POWER BI ASSIGNMENT-1

1. What do you mean by BI? Explain.
-BI(Business Intelligence) is a set of processes, architectures, and technologies that convert raw data into meaningful information that drives profitable business actions. It is a suite of software and services to transform data into actionable intelligence and knowledge.

BI has a direct impact on an organization's strategic,tactical and operational business decisions. BI supports fact-based decision making using historical data rather than assumptions and gut feeling.
BI tools perform data analysis and create reports, summaries, dashboards, maps, graphs, and charts to provide users with detailed intelligence about the nature of the business.

2.How Power-BI helps in BI, and how does it help Analysts? Explain.
-Microsoft Power BI is used to find insights within an organization's data. Power BI can help connect disparate data sets, transform and clean the data into a data model and create charts or graphs to provide visuals of the data. All of this can be shared with other Power BI users within the organization.

3.Explain Descriptive analytics?
-Descriptive analytics refers to the interpretation of historical data to better understand changes that occur in a business. Descriptive analytics describes the use of a range of historic data to draw comparisons with other reporting periods for the same company (i.e. quarterly or annually) or with others within the same industry. Most commonly reported financial metrics are a product of descriptive analytics, such as year-over-year (YOY) pricing changes, month-over-month sales growth, the number of users, or the total revenue per subscriber. These measures all describe what has occurred in a business during a set period.

4.Explain Predictive analytics?
-Predictive analytics is a branch of advanced analytics that makes predictions about future outcomes using historical data combined with statistical modeling, data mining techniques and machine learning. Companies employ predictive analytics to find patterns in this data to identify risks and opportunities. Predictive analytics is often associated with big data and data science.

5.Explain perspective analytics?
- Prescriptive analytics is a form of data analytics that tries to answer "What do we need to do to achieve this?"
- It uses machine learning to help businesses decide a course of action based on a computer program's predictions.
- Prescriptive analytics works with predictive analytics, which uses data to determine near-term outcomes.
- When used effectively, it can help organizations make decisions based on facts and probability-weighted projections instead of conclusions based on instinct.
- Prescriptive analytics isn't foolproof, as it's only as effective as its inputs.

6.Write five real-life questions that PowerBi can solve.
-1)ONE-OFF REPORTING IS TIME CONSUMING:
Power BI helps to access your data instantly with less manual work. It can handle a huge amount of data making it easy to decipher using advanced visualizations. It allows you to get data from different data sources by automatically connecting with them, saving you time and effort

2)FINDING SPECIFIC DATA IN LARGE DATA VOLUMES WITH POWER BI:
Power BI, providing the users with an easy search of datasets. Once you have imported a dataset in PBI Desktop, you can access that anytime, from anywhere, as many times as you want. For instance, in the Query Editor, you can go to "View" in the header and select the "Go to Column" to navigate to the column you want.

3)DATA QUALITY:

Power BI helps you quickly identify data quality issues and provides numerous ways to address them. Power Query provides you with exciting features to clean and prepare data for analysis. The data profiling tools can help you remove all the inconsistencies, null values, and data quality problems.

4)LACK OF SECURITY:

Data Security is an essential issue for the adoption of any technology. If data is not secured correctly, it can get lost due to system failure, corrupted by a computer virus, deleted or altered by a hacker. This can lead to consequences like financial loss, reputational damage and loss of your customers.
Power BI overcomes these issues by leveraging Azure Active Directory for authentication and Power BI login credentials to access the resources.

5)UNABLE TO FORESEE FUTURE TRENDS:

Power BI helps in monitoring the processes of the company. It can easily spot trends with the help of the data gathered during monitoring. Data Analysis Expressions (DAX) provides a wide range of functionalities for trends analysis. The trending AI Capabilities of Power BI help you visualize the future using predictive analytics and other such big data tools. This can help businesses foresee any need to recruit more employees, change a specific requirement, or further invest in technology.