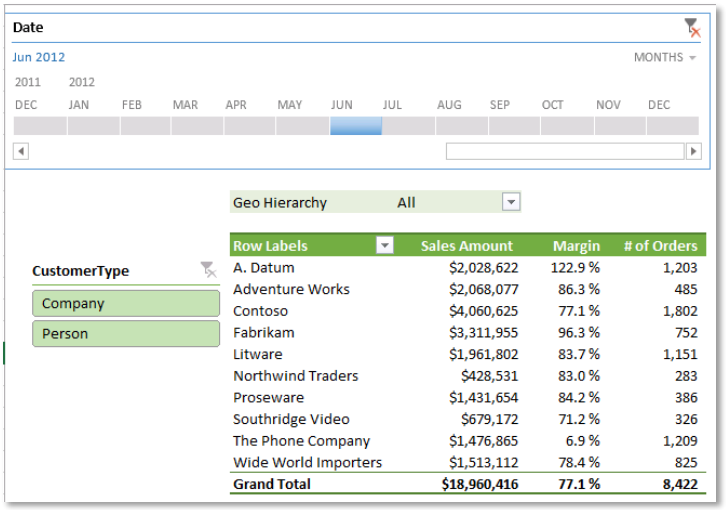


The numbers in the **Sales Amount** column of the **Sales Metrics** pivot table reflect data for the year of 2011.



5. To move the timeline:
   a. Click the **timeline border** to select the object.
   b. Hold the **left mouse button** down and **drag the slicer** above the table. Resize the slicer if desired.
6. To filter by **month**, click the **Filter** menu, and then click **Months**.

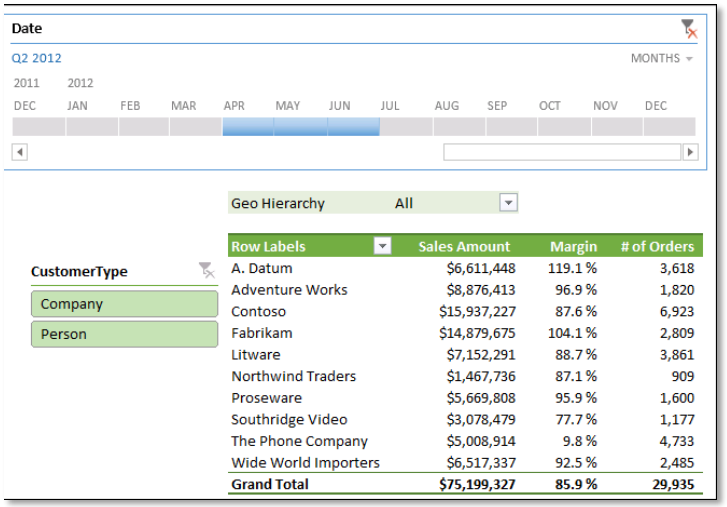
7. To display data for a single month, on the **Timeline**, scroll to the right and click **June in 2012**.



Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$2,028,622	122.9 %	1,203
Adventure Works	$2,068,077	86.3 %	485
Contoso	$4,060,625	77.1 %	1,802
Fabrikam	$3,311,955	96.3 %	752
Litware	$1,961,802	83.7 %	1,151
Northwind Traders	$428,531	83.0 %	283
Proseware	$1,431,654	84.2 %	386
Southridge Video	$679,172	71.2 %	326
The Phone Company	$1,476,865	6.9 %	1,209
Wide World Importers	$1,513,112	78.4 %	825
Grand Total	**$18,960,416**	**77.1 %**	**8,422**

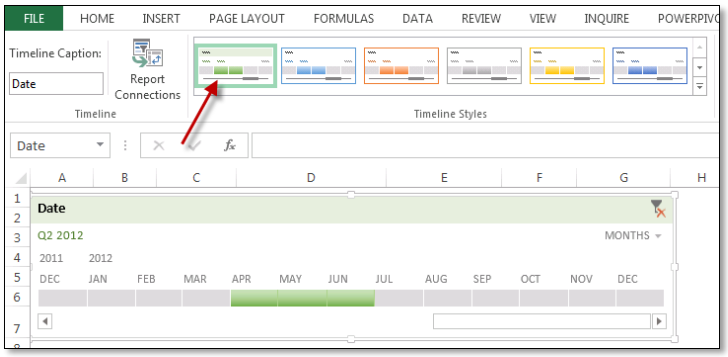
8. Click the left border of the blue June segment of the Timeline, and stretch the segment backward to April.

   The PivotTable Report now reflects sales, orders, and margin for April, May, and June.



Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$6,611,448	119.1 %	3,618
Adventure Works	$8,876,413	96.9 %	1,820
Contoso	$15,937,227	87.6 %	6,923
Fabrikam	$14,879,675	104.1 %	2,809
Litware	$7,152,291	88.7 %	3,861
Northwind Traders	$1,467,736	87.1 %	909
Proseware	$5,669,808	95.9 %	1,600
Southridge Video	$3,078,479	77.7 %	1,177
The Phone Company	$5,008,914	9.8 %	4,733
Wide World Importers	$6,517,337	92.5 %	2,485
Grand Total	**$75,199,327**	**85.9 %**	**29,935**

9. To change the timeline color scheme, on the **OPTIONS** tab, in the **Timeline Styles** group, click **Contoso Green**.



Task 2 - Add Data Bars

In this task, you will use Conditional Formatting to add **Data Bars** to compare **Sales Amount** values.

1. On the **Sales Metrics** tab of the worksheet, highlight the PivotTable **Sales Amount column** in the PivotTable.

   Select the cells by clicking in the left side of the top cell, and while holding down the left mouse button, drag to the bottom cell.

   Do **not** highlight the Grand Total.

Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$6,611,448	119.1 %	3,618
Adventure Works	$8,876,413	96.9 %	1,820
Contoso	$15,937,227	87.6 %	6,923
Fabrikam	$14,879,675	104.1 %	2,809
Litware	$7,152,291	88.7 %	3,861
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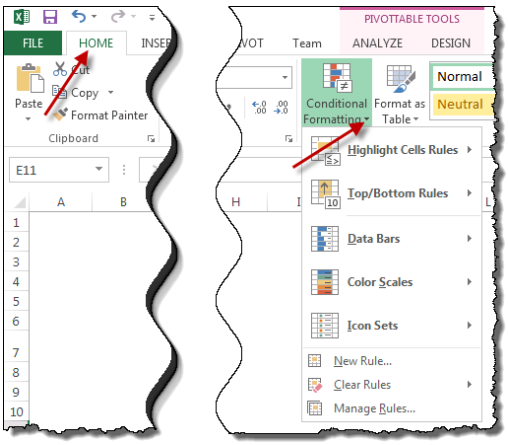
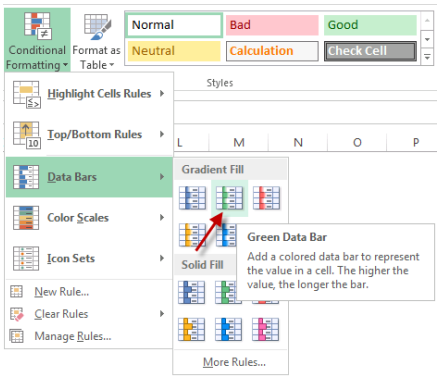
Wide World Importers	$6,517,337	92.5 %	2,485
Grand Total	**$75,199,327**	**85.9 %**	**29,935**

2. On the **Home** tab, in the **Styles** category, click **Conditional Formatting**.



3. Click **Data Bars**, and then in the **Gradient Fill** category, click the **green data bar**.



4. Click out of the column to see the newly formatted cells.

   The **Sales Amount** cells are highlighted green based on the values. The highest value has the longest bar.

Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$6,611,448	119.1 %	3,618
Adventure Works	$8,876,413	96.9 %	1,820
Contoso	$15,937,227	87.6 %	6,923
Fabrikam	$14,879,675	104.1 %	2,809
Litware	$7,152,291	88.7 %	3,861
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Southridge Video	$3,078,479	77.7 %	1,177
The Phone Company	$5,008,914	9.8 %	4,733
Wide World Importers	$6,517,337	92.5 %	2,485
Grand Total	**$75,199,327**	**85.9 %**	**29,935**

Task 3 - Insert Spark Lines

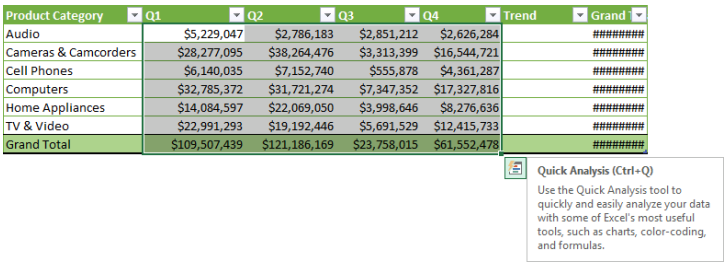
In this task, you will add a **sparkline** to the Sales Analysis free form report using the Quick Analysis feature.

1. Click **Sales Analysis** tab at bottom of workbook.
2. Highlight the **Grand Total** column as shown (including the heading and total).

Product Category	Q1	Q2	Q3	Q4	Grand Total
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284	$13,492,725
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721	$86,399,692
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287	$18,209,940
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816	$89,181,814
Home Appliances	$14,084,597	$22,069,050	$3,998,646	$8,276,636	$48,428,928
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733	$60,291,001
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478	$316,004,101

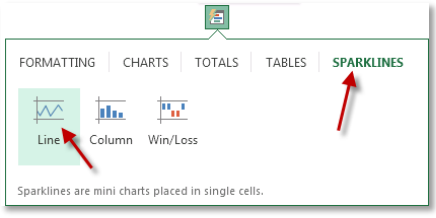
3. Right-click the **Grand Total** cell, point to **Insert,** and then click **Table Columns to the Left**.
4. Rename the new column heading **Trend**.

5. Highlight the columns under the header row as shown, between Product Category and Trend.
6. Hover over the Quick Analysis icon, and then click **Quick Analysis**.



Product Category	Q1	Q2	Q3	Q4	Trend	Grand
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284		########
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721		########
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287		########
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816		########
Home Appliances	$14,084,597	$22,069,050	$3,998,646	$8,276,636		########
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733		########
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478		########

7. On the Quick Analysis menu, click to **SparkLines** and click **Line**.



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NOTE: You may need to expand the Grand Total column to display the values.

Product Category	Q1	Q2	Q3	Q4	Trend	Grand Total
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284		$13,492,725
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721		$86,399,692
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287		$18,209,940
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816		$89,181,814
Home Appliances	$14,084,597	$22,069,050	$3,998,646	$8,276,636		$48,428,928
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733		$60,291,001
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478		$316,004,101

Task 4 - Add a Chart

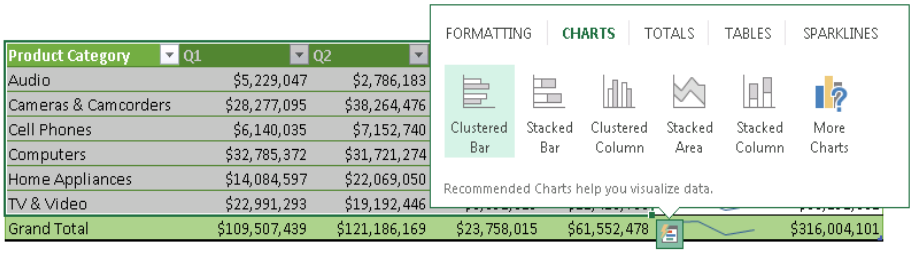
In this task, we create a chart using the quick analysis new feature called 'Recommended Chart' to high light the various analytical features available at the fingertips for the selected data.

1. Highlight all PivotTable data above the **Grand Total** row, and up to the **Trend** column.

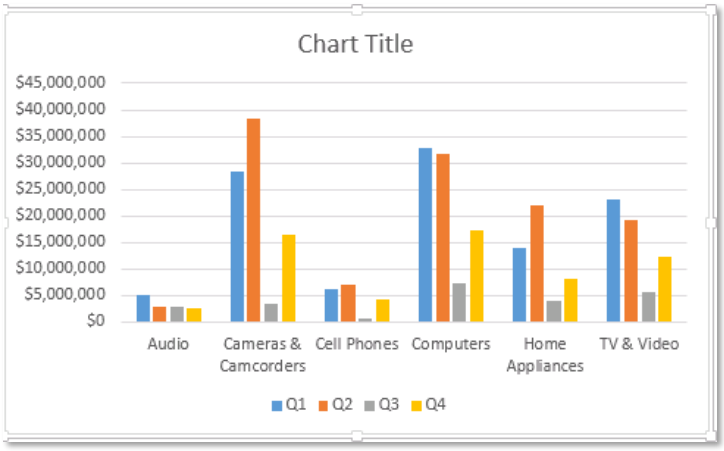
Product Category	Q1	Q2	Q3	Q4	Trend	Grand Total
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284		$13,492,725
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721		$86,399,692
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287		$18,209,940
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816		$89,181,814
Home Appliances	$14,084,597	$22,069,050	$3,998,646	$8,276,636		$48,428,928
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733		$60,291,001
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478		$316,004,101

2. Hover over the Quick Analysis icon, and then click **Quick Analysis.**

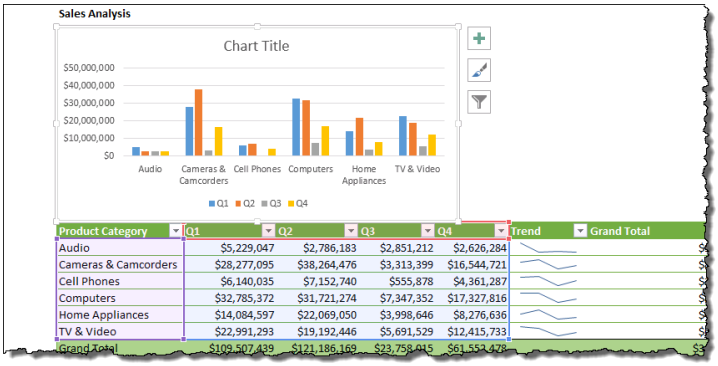
3. In the Quick Analysis dialog, click **Charts**. The recommended charts are listed.



4. Pause on each chart type icon to view a sample.
5. Click **Clustered Column**.

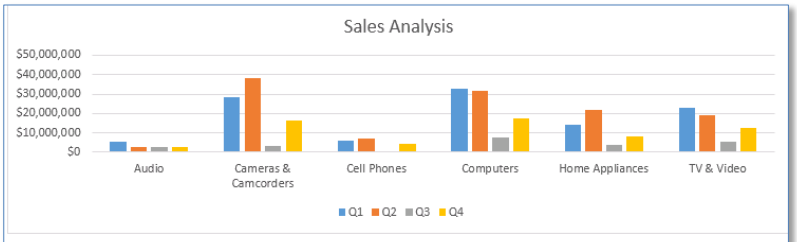


6. Move the chart above the table.



7. Use the chart handles to resize the chart to match the width of the table.

8. Double-click **Chart Title** and rename it **Sales Analysis**.



Product Category	Q1	Q2	Q3	Q4	Trend	Grand Total
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284		$13,492,725
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721		$86,399,692
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287		$18,209,940
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816		$89,181,814
Home Appliances	$14,084,597	$22,069,050	$3,998,646	$8,276,636		$48,428,928
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733		$60,291,001
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478		$316,004,101

In this exercise, you learned about enhancing reports with a **Timeline Slicer** to filter the time span, **Data bar** conditional formatting, **Sparklines** to show the data trend, and the quick analysis recommended chart features.

Exercise 3: Publish Workbook to SharePoint

Estimated completion time: **5 minutes**

Scenario

In this exercise, you will configure the Excel workbook **Publish Options** to determine what content Excel Services can render. In this case you will select that only the PivotTable report and a named range encompassing the free-form report can be rendered.

Additionally, you will add a parameter to support passing values into the named range. In the final exercise of this lab, this will support the dashboard scenario of passing a filter Web Parts' selected value(s).

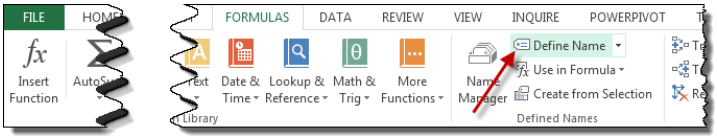
Task 1 – Prepare the Workbook to Publish

In this task, you will define the Sales Metrics and Sales Analysis named areas to be viewed in SharePoint.

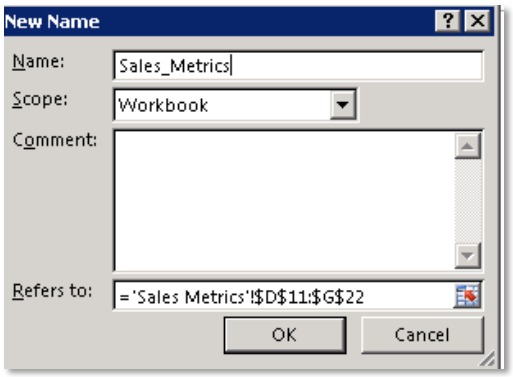
1. On the **Sales Metrics** tab, select the pivot table area.

Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$6,611,448	119.1 %	3,618
Adventure Works	$8,876,413	96.9 %	1,820
Contoso	$15,937,227	87.6 %	6,923
Fabrikam	$14,879,675	104.1 %	2,809
Litware	$7,152,291	88.7 %	3,861
Northwind Traders	$1,467,736	87.1 %	909
Proseware	$5,669,808	95.9 %	1,600
Southridge Video	$3,078,479	77.7 %	1,177
The Phone Company	$5,008,914	9.8 %	4,733
Wide World Importers	$6,517,337	92.5 %	2,485
Grand Total	**$75,199,327**	**85.9 %**	**29,935**

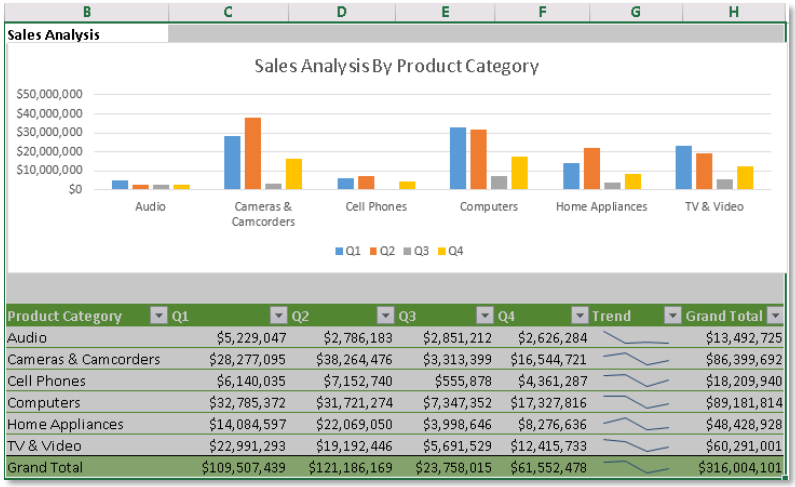
2. On the **FORMULAS** tab, in the **Defined Names** group, click **Define Name.**



3. In the **Name** text box, type **Sales_Metrics,** and then click **OK.**



4. On the **Sales Analysis** tab, click in cell B1, press the left mouse button and drag the highlight to the lower right corner of the table.



Product Category	Q1	Q2	Q3	Q4	Trend	Grand Total
Audio	$5,229,047	$2,786,183	$2,851,212	$2,626,284		$13,492,725
Cameras & Camcorders	$28,277,095	$38,264,476	$3,313,399	$16,544,721		$86,399,692
Cell Phones	$6,140,035	$7,152,740	$555,878	$4,361,287		$18,209,940
Computers	$32,785,372	$31,721,274	$7,347,352	$17,327,816		$89,181,814
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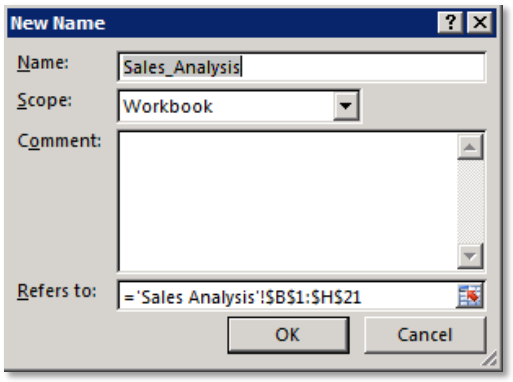
TV & Video	$22,991,293	$19,192,446	$5,691,529	$12,415,733		$60,291,001
Grand Total	$109,507,439	$121,186,169	$23,758,015	$61,552,478		$316,004,101

5. On the **FORMULAS** tab, in the **Defined Names** group, click **Define Name.**
6. In the Name text box, confirm or type in **Sales_Analysis,** and then click **OK.**



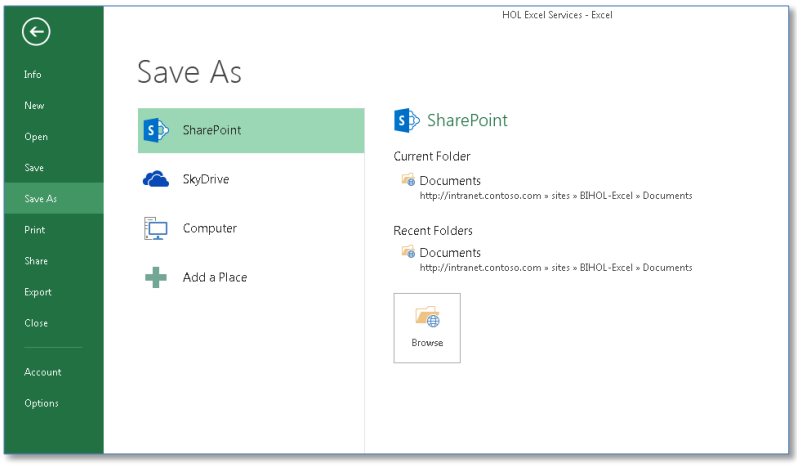
7. **Save** the changes you have made to the workbook.

Task 2 – Publish the Workbook to SharePoint

In this task, you will publish the named areas and a Geo parameter to SharePoint.

1. On the **FILE** tab, click **Save As.**

2. In the **Save As** window, click **SharePoint**, and then click **Browse**. If you see a connection warning, click **OK** to close it.



3. In the Save As dialog box, in the top field, enter **http://intranet.contoso.com/sites/bihol-excel** and click the green arrow.

   NOTE: After you click the green arrow, it may take a few moments before you are prompted for credentials or the list of document libraries displays.

4. If requested for credentials, enter the following information, and then click **OK**:

   User name: contoso\garthf

   Password: pass@word1

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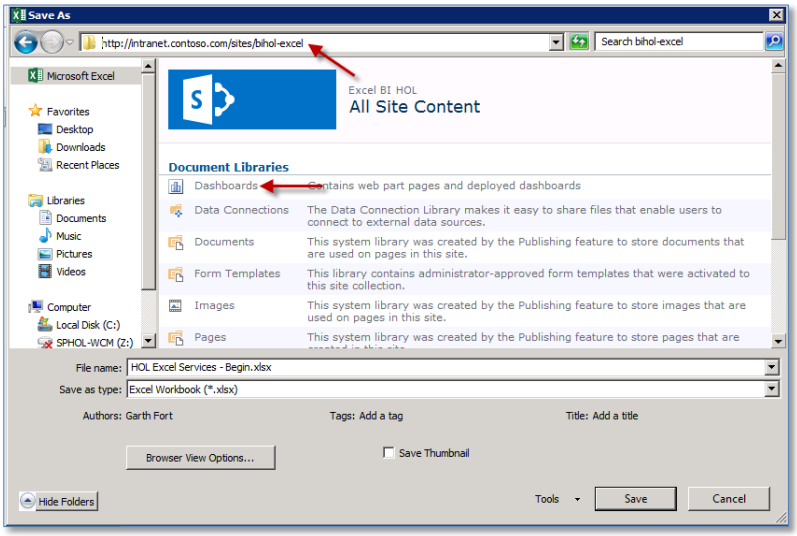
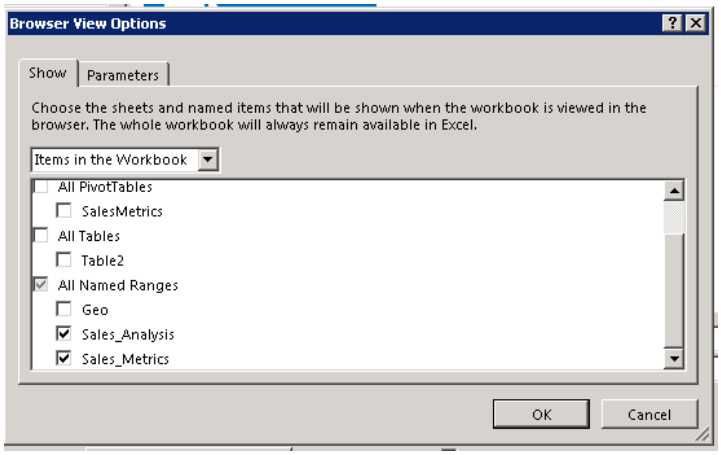
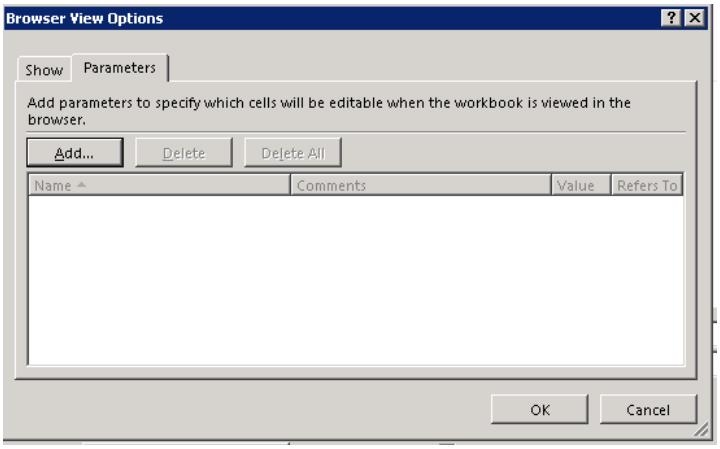
5. Under Document Libraries, double-click **Dashboards** to open the library.



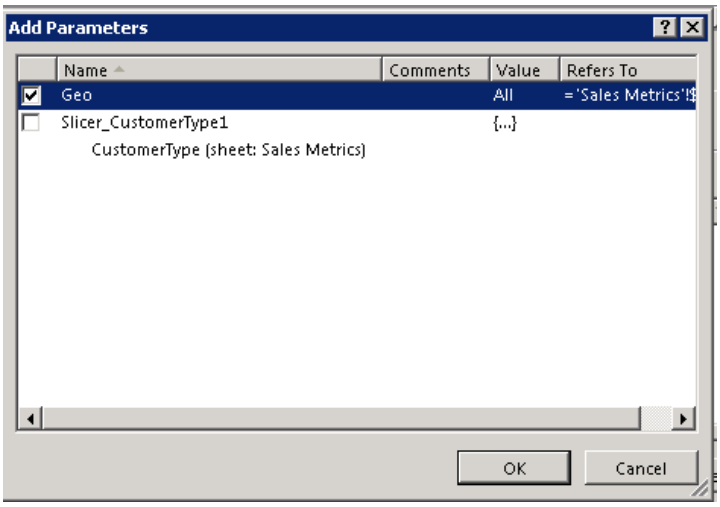
6. In the **Save As** dialog box, click the **Browser View Options.**
7. In the **Browser View Options** dialog box, select **Items in the Workbook** from the drop down box.
8. Under **All Named Ranges**, click **Sales_Analysis** and **Sales_Metrics.**



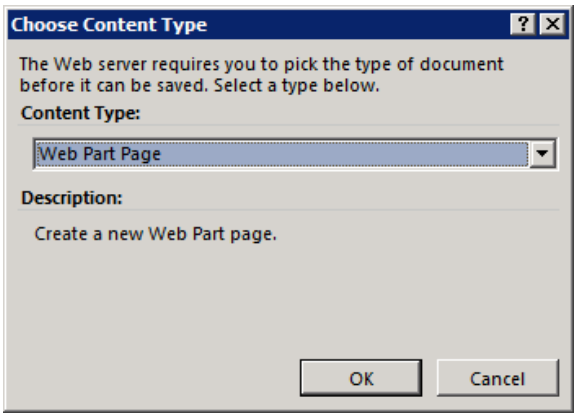
9. Click the **Parameters** tab, and then click **Add.**



10. In the **Add Parameters** dialog box, click the **Geo** checkbox.



11. Click **OK** to close the **Add Parameters** dialog box**.**
12. Click **OK** to close the **Browser View Options** dialog box.
13. In the **Save As** window, rename the file to **Sales Analysis**, and then click **Save** to save the workbook to SharePoint.
14. If the **Choose Content Type** dialog box displays, select **Web Part Page** from the drop down, and then click **OK**.



Note: The Excel Workbook is now published to the SharePoint Dashboards library on the BIHOL-Excel site.

In this exercise, you prepared the Excel workbook for publishing to SharePoint and published it. You created two defined names, and then you chose those defined names and added Geo parameter.

Exercise 4: Excel Web Access Interactivity

Estimated completion time: **10 minutes**

Scenario

Microsoft Excel 2013 offers new business intelligence features and functionality, enabling you to gather data to create powerful reports, scorecards, and dashboards. Excel Services enables you to share workbooks with others, view and explore information in a browser window, and refresh data.

In this exercise you will add a **SQL Server Analysis Services Filter** Web Part to a page, and configure it to use the ODC file created based on the BISM database. The database was created using PowerPivot data model to prompt the user to select values from the **Geography** dimension.

Then you will add an **Excel Web Access** Web Part and configure to display one of the two reports used in this lab. You will then create Web Part connections to allow the user-selected filter value to be passed to the reports.

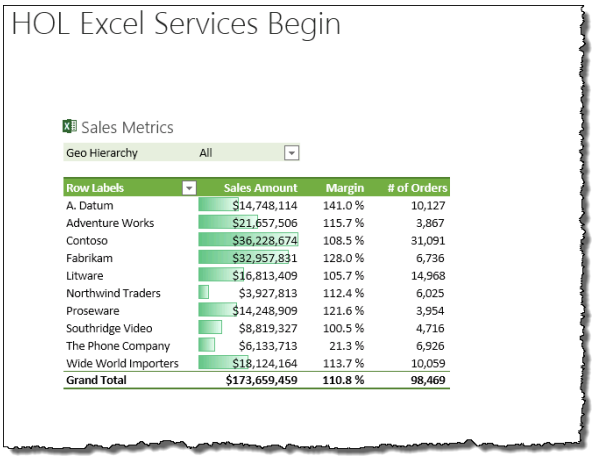
Finally, you will browse and interact with the dashboard page.

Task 1 – Add Dashboard Features Using Web Parts

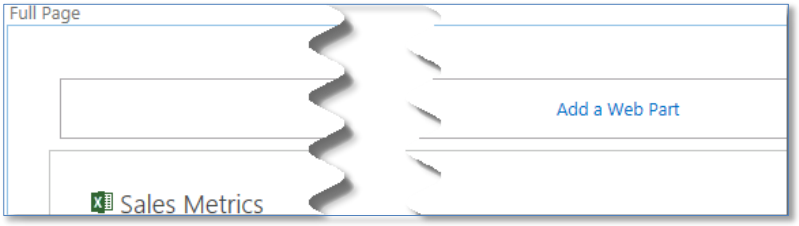
In this task, you will add a **SQL Server Analysis Services Filter** and an Excel Web Access web part to an existing web part page to create the dashboard.

1. Open Internet Explorer and navigate to the BIHOL – Excel SharePoint site at **http://intranet.contoso.com/sites/BIHOL-Excel**.

2. If prompted for credentials, enter the following information, and then click **OK**.
   User name: contoso\garthf
   Password: pass@word1
3. In the left navigation, click **Site Contents**.
4. Click **Dashboards** to open the library.
5. In the **Dashboards** library, click **HOL Excel Services Begin** to open the page.

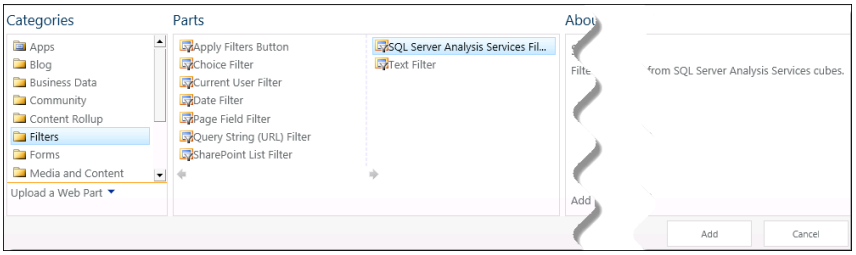


6. On the **PAGE** tab, in the **Edit** group, click **Edit Page**.
7. Click **Add a Web Part** at the top of the page.

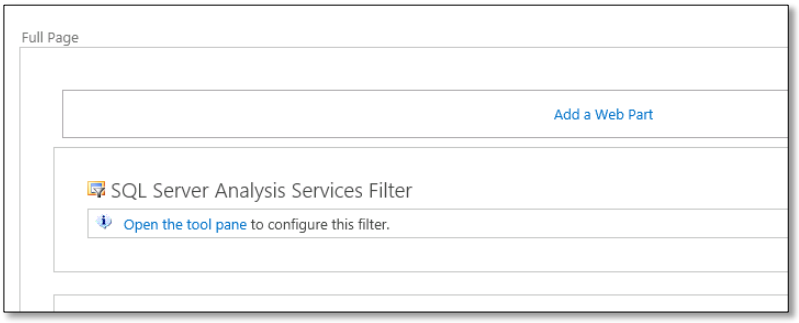


8. Under Categories, click **Filters**.

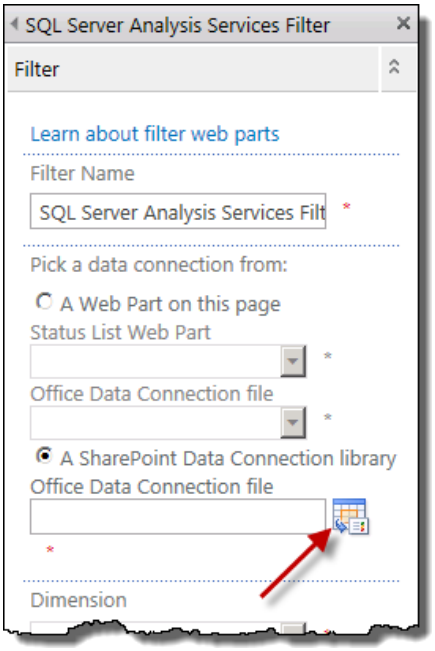
9. Under Parts, click **SQL Server Analysis Services Filter**, and then at the bottom of the **About the part** section, click **Add**.



10. To configure the filter, click **Open the tool pane** link.



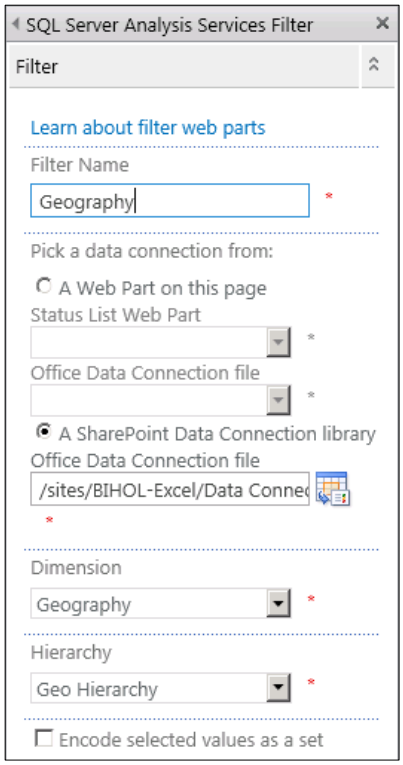
11. Click the **Browse** icon next to the **Office Data Connection file** field.



12. In Select an Asset window, click **BISM Sales Analysis Model** from the data connection list, and then at the bottom of the window, click **Insert**.

13. Enter the following property values for filter web part:

Filter Name: Change to Geography
Dimension: Geography from the drop down box
NOTE: Selecting Geography in Dimension will populate the Hierarchy drop down.
Hierarchy: Geo Hierarchy from the drop down box.

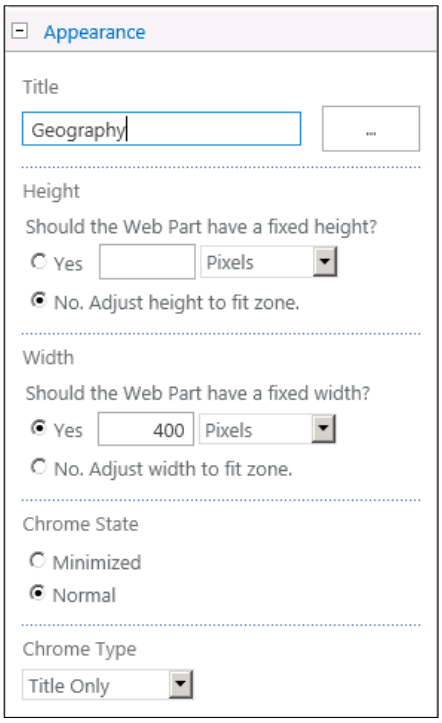


14. Expand **Appearance** and make the following changes:

    Title: Change to Geography

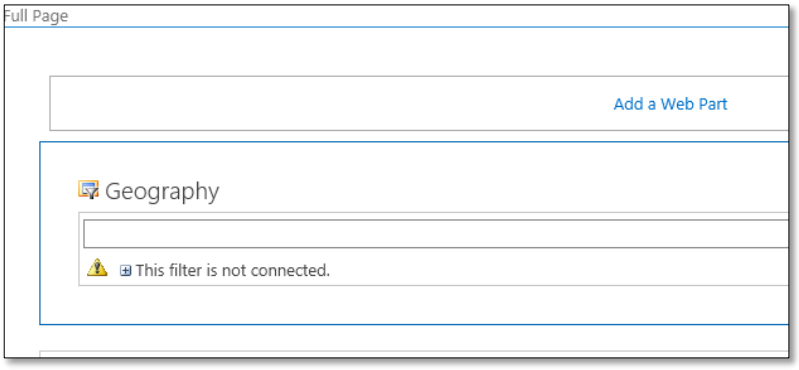
    Width: Click Yes radio button and enter 400 in text box

    Chrome Type: Click **Title only** in drop down



15. Click **OK.**

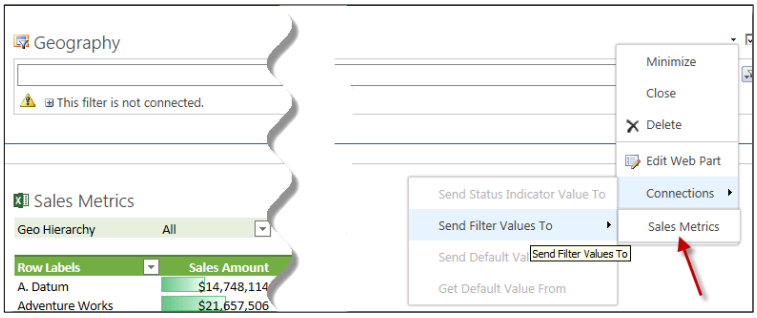
    The SQL Services Analysis Services Filter appears in the top web part, along with a **This filter is not connected** alert.



16. To connect the filter:

    a. Click the Geography **Context Menu** drop down, and then click **Connections**. If the **Context Menu** drop down is not visible, click anywhere on the **Geography** web part.

    b. Click **Send filter values to**, and then click **Sales Metrics**.



    c. In the **Configure Connection – Webpage Dialog**, click **Configure Connection** tab.

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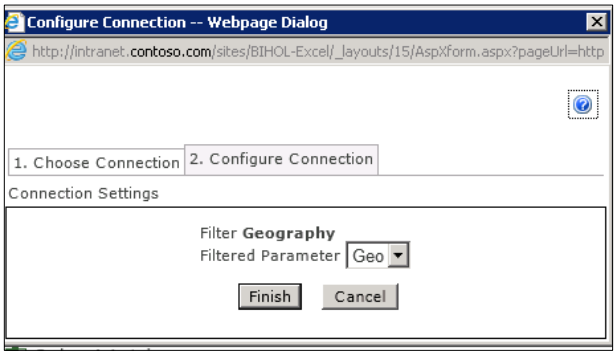
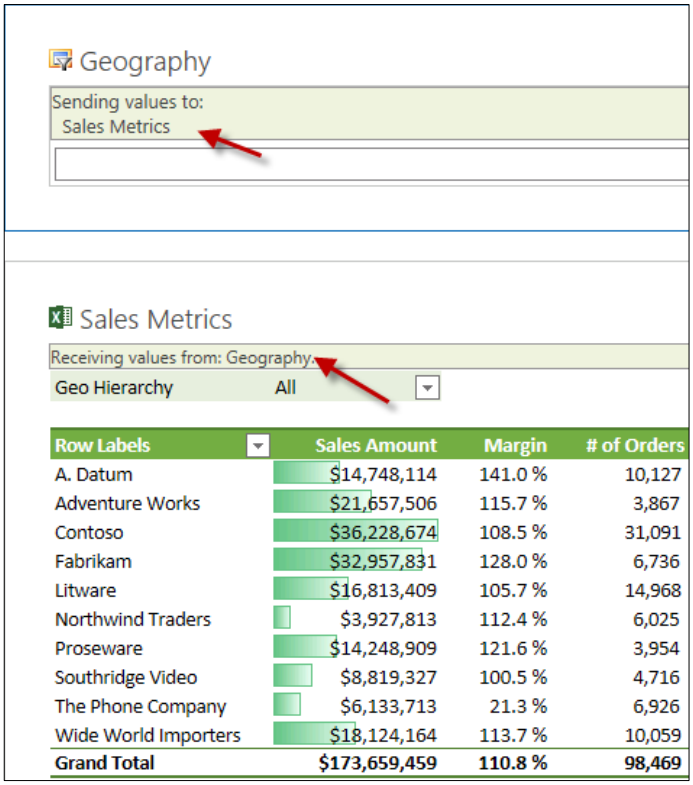
d. Make sure that **Filtered Parameter** is set to **Geo**, and then click **Finish.**



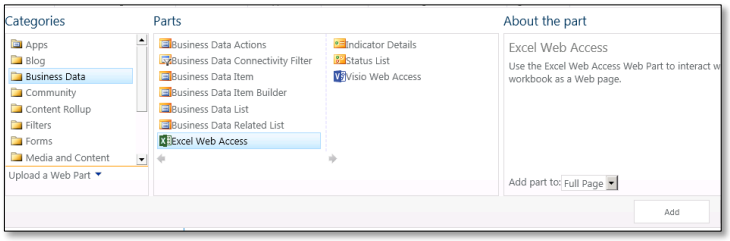
Now the filter sends the value to the **Sales Metrics** Excel Web Access web part.



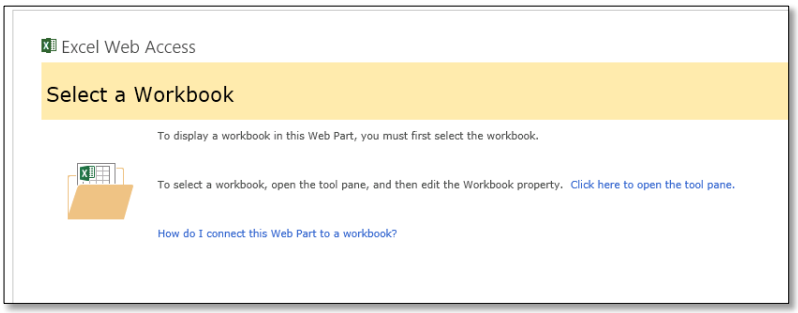
Row Labels	Sales Amount	Margin	# of Orders
A. Datum	$14,748,114	141.0 %	10,127
Adventure Works	$21,657,506	115.7 %	3,867
Contoso	$36,228,674	108.5 %	31,091
Fabrikam	$32,957,831	128.0 %	6,736
Litware	$16,813,409	105.7 %	14,968
Northwind Traders	$3,927,813	112.4 %	6,025
Proseware	$14,248,909	121.6 %	3,954
Southridge Video	$8,819,327	100.5 %	4,716
The Phone Company	$6,133,713	21.3 %	6,926
Wide World Importers	$18,124,164	113.7 %	10,059
Grand Total	**$173,659,459**	**110.8 %**	**98,469**

17. Next add the **Sales Analysis** Excel Web Access web part:

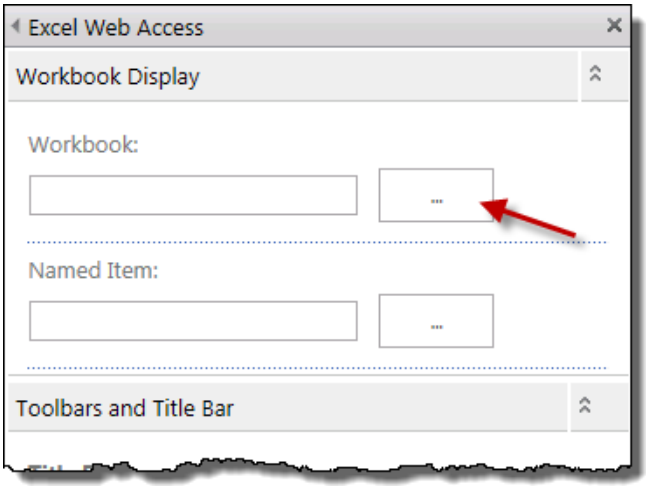
a. At top of Full Page zone, click **Add a Web Part**.
b. In the **Categories** list, click **Business Data.**
c. In the **Parts** list, click **Excel Web Access.**
d. Click **Add**.



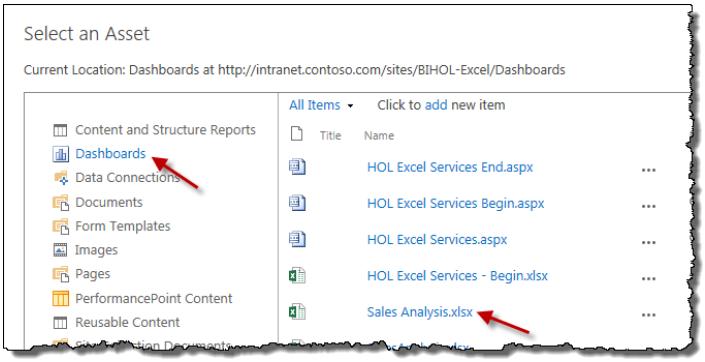
18. Click the **Click here to open the tool pane** link.



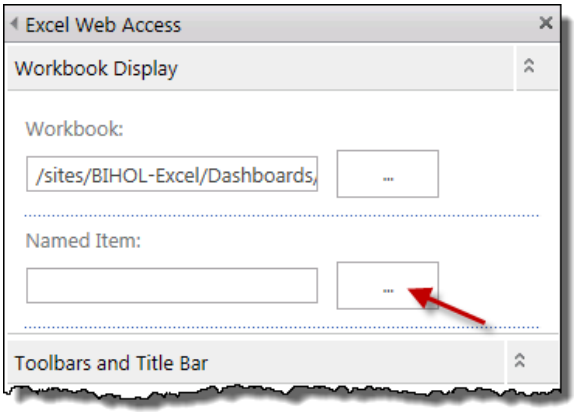
19. Click the ellipsis icon next to the **Workbook** field.



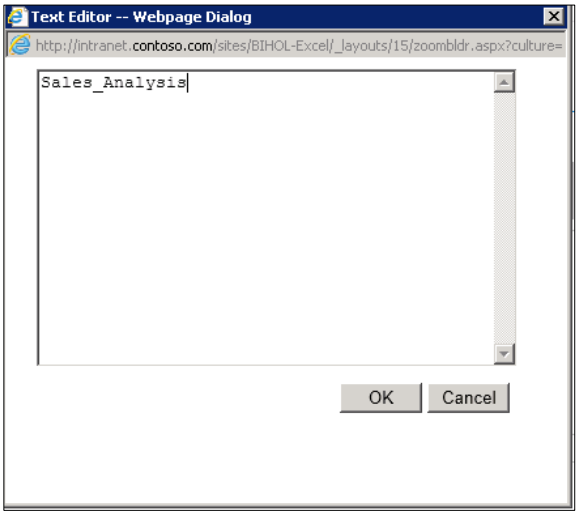
20. In the **Select an Asset** window, in the left navigation, click **Dashboards** to navigate to the **Dashboards** library.
21. Click **Sales Analysis** workbook uploaded in Exercise 2, and then click **Insert**.



22. In the Excel Web Access tool pane, click the ellipsis icon next to the **Named Item** field.



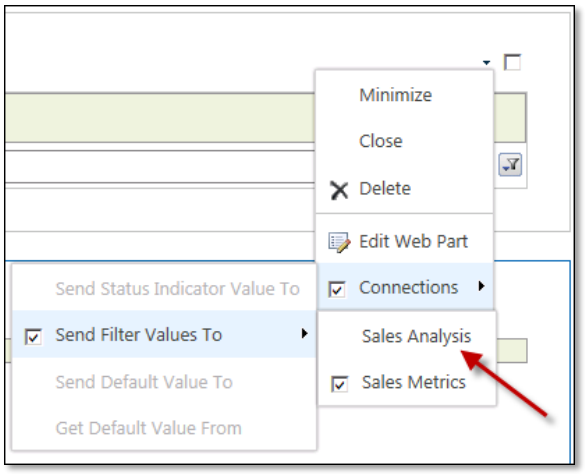
23. In the **Text Editor – Webpage Dialog**, type **Sales_Analysis**, and then click **OK**.



24. Enter the following for the remaining web part properties
    a. **Autogenerate Web Part Title** – remove check from check box.
    b. **Type of Toolbar**: “None” from the drop-down.
    c. **Title**: Sales Analysis (scroll down and expand the **Appearance** section)
25. At the bottom of the web part editor, click **OK** to accept the properties.
26. To connect the filter:
    a. In the **Geography** web part, click the **Context Menu** dropdown.

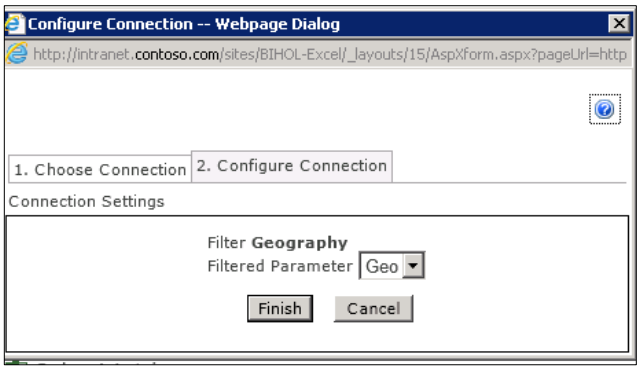
b. Click **Connections**.

c. Click **Send filter values to**, and then click **Sales Analysis**.

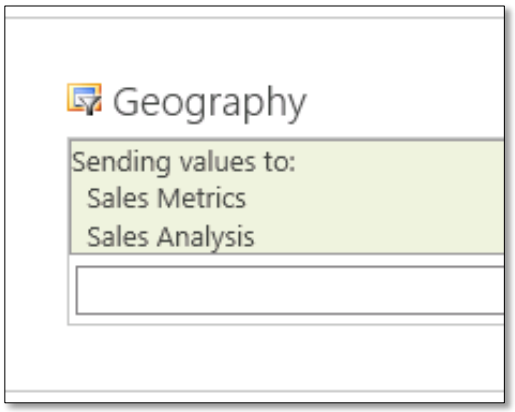


d. In the **Configure Connection – Webpage Dialog**, click the **Configure Connection** tab.

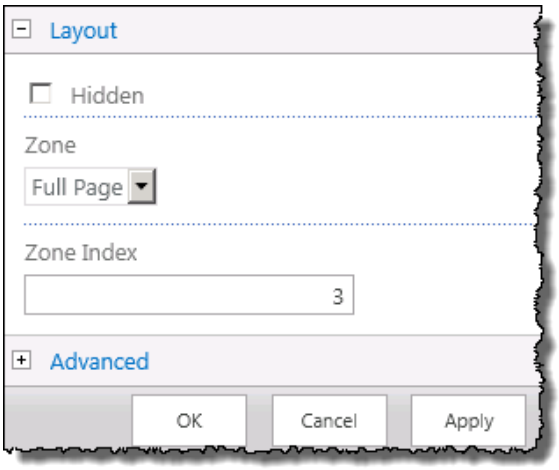
e. Make sure that **Filtered Parameter** is set to **Geo**, and then click **Finish.**



The **Geography** Filter is updated with the **Sales Metrics** and **Sales Analysis** information.

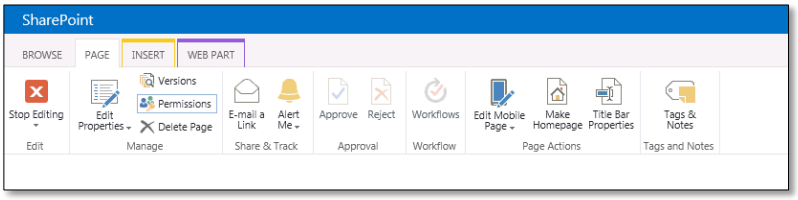


27. In the **Sales Analysis** web part, pause on **Sales Analysis** and then click the down-arrow to open the context menu.
28. Click **Edit Web Part**.
29. Expand **Layout**.
30. In the **Zone Index** box, type **3**.



31. Click **OK** to close the web part editor.

32. On the **Page** tab, in the **Edit** group, click **Stop Editing** to complete the dashboard creation.



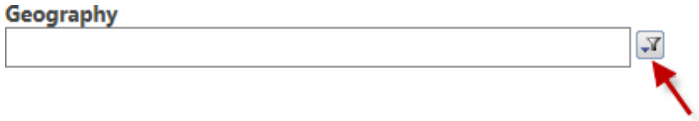
The completed dashboard will look as follows:

Task 2 – Explore Dashboard Features

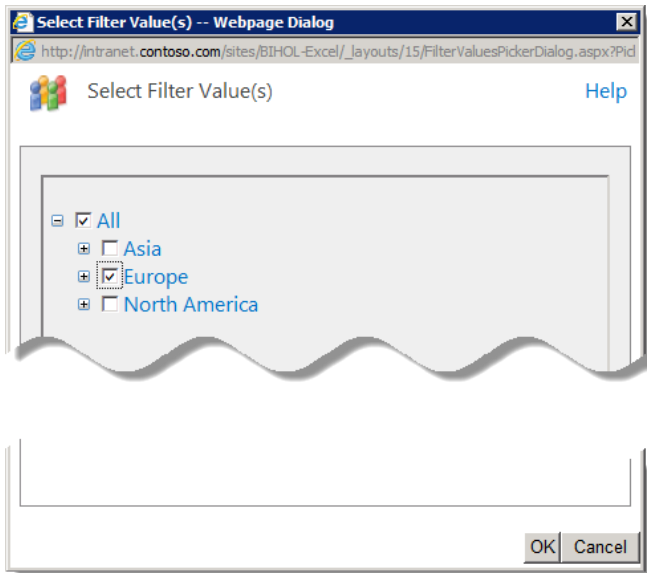
We will now add dashboard features to illustrate how you can get the most out of your Excel 2013 Dashboard. Using Excel Services, you can use web parts to interact with a workbook to act as a Web page.

To change the data display to only European sales for the specified time period:

1. Click **Filter** icon adjacent to the **Geography** field.



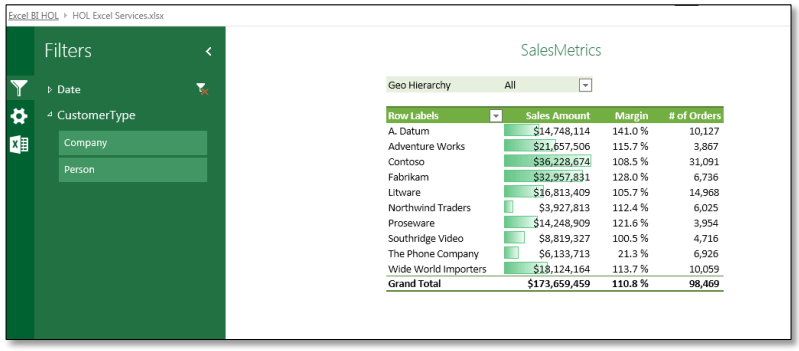
2. In **Select Filter Value(s) – Webpage Dialog**, click the **Europe** checkbox, and then click **OK.**



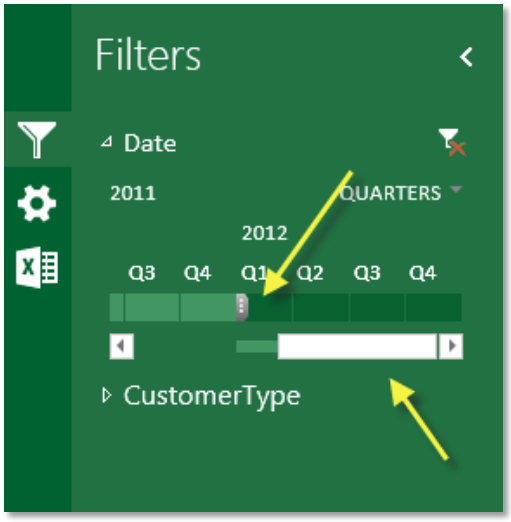
The Sales Matrics and Sales Analysis web parts are refreshed with new values for Europe.

3. Click the **Sales Metrics** web part title to view the Sales Metrics Excel Web services page.

   Various Excel workbook elements are available in SharePoint, in one view.



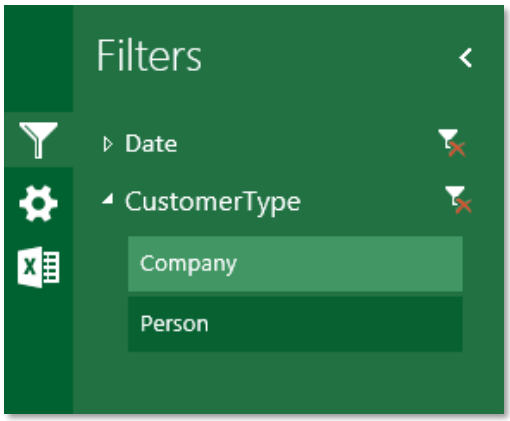
4. In the left navigation, if **Filters** are not displayed, click the **right arrow** to show the filters.
5. under **Filters**, expand the **Date** category to show the Timeline you inserted earlier.
6. Scroll the navigation bar to the right, and then click the right edge of the timeline and drag it to the right one quarter (to include Q1 2012).



   Note that as you change Timeline settings, the numbers in the PivotTable change accordingly.

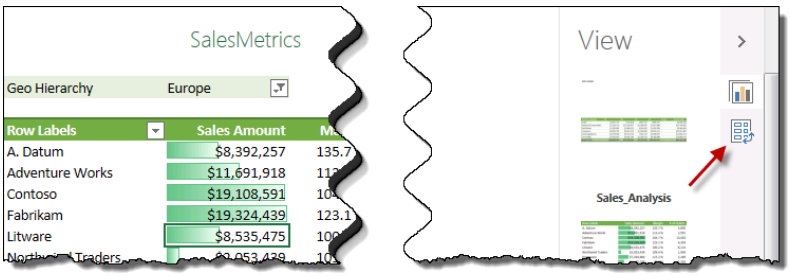
7. Expand the CustomerType filter.

8. Click **Company**, and then **Person** in the **Customer Type** filter category.
   The PivotTable changes to show slices of filtered data based upon your selections.

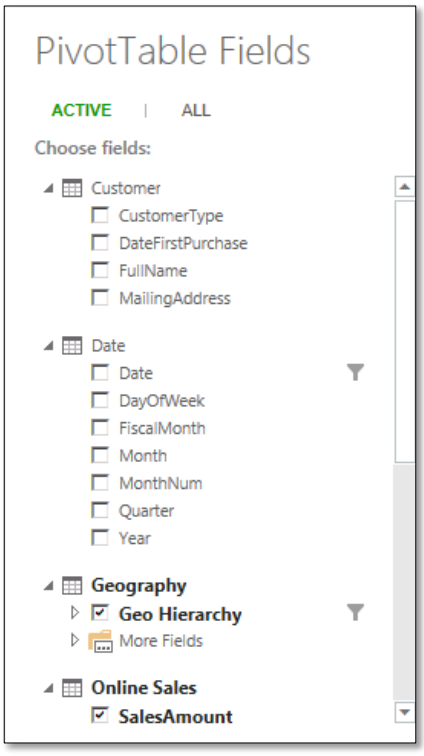


9. Click the filters icon to the right of **CustomerType** to remove the filters from that category.
10. Use the arrow in the upper right-hand corner to hide the **Filters** section.

11. Click a cell in the **Sales Metrics** PivotTable, and then click the **Fields List** button at the right side of the screen.

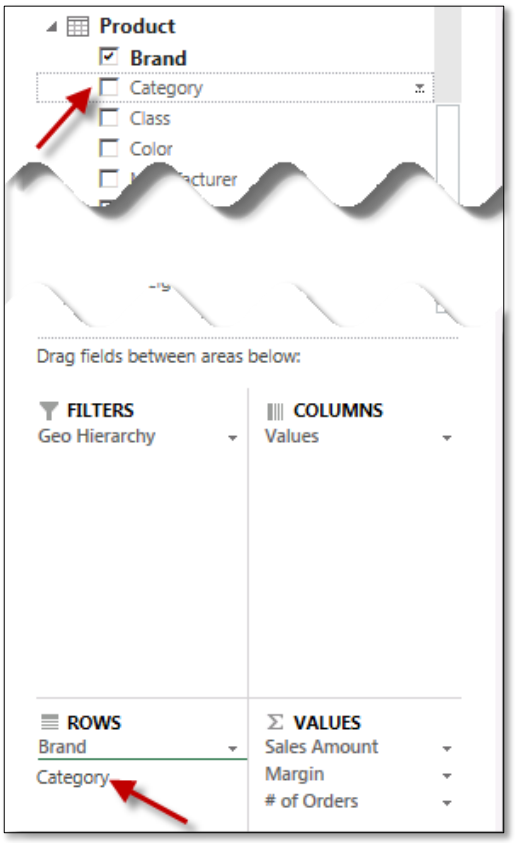


All the fields available in the pivot table are shown.



12. Click **All** at top of PivotTable Fields list.
13. If necessary, scroll down and expand **Product**.

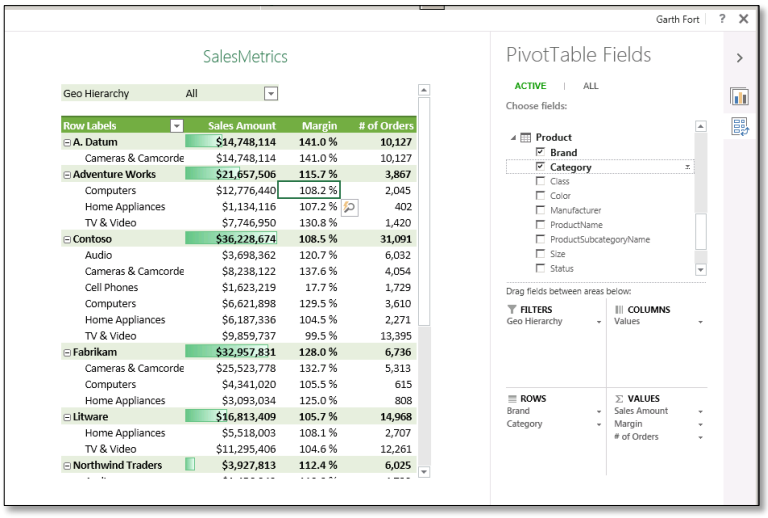
14. Drag the **Category** field and drop it on the **ROWS** area.



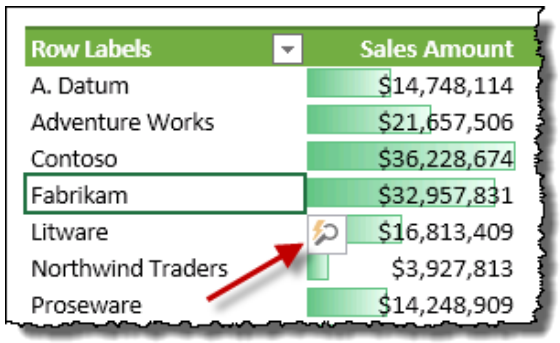
15. At the top of the table, click the filter icon to the right of **Europe**.
16. In the **Filter** window, check **(Select All)** and then expand All to confirm all regions are checked.

17. Click **OK**.

    The PivotTable redisplays as shown below.

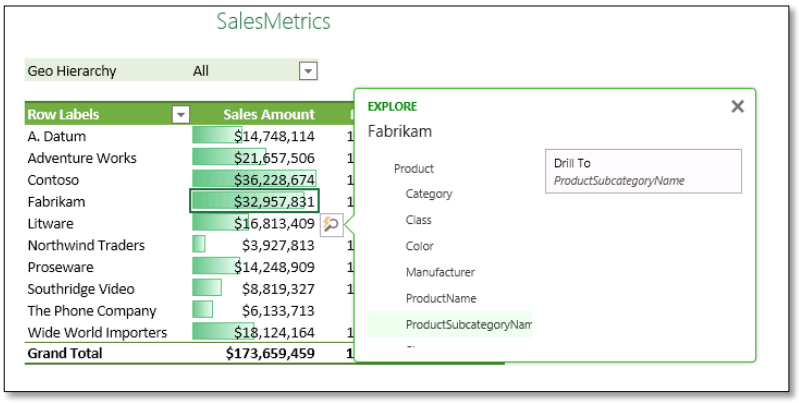


18. Remove the **Category** from the **ROWS** to return the pivot table to the original view:
    a. Click the down-arrow to the right of **Category** and then click **Remove Field**.
19. Click arrow on the top right-hand corner of the **PivotTable Fields** to hide the PivotTable Fields.
20. To drill down on the Fabrikam brand:
    a. Click on the **Fabrikam** cell.
    b. Hover over the **Quick Explore** icon, and then click the icon.

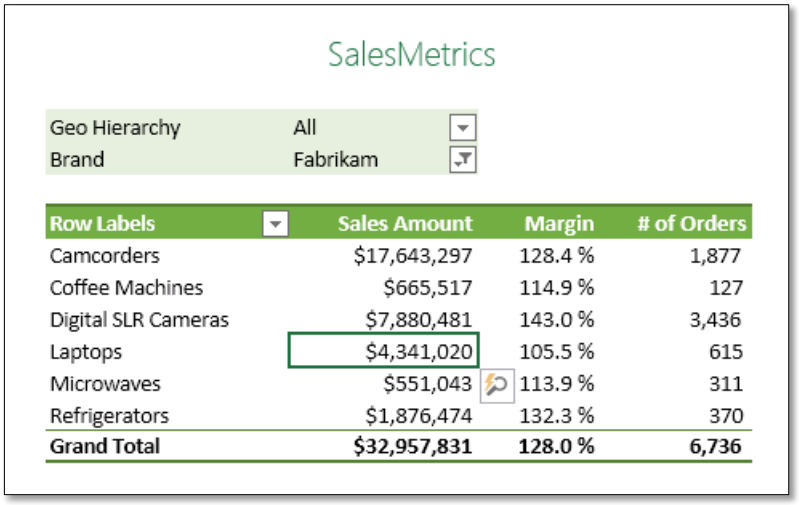


    c. In the **Explore** window, expand **Product**.
    d. Click **ProductSubcategoryName**.

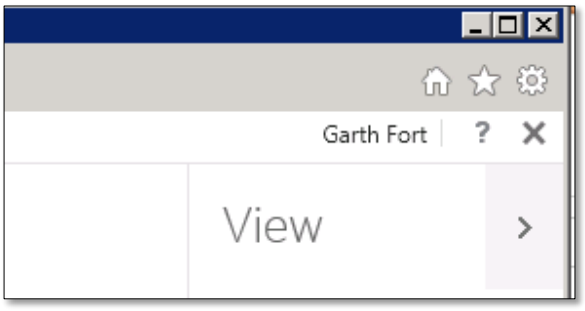
The **ProductSubcategoryName** field is added to the Drill To box.



e. Click **Drill To ProductSubCategoryName**. The table updates to reflect your change.



21. At the upper right, click the **X** to close the Excel Web Services view and return to the dashboard.



In this exercise, we learned about creating fully functional dashboard with parameter passed between different web parts. Also we explored the various interactive features available through Excel Web Services view.

Summary

Congratulations! In this hands-on lab, you were introduced to the new Excel 2013 BI features, with emphasis on new and extended features. Specifically, you learned to:

- Create parameterized Excel PivotTable report using a PowerPivot data model.
- Enhance the report with Timeline Slicer and conditional formatting. Also use the new Quick Explore features to add relevant visualizations.
- Publish the Excel workbook to SharePoint 2013.
- Create a SharePoint dashboard page using Excel Web Access and Business Intelligence Semantic Model (BISM) Filter web parts based on PowerPivot Data Model.
- Define connections to allow filter values to pass to the **Excel Web Access** web part.
- Explore the published Excel workbook.