Q1. List and explain different PowerBi products?

Power BI Desktop: Power BI Desktop is a free standalone application for Windows that allows users to create interactive reports and data visualizations. It provides powerful data modeling capabilities, data transformation tools, and a wide range of customizable visualizations to create compelling reports for local use.

Power BI Service (Power BI Pro and Power BI Premium): The Power BI Service is a cloud-based platform that enables users to publish, share, and collaborate on Power BI reports and dashboards. It offers two main licensing options:

- Power BI Pro: Power BI Pro is a subscription-based plan that allows individual users to create and share reports with other Pro users or consumers. It offers collaboration features, access to cloud data sources, and the ability to schedule data refresh.
- Power BI Premium: Power BI Premium is designed for organizations and offers dedicated capacity, allowing users to share and view reports with stakeholders who do not have Power BI Pro licenses. Premium also includes features like paginated reports, AI capabilities, and enhanced data refresh options.

Power BI Mobile Apps: Power BI offers mobile apps for iOS and Android devices. These apps allow users to access and interact with their Power BI reports and dashboards on the go, providing a seamless and responsive mobile experience.

Power BI Report Server: Power BI Report Server is an on-premises solution that allows organizations to host and manage Power BI reports and KPIs behind their own firewall. It is suitable for organizations with strict data security and compliance requirements.

Power BI Embedded: Power BI Embedded is a service that allows developers to embed Power BI reports and dashboards into custom applications, websites, and portals. It enables seamless integration of Power BI visualizations into existing applications.

Power BI Premium Per User (PPU): Power BI Premium Per User is a new licensing option that brings some Premium features, such as paginated reports, AI capabilities, and advanced data refresh, to individual users on a per-user basis without requiring full Premium capacity.

Q2. What limitations of Excel, Microsoft solved by PowerBi?

Power BI was developed by Microsoft to address certain limitations of Excel, particularly when dealing with large and complex datasets and the need for more advanced data analysis and visualization capabilities. Some of the limitations of Excel that Power BI aims to overcome include:

Scalability: Excel has limitations in handling large datasets and complex data models. Power BI is designed to handle massive amounts of data efficiently, making it suitable for big data scenarios.

Data Modeling: While Excel does offer basic data modeling capabilities, Power BI provides more advanced data modeling features, such as the ability to create relationships between tables and define measures using the DAX language.

Performance: As the size of an Excel workbook grows, performance can become sluggish, especially when dealing with multiple formulas and calculations. Power BI is optimized for performance, offering faster data processing and visualization rendering.
Interactive Visualizations: Excel provides basic charting and visualization options, but Power BI offers a wider range of interactive and customizable visualizations, including custom visuals developed by the community and third-party vendors.
Collaboration and Sharing: Excel workbooks are traditionally shared via email or shared drives, making it challenging to collaborate in real-time. Power BI provides a cloud-based service that allows for seamless sharing, collaboration, and real-time updates on shared reports and dashboards.
Data Refresh: In Excel, data refresh is often a manual and time-consuming process. Power BI automates data refresh for reports and dashboards, ensuring that users always have access to the latest data.

Q3. Explain PowerQuery.

Power Query is a data transformation and data preparation tool that is part of Microsoft Power BI, Excel, and other Microsoft products. It allows users to connect to various data sources, clean and shape the data, and load it into a data model for analysis and reporting. Power Query simplifies the process of data preparation and ensures that the data is in the right format for analysis, saving time and effort for users.

Q4. Explain PowerMap.

Power Map was a 3D geospatial visualization tool in Microsoft Excel that allowed users to create interactive and immersive maps using geographic and temporal data. It was part of the Microsoft Power BI suite, specifically designed for Excel users who wanted to visualize location-based data in a compelling and engaging way.

Q5. How powerBi eliminated the need to host SharePoint Server on premises?

Power BI eliminated the need to host SharePoint Server on premises by providing a cloud-based platform that offers robust data visualization, reporting, and collaboration capabilities. Here's how Power BI achieved this:

Cloud-Based Service: Power BI is a cloud-based service provided by Microsoft. Users can access the Power BI Service through a web browser or dedicated mobile apps, eliminating the need to install and maintain SharePoint Server on premises.
Data Storage in the Cloud: Power BI allows users to store their datasets, reports, and dashboards in the cloud. This eliminates the need for on-premises data storage infrastructure, as data is securely hosted and managed by Microsoft.
Data Refresh in the Cloud: Power BI enables data refresh in the cloud, ensuring that reports and dashboards always display up-to-date information without the need for on-premises data refresh servers.
Real-Time Collaboration: Power BI enables real-time collaboration on reports and dashboards. Multiple users can work together on the same report simultaneously, making it easy to collaborate without the need for on-premises SharePoint Server.

Q6. Explain the updates done in Power Bi Service(power BI 2.0) as compared to older version ?

Enhanced Data Connectivity: Microsoft continually adds new data connectors to Power BI, allowing users to connect to an even broader range of data sources, both on-premises and in the cloud.

Improved Data Transformation: Power Query Editor in Power BI has received various enhancements, enabling more advanced data shaping and transformation capabilities. New data transformation functions and improvements in the formula language (M) have been introduced.

Advanced Analytics: Microsoft has added advanced analytics features to Power BI, such as integration with Azure Machine Learning, AI-driven insights, and built-in AI visuals like Key Influencers and Decomposition Tree.

Paginated Reports: Paginated reports, which resemble traditional pixel-perfect reports, have been introduced in Power BI, providing more options for printing and exporting reports.

Power BI Apps: Power BI Apps allow content creators to package dashboards, reports, and datasets into bundles and distribute them to specific groups or users, streamlining content distribution and updates.