1. What do you mean by BI? Explain.

Ans. 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.

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

Ans . One of the main strengths of Power BI is its **intuitive user interface that allows both technical and non-technical analysts to build data visualizations and analyses efficiently**. The user-friendly drag-and-drop interface makes it easy to answer complex data-related questions without the need for programming skills.

2 . Explain Descriptive analytics?

Ans. **Descriptive analytics** is the process of using current and historical data to identify trends and relationships. It’s sometimes called the simplest form of data analysis because it describes trends and relationships but doesn’t dig deeper.

Descriptive analytics is especially useful for communicating change over time and uses trends as a springboard for further analysis to [drive decision-making](https://online.hbs.edu/blog/post/data-driven-decision-making).

3 . Explain Predictive analytics?

Ans . 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](https://www.ibm.com/cloud/learn/machine-learning). Companies employ predictive analytics to find patterns in this data to identify risks and opportunities. Predictive analytics is often associated with big data and[data science](https://www.ibm.com/analytics/data-science).

4 . Explain perspective analytics?

Ans . **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](https://online.hbs.edu/blog/post/data-driven-decision-making).

5 . Write five real-life questions that PowerBi can solve.?

### Ans . 1. ONE-OFF  REPORTING IS TIME CONSUMING .

Gathering a huge amount of data from different sources can be an uphill task. You must rely on different departments to get data, interpret it, and then produce actionable insights. These reports need to be replicated during set intervals. You have to manually regenerate the report from the beginning. This is a challenge faced by many corporations. But as the business grows, waiting for data and then reworking on the reports to get the updated data is not a good approach as it affects your timeline and your productivity.

Power BI helps you to access your data instantly with less manual work. It can handle a huge amount of data making it easy to decipher using advanced visualizations. It allows you to get data from different data sources by automatically connecting with them, saving you time and effort. Once a report is created, you only have to hit refresh or enable a schedule refresh to get real-time insights. This will prevent any human error and skewed results.

### 2 . FINDING SPECIFIC DATA IN LARGE DATA VOLUMES WITH POWER BI

Going through spreadsheets in search of specific datasets is cumbersome. Data is presented in a non-user-friendly way and finding specific data from a vast amount of data can be quite inefficient.

Here comes Power BI, providing the users with an easy search of datasets. Once you have imported a dataset in PBI Desktop, you can access that anytime, from anywhere, as many times as you want. For instance, in the Query Editor, you can go to “View” in the header and select the “Go to Column” to navigate to the column you want. And on the main report page and in the data section there is a search right at the top of Fields. With that, you can search and filter all your objects to only those that match. Data can also be shared and published for others to view, so they can also have access to it and take an equal part in the decision-making process.

### 3 . DATA QUALITY

Everyone wants to use high-quality data for their analysis. Data quality is one of the most important aspects of a data analysis and is often overlooked or treated as an afterthought. Poor quality data can lead to inaccurate analytics and ill-conceived business strategies. If data is not accurate, complete, and clean, companies can make costly mistakes.

Power BI helps you quickly identify data quality issues and provides numerous ways to address them. Power Query provides you with exciting features to clean and prepare data for analysis. The data profiling tools can help you remove all the inconsistencies, null values, and data quality problems.

### 4 . LACK OF SECURITY

Data Security is an essential issue for the adoption of any technology. If data is not secured correctly, it can get lost due to system failure, corrupted by a computer virus, deleted or altered by a hacker. This can lead to consequences like financial loss, reputational damage and loss of your customers.

Power BI overcomes these issues by leveraging Azure Active Directory for authentication and Power BI login credentials to access the resources.

You can then grant access to your data only to the people of your choice. Row-Level Security (RLS) is also possible in Power BI, which helps secure data and streamline administration.

And, by using Microsoft Information Protection you can define sensitivity labels and enforces governance policies  whenever data is accessed.

### 5 . Ans . UNABLE TO FORESEE FUTURE TRENDS

Business Trends keep on changing according to the needs, wants, and tastes of the consumer. Prediction of future trends and opportunities is an essential task in business development. It is challenging for businesses to exist and stay relevant if they are not good at identifying and adapting to current trends. That is why spotting trends and showing how they change over time is essential and can help companies make suitable decisions. This gives them an edge and helps them stay ahead of their competition.

Power BI helps in monitoring the processes of the company. It can easily spot trends with the help of the data gathered during monitoring. Data Analysis Expressions (DAX) provides a wide range of functionalities for trends analysis. The trending AI Capabilities of Power BI help you visualize the future using predictive analytics and other such big data tools. This can help businesses foresee any need to recruit more employees, change a specific requirement, or further invest in technology.

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