**Power BI Assignment 3**

1. List and explain different PowerBi products?

Ans=>

1. Power BI desktop: Power Bi desktop is the free desktop application that you can install on your computer its used to create PowerBI reports and dashboards by importing and modelling data, create visualizations and designing interactive reports.
2. Power BI service: Power BI service also known as PowerBI.com, is a cloud-based service provided by Microsoft. It allows users to publish, share and collaboarate on power bi reports and dashboards.
3. Power Bi offers mobile apps for iOS and Android devices. These apps enable users to access and interact with Power BI reports and dashboards on their mobile devices.
4. What limitations of Excel, Microsoft solved by PowerBi?

Ans=>

1. **Handling Large Datasets**: Excel may struggle with handling very large datasets effectively. It becomes less responsive and slow. But Power Bi is equipped with dandling large datasets and can connect to various data sources.
2. **Data Modelling and Transformation:** Excel provides data manipulations and analysis features, it may not be as intuitive or powerful for complex data modelling and transformation.
3. **Data Collaborations and Sharing:** Sharing excel files can lead to version control issues and it may be challenging for multiple users to collaborate on the same documents simultaneously.
4. **Interactive Visualizations:** While Excel has charting and graphing capabilities, creating highly interactive and dynamic visualizations can be challenging. PowerBI is designed for building interactive and dynamic dashboards.
5. Explain PowerQuery?

Ans=>Power Query is a data connection technology that enables you to discover combine, connect and refine data across wide variety of resourses. It’s a key component of Microsoft Excel and other Microsoft Power Platform tools like power BI, Power Automate and Power Apps.

1. Power Source Connectivity: Power Query supports connecting to a wide range of data sources, including databases, Excel Files, Textfile, folders web pages and various other sources.
2. Data transformation: users can perform various data transformations operations using a graphical user interface.
3. Query Folding: Power Query tries to optimize the data retrieval process by pushing certain operations back to the data source, a concept known as query folding.
4. Formula Language: Power Query uses a functional language called M for defining data transformation steps.
5. Explain PowerMap?

Ans=> Power Map is a 3D data visualization tool that was part of the Microsoft powerbi suite.

It has various key features:

1. Geospatial Data Visualization: Power Map allows users to create interactive, three dimensional maps to visualize geospatial and temporal data.
2. Data Exploration: users could explore data in a visual and immersive way, gaining insights from the geographical distribution and movements of data points.
3. Excel Integration: Power Map is available as an add in for Microsoft Excel.
4. Time Animation: Power Map supported time–based animation, allowing users to see how data changed over a specified period.
5. How powerBi eliminated the need to host SharePoint Server on premises?

Ans=> PowerBi has a significant role in transforming how organizations handle data analysis and reporting, and it has contributed to reducing the need for hosting SharePoint Server on premises in some scenarios.

1. Cloud Based Architecture: Power BI is a cloud based service that allows users to connect to various data sources, create interactive dashboards, and share them securely.
2. Direct Data Connectivity: Power can connect directly to various sources, both on premises and in the cloud, without requiring a sharepoint server as an intermediary.
3. Self Service BI: Power Bi enables self-service business intelligence empowering users to create their own reports and dashboards without heavy reliance ion IT departments.
4. Power BI Embedded: For organizations that want to embed powerBI reports and dashboards within their application, Power BI embedded allows integration without the need for hosting an on-premises SharePoint server.
5. Explain the updates done in Power Bi Service (power BI 2.0) as compared to older version?

Ans=>

**Power BI Paginated Reports:** Power BI Paginated Reports (previously known as SQL Server Reporting Services or SSRS) were integrated into the Power BI service. This allowed users to create and view pixel-perfect, paginated reports alongside interactive Power BI reports.

**Power BI Apps:** The concept of Power BI Apps was introduced, allowing users to bundle dashboards, reports, and datasets into an "app" that could be easily shared with others. Apps streamline the sharing and distribution of Power BI content.

**Power BI Home**: Power BI Home was redesigned to provide a more unified and organized experience. It offered a landing page with quick access to recent dashboards, shared content, and featured apps.

**Shared and Certified Datasets:** Shared datasets became a feature, enabling users to create and share datasets across workspaces. Additionally, Microsoft introduced the concept of certified datasets, signifying that a dataset meets certain standards of reliability and accuracy.

**New Navigation Experience:** The navigation experience in the Power BI service was improved, providing a more user-friendly and intuitive interface for accessing reports, dashboards, workspaces, and other content.