**Power BI Assignment 2**

1. Explain the advantages of Natural Queries in PowerBi with an example?

Sometimes the fastest way to get an answer from your data is to perform a search over your data using natural language. The Q&A feature in Power BI lets you explore your data in your own words using natural language. Q&A is interactive, even fun. Often, one question leads to others as the visualizations reveal interesting paths to pursue. Asking the question is just the beginning. Travel through your data, refining or expanding your question, uncovering new information, zeroing in on details, or zooming out for a broader view. The experience is interactive and fast, powered by an in-memory storage.

1. Explain Web Front End (WFE) cluster from Power BI Service Architecture?

The Power BI service architecture is based on two clusters – the Web Front End (WFE) cluster and the Back-End cluster. The WFE cluster manages the initial connection and authentication to the Power BI service, and once authenticated, the Back-End handles all subsequent user interactions

1. Explain Back End cluster from Power BI Service Architecture?

The Back-End cluster is how authenticated clients interact with the Power BI service. The Back-End cluster manages visualizations, user dashboards, datasets, reports, data storage, data connections, data refresh, and other aspects of interacting with the Power BI service.

1. What ASP.NET component does in Power BI Service Architecture?

The ASP.NET component within the WFE cluster parses the token to determine which organization the user belongs to, and then consults the Power BI Global Service. The WFE specifies to the browser which back-end cluster houses the organization's tenant.

1. Compare Microsoft Excel and PowerBi Desktop on the following features:

Data import:

Power BI has faster processing than Excel.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.

Data transformation:

Power BI is a more powerful tool than Excel in terms of comparison between tables, reports or data files.

Modelling:

Excel has limitations in the amount of data it can work with. In contrast, Power BI can handle much larger amounts of data.

Reporting

Excel is Ideal for creating reports in tabular format, rather creating a tabular report in BI is much limited.

Server Deployment

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.

Convert Models:

Excel uses MDX language, Power Bi uses DAX language.

Cost

Excel isn’t free, but BI has a free version as well as paid version.

1. List 20 data sources supported by Power Bi desktop.

* Excel Workbook
* Text/CSV
* XML
* JSON
* Folder
* PDF
* Parquet
* SharePoint folder
* SQL Server database
* Access database
* SQL Server Analysis Services database
* Oracle database
* IBM Db2 database
* IBM Informix database (Beta)
* IBM Netezza
* MySQL database
* PostgreSQL database
* Sybase database
* Teradata database
* SAP HANA database