Implementing Black Scholes in Providing Easily-Accessed Objective Stock Predictions

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Abstract

This project investigates creating an application that downloads stock information from the Internet and applies to it the famous Black Scholes algorithm, outputting the result. The Black Scholes algorithm is used in modeling price variaton over time of securities that are heavily traded. This application prompts the user for one of several available heavily traded stocks, pulls that stock's information from the Internet, and applies the Black Scholes algorithm to it. The goal of this project is to create an easy to use application that gives the user not just stock information but to an extent objective stock advice.
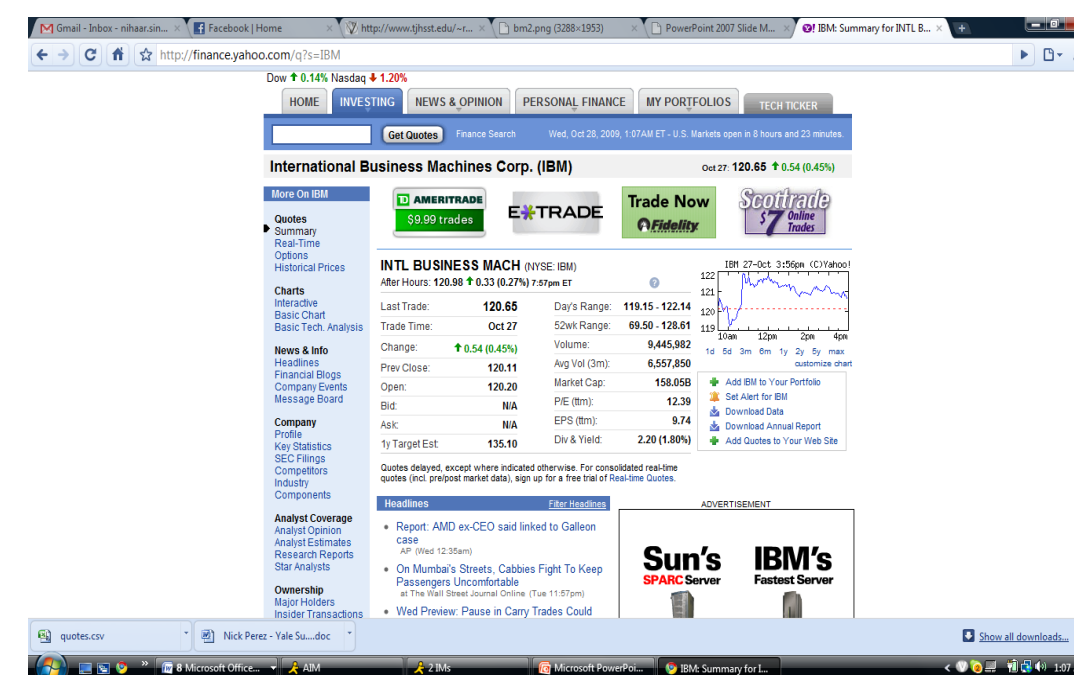
What is Black-Scholes?

Black-Scholes is a mathematical model of price variation

Heavily traded assets follow geometric Brownian motion

Constant drift and velocity of these assets

One of the most famous financial processes

Multiple Stocks

User will be able to pick from selection the stock

User is only prompted for stock symbol
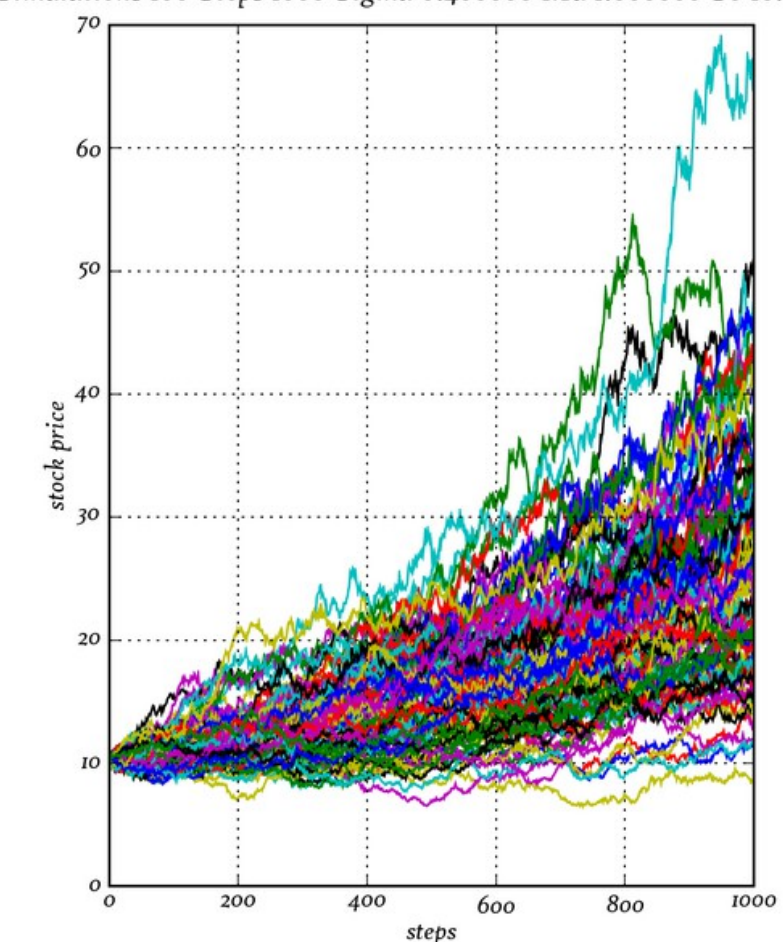
Import URL is thusly customized

Reading in Data

Source code is imported from the Internet

Data is parsed for keywords

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Parsing data means source must be permanent

Source utilized is Yahoo! Finance

http://finance.yahoo.com/q?s=IBM

Brownian Motion

http://www.alexfb.com/twiki/pub/PtPhysics/WebHome/bm2.png

Class Structure

The Main method prompts for the stock symbol and imports the data

Main method also calls for the Black-Scholes implementation

The Black-Scholes class calculates the price

Black-Scholes class also returns the result

Result is outputted in the Main method