

## Power BI Assignment 3

### 1. List and explain different PowerBi products?

**Ans.** The following are the products offered by PowerBI:

PowerBI Desktop: A Windows-based application for creating interactive visualizations, reports, and dashboards from data.

PowerBI Report Server: An on-premises report server for distributing, managing, and delivering PowerBI reports.

PowerBI Service: A cloud-based service for sharing and collaborating on PowerBI reports and dashboards.

PowerBI Mobile: A mobile app for iOS and Android devices that provides access to PowerBI reports and dashboards.

PowerBI Embedded: A set of APIs and tools for embedding PowerBI reports and dashboards into other applications, such as SharePoint, Teams, and custom web applications.

PowerBI Datasets: A feature of PowerBI Service that allows you to create and manage shared datasets, which can be used as the basis for multiple reports.

PowerBI Premium: A paid version of PowerBI Service that provides additional features, such as larger data capacity and more concurrent users.

### 2. What limitations of Excel, Microsoft solved by PowerBi?

**Ans.** PowerBI was designed to overcome some of the limitations of Microsoft Excel in the areas of data visualization, collaboration, and scalability. Some of these limitations include:

Data size: Excel has a limited data capacity, which can make it challenging to work with large and complex data sets. PowerBI can handle much larger data volumes and provides optimized data storage and retrieval mechanisms.

Data visualization: Excel has limited visualization capabilities, which can make it challenging to create interactive and compelling data visualizations. PowerBI provides a wide range of visualization options, including charts, graphs, maps, and custom visualizations, which can help users better understand their data.

Collaboration: Excel workbooks can be difficult to share and collaborate on, especially with users who do not have Excel installed. PowerBI is designed for collaboration, with features such as cloud-based report sharing, multi-user editing, and mobile access.

Data refresh: Excel workbooks need to be manually updated to reflect changes in the underlying data, which can be time-consuming and error-prone. PowerBI provides automatic data refresh capabilities, which ensure that reports and dashboards always display up-to-date data.

Scalability: As data volumes grow, Excel workbooks can become slow and unwieldy, making it difficult to perform even basic tasks. PowerBI provides a highly scalable architecture that can handle large and complex data sets, enabling users to quickly and easily create and share insights.

### **3. Explain PowerQuery?**

**Ans.** PowerQuery is a data connection and data transformation technology built into Microsoft PowerBI and Microsoft Excel. It is used to extract and load data from a wide range of data sources, including databases, spreadsheets, cloud services, and web APIs.

With PowerQuery, users can perform tasks such as filtering, grouping, and aggregating data, as well as shaping data into the format required for analysis. PowerQuery also provides advanced data transformation capabilities, such as merging data from multiple sources, removing duplicates, and handling data with special character encodings.

One of the key benefits of PowerQuery is that it allows users to perform data transformations in a visual, user-friendly interface, without the need for complex SQL code or programming skills. PowerQuery also automatically handles many of the performance-related tasks associated with data loading and transformation, such as caching and query folding.

### **4. Explain PowerMap?**

**Ans.** PowerMap is a feature in Microsoft PowerBI that allows users to create interactive and visual representations of data on a map. It enables users to plot data points on a map based on geographical location, such as city, state, or country, and view data trends and patterns in a geographical context.

With PowerMap, users can display different types of data, including sales, demographics, or other information, on a map using different color coding, map styles, and custom data layers. This can help users identify geographical trends, patterns and insights that may not be immediately apparent through other types of visualizations.

PowerMap also provides interactive capabilities, such as zooming, panning, and hovering over data points, which allow users to explore data in greater detail. Additionally, it integrates with other PowerBI features, such as filters and drill-down functionality, to create complex and highly customized visualizations.

### **5. How powerBi eliminated the need to host SharePoint Server on premises?**

**Ans.** PowerBI eliminates the need to host SharePoint Server on-premises by providing a cloud-based data visualization and analytics platform. With PowerBI, users can access data, create reports and dashboards, and share insights, all from within the cloud, without the need for additional on-premises infrastructure.

This cloud-based delivery model provides several benefits, including:

1.Accessibility: PowerBI can be accessed from anywhere with an internet connection, which makes it easier for remote and mobile workers to access data and insights.

2.Scalability: PowerBI is designed to handle large and complex data sets, providing the scalability required to support growing data volumes and increasing user demands.

3.Collaboration: PowerBI provides a collaborative environment that enables multiple users to work on reports and dashboards simultaneously, promoting collaboration and teamwork.

4.Reduced IT overhead: By eliminating the need to host SharePoint Server on-premises, PowerBI reduces the IT overhead associated with managing and maintaining on-premises infrastructure, including hardware, software, and support costs.

**6. Explain the updates done in Power Bi Service(power BI 2.0) as compared to older version ?**

**Ans.** PowerBI Service, also known as PowerBI 2.0, represents a major update to the PowerBI platform and includes a number of new and improved features as compared to the older version. Some of the key updates in PowerBI Service (PowerBI 2.0) are:

1. Report authoring: The report authoring experience has been improved in PowerBI 2.0, with a more intuitive and user-friendly interface, and the ability to create reports more quickly and easily.
2. Workspaces: Workspaces in PowerBI 2.0 provide a new way for teams to collaborate on reports and dashboards, and make it easier to share content with others.
3. Paginated reports: PowerBI 2.0 introduces support for paginated reports, which are optimized for printing and viewing large amounts of data in a structured format.
4. Dataflows: PowerBI 2.0 includes an improved version of PowerBI's dataflows, which allow users to connect to and transform data from a wide range of sources, and reuse data across multiple reports and dashboards.
5. PowerBI report server: PowerBI 2.0 includes the ability to publish reports to PowerBI Report Server, providing organizations with a way to host PowerBI reports on-premises and behind their firewall.