**Power BI Assignment 3**

1. List and explain different PowerBi products?

Power BI Desktop: This is a Windows application that allows users to create and publish Power BI reports and dashboards. It includes a range of data visualization tools, data modeling capabilities, and data connectivity options.

Power BI Service: This is a cloud-based service that allows users to share and collaborate on Power BI reports and dashboards. It also includes features such as data refresh, report sharing, and user access controls.

Power BI Mobile: This is a mobile app that allows users to view and interact with Power BI reports and dashboards on their mobile devices. It supports both iOS and Android platforms.

Power BI Report Server: This is an on-premises solution that allows users to deploy and manage Power BI reports and dashboards on their own servers. It includes features such as report scheduling, data refresh, and security controls.

Power BI Embedded: This is a platform-as-a-service (PaaS) offering that allows developers to embed Power BI reports and dashboards directly into their own applications. It provides a range of APIs and SDKs for integrating Power BI functionality into custom applications.

In summary, the Power BI product suite includes Power BI Desktop for report authoring, Power BI Service for cloud-based sharing and collaboration, Power BI Mobile for mobile access, Power BI Report Server for on-premises deployment, and Power BI Embedded for embedding Power BI functionality into custom applications.

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

While Excel is a powerful tool for data analysis and reporting, it has several limitations that Microsoft has addressed with Power BI. Here are a few examples:

Scalability: Excel can handle large datasets, but it can become slow and unwieldy when working with very large or complex data. Power BI is designed to handle large-scale data and can process millions of rows of data quickly and efficiently.

Data modeling: Excel requires users to create complex formulas and macros to manipulate and transform data, which can be time-consuming and error-prone. Power BI includes advanced data modeling capabilities, including the ability to create relationships between data sources and perform data shaping and transformation operations using a drag-and-drop interface.

Data visualization: While Excel includes a range of charting and graphing tools, Power BI offers a wider range of data visualization options, including custom visualizations created by Microsoft and third-party developers. Power BI also offers more advanced options for interactive data exploration and analysis.

Collaboration and sharing: Excel can be difficult to share and collaborate on, especially when working with multiple versions of the same file. Power BI includes cloud-based sharing and collaboration features that allow users to share reports and dashboards with others in real-time, while also maintaining version control and security.

Overall, Power BI is designed to provide a more scalable, efficient, and collaborative approach to data analysis and reporting than Excel, making it a popular tool for businesses of all sizes.

1. Explain PowerQuery?

POWER FOR MANIPULATION OF DATA

1. Explain PowerMap?

Power Map is a 3D data visualization tool in Power BI that allows users to create interactive geospatial visualizations of their data on a map. With Power Map, users can create immersive visualizations that allow them to explore and analyze data in new and innovative ways.

Power Map is particularly useful for businesses that need to analyze data related to geographical locations, such as sales data by region, customer locations, or store locations. Here are a few key features of Power Map:

Data integration: Power Map allows users to integrate data from a variety of sources, including Excel spreadsheets, SQL Server databases, and cloud-based data sources such as Azure and Power BI.

3D visualization: Power Map can create 3D maps that allow users to see data in a more immersive way. Users can zoom in and out, rotate the map, and change the perspective to explore data from different angles.

Interactive exploration: Power Map allows users to create interactive visualizations that allow them to explore data in real-time. Users can filter data, drill down into specific regions, and highlight data points to see more detailed information.

Sharing and collaboration: Power Map allows users to share their visualizations with others in a variety of ways, including embedding them in websites, sharing them on social media, or presenting them in PowerPoint presentations.

Overall, Power Map is a powerful data visualization tool that allows users to explore and analyze geographical data in new and innovative ways, making it a valuable tool for businesses of all sizes.

1. 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 store and share their reports and dashboards in the cloud, rather than on a local SharePoint server.

Before Power BI, organizations that wanted to share and collaborate on reports and dashboards often used SharePoint Server as a platform for hosting and sharing these assets. However, hosting SharePoint Server on-premises can be expensive, time-consuming, and require significant IT resources to maintain.

With Power BI, organizations can leverage the cloud-based platform to share and collaborate on reports and dashboards without the need for an on-premises SharePoint server. Power BI offers a range of sharing and collaboration features, including the ability to share reports and dashboards with other Power BI users, embed reports and dashboards in websites or applications, and collaborate on reports and dashboards in real-time.

In addition, Power BI integrates with SharePoint Online, allowing users to embed Power BI reports and dashboards directly into SharePoint Online pages. This provides a seamless experience for users who are already using SharePoint Online as a collaboration platform.

Overall, Power BI provides a more cost-effective, efficient, and scalable solution for sharing and collaborating on reports and dashboards than hosting SharePoint Server on-premises.

1. 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 Power BI service, introduced several major updates and improvements compared to the older version. Here are some of the key updates:

User interface: The new Power BI service introduced a revamped user interface, making it more user-friendly and intuitive. The new interface includes a left-hand navigation pane that provides easy access to different sections of the service, such as workspaces, reports, and datasets.

Dashboards: The new Power BI service introduced improved dashboard functionality, making it easier for users to create, edit, and share dashboards. The new dashboards allow users to include a wider range of visualizations, including custom visualizations created by third-party developers.

Natural Language Query: The new Power BI service includes a feature called "Q&A" that allows users to ask questions about their data using natural language. This feature uses advanced algorithms to interpret user questions and provide relevant insights and visualizations in response.

Power BI Apps: The new Power BI service introduced the concept of Power BI Apps, which allow users to bundle together dashboards, reports, and other assets into a single, customized application that can be shared with others.

Power BI Embedded: The new Power BI service introduced Power BI Embedded, a platform that allows developers to embed Power BI visualizations directly into their own applications.

Dataflows: The new Power BI service introduced the concept of dataflows, which allow users to build, manage, and share data transformations and logic in the cloud. This enables users to create a centralized data source that can be used across multiple reports and dashboards.

Overall, the new Power BI service introduced several key updates and improvements that make it a more powerful and flexible platform for data analysis and visualization.