**Power BI Assignment 1**

1. What do you mean by BI? Explain.

Ans:- BI is the abbreviation for “Business Intelligence” which is a technology driven process for analysing the data , visualising the data and providing meaningful insights about the data , so that the organization can make better business decisions and can grow.

BI is a combination of analytics, data management, data mining, reporting tools , data visualization tools , which helps the organization to take more data-driven decisions, develop stronger business strategies, increasing sales ,increasing operational efficiency and productivity.

1. Power-BI helps in BI, and how does it help Analysts? Explain.

Ans:- Power Bi has huge impact in today’s business scenarios. The benefits of power bi tool are numerous.Such as-

* It aids management teams in making fast decisions without jeopardizing the company’s profitability.
* Power Bi made data visualization simple. It creates full summary of company data in visual form, with display choices such as tables, charts, maps, graphs. This makes it easier for the team to use.
* Power BI is known for its dashboards, which can be customized to fit your company’s requirements.
* In Power Bi we can import data from a wide range of data sources for analysis . Like – excel, aws, azure, spark, hadoop. It can also connect to data files such as XML ,JSON and SQL server databases and many more.
* Compared to equivalent business intelligence and analytics tools, Power BI is relatively inexpensive and affordable for small and mid-sized businesses.

3.Explain Descriptive analytics?

Ans:- Descriptive analytics is a statistical method which is used to find and summarize historical data in order to identify patterns or meaning.

**Data aggregation** and **data mining** are two techniques used in descriptive analytics to discover historical data.

Data is first gathered and sorted by data aggregation in order to make the datasets more manageable by analysts.

Data mining describes the next step of the analysis which involves a search of the data to identify patterns and meaning.

4.Explain Predictive analytics?

Ans:- Predictive analytics is a category of data analytics aimed at making predictions about future outcomes based on historical data and analytics techniques such as statistical modeling and machine learning.

Predictive analytics draws its power from a wide range of methods and technologies, including big data, data mining, statistical modeling, machine learning, and assorted mathematical processes. Organizations use predictive analytics to sift through current and historical data to detect trends and forecast events and conditions that should occur at a specific time, based on supplied parameters.

5. Explain perspective analytics?

Ans:-**Prescriptive Analytics** can be defined as a type of data analytics that uses algorithms and analysis of raw data to achieve better and effective decisions for a long as well as a short span of time.  It suggests strategy over possible scenarios, accumulated statistics, and past/present databases collected through the consumer’s community.

6. Write five real-life questions that Power Bi can solve.

Ans:-Five real-life questions that Power Bi can solve are:-

* **Easy Interaction with Existing Applications:** Power BI makes it far easier to implement analytics and reporting abilities since it seamlessly connects with your current business environment.
* **Customized Dashboards:** The information dashboard can be tailored to meet the demands of a company. The application can simply include Power BI dashboards and reports to create a smooth user experience.
* **Advanced Analytics with R Integration:**R programming language has several packages focusing on data mining and visualization. Data scientists employ R programming language for machine learning, statistical analysis, and complex data modeling. Data models created in R may be easily integrated into Power BI dashboards and turned into visualizations.
* **No Storage or Performance Limits:** There are no memory or speed constraints when migrating an existing BI system to a robust cloud environment with Power BI integrated, ensuring that data can be fetched and analyzed efficiently.
* **Securely published reports:**Power BI enables automatic data refresh and publishes reports securely, allowing users to access the most up-to-date data.