Descriptive Statistics vs Inferential Statistics:

- ✓ Descriptive statistics involves methods for summarizing and describing the features of a dataset, such as mean, median, standard deviation, etc.
- ✓ Inferential statistics involves making inferences or predictions about a population based on a sample from that population.

Qualitative and Quantitative:

- ✓ Qualitative data describes qualities or characteristics and is non-numeric.
- ✓ Quantitative data consists of numerical measurements or counts.

Scales of Measurement - Nominal, Ordinal, Interval, & Ratio Scale Data:

- ✓ Nominal scale: Categories with no inherent order.
- ✓ Ordinal scale: Categories with a natural order or ranking.
- ✓ Interval scale: Equal intervals between values with no true zero point.
- ✓ Ratio scale: Equal intervals between values with a true zero point.

Hypothesis Testing and The Null Hypothesis, Clearly Explained:

- ✓ Hypothesis testing involves making a hypothesis about a population parameter and using sample data to determine the likelihood of the hypothesis being true.
- ✓ The null hypothesis (H0) typically states no effect or no difference.

Alternative Hypotheses: Main Ideas:

- ✓ The alternative hypothesis (Ha) typically represents the researcher's claim or the possibility of an effect or difference.

p-values: What they are and how to interpret them:

- ✓ The p-value is the probability of obtaining the observed results, or more extreme results, assuming the null hypothesis is true.
- ✓ A smaller p-value suggests stronger evidence against the null hypothesis.

How to calculate p-values:

- ✓ The p-value is often calculated using statistical tests such as t-tests, ANOVA, chi-square tests, etc.

Confidence Intervals, Clearly Explained:

- ✓ A confidence interval is a range of values constructed from sample data that is likely to contain the true population parameter with a certain level of confidence.
- ✓ Increasing the confidence level widens the confidence interval.

Regression analysis:

- ✓ Regression analysis is a statistical method used to explore the relationship between a dependent variable and one or more independent variables.
- ✓ It helps in understanding how changes in the independent variables are associated with changes in the dependent variable.