**Power BI Assignment 1**

1. What do you mean by BI? Explain.

Business intelligence (BI) is a technology-driven process for analyzing data and delivering actionable information that helps executives, managers and workers make informed business decisions. As part of the BI process, organizations collect data from internal IT systems and external sources, prepare it for analysis, run queries against the data and create data visualizations, BI dashboards and reports to make the analytics results available to business users for operational decision-making and strategic planning.

The ultimate goal of BI initiatives is to drive better business decisions that enable organizations to increase revenue, improve operational efficiency and gain competitive advantages over business rivals. To achieve that goal, BI incorporates a combination of analytics, data management and reporting tools, plus various methodologies for managing and analyzing data.

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

Microsoft’s Power BI is a data visualization platform used primarily for business intelligence purposes. Designed to be used by business professionals with varying levels of data knowledge, Power BI’s dashboard is capable of reporting and visualizing data in a wide range of different styles, including graphs, maps, charts, scatter plots, and more. Power BI's "AI Insights" functionality, meanwhile, uses artificial intelligence to find insights within data sets for users.

Ease of Use.

Ease of Learning.

Ease of Collaboration.

Cost effective.

Wide Coverage of Data sources

1. Explain Descriptive analytics?

Descriptive analytics is the process of using current and historical data to identify trends and relationships. It’s sometimes called the simplest form of data analysis because it describes trends and relationships but doesn’t dig deeper.

Descriptive analytics is especially useful for communicating change over time and uses trends as a springboard for further analysis to [drive decision-making](https://online.hbs.edu/blog/post/data-driven-decision-making).

**5 EXAMPLES OF DESCRIPTIVE ANALYTICS**

1. Traffic and Engagement Reports
2. Financial Statement Analysis
3. Demand Trends
4. Aggregated Survey Results
5. Progress to Goals
6. Explain Predictive analytics?

Predictive analytics is the process of using data to forecast future outcomes. The process uses data analysis, machine learning, artificial intelligence, and statistical models to find patterns that might predict future behavior. Organizations can use historic and current data to forecast trends and behaviors seconds, days, or years into the future with a great deal of precision.

Below are some of the Industries where predictive analytics is higly used.

1. Healthcare
2. Manufacturing
3. Finance
4. Insureance
5. SaaS
6. Explain perspective analytics?

Prescriptive analytics is a type of data analytics that attempts to answer the question "What do we need to do to achieve this?" It involves the use of technology to help businesses make better decisions through the analysis of raw data. Prescriptive analytics specifically factors information about possible situations or scenarios, available resources, past performance, and current performance, and suggests a course of action or strategy. It can be used to make decisions on any [time horizon](https://www.investopedia.com/terms/t/timehorizon.asp), from immediate to long-term. It is the opposite of descriptive analytics, which examines decisions and outcomes after the fact.

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

Below are few challenges the business world faces and how Power BI played its role in overcoming them.

1. One-off reporting is time consuming
2. Finding specific data in large data volumes with power BI
3. Data Quality
4. Lack of security
5. Unable to foresee future trends
6. Only tech teams can create business reports