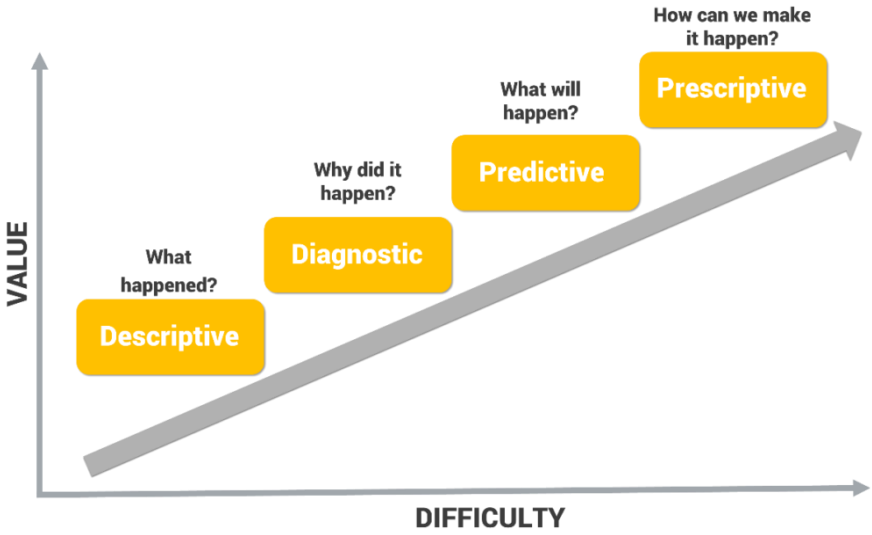
What are different types of data analysis?

- ✓ Descriptive Analysis (What Happened?).
- ✓ Diagnostic Analysis (Why did it Happen?).
- ✓ Predictive Analysis (What Will Happened).
- ✓ Prescriptive Analysis (How Can We Make it happen?).



- ✓ **Descriptive analysis is a process??**
  - ⇨ *Is a process of summarizing and organizing data in order to gain insight into the underlying patterns and relationships.*
  - ⇨ *find patterns, and drawing conclusions based on those patterns.*
  - ⇨ *Descriptive analysis can be used to explore relationships between variables, identify trends, and make predictions about future outcomes.*
  - ⇨ *The goal of descriptive analysis is to provide a better understanding of the data and its implications.*
- ✓ **Diagnostic Analysis process??**
  - ⇨ *Is a process used to identify the root cause of a problem.*
  - ⇨ *It involves gathering data, analyzing the data, and developing solutions to address the underlying issue.*
  - ⇨ *The goal of diagnostic analysis is to identify the root cause of a problem so that it can be addressed in an effective Way.*

✓ ***Predictive Analysis process??***

- ***Predictive analysis is a type of data analysis that uses historical data and predictive models to Plan future outcomes or trends.***
- ***It is used to make decisions about how best to allocate resources in order to maximize profits or minimize losses.***
  - ⇨ *Define the Problem: The first step in predictive analysis is to define the problem that needs to be solved. This involves understanding the business objectives and identifying what data is available to help solve the problem.*
  - ⇨ *This data should include both historical and current data that can be used for predictive analysis.*
  - ⇨ *Analyze Data: Once the data has been prepared, it can then be analyzed using various techniques such as machine learning algorithms or statistical methods to Find patterns and relationships between variables.*
  - ⇨ *Interpret Results: After analyzing the data, results must be interpreted in order to draw meaningful conclusions about the problem being solved and make predictions about future outcomes.*
  - ⇨ *Validate Results: to ensure accuracy and reliability of predictions made by the model.*

✓ ***Prescriptive Analysis process?***

=>Prescriptive analysis is a type of data analysis that uses predictive models and optimization algorithms to recommend specific actions for achieving wanted outcomes.

=> This type of analysis can be used to identify the best course of action for achieving goals such as increasing profits or reducing costs.