Business Case - Stock Trading System

The company needs to train their stockbroker on how to buy and sell stocks. The IT department has been asked to design and develop a new technology solution.   Here are the requirements for the new **Stock Trading System.**

Project Definition:

The project is to create a stock trading system where users can buy and sell stocks. The system will support two types of users. One is the customer who will buy and sell stocks and second is the administrator of the system who is responsible for creating the stocks and setting the initial price.

Customer Required Functions:

- Create a user account with full name, username, email., password.
- Can buy and sell stocks at market price.

The user will have the option to cancel this order before it gets executed.

- View their current portfolio of stocks and cash.
- View their history of transactions.
- Ability to deposit and withdraw cash.
  - The user when depositing cash will have the funds go into a cash account.
  - The user will only be able to withdraw money from their cash account.
  - When stocks are sold the funds will go to cash account.

Administrators Functions:

- Create new stocks.
  - Include Company name, stock ticker, volume, and initial price.
  - Volume will be total amount of shares purchased.
- Change market hours.
  - Users will only be able to execute trades during market hours.
- Change market schedule
  - Market will only be open during weekdays and closed on holidays.

Design & Develop a Client/Server Application comprise of:

1. Graphic User interface (web pages) :

- Display available stocks that can be traded.
  - Show stock ticker, price, volume, and market capitalization (volume X price)
  - Show opening price for the stock
  - Show high and low during the day
- Perform the user and administrator functions

2. Relational Database(S) Backend to store the data. Database contains user data, and system data. System data is used to for calculations, and for security (ie. logging events)., for example timestamp for account creation, timestamp for transactions for stock events or cash events.

 3. Random Stock Price Generator: Allow the stock prices to fluctuate during the day with a custom random price generator. The price will gradually go up or down throughout the day.