

CMSC388J Final Project Write-Up

Website: <https://stock-tracker-388j.vercel.app/>

GitHub: <https://github.com/pkhatri8/stock-tracker>

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Overview

The stock tracker website we built gathers all the information from the Stock API such as the stock name, symbol, high, low, volume, etc. It then allows the user to search up any stock in the market through its symbol. When the user searches up a stock, they may be able to see all information of the stock and view the watchers of that stock. If the user is logged in, they may also add themselves into the watchlist and check out their profile which has information about their username, profile picture, and their watchlist (includes the stock's name, symbol, high, low, and watch date). Additionally, the logged in users may also see the number of stocks they are currently watching.

Registration and Login

The website gives the user the option to either login or register. The user may login using their username and password, register using an email, or just use the website as a guest. Logged in users will be able to add stocks to their personalized watchlist, view their watchlist, and access their personal dashboard that shows all the watched stock's name, symbol, high, low, and watch date.

Forms

SearchForm – Allows users to input a search query and submit it

stockWatchForm: A form with only a submit button, used to let users watch a specific stock

RegistrationForm: Used for new user sign-ups which collects a username, email, password, and password confirmation

LoginForm: A login form with fields for username and password

UpdateUsernameForm: Allows users to update their username

UpdateProfilePicForm: Enables users to upload/update a profile picture, restricted .jpg or .png files

Routes/Blueprints

Blueprint 1: users

- /register: handles user registration
- /login: authenticates users
- /logout: logs out the currently logged in user
- /account: displays and manages the user account page

Blueprint 2: stocks

- / (index): the homepage of the app
- /stocks/<stock_id> (stock_detail): shows detailed information about a specific stock using its symbol
- /user/<username> (user_detail): displays a public profile page for a given user

Database

We used MongoDB to store the user data such as the username, email, password hash. Additionally, we also use it to store the watchlist of every user. This data will be retrieved to update or display the watchlist.

API

We used the stock market API called [TwelveData](#). We were able to fetch real-time stock data including price, percentage change, and volume. The user is able to search for stocks to view these live updates on the stock page.