**Power BI Assignment 2**

1. Explain the advantages of Natural Queries in PowerBi with an example?
2. With Power BI's natural queries, you can ask questions in everyday language to explore your data. For example, you could ask, "What were the total sales for each product category last month?" Power BI will understand the question and instantly provide a clear visual showing the sales for each category.
3. Explain Web Front End (WFE) cluster from Power BI Service Architecture?
4. Web Front End (WFE) cluster in Power BI Service Architecture acts as the face of the Power BI web interface. It receives requests from users accessing the Power BI web portal, handles user authentication, renders web pages, and ensures a smooth and interactive experience for users interacting with Power BI.
5. Explain Back End cluster from Power BI Service Architecture?
6. The Back End cluster in Power BI Service Architecture handles tasks like data processing, storage, and query processing. It manages the storage of data, performs calculations and transformations, and ensures that data is updated and available for generating reports and dashboards in the Power BI Service.
7. What ASP.NET component does in Power BI Service Architecture?
8. The ASP.NET component in Power BI Service Architecture is responsible for building and deploying the Power BI web application. It handles communication between the user's web browser and the Power BI Service, renders the user interface, and manages user authentication, authorization, and session management.
9. Compare Microsoft Excel and PowerBi Desktop on the following features:

Data import

Data transformation

Modelling

Reporting

Server Deployment

Convert Models

Cost

Data Import:

Excel: You can import data from various sources like databases, files, and web pages.

Power BI Desktop: It offers extensive data connectivity options to import data from multiple sources, including databases, cloud services, and files.

Data Transformation:

Excel: Basic data transformation capabilities like sorting, filtering, and basic formulas.

Power BI Desktop: Advanced data transformation features with Power Query, allowing merging, appending, and complex transformations.

Modelling:

Excel: Basic modelling capabilities through formulas and basic relationships.

Power BI Desktop: Advanced modelling with DAX language, relationships, hierarchies, measures, and calculated tables.

Reporting:

Excel: Basic reporting capabilities with charts, tables, and conditional formatting.

Power BI Desktop: Interactive and dynamic reporting with a wide range of visualizations, filtering, drill-through, and collaboration features.

Server Deployment:

Excel: Files stored and shared through file servers, email attachments, or cloud storage.

Power BI Desktop: Publish reports to Power BI service for centralized sharing, collaboration, and real-time data refresh.

Convert Models:

Excel: No direct conversion to Power BI models.

Power BI Desktop: Power BI models can be exported to Excel, but with limited functionality.

Cost:

Excel: Part of Microsoft Office suite, cost depends on the specific edition or subscription plan.

Power BI Desktop: Free to download and use, but Power BI Pro license required for advanced features and collaboration, with a subscription cost.

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

Excel Workbook

CSV (Comma Separated Values) files

SQL Server Database

Oracle Database

MySQL Database

PostgreSQL Database

Amazon Redshift

Azure SQL Database

SharePoint List

Dynamics 365

Salesforce

Google Analytics

Azure Data Lake Storage

SharePoint Online

Web (HTML, XML, JSON)

OData Feed

Hadoop File (HDFS)

Azure Blob Storage

Teradata Database

SAP HANA