

# Power BI Assignment 1

## 1. What do you mean by BI? Explain.

Ans : BI, short for Business Intelligence, encompasses a spectrum of technologies, methodologies, and practices aimed at extracting insights from raw data within organizations. By integrating, analyzing, and presenting business information, BI empowers decision-makers to make informed choices, leveraging data-driven insights to enhance operational efficiency and strategic planning.

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

Ans: Power BI, developed by Microsoft, plays a pivotal role in the realm of business intelligence by facilitating seamless connectivity to diverse data sources. Through its intuitive interface, analysts can effortlessly create dynamic visualizations, reports, and dashboards, fostering a more accessible and interactive approach to data analysis. By empowering analysts to explore data insights and share findings effectively, Power BI fosters a culture of informed decision-making within organizations.

## 3. Explain Descriptive analytics?

Ans: Descriptive analytics delves into the realm of historical data to discern patterns, trends, and relationships, providing insights into past events and occurrences. By summarizing and contextualizing data, descriptive analytics sheds light on the "what" and "how" of past phenomena, enabling organizations to glean valuable insights into their performance, customer behavior, and operational dynamics based on historical data.

## 4. Explain Predictive analytics?

Ans: Predictive analytics harnesses historical data and sophisticated statistical models to forecast future events or outcomes. By scrutinizing data patterns and trends, predictive analytics uncovers latent insights, enabling organizations to anticipate future developments. Leveraging techniques like regression analysis and machine learning, predictive analytics empowers organizations to proactively identify trends, forecast demand, and mitigate potential risks, thus facilitating strategic decision-making.

## 5. Explain perspective analytics?

Ans: Prescriptive analytics transcends descriptive and predictive analytics by not only discerning patterns and forecasting outcomes but also prescribing optimal courses of action. Through advanced methodologies such as optimization algorithms and simulation models, prescriptive analytics evaluates various scenarios and recommends the most effective

strategies. By answering questions pertaining to "what should be done" and "how to improve," prescriptive analytics equips organizations with actionable insights, empowering them to optimize outcomes and drive sustainable growth.

## 6. Write five real-life questions that PowerBi can solve.

- How can we visualize and analyze sales trends across different geographic regions and product categories?
- What strategies can be implemented to optimize inventory management and minimize supply chain disruptions?
- Which marketing initiatives have yielded the highest return on investment, and how can we refine future campaigns for greater effectiveness?
- What are the underlying factors contributing to customer churn, and what retention strategies can be implemented to mitigate attrition?
- How can operational inefficiencies be identified and rectified through data-driven insights, leading to enhanced productivity and cost savings?