**Power BI Assignment 1**

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

BI stands for Business Intelligence. It is a broad term that encompasses the processes, technologies, and applications used by organizations to collect, store, analyze, and interpret data. The goal of BI is to help organizations make better decisions by providing them with insights into their data.

Benefits of using BI

**Improved decision-making**

**Increased efficiency**

**Better customer service**

**Increased competitive advantage**

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

Power BI is a business intelligence (BI) tool that helps organizations collect, analyze, and visualize data. It can be used to create interactive dashboards and reports that can be shared with stakeholders across the organization.

Power BI is a powerful tool that can help analysts to collect, analyze, and visualize data. This can help analysts to make better decisions and improve the performance of their organization.

Connect to a variety of data sources:  Power BI can connect to a wide variety of data sources, including relational databases, cloud-based data warehouses. This makes it easy for analysts to access the data they need to perform their analysis.

**Clean and transform data:** Power BI includes a variety of tools that can be used to clean and transform data. This can be helpful for analysts who need to prepare their data for analysis

Analyze data: Power BI includes a variety of analytical tools that can be used to analyze data. This includes tools for performing statistical analysis, creating predictive models, and identifying trends.

Visualize data: Power BI includes a variety of visualization tools that can be used to create interactive dashboards and reports. This can help analysts to communicate their findings to stakeholders in a clear and concise way.

Example :

A marketing analyst can use Power BI to track the performance of marketing campaigns. They can use Power BI to create dashboards that show how many leads were generated, how many sales were closed, and how much revenue was generated. This information can be used to improve the effectiveness of future marketing campaigns.

1. **Explain Descriptive analytics?**

Descriptive analytics is a type of analytics that helps us to understand what has happened in the past. It uses historical data to identify trends, patterns, and relationships. Descriptive analytics can be used to answer questions like:

What are our sales trends?

What are our customers' demographics?

What are our marketing campaigns' results?

Descriptive analytics can be used to identify areas of improvement, make predictions, and inform decision-making. It can be used by businesses of all sizes, in all industries.

1. **Explain Predictive analytics?**

Predictive analytics is a type of analytics that uses historical data to predict future outcomes. It uses statistical analysis, machine learning, and artificial intelligence to identify patterns and trends in data. Predictive analytics can be used to answer questions like:

What are the chances of a customer churning?

What is the likelihood of a sale?

What is the risk of a fraud?

Predictive analytics can be used to make predictions about future events, identify risks, and make better decisions. It can be used by businesses of all sizes, in all industries.

**Example** : A healthcare provider can use predictive analytics to predict which patients are likely to develop certain diseases. This information can be used to provide these patients with preventive care

1. **Explain perspective analytics?**

Prescriptive analytics is the next step in the analytics process after descriptive and predictive analytics. It uses historical data and predictive models to recommend the best course of action for a given situation. Prescriptive analytics can be used to answer questions like:

What should we do to increase sales?

What should we do to reduce costs?

What should we do to improve customer satisfaction?

Prescriptive analytics can be used to improve decision-making, optimize operations, and achieve strategic goals. It can be used by businesses of all sizes, in all industries.

1. **Write five real-life questions that PowerBi can solve.**
2. Power BI can help us track our sales performance by connecting to our sales data and creating dashboards and reports that show our sales figures over time.
3. Power BI can help us to understand our customer behavior by connecting to our customer data and creating dashboards and reports that show our customers' purchase history, demographics, and interests. This can help us to identify our target market, create marketing campaigns that appeal to our customers, and improve our customer service.
4. Power BI can help you improve our efficiency by connecting to our operational data and creating dashboards and reports that show our operational performance. This can help us identify areas where we can improve our efficiency, identify efficiency-saving opportunities, and make better decisions about our operations.
5. Power BI can help us reduce our costs by connecting to our financial data and creating dashboards and reports that show our costs over time. This can help us to identify areas where we can reduce our costs, identify cost-saving opportunities, and make better decisions about our spending.
6. Power BI can be used to analyze patient data to identify patients who are at risk for readmission to the hospital, or who may need additional support. This information can then be used to intervene early and prevent problems from occurring