**Statistics Assignment 1**

**Name: Kalaiselvan**

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

* **Descriptive statistics** helps to organize, analyze, summarize and present the data in a meaningful way to describe the situation based on the data that is already known.
* **Inferential statistics** allows comparing data and making predictions and hypothesis with it to explain the chances of the occurrences of the event in order to reach out the conclusion.

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

* **Population** describes all of a particular group of individuals that are being studied. It’s the entire set of items from which you draw data for a statistical study. It can be a group of individuals, a set of items, etc. It makes up the data pool for a study.
* **Sample** is a sub set of population data. It represents the group of interest from the population, which you will use to represent the data. The sample is an unbiased subset of the population that best represents the whole data.

**3. What distinguishes descriptive statistics from other types of statistics?**

* **Descriptive Statistics** focus on describing the visible characteristics of the data (population or sample). With the descriptive statistics we are simply describing what is or what the data shows, where the other statistics (inferential) we are trying to reach conclusions that extend beyond the immediate data alone.

**4. What is the difference between quantitative and qualitative data?**

|  |  |
| --- | --- |
| **Quantitative** | **Qualitative** |
| Data type can be countable and measurable, relating to numbers  Eg. How many, how much etc | Descriptive, relating to words and language  Eg: how, why etc |

**5. What is the definition of a percentile?**

A **Percentile** is a value below which a certain percentage of observation falls.