

Assignment-2.

Q1. Explain the Advantage of Natural Queries in Power BI with an Example?

Ans: The Q & A feature in Power BI is Natural Queries.

→ Q & A is interactive, even for often, one question leads to others as the visualization reveal interesting path to pursue. Asking the question is the just the beginning. Travel through your data, refining or expanding your question, uncovering new info., Zeroing in on details etc.

Eg: Ask natural question which sales has the highest revenue.

Q2. Explain Web Front End (WFE) cluster from Power BI Service Architecture?

Ans: The WFE cluster manages the initial connection and authentication to Power BI Service.

The WFE cluster uses Azure AD to authenticate clients, and provide tokens for subsequent client connection to the Power BI service.

Power BI uses the Azure Traffic Manager to direct user traffic to the nearest datacenter.

Q3: Explain Back End cluster from power BI Service Architecture.

Ans: The Back-End cluster determines how authenticated client interact with power BI services. The Back-End cluster manages visualization, user dashboard, datasets, report, data storage, data connections, data refresh, and other aspects of interacting with the power BI service.

The Gateway Role acts as a gateway b/w user request and power BI service.

Users ^{don't} directly interact with any roles other than the Gateway role.

Gateway Role: Azure AD Management Eventually handles this role.

Q4: What .ASP.NET, Components does in power bi service architecture.

Ans: A WFE cluster consists of an ASP.NET website running in the Azure app service environment. When user attempt to connect the power BI service, the client only service may communicate with the Azure traffic manager to find the most appropriate datacenters with a power BI deployment.

Q5 Compare Microsoft Excel & Power BI Desktop on the following features:-

1) Cost:- Power BI Desktop is free to download and uses for personal use, but it takes \$10 per month user to share reports.

- Since we already have Excel, we ^{do} need to spend additional money to procure this and build dashboard.

2) Data:- Power BI can handle large amount of data with the power pivot engine model.

- Excel are not able to handle large amount of data.

3) Reporting:- Power BI not only has slices but also has a variety of other slicers. Cross filter, report level filter, drill through filter, visual level filter.

- Excel has slices to make the dashboard interactive.

4) Modeling:- In power BI modeling can be done easily in model view.

- Excel have different ways in which we do modeling.

5) Transformation:- In power BI, for transformation of data we have separate tab that is power query editor.

- Excel doesn't have any specific tab for data transformation.

6) Server deployment: Power BI Service support so many things to deploy on web page.

• Excel do not provide functionality of wide range.

7) Converts model \Rightarrow In Power BI we can convert relationship ship b/w the model that is so easy.

• Excel provide this model convert functionality. In excel we do manually data modelling.

Q6. List 20 data source supported by Power BI desktop.

- Ans:
- 1) Excel
 - 2) CSV
 - 3) text
 - 4) XML
 - 5) JSON
 - 6) PDF
 - 7) Folder
 - 8) SharePoint folder
 - 9) parquet
 - 10) SQL Server database
 - 11) Access database
 - 12) Oracle database
 - 13) IBM db2 database
 - 14) IBM Netezza
 - 15) Snowflake
 - 16) Azure
 - 17) Google cloud
 - 18) Amazon S3 bucket
 - 19) MySQL database
 - 20) Web.