Lesson 2

Topic: Importing Data into Power BI
Prerequisites: Download Sales_Data.csv file

1. List three data sources Power BI can connect to.
2. What is the first step to import data into Power BI Desktop?
3. How do you refresh imported data in Power BI?
4. What file formats can Power BI import directly? (Name two.)
5. What does the "Navigator" window show after selecting a data source?
6. Import Sales_Data.csv and load only the "Product" and "Price" columns.
7. How would you change OrderDate to a date format during import?
8. What is the difference between "Load" and "Transform Data" in the import dialog?
9. Why might you see an error when connecting to a SQL database? (Name one reason.)
10. How do you replace a data source after importing it?
11. Write the M-code to import only rows where Quantity > 1.
12. How would you change the data source if Sales_Data.csv changed?
13. Troubleshoot: Your CSV import fails due to a "mixed data type" error—how do you fix it?
14. Connect to a live SQL database with parameters (e.g., filter by year).
15. How would you automate data imports using Power BI and Power Automate?

Answers:

1. Here are three common data sources Power BI can connect to:

   1. Excel workbooks
   2. Sql server
   3. Web pages

2. The first step to import data into Power BI Desktop is to click the "Get Data" button on the Home ribbon. From there, you choose your data source (Excel, SQL Server, Web, etc.) and then load or transform it.
3. The first step is to open Power BI Desktop and click "Get Data" on the Home tab. This is where you choose the source you want to connect to (Excel, database, web, etc.).
4. Excel, Json, Txt/Csv and e.t.c
5. Ask: What you want to load or transform it.

1. Import Sales_Data.csv and load only the Product and Price columns

Steps: Home → Get Data → Text/CSV

Select Sales_Data.csv

Click Transform Data

In Power Query, select Product and Price columns → Right-click → Remove Other Columns

Click Close & Load

2. Change OrderDate to a date format during import

In Power Query:

Select the OrderDate column

On the ribbon: Transform → Data Type → Date

3. Difference between "Load" and "Transform Data" in the import dialog

Option Purpose

Load   Loads the data into Power BI as is, without changes

Transform Data   Opens Power Query Editor so you can clean, filter, and shape data before loading

4. One reason you might see an error when connecting to a SQL database

Example reason: The server name, database name, or credentials are incorrect.

5. Replace a data source after importing

Steps:

Home → Transform Data → Data Source Settings

Select the source → Change Source

Enter the new file path / server name

6. M-code to import only rows where Quantity > 1m

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let

    Source = Csv.Document(File.Contents("C:\Data\Sales_Data.csv"), [Delimiter=",",
Columns=5, Encoding=65001, QuoteStyle=QuoteStyle.None]),

    PromoteHeaders = Table.PromoteHeaders(Source, [PromoteAllScalars=true]),

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

in
```

FilteredRows

7. Change the data source if Sales_Data.csv changed

Use Data Source Settings → Change Source to update the file path.

Or in Power Query, change the path in the File.Contents() step.

8. Troubleshoot: CSV import fails due to "mixed data type" error

In Power Query:

Select the column

Use Transform → Detect Data Type or set it manually to Text (to avoid conflicts).

Clean or replace invalid values before converting to numeric/date.

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

Create a parameter in Power Query (Manage Parameters) for Year

Use:

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Source = Sql.Database("ServerName", "DatabaseName", [Query="SELECT * FROM Sales WHERE YEAR(OrderDate) = " & Text.From(YearParam)])

10. Automate data imports using Power BI and Power Automate

Steps:

Store your data in OneDrive, SharePoint, or a database.

Create a Power Automate flow that updates or refreshes the dataset.

In Power BI Service, enable Scheduled Refresh or trigger refresh via Power Automate.