

# **Generic Stock Market Tracker Web Application**

**CSC 330-01 Fall 2023**

## Contributors:

### Kyle Gomes:

#### SRS:

- Wrote the Users section on this document detailing the user roles/types as well as possible benefits and potential people that may use it.
- Created UML Use Case Diagram
- Created Structure Diagram

#### Web App:

- Wrote the app.js file - [app.js reference page - Kyle Gomes](#)
- Wrote and Updated the sql code using the ER diagram
- Made the HTML, JS, and server system for the Registration Page (with some help figuring out how to have the db communicate with the server without errors)

### Mohamed Ramzeen:

- Wrote the system function of this document.

### John Rosso: [CSC 330 Group Project References - John Rosso](#)

- SRS:
  - Created this document's vision section in the background paragraph.
  - Wrote the searching stocks, stock analysis, compare stocks and generate stock report user stories.
  - Wrote non-functional specifications list.
  - User Interface Design.
  - Helped create ER diagram
- Web App:
  - Made front page HTML and search bar JS. (non-user & user versions)
  - Made Stock page HTML and Stock page JS. (non-user & user versions)
  - Made Login page HTML, JS, and server system.
  - Made Saved list page HTML, JS, and server system.
  - Made Compare page HTML, JS, and server system.
  - Helped make the registration system work.

### Nate Schambach:

- Wrote the document's focus section.
- Wrote the stock saving, searching stocks II, login, and update info user stories.
- Created sequence diagram
- Created ER diagram

### **Project Background:**

Our application's vision is simple in words yet complex in development. We aim to provide a stock market tracking tool for our users. In developing this new tool we hope to create a simple and convenient way for our users to view and track the stocks they are interested in.

Our application's focus will be for the user to be able to easily search stocks in the system. This starts with looking for any stock. We then seek what the stock is at its current price.. The user will be able to compare the current price to previous stock prices. The aim is that through viewing current prices and past prices the user will be able to make projections on future prices.

Our system functions cater to a diverse user base. Users can easily access stock prices, both current and historical, and conduct efficient stock searches. Registered users can save stocks for portfolio management. Non-registered users have access to stock searches and price analysis. Administrators maintain system integrity. We aim to serve traders, investors, students, and analysts while ensuring impartial administration.

Our aim is to accommodate many different types of users with our application. Firstly, we have users with a login which will be the main user role for our application. The benefits that this user is able to enjoy include being able to search for stocks, save stocks in a list, and look at prices. Possible users that may prefer this option include seasoned traders, beginner investors, and portfolio managers. The next user role is one that does not require a login, and because of this the user may enjoy limited benefits compared to users that are logged in. For example, they may only search for stocks and look at stocks but lose the ability to save information. Possible users that may prefer this option include students who are studying the market, and historical analysts who look at stock trends and predict what they look like in the future. The last user role is the Administrator, and this user has the important job of providing maintenance, and updating information within the application. This user role is restricted to company employees and is not accessible by the general public. The administrator has access to all features but cannot use the application for personal gain and must act impartially in their duties.

## **User Stories:**

### **Searching Stocks:**

As a non-registered user,  
I want to search for stocks,  
So that I don't have to look for stocks manually.

### **Stock Analysis:**

As a non-registered user,  
I want to see analysis on a stock I am currently looking at,  
So that I don't have to run equations on the stock manually.

### **Stock Saving:**

As a registered user,  
I want to save stocks,  
So I can access stock information at a later date.

### **Searching Stocks II:**

As a registered user,  
I want to search my saved stocks,  
So I can easily compare prices and make projections on the stock in the future.

### **Login:**

As a registered user or admin,  
I want to have login credentials,  
So I have easy access to my profile and can easily navigate the application's features.

### **Update Information:**

As an admin,  
I want to update information on stocks,  
So that all users have the most up to date stock details, making trading and analyzing easier

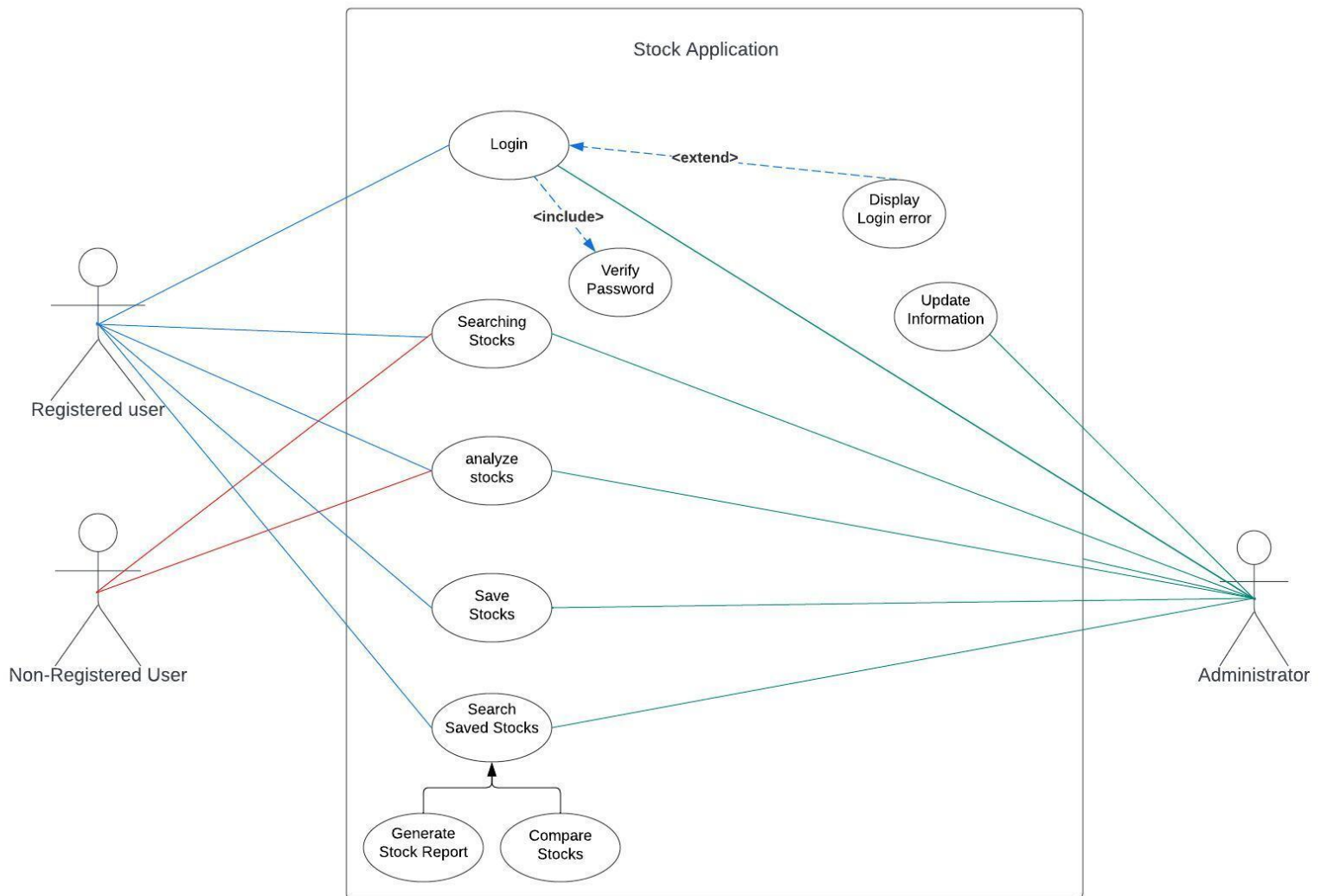
### **Compare Stocks:**

As a registered user,  
I want to compare my saved stocks,  
So that I don't have to switch back and forth between stocks I am comparing.

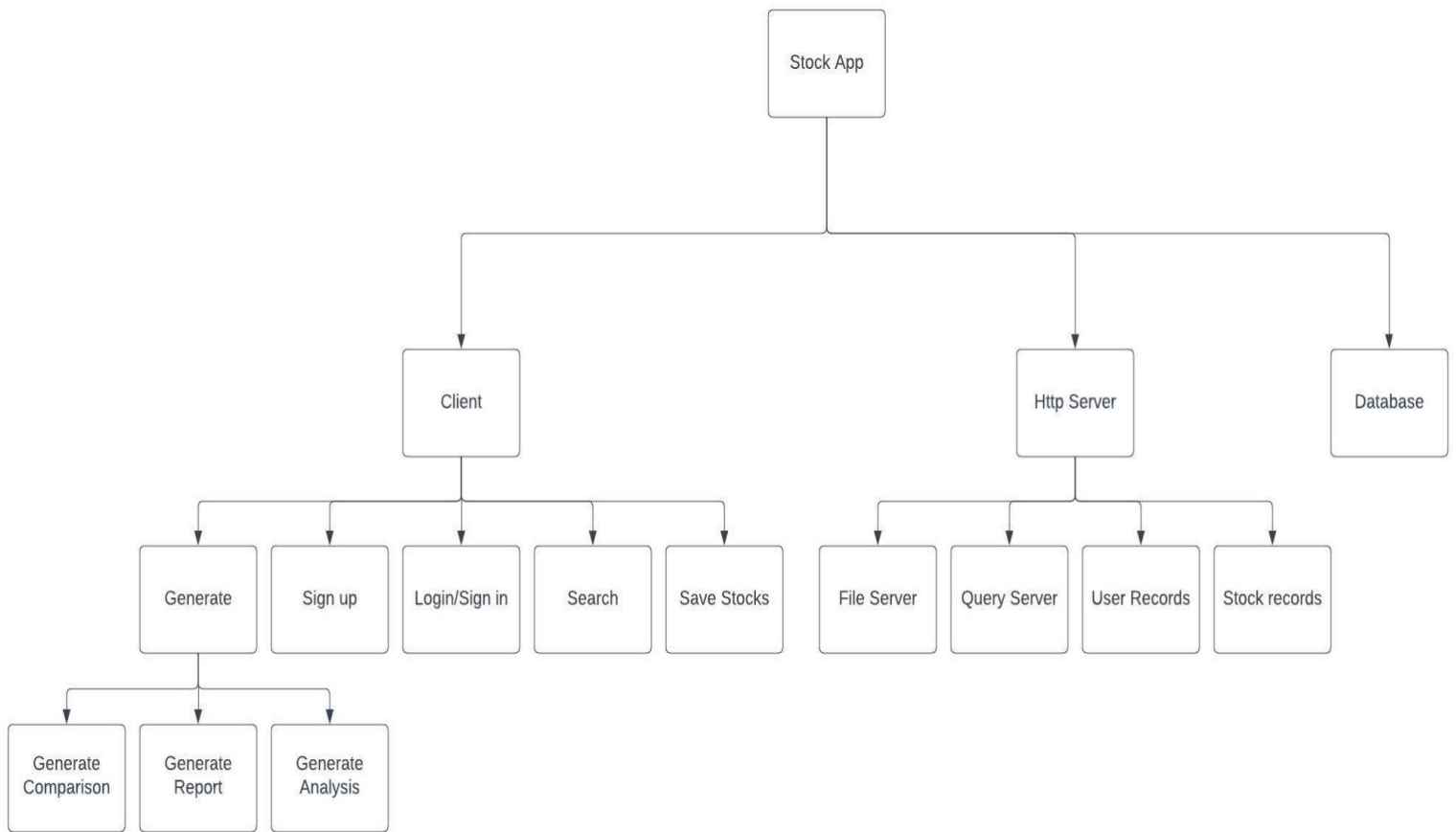
### **Generate Stock Report:**

As a registered user,  
I want to generate reports on saved stocks,  
So that I can better understand the performance of my saved stocks.

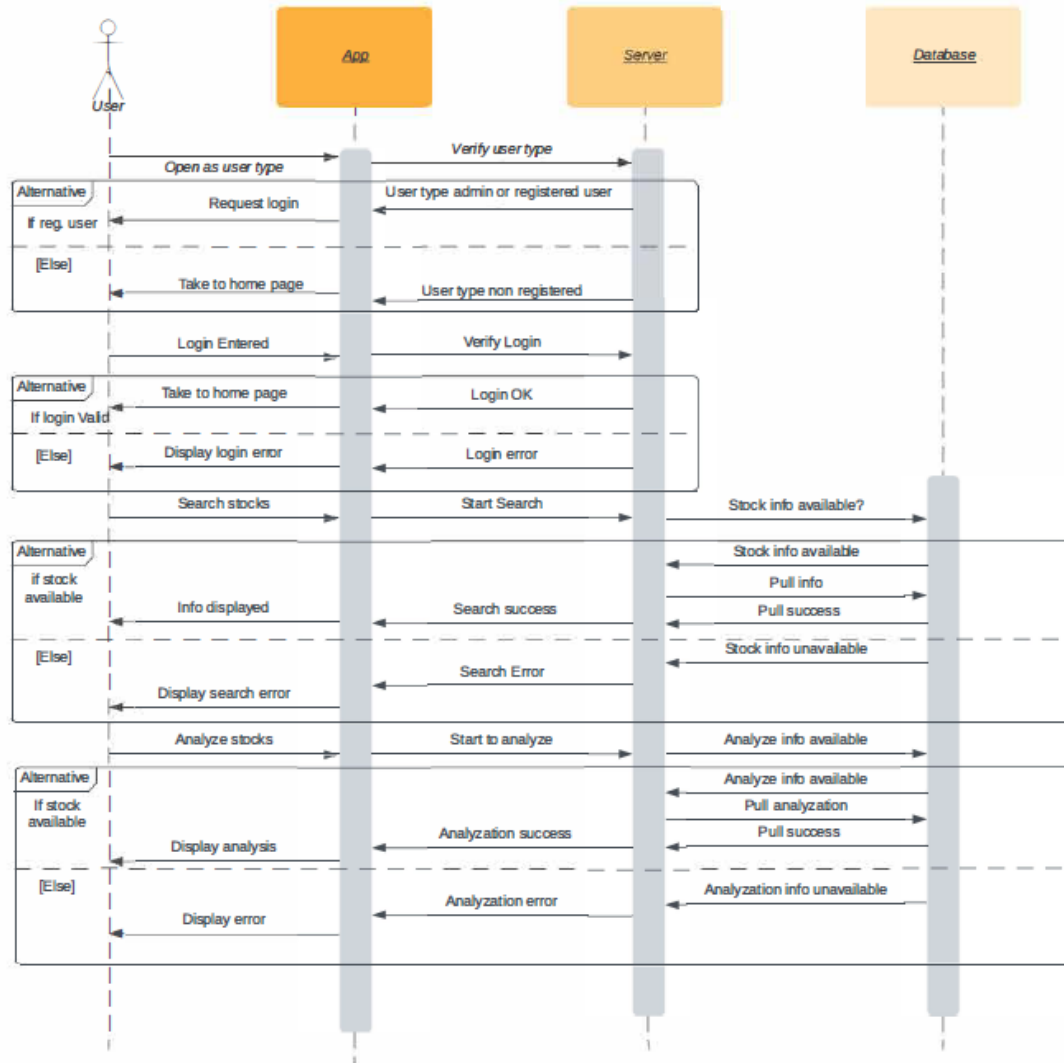
## Use Case Diagram:



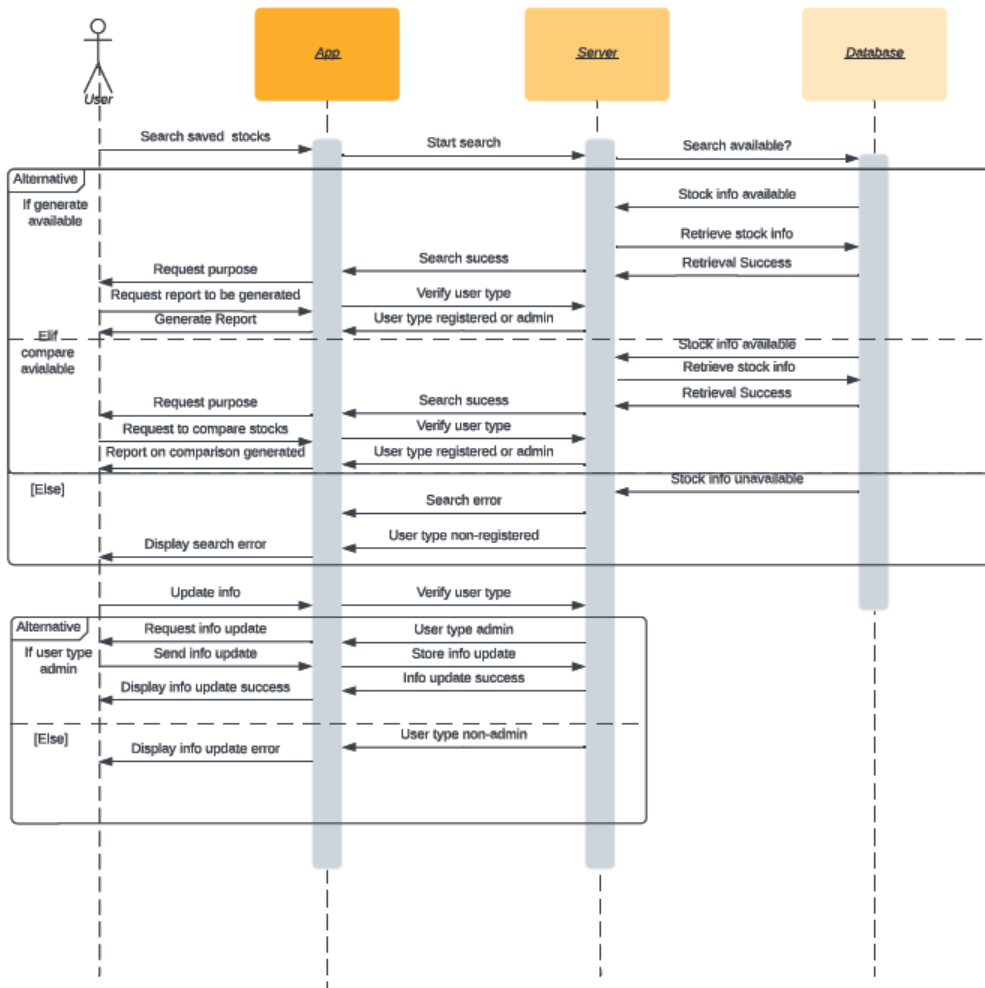
## Structure Diagram:



## Sequence Diagram:

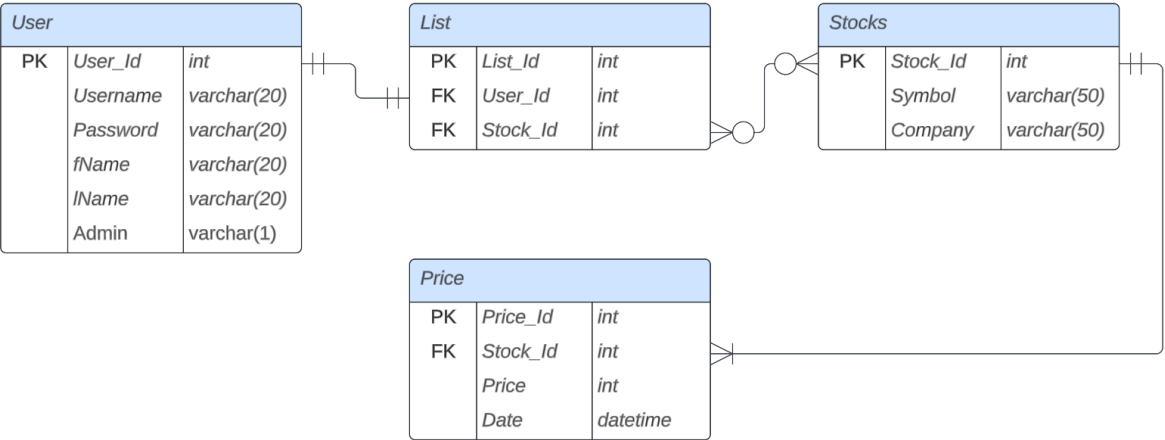


## Sequence Diagram Cont.

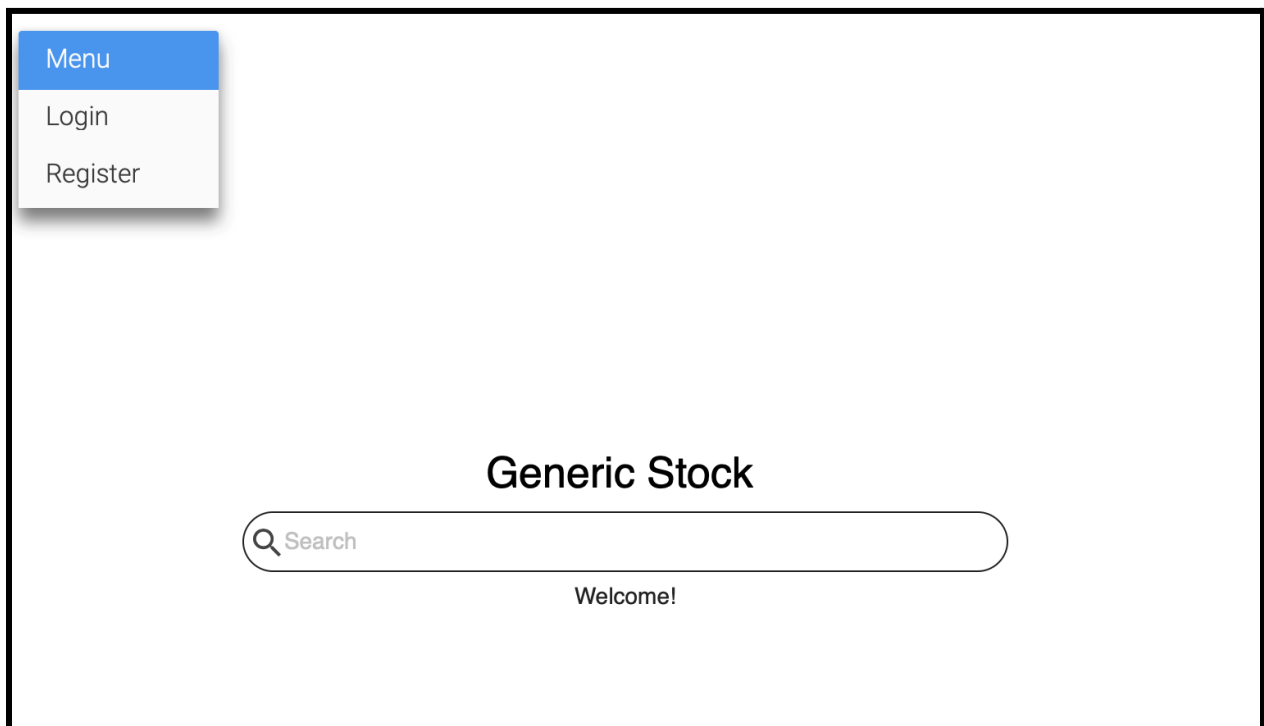
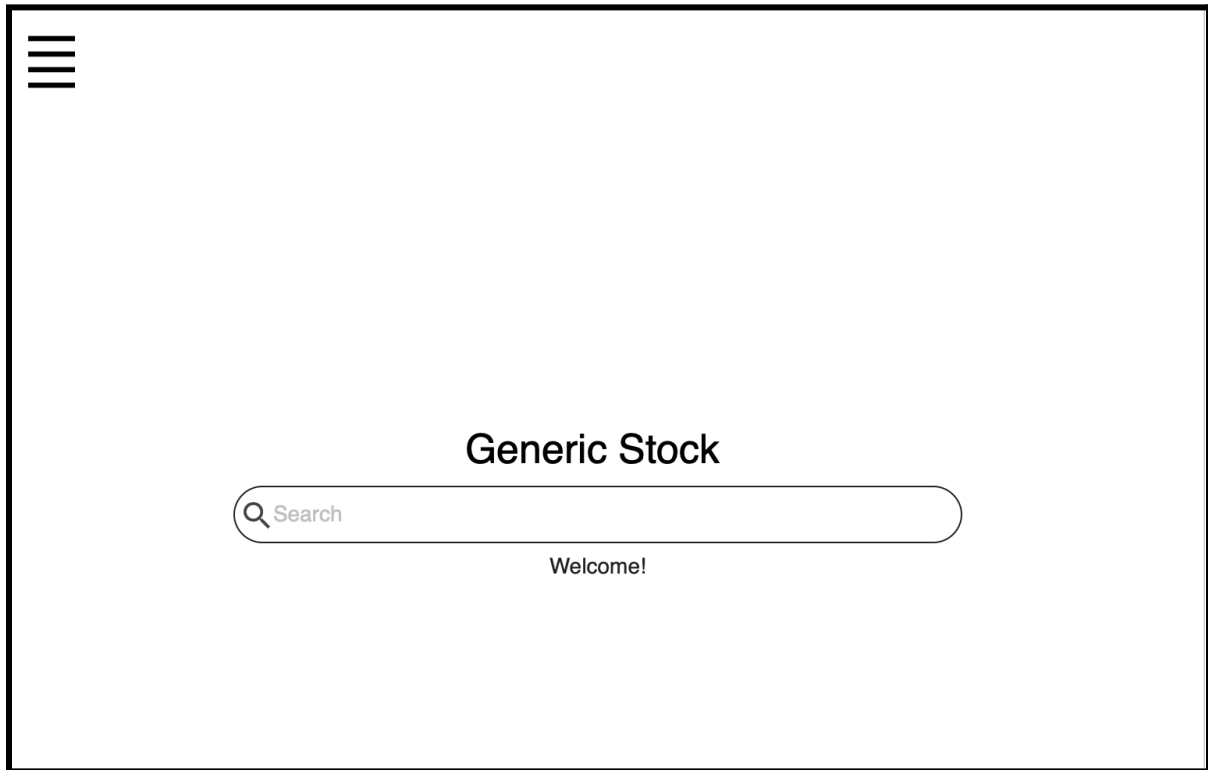




ER Diagram:



## User Interface Design:



Login

Email

Placeholder

Password

Placeholder

## Generic Stock

 Search

Welcome!

Menu

Saved Stocks

Log out

## Generic Stock

 Search

Welcome back Bob!

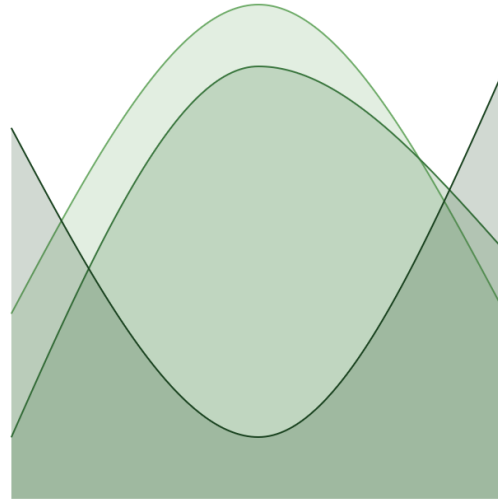


## Generic Stock

Stock Name

| Info       |
|------------|
| Data point |
| Data point |
| Data point |
| Data point |

Report



## Generic Stock

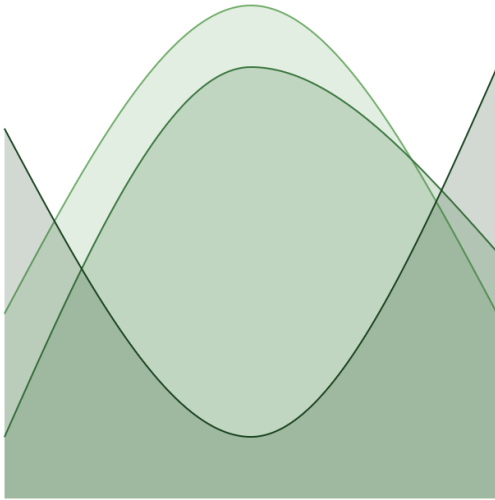
| Saved List |                       |
|------------|-----------------------|
| Stock Name | <input type="radio"/> |
| Stock Name | <input type="radio"/> |
| Stock Name | <input type="radio"/> |
| Stock Name | <input type="radio"/> |

Compare

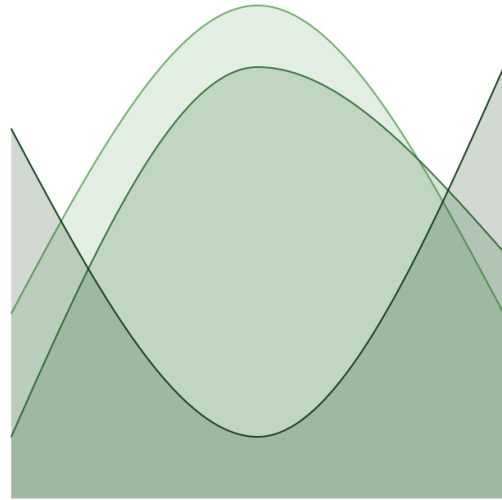


## Generic Stock

Stock name



Stock name



## **Non-Functional Specifications:**

- Computing platform: Google Cloud
- Computing operating system: Ubuntu 20.04 LTS
- Computing languages & platforms:
  - HTML (Web application interface)
  - Javascript (Web application functionality)
  - Node js (Server)
  - Ajax (Client)
  - MySQL (Database)
- Localization:
  - English
  - US Dollars
  - US Stock markets
- Security: Login passkey for registered accounts
- Usability: Reference for stock information
- Compatibility: Computing device that can connect to the internet and run an up to date web browser