

## Demonstration on Adding Visualizations to a Report

In this demonstration, you will see how to:

- Connect to a database in Azure SQL Database and import data.
- Add visualizations to a report in Power BI Desktop.

### Demonstration Steps:

1. If you do not have a Power BI login, open Internet Explorer, go to <https://powerbi.microsoft.com/en-us/documentation/powerbi-admin-signing-up-for-power-bi-with-a-new-office-365-trial>, and follow the steps to create an account.
2. In Internet Explorer®, go to <https://www.microsoft.com/en-us/download/details.aspx?id=45331>, and then click Download.
3. On the Choose the download you want page, select the PBIDesktop\_x64.msi check box, and then click Next.
4. In the message box, click Run.
5. In the Microsoft Power BI Desktop (x64) Setup dialog box, on the Welcome to the Microsoft Power BI Desktop (x64) Setup Wizard page, click Next.
6. On the Microsoft Software License Terms page, select the I accept the terms in the License Agreement check box, and then click Next.
7. On the Destination Folder page, click Next.
8. On the Ready to install Microsoft Power BI Desktop (x64) page, click Install.
9. In the User Account Control dialog box, click Yes.
10. On the Completed the Microsoft Power BI Desktop (x64) Setup Wizard page, clear the Launch Microsoft Power BI Desktop check box, and then click Finish.
11. Close Internet Explorer.

### Connect to a Database in Azure SQL Database and Import Data

1. Ensure that the MSL-TMG1, 20778A-MIA-DC, and 20778A-MIA-SQL virtual machines are running, and then log on to 20778A-MIA-SQL as ADVENTUREWORKS\Student with the password Pa\$\$w0rd.
2. In the D:\Demofiles\Mod06 folder, run Setup.cmd as Administrator, and then click Yes when prompted. If asked Do you want to continue with this operation? Type Y and press Enter.
3. When the script completes, press any key to close the window.
4. Start Microsoft SQL Server Management Studio from the taskbar, and then connect to the MIA-SQL database engine instance by using Windows® authentication.
5. In the D:\Demofiles\Mod06\Demo folder, open the Demo.ssmssln solution.
6. In Solution Explorer, open the 1 - Charts.sql script file.
7. On the desktop, double-click the Power BI Desktop icon.
8. In the Power BI Desktop window, click Get Data.
9. In the Get Data dialog box, click Microsoft Azure SQL Database, and then click Connect.

10. In the SQL Server database window, in the Server box, type the URL of the Azure server <Server Name>.database.windows.net (where <Server Name> is the name of the server that you created).
11. In the Database box, type AdventureWorksLT.
12. Expand the Advanced options box.
13. In SQL Server Management Studio, copy the query under Customer Address in the 1 - Charts.sql query.
14. In Power BI Desktop, paste the query into the SQL Statement (optional, requires database) box, and then click OK.
15. In the SQL Server database window, click Database, in the Username box, type Student, and in the Password box, type Pa\$\$w0rd, and then click Connect.
16. The data preview window will appear. Click Load.
17. The window will close, and a blank report canvas will open.
18. In the Power BI Desktop window, click Get Data.
19. In the Get Data dialog box, click Microsoft Azure SQL Database, and then click Connect.
20. In the SQL Server database window, in the Server box, type the URL of the Azure server <Server Name>.database.windows.net (where <Server Name> is the name of the server that you created).
21. In the Database box, type AdventureWorksLT.
22. Expand the Advanced options box.
23. In SQL Server Management Studio, copy the query under Sales in the 1 - Charts.sql query.
24. In Power BI Desktop, paste the query into the SQL Statement (optional, requires database) box, and then click OK.
25. The data preview window will appear. Click Load.
26. The window will close and return to the report.

### **Add Visualizations to a Report in Power BI Desktop**

1. In the Fields pane, right-click Query1, click Rename, type Customers, and then press Enter.
2. Right-click Query2, click Rename, type Sales, and then press Enter. Expand the two tables to display all the fields.
3. In the Fields pane, under Sales, select the SubCategory, and OrderQty check boxes. Power BI creates a table.
4. In the Visualizations pane, click Stacked column chart.
5. Grab the expander on the right edge of the chart, and then widen the chart so that all category labels are visible.
6. Ensure that the chart is still selected, and then in the Visualizations pane, click Analytics.
7. Expand Constant Line and click Add.
8. In the Value box, type 100.
9. Change the color to red.
10. Toggle Data label to On.
11. Change the color to red to match the reference line.
12. Click Format, and expand Title, in the Title Text box, type Orders by Sub Category, and then click Center to align to the center.

- 13.** In the Fields pane, click Sales.
- 14.** On the Modeling ribbon, click New Column.
- 15.** In the formula bar, type the following code:  
`LineTotal = Sales[OrderQty] * Sales[ListPrice]`
- 16.** On the Modeling ribbon, click Format: General, point to Currency, and then click \$ English (United States).
- 17.** Click a blank area of the page.
- 18.** In the Fields pane, under Sales, select the Product check box, which adds a table, and then select the LineTotal check box.
- 19.** In the Visualizations pane, click Fields, under Filters, expand LineTotal(All).
- 20.** In the list, click is greater than, and in the box, type 25000.
- 21.** Click Apply filter, and then note that the number of products in the table is reduced.
- 22.** In the Visualizations pane, click Format, click Title, and change the Title slider to On.
- 23.** Under Title, in the Title Text box, type Product Sales Over \$25k, and then click Center.
- 24.** Select the table, and then click Stacked bar chart.
- 25.** Use the expander to widen the chart to the same width as the column chart.
- 26.** On the chart, click More Options, and then click Sort ByLineTotal.
- 27.** At the bottom of the window, click the + icon to add a new report.
- 28.** On the Home ribbon, click Manage Relationships, and then point out that Power BI has auto-detected the relationship on the CustomerID columns, then click Close.
- 29.** In the Fields pane, expand Customers, and then select the City check box. Power BI automatically adds a map chart. Expand the map to show all countries.
- 30.** In the Fields pane, under Sales, select the LineTotal check box to add it to the map. Grab the right corner of the map, and then drag it to fill the whole of the report page.
- 31.** Zoom in on the map to focus on the UK. Point out that the bubbles now represent the sales for each customer and are proportionately sized. Position the cursor over some of the bubbles to display the data labels.
- 32.** Save the file as Customer Sales, in the D:\Demofiles\Mod06\Demo folder.
- 33.** Leave Power BI open for the next demonstration.