# [Essential Statistics for Data Analysis](https://www.udemy.com/course/essential-statistics-for-data-analysis/)

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## Population and Samples

### Population

**Population** contains all the data you’re interested in making decisions.

* It is the data that you wish you had but are unlikely to get.
* Any figure that summarises a population is called **parameter**

### Samples

* A sample contains some of the data from population
* Any figure that summarises a sample is called **statistic**

**Statistics lets you make reasonable estimates about parameters using statistic(s)**

**A diagram of statistics

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### Descriptive Statistics

Descriptive statistics refers to a set of methods used to summarize and describe the main features of a dataset, such as its central tendency, variability, and distribution.

* The purpose of descriptive statistics is to summarize the characteristics of a variable. They reduce a large array of numbers into handful of figures that describe it accurately
* Example: Class average, highest grade, lowest grade etc – min, max, median, mode

A screenshot of a graph

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#### Types of variables

1. Numerical variables: These variables represent numbers that are meant to be aggregated
2. Categorical variables: These variables represent groups that can be used to filter numerical values

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### Types of descriptive statistics

1. Distribution
2. Central Tendency
3. Variability

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Ctrl + Shift + down arrow = select entire range

Ctrl + backspace = go back up

F4 to fix range $

SORT(UNIQUE(B6:B100)) – Dynamic Excel fn (Excel 365) – Gets unique values and sorts them from the given range

# Symbol - Dynamic Excel fn – selects the entire range