**Power BI Assignment 2**

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

Ans: Advantages of Natural Queries in Power BI:

* Natural queries allow users to ask questions using natural language, making it easier for non-technical users to interact with data and obtain insights.
* Users can ask questions in plain language, such as "show sales by region" or "compare revenue between different products."
* Natural queries help reduce the learning curve associated with data analysis tools, enabling users to quickly access relevant information without needing to know complex query languages or data structures.
* Example: A sales manager can ask, "What are the top-selling products in the last quarter?" and Power BI will generate a report or visualization showing the top-selling products based on sales data.

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

Ans: Web Front End (WFE) Cluster in Power BI Service Architecture:

* The Web Front End (WFE) cluster is responsible for handling client requests and serving Power BI content to users through web browsers or mobile devices.
* It includes components such as web servers, load balancers, and caching mechanisms to ensure high availability and performance.
* The WFE cluster interacts with the Back End cluster to retrieve and render reports, dashboards, and other content requested by users.

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

Ans: Back End Cluster in Power BI Service Architecture:

* The Back End cluster is responsible for storing, processing, and managing data and metadata in the Power BI service.
* It includes components such as data storage services, data processing engines, and metadata repositories.
* The Back End cluster handles tasks such as data refreshes, query processing, and security enforcement to ensure data integrity and reliability.

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

Ans: ASP.NET Component in Power BI Service Architecture:

* The ASP.NET component is a framework used for building web applications and services in the Power BI service architecture.
* It provides the infrastructure and libraries for developing and hosting web applications, including the Power BI web portal and interactive dashboards.
* ASP.NET handles user authentication, session management, and routing of requests to the appropriate backend services in the Power BI environment.

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

Data import:

Both Excel and Power BI Desktop support importing data from various sources, but Power BI Desktop offers more advanced data connectivity options and transformation capabilities.

Data transformation:

Power BI Desktop provides more robust data transformation capabilities compared to Excel, including support for data shaping, cleansing, and modelling

Modeling:

Power BI Desktop offers more sophisticated data modeling features, such as relationships, DAX calculations, and hierarchies, compared to Excel.

Reporting:

While both Excel and Power BI Desktop support creating reports and visualizations, Power BI Desktop offers more advanced visualization options and interactive features.

Server Deployment:

Power BI Desktop is designed for creating reports and models locally, while Excel can be used with SharePoint or Power BI Service for server deployment and collaboration.

Convert Models:

Power BI Desktop allows users to convert Excel models into Power BI datasets, providing a seamless transition between the two platforms.

Cost:

Power BI Desktop is available for free, while Excel is part of the Microsoft Office suite and requires a license for access to advanced features.

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

Ans:

1. Excel files
2. CSV files
3. SQL Server databases
4. Oracle databases
5. MySQL databases
6. PostgreSQL databases
7. SharePoint lists
8. Salesforce
9. Dynamics 365
10. Google Analytics
11. Web pages
12. JSON files
13. XML files
14. OData feeds
15. Azure services (Azure SQL Database, Azure Blob Storage, etc.)
16. Hadoop files (HDFS)
17. SAP HANA
18. Teradata
19. MongoDB
20. PDF files