Types of Data

Data can be defined as a **unit of information**.

Understanding data types or the nature of our data ensures that we measure it appropriately.

We can separate data into 2 broad labels:

- **Categorical data**, also known as **qualitative data**, which is data that can be divided into groups.
- **Numerical or quantitative data** - data which is measurable.

Categorical (Qualitative) Data:

Categorical or qualitative data can further be broken down into 2 main categories, nominal and ordinal.

Nominal units: are units that have no natural order and no numerical value. All these units are labels.
They cannot be placed in a particular order or ranking.
Eg. Gender, race, hair color

Ordinal units: have an important natural order. This data can be ranked or ordered. Eg. Survey responses or socioeconomic status (low income, middle income, and high income)

Numerical (Quantitative) Data:

Numerical or quantitative data can also be broken down into two groups, discrete and continuous data.

Discrete data: is data that can be counted but has a limited number of possibilities and cannot be divided into smaller units. Eg: the number of people attending a conference

Continuous data: are measurements with an infinite number of possibilities.
Eg. height, weight, temperature, length, and time.