Power BI Assignment 2

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

   Ans: Natural Queries in PowerBi can understand and interpret user queries in English language or other languages. It helps in faster work flow, time saving, faster decision making etc. For example, if a user wants to fetch an enquiry stored in a data query instead of traditonl method where the user has manual look for a table then column and row or in visual, he simply has to type or speak "Show me the total sales for the east branch in 2022"

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

   Ans: Web Front End (WFE) cluster in the Power BI Service architecture is used for serving the web-based interface to users for big data availability, scalability, security, and performance optimization. It is very important in delivering an easy and responsive experience for Power BI users. We can easy load data and use merge append or relate table like function in scaling data and use normalisation [practice to reduce data redundancy for the optimal performance of powerBi.

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

   Ans: The Back End cluster in the Power BI Service architecture is the processing, storing of data, and modelling of data takes place. It ensures that users can access and work with their data effectively while maintaining data security, reliability, and performance. It is very important in maintain high efficiency when working with large data and also helps in keeping it secure and easy collaborate as per need.

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

   Ans: ASP.NET components within the Power BI Service architecture are responsible for managing user interactions, serving the web-based interface, ensuring security, and handling the routing of requests to various backend components. ASP.NET plays a crucial role in creating a responsive and secure web environment for users to access and interact with their Power BI reports and dashboards.

5. Compare Microsoft Excel and PowerBi Desktop on the following features:
   Data import
   Data transformation
   Modeling
   Reporting
   Server Deployment
   Convert Models
   Cost

ANS 5: Compare Microsoft Excel and PowerBi Desktop,

Features	Microsoft Excel	PowerBI Desktop
Data Import	Includes databases, CSV files, web services, and more. data import can be manual, and handling large datasets may be less efficient.	Offers a wide range of data sources to import. It provides tools like Power Query for efficient data import, allowing you to connect to data sources, perform data transformations, and load data into your models easily.
Data Transformation	offers basic data transformation capabilities, such as filtering, sorting, and basic calculations.	excels in data transformation with Power Query. It provides a user-friendly interface for cleaning, shaping, and transforming data. Complex data transformations and merging of multiple data sources at ease.
Modeling	limited modeling capabilities for building data models. It supports PivotTables and Pivot Charts for basic analysis.	designed for advanced modeling. It allows you to create relationships between tables, define measures and calculated columns, and build hierarchies
Reporting	static reports and dashboards. While it provides charting and visualization tools, creating interactive and dynamic reports	designed for creating interactive and dynamic reports and dashboards. It offers a wide range of visualization options, custom visuals, and interactivity features, making it ideal for data storytelling and exploration.
Server Deployment	Excel files can be shared via email or stored on shared drives, but true server-based deployment and collaboration are limited.	Power BI offers a dedicated cloud service for server-based deployment. Reports and dashboards created in Power BI Desktop can be published to the Power BI Service, enabling collaboration, sharing
Convert Models	Excel models can be converted into Power BI models, but the process is time consuming, manual adjustments required.	Power BI Desktop models can be easily published to the Power BI Service for sharing and collaboration
Cost	Excel is typically included in Microsoft Office suites, and costs changes based on licensing options.	Power BI Desktop is free to download and use for creating reports and models. Costs only required when you want to publish and share reports through the Power BI Service

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

Ans: 20 data sources supported by Power Bi desktop Are as Following:

1. Excel
2. Folder
3. CSV Files
4. MySQL
5. SQL Server
6. Azure SQL Database
7. Oracle Database
8. PostgreSQL
9. Web Content
10. SharePoint
11. JSON
12. Azure Data Lake Storage
13. Azure Blob Storage
14. Hadoop Distributed File System (HDFS)
15. Web APIs
16. SAP HANA
17. MongoDB
18. Google Analytics
19. Salesforce
20. Azure Services