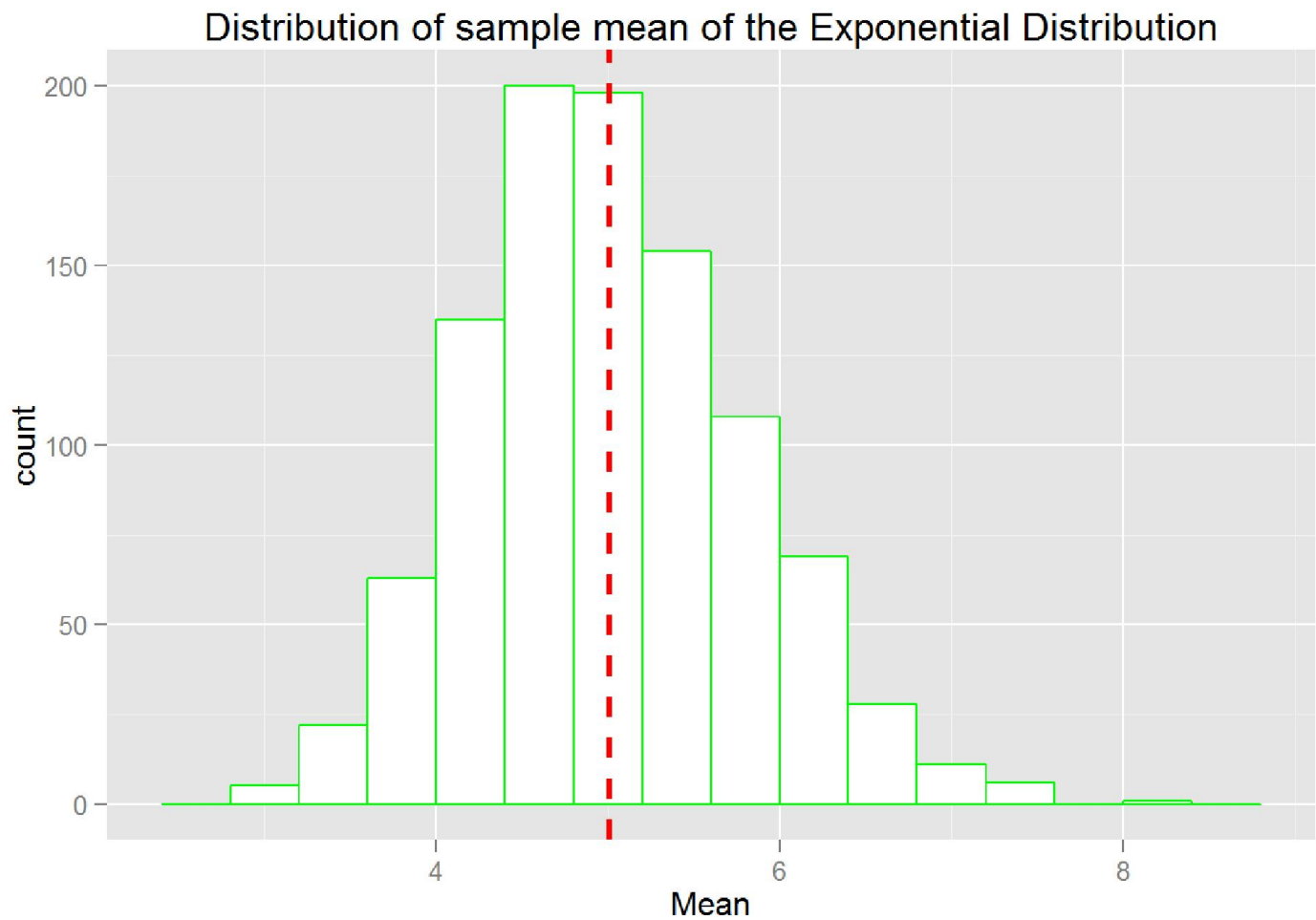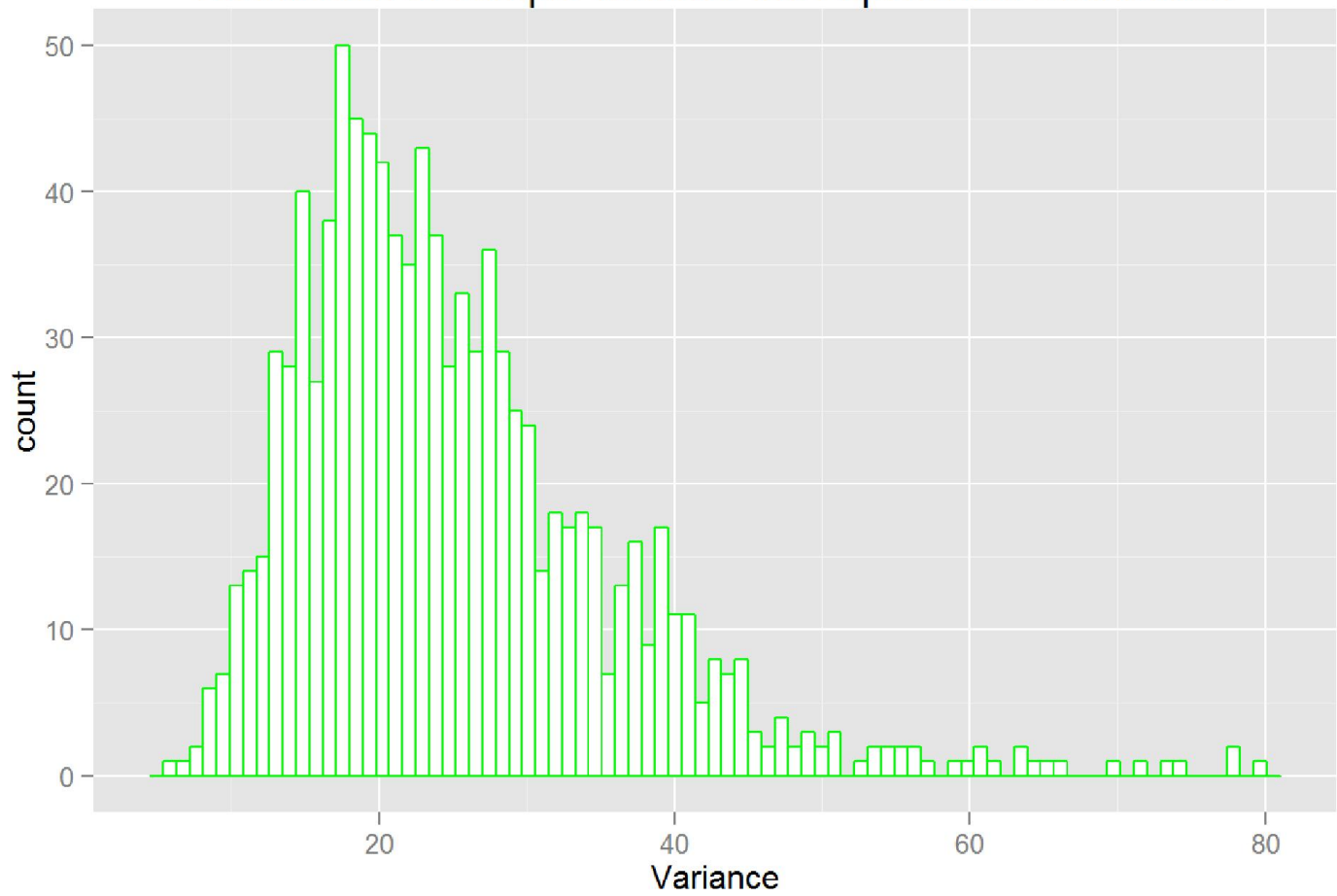# Statistical Inference_Simulation Exercise


```
## Mean of this Distribution is 5.007076
```

```
## Theoretical mean of this  distribution is : 5
```

```
## Warning: position_stack requires constant width: output may be incorrect
```
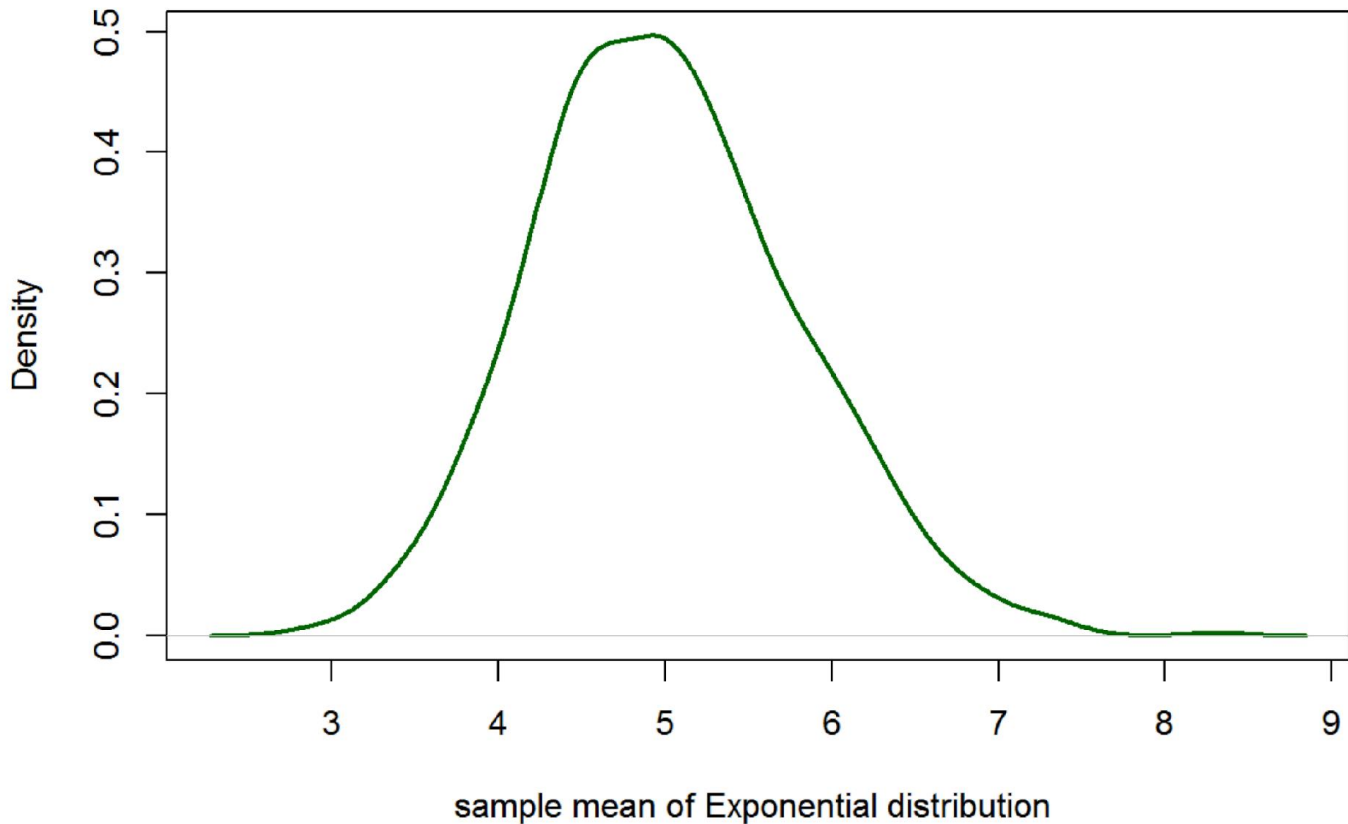
Distribution of sample variance the Exponential Distribution


```
## variance of this sampling Distribution is (center of the mass /no. of simulations) 0.0252465
```

```
## Theoretical variance  of Exponential distribution is: 0.025
```

Distribution of the Sample Mean

sample mean of Exponential distribution

The above distribution curve shows that simumations that we did is approximately NORMAL.