**Power BI Assignment 2**

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

The Q&A feature in Power BI lets you explore your data in your own words by 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 an in-memory storage.

For example, if you enter 'Sales by year', Q&A detects that year is a date field and always prioritizes placing this field on the X axis. If you want to change the visualization type, enter 'as *chart type*' after the question.

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

The WFE cluster manages the authentication and initial connection to the PowerBI service, and once authenticated, the Back-End handles all subsequent user interactions.

PowerBI uses Azure Active Directory (AAD) to store and manage user identities and store data and metadata using Azure SQL Database and Azure Blob, respectively.

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

The **Back-End** cluster authenticates the clients to interact with the Power BI service. The **Back-End** cluster manages user dashboards, reports, visualizations, datasets, data storage, data refresh, data connections, and other aspects of interacting with the Power BI service.

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

The Power BI REST APIs provide service endpoints for embedding, user resources management, administration and governance.

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

EXCEL POWER BI

Data import Cloud and/or on-premises Cloud and/or on-premises

Data transformation have duplicates remove duplicates

Modelling quickly structured

Reporting simple,less appealing customized, interactive

Convert Models complex simple and slice models

Cost payment tool free version and payment

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

SQL Server database

Access database

SQL Server Analysis Services database

Oracle database

IBM Db2 database

IBM Informix database (Beta)

IBM Netezza

MySQL database

PostgreSQL database

Sybase database

Teradata database

SAP HANA database

SAP Business Warehouse Application Server

SAP Business Warehouse Message Server

Amazon Redshift

Impala

Google BigQuery

Google BigQuery (Azure AD)(Beta)

Vertica

Snowflake

Essbase

Actian (Beta)

Amazon Athena

AtScale cubes

BI Connector

Data Virtuality LDW

Denodo

Dremio Software

Dremio Cloud (Beta)

Exasol

Indexima

InterSystems IRIS (Beta)

Jethro (Beta)

Kyligence

Linkar PICK Style / MultiValue Databases (Beta)

MariaDB

MarkLogic

TIBCO® Data Virtualization