# POWER BI ASSIGNMENT 1

## Q) What do you mean by Power BI? Explain.

Power BI is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into coherent, visually immersive, and interactive insights. Your data might be an Excel spreadsheet or a collection of cloud-based and on-premises hybrid data warehouses. Power BI lets you easily connect to your data sources, visualize and discover what's important, and share that with anyone or everyone you want.

The parts of Power BI are as follows

Power BI consists of several elements that all work together, starting with these three basics:

- A windows desktop application called Power BI Desktop
- An online SAAS service called the Power BI service
- Power BI apps for Windows, IOS, and Android devices

These three elements—Power BI Desktop, the service, and the mobile apps—are designed to let you create, share, and consume business insights in the way that serves you and your role most effectively.

Beyond those three, Power BI also features two other elements:

- Power BI Report Builder, for creating paginated reports to share in the Power BI service
- Power BI Report Server, an on-premises report server where you can publish your Power BI reports, after creating them in Power BI Desktop.

## Q) How does Power BI helps in BI and how does it help Analyst? Explain.

The use of Power BI in Business Intelligence and data analysis are as follows:

- Extract data insights with no coding skills required: 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.
- Democratize data insights with dashboards: Power BI comes with many reporting features for users to readily create well-designed interactive dashboards. It can also connect to a wide range of data sources and can help you create powerful data models.
- Tell data stories with advanced data visualization: Power BI allows users to string together a series of visualizations (including dashboards) to form a visual story to communicate data insights, provide context, and demonstrate how decisions relate to outcomes.

## Q) Explain descriptive analysis.

Descriptive analytics help answer questions about what has happened based on historical data. Descriptive analytics techniques summarize large datasets to describe outcomes to stakeholders.

By developing key performance indicators (KPIs), these strategies can help track the success or failure of key objectives. Metrics such as return on investment (ROI) are used in many industries, and specialized metrics are developed to track performance in specific industries.

An example of descriptive analytics is generating reports to provide a view of an organization's sales and financial data.

## Q) Explain the predictive analysis

Predictive analytics help answer questions about what will happen in the future. Predictive analytics techniques use historical data to identify trends and determine if they're likely to recur. Predictive analytical tools provide valuable insight into what might happen in the future. Techniques include a variety of statistical and machine learning techniques such as neural networks, decision trees, and regression.

## Q) Explain the perspective analysis

Prescriptive analytics help answer questions about which actions should be taken to achieve a goal or target. By using insights from prescriptive analytics, organizations can make data-driven decisions. This technique allows businesses to make informed decisions in the face of uncertainty. Prescriptive analytics techniques rely on machine learning as one of the strategies to find patterns in large datasets. By analyzing past decisions and events, organizations can estimate the likelihood of different outcomes.

## Q) Write five-real questions that Power BI can solve.

The problems solved by Power BI are as follows:

- Waiting on figures
- Using data from old reports
- Excessive time preparing for presentations
- Being unable to find specific datasets
- Not being able to determine