Power BI Assignment 3

1. List and explain different Power Bi products.

Power BI is available as 3 products,

1. **Power BI Desktop:** A Desktop based application that supports around 80 data sources to import data to be able to work on data cleaning, modelling, building reports using visualizations & to publish reports.
2. **Power BI Service:** A browser-based Cloud service available as Software as a service (Saas) which helps in sharing reports, collaboration with others/stakeholders, building dashboards, creating workspaces.
3. **Power BI Mobile:** A mobile/tablet based application that allows stakeholders/end users to view reports & dashboards on mobile device, however creating/modifying reports/dashboards are not possible in Power BI Mobile.
4. **Power BI Report Service:** An on Premise report server on which the reports & dashboards can be shared with the stakeholders.
5. **Power BI Embedded:** Allows to embed power BI reports & Dashboards on web or mobile applications using API’s.
6. What limitations of Excel, Microsoft solved by Power Bi?

Prior to Power BI, Microsoft Excel was the tool used for analytics, however there are some limitations in excel,

1. Excel has limited Data sources for data import whereas Power BI accepts 80 different data sources.
2. Excel cannot handle large datasets, Application goes Unresponsive. Power BI can handle Big Data.
3. Collaboration is difficult in Excel compared to Power BI.
4. Data processing is slow in Excel comparatively.
5. Visualization of complex data is impossible with limited graphs in excel. Power BI offers various charts.
6. Excel cannot identify primary, foreign Keys in the data. Power BI automatically Identifies keys.
7. Combining data in excel is tedious process using VLOOKUP & HLOOKUP.
8. Explain Power Query.

Power Query is a Data Transformation & Data preparation Engine.

Data transformations will be carried in Power Query editor which offer various data cleaning features that helps in fixing issues in the data.

Power query is used to Extract, Transform & load data, ETL in simple terms.

Power Query creates M Language code for each data transformation made.

It is available as

* 1. Power Query Online: used as integrations in Power platforms, Azure data factory wrangling dataflows, through Webpages.
  2. Power query Desktop: used as integrations in desktop-based applications like Excel, Power BI desktop.

1. Explain Power Map.

Power map is a 3D Visualization tool that helps to plot geospatial data on a 3d-Globe.

Power map uses Bing to geocode the data provided.

It enables a different experience of viewing insights of data.

1. How power Bi eliminated the need to host SharePoint Server on premises?  
   Prior to Power BI, organizations had to use SharePoint on premises to host & share Business intelligence content like reports and dashboards with colleagues or stakeholders. Having SharePoint on premise is costly and requires maintenance.

Power BI eliminated this necessity of hosting SharePoint on Premise, as Power BI is a Fully Cloud based solution. Power BI offers much more features that were available on SharePoint and the services can be access through a web browser or mobile as well.

Organizations benefit from power BI as they can eliminate the cost of hosting and managing SharePoint on Premises.

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

There are several key differences between Power BI 2.0 and older versions of the software:

1. User interface: Power BI 2.0 has a new user interface that is more modern and user-friendly, with easier navigation and improved visuals.
2. Data modeling: Power BI 2.0 includes new data modeling features such as composite models, which allow users to combine data from multiple sources into a single logical model.
3. Dashboard and report creation: Power BI 2.0 introduces new visualization types and layout options, which make it easier to create visually appealing dashboards and reports.
4. Collaboration: Power BI 2.0 has improved collaboration features, including the ability to co-author reports and dashboards in real-time.
5. Performance: Power BI 2.0 is faster and more efficient than older versions, with improved query performance and faster data refresh times.