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

Power BI can connect to a wide variety of data sources. Here are three common ones:

**Excel Files** – Power BI can import data directly from Excel spreadsheets

**SQL Server** – Power BI can connect to Microsoft SQL Server databases to retrieve and analyze data.

**SharePoint** – Power BI can connect to SharePoint lists and libraries to use the stored data.

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

**Click on the “Get Data” button** on the Home tab.

1. **How do you refresh imported data in Power BI?**

In Power BI Desktop Click the **“Refresh”** button on the **Home** tab.This re-queries the original data sources and updates the visuals with the latest data.

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

Power BI can directly import several file formats. Two common ones are: **Excel (.xlsx, .xls) and Comma-Separated Values (.csv)**

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

The **"Navigator" window** in Power BI appears after you select and connect to a data source. It shows:

* **A list of available tables, sheets, or objects** in the selected data source (e.g., Excel sheets, database tables).
* **A preview of the data** in the selected table or sheet.

From the Navigator:

* **Select one or more tables** to load.
* Choose to **“Load”** the data directly or **“Transform”** it in Power Query before loading.

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

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

To **change** OrderDate **to a date format during import** in Power BI Desktop, follow these steps in the **Power Query Editor**:

1. After selecting your data source, click **“Transform Data”** (instead of “Load”) to open Power Query Editor.
2. Locate the OrderDate column.
3. Click on the small data type icon (e.g., “ABC” or “Any”) next to the column header.
4. Select **“Date”** from the dropdown menu.
5. Power Query will convert the column to **date format**.
6. Click **“Close & Load”** to apply changes and load the data into Power BI
7. What is the difference between "Load" and "Transform Data" in the import dialog?

### **Load i**mports the selected data **directly** into Power BI,no changes or cleaning are made before loading and Best when data is already clean and ready for analysis.

### **Transform Data o**pens the **Power Query Editor** before loading,lets us **clean, filter, format, or reshape** the data (e.g., remove columns, change data types) and Recommended when the data needs **preprocessing**.

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

**One common reason is incorrect or missing authentication credentials.** If the **username or password is wrong**, or the credentials are not provided, Power BI cannot access the database and will show a connection error.(Network/firewall restrictions, SQL Server not running or unreachable and incorrect server or database name)

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

Go to the Home tab click on “transform data” to open Power Query Editor then “data source settings” then “change source”. we enter the new data source and clck ok. Adjust any changes if need in the query, “close and load” to apply the new data source.

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

let

Source = Excel.Workbook(File.Contents("C:\Path\To\Your\File.xlsx"), null, true),

Sheet = Source{[Name="Sheet1"]}[Data],

PromotedHeaders = Table.PromoteHeaders(Sheet, [PromoteAllScalars=true]),

ChangedTypes = Table.TransformColumnTypes(PromotedHeaders, {{"Quantity", Int64.Type}}),

FilteredRows = Table.SelectRows(ChangedTypes, each [Quantity] > 1)

in

FilteredRows

1. **How would you change the data source if Sales\_Data.csv change**d?

· Go to the Home tab.

· Click on “Transform Data” to open Power Query Editor.

· In the top menu, click “Data source settings”.

· In the window that opens: Select the entry for Sales\_Data.csv. Click “Change Source...”.

· Browse to the new location or select the updated file.

· Click OK, then Close the Data Source Settings window.

· Back in Power Query, check if any changes in the file structure affect your steps (like renamed columns).

· Click “Close & Load” to update your report.

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

If the column will have mixed data by design (e.g., numbers + text), set the column type to **Text** to avoid conversion issues.

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

Create a Parameter for Year: Go to **Home > Manage Parameters > New Parameter**

Connect to SQL Server: Go to **Home > Get Data > SQL Server**

#### **Edit the Query to Use the Parameter:** Click **Transform Data** to open **Power Query Editor**.In the query (e.g., a table named Sales), filter the **Year** column: Click the filter icon on the Year column.Choose **Text Filters > Equals** (or Numeric Filters > Equals).In the filter box, click the drop-down and choose **Parameter > YearParam**

Apply and Load: Click **Close & Apply** to load the filtered data using the live connection

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

To **automate data imports using Power BI and Power Automate**, you can set up a **workflow** that triggers data refreshes or uploads when specific conditions are met.