**Power BI Assignment 3**

1. List and explain different PowerBi products?
2. What limitations of Excel, Microsoft solved by PowerBi?
3. Explain PowerQuery?
4. Explain PowerMap?
5. How powerBi eliminated the need to host SharePoint Server on premises?
6. Explain the updates done in Power Bi Service(power BI 2.0) as compared to older version ?

**ANSWER**

1. \*\*Different Power BI Products:\*\*

Power BI is a suite of business analytics tools by Microsoft that allows users to visualize data and share insights. There are several products and components within the Power BI ecosystem, including:

- \*\*Power BI Desktop\*\*: This is a Windows application for creating reports and visualizations. It allows you to connect to various data sources, create data models, and design interactive reports and dashboards.

- \*\*Power BI Service\*\*: This is a cloud-based service that allows you to publish and share your Power BI reports and dashboards with others. You can access it through a web browser.

- \*\*Power BI Mobile\*\*: It's a mobile app available on iOS and Android devices, enabling users to access and interact with Power BI reports on their mobile devices.

- \*\*Power BI Gateway\*\*: The gateway allows you to connect on-premises data sources to Power BI Service. It's essential for refreshing data from on-premises sources.

- \*\*Power BI Report Server\*\*: This on-premises solution is designed for organizations that want to host their Power BI reports internally. It allows you to publish reports to your own report server.

2. \*\*Limitations Solved by Power BI:\*\*

Power BI addresses several limitations of Excel, such as:

- Scalability: Power BI can handle much larger datasets than Excel and is optimized for big data.

- Real-time Data: Power BI supports real-time data streaming, while Excel's data is typically static.

- Data Integration: Power BI offers a wide range of data connectors, making it easier to integrate data from various sources.

- Collaboration: Power BI Service allows sharing and collaboration on reports, while Excel files can be harder to manage collaboratively.

3. \*\*Power Query:\*\*

Power Query is a data transformation and connection tool within Power BI (also available in Excel). It allows users to connect to various data sources, transform and shape the data, and load it into the Power BI data model. With Power Query, you can perform tasks like data cleaning, merging, filtering, and pivoting before creating visualizations. Power Query makes it easy to connect to and manipulate data from various sources like databases, files, web services, and more.

4. \*\*Power Map:\*\*

Power Map, now known as 3D Maps in Excel, is a visualization tool that allows users to create interactive geographic and time-based data visualizations. You can plot data points on a 3D map and visualize data over time. It's a useful tool for exploring spatial and temporal data.

5. \*\*Eliminating the Need for On-Premises SharePoint Server:\*\*

Power BI Service allows users to publish and share reports in the cloud without the need for an on-premises SharePoint server. Users can share reports securely over the internet, making it easier to collaborate and access reports from anywhere. This eliminates the need for maintaining and hosting SharePoint Server on-premises for report sharing and collaboration.

6. \*\*Updates in Power BI Service (Power BI 2.0):\*\*

The specifics of updates in Power BI Service may change over time, but some common improvements and features in newer versions include:

- Enhanced collaboration and sharing options.

- Improved data refresh capabilities.

- Integration with additional data connectors and services.

- Advanced AI and machine learning capabilities for data analysis.

- Enhancements to the Power BI mobile app for improved accessibility and usability.

- Improved security and compliance features.

For the most up-to-date information on updates and new features in Power BI Service, you should refer to official Microsoft documentation or release notes.