

Q.1 What is Power BI? And why is it used for?

Power BI is a business analytics service provided by Microsoft that enables individuals and organizations to visualize and share insights from their data. It is used for connecting to a wide variety of data sources, transforming and cleaning the data into a data model, and creating charts or graphs to provide visuals of the data. Power BI helps in making informed decisions based on analyzed data.

Q.2 Main Differences Between Self-service BI and Managed Enterprise BI

- **Self-service BI** allows business users to access and work with corporate data even without a background in data analysis or statistics. Power BI is an example, emphasizing ease of use.
- **Managed Enterprise BI**, on the other hand, is more controlled and is typically managed by IT departments. It involves more complex reporting and data modeling that requires a deeper understanding of data.

Q.3 How Does Power BI Work?

Power BI works by connecting to data sources, importing data, and allowing users to transform and visualize that data in reports and dashboards. Users can create and share interactive visualizations and insights easily within their organization or with a broader audience.

Q.4 Formats Power BI Is Available In

Power BI is available in several formats:

- Power BI Desktop (a Windows desktop application)
- Power BI Service (a SaaS version accessible via a web browser)
- Power BI Mobile (for accessing data on the go through mobile devices)

Q.5 Building Blocks of Power BI

The building blocks of Power BI include:

1. **Datasets:** Collections of data that Power BI uses to create its visuals.
2. **Reports:** Collections of visuals from a dataset, spanning multiple pages.
3. **Dashboards:** Single-page, interactive visuals built from reports and datasets.
4. **Tiles:** Single visualization in a report or dashboard.

Q.6 Major Components of Power BI

- **Power BI Desktop:** The Windows desktop application for creating reports and data models.
- **Power BI Service:** The online SaaS service where reports and dashboards are published and shared.
- **Power BI Gateway:** Allows for the transfer of data between Power BI online and on-premise data sources.
- **Power BI Mobile Apps:** For accessing reports and dashboards on mobile devices.

Q.7 Popular Types of Filters in Power BI

1. **Visual-level filters:** Affect only a single visual on a report.
2. **Page-level filters:** Apply to all visuals on a single report page.
3. **Report-level filters:** Apply to all pages in a report.
4. **Drill through filters:** Allow for focusing on specific aspects or details within a larger dataset.

Q.8 Use of the “Get Data” Icon in Power BI

The “Get Data” icon is used in Power BI to connect to various data sources, including databases, online services, and local files. It initiates the data import process, allowing users to then transform and visualize the data.

Q.9 Creating and Managing Relationships in Power BI Desktop

In Power BI Desktop, relationships can be created and managed through the relationship view. Relationships are defined between tables based on common columns, enabling accurate data modeling and analysis across different tables and data sources.

Q.10 Differentiating Power BI vs. Excel

- A. **Power BI** is focused on data modeling, interactive dashboards, and reporting, designed for a wide range of business intelligence and data analytics needs.
- B. **Excel** is a spreadsheet tool with powerful calculation capabilities, basic data visualization, and analysis features. Excel is often used for individual data analysis tasks but lacks the interactive reporting capabilities of Power BI.

Q.11 Power Query

- **Power View** is a data visualization technology that allows for interactive charts, graphs, maps, and other visuals.
- **Power Query** is a data connection technology that enables users to discover, connect, combine, and refine data sources to meet their analysis needs.

Q.12 Difference Between Power BI Personal Gateway and Data Management Gateway

- **Power BI Personal Gateway** is used for refreshing datasets from personal sources or single-user scenarios.
- **Data Management Gateway** is used in enterprise scenarios, allowing multiple users to connect to on-premises data sources for data refresh in Power BI.

Q.13 Benefits of Using Variables in DAX

Using variables in DAX (Data Analysis Expressions) allows for:

- Cleaner and more readable code.
- Improved performance by storing the result of an expression as a variable and then reusing it in multiple places.
- Easier debugging and error checking within complex formulas.

Q.14 What is Power Map?

Power Map is a 3D data visualization tool within Excel that allows users to map and explore spatial data and see patterns and trends in new ways, potentially across time. It's used for geospatial analysis, enabling users to discover insights that might not be apparent from traditional two-dimensional tables and charts.