

# ***POWER BI BASICS***

**Question 1:** What is Power BI and why is it used in businesses?

**Answer:** Power BI is a business intelligence (BI) tool developed by Microsoft that helps users analyze data and create interactive reports and dashboards.

It is used in businesses to:

- Convert raw data into meaningful insights
- Track performance using dashboards
- Support data-driven decision making
- Connect multiple data sources in one place
- Share reports easily across teams

**Question 2:** Name and explain the three main components of Power BI.

**Answer:** The three components of Power BI are:

**1. Power BI Desktop:**

A Windows application used to create reports, transform data, and build data models.

**2. Power BI Service (PowerBI.com):**

A cloud-based service used to publish, share, and collaborate on reports and dashboards.

**3. Power BI Mobile App:**

Used to access reports and dashboards on mobile devices.

**Question 3:** Explain the Power BI workflow.

**Answer:** The Power BI workflow consists of the following steps:

1. **Connect Data** – Import data from sources like Excel, SQL, etc.
2. **Transform Data** – Clean and modify data using Power Query.
3. **Model Data** – Create relationships between tables.
4. **Create Reports** – Build charts, tables, and dashboards.
5. **Publish & Share** – Upload reports to the Power BI Service for sharing.

**Question 4:** List any four data cleaning tasks that can be performed in Power Query.

**Answer:** Four data cleaning tasks that can be performed in Power Query:

1. Remove duplicate rows
2. Replace or remove null values

3. Change data types (text to number, data, etc.)
4. Split or merge columns

**Question 5:** Write step-by-step instructions to load the above dataset.

**Answer:** Steps to load the Real\_Estate Dataset in Power BI:

1. Open **Power BI Desktop**.
2. Click on **Home** tab → Select **Get Data**.
3. Choose **Excel Workbook** → Click **Connect**.
4. Browse and select the **Real\_Estate Dataset** file from your system → Click **Open**.
5. In the **Navigator window**, select the sheet that contains the data.
6. Click **Load** if we want to directly load the dataset, **OR** click **Transform Data** if we want to clean or modify the data before loading.
7. After clicking **Load**, the dataset will appear in the **Fields pane** on the right side.
8. Switch to **Data View** to verify that all columns (Property\_ID, Property\_Name, City, Price, Area\_sqft, Bedrooms, Bathrooms, Owner\_Name, Contact, etc.) are loaded correctly.
9. Save the file using **File** → **Save As**.

**Question 6:** Define Data View, Report View, and Model View. Explain the purpose of each view.

**Answer:** About Data View, Report View, and Model View:

1. **Data View:**  
Used to see the raw data in table format and create calculated columns.
2. **Report View:**  
Used to create visualizations like charts, graphs, and dashboards.
3. **Model View:**  
Used to create and manage relationships between different tables.

**Question 7:** Discuss the different data sources that Power BI supports.

**Answer:** Power BI supports multiple data sources, including:

- Excel files
- CSV files
- SQL Server
- MySQL
- Oracle Database
- Web data
- SharePoint
- Google Analytics
- Azure services

**Question 8:** Split Owner Name to create two new columns as First Name and Last Name.

**Answer:** Steps in Power Query

1. Click **Transform Data**.
2. Select the **Owner\_Name** column.
3. Go to **Split Column** → Choose **By Delimiter**.
4. Select **Space** as delimiter.
5. Click **OK**.
6. Rename the new columns as **First\_Name** and **Last\_Name**.
7. Click **Close & Apply**.