## **Inferential Statistics:**

is a branch of statistics that helps us make decisions or conclusions about a large group of population based on a small sample of data. We do this using a lot of techniques like: Hypothesis Testing and Confidence Intervals

## Types of data:

1- Qualitative Data: Data that can be categorized but not measured

Examples: gender, color.

2- Quantitative Data: it's also called Numeric data, it's data that can be measured and have numeric values.

Examples: height, weight, or price.

Quantitative Data has two main types:

Discrete Data and Continuous Data

## **Hypothesis Testing:**

A statistical method used to make decisions or inferences about population parameters based on sample data, it checks if the sample data represents all population or if it might have occurred due to random chance.

## **Confidence Intervals:**

range of values used to estimate a population parameter with a certain level of confidence (e.g., 95% confidence).

A 95% confidence interval means there is a 95% probability that the true population parameter lies within the interval.