

## What is DATA ANALYSIS?

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- Data analysis is defined as a process of cleaning, transforming, and modelling data to discover useful information for business decisionmaking.
- The purpose of Data Analysis is to extract useful information from data and taking the decision based upon the data analysis.



**01**Statistical Analysis

Statistical Analysis shows "What happen?" by using past data in the form of dashboards. Statistical Analysis includes collection, Analysis, interpretation, presentation, and modelling of data. It analyses a set of data or a sample of data. There are two categories of this type of Analysis – Descriptive Analysis and Inferential Analysis.

Descriptive Analysis: analyses complete data or a sample of summarized numerical data. It shows mean and deviation for continuous data whereas percentage and frequency for categorical data.

Inferential Analysis: analyses sample from complete data. In this type of Analysis, you can find different conclusions from the same data by selecting different samples.



**02**Dignostic Analysis

Diagnostic Analysis shows "Why did it happen?" by finding the cause from the insight found in Statistical Analysis. This Analysis is useful to identify behaviour patterns of data. If a new problem arrives in your business process, then you can look into this Analysis to find similar patterns of that problem. And it may have chances to use similar prescriptions for the new problems.



Predictive Analysis shows "what is likely to happen" by using previous data. this Analysis makes predictions about future outcomes based on current or past data. Forecasting is just an estimate. Its accuracy is based on how much detailed information you have and how much you dig in it.



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Prescriptive Analysis Prescriptive Analysis combines the insight from all previous Analysis to determine which action to take in a current problem or decision.

# Data Analysis process

#### Data Analysis process



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Use data analysis tools and software which will help you to understand, interpret, and derive conclusions based on the requirements.

04 Data Analysis 05 Data
Interpretation

Use simply in words or maybe a table or chart to interpret the results data shown graphically so that it will be easier for the human brain to understand and process it.

06 Data Visualization

### THANKS -Norah Fahad