# Lab: Creating a PowerBI Dashboard

## Exercise 1: Connecting to Power BI Data

### Task 1: Connect to Data Souce from the Power BI Desktop

1.      In your PC, click **Power BI Desktop**.

2.      When the Power BI Desktop window appears, in the left-hand pane, click **Get data**.

3.      In the **Get Data** dialog box, click **Excel**.

4.      In the **Open** dialog box, search the **Sales.xls** file, and then click **Open**.

5.      In the **Navigator** dialog box, select the **vSalesPerson** check box, and then click **Load**.

6.      In the **Fields** pane, expand **vSalesPerson** to view all the columns.

7.      On the **Home** ribbon, click **Recent Sources**, and then click **Sales.xls**.

8.    In the **Navigator** dialog box, select the **vStoreWithDemographics** check box, and then click **Load**.

9.    In the **Fields** pane, expand **vStoreWithDemographics** to view all the columns.

10.    On the **Home** ribbon, click **Get Data**, and then click **Text/CSV**.

11.    In the **Open** dialog box, search the **Top 10 Selling Products.csv** file, and then click **Open**.

12.    In the **Top 10 Selling Products.csv** dialog box, click **Load**.

### Task 2: Add Charts to the Report

1.      In the **Visualizations** pane, click **Stacked column chart** to add a control to the report.

2.      In the **Fields** pane, under **vSalesPerson**, drag the **FirstName** field to the **Axis** box in the **Visualizations** pane.

3.      Drag the **SalesYTD** field to the **Value** box. The chart will populate with the data.

4.      On the chart in the report, click and drag the sizer on the right-hand side of the chart to widen the chart and display all the salespeople.

5.      Ensure the chart has focus, and then in the **Visualizations** pane, click **Format**.

6.      Expand **Data colors**, then toggle **Show all** to **On**.

7.      Change the color for **Jae**, **Linda**, and **Michael** to red.

8.      Click the report canvas then in the **Visualizations** pane, click **Pie chart** to add a control to the report. Drag the pie chart to the right of the bar chart, or below if there is not enough space.

9.      In the **Fields** pane, under **vStoreWithDemographics**, drag the **Specialty** field to the **Legend** box in the **Visualizations** pane.

10.    Drag the **NumberEmployees** field to the **Values** box. The chart will populate with the data and should display three pie sections.

11.    Click the report canvas, then in the **Visualizations** pane, click **Stacked column chart** to add a control to the report. The chart should be located under the previous charts.

12.    In the **Fields** pane, expand **Top 10 Selling Products**, drag the **Product** field to the **Axis** box in the **Visualizations** pane.

13.    Drag the **LineTotal** field to the **Value** box. The chart will populate with the data.

14.    Click the **Top 10 Selling Products** chart to give it focus, then in the **Visualizations** pane, click **Donut chart**. Note how easy it is to switch to a different chart type.

15.    On the chart, grab the sizer on the right-hand side of the donut chart to widen the chart to display all the product names in full.

16.    In the **Fields** pane, under **vStoreWithDemographics**, click and drag the **AnnualSales** field directly onto the report canvas. See how this automatically creates a bar chart.

17.    In the **Fields** pane, select the **AnnualRevenue** check box, and note that this adds the field to the bar chart.

18.    In the **Fields** pane, click the ellipsis (**…**) next to the **AnnualRevenue**, and click **Rename**. Type **Annual Revenue**, and then press Enter.

19.    Repeat Step 18 to rename the **AnnualSales** field to **Annual Sales**. Note that the names in the title and legend of the bar chart update accordingly.

20.    Click the report canvas, and then in the **Visualizations** pane, click **Format**.

21.    Expand **Page Information**, and in the **Name** box, type **Sales**. Click the report canvas and note the name has changed in the tab at the bottom of the report.

22.    On the **File** menu, click **Save**, navigate to your Documents folder, then create a folder named **Power BI**. Name the report **Adventure Works Sales**, and save in the **Power BI** folder.

Leave Power BI Desktop open on the report for the next task.

### Task 3: Publish the Report to the Power BI Portal

1.      In Power BI Desktop, on the **Home** ribbon, click **Publish**.

2.      If you are prompted to save your changes, click **Save**.

3.      The report will then be published to the Power BI portal. When the window displays Success, click **Open 'Adventure Works Sales.pibx' in Power BI** to view the report online.

4.      When the browser opens, click **Sign in**, enter your email address and password, **Sign in**, and wait for the report to open in Internet Explorer.

Leave the browser window open for the next lab exercise.

## Exercise 2: Create a Power BI Dashboard

### Task 1: Create a New Dashboard

1.      In the Power BI portal, click **My Workspace**.

2.      Click **+ Create, and then click Dashboard.**

3.      In the **Create dashboard** dialog box, in the **Dashboard name** box, type **Adventure Works Sales**, and then click **Create**.

4.      The blank dashboard canvas will appear in the main window.

Leave the window open ready for the next lab task.

### Task 2: Add Chart Items to the Dashboard

1.      Under **My Workspace**, under **Reports**, click **Adventure Works Sales**. This will open the report in the main window.

2.      Position the cursor on the **SalesYTD by FirstName** bar chart, and click **Pin visual**.

3.      In the **Pin to dashboard** dialog box, click **Existing dashboard**, and in the list, click **Adventure Works Sales**, and then click **Pin**. You will see a notification to say the visual has been pinned.

4.      Position the cursor on the **LineTotal by Product** bar chart, and click **Pin visual**.

5.      In the **Pin to dashboard** dialog box, click **Existing dashboard**, and in the list, click **Adventure Works Sales**, and then click **Pin**. You will see a notification to say the visual has been pinned.

6.      Position the cursor on the **Annual Sales and Annual Revenue** bar chart, and click **Pin visual**.

7.      In the **Pin to dashboard** dialog box, click **Existing dashboard**, and in the list, click **Adventure Works Sales**, and then click **Pin**. You will see a notification to say the visual has been pinned.

Under **My Workspace**, under **Dashboards**, click **Adventure Works Sales** to open the dashboard. Leave the dashboard open for the next task.

### Task 3: Customize the Dashboard

1.      In the **Adventure Works Sales** dashboard, position the cursor on the **Annual Sales, Annual Revenue** chart to change the icon to a hand. Then drag the chart to the top left-hand corner of the canvas. It will change places with the **SalesYTD** chart. Notice that the names of the charts have been changed.

2.      Position the cursor on the **SalesYTD** chart so the arrow appears in the bottom right-hand corner of the chart. Grab the arrow and widen the chart so it spans the width of the charts above.

3.      With the mouse on the **SalesYTD** chart, open the menu using the ellipsis in the top right-hand corner. Click **Edit details**.

4.      In the **Tile details** pane, in the **Title** box, change the name to **Year to Date Sales**.

5.      In the **Subtitle** box, type **By Sales Person**, and then click **Apply**.

6.      Repeat Steps 3 to 5 for the **LineTotal** chart. Rename the Title to **Top 10 Selling Products**. Change the Subtitle to **By Sales**.

7.      Repeat Steps 3 to 5 for the **Annual Sales, Annual Revenue** chart. Rename the Title to **Annual Sales v Annual Revenue**. Change the Subtitle to **By Stores**.

8.      In the **Ask a question about your data** box, type **best selling sorted by product**. When the table of products appears beneath the question box, click **Pin visual**.

9.      In the **Pin to dashboard** dialog box, click **Existing dashboard**, and in the list, click **Adventure Works Sales**, and then click **Pin**. You will see a notification to say the visual has been pinned.

10.    Under **My Workspace**, under **Dashboards**, click **Adventure Works Sales**. The table of products will be at the bottom. Drag the table to the top row. Repeat Steps 3 to 5 for the table of products. Rename the Title to **Top 10 Selling Products**. Change the Subtitle to **By Sales**.

Leave the dashboard open for the next lab task.

### Task 4: Display the Dashboard in Full Screen Mode

1.      In the **Adventure Works Sales** dashboard in the Power BI portal, click **Enter Full Screen Mode** from the menu items on the top right-hand side. Notice that the browser disappears.

2.      Notice the floating menu in the bottom right-hand corner of the screen. Click **Fit to Screen** and notice how the screen zooms in to remove as much of the excess background space as possible.

3.      Position the cursor on the **Year to Date Sales** tile so the **Open** menu ellipsis appears on the top right-hand corner of the chart. Click the ellipsis, then click **Open in focus mode**. The single tile is displayed and fits the screen.

4.      On the floating menu, in the bottom right-hand corner of the screen, click **Exit Full Screen Mode**.

5.      On the **Year to Date Sales** tile, click **Pin visual**.

6.      In the **Pin to dashboard** dialog box, click **New dashboard**, and enter the name **Year to Date Sales**, then click **Pin**. The Pinned to dashboard pop-up displays to confirm the tile has been pinned.

7.      Click **Exit focus mode** in the top left-hand corner of the screen to return to the dashboard.

Close Internet Explorer, and then close Power BI Desktop.