Power BI Assignment 1

1.   What do you mean by BI? Explain.
Answer:

Business intelligence is "a set of methodologies, processes, architectures and technologies that transform raw data into meaningful and useful information". This can then be "used to enable more effective strategic, tactical and operational insights and decision-making".

Business intelligence (BI) is all about turning an organization's data into insights that can be used to inform business decisions. BI analysts will use BI tools, software or services to access and analyze datasets and translate their findings into reports, summaries, dashboards, graphs, charts or maps.

In recent years, the advent of modern data visualization and reporting tools has transformed the discipline, empowering businesses to use big data insights to identify, develop and create new business opportunities.

2.   How Power-BI helps in BI, and how does it help Analysts? Explain.
Answer:
With the Power BI package of business intelligence tools, you can effectively monitor your company's operations and obtain quick responses through rich Data Visualization with top-notch dashboards.
The Power BI business intelligence solution for efficient Data Visualization has streamlined the realm of business intelligence. This Microsoft business analytics application combines unprocessed data from several sources, such as a straightforward desktop spreadsheet and cloud-based data. Due to its adaptability and need for little training, it can be used by non-technical individuals to visually evaluate and exchange data. It is straightforward, quick, robust, and enterprise grade. Furthermore, this indicates that it is prepared for significant modelling, real-time analytics, and customised development.

3. Explain Descriptive analytics?

Answer:

Descriptive analytics is the process of using current and historical data to identify trends and relationships.Because it only describes trends and associations without going any further, it is frequently referred to as the most basic type of data analysis.

Your company probably employs descriptive analytics on a daily basis and it is reasonably accessible. Data can be parsed, patterns and correlations between variables may be found, and information can be presented visually with the use of basic statistical software like Microsoft Excel or data visualisation tools like Google Charts and Tableau.

When describing change over time, descriptive analytics is particularly helpful. It uses patterns as a jumping off point for additional analysis to inform decision-making.

4. Explain Predictive analytics?

Answer:

Predictive analytics is the use of data to predict future trends and events. It uses historical data to forecast potential scenarios that can help drive strategic decisions.

The predictions could be for the near future—for instance, predicting the malfunction of a piece of machinery later that day—or the more distant future, such as predicting your company's cash flows for the upcoming year.

Predictive analysis can be conducted manually or using machine-learning algorithms. Either way, historical data is used to make assumptions about the future.

One predictive analytics tool is regression analysis, which can determine the relationship between two variables (single linear regression) or three or more variables (multiple regression). The relationships between variables are written as a mathematical equation that can help predict the outcome should one variable change.

5.   Explain perspective analytics?

Answer:

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 to parse through large amounts of data faster—and often more efficiently—than humans can. Using "if" and "else" statements, algorithms comb through data and make recommendations based on a specific combination of requirements. For instance, if at least 50 percent of customers in a dataset selected that they were "very unsatisfied" with your customer service team, the algorithm may recommend additional training.

It's important to note: While algorithms can provide data-informed recommendations, they can't replace human discernment. Prescriptive analytics is a tool to inform decisions and strategies and should be treated as such. Your judgment is valuable and necessary to provide context and guard rails to algorithmic outputs.

At your company, you can use prescriptive analytics to conduct manual analyses, develop proprietary algorithms, or use third-party analytics tools with built-in algorithms.

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

Answer:

- Making Sense of Unused Business Data

With the reducing cost of cloud storage, enterprises today are accumulating more data. There is no in data collection, but the reality is that enterprises only use about 1% of their stored data to make valuable business decisions. It is because they cannot find the appropriate data. The competency to search and retrieve data is the most vital action for enhancing business and realizing the power of big data. In addition, the search technology should be fast, and contextual to read complex information so it is usable for employees across the entire levels of an organization. This is where the analytical solution steps in. It streamlines data to be accessible and consumable to everyone.

- Highlight Micro Mistakes

Often business analysts are caught up in solving relatively large issues with predictive analysis. However, focusing on the small decisions that are made several times tends to provide better results. This includes what checkbox to pre-check, what part of the website a customer is most likely to use or what item they're more likely to purchase. Even though improving these things can yield a considerably smaller percentage of gain, the total improvement can be great as they occur so frequently.

- Diminish Challenges in Customer Service

The analytics software can be used to offer better customer services and deepen their relationships. Analytics can play a vital role in decreasing and eliminating customer problems before they occur. Just imagine a customer receiving a call from a company with a solution for a product recall, before he or she encounters the issue. By creating data from multiple sources, analytics can be employed to be proactive. It helps to realize what is lagging and address it before a customer awakes. This technique can support any enterprise to convert mountains of data into useful insights that strengthen customer relationships.

- Priority of Urgent

Most of the business executives and owners virtually spend all of their time and effort on critical things. They don't even consider spending on activities that are both critical and urgent. The primary reason is that the most businesses are not functioning based on a strategic plan. While urgent tasks come with any business, relying on a strategic plan can guarantee that at least some time is allotted to the acute success factors. Analytics software gives business a valuable insight about an issue that could be brewing.