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# Monte Carlo Simulation
# Assignment 7

**Ques1:**
Assuming the stock prices follow the Geometric Brownian Motion model, estimated the value of μ and σ.

- The estimates obtained:

```
Eu =  5e-05
mu =  0.000298
sigma =  0.022282
```

To calculate 1000 possible values of the stock prices on the given dates, generated 1000 random samples belonging to the Standard Normal Distribution.

- Values of the mean of the 1000 possible values generated by using the formula mentioned in the slide:

```
Obtained value for 7th Oct 2020: 186.04
Obtained value for 14th Oct 2020: 186.46
Obtained value for 21th Oct 2020: 186.86
```

**Ques2:**

- The percentage error in the predicted values and the actual values:

```
Percentage error for 7th Oct 2020: 2.45
Percentage error for 14th Oct 2020: 6.79
Percentage error for 21th Oct 2020: 8.29
```