**Creating Dashboard with Visualization Tool Assignment**

1. **What is Power BI and how does it differ from Excel?**

**Ans :-** **Power BI** is a **data visualization** and **business intelligence** tool from Microsoft. It helps you turn raw data into interactive charts, dashboards, and reports.

1. **Explain the concept of data modeling in Power BI.**

**Ans :-** **Data modeling in Power BI** means **organizing your data** so Power BI can understand how different tables are related to each other

1. **What are the different types of connections available in Power BI?**

**Ans :-** Power BI has two main types of connections: **Import** and **DirectQuery**.

1. **How do you handle data transformation in Power BI?**

**Ans :-** You handle data transformation in Power BI using **Power Query**.

1. **What is DAX (Data Analysis Expressions) and why is it important in Power BI?**

**Ans :-** DAX (Data Analysis Expressions) is a formula language in Power BI used to create **custom calculations** and **measurements**, and it's important because it helps you build **powerful and dynamic reports**

1. **Can you explain the difference between calculated columns and measures in Power BI?**

**Ans :-** Calculated columns add data to tables, while measures calculate results based on filters in reports.

1. **How do you handle relationships between tables in Power BI?**

**Ans :-** In Power BI, you handle relationships by **connecting tables using matching columns (keys)** so they can work together in reports.

1. **What is the purpose of a Power BI Gateway?**

**Ans :-** A Power BI Gateway lets Power BI access your local (on-premises) data safely so your reports stay updated.

1. How can you schedule data refresh in Power BI Service?

**Ans :-** In Power BI Service, you schedule data refresh by choosing a time in the settings to update your data automatically

1. **Explain the concept of row-level security in Power BI.**

**Ans :-** Row-level security in Power BI is used to **limit data access** for different users, so each person only sees the data they’re allowed to see.

1. **What is the Power BI Desktop and how does it differ from Power BI Service?**

**Ans :-** Power BI Desktop is used to create reports, while Power BI Service is used to share and view them online.

1. **Explain the concept of Direct Query in Power BI.**

**Ans :-** DirectQuery in Power BI lets you connect to data directly, so the report always shows the latest data from the source.

1. **What are Power BI templates and how are they useful?**

**Ans :-** Power BI templates are reusable report files without data, useful for creating consistent reports with different data sources.

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

**Ans :-** You handle incremental data refresh in Power BI by setting it up to refresh only new or updated data instead of the entire dataset.

1. **What is the role of Power Query in Power BI?**

**Ans :-** Power Query helps you clean and prepare data for Power BI reports.

1. **Explain the difference between calculated columns and calculated tables in Power BI.**

**Ans :-** Calculated columns add new columns to a table, while calculated tables create new tables.

1. **How do you create custom visuals in Power BI?**

Ans :- You create custom visuals in Power BI by importing them from the Power BI marketplace.

1. **What are the best practices for optimizing performance in Power BI?**

**Ans :-** To optimize Power BI performance, keep your data model simple and remove unnecessary data.

1. **How can you integrate Power BI with other Microsoft products like Azure and Office 365?**

**Ans :-** Power BI connects to Azure and Office 365 to share data and reports easily across these tools.

1. **Explain the concept of aggregations in Power BI.**

Ans :- Aggregations in Power BI are summaries of data used to make reports faster.

1. **How do you handle error handling and data quality in Power BI?**

**Ans :-** You handle errors and data quality in Power BI by cleaning and fixing data using Power Query.

1. **What is the purpose of Power BI Embedded and when would you use it?**

Ans :- Power BI Embedded lets you put Power BI reports inside your app so users can see data there.