
Power BI Assignment 2

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

ANSWER :-

A natural language query is input that consists solely of terms or phrases spoken normally or entered as they might be spoken, without any non-language characters, such as the plus symbol or the asterisk, and without any special format or alteration of syntax.

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

ANSWER :-

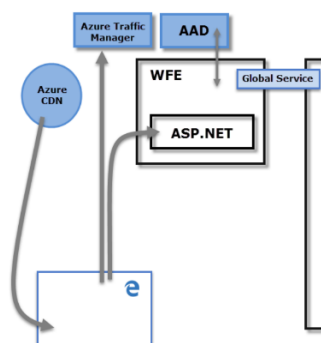
The Power BI service is built on Azure, Microsoft's cloud computing infrastructure and platform. The architecture of the Power BI service is based on two clusters:

- The Web Front End (WFE) cluster.
- The Back-End cluster. Once authenticated, the Back-End handles all subsequent user interactions.

Power BI uses Azure Active Directory (Azure AD) to store and manage user identities. Azure AD also manages data storage and metadata using Azure BLOB and Azure SQL Database, respectively.

Web Front End (WFE) cluster

The WFE cluster manages the initial connection and authentication to the Power BI service. The WFE cluster uses Azure AD to authenticate clients, and provide tokens for subsequent client connections to the Power BI service. Power BI uses the Azure Traffic Manager (Traffic Manager) to direct user traffic to the nearest datacenter. Traffic Manager directs requests using the DNS record of the client attempting to connect, authenticate, and to download static content and files. Power BI uses the Azure Content Delivery Network (CDN) to efficiently distribute the necessary static content and files to users based on geographical locale.

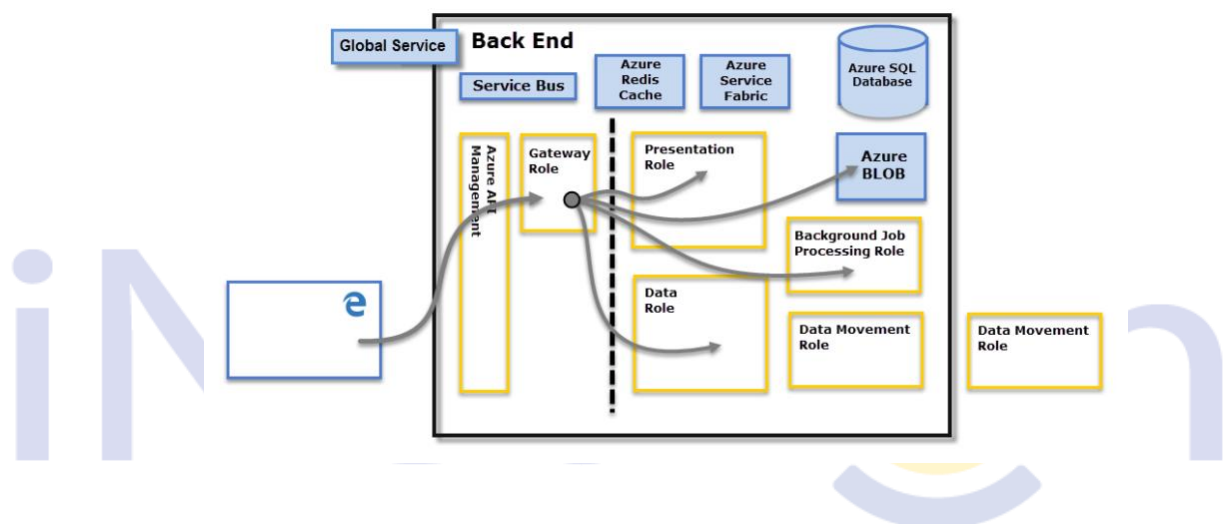


3. Explain Back End cluster from Power BI Service Architecture?

ANSWER:-

Back End cluster

The **Back-End** cluster. Once authenticated, the **Back-End** handles all subsequent user interactions. The Back-End cluster determines how authenticated clients interact with the Power BI service. The Back-End cluster manages visualizations, user dashboards, datasets, reports, data storage, data connections, data refresh, and other aspects of interacting with the Power BI service. The Gateway Role acts as a gateway between user requests and the Power BI service. Users don't interact directly with any roles other than the Gateway Role. Azure API Management eventually handles the Gateway Role.



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

ANSWER:-

ASP.Net is a perfect tool used for big data analysis and data science integration. Users can benefit a lot from ASP.Net in big data analytics. (.) Net platform, which belongs to Microsoft has extensive functionalities for developing secure applications.

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

	Microsoft Excel	PowerBi Desktop
Data import	Capable of handling a limited dataset.	Capable of handling larger dataset.
Data transformation	It contains the most powerful and cutting-edge charting tools, however it isn't compatible with data models.	Dashboards, alarms, and KPIs work best. Includes richer graphics than Excel and allows for visual data analysis.

Modeling	Excel is totally focused on structured and simple data models with a wide range of features.	Power BI is really focused on data ingest and building potentially complex data models easily.
Reporting	Reports are simpler and less appealing than those in Power BI.	More visually appealing, customized, appealing, and interactive reporting.
Cost	Payment Tool	It has a free version and a payment version.

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

ANSWER :-

- 1 Excel workbook
- 2 Power BI datasets
- 3 Dataflows
- 4 Dataverse
- 5 SQL Server
- 6 Analysis services
- 7 Text/CSV
- 8 Web
- 9 Odata feed
- 10 Blank query
- 11 Power bi template app
- 12 XML
- 13 PDF
- 14 SNOWFLAKE
- 15 Microsoft exchange
- 16 power bi data sets
- 17 Azure data sets insights
- 18 Azure table storage
- 19 SAP HANA DATABASE
- 20 IBM informix database(beta)