

Project Week 4

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Shiny App

This application wants to show how the Law of Large numbers works with Normal Distribution.

Basic Idea:

The user can chose the number of samples by manipulating a slider. Its selection will be used to build a histogram of a random numbers that follow a normal distribution.

Interactive graph will display random distribution and its expected value or mean.

By increasing the number of samples, expected value should be closer to theoretical mean of a normal distribution, that is, zero.

App demo

Here is a look of the application and its link:

Law of Large Numbers

Law of Large Numbers

The law of large numbers is a theorem that describes the result of performing the same experiment a large number of times. According to the law, the average of the results obtained from a large number of trials should be close to the expected value and will tend to become closer to the expected value as more trials are performed (Wikipedia). In the case of Normal Distribution, its expected value would be closer, to zero.

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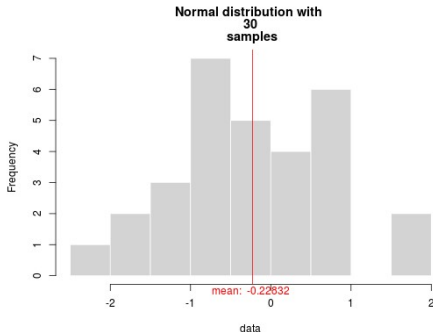
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Please choose the number of samples:



Normal Distribution



Thanks