**Statistics Assignment 1**

Q1. What exactly is the difference between descriptive and inferential statistics?

Answer - > Descriptive Statistics helps us to understand the Data by organising & summarizing it . Where as Inferential Statistics helps us to come to any conclusion about the data.

Eg. of Descriptive Statistics – matplotlib , power BI,bar,pie etc.

Eg. of Inferential Statistics – Hypothesis Testing , P value , T Test , F Test etc.

Q2. I'm not sure what is the difference between a sample and a population?

Answer - > A population(N) is the entire group that you want to draw conclusions about.

A sample(n) is the specific group that you will collect data from. The size of the sample is always less than the total size of the population.

Q3. What distinguishes descriptive statistics from other types of statistics?

Answer -> Descriptive statistics focus on describing the visible characteristics of a dataset (a population or sample). Meanwhile, inferential statistics focus on making predictions or generalizations about a larger dataset, based on a sample of those data.

Q4. What is the difference between quantitative and qualitative data?

Answer -> Quantitative and Qualitative are types of variable.

Quantitative is measured numerically and it has two parts namely Discrete variable and continuous variable.

Discrete having whole number eg. age, no. of childrens etc.

Continuous variable having decimals into it. Eg. height, weight etc.

Qualitative is measured Categorical and it also gas two parts namely Nominal and ordinal.

Nominal variable is a type of variable that is used to name, label or categorize particular attributes that are being measured

Ordinal variable is a type of measurement variable that takes values with an order or rank. It is the 2nd level of measurement and is an extension of the nominal variable.

Q5. What is the definition of a percentile?

Answer -> A percentile is a measure used in statistics indicating the value below which a given percentage of observations in a group of observations fall. For example, the 98th percentile is the value (or score) below which 98% of the observations may be found.