**Power BI Assignment 1**

1. What do you mean by BI? Explain.

Ans. Business Intelligence is a process by which companies uses strategies and technologies for analyzing current and historical data, with the objective of improving strategic decision making and providing a competitive advantage.

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

Ans. Power BI is a BI and data visualization tool that leverages visual analytics to empower people and organizations in making the most of their data. The engaging visualizations created in Power BI take the excel workflow to the next level and help stakeholders make sense of the massive amounts of data available.

Analysts can use it to provide real-time insights across your organisation in three steps:

* Connect,prepare and model - Connect to and transform data with advanced data preparation capabilities.
* Visualize - Create interactive data visualizations and uncover important insights.
* Publish and share - Publish dashboards and share insights to drive informed action throughout your organization.

1. Explain Descriptive analytics?

Ans. Descriptive analytics is a type of data analytics that looks at past data to give an account of what has happened. Results are typically presented in reports, dashboards, bar charts and other visualizations that are easily understood.

Descriptive analytics uses various statistical analysis techniques(For ex. Central Tendency) to slice and dice raw data into a form that allows people to see patterns, identify anomalies, improve planning and compare things. Enterprises realize the most value from descriptive analytics when using it to compare items over time or against each other.

Descriptive analytics are commonly used for the following:

* financial reports
* planning a new program
* measuring effectiveness of a new program
* understanding sales trends
* comparing companies
* motivating behavior with KPIs
* recognizing anomalous behavior
* interpreting survey results

Steps in descriptive analystics : Quantify goals, Identify relevant data, Organize data, Analysis, Presentation

1. Explain Predictive analytics?

Ans. Predictive analytics is the use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data.

1. Explain perspective analytics?

Ans. **Prescriptive analytics** is the process of using data to determine an optimal course of action. By considering all relevant factors, this type of analysis yields recommendations for next steps. Because of this, prescriptive analytics is a valuable tool for data-driven decision-making. Machine-learning algorithms are often used in prescriptive analytics.

It can be used in investment decisions , content recommendation , fraud detection etc.

1. Write five real-life questions that PowerBi can solve.

* Lack of security

If data is not secured correctly, it can get lost due to system failure, virus, deleted or altered by a hacker this can leads to financial and reputational loss.

Power BI overcomes these issues by providing login credentials and Row-level security by which you can grant permission to some peoples.

* Waiting on figures

Having to hold off on major business decisions because you’re unable to collect figures from a colleague or find numerous reports on a server to find what you may need is unacceptable now. Power BI allows you to access your company’s data analystics almost instantly, on top of that also makes the data easy to understand by advanced visualizations .

* Easy Spot on figures

PnL, Revenue , Sales figures which was very hectic in terms of excel sheet now with the aid of Power BI You can see it in much simpler form.

* Future Trends

Trends keep on changing so prediction of future trends is an essential task as it give businesses an edge and helps them stay ahead of their competition.

* Data Quality isuues

Everyone wants to use high-quality data for their analysis as poor data quality leads to inaccurate results and busiess strategies. 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.