**Power BI Assignment - 1**

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

Business intelligence (BI) is software that ingests business data and presents it in user-friendly views such as reports, dashboards, charts and graphs. It comprises the strategies and technologies used by enterprises for the [data analysis](https://en.wikipedia.org/wiki/Data_analysis) and management of business [information](https://en.wikipedia.org/wiki/Information). 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](https://www.techtarget.com/searchdatamanagement/definition/data-management) and reporting tools, plus various methodologies for managing and analysing data.

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

Power BI is**a cloud-based analysis service** that provides rapid insight and is used to extract and visualise data. Power BI brings together data from multiple sources to give you a comprehensive view of your company's information assets.

Following are ways it helps analysts-

* Power BI allows direct queries on datasets if they cross a certain size limit. This saves the time required to load the data on the system and then perform the operations.
* The [Machine Learning](https://intellipaat.com/blog/what-is-machine-learning/) feature of this tool helps users detect valuable trends and make predictions of the competitive market.
* Get regular update notifications and have the latest Power BI version of Power BI Desktop and Power BI Report Server.
* Its personalized dashboards allow the users to quickly access important visualizations and information out of many reports.
* Alerts can be set up on key performance indicators (KPIs) to update the users on different metrics and measurements.
* MS Power BI makes it easy to navigate and process complex datasets so that even a non-technical user can use reports and custom dashboards without spending much time on learning the interface.
* Live reports and dashboards get updated in real-time as the data streams in, which allows the users to quickly resolve the problems and find new opportunities.
* Whenever a dataset is updated, Power BI Service automatically refreshes the reports and the dashboards uploaded in the service cloud.

**3.Explain Descriptive analytics?**

Descriptive analytics is the interpretation of historical data to better understand changes that have occurred in a business. Descriptive analytics describes the use of a range of historic data to draw comparisons. Most commonly reported financial metrics are a product of descriptive analytics, for example, [year-over-year](https://www.investopedia.com/terms/y/year-over-year.asp) pricing changes, month-over-month sales growth, the number of users, or the total [revenue per subscriber](https://www.investopedia.com/terms/a/arpu.asp). These measures all describe what has occurred in a business during a set period.

**4.Explain Predictive analytics?**

The term predictive analytics refers to the use of [statistics](https://www.investopedia.com/terms/s/statistics.asp) and modelling techniques to make predictions about future outcomes and performance. Predictive analytics looks at current and historical data patterns to determine if those patterns are likely to emerge again. This allows businesses and investors to adjust where they use their resources to take advantage of possible future events. Predictive analysis can also be used to improve [operational efficiencies](https://www.investopedia.com/terms/o/operationalefficiency.asp) and reduce [risk](https://www.investopedia.com/terms/r/risk.asp).

**5.Explain perspective analytics?**

Prescriptive analytics is a type of [data analytics](https://www.investopedia.com/terms/d/data-analytics.asp) 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.

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

1. [Power BI](https://www.kizan.com/big-data-and-analytics) 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 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. 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](https://info.kizan.com/business-process-automation-ebook) can save hours of preparation.

4. Power BI allows IT members to publish data catalogues 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. 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 your 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.