Abstract
(Portfolio Management System)

Course Code: CS254 **Course Title:** DBMS LAB

Semester: B. Tech 4^{th} Sem **Section:** S2

Academic Year: 2020-21 **Course Instructor:** Dr. Annappa B and Mr. Sharath Yaji

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Brief Description:

The project aims to build a web application that eases and automates the task of monitoring one's investments. It maintains a record of the list of stocks that have been bought and sold by the user and other details such as the number of units of stock and the price of selling/buying at that time. By maintaining a history of all transactions the user at any time can get a comprehensive overview of the various investments and the amount spent and profit/loss generated from each transaction.

We maintain an admin user who can adjust the prices of all the stocks in the exchange. These changes will be reflected in each user's portfolio and the current prices of the stocks they have bought will change according to this. There will be a global table maintained by the admin user that lists all the stocks and their current prices. The users can only view this table and search for any stock they are interested in. The app provides a simple user friendly functionality to buy/sell the mentioned number of units of stock of a particular corporation.

To ease the life of an investor we plan to maintain various charts and graphs to indicate the different sectors in which the investor has put money in and it will also help to maintain a diverse portfolio. The user can initially enter the amount of money he wants to spend and then based on profit/loss generated by him after each transaction that value will keep changing. At any time the user can add more money to his account or withdraw it away also.

One possible extension we could implement was to fetch the prices of stocks in real time using an API instead of maintaining an admin type of user.

Key Features:

1. Login facility
2. Buying
3. Selling
4. Investor Portfolio
5. History of Transactions

Software Specifications:

- Frontend: HTML, CSS, JavaScript
- Backend: NodeJS, MySQL

References:

1. https://cs50.harvard.edu/x/2020/tracks/web/finance/
2. https://medium.com/@ibadsiddiqui/using-mysql-with-nodejs-657b63b9f794
3. https://nodejs.org/en/docs/

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