CTE ASSIGNMENT 2

Q1. You are simply supposed to code the Black Scholes Equation on Python and check if the premium price using your formula is the same or not! Extract the last price row of stock ‘MSFT’ . Set the risk free rate, r, equal to 2.5% (0.025); the strike price, K, equal to 250.0; and the time horizon, T, equal to 1, respectively. Find the option value using the Black Scholes Formula

Q2. Use the discretized version of the stochastic equation for an asset and perform 1000 iterations of a simulation for daily data for the next 252 data points. Use the value of S0 as the last price data for ‘MSFT’.

Q3. Perform the same simulation as in the above question but for a Cox-Ingersoll-Ross model. (Read about how to discretize it)

Further Reading

- Read about the binomial asset pricing model and try to perform a simulation in Python

All the best!

Submission Deadline: 30th April, 2021
Mail your submission @ wsc.bitsgoa@gmai.com with subject CTE Assignment 2