Power BI Assignment 2

1. Explain the advantages of Natural Queries in PowerBi with an example?
   Ans:- The natural queries 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 in-memory storage.

2. Explain Web Front End(WFE) cluster from Power BI Service Architecture?
   Ans:- **Web Front End cluster:-** it uses Azure AD to authenticate clients, and provide tokens for subsequent client connections to the Power BI service. Power BI uses the Azure Traffic Manager (Traffic Manager) to direct user traffic to the nearest datacenter. And Traffic Manager directs requests using the DNS record of the client attempting to connect, authenticate, and to download static content and files. Power BI uses the Azure Content Delivery Network (CDN) to efficiently distribute the necessary static content and files to users based on geographical locale.

3. Explain Back End cluster from Power BI Service Architecture?
   Ans:- **Back-End cluster:-** it determines 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.

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

Data import

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.

Data transformation

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 tool for businesses.
Power BI has faster processing than Excel.
Power BI dashboards are more visually appealing, interactive and customizable than those in Excel.

Modeling:-

Excel is totally focused on structured and simple data models with a wide range of features.
Power BI is really focused on data ingest and building potentially complex data models easily.

Reporting

Excel:- Reports available are limited to specific users.
Power BI:- Reports available to a broad range of readers with varying degrees of tech savvy.

Convert Models

Power BI offers wide ranges of options for making models whereas in excel the option i.e charts, graphs is limited.
Power BI dashboards are more interactive and custom while **Microsoft Excel** dashboards are not much interactive.

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

    Ans:-   The List of data source are following:-

1. Excel
2. Text/CSV
3. XML
4. JSON
5. Oracle Database
6. IBM DB2 Database
7. MySQL Database
8. PostgreSQL Database
9. Sybase Database
10. Teradata Database
11. SAP HANA Database
12. SAP Business Warehouse server
13. Amazon Redshift
14. Impala
15. Google BigQuery (Beta)
16. Azure SQL Database
17. Salesforce Reports
18. Google Analytics
19. Facebook
20. GitHub