

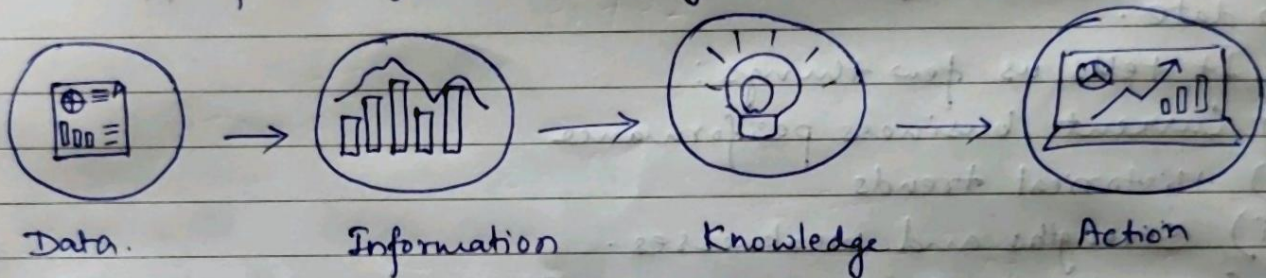
## Power BI Assignment 1

1) What do you mean by BI? Explain

Ans It's increasingly important for business to have a clear view of all their data to stay competitive, which is where business intelligence (BI) tools come in.

Business intelligence combines business analytics, data mining, data visualization, data tools and infrastructure, and best practices to help organizations make more data-driven decisions.

Business intelligence is a process of transforming raw data into information and knowledge which support taking business decisions. MS Power BI is a suite of tools that make this process fast and easy.



2) How Power BI helps in BI, and how does it help Analysts? Explain

Ans Microsoft Power BI is a suite of tools that supports the process of data processing - from sourcing to suggesting optimal decision.

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. This simplicity lowers the barrier for users to perform advanced analytics such as trend analyses, regressions and statistical summaries.

Power BI can also be integrated with a variety of existing Microsoft apps, such as Microsoft Teams, Excel, and PowerPoint, which makes integrating data insights into existing workflows much easier.



3) Explain Descriptive analytics?  
→ ↓ ~~what~~ "what happened?"

Ans Most companies accumulate vast amounts of data, but it's often impossible to understand what the data means without performing some analysis. For example, examining thousands of individual sales transactions for the latest quarter doesn't tell you the average amount customers spent or whether total sales were higher or lower than in previous periods. Descriptive analytics is the first step in making sense of that raw data. It often uses basic mathematical operations to produce summary statistics - such as average revenue per customer.

It helps companies understand what has happened to date.

It tells us few things:

- i) Current business performance
- ii) Historical trends
- iii) Strengths and weaknesses.

Examples: Business reports, Financial metric, Social media engagement, surveys.

4) Explain Predictive analytics?

Ans "What might happen in future"

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 years.

Examples:

- 1) Finance: Forecasting future cash flow.
- 2) Marketing: Behavioral Targeting.



3) Health Care : Early detection of Allergic Reactions

5) Explain perspective analytics ?  
prescriptive.

Ans "What should we do next"

Prescriptive analytics has been called "the future of data analytics". It is the process of using data to determine an optimal course of action.

Applying prescriptive analytics is one option that can assist your business in identifying data-driven strategic decisions and help you avoid the limitations of standard data analytics practices.

Examples

1) Venture Capital : Investment Decisions

2) Sales : Lead Scoring

4) Banking : Fraud Detection

5) Marketing : Email Automation

6) Write five real-life questions that Power-BI can solve.

Ans) 1) Waiting on Figures - Power BI allows you to access your company's data analytics almost instantly to prevent waiting for collecting millions of data from a colleague and then figuring out relevant information which is time consuming. Power BI helps with advanced visualizations which can be shared at the touch of a button.

2) Using data from Old Reports - 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.

3) Excessive Time Spent Preparing for Presentations

4) Being Unable to find Specific Data sets.

5) Not Being Able to Determine Your level of Success.