

# Stock Doc App

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# **Introduction**

## **Purpose of Document**

This is a requirements specification document for an investing application for the application Stock Doc.

## **Background**

Investing is an important stepping stone for financial success and stability. Yes, there are risks associated with investing in the stock market, that's why new investors compare it to gambling; sometimes you win and sometimes you lose. Worst of, a recession comes and brings down the value of stocks. A stock market is a place where people can buy and sell shares of publicly listed companies. However, it is important to note that a person can trade in the stock market only through a registered intermediary known as a stockbroker.

The buying and selling of shares take place through an electronic medium and this trading may either be through exchanges or sometimes it might be carried out through over-the-counter markets. Stocks are preferably purchased for investment purposes when their prices are low so that they produce relatively high profits through dividends. To determine the quality of various stocks, an investor should consider a number of factors.

These factors include management of the company, the products offered by the company, the competitive position of the market, the asset base, the company's liquidity, the volatility of the stock, and the strength of the company's corporate governance. All investors pay attention to current events, but guerrilla investors need to think even more deeply about the long term. The stock market is also referred to as the equity market and it serves as one of the most important areas of a country's economy, but more importantly, a way for anyone to invest in their future.

As investing in crypto currencies becomes more mainstream, Stock Doc anticipates an increase in potential customers that would use our application to help them make decisions and allow them to directly purchase cryptocurrencies on the open market.

## **Project Scope**

The scope of the project is an application that connects stockbrokers and investors by using this software. The software is capable of obtaining data from a financial analytics website, the user then can target their desired buy or sell price for that stock or cryptocurrency.

## **System Purpose**

### **Users**

Those who will benefit from this application will include:

#### **Customers:**

Customers will find the navigation of our interface to be smooth and seamless, with the features and tools included in our software helping them make decisions on their investments.

#### **Brokers:**

The application will provide brokers with a comprehensive list of their clients that have used their services. The brokers can then collect their commission via our brokerage portal.

## **Location**

The software will be available to any prospective customer using the internet.

## **Responsibilities**

The primary responsibilities of our software:

- Provide customers with a system that allows them to select desired they can make a decision to buy or sell
- Allow the user to target a desired buy price
- Allow the user to target a desired sell price
- Allow customer to buy or sell their shares or crypto currency
- Allow customers to transfer funds to their virtual wallet
- Provide stock brokers to collect commission
- Provide investors with a guide on investing upon request

## Glossary

**Broker** - a person or firm who arranges transactions between a buyer and a seller for a commission when the deal is executed

**Cryptocurrency** - a digital currency in which transactions are verified and records maintained by a decentralized system using cryptography, rather than by a centralized authority.

**Investment** - the action or process of investing money for profit or material result.

**Investor** - a person or organization that puts money into financial plans, property, etc. with the expectation of achieving a profit.

**Market Price** - the price of a commodity when sold in a given market.

**Portfolio** - a range of investments held by a person or organization

**Shares** - one of the equal parts into which a company's capital is divided, entitling the holder to a proportion of the profits.

**Stocks** - a share which entitles the holder to a fixed dividend, whose payment takes priority over that of common-stock dividends.

## Functional Requirements

1. The application must have a login system.
2. Tutorials will be provided for users who wish to learn how stock/cryptocurrency works.
3. The application must provide stock/cryptocurrency information and the user will be able to save it to their watchlist for easy access
4. The application must update stock/cryptocurrency information in real-time.
5. The application must be able to buy stocks/cryptocurrency manually.
6. The application must be able to let the user set a price to automatically buy a certain stock/cryptocurrency.
7. The application must be able to sell stocks/cryptocurrency manually.
8. The application must be able to let the user set a price to automatically sell a certain stock/cryptocurrency the user owns.
9. The application must notify users about relative changes in stock/cryptocurrency.
10. The application must be able to let users view their portfolios.
11. The application must be able to provide the probability of stocks/cryptocurrency changes.

## **Non-functional Requirements**

### **Usability**

- Easy to use program. Provides tutorials and beginner information for users that are not familiar with stocks/cryptocurrency.
- A user can easily access stock/cryptocurrency information and should be able to find and view that page easily.
- Users are able to pre-set a buy/sell order if the desired amount of a certain stock/cryptocurrency is met.
- Users will be notified if changes are made in stock/cryptocurrency.

### **Supportability**

- Will be able to run using Windows, Linux, and IOS.
- Recommended hardware is 2.71 GHz or faster processor, 16 GB Ram or more, 2 GB to 15GB available space, installation requires 1-5 GB of free space, Video card that supports a minimum of 720p resolution (1280 by 720).

### **Performance**

- In the meantime to view a stock/cryptocurrency page shall not exceed 2 seconds.

### **Data Integrity**

- Able to fetch the details of a stock/cryptocurrency accurately.
- Stock/cryptocurrency information will be updated periodically (every 30 seconds).

### **Security**

- Users will have an account that is private.
- Easy password retrieval if the username/password is forgotten.
- Users will be logged out after a total of 5 minutes of inactivity (will warn users that they will be logged out in 2 minutes after 3 minutes of inactivity).
- The payment processing gateway must be PCI DSS compliant.

User Interface Requirements

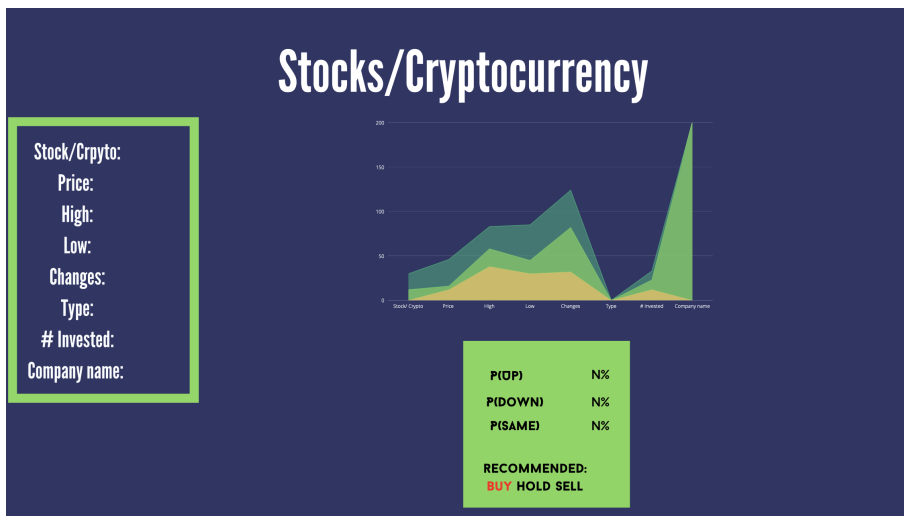
Stock Market							
Name	Tag	Price	High	Low	Changes	Type	Return Investment
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Stock Market: View the total market of both the NASDAQ and the DOW Jones.

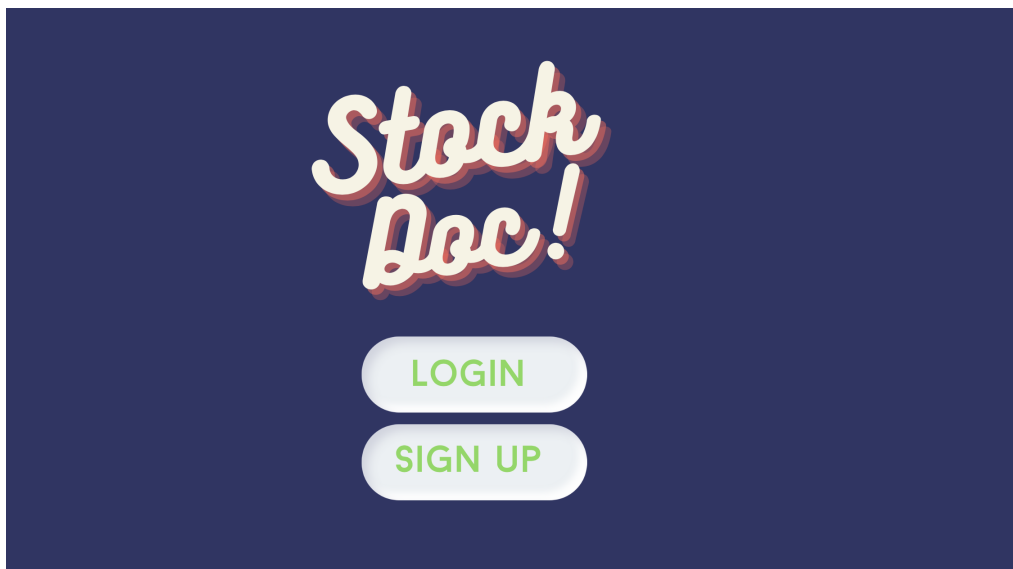
Portfolio							
Name	Tag	Price	High	Low	Changes	Type	Return Investment
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Portfolio: View the stocks and cryptocurrencies that the user has invested in



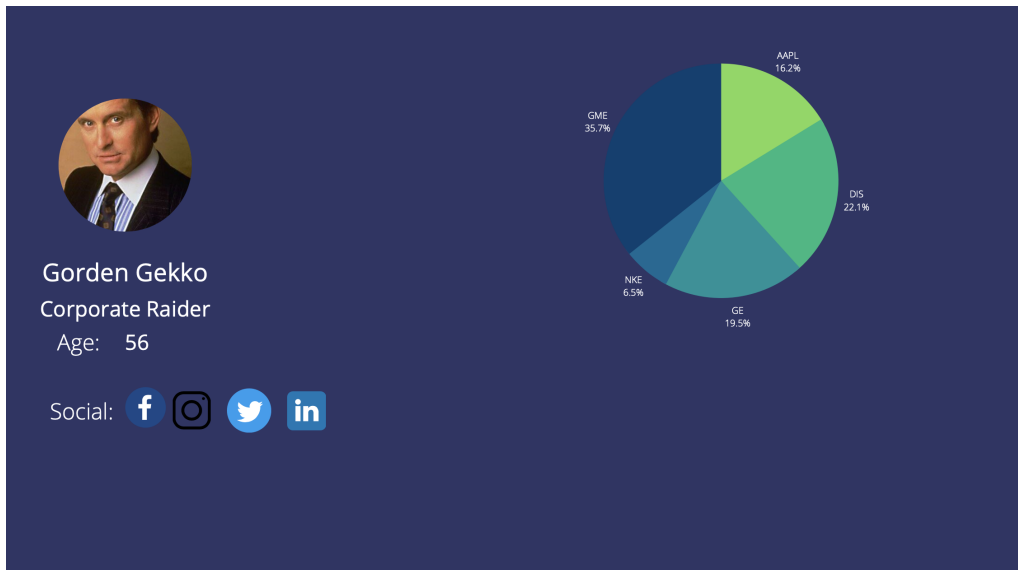


Stocks/ Cryptocurrency: Users are advised to whether to sell buy or hold their stocks, from watching the stock market.



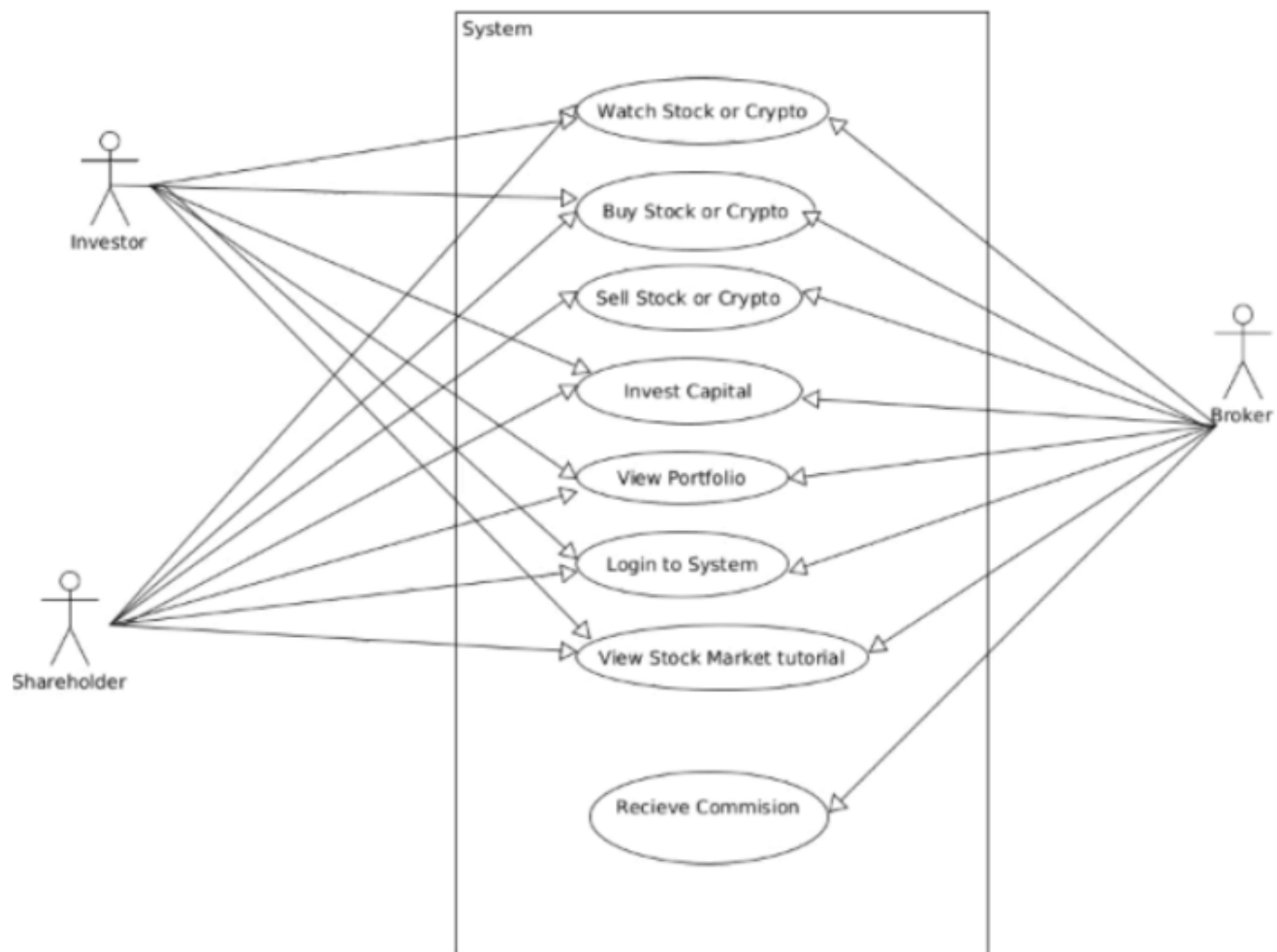
Login page: Users are greeted with this to login into the application.





User Profile page: Users can have their accounts be made public or private and have a social media aspect as well as links to their social media accounts for new followers.

## Use Cases



### 1. Watch Stock/Cryptocurrency

Actor/User: Investor/Shareholder/Broker

Description:

The user can browse the stock market and create any kind of list. The user may then select a stock and save it onto the list so that the user can easily access it without searching through the market.

### 2. Buy Stock/Cryptocurrency

Actor/User: Investor/Shareholder/Broker

Description:

The user can input the number of shares they are willing to purchase and how much they must spend in order to invest in them. The value of the share is multiplied by the quantity of the stock that will be bought and the user is notified whether or not to confirm the purchase. If yes, then the cost is subtracted from the user's virtual wallet. Otherwise, the transaction is canceled.

### **3. Sell Stock/Cryptocurrency**

Actor/User: Shareholder/Broker

Description:

The user can input the number of shares they are willing to sell and how much capital they will get in return. The value of the share is multiplied by the quantity of the stock owned and the user is notified whether or not to confirm the sale. If yes, then the user gets capital minus a commission percentage for brokers and stored into the virtual wallet. Otherwise, the transaction is canceled.

### **4. Invest Capital**

Actor/User: Investor/Shareholder/Broker

Description:

The user may input the amount of money from their credit card and store it into a virtual wallet that can be used to buy or sell shares and/or cryptocurrencies. The user will type in an amount along with credit card info and the user is notified whether or not to confirm the investment. If yes, money is stored in the wallet. Otherwise, the transaction is canceled.

### **5. User View Portfolio**

Actor/User: Investor/Shareholder/Broker

Description:

Users will be able to view the collection of stocks/cryptocurrencies that they have or interacted with.

## **6. User Login**

Actor/User: Investor/Shareholder/Broker

Description: The user will be presented with the login page to access their account. If the user is using the app for the first time, they will be presented with an option to create their account. Account creation includes username, password, e-mail address, and 5 security questions that they can set up for account recovery.

## **7. User View Stock Market/ Cryptocurrency Tutorials**

Actor/User: Investor/Shareholder/Broker

Description:

On the main page of the app, users will have an option to click on tutorials about the stock market and cryptocurrency. This is for the users that are new or want to review details about the stock market/ cryptocurrency.

## **8. Receive Commission**

Actor/User: Broker

Description:

On the broker's page, It will show the broker's client list. The broker then clicks the specific client that the broker wants to get the commission from. After confirming the information, the commission will be sent to the broker's virtual wallet.