

## Homework 2:

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

PowerBI can connect to Text/CSV, Excel and SQL Server

2. What is the first step to import data into Power BI Desktop?

The very first step is to Click 'Get Data' from Home tab.

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

**From the Home tab** → Click **Refresh** (or **Refresh All**) to reload data from the original source.

**From Power Query Editor (Transform Data)** → Use the **Refresh Preview** button to update the preview of the data while transforming.

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

Excel(.xlsx, .xls) and CSV(.csv)

5. What does the "Navigator" window show after selecting a data source?

A list of **available tables, sheets, or objects** from the chosen data source.

A **preview** of the data inside the selected table/sheet so you can confirm before loading.

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

First, I downloaded the data then from Home tab I selected get data then I chose text/csv format then I selected the sales\_data.csv file and pressed transform data from there I kept only the asked columns: Product and Price and deleted other columns and saved from Home close & apply.

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

During import I would select transform data and there I can change OrderDate's data type into date which is next to the name of the column

8. What is the difference between "Load" and "Transform Data" in the import dialog?

Load directly loads the data and in the Table View we can see and even data has problems, for example, incorrect data type or nulls or errors it will be imported as it is. In transform data we can correct the data type, handle null/errors. General, we can correct the data.

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

I personally faced a problem while connecting to SQL Server. The problem was SQL Server Name. First it didn't connect until I ticked combine data according to each file's Privacy Level Settings from Files/Options and Settings/Options/Privacy.

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

In the transform data there is a 'data source settings' in the Home tab. There we can show the path for the data if it is moved to another folder or file.

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

```
let
    Source = Csv.Document(File.Contents("C:\Users\hp\Desktop\Sales_Data.csv"),
        [Delimiter=";", Columns=4, Encoding=65001, QuoteStyle=QuoteStyle.None]),
    PromotedHeaders = Table.PromoteHeaders(Source, [PromoteAllScalars=true]),
    ChangedType = Table.TransformColumns(PromotedHeaders, {{"Quantity", each try
        Number.From(_) otherwise null, type number}}),
    FilteredRows = Table.SelectRows(ChangedType, each [Quantity] > 1)
in
    FilteredRows
```

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

I would change the data source by going to the Data Source Settings in Transform Data.

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

#### **Change column type manually**

In Power Query → select the column → use the **Data Type dropdown** (Whole Number, Decimal, Text, Date, etc.).

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

I did it on PowerBI file

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

## ◇ 1. In Power BI

- Build your report and **publish it to the Power BI Service**.
  - Make sure the dataset is connected to your source (SQL, Excel in OneDrive/SharePoint, etc.).
  - If it's on-premises, set up a **gateway** so refresh can work.
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## ◇ 2. In Power Automate

- Create a new **flow**.
- Use the **Power BI connector** → action: **Refresh a dataset**.
- Choose your **Workspace** and **Dataset**.
- Add a trigger, for example:
  - **Schedule** (e.g., refresh every morning at 8 AM)
  - **Event-based** (e.g., when a new file is added to SharePoint or OneDrive)
  - **Manual trigger** (button press).