**Assignment 3**

**List and Explain different power bi products?**

1. Power BI Desktop – It is used to create a customized report and it used to clean the data. Model creation is done in this tool. It is an AI driven tool. It is an interactive reporting tool with pre-build visuals.
2. Power BI pro – It is a self service BI tool in the cloud. Used to share reports or dashboard or collaborate on some project. 10GB of storage per user.
3. Power BI premium – Enterprise BI used in big tech companies. It is both in premise and on cloud. Consumption of power bi content without individual licensing. Multi geo capability.
4. Power BI embedded – Reports, dashboard and visual analytics embedded in the applications. An extensive library of data connectors, APIs and fully documented SDKs.

**What limitations of excel, Microsoft solved by Power BI?**

1. Row level security – It means specify each set of data for a user or group. This means less analysis time needed, as just one view would be built for power bi to deliver based on predefined rules.
2. Cloud service - Data can be uploaded from multiple on-premise sources (Excel, DB, CSV, etc.) or reported directly from multiple cloud web services such as [Azure](https://smartbridge.com/modernization/), MailChimp, Zendesk, and [Salesforce](https://smartbridge.com/salesforce/). Once uploaded, reports are accessible from any modern browser. Power BI also has dedicated apps for most popular devices, such as Windows, Android, and iOS.
3. Q&A - users can browse their data by typing questions into a Natural Language capability tool that Power BI has incorporated.
4. Data driven alerts - Power BI users can create rules on specific reports and subscribe to those rules to receive an alert once they are met.
5. Visualizations - Power BI comes with various out-of-the-box visualizations, plus a free Marketplace with even more options.
6. Write back transactional services (Power BI app) - With this functionality users can capture data straight from a Power BI Report into a data warehouse, this is helpful when front end users need to capture data like targets, comments, etc. and store it on a centralize repository that other users can read.
7. Smart Narratives(Natural language) - By using this feature, creators can add narratives to their report to address key takeaways, point out trends, edit the language, and format it to fit a specific audience. Instead of pasting a screenshot of their report in PowerPoint with key takeaways added, they can now add narratives to the report that are updated with every refresh.
8. Geo Filtering - This is a Power BI Mobile feature which allows you to filter reports based on the location of the user.

**Explain Power Query?**

Power Query is a data transformation and data preparation engine. Power Query comes with a graphical interface for getting data from sources and a Power Query Editor for applying transformations. Because the engine is available in many products and services, the destination where the data will be stored depends on where Power Query was used. Using Power Query, you can perform the extract, transform, and load (ETL) processing of data.

**Explain Power Map?**

In Power BI there is one visualization called map which is used to create Map visualization of the the areas given in the data. It helps to understand the data in visual manner.

**Explain the updates done in Power BI service (power BI 2.0) as compared to older version?**

1. Email subscriptions access using Admin API
2. Allow sharing links to include your changes to the report
3. Hybrid Tables in Power BI Premium (Preview)
4. Deployment pipelines - assign a workspace to all pipeline stages