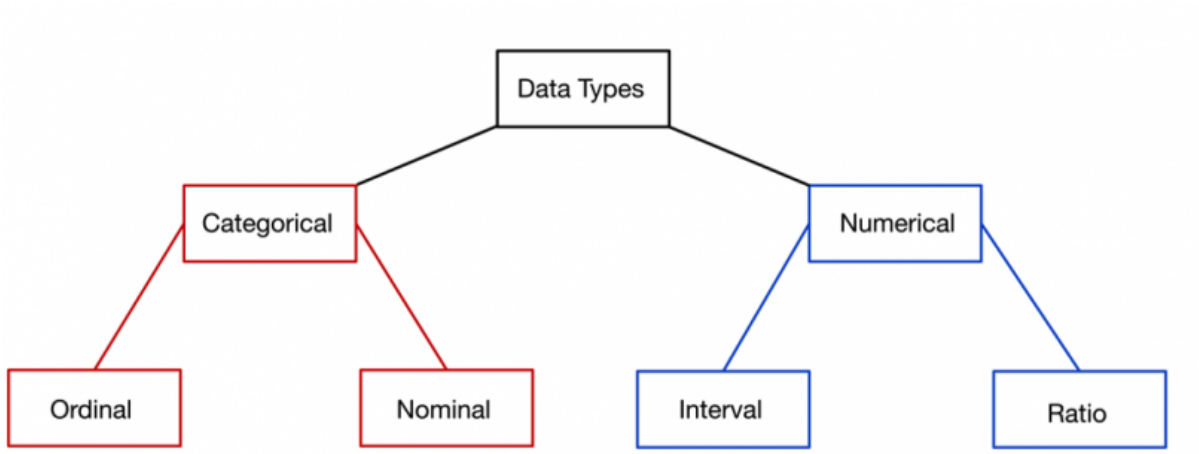
Data types in Statistics

In the field of statistics, when dealing with certain types of data, various data types are used. These data types also help in analyzing the dataset when doing Exploratory Data analysis. Also, for choosing various techniques while doing data visualization, the need to know the data types for measuring the categorical or numerical data is required.



Various types of data in statistics are:

1. Interval Data
2. Ordinal Data
3. Nominal Data
4. Ratio Data

Numerical Data

When talking about continuous or numerical data, the examples that can easily describe this can be like, “the time required to reach from home to school.” In this example, the time is continuous data as it changes continuously in this event. Furthermore, continuous data can also be classified as:

1. Ratio Data
2. Interval Data

The ratio data is the type of data in which the ratio of values can be used to describe the relationship between various properties. A good example of ratio data can be the

weight and height of a person. On the other hand, interval data is somewhat like ratio data but there are no absolute zero presents in these. In interval data, the values are ordered as units that contain the same difference between them. An example of Interval data can be the temperature of a given place like -10 to 10.

Categorical Data

The characteristics can be represented by the categorical data. Characteristics like gender, race, and product type come under the categorical data. Numerical representation of data can also come under categorical data types like 1 for males and 0 for females. But in this case, the terms 0 and 1 do not represent mathematical values.

Various types of Categorical data are:

1. Nominal Data
2. Ordinal Data

Nominal data works with discrete values are can be used to label the values without any quantitive meaning. These labels do not have any order and can not be used to perform mathematical calculations.
An example of nominal data is to calculate the number of children and adults representing the games.

Ordinal data also works with the discrete values but in this case, the values are ordered in nature. An example of ordinal data can be to record the opinion of some surveys like agree, mostly agree or disagree.