ASSIGNMENT-2

Q: Explain the advantages of natural Queries in power BI with an example?

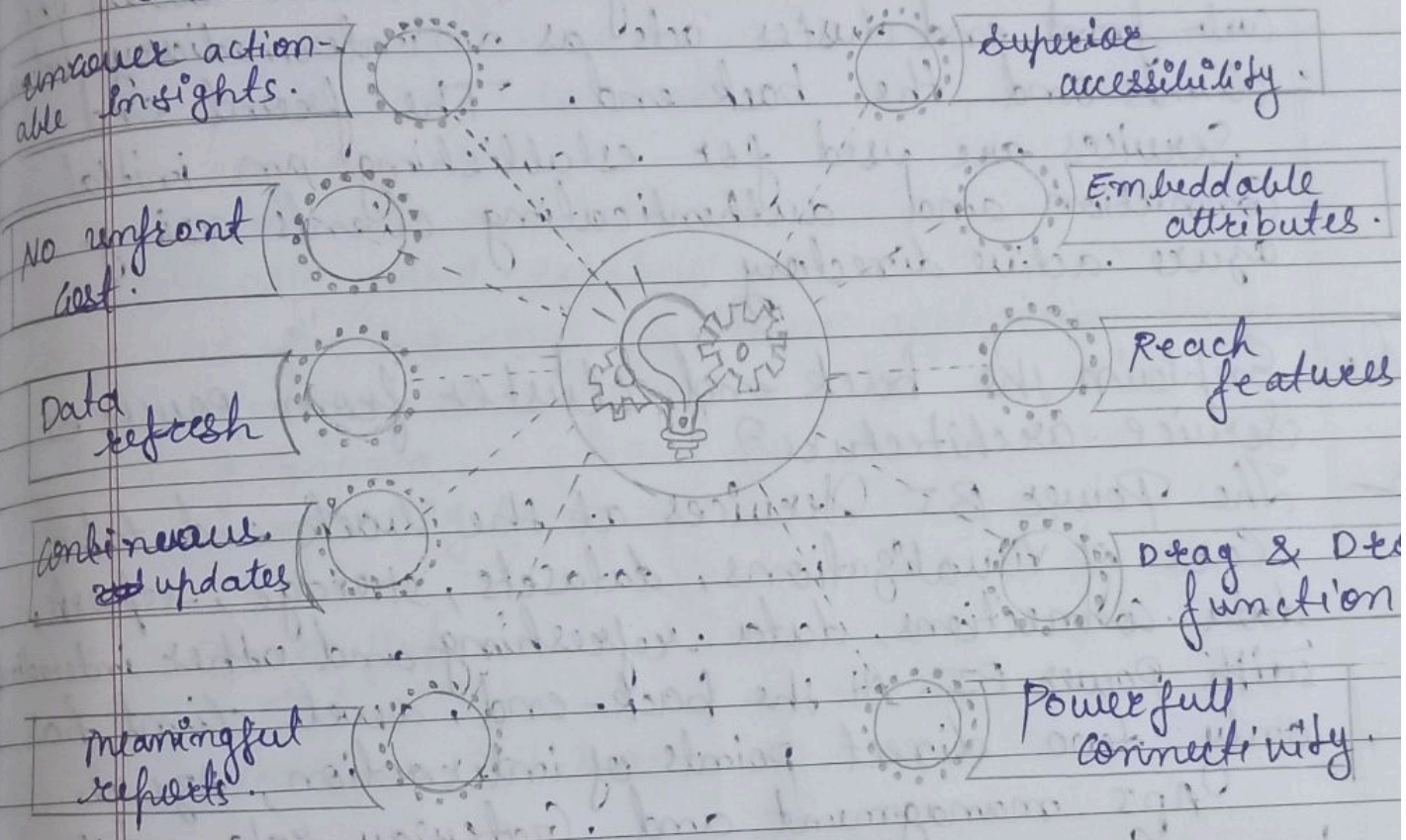
Ans Natural Queries :-

The Q&A feature in power BI lets you explore your data in your own words using natural language, Q&A is an interactive, even fun. Often, one question leads to others as the visualizations reveal interesting paths to pursue. Asking the question is just the beginning. Travel through your data, refining or expanding your question, uncovering new information, zeroing in on details, or zooming out for a broader view.

Advantages :—

- The Q&A function sometimes the fastest way to get an answer from your data is to ask a question using natural language, and that's exactly what Q&A allows users to do.
- Dashboards, reports and datasets are at the heart of power-BI. Users can create personalized dashboards which combine on premises and cloud-born data in a single ~~view~~ view, allowing them to monitor their most important data enterprise wide and from all business apps.
- The ability to easily embed BI and analytics in the apps to deliver interactive reports and geo-map visualizations empowered by being maps.
- Power BI is available in three separate national cloud data centers, each offering the same level of security, privacy, compliance, and transparency as the global version of power BI.

- Very little engineering resources are needed to use power BI. In fact, some instances don't require any engineering at all.
- power BI is simple to use. Even basic users will find it to have a short learning curve.
- Constant innovation. The power BI product is updated nearly every month for new features & functions.



Q. Explain Web front End (WFE) cluster from power BI service architecture?

Ans. The power BI service architecture is based on two clusters - the web front end cluster and the Back-End cluster. The WFE cluster manages the intial connection and authendication to the power BI service, and once authenticated, the Back End handles all subsequent user interactions. 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.

Q. Explain the back end cluster from power BI service architecture?

Ans The Power BI Services at the back end take care of visualizations, datasets, storage, reports, data connections, data refreshing and other interaction with Power BI. At the back-end, a web client has only two direct points of interaction, Azure API managment and Gateway role. These two components are responsible for load balancing authentication, authorization, routing etc.

Q.6 List 20 data sources supported by power BI desktop

Ans Database data sources :-

- SQL Server database.
- Access database.
- SQL Server analysis services database.
- Oracle database.
- IBM Db2 database.
- IBM Informix database (Beta)
- IBM Netezza.
- My SQL database.
- postgre SQL database.
- Sybase database.
- Teradata database.
- SAP HANA database.
- SAP Business warehouse application Server.
- Amazon redshift.
- Impala.
- Google big Query.
- Vertica.
- Snowflake.
- Essbase
- Amazon Athena.

Q: What ASP.NET Component does in power BI service Architecture?

power BI architecture:-

Power BI is a business suite that includes several technologies that work together. To deliver outstanding business intelligence solutions microsoft power BI technology consists of a group of components. Such as:-

- power Query (for data mash-up and transformation)
- power BI desktop (a companion development tool).
- power BI mobile. (for android, ios, windows).
- power pivot. (for in memory tabular data modl)
- power View (for viewing data Viculization).
- power MAP (for visualizing 3D geo-spatial data).
- power Q&A (for natural language Q&A).

In simple terms, a power BI user takes data from various data sources such as files, Azure source, online services, direct query or gateway sources. Then they work with that data on a client development tool such as power BI Desktop. Here, the imported data is cleand and transform according to user's needs.

Once the data is transformed and formatted, it is ready to use in making Visulizations in a report. A report is a collection of visualizations like graphs, charts, tables, filters and slicers.