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## Lesson 2 – Importing Data into Power BI

**Topic:** Importing Data into Power BI

**Prerequisites:** Download Sales\_Data.csv

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

- Excel
  - SQL Server
  - Web (API / website)
- (Other examples: SharePoint, Oracle, JSON, CSV, Azure, etc.)
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### 2. What is the first step to import data into Power BI Desktop?

Open Power BI → **Home** → **Get Data** → select a data source.

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

On the ribbon → **Home** → **Refresh** (or press Ctrl+R).

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

- .csv
  - .xlsx
- (Also JSON, XML, txt, etc.)
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### 5. What does the "Navigator" window show after selecting a data source?

It displays a list of tables/sheets/objects available for loading.

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### 6. Import Sales\_Data.csv and load only the "Product" and "Price" columns.

In Power Query Editor → select the required columns → **Remove Other Columns** → **Close & Load**.

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### 7. How would you change OrderDate to a date format during import?

In Power Query Editor:

- Select the **OrderDate** column
  - In the **Data Type** menu choose **Date**
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### 8. What is the difference between "Load" and "Transform Data" in the import dialog?

- **Load** – immediately loads the data into the model without changes.
  - **Transform Data** – opens Power Query Editor to clean and prepare data.
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### 9. Why might you see an error when connecting to a SQL database? (Name one reason.)

- Incorrect login/password
- No access rights to the server
- Firewall blocking the connection

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

Go to Power Query Editor → **Home** → **Data source settings** → Change Source.

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

```
let
    Source = Csv.Document(File.Contents("C:\Sales_Data.csv"),
[Delimiter=",", Columns=5, Encoding=65001, QuoteStyle=QuoteStyle.None]),
    PromotedHeaders = Table.PromoteHeaders(Source,
[PromoteAllScalars=true]),
    ChangedType = Table.TransformColumnTypes(PromotedHeaders,
{{"OrderID", Int64.Type}, {"Product", type text}, {"Quantity", Int64.Type},
{"Price", Int64.Type}, {"OrderDate", type date}}),
    FilteredRows = Table.SelectRows(ChangedType, each [Quantity] > 1)
In FilteredRows
```

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**12. How would you change the data source if Sales\_Data.csv changed?**

Through **Data source settings** → **Change Source** and point to the new file path.

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

- In Power Query → select the column → **Change Type** to the correct type (e.g., Text or Number).
- If values are inconsistent → replace or remove invalid rows.

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

In Power Query you can define a parameter:

```
let
    YearParam = 2023,
    Source = Sql.Database("ServerName", "DatabaseName"),
    SalesTable = Source{[Schema="dbo",Item="Sales"]}[Data],
    FilteredRows = Table.SelectRows(SalesTable, each
Date.Year([OrderDate]) = YearParam)
in
    FilteredRows
```

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

- Publish the report to Power BI Service.

- In Power Automate create a **Flow** that triggers a **Dataset Refresh** on a schedule or event.
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