**Power BI Assignment 1**

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

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

**3. Explain Descriptive analytics?**

**4. Explain Predictive analytics?**

**5. Explain perspective analytics?**

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

**A1**. BI(Business Intelligence) is a set of processes, architectures, and technologies that convert raw data into meaningful information that drives profitable business actions. It is a suite of software and services to transform data into actionable intelligence and knowledge.

BI has a direct impact on organization’s strategic, tactical and operational business decisions. BI supports fact-based decision making using historical data rather than assumptions and gut feeling.

BI tools perform data analysis and create reports, summaries, dashboards, maps, graphs, and charts to provide users with detailed intelligence about the nature of the business.

**A2.** Microsoft Power BI is used to find insights within an organization's data. Power BI can help connect disparate data sets, transform and clean the data into a data model and create charts or graphs to provide visuals of the data. All of this can be shared with other Power BI users within the organization.

**A3.** Descriptive Analytics is the examination of data or content, usually manually performed, to answer the question “What happened?” (or What is happening?), characterized by traditional business intelligence (BI) and visualizations such as pie charts, bar charts, line graphs, tables, or generated narratives.

Descriptive analytics is the process of parsing historical data to better understand the changes that have occurred in a business. Using a range of historic data and benchmarking, decision-makers obtain a holistic view of performance and trends on which to base business strategy.

**A4.** Predictive analytics is a branch of advanced analytics that makes predictions about future outcomes using historical data combined with statistical modeling, data mining techniques and machine learning. Companies employ predictive analytics to find patterns in this data to identify risks and opportunities.

All four levels create the puzzle of analytics: describe, diagnose, predict, prescribe.

Identify customers that are likely to abandon a service or product.

Send marketing campaigns to customers who are most likely to buy.

Improve customer service by planning appropriately.

First, identify what you want to know based on past data.

**A5.** Prescriptive analytics is a process that analyzes data and provides instant recommendations on how to optimize business practices to suit multiple predicted outcomes.

Not only does prescriptive analytics help strategize the right course of action, but it can also estimate the time frame within which one may achieve specific goals.

For example, prescriptive analytics allow healthcare decision-makers to optimise business outcomes by recommending the best course of action for patients and providers. They also enable financial companies to know how much to reduce the cost of a product to attract new customers whilst keeping profits high.

**A6.** Power BI allows you to do more than just access your company’s crucial data. This tool also allows you to interpret, implement, and display the information from virtually anywhere. Power BI is recognized as a necessary problem solver among major corporations, offering solutions to numerous challenges being faced in the modern workplace. Here are some examples.

**1. Waiting On Figures**

Having to hold off on major business decisions because you’re unable to collect figures from a colleague or need to sift through numerous reports on a server to find what you need may have been considered normal routine back in the day, but business has progressed, and waiting for data reports is no longer acceptable. PowerBI allows you to access your company's data analytics almost instantly. On top of that, it also makes the data easy to decipher with advanced visualizations which can be shared at the touch of a button.

**2. Using Data From Old Reports**

While being able to share documents (such as quarterly reports) with employees through the cloud was exciting when it first came out, it leaves too much room for human error. For example, it’s not uncommon for documents shared in a cloud to be mislabeled, altered, and even deleted by accident. Even if stored in the correct location, finding reports this way can be incredibly time-consuming. All of these factors can lead to unnecessary mistakes and delays.

Using Power BI reduces the possibility of error by allowing reports to be run in seconds using only the most current data. This ensures that reports can’t be altered or deleted and eliminates the time spent sifting through files to find the correct data.

**3. Excessive Time Spent Preparing For Presentations**

Whether it’s for a meeting with potential investors, sharing the latest figures with your shareholders, or leading an internal meeting with your colleagues, presentation preparation can be tedious. On top of collecting all of the data you want to share, the information has to then be put into a visually appealing presentation. If you want to include charts, graphs, and images, presentations can take a significant amount of time to produce. In addition to that, by the time the presentation is complete, the data will already be outdated.

Power BI can quickly and easily create visual representations of your data and provide stunning and accurate presentations for your meetings. Using Power BI’s automated reporting tools can save hours of preparation.

**4. Being Unable To Find Specific Data Sets**

Sifting through spreadsheets in search of specific data sets is time-consuming and inefficient. One of the most useful Power BI solutions is the ability to easily search for data and data-sets.

Power BI allows IT members to publish data catalogs for others to view. This makes it easier for you to find the data sets needed to perform an analysis. Additionally, using natural language technology and its Question & Answer feature provides a more natural experience to locate and better understand your BI.

**5. Not Being Able To Determine Your Level Of Success**

While business intelligence offers a lot of useful information, not everyone knows how to use it. Even with the numbers in plain view, it can be difficult to determine whether or not your business is successful and what areas need improvement. Using Power BI’s Question & Answer feature, it’s now possible to ask your software these questions using natural language. Ask what your profits were for that month or how customer subscription numbers compare to last year’s.

The natural language technology makes it incredibly easy, and you don’t have to worry about putting your questions in any specific format. The tool will also draw your attention to any problem areas that need to be addressed, ensuring you don’t miss even the smallest opportunities to make a profit.

Common business issues are slowing you down, and it’s not only a poor use of time but it may also be costing you business. Your competition is using business intelligence tools to stay ahead of the game, and it’s only a matter of time before you fall behind. Take advantage of Power BI solutions that can make your company’s day-to-day activity far more efficient, tech-savvy, and less frustrating for you and your employees.

Stay ahead of the competition by using the tools available to provide you with useful information and take your current business to the next level.