**Power BI Assignment 2**

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

🡪 Natural Language Query (NLQ) in Power BI allows users to ask questions about their data using everyday language, making data analysis more accessible, efficient, flexible, and intuitive. For example, a user can ask, "Show me sales for iPhones in 2022," and instantly receive relevant visualizations without needing to write complex queries.

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

-🡪 The Web Front End (WFE) cluster in Power BI Service Architecture consists of multiple servers that handle user requests, render Power BI content in web browsers, and ensure high availability and scalability through load balancing. Its main role is to deliver a responsive and reliable user experience by distributing traffic evenly and processing user interactions efficiently.

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

The Back End cluster in Power BI Service Architecture manages data processing, dataset management, calculation engine tasks, security, authentication, and administration. It forms the backbone of the Power BI environment, handling tasks related to data ingestion, transformation, storage, user authentication, and system monitoring.

1. Top of Form
2. What ASP.NET component does in Power BI Service Architecture?

-🡪 ASP.NET component in Power BI Service Architecture handles web application functionality, including user authentication, authorization, session management, and rendering Power BI content in web browsers.

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

Data import

Data transformation

Modeling

Reporting

Server Deployment

Convert Models

Cost

1. Data import:
   * Excel: Basic import from various sources.
   * Power BI: Extensive import options with advanced connectors.
2. Data transformation:
   * Excel: Basic transformation using functions.
   * Power BI: Robust transformation with Query Editor.
3. Modeling:
   * Excel: Basic modeling with tables and relationships.
   * Power BI: Advanced modeling with relationships and calculations.
4. Reporting:
   * Excel: Basic reporting with worksheets and charts.
   * Power BI: Advanced reporting with interactive visualizations and dashboards.
5. Server Deployment:
   * Excel: Limited for individual sharing.
   * Power BI: Designed for enterprise-level deployment.
6. Convert Models:
   * Excel: Limited conversion capability.
   * Power BI: Allows conversion into Excel files.
7. Cost:
   * Excel: Part of Office suite, subscription-based.
   * Power BI: Free with additional features in paid plans.
8. List 20 data sources supported by Power Bi desktop.
9. -🡪 Excel (xls, xlsx)
10. CSV (Comma Separated Values)
11. SQL Server Database
12. Azure SQL Database
13. SQL Server Analysis Services (SSAS)
14. Oracle Database
15. IBM Db2 Database
16. MySQL Database
17. PostgreSQL Database
18. Amazon Redshift
19. Google BigQuery
20. Snowflake
21. Microsoft Access Database
22. SharePoint Online List
23. Web Data Sources (HTML, XML, JSON)
24. OData Feed
25. Salesforce
26. Dynamics 365
27. Google Analytics
28. Facebook