**Power BI Assignment 3**

1. List and explain different PowerBi products?
2. What limitations of Excel, Microsoft solved by PowerBi?
3. Explain PowerQuery?
4. Explain PowerMap?
5. How powerBi eliminated the need to host SharePoint Server on premises?
6. Explain the updates done in Power Bi Service(power BI 2.0) as compared to older version ?

Ans 1-

There are servel types of power products like, which each have their features;-

* Power BI Desktop
* Power BI Pro
* Power BI Premium
* Power BI Embedded

Power BI Desktop

* Creating and editing customized reports for every level of expertise.
* Data ingestion from hundreds of supported data sources.
* Data transformation, cleaning, data model creation with built-in Power Query Editor.
* AI-driven analytics.
* Interactive reporting with pre-built or custom visuals.

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.

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.

Power BI Embedded

* Reports, dashboards and visual analytics embedded into applications.
* An extensive library of data connectors, APIs, and fully documented SDKs.

Ans 2.

There is many limitations of Excel which Microsoft power BI has solved like;-

Row-Level

Are you spending too much time building multiple reports for each stakeholder? For example, building a P&L report for each store can be time-consuming. By implementing [Row-Level Security](https://docs.microsoft.com/en-us/power-bi/service-admin-rls) you can 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 the predefined rules.

### Cloud Service

Save time involved in moving and sharing data. 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.

### Q&A

Do you know what you’re looking for, but don’t know where (or how) to find it? With Q&A, users can browse their data by typing questions into a Natural Language capability tool that Power BI has incorporated.

### Quick Insights

Do you think there’s something happening in your company, but you’re unable to find out what? [Quick Insights](https://docs.microsoft.com/en-us/power-bi/service-insights) is a powerful algorithmic tool that automatically detects outliers, trends, correlations, majority, etc.

### Data – Driven Alerts

Do you frequently look for specific amounts on your spreadsheet? Power BI users can create rules on specific reports and subscribe to those rules to receive an alert once they are met.

Ans 3.

Power Query is Microsoft’s Data Connectivity and Data Preparation technology. It basically, enables business users to access data stored in data sources seamlessly whilst, reshaping it to fit their needs. It’s easy to use, engaging, even convenient to use for the no-code users.

A lot of you might get confused in M and DAX. Let me clarify once and for all that both of them are vastly different from one another. While M is a mashup query language used to query a multitude of data sources, DAX (or Data Analysis eXpressions) is a formula language which is used to work on data that is stored in tables.

Ans 4.

A ‘**map**’ is a symbolic depiction of a location’s specific characteristics, usually drawn on a flat surface. Maps are a visual representation of information about the world. They demonstrate the size and shape of countries, the locations of landmarks, and the distances between them to visualize the world.

**Bing Maps** and **Power BI**work together to offer default map coordinates. It makes use of the **Bing Maps Geocoding Engine**, which sends geographical variables such as location, latitude, and longitude to Bing for geocoding processing and plotting on the map. In short, the Bing Engine converts the given information into geographic coordinates to do geospatial analysis. Visualizations based on maps are simple to make and provide a comprehensive perspective of spatial and category data.

Ans 6

These are the new updates done by Microsoft in power BI 2.0 version;-

* Reverse stack order for stacked column charts.
* Query performance improvements.
* Power BI Metrics.
* Quick measure suggestions - experimental feature (Preview).
* Relationship editing in the properties pane (Preview).
* DAX formula bar support for Power BI Desktop model view.
* Introducing tenant setting for Power BI datamarts (preview).