

**Topic:** Importing Data into Power BI

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

1. List three data sources Power BI can connect to.
  - Excel workbook;
  - SQL server;
  - Text/CSV;
2. What is the first step to import data into Power BI Desktop?
  - First step to import data into Power BI Desktop is to click on "GetData" button on Home ribbon which opens a window to select type of data sources.
3. How do you refresh imported data in Power BI?
  - To refresh imported data in Power BI, use the Refresh button in Power BI Desktop for on-premises data, or the Refresh now button in the Power BI service for published reports to pull in the latest data from your external sources.
4. What file formats can Power BI import directly? (Name two.)
  - Excel Workbooks: (.xlsx, .xlsm)
  - Text/CSV: (.txt, .csv)
5. What does the "Navigator" window show after selecting a data source?
  - It displays a list of available tables, worksheets, or other objects from that source.
6. Import Sales\_Data.csv and load only the "Product" and "Price" columns.
  - After transform the data "Sales\_Data.csv", click on "Manage Columns" group on Home tab.
  - Click on "Choose Columns".
  - On dialogue box uncheck unnecessary columns and click on "OK".
7. How would you change OrderDate to a date format during import?
  - After you transform you data ("Sales\_Data.csv") go to the "Transform" tab in the Power Query Editor ribbon.
  - Click on the "Data Type" dropdown and select "Date" or "Date/Time" from the list.
8. What is the difference between "Load" and "Transform Data" in the import dialog?
  - When the source data is already clean and structured in the way you want you can use "Load". On "Load" selected data set (table or query) is loaded into Power BI without any modification. You can immediately start building visuals, reports, and measures on top of it. It skips the Power Query editor.

- When raw data needs preparation or doesn't perfectly fit your reporting needs you use "Transform Data". On "Transform Data" opens the Power Query Editor, where you can clean, reshape, and prepare the data before loading it into the model. You can do remove unnecessary columns or rows, rename columns, merge or split tables, change data types, apply filters, groupings, pivots/unpivots, handle missing/invalid data on "Transform Data".

9. Why might you see an error when connecting to a SQL database? (Name one reason.)

- One reason you might see an error when connecting to a SQL database in Power BI is incorrect server name or login credentials.

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

- To replace a data source in Power BI Desktop, open your report, go to File > Options and settings > Data source settings, select the data source you want to replace, click Change Source, and then browse to or enter the path for your new data source file or connection.  
Replace Data Source → Report-level (global)

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

- let
- Source =  
Csv.Document(File.Contents("C:\Users\Azamat\Desktop\Sales\_Data.csv"),[Delimiter=",", Columns=5, Encoding=1252, QuoteStyle=QuoteStyle.None]),
- #"Promoted Headers" = Table.PromoteHeaders(Source,  
[PromoteAllScalars=true]),
- #"Changed Type" = Table.TransformColumnTypes(#"Promoted Headers",{{"OrderID", Int64.Type}, {"Product", type text}, {"Quantity", Int64.Type}, {"Price", Int64.Type}, {"OrderDate", type date}}),
- #"Filtered Rows" = Table.SelectRows(#"Changed Type", each [Quantity] > 1)
- in
- #"Filtered Rows"

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

- Done inside Power Query Editor.
- You click the ⚙ gear next to the Source step of one query.
- That change applies only to that specific query.

- Other queries pointing to the same data source won't be affected unless you also edit them.  
Change Data Source → Query-level (local).

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

Steps:

1. In Power BI Desktop, click Transform Data to open Power Query.
2. Find the problematic column.
3. In the top menu, use Data Type dropdown to explicitly set the type (e.g., Text, Whole Number, Decimal Number).
  - If you need to keep all values, choose Text (it can hold numbers + text).
  - If numbers are most important, choose Whole Number or Decimal and handle errors.
4. If some rows can't be converted, you can:
  - Replace errors (Home → Remove Errors / Replace Errors).
  - Or filter them out.

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

let

```
Source = Sql.Database(
    Sql_connect,
    AdveturesDatabase,
    [
        Query =
        "SELECT *
        FROM [AdventureWorksDW2022].[Sales].[Store]
        WHERE DATEPART(YYYY, ModifiedDate) = " &
        Number.ToText(YearParam)
    ]
)
```

)

in

Source

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

- You must have Power BI Pro or Premium for automated flows.
- Your dataset must have gateway configured if it's on-prem SQL or another local source.

### Scheduled Imports Beyond Power BI Service

If you want more flexibility than Power BI Service refresh:

- Use a **Scheduled Cloud Flow** in Power Automate.
- Trigger daily/hourly.
- Add **Refresh** a dataset step.

### Load External Data via Power Automate

Sometimes you want Power Automate to grab data and load it directly into Power BI.  
Example: Fetch API → Write to Power BI.

#### Steps:

1. In Power Automate, trigger flow (schedule or event).
2. Use **HTTP action** to call API or get data.
3. Transform if needed (Power Automate expressions).
4. Action: **Add rows to a dataset** in Power BI.

Sales\_Data

OrderID	Product	Quantity	Price	OrderDate
1001	Laptop	2	1200	1/5/2023
1002	Mouse	5	25	2/5/2023

OrderID	Product	Quantity	Price	OrderDate
1003	Keyboard	1	80	2/5/2023
1004	Monitor	1	300	3/5/2023
1005	Laptop	1	1200	3/5/2023