**Properties of a normal distribution**

* The curve remains symmetric at the center.
* The area under the curve is 1.
* The mean, median, and mode are always equal.
* Exactly half value is on the left of the center and the other on the right.

**Properties of t-distribution**

* Like normal distribution, the student distribution has bell-shaped and symmetric with zero mean.
* The range of student distribution from – ∞ to ∞ (infinity).
* The t distribution’s shape changes with the degree of freedom.
* The variance is always more than one, and it can be represented when the degree of freedom V>=3 and given: Var (t) = [v/v -2].
* It is not packed that much at the center but higher at trials; therefore, its shape is like platykurtic.
* The dispersion of t distribution is much more than the normal distribution. As the size of the sample ‘n’ increases, it is considered as a normal distribution. Here, the given sample size is taken larger than n>=30.

**Characteristics of uniform distribution**

* The density function combines to unity.
* Each of its input functions has equal weightage.

**Characteristics of Bernoulli distribution**

* The number of trials that have to be performed under a single experiment must be predefined.
* Each trial must have two outcomes that are success or failure.
* The success’ probability in each experiment should be the same.
* The experiment should be independent of each other, which means the outcome of one trial is not affected by the other’s trial outcome.

**Properties of a binomial distribution**

* When an experiment has independent trails, each of them has two results: success and failure.
* The binomial distribution is also called as bi-parametric distribution. As it is classified by two parameters n and p.
* The mean value of this is:**μ = np**

### **Poisson distribution**

It is a tool that is used to predict a certain probability of the event when you know the value of a certain event. The Poisson distribution provides us the probability of an applied number of events that happen in a fixed period of time.

### **Exponential distribution**

It is also known as a negative exponential distribution that represents the time between the trails in a Poisson process.

### **Beta distribution**

It is the family of continuous probability distributions that are set under the interval [0,1], which is expressed by alpha and beta. Furthermore, this model is used for the model that has an uncertainty of the success probability of a random experiment. It also offers a powerful tool with the basic statistics that can compute the confidence level of completion time.