Power BI Assignment 2

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

   Power BI's use of natural language queries also prevents the need for users to learn a complex query language. Collectively, a range of functionality that enhances your ability for self-service.

   The Natural Language Query is an advanced feature that can find almost any insight. It's continually being improved.

   The Q&A feature in Power BI lets you explore your data in your own words using natural language

   Fast and Increased efficiency

   Example -Ask natural questions Which sales has the highest revenue?

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

   The front end also called the web front-end cluster acts as an intermediary between clients and the back end. The front end services are used for establishing an initial connection and authenticating clients using Azure Active Directory.

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

   Back end take care of visualizations, datasets, storage, reports, data connections, data refreshing, and other interactions with power BI. at the back-end, a web client has only two direct points of interaction, Azure API management, and gateway Role. these two components are responsible for load balancing, authentication, authorization, routing, etc

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

   There are multiple options to embed power BI reports using ASP.NET Core. IFrame solution was simple and straightforward – just copy markup from power BI portal, paste it to ASP.NET Core view and you are done. with C# and JavaScript our solution was more complex and we had to write more code. Still we were able to make report available for all authenticated users in application that doesn't use Azure AD.

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

   Data Import
   Data transformation
   Modelling
   Reporting
   Server Deployment
   Convert Models
   Cost

Points	Microsoft Excel	Power BI
Data Import	Excel has limitations in the amount of data it can work with. Excel's connectivity capacity is limited	Power BI can handle much larger amounts of data. Power BI can connect to a large number of data sources
Data transformation	Excel transform data takes more time to perform as compare to Power BI	Power BI transform data can be performed very quickly and smoothly
Modelling	Excel is not made for these purposes. drag and drop features, advanced filters can not done in excel.	Power BI can cope with very complex modelling if you're looking to build a complex data model. Power BI Desktop offers users the ability to perform modelling with ease using drag and drop features and advanced filters.
Reporting	Excel doesn't offer as much support for sharing and collaborating on reports.	Reports can be viewed across multiple devices, and Power BI makes it easy to share reports with your team members, even if they

		don’t have Power BI themselves.
Server Deployment	It is hosted on cloud or on - premises	The ODT is a command-line tool that you can use to download and deploy Click-to-Run versions of Office, such as Microsoft 365 Apps for enterprise, to your client computers.
Convert Models	Works with simple and structured data models. MDX language is used	Ideal for quickly creating complex data models.DAX language is used
Cost	Excel is included in the Microsoft 365 Business Standard package and costs £9.40 per user per month. You also get a host of other software, including Outlook, Word, Teams and Exchange.	There are 4 Power BI subscriptions to choose from, including: • Power BI Pro Free Trial • Power BI Pro – $9.99 per user, per month • Power BI Premium Per User – $20 per user, per month • Power Bi Premium Per Capacity – $4,996 per capacity, per month

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

1.Excel
2.Text/CSV
3.XML
4.JSON
5.Pdf
6.Parquet
7.Sharepoint folder
8.Sql server database
9.Access database
10.Oracle database

11.SAP Hana
12.Teradata database
13.Mysql database
14.IBM netezza
15.IBM DB2 Database
16.Amazon Redshift
17.Sybase database
18.PostgreSql database
19.IBM Informix database
20.Imphala