Module 2: Introducing Power BI

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Note: Lab Solution is present in `D:\Labfiles\Lab02\Solution` folder:

Lab: Creating Power BI Charts

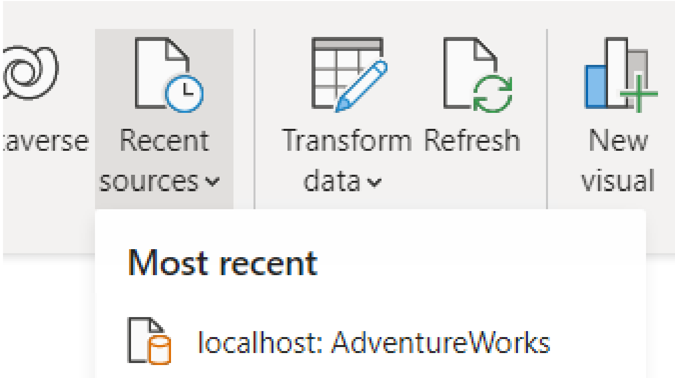
Exercise 1: Connecting to Power BI Data

Task 1: Prepare the Lab Environment

1. Ensure that you have copied all folders from `Desktop/power-bi-quickstart` folder into **D:** drive before starting the lab.
2. In the **D:\Labfiles\Lab02\Starter** folder, right-click **Setup.cmd**, and then click **Run as administrator**.
3. In the **User Account Control** dialog box, click **Yes**.
4. If prompted to continue this operation, type **Y**, and then press Enter.
5. When the script completes, press any key to close the window.

Task 2: Connect to SQL Server from the Power BI Desktop

1. On the Taskbar, click **Power BI Desktop**.
2. To close the getting started window, at the top-right of the window, click **X**.
3. On the **Power BI Desktop** window, in the left-hand pane, click **Get data**.
4. In the **Get Data** dialog box, click **SQL Server database**, and then click **Connect**.
5. In the **SQL Server database** dialog box, in the **Server** box, type **localhost**, in the **Database (optional)** box, type **AdventureWorks**, and then click **OK**.
6. In the **SQL Server database** dialog box, accept the default values, and then click **Connect**.
7. If an **Encryption Support** message is displayed, click **OK**.
8. In the **Navigator** dialog box, select the **Sales.vSalesPerson** check box, and then click **Load**.
9. In the **FIELDS** pane, expand **Sales vSalesPerson** to view all the columns.
10. On the **Home** tab, click **Recent Sources**, and then click **localhost: AdventureWorks**.



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

12. If the **Connection settings dialog box** appears, ensure **Import** is selected, and then click **OK**.

13. In the **FIELDS** pane, expand **Sales.vStoreWithDemographics** to view all the columns.

14. On the **Home** tab, click the **Get Data** arrow, and then click **SQL Server**.

15. In the **SQL Server database** dialog box, in the **Server** box, type **localhost**, and then in the **Database (optional)** box, type **AdventureWorks**.

16. Expand **Advanced options**, in the **SQL statement (optional, required database)** box, type the following code, and then click **OK**:

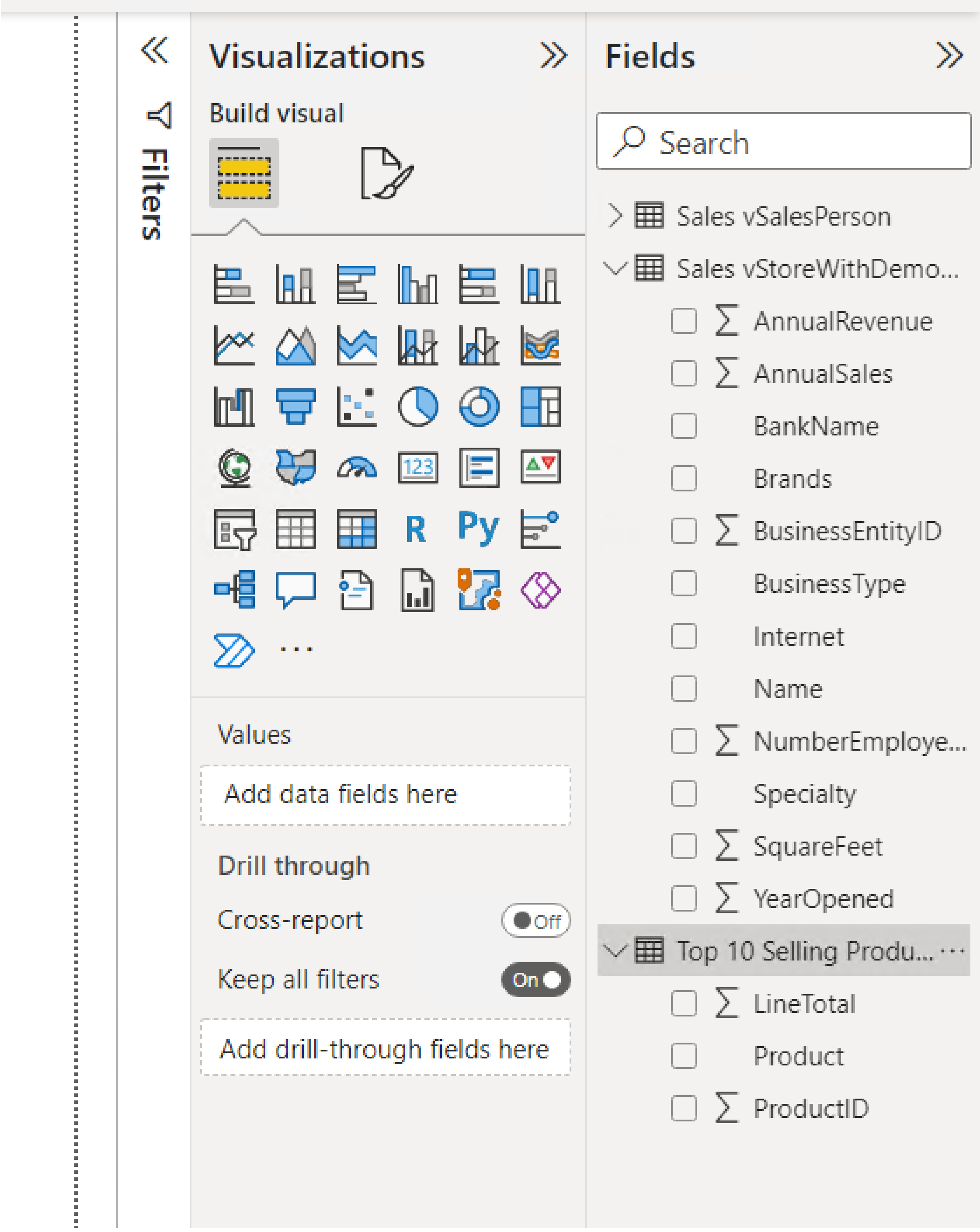
```
SELECT TOP 10 P.ProductID, P.Name AS Product, SUM(CAST(LineTotal AS
decimal(18,2))) AS LineTotal
FROM Purchasing.PurchaseOrderDetail AS POD
INNER JOIN Production.Product AS P
ON POD.ProductID = P.ProductID
GROUP BY P.ProductID, P.Name
ORDER BY LineTotal DESC
```

17. If the **Connection settings dialog box** appears, ensure **Import** is selected, and then click **OK**.

18. In the **localhost: AdventureWorks** dialog box, click **Load**.

19. In the **FIELDS** pane, expand **Query1** to view all columns.

20. Right-click **Query1**, click **Rename**, type **Top 10 Selling Products**, and then press Enter.



Task 3: 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 **Sales 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 **Linda**, **Jae**, 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 **Sales 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 **Sales 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, next to the **AnnualRevenue**, click the ellipsis (**...**) , 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**, and then press Enter. Note the name has changed in the tab at the bottom of the report.
22. On the **File** menu, click **Save**.
23. In the **Save As** dialog box, navigate to **D:\Labfiles\Lab02**.
24. Click **New folder**, type **Power BI**, and then press Enter.
25. Navigate to **D:\Labfiles\Lab02\Power BI**, in the **File name** box, type **Adventure Works Sales 2**, and then click **Save**.