Course Project for Statistical Inference

Overvie

In this Course Project we will investigate the distribution of average 40 exponentials generated by a thousnad simulations and compare it with the Central Limit Theorem.

Simulation Logic

We follow the logic of the example code shown on the assignment website to first create a NULL vector called mns. We then generate 40 random exponentials with lambda = 0.2 and calculate its mean and append it to the NULL vector mns. We keep doing this for 10000 times and plot the histogram of the resulting data to check the Central Limit Theorem.

Simulation Code and Results

```
lambda <- 0.2
mns <- c()
for (i in 1:1000) mns <- c(mns, mean(rexp(40,lambda)))
hist(mns)
```