Power BI Assignment 2

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

Answer:

* Guided NLQ is a unique self-service BI experience
* Every question is understood by Guided NLQ
* Guided NLQ makes it simple to ask complex questions
* Guided NLQ is integrated throughout Yellowfin
* It’s easy to embed Guided NLQ into your applications

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

Answer: The 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.

1. Explain Back End cluster from Power BI Service Architecture

Answer: 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.

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

Answer: A WFE cluster consists of an ASP.NET website running in the Azure App Service Environment. When users attempt to connect to the Power BI service, the client's DNS service may communicate with the Azure Traffic Manager to find the most appropriate (usually nearest) datacenter with a Power BI deployment. For more information about this process, see Performance traffic-routing method for Azure Traffic Manager.

1. Compare Microsoft Excel and Power BI Desktop on the following features:
   * Data import
   * Data transformation
   * Modelling
   * Reporting
   * Server Deployment
   * Convert Models
   * Cost

Answer:

* Data import: - Power BI also has Power Query; it can fetch data from everywhere. Excel can get data from everywhere with Power Query.
* Data transformation: - Capable of handling a limited dataset. Capable of handling larger dataset.
* Modelling: - 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: - Excel reports are normal and ordinary comparing Power BI. Power BI offers Beautiful branded reports comparing Excel.
* Server Deployment: - Power BI Report Server can be deployed in Azure VMs (hosted cloud) if licensed through Power BI Premium or SQL Server Enterprise with Software Assurance. Once the dashboard building completes in Power BI, we can publish the report to the end-users with Microsoft’s cloud-based services. But, when it comes to Excel, we need to share the large data with the dashboard via email or any online sharing tool.
* Convert Models: - Ability to work on simple structured data models. Ideal for building complex data models.
* Cost: - 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. Since we already have Excel, we need to spend additional money to procure this and build dashboards.

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

Answer:

* SQL Server database
* Oracle database
* IBM Db2 database
* MySQL database
* PostgreSQL database
* Google BigQuery
* Snowflake
* MariaDB
* Azure SQL Database
* Azure Analysis Services database
* SharePoint Online List
* Microsoft Exchange Online
* Google Analytics
* GitHub
* Hadoop File (HDFS)
* Spark
* Hive LLAP
* R script
* Python script
* ODBC