Q1. List and explain different PowerBi products?

Power BI is a business analytics and intelligence service by Microsoft that provides interactive visualizations and business intelligence capabilities. Here are the different Power BI products:

Power BI Desktop: It is a Windows application that enables you to create interactive reports, dashboards, and data visualizations using data from various sources. You can also publish these reports to the Power BI service.

Power BI Service: It is a cloud-based service that allows you to share and collaborate on reports and dashboards with others. You can also create and manage data models and datasets in the Power BI service.

Power BI Mobile: It is a mobile application that allows you to access and interact with reports and dashboards on your mobile device. You can also share your reports and dashboards with others using the mobile app.

Power BI Report Server: It is an on-premises solution that allows you to host and manage your reports and dashboards within your organization's firewall. You can also control access to the reports and dashboards within your organization.

Power BI Embedded: It is a solution that allows you to embed Power BI reports and dashboards into your own applications or websites. You can also control the access to these reports and dashboards using Azure Active Directory.

Power BI Dataflows: It is a cloud-based solution that allows you to build and manage ETL (extract, transform, load) processes for your data. You can also use dataflows to create data models and datasets that can be used in your reports and dashboards.

Each of these Power BI products serves a different purpose, but they all work together to provide a complete business analytics and intelligence solution.

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

While Excel is a powerful tool for data analysis, it has some limitations that Microsoft solved by developing Power BI. Here are some of the key limitations of Excel that Power BI addresses:

Limited data capacity: Excel has limitations on the amount of data it can handle efficiently. Power BI can handle much larger volumes of data and is designed to work with big data.

Limited data modeling capabilities: Excel's data modeling capabilities are limited and not as intuitive as Power BI's. Power BI provides a user-friendly data modeling interface that allows users to create data models quickly and easily.

Limited data visualization options: Excel has limited data visualization options and is not as interactive as Power BI. Power BI provides a wide range of customizable data visualization options that allow users to create interactive reports and dashboards.

Limited sharing and collaboration capabilities: Sharing and collaborating on Excel files can be difficult and time-consuming. Power BI allows users to share reports and dashboards easily with others and collaborate in real-time.

Limited data connectivity: Excel's data connectivity options are limited, and it can be challenging to connect to some data sources. Power BI offers a wider range of data connectivity options and allows users to connect to various data sources easily.

Overall, Power BI is a more specialized and powerful tool for data analysis and visualization, while Excel is more versatile and suited to general-purpose computing tasks. By addressing the limitations of Excel, Microsoft has provided a more comprehensive solution for data analysis and visualization with Power BI.

Q3. Explain PowerQuery?

Power Query is a data connection and transformation tool that is part of Microsoft Power BI, Excel, and other Microsoft products. It allows users to connect to various data sources, transform and shape the data, and load it into a data model or report for analysis.

Power Query provides a user-friendly interface that allows users to transform and clean data without the need for complex coding or scripting. It includes a wide range of data transformation functions, such as filtering, merging, pivoting, unpivoting, and splitting data columns.

Some of the key features of Power Query include:

Data Connection: Power Query allows users to connect to a wide range of data sources, including databases, Excel files, CSV files, web pages, and cloud-based services like Microsoft Azure and SharePoint.

Data Transformation: Power Query provides a user-friendly interface to transform and clean data, including filtering, sorting, pivoting, and merging data.

Custom Functions: Power Query allows users to create custom functions to automate repetitive tasks, simplify complex transformations, and apply advanced data cleaning techniques.

Data Load: Power Query allows users to load the transformed data into a data model or report for analysis. It also provides options to manage and refresh the data connections and transformations.

Overall, Power Query is a powerful and flexible tool that helps users to extract, transform, and load data quickly and easily. It can save users time and effort by automating repetitive tasks and simplifying complex data transformations.

Q4. Explain PowerMap?

Power Map is a data visualization and mapping tool that is part of Microsoft Power BI and Excel. It allows users to create 3D maps and interactive visualizations of geographic and time-based data.

Power Map enables users to plot data points on a map, visualize data trends over time, and create immersive tours to showcase their data. Some of the key features of Power Map include:

Geographic Data Visualization: Power Map allows users to visualize data on a map and create heat maps, bubbles, and other types of geographic visualizations.

Time-Based Visualization: Power Map enables users to create animations and visualizations of data trends over time, such as changes in population or sales over a period.

Customization: Power Map provides a range of customization options, such as changing colors, adjusting data ranges, and adding annotations to the map.

Immersive Tours: Power Map allows users to create interactive tours that take viewers on a journey through their data. The tours can include slides, videos, and other m

ultimedia content to create an immersive experience.

Overall, Power Map is a powerful tool for visualizing and exploring geographic and time-based data. It can help users to discover insights and trends in their data that may not be apparent from traditional charts and graphs.

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

Power BI eliminates the need to host SharePoint Server on premises by providing a cloud-based platform for sharing and collaborating on reports and dashboards. With Power BI, users can create, publish, and share reports and dashboards in the cloud without the need for a SharePoint Server on-premises installation.

Here are some of the key ways that Power BI eliminates the need for SharePoint Server on premises:

Cloud-based platform: Power BI is a cloud-based platform that allows users to create and share reports and dashboards without the need for a SharePoint Server on-premises installation. This reduces the need for costly hardware and maintenance.

Centralized Data Model: Power BI provides a centralized data model that can be accessed and shared by multiple users. This eliminates the need for users to store and maintain their own data sources, reducing the need for SharePoint Server.

Collaborative Features: Power BI provides a range of collaborative features that allow users to share, comment, and collaborate on reports and dashboards in real-time. This reduces the need for SharePoint Server's collaboration features.

Mobile Access: Power BI provides mobile access to reports and dashboards, allowing users to view and interact with data on the go. This reduces the need for SharePoint Server's mobile access features.

Overall, Power BI's cloud-based platform and collaborative features eliminate the need for SharePoint Server on premises, providing a cost-effective and efficient solution for sharing and collaborating on reports and dashboards.

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

Power BI 2.0, also known as the new version of Power BI Service, introduced several significant updates and improvements over the older version. Here are some of the key updates:

New User Interface: Power BI 2.0 introduced a new user interface that provides a more streamlined and modern experience. It includes a new navigation bar, updated icons and visuals, and a more intuitive layout.

Enhanced Dashboarding: Power BI 2.0 provides enhanced dashboarding capabilities, including the ability to create and edit dashboards directly in the web browser. It also includes new visualization types and customization options.

Improved Collaboration: Power BI 2.0 provides improved collaboration features, including the ability to share reports and dashboards with external users and to collaborate on reports in real-time.

AI-powered Insights: Power BI 2.0 includes AI-powered insights that provide automatic data analysis and visualizations. It also includes natural language query and search capabilities.

Enhanced Data Connectivity: Power BI 2.0 provides enhanced data connectivity, including support for over 70 data sources and the ability to connect to on-premises data sources securely.

Mobile App Enhancements: Power BI 2.0 includes enhancements to the mobile app, including improved performance, support for offline viewing, and new mobile-specific visualization types.

Overall, Power BI 2.0 introduced several significant updates and improvements that enhance the user experience, provide new capabilities, and improve collaboration and data connectivity. These updates have made Power BI a more powerful and flexible tool for data analysis and reporting.