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# Power BI Assignment 3

## 1. List and explain different PowerBi products?

**Ans: -** Power BI is a suite of business analytics tools that provide insights throughout an organization. There are several Power BI products available that cater to different user types and requirements.

1. Power BI Desktop: Power BI Desktop is a powerful data visualization and reporting tool that allows users to connect to multiple data sources, create customized visualizations, and generate interactive reports. It is primarily used by data analysts and business intelligence professionals who require advanced data manipulation and visualization capabilities.
2. Power BI Service: Power BI Service is a cloud-based platform that allows users to publish, share, and collaborate on reports and dashboards created in Power BI Desktop. It enables users to access their reports from anywhere, on any device, and collaborate with colleagues in real-time. Power BI Service also provides features like data refresh scheduling, alerts, and sharing options.
3. Power BI Mobile App: Power BI Mobile App is a mobile app available on iOS, Android, and Windows devices that allows users to access their Power BI reports and dashboards on the go. It provides a user-friendly interface that adapts to different screen sizes and enables users to view and interact with reports in real-time.
4. Power BI Report Server: Power BI Report Server is an on-premises reporting solution that allows organizations to deploy Power BI reports and dashboards on their own infrastructure. It provides users with the ability to access reports and dashboards within their organization's firewall and enables IT professionals to control security and data privacy.
5. Power BI Embedded: Power BI Embedded is a platform-as-a-service offering that allows developers to integrate Power BI reports and dashboards into their own applications. It enables users to embed interactive visualizations and insights within their applications without requiring them to leave their application environment.

In summary, Power BI offers a range of products that cater to different user requirements, from advanced data manipulation and visualization to mobile access and embedding capabilities.

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

**Ans:-** Excel is a powerful spreadsheet program that has been used for data analysis and reporting for many years. However, there are some limitations to Excel that Microsoft solved with the introduction of Power BI. Some of these limitations are:

1. Data Volume: Excel is limited in the amount of data it can handle. Large datasets can cause performance issues and make it difficult to manipulate and analyze data. Power BI allows users to work with much larger datasets and handle millions of rows of data without performance issues.
2. Data Variety: Excel can only handle structured data and struggles with unstructured data. Power BI can handle both structured and unstructured data, making it easier for users to analyze and gain insights from diverse data sources.
3. Data Integration: Excel requires users to manually combine data from multiple sources. Power BI has built-in integration capabilities that allow users to connect to various data sources and combine data from multiple sources quickly and easily.
4. Visualization: Excel can create basic charts and graphs, but Power BI has more advanced visualization capabilities. Power BI provides a wide range of customizable visualization options, enabling users to create engaging and interactive dashboards and reports.
5. Collaboration: Excel has limited collaboration capabilities, making it difficult for teams to work together on a project. Power BI allows multiple users to work on the same report or dashboard simultaneously, making it easier to collaborate and share insights across teams.

In summary, Power BI solves several limitations of Excel by providing more extensive data handling capabilities, advanced visualization options, and improved collaboration features. It enables users to analyze and gain insights from diverse data sources, handle large datasets, and work collaboratively, making it an excellent tool for business intelligence and data analysis.

## 3. Explain PowerQuery?

**Ans:-** Power Query is a data transformation and cleansing tool that is part of the Power BI suite. It allows users to connect to multiple data sources, clean and transform data, and load it into a data model or report. With Power Query, users can perform tasks like filtering, merging, pivoting, and splitting data, among others, to prepare data for analysis and reporting.

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Power Query has a user-friendly interface that allows users to preview and edit data transformations before applying them to their data. It also has a wide range of built-in data connectors that allow users to connect to various data sources, including databases, spreadsheets, and web services, among others.

Overall, Power Query is an essential tool for data analysts and business intelligence professionals who need to prepare data for analysis and reporting. It helps users to save time and effort by automating data transformation tasks, improving data accuracy, and ensuring consistency across different data sources.

#### 4. Explain PowerMap?

**Ans: -** Power Map is a 3D data visualization tool that allows users to create interactive maps, tours, and animations of geographical and temporal data in Microsoft Excel. Power Map is a part of the Power BI suite and is available as a free add-in for Excel 2013 and later versions.

With Power Map, users can create compelling and interactive visualizations of their data on a map. Users can plot data points on a map, apply different types of charts to the data points, and create custom tours that highlight specific data points and provide deeper insights.

Power Map can also be used to animate data over time, creating compelling visualizations of temporal data trends. Users can add multiple layers of data to their map and animate them sequentially to visualize changes over time.

Overall, Power Map is an essential tool for data analysts and business intelligence professionals who need to visualize geographical and temporal data in a dynamic and interactive way. It helps users to communicate insights more effectively, identify trends and patterns, and make better decisions based on data.

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

**Ans: -** Power BI eliminated the need to host SharePoint Server on premises by providing a cloud-based platform for sharing and collaborating on reports and dashboards. Power BI allows users to publish and share their reports and dashboards on the Power BI Service, a cloud-based platform that can be accessed from anywhere, on any device, with an internet connection.

Before the introduction of Power BI, organizations had to host SharePoint Server on premises to share reports and dashboards. This required significant IT resources and infrastructure to maintain, including servers, storage, and networking equipment.

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Power BI removes the need for on-premises hosting by providing a fully managed cloud-based platform that handles all the infrastructure and maintenance required to share and collaborate on reports and dashboards. This makes it easier for organizations to share reports and dashboards across teams, departments, and locations without requiring significant IT resources.

Additionally, Power BI provides more advanced visualization and data handling capabilities than SharePoint Server, making it a more powerful tool for business intelligence and data analysis. Power BI offers a wider range of customizable visualization options, faster data processing, and more extensive integration capabilities, making it an excellent tool for organizations looking to leverage their data and gain insights to inform their decision-making.

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

**Ans: -** The latest version of Power BI Service, also known as Power BI 2.0, includes several updates and improvements over the older version. Some of the key updates are:

1. New Look and Feel: Power BI 2.0 features a refreshed user interface that provides a more modern and streamlined experience. The navigation has been simplified, and the layout is more intuitive, making it easier for users to create, share, and collaborate on reports and dashboards.
  2. Enhanced Collaboration: Power BI 2.0 offers improved collaboration features, allowing multiple users to work on the same report or dashboard simultaneously. Users can now co-author and share reports in real-time, making it easier for teams to work together and share insights across the organization.
  3. Improved Visualization: Power BI 2.0 includes several new and enhanced visualization options, including new charts, custom visuals, and advanced formatting options. Users can now create more engaging and interactive dashboards and reports that better communicate their insights.
  4. Deeper Integration: Power BI 2.0 provides deeper integration with other Microsoft tools, such as Teams, Excel, and SharePoint, making it easier for users to share and collaborate on reports and dashboards across different platforms.
  5. AI Capabilities: Power BI 2.0 includes several AI capabilities that enable users to gain deeper insights into their data. Users can now leverage AI-powered features such as Key Influencers, which identifies the factors that impact their data, and AutoML, which automatically builds and deploys machine learning models.
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