

Lesson 2

Topic: Importing Data into Power BI

1. List three data sources Power BI can connect to.

- Excel files (.xlsx, .xls)
 - SQL Server databases
 - Web data (URLs)
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2. What is the first step to import data into Power BI Desktop?

Click on "**Get Data**" on the Home ribbon, then select your data source (e.g., Excel, CSV, etc.).

3. How do you refresh imported data in Power BI?

Click the "**Refresh**" button on the Home ribbon to reload the data from the original source.

4. What file formats can Power BI import directly? (Name two.)

- **CSV (.csv)**
 - **Excel (.xlsx)**
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5. What does the "Navigator" window show after selecting a data source?

It displays **available tables, sheets, or objects** from the selected data source so you can choose what to load or transform.

6. Import `Sales_Data.csv` and load only the "Product" and "Price" columns.

Steps:

1. Click **Home > Get Data > Text/CSV**.
 2. Select `Sales_Data.csv`.
 3. In the **Navigator window**, click "**Transform Data**".
 4. In Power Query Editor, select only "**Product**" and "**Price**" columns.
 5. Click "**Close & Load**" to import.
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7. How would you change `OrderDate` to a date format during import?

In Power Query Editor:

- Select the `OrderDate` column.
 - Click **Transform > Data Type > Date**.
 - Then click **Close & Load**.
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8. What is the difference between "Load" and "Transform Data" in the import dialog?

- **Load:** Imports the data **as-is** into Power BI.
 - **Transform Data:** Opens the **Power Query Editor** to clean, filter, or shape the data **before loading**.
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9. Why might you see an error when connecting to a SQL database? (Name one reason.)

- **Incorrect server name or credentials** – Power BI cannot connect if login info is wrong or the server is unreachable.

10. How do you replace a data source after importing it?

Go to **Home > Transform Data > Data Source Settings**, then:

1. Select the current source and click **Change Source**.
2. Enter the new path or connection (e.g., new file or database).
3. Click **OK**, then refresh your data.

11. Write the M-code to import only rows where `Quantity > 1`.

```
Table.SelectRows(Source, each [Quantity] > 1)
```

This assumes `Source` is the name of your data table.

12. How would you change the data source if `Sales_Data.csv` changed?

1. Go to **Transform Data > Advanced Editor**.
2. Update the **file path** in the M-code:

```
Source = Csv.Document(File.Contents("C:\NewPath\Sales_Data.csv"), ...)
```

3. Or use **Data Source Settings > Change Source** to browse for the new file.

13. Troubleshoot: Your CSV import fails due to a "mixed data type" error—how do you fix it?

Fix 1: In Power Query:

- Select the column with mixed types.
- Use **Transform > Detect Data Type** or manually set a type (e.g., **Text** or **Decimal Number**).

Fix 2: Add a step to clean or replace non-conforming values:

```
Table.TransformColumnTypes(Source, {"ColumnName", type number})
```

14. Connect to a live SQL database with parameters (e.g., filter by year).

Steps:

1. Go to **Home > Get Data > SQL Server**.
2. Enter server/database info.
3. In the query, use **Power Query parameter**:

```
SELECT * FROM Sales WHERE YEAR(OrderDate) = @Year
```

4. Define @Year as a **parameter** in Power BI (Manage Parameters).
5. Use **Query Folding** for performance.

◆ *You can also use dynamic filters with “Value.NativeQuery” in M-code.*

15. How would you automate data imports using Power BI and Power Automate?

Steps:

1. In **Power BI Service**, publish your report.
2. Go to **Power Automate** (<https://flow.microsoft.com>).
3. Create a new **flow** using the **Power BI connector**.
4. Use the trigger:

“**Refresh a dataset**” (Power BI)

5. Schedule it (e.g., daily at 8AM) or trigger it via:
 - Form submission
 - SharePoint update
 - Email arrival

☒ This automates data refreshes and ensures your dashboards are always up-to-date.