

# Module 1: Introduction to Self-Service BI Solutions

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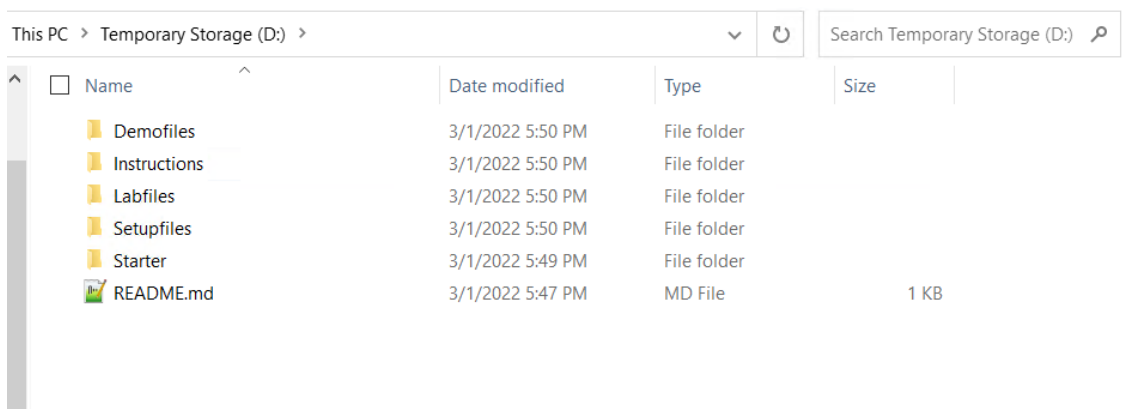
**Note:** Lab Solution is present in `D:\Labfiles\Lab01\Solution` folder:

## Lab: Exploring an Enterprise BI Solution

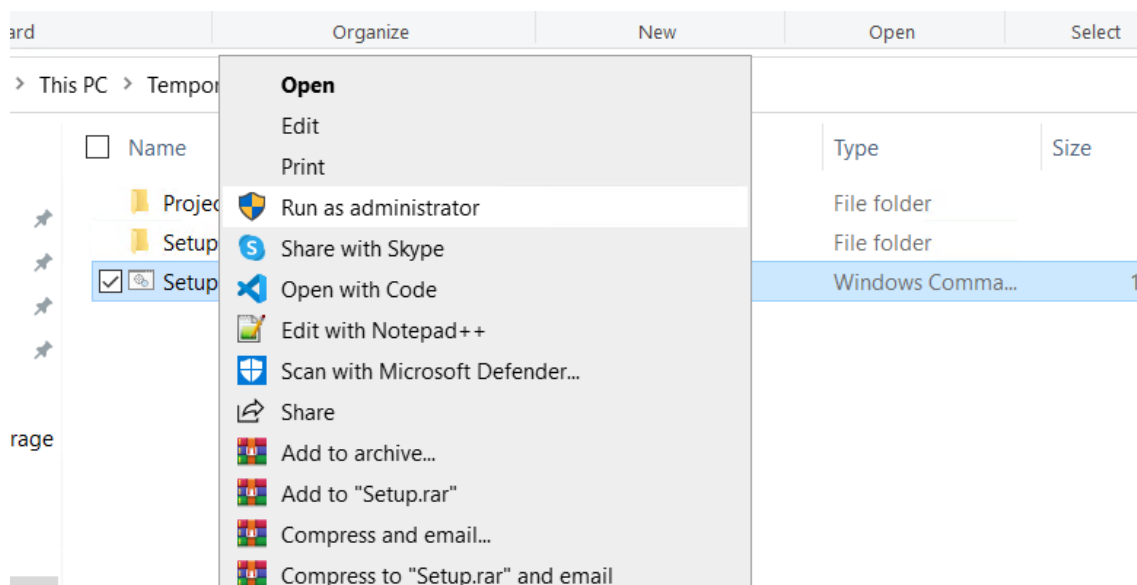
### Exercise 1: Lab Environment Setup

#### 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 File Explorer, in the `D:\Labfiles\Lab01\Starter` folder, right-click **Setup.cmd**, and then click **Run as administrator**.



3. When the script is complete, press any key to close the window.

```
C:\Windows\System32\cmd.exe
Database 'AdventureWorks' running the upgrade step from version 876 to version 877.
Database 'AdventureWorks' running the upgrade step from version 877 to version 878.
Database 'AdventureWorks' running the upgrade step from version 878 to version 879.
Database 'AdventureWorks' running the upgrade step from version 879 to version 880.
Database 'AdventureWorks' running the upgrade step from version 880 to version 881.
Database 'AdventureWorks' running the upgrade step from version 881 to version 882.
Database 'AdventureWorks' running the upgrade step from version 882 to version 883.
Database 'AdventureWorks' running the upgrade step from version 883 to version 884.
Database 'AdventureWorks' running the upgrade step from version 884 to version 885.
Database 'AdventureWorks' running the upgrade step from version 885 to version 886.
Database 'AdventureWorks' running the upgrade step from version 886 to version 887.
Database 'AdventureWorks' running the upgrade step from version 887 to version 888.
Database 'AdventureWorks' running the upgrade step from version 888 to version 889.
Database 'AdventureWorks' running the upgrade step from version 889 to version 890.
Database 'AdventureWorks' running the upgrade step from version 890 to version 891.
Database 'AdventureWorks' running the upgrade step from version 891 to version 892.
Database 'AdventureWorks' running the upgrade step from version 892 to version 893.
Database 'AdventureWorks' running the upgrade step from version 893 to version 894.
Database 'AdventureWorks' running the upgrade step from version 894 to version 895.
Database 'AdventureWorks' running the upgrade step from version 895 to version 896.
Database 'AdventureWorks' running the upgrade step from version 896 to version 897.
Database 'AdventureWorks' running the upgrade step from version 897 to version 898.
Database 'AdventureWorks' running the upgrade step from version 898 to version 899.
Database 'AdventureWorks' running the upgrade step from version 899 to version 900.
Database 'AdventureWorks' running the upgrade step from version 900 to version 901.
Database 'AdventureWorks' running the upgrade step from version 901 to version 902.
Database 'AdventureWorks' running the upgrade step from version 902 to version 903.
Database 'AdventureWorks' running the upgrade step from version 903 to version 904.
RESTORE DATABASE successfully processed 24276 pages in 0.941 seconds (201.539 MB/sec).
Press any key to continue . . .
```

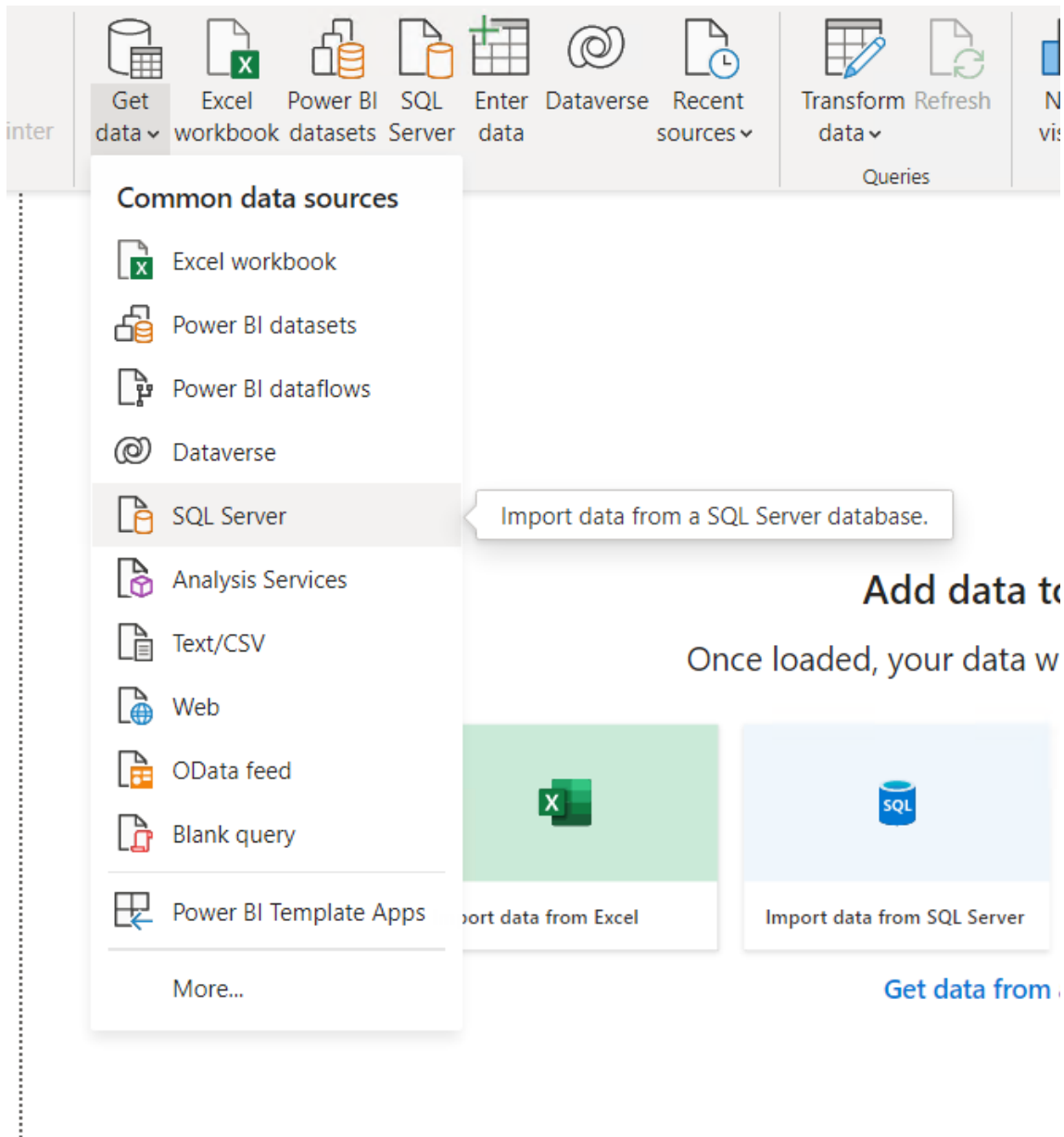
## Exercise 2: Creating a Power BI Report

### Task 1: Import Data into Power BI Desktop

1. Make sure previous task was completed.
2. On the Taskbar, click **Power BI Desktop**.




3. To close the getting started window, at the top-right of the window, click **X**.
4. On the **Power BI Desktop** screen appears, click **Get data**.



5. In the **Get Data** dialog box, click **SQL Server**, and then click **Connect**.
6. In the **SQL Server database** dialog box, in the **Server** box, type **localhost**.

7. In the **Database (optional)** box, type **AdventureWorksDW**, and then click **OK**.



**SQL Server database**

Server ⓘ  
localhost

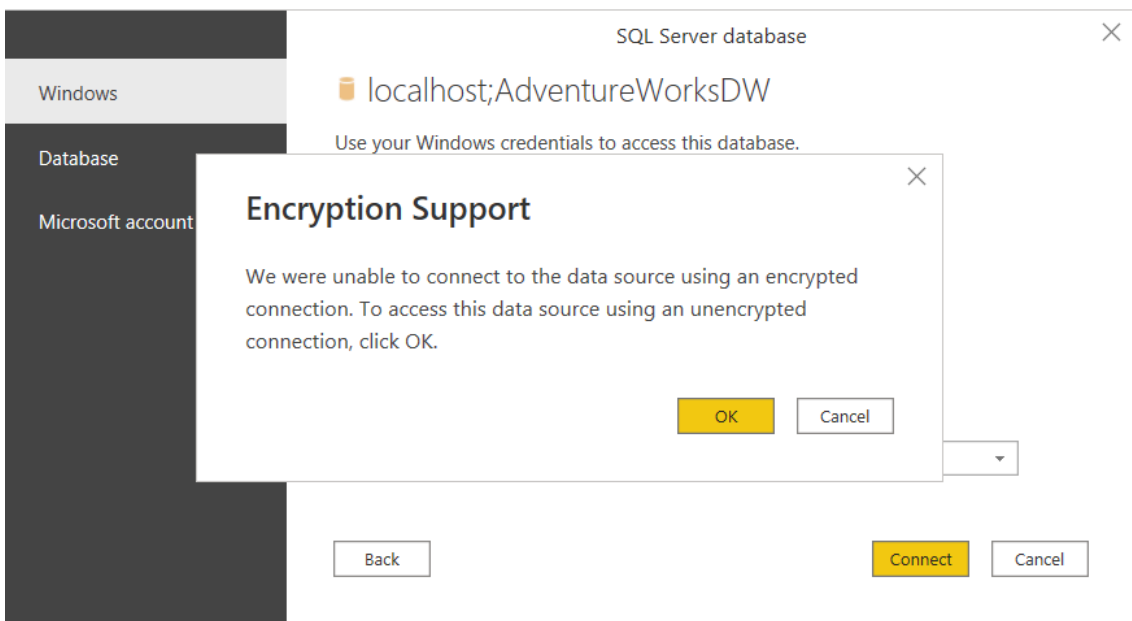
Database (optional)  
AdventureWorksDW

Data Connectivity mode ⓘ  
☒ Import  
☐ DirectQuery

> Advanced options

OK Cancel

8. If the **SQL Server database** dialog box appears, leave the default settings unchanged, and then click **Connect**.
9. If the **Encryption Support** dialog box appears, click **OK**.



**SQL Server database**

Windows  
Database  
Microsoft account

localhost;AdventureWorksDW

Use your Windows credentials to access this database.

**Encryption Support**

We were unable to connect to the data source using an encrypted connection. To access this data source using an unencrypted connection, click OK.

OK Cancel

Back Connect Cancel

10. In the **Navigator** dialog box, select the **FactInternetSales** check box.
11. Click **Select Related Tables**, and then click **Load**.

## Navigator

Display Options ▾

☒ DimCurrency

☒ DimCustomer

☒ DimDate

☐ DimDepartmentGroup

☐ DimEmployee

☐ DimGeography

☐ DimOrganization

☒ DimProduct

☐ DimProductCategory

☐ DimProductSubcategory

☒ DimPromotion

☐ DimReseller

☐ DimSalesReason

☒ DimSalesTerritory

☐ DimScenario

☐ FactAdditionalInternationalProductDes...

☐ FactCallCenter

☐ FactCurrencyRate

☐ FactFinance

☒ FactInternetSales

## FactInternetSales

| ProductKey | OrderDateKey | DueDateKey | ShipDateKey | CustomerKey | Pro |
|------------|--------------|------------|-------------|-------------|-----|
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |
| 310        | 20050701     | 20050713   | 20050708    | 21768       |     |

The data in the preview has been truncated due to size limits.

Select Related Tables

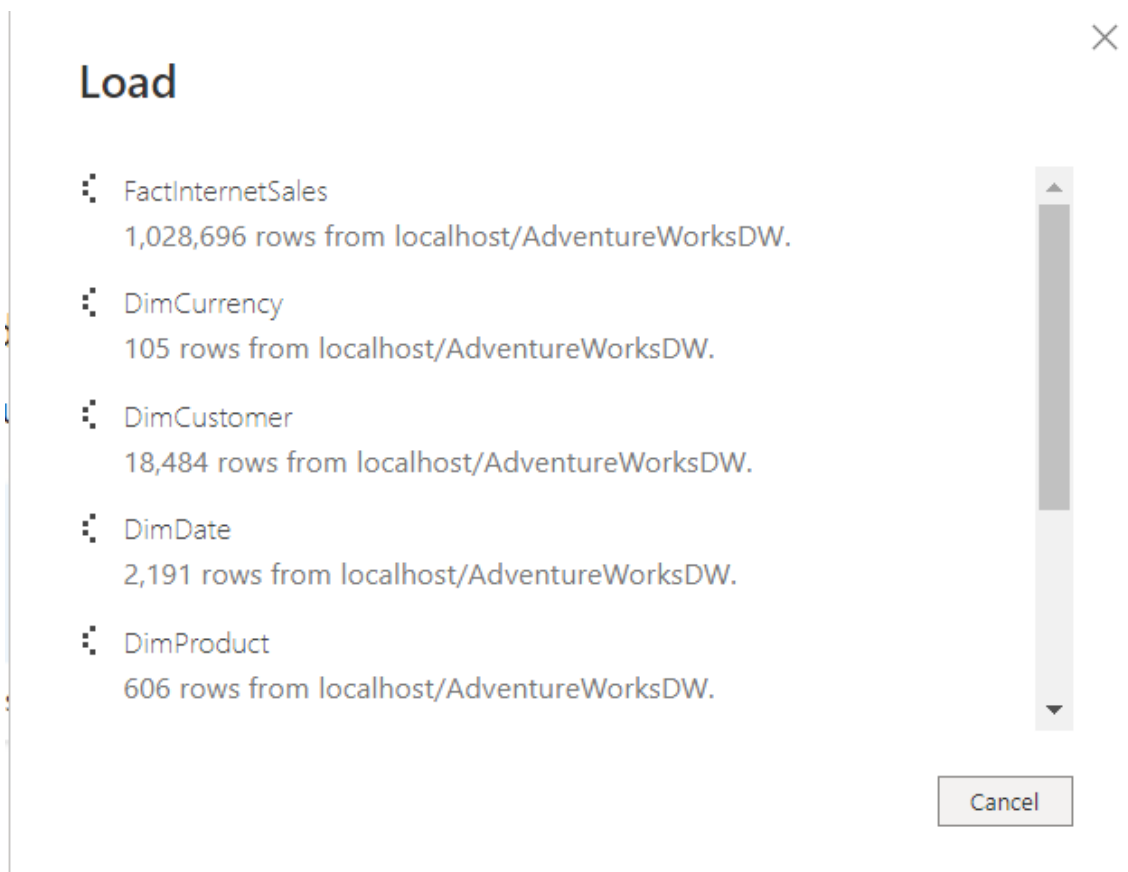
<>

Load

Transform Data

Cancel

**Note:** Wait for some time while tables are loaded.

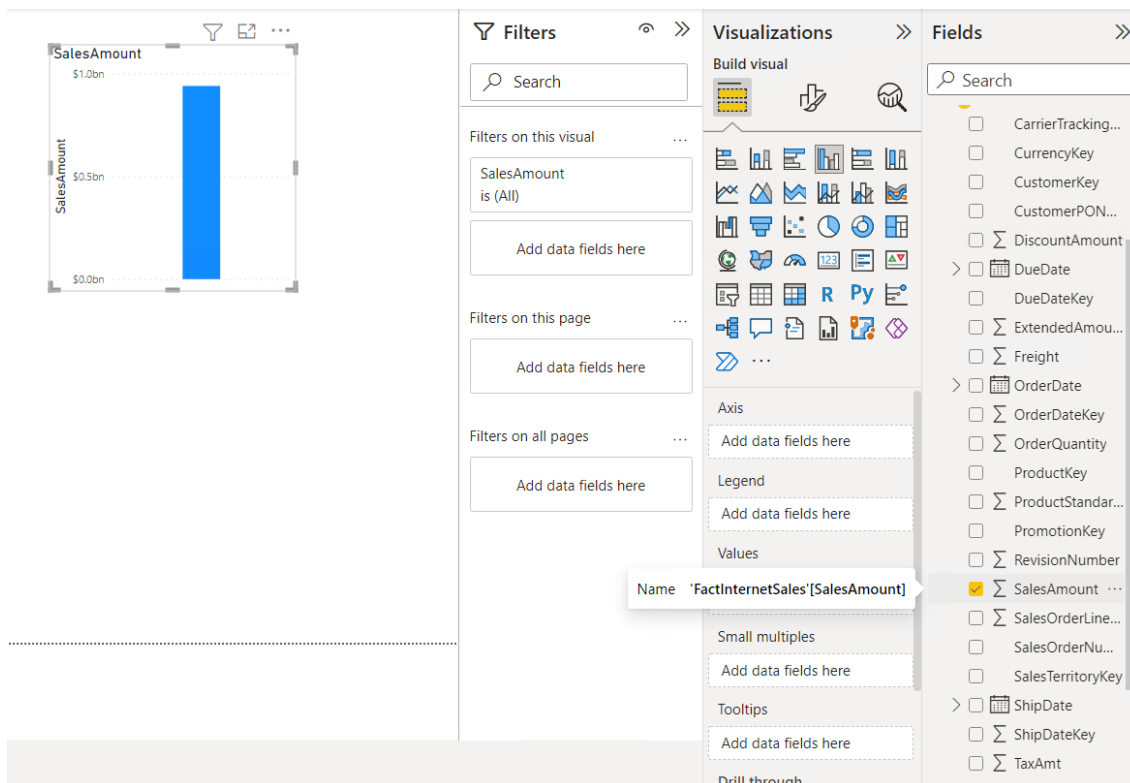


12. On the **File** menu, click **Save**.

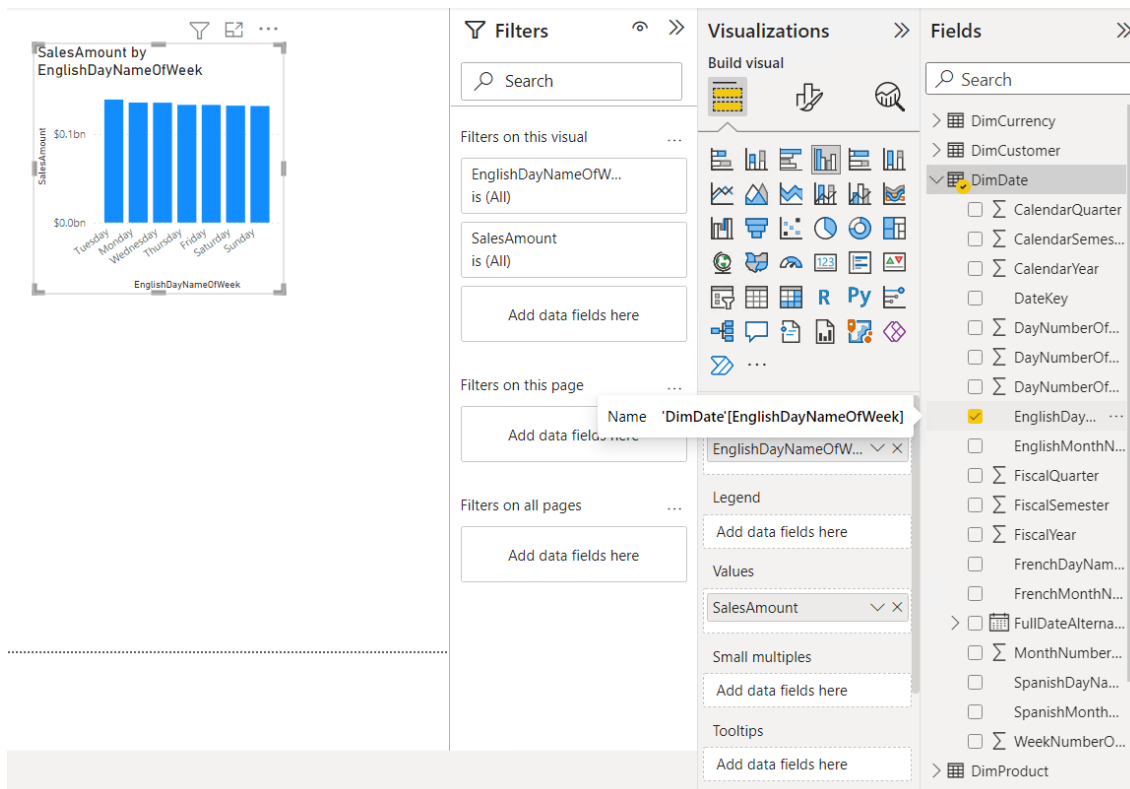
13. In the **Save As** dialog box, browse to the **D:\Labfiles\Lab01\Starter\Project** folder, and in the **File name** box, type **Adventure Works Sales 1**, and then click **Save**.

#### Task 2: Add Visualizations to the Report

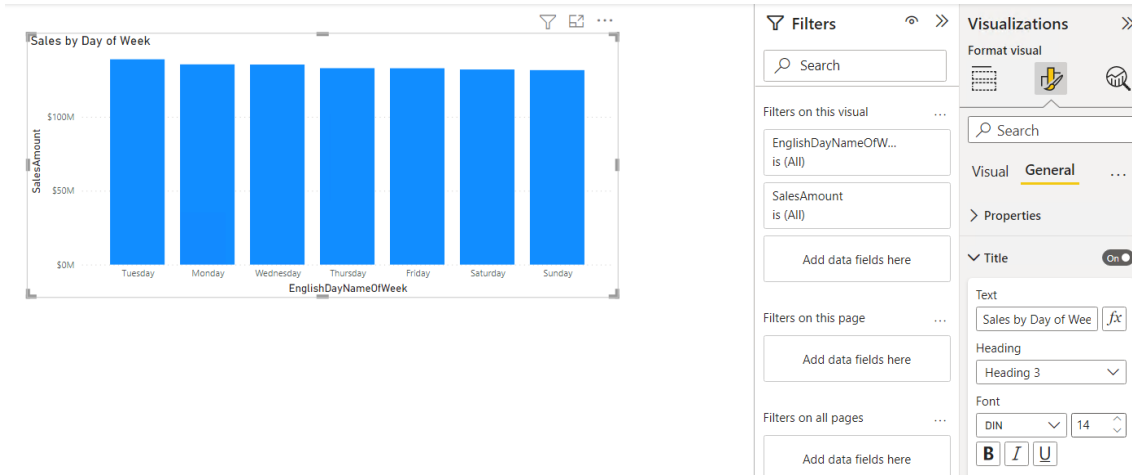
1. In the **FIELDS** pane, expand **FactInternetSales**, and drag the **SalesAmount** field onto the report canvas to create a column chart.



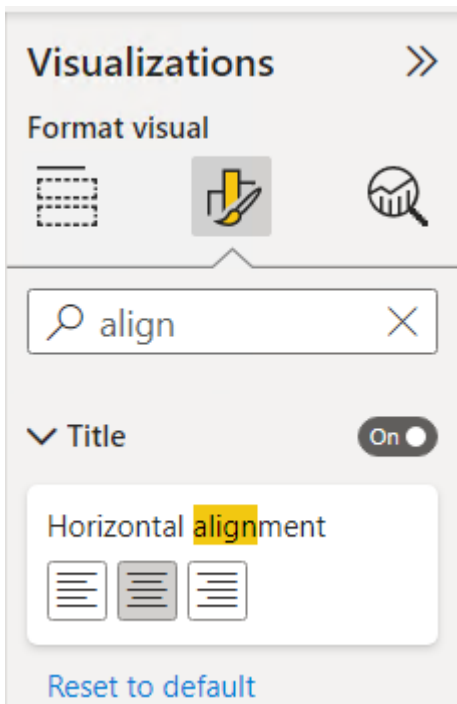
2. Expand **DimDate**, and drag the **EnglishDayNameOfWeek** field to the **Axis** property.



3. Move the chart to the top left-hand corner of the canvas, and expand the chart width so the days of the week display in full.
4. In the **VISUALIZATIONS** pane, click **Format**, and expand **Title**.
5. In the **Title text** box, type **Sales by Day of Week**.



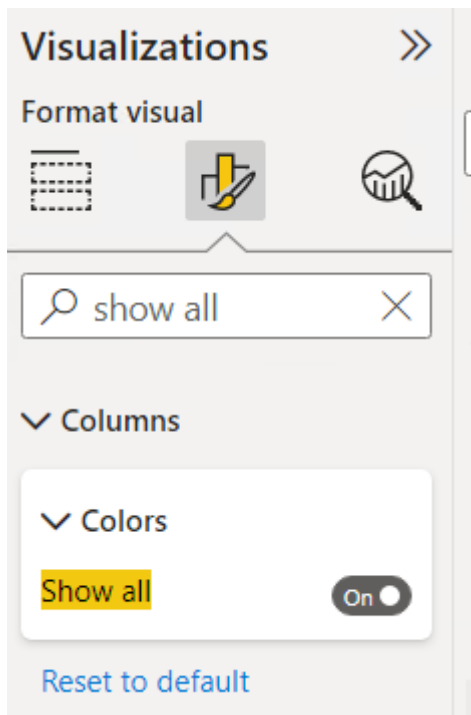
6. Next to **Alignment**, click the **Center** icon.



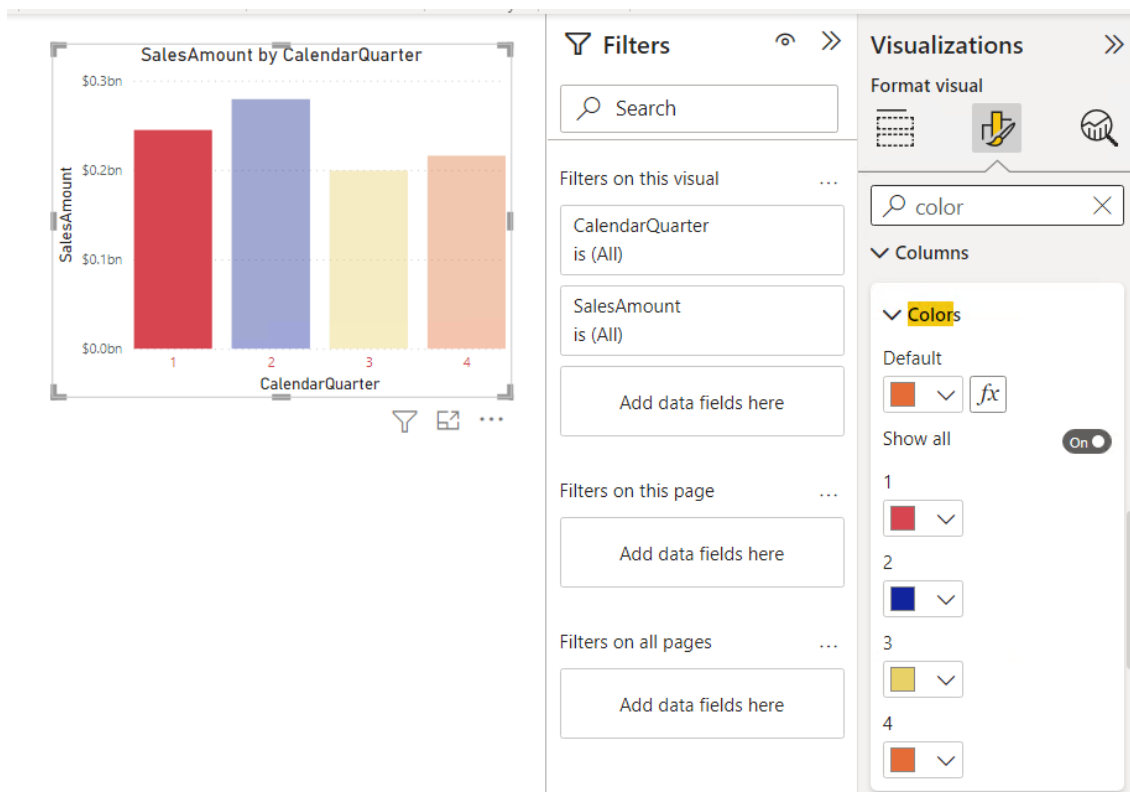
7. In the **FIELDS** pane, under **FactInternetSales**, drag the **SalesAmount** field onto the report canvas to create a column chart.
8. Under **DimDate**, drag the **CalendarQuarter** field onto the chart. Notice that there is only one column.
9. In the **VISUALIZATIONS** pane, click **Fields**. Drag the **CalendarQuarter** field from **Value** to **Axis**.



10. Click **Format**, and expand **Title**.
11. In the **Title text** box, type **Sales by Calendar Quarter**.
12. Next to **Alignment**, click the **Center** icon.
13. Search **Show all** as shown below and set to **On**:

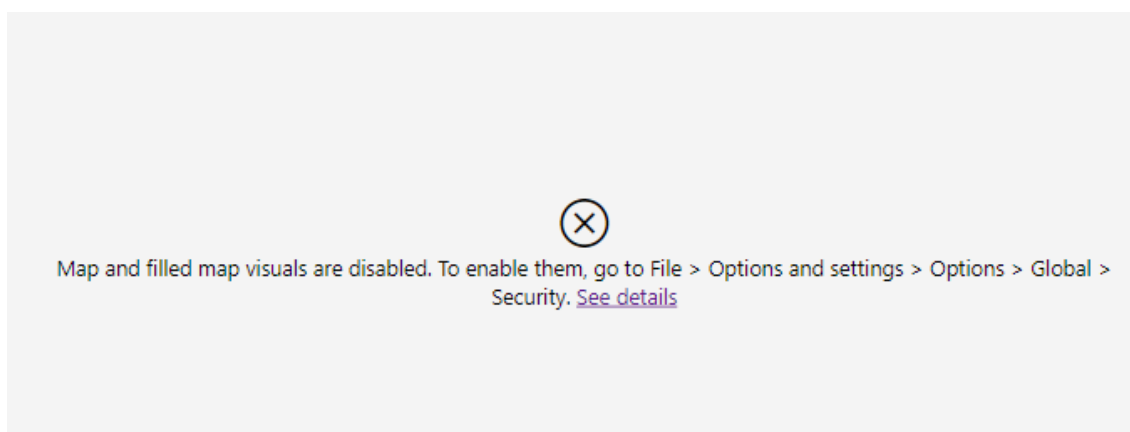


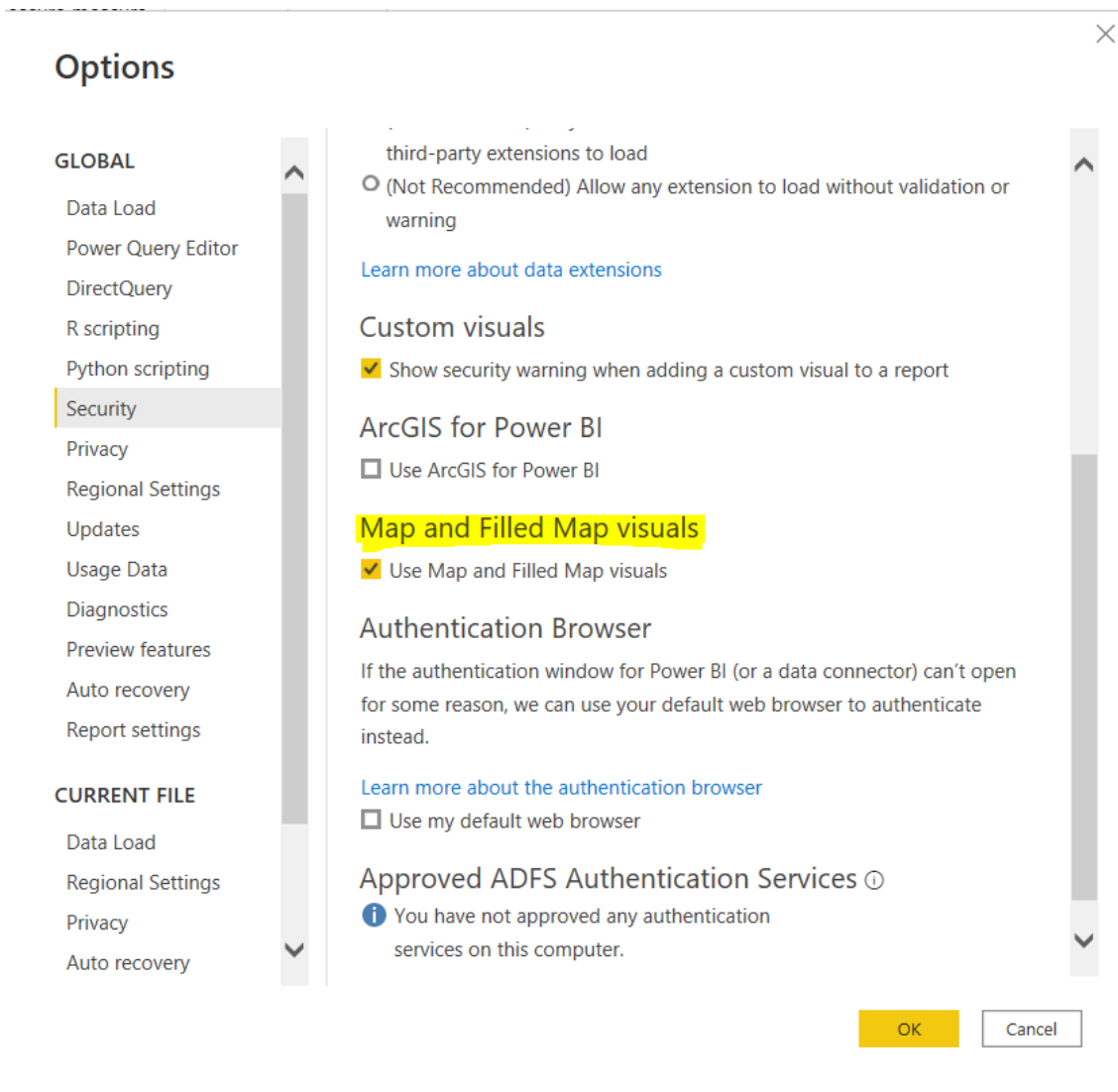
After that change colors, for **1**, select **red**, for **2**, select **blue**, and for **3**, select **yellow**.



14. Move the chart to the right of the **Sales by Day of Week** chart, and expand it so both charts are the same height.
15. In the **FIELDS** pane, expand **DimSalesTerritory**, and drag the **SalesTerritoryCountry** column onto the report canvas under the **Sales by Day of Week** chart.

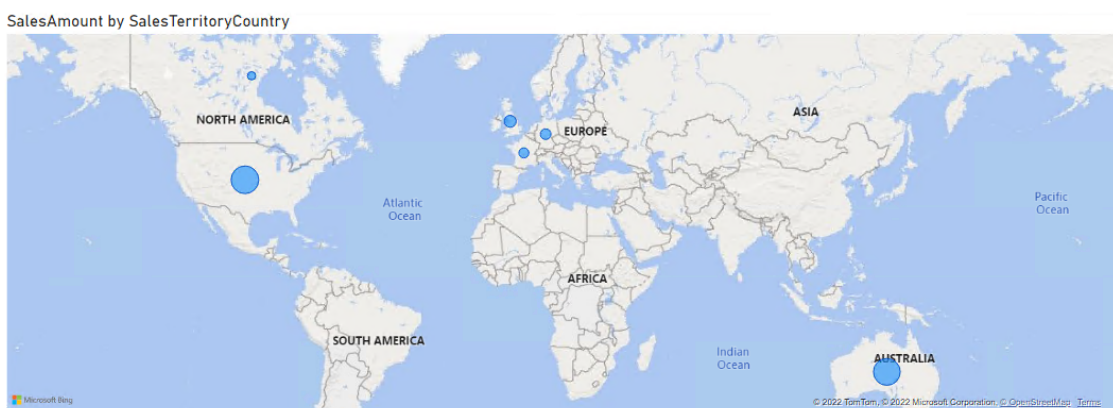
**Note:** Map and filled map visuals option are disabled by default. You will need to enable it first.



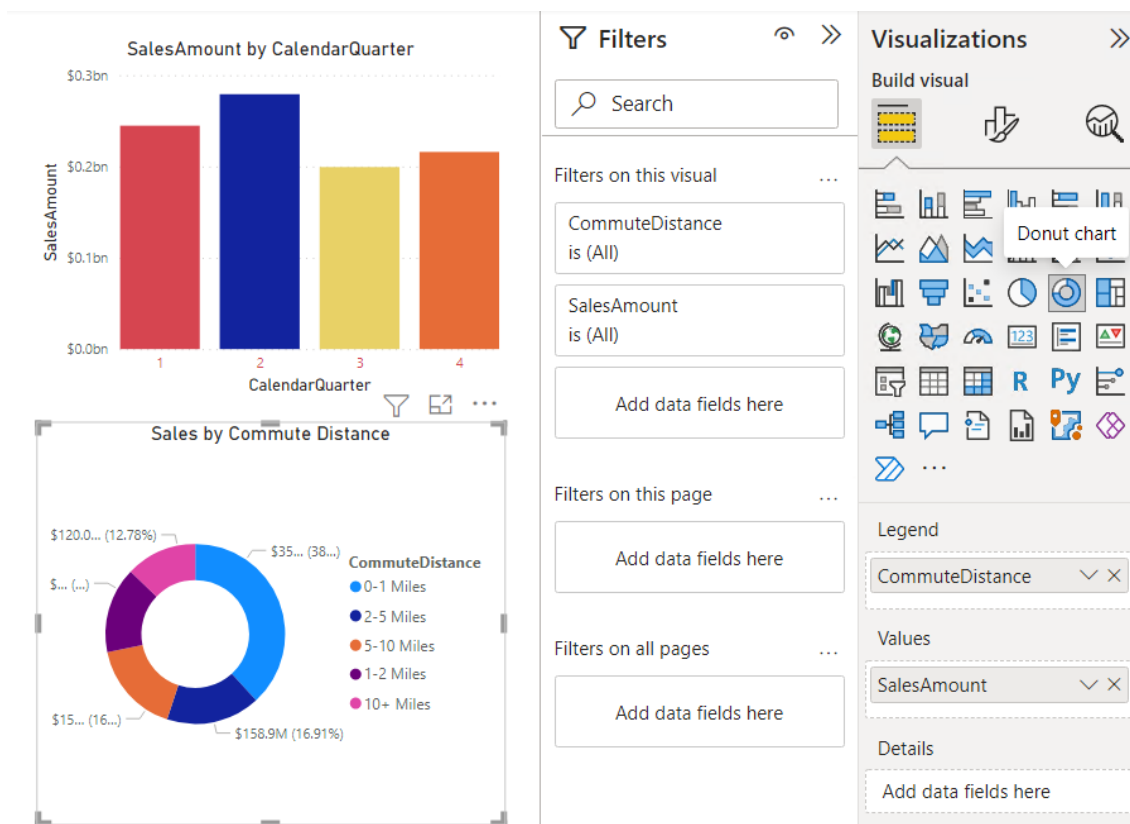


16. Under **FactInternetSales**, drag the **SalesAmount** field onto the map.

17. Expand the map to show all the values.



18. In the **Title text** box, type **Sales by Country**.
19. Next to **Alignment**, click the **Center** icon.
20. In the **FIELDS** pane, expand **DimCustomer**, and drag the **CommuteDistance** field onto the report canvas under the **Sales by Calendar Quarter** chart.
21. Under **FactInternetSales**, drag the **SalesAmount** field onto the chart.
22. In the **VISUALIZATIONS** pane, click **Donut chart**.
23. In the **Title text** box, type **Sales by Commute Distance**.
24. Next to **Alignment**, click the **Center** icon.



25. On the **File** menu, click **Save**.