Statistical Analysis

- Statistical analysis is a method of collecting, organizing, analyzing, interpreting, presenting, and drawing conclusions from data.

- It involves using statistical techniques to extract meaningful patterns and insights from numerical information.

- The goal of statistical analysis is to make inferences about a population based on a sample of data drawn from that population.

Population v/s Sample

All Households in the city.

The 500 randomly selected households.

Hypothesis Testing

- Making predictions or inferences about a population based on a sample of data.

- Testing a hypothesis or a claim about a population parameter using sample data.

- Helps determine if there is enough evidence to reject a null hypothesis for an alternative hypothesis.

Null Hypothesis

- The null hypothesis is a statement that there is no significant difference, effect, or relationship in the population.

- It often represents the status quo or a default assumption that there is no change or no effect.

- For example, the new teaching method has NO significant impact on the average exam scores compared to the traditional method.

Alternative Hypothesis

- The alternative hypothesis is a statement that there is a significant difference, effect, or relationship in the population.

- It often represents the status quo or a default assumption that there is a change or an effect.

- For example, the new teaching method has a significant impact on the average exam scores compared to the traditional method.