

Power BI Assignment 2

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

It provides the fastest way to get an answer from your data is to perform a search over your data using natural language. One of the best example for natural queries is Q&A. Q&A feature in Power BI used to explore data in the own words of our choice by using natural language. Q&A is interactive and one question leads to others as the visualisations reveal interesting paths. Asking the question, travelling through the data, refining or expanding the question, uncovering new information, zeroing in on details, or zooming out for a broader view. The experience is interactive and fast. We can start with the questions which Q&A displays a new screen with suggestions to help you form the question. Once the dashboard is created and submitted to Business stakeholders, stakeholders find it easy to query on their own in the report submitted by the Analyst Team. Power BI shows predictions as user types the query which indeed helps user to query faster and confidently

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

Power BI service Architecture contains two clusters.

- Web Front End cluster (WFE)
- Back end cluster

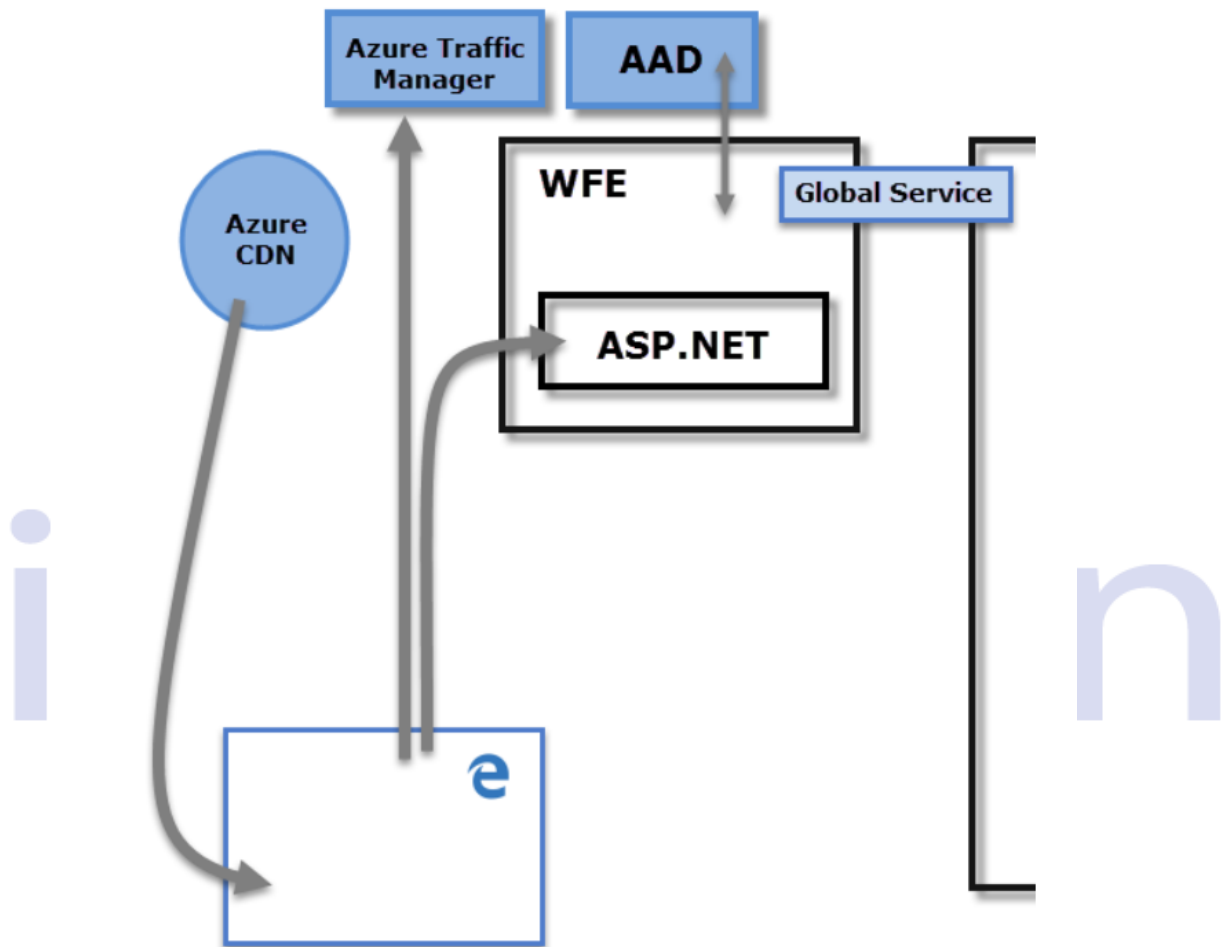
The WFE provides two services to the power BI:

- Initial connection and
- Authentication

The WFE cluster used the AZURE AD to authenticate the clients and provide the tokens for the connections in PowerBI. IT uses the Azure Traffic Manager to direct the user requests to the nearest datacenter. Now the traffic manager directs the incoming requests by reading the DNS of the clients who are all attempting to connect, authenticate etc. Next power BI

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uses Azure Content Delivery Network to deliver the content effectively according to the user geo-locations.

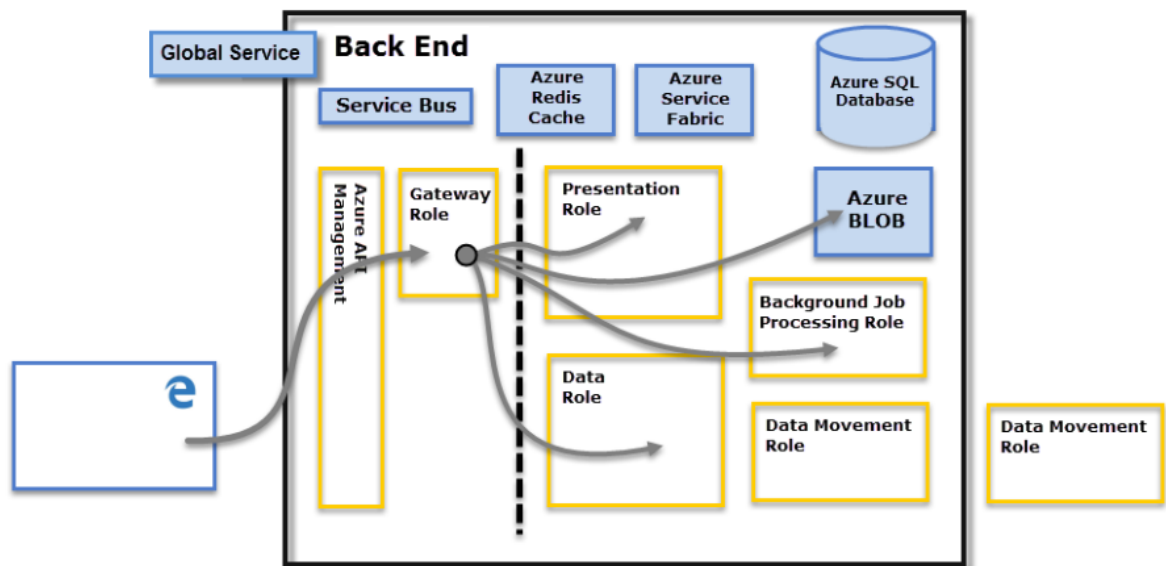


3. Explain Back End cluster from Power BI Service Architecture?

Power BI service Architecture contains two clusters.

- Web Front End cluster (WFE)
- Back end cluster

Backend cluster makes sure how the authenticated clients interact with the powerBI. Backend clusters manage the visualisation, user dashboard, datasets, reports, data storage, data connections, data refresh etc. The Gateway acts as the medium to the user requests and the power BI services. Azure API manages the Gateway Role.



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

When publishing reports and dashboards to workspaces, where stakeholders can interact with them via the Power BI service's front end, ASP.NET component is crucial. Additionally, additional programmes like Microsoft Teams, which integrates BI Application through the ASP.NET framework, can access BI dashboards.

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

- Data import
- Data transformation
- Modelling
- Reporting
- Server Deployment
- Convert Models
- Cost

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Features	Excel	PowerBI
Data import	IT can get the data from limited source	It can get the data from over various sources
Data transformation	Using the power query editor, transformation becomes easier.	Power Query has extra features to achieve the transformation
Modelling	Focus on structured, simple data with a wide range of features.	Made to manage complex data in easier way
Reporting	Reports can be provide in a simple manner	Wide range of features and options to provide the reports
Server Deployment	Can save it in a document	Can publish in the specific platforms and can be accessed by the stakeholders
Convert Models	Complex models cannot be converted and used	models can be converted and used easily
Cost	Since we already have Excel, we need to spend additional money to procure this and build dashboards.	Power BI Desktop is free to download and use for personal use, but it takes \$10 per month per user to share reports with others.

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

- Access database
 - Oracle Database
 - IBM Netezza
 - Mysql Database
 - Postgre Database
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- Teradata Database
- Amazon Redshift
- Impala
- Google Big query
- Vertica
- Snowflake
- Essbase
- Azure SQL Database
- Sharepoint Online list
- Microsoft Exchange online
- Dynamics 365(online)
- Adobe Analytics
- Github(beta)
- LinkedIn Sales Navigator(Beta)
- Twilio(beta)