**Power BI Assignment 3**

1. List and explain different PowerBi products?

Answer:

* Data management: Ingesting various data structures, including relational data, big data, streaming data.
* Analytics: Through ML models created in Azure Machine Learning Studio.
* Reporting: Distributing reports preconfigured by analysts across the company. Periodically delivering reports with the preset values defined by data analysts, BA, etc. at scheduling.
* Visualization: Presenting a comprehensive visual snapshot of business-critical information in a single location.
* Security: For data in transit and at restwithMicrosoft-managed encryption keys or the ‘bring your own key’ approach.

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

* Answer: Main differences between Excel and Power BI
* Excel is used to organize data, transform it and perform mathematical operations and calculations. On the other hand, Power BI was conceived as a business intelligence and [data visualization](https://blog.bismart.com/en/data-visualization-with-power-bi) tool for businesses.
* Excel has limitations in the amount of data it can work with. In contrast, Power BI can handle much larger amounts of data.
* Power BI can connect to a large number of data sources, while Excel's connectivity capacity is limited. Also, unlike Excel, Power BI can be easily used from mobile devices.
* Power BI has faster processing than 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.
* Power BI is a more powerful tool than Excel in terms of comparison between tables, reports or data files.
* Power BI is more user friendly and easy to use than Excel.

1. Explain Power Query?

Answer: 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.

1. Explain Power Map?

Answer: Microsoft Power Map for Excel is a three-dimensional (3-D) data visualization tool that lets you look at information in new ways. A power map lets you discover insights you might not see in traditional two-dimensional (2-D) tables and charts.

With Power Map, you 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 other people. You’ll want to use Power Map to:

* Map data: Plot more than a million rows of data visually on Bing maps in 3-D format from an Excel table or Data Model in Excel.
* Discover insights: Gain new understandings by viewing your data in geographic space and seeing time-stamped data change over time.
* Share stories: Capture screenshots and build cinematic, guided video tours you can share broadly, engaging audiences like never before. Or export tours to video and share them that way as well.

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

Answer: Modernizing and creating deeper integrations with SharePoint the [Power BI web part for SharePoint Online](https://docs.microsoft.com/power-bi/service-embed-report-spo) and an updated [Reporting Services Report Viewer web part](https://blogs.msdn.microsoft.com/sqlrsteamblog/2017/09/22/embed-paginated-reports-into-sharepoint-using-the-report-viewer-web-part/) for SharePoint on-premises. Customers like the flexibility this gives them to build highly-customized SharePoint experiences using their BI content.

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

Answer: The latest version has more robust features, and it is famous with the name Power BI Desktop. This is an all in one solution for Power View, Power Pivot, and Power Query in the backend. Power BI offers many add-ins for Excel, which is useful for better visualizations.