**INPUT:**

#Given the parameter (lambda)

lambda <- 0.2

#Calculate Mean(Expected Value)

mean\_value <- 1/lambda

mean\_value

#Calculate Variance

variance\_value <- 1/(lambda^2)

variance\_value

#Generate random samples from the exponential distribution

sample\_size <- 1000 #You can adjust the sample size

samples <- rexp(sample\_size,rate = lambda)

#Create a Histogram

hist(samples,breaks=20,main="Exponential Distribution Histogram")

**OUTPUT:**

> mean\_value

[1] 5

> variance\_value

[1] 25

