**Data:**

Data is a collection of discrete or continuous values that convey information, describing the quantity, quality, fact, statistics, other basic units of meaning, or simply sequences of symbols that may be further interpreted formally.

**Structured Data:**

Structured data is data that has a standardized format. It is typically tabular with rows and columns.

Example:

* Dates and times.
* Banking/transaction information.
* Customer names, postal addresses, and email addresses.

**Unstructured Data:**

Unstructured means data that aren't stored in a structured database format.

**Quantitative Data:**

Quantitative data is the value of data in the form of counts or numbers.

Example:

* Height in feet,
* Age in years
* Weight in kgs.

**Qualitative Data:**

Qualitative data are data representing information and concepts that are not represented by numbers.

Example:

* Case studies.
* Interviews.

**Discrete Data:**

Data that is countable. It usually comes in the form of whole numbers or integers.

Example:

* The number of students in your class.
* The number of items you buy at the grocery store.

**Continuous data:**

Continuous data is data that is not countable, value that changes over time, float value.

Example:

Height, weight, temperature

**Probability:**

Probability is how likely some event is to happen. The probability of an event is a number between 0 and 1.The closer the probability is to 1 the more likely an event to occur.

**Sample Space:**

A sample space is a collection possible outcomes of an experiment. Sample space is represented as set.

**Experiment:**

Experiment means a test, trial or operation, which can produce well defined outcomes.

**Outcomes:**

Outcome is the result of an experiment.

**Event:**

Event is an occurrence of some importance.

**Permutation Combination:**

Permutations and combinations, the various ways in which objects from a set may be selected.