**Power BI Assignment 3**

1. List and explain different PowerBi products?
   1. **Power BI Desktop:**

-Create and editing customised reports for every level of expertise.

-Data injection from many supported data sources.

-Data transformation, data cleaning, data model creation with builtin Power Query editor.

-Interactive reporting with pre built or custom visuals

-AI driven data analytics

* 1. **Power BI Pro:**

-Self-service BI in the cloud.

- Creating, editing and sharing reports and dashboards among users.

- Collaboration in personal and team workspaces.

- 10 GB of storage per user.

* 1. **Power BI Premium**

- Enterprise BI both on-premises and in the cloud.

- Dedicated storage (100 TB) and compute resources.

- Consumption of Power BI content without individual licensing.

- Maintaining BI assets on-premises with the Power BI Report server.

- Paginated reporting.

- Multi-geo capability.

d. **Power Bi Embeded**

- Reports, dashboards and visual analytics embedded into applications

- An extensive library of data connectors, APIs, and fully documented SDKs

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

- Power BI has faster processing and able to handle huge volume of data than MS Excel.

- Power BI dashboards are [more visually appealing, interactive and customizable](https://blog.bismart.com/en/reporting-services-and-highly-visual-and-interactive-reports) than those in Excel.

-MS Excel has limited connectivity with other applications and systems. In Power BI we can extract data from comparatively huge variety of platforms.

-Row Level Security: In power BI, we can share report to specific people within the team, which is intended to view only specific people, This feature is not available in MS Excel.

-In Power BI, it is possible to automatically update the data. But in Excel it is not possible.

1. Explain PowerQuery?

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. As 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

1. Explain PowerMap?

 A power map help us to discover insights we might not see in traditional two-dimensional (2-D) tables and charts. With Power Map, we 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 the team.

1. How power BI eliminated the need to host SharePoint Server on premises?

SharePoint Server on premises Requires purchase of onsite dedicated hardware and need to maintain by IT support team which is hectic task in comparison with Cloud based data storage. Power BI hosted in Microsoft azure which is a cloud based computing platform, all the reports and dashboard generated by Power BI can publish to the workspace which can be embed to the web application. The embedded environment can be setup with .NET framework or .NET core or React Type script. So there is no need to maintain a SharePoint on premises. Microsoft assures the data security also for its azure users.

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

#### **Revamped user interface with reports grouped by area:**

It made the front office much easier to navigate with reports now grouped by area. As in the previous version, we can also switch report areas in the top left corner of the screen

#### **List and import users directly from the organization’s Azure AD:** Now from the users tab we can directly import the users from the Azure active directory.

#### **Report backgrounds and thumbnails can now be edited:** The Edit report tab now allows users to set their thumbnails to round images, with the default being a square image. Additionally, companies can now choose to apply transparent backgrounds to the reports in order to display their branding. This option is also available when choosing the report’s visual to display.

#### **Developers now have access to PowerBI Portal’s API:** A new API allows developers to manage users, users’ claims, reports, reports access, and user access history.

#### **Ability to configure SMTP**: Organizations can now use their email server to send PowerBI Portal emails instead of no\_reply@devscope.net. You can find SMTP configuration in the Notifications tab under Settings.

#### **Improved error messages’ description:** To help users better solve issues with PowerBI Portal, warning messages are now more descriptive and feature links to the pages where the issue can be solved.