POWER BI ASSIGNMENT-3

1. List and explain different PowerBi products?

-a)Power BI Desktop: Power BI Desktop is a powerful Windows application used for creating interactive data visualizations and reports. It provides a robust set of tools and features for data modeling, transformation, and report design. Power BI Desktop is primarily used by analysts and data professionals to create and publish reports locally.

b)Power BI Service: Power BI Service, also known as Power BI online or Power BI cloud, is a cloud-based platform where users can publish, share, collaborate, and access Power BI reports and dashboards. It provides a web-based interface for interacting with reports and offers additional features like data refresh, scheduling, and sharing options. Power BI Service is designed for end-users who want to consume and interact with reports created in Power BI Desktop.

c)Power BI Mobile: Power BI Mobile is a mobile application available for iOS and Android devices. It allows users to access and view Power BI reports and dashboards on the go. Power BI Mobile offers responsive and touch-optimized experiences, ensuring a seamless user experience across various mobile devices.

d)Power BI Report Server: Power BI Report Server is an on-premises reporting solution that allows organizations to host and manage Power BI reports within their own infrastructure. It provides a way to deploy Power BI reports and dashboards on local servers while maintaining data security and compliance requirements.

e)Power BI Embedded: Power BI Embedded is a platform-as-a-service (PaaS) offering that enables developers to embed Power BI reports and dashboards within custom applications. It provides APIs and SDKs that allow developers to integrate Power BI capabilities directly into their own software solutions.

f)Power BI Data Gateway: Power BI Data Gateway is a component used to establish secure connections between Power BI services (such as Power BI Service or Power BI Embedded) and on-premises data sources. It allows users to refresh data in Power BI reports from on-premises databases, ensuring that the reports stay up-to-date.

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

-Excel has limitations in the amount of data it can work with. In contrast, Power BI can handle much larger amounts of data. Power BI can connect to a large number of data sources, while Excel's connectivity capacity is limited. Also, unlike Excel, Power BI can be easily used from mobile devices.

3. Explain PowerQuery?

-Power Query is Microsoft's Data Connectivity and Data Preparation technology. It basically, enables business users to access data stored in data sources seamlessly whilst reshaping it to fit their needs. It's easy to use, engaging, and even convenient to use for the no-code users.

4. Explain PowerMap?

-Microsoft Power Map for Excel is a three-dimensional (3-D) data visualization tool that lets you look at information in new ways. A power map lets you discover insights you might not see in traditional two-dimensional (2-D) tables and charts.

With Power Map, you can plot geographic and temporal data on a 3-D globe or custom map, show it over time, and create visual tours you can share with other people. You'll want to use Power Map to:

Map data Plot more than a million rows of data visually on Bing maps in 3-D format from an Excel table or Data Model in Excel.
Discover insights Gain new understandings by viewing your data in geographic space and seeing time-stamped data change over time.

Share stories Capture screenshots and build cinematic, guided video tours you can share broadly, engaging audiences like never before. Or export tours to video and share them that way as well.

5. How power Bi eliminated the need to host SharePoint Server on premises?

Power BI integration with SharePoint: Power BI offers integration with SharePoint, allowing you to embed Power BI reports and dashboards within SharePoint sites. This integration enables users to access Power BI content directly within the SharePoint environment, providing a seamless experience for consuming and interacting with data visualizations.

SharePoint as a data source for Power BI: Power BI can also connect to SharePoint as a data source. You can use Power BI to import data from SharePoint lists, libraries, or other data sources within SharePoint. This allows you to combine SharePoint data with data from other sources, perform data modeling, and create comprehensive reports and visualizations in Power BI.

While Power BI enhances the reporting and visualization capabilities within SharePoint, it doesn't eliminate the need for hosting SharePoint Server on premises. SharePoint Server provides a broader set of features beyond data analysis and reporting, such as document management, collaboration, and workflow capabilities. Organizations may still require SharePoint Server for these additional functionalities, even when leveraging Power BI for data analysis and visualization.

In summary, Power BI and SharePoint can be used together to leverage the strengths of both tools. Power BI enhances data analysis and reporting within SharePoint, but it does not replace the need for SharePoint Server when other SharePoint features are necessary.

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

New and enhanced visuals: Power BI Service introduced several new visuals, such as the decomposition tree, key influencers, and the hierarchy slicer, to enhance data exploration and analysis capabilities. Additionally, existing visuals received updates and improvements to provide more customization options and improved interactivity.

Paginated Reports: Power BI Service introduced the ability to create and view paginated reports, which are highly formatted, pixel-perfect reports optimized for printing or generating PDFs. Paginated reports are ideal for scenarios that require precise control over layout and formatting, such as operational and financial reporting.

AI-powered features: Power BI Service integrated AI capabilities to enhance data analysis and insights generation. Features like AutoML, which automates the machine learning model creation process, and Smart Narrative, which generates natural language summaries of data, provide users with AI-powered insights without requiring extensive data science knowledge.

Power Automate integration: Power BI Service enhanced its integration with Power Automate (formerly Microsoft Flow), enabling users to create automated workflows and trigger actions based on data changes or events in Power BI. This integration allows for seamless data-driven processes and notifications.

App workspace enhancements: Power BI Service introduced improvements to app workspaces, which are collaborative spaces for teams to create, manage, and share content. Updates included advanced workspace management capabilities, enhanced collaboration features, and improved sharing options to streamline collaboration and content distribution within organizations.

Dataflow enhancements: Power BI Service improved dataflow capabilities, allowing users to create and manage dataflows more efficiently. Dataflows enable users to extract, transform, and load (ETL)

data from various sources, providing a centralized and reusable data preparation layer for reports and dashboards.

These are just a few examples of the updates and enhancements made to Power BI Service in recent years. Microsoft regularly releases updates and introduces new features to enhance the functionality, performance, and user experience of Power BI Service. It's always recommended to check the official Power BI documentation or visit the Power BI website for the latest information on updates and features.