TradersGem:

Simple, Functional, Valuable.

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Functional Specifications

The overall goal of the application is to be able to keep a trader fully informed and educated regarding his current position and probable position on any one current or possible trade. It is to be a tool that will provide valuable information for the trader on the go, so that an opportunity will not be missed and profits may continue to flourish.

- The application will include a username and password for each other, which will be linked to their account.
- Customer will be able to create a new account.
- Customer will be able to access his/her account using their unique username and password.
- Customer will be able to view a list of stocks that they own.
- Customer will be able to view information of the specific owned stocks including a graph of the how the price of the stock has changed recently, how much they bought the stock for, how much it is worth now, and if they are making money or losing money on the stock.
- Customer will be able to sell the stocks they own for the current market price.
- Customer will be able to create a watch list for which they will be able to add stocks which they are interested in.
- Customer will be able to view the specific details about the stocks on the watch list including a graph of how the price of the stock has changed recently, how the stock was when it was added to the watch list, how much it is worth now, and if they price has increased/decreased.
- Customer will be able to buy stocks that are on his/her watch list.
- Customer will be able to remove stocks from his/her watch list.
- Customer will be able to view statistics of all their overall profile how their performance is doing. The app will display a graph with how the overall value of the user's profile has changed over time, how much money they have invested, how much their investment is worth, the percent of the gain/loss.
- The app will provide simulation of stocks based on certain parameters.
- The customer will be able to view graphical analysis.
- The customer will be able to add notes to desired stocks.

Use Cases

1. New User Login

1. User clicks on the application
2. Application launches and inquires for log in ID and password or create new user.
3. User selects "Create New User".
4. Application opens a screen prompting for the desired username and password.
5. User enters a desired username and password.
6. User clicks "Create Account".
7. Application verifies the username is not already taken.
8. Verification succeeds; the user is presented with the home screen displaying the main portfolio options.

Variation #I. User Exists System

1. Continue from step 4.
2. User exits before clicking "Create Account".
3. System discards user data and exits.

Variation #II. Username already exists

1. Continue from step 7.
2. Application verification fails.
2. Application displays dialog "User account already exists".
3. User clicks OK on dialog.
4. Continue to step 4.

2. Current User Login

1. User clicks on the application
2. Application launches and inquires for login ID and password or create new user
3. User enters the information in the fields provided

4. Application verifies user login.

5. Verification succeeds; the user is presented with the home screen displaying the main portfolio options.

Variation #I. Username or Password incorrect

1. Continue from step 4.
2. Application verification fails.
2. Application displays dialog “User name/Password is Invalid! Try Again… ”.
3. User clicks OK on dialog.
4. Continue to step 2.

3. Access Stock on User’s Owned List Stocks

1. User carries out **User Login**.

2. User clicks “My Stocks”

3. The app displays a screen with all of the users stocks

4. User selects a stock from the list

5. The app opens a screen displaying a graph of how the value of the stock has changed over time, it displays the amount of the shares the user has of that stock, how much each share is worth today in a color (Green: positive since purchase, Red: negative since purchase). The screen also displays the amount of money the user has of that share.

6. The user clicks to back button

7. Continue to Step 3.

Variation #I. User sells stock

1. User clicks on “Sell Stock”
2. Continue to **Sell Stocks**.

Variation #II. Buy more stocks

1. User clicks on “Buy Stock”
2. Continue to **Buy Stocks**.

4. Access Stock on User's Watch List Stocks

1. User carries out **User Login**.
2. User clicks "Watch Stocks"
3. The app displays the list of stocks on the watch list
4. The user selects a stock from the list.
5. The app opens a screen displaying a graph of how the value of the stock has changed over time, how much each share is worth today in a color (Green: positive since placed on watch list, Red: negative since placed on watch list).
6. The user clicks to back button
7. Continue to Step 3.

Variation #I. Buy Shares

1. User clicks on "Buy Stock"
2. Continue to **Buy Stocks**.

Variation #II. Remove From Watch List

1. User clicks on "Remove Stock"
2. Continue to **Remove Stocks**.

5. Sell Stocks

1. The app opens the sell stocks screen
2. User enters the amount of the shares he/she wants to sell.
3. User clicks sell stocks.
4. Confirmation dialog appears: "Are you sure you want to sell # stocks of …"
5. User confirms dialog.
6. The stocks sold are placed back in the company's stock pool.
7. Update user's portfolio stocks.

8. Continue to step 3 of **Access Stock on User's Owned List Stocks**.

Variation #I. User cancels stock sale

1. Continue from step 5.
2. User denies dialog.
3. App makes no changes to the system.
4. Continue to step 3 of **Access Stock on User's Owned List Stocks**.

6. **Buy Stocks**

1. The app opens the buy stocks screen
2. User enters the amount of the shares he/she wants to buy.
3. User clicks buy stocks.
4. App checks that the stocks are available for sale.
5. Confirmation dialog appears "Are you sure you want to buy # stocks of …?"
6. User confirms dialog.
7. The stocks are removed from the company's stock pool.
8. Remove stocks from User's Watch List if they exist there.
9. Update user's portfolio stocks.
10. Continue to previous page **User's Owned List/User's Watch List**.

Variation #I. Stocks not available

1. Continue from step 4.
2. Dialog appears: "There is a max of # stocks… available for sale"
7. User clicks ok.
8. Continue to step 1.

Variation #II. User Denies Buying Stocks

1. Continue from step 6.
2. User denies dialog.

7. App makes no changes to the system
8. Continue to previous page **User's Owned List/User's Watch List**.

7. Remove Stocks

1. Confirmation dialog appears "Are you sure you want to remove … from the Watch List?"
2. User confirms dialog.
3. Stocks are removed from watch list.
4. Continue to step 3 of **Access Stock on User's Watch List Stocks**.

Variation #I. User cancels stock removal

1. Continue from step 2.
2. User denies dialog.
3. App makes no changes to the system.
4. Continue to step 3 of **Access Stock on User's Watch List Stocks**.

8. Access user profile statistics

1. User carries out **User Login**.
2. User clicks "Statistics"
3. The app opens a screen displaying a graph of how the value of the users gains/loss has changed over time based on their entire portfolio, how much their portfolio is worth, how much they have invested, and their total gains/loss in a color (Green: positive since they began investing, Red: negative since they began investing).

6. The user clicks to back button
7. Continue to Step 1.

Variation #I. View owned stocks

1. User clicks on "View Stocks"
2. Program continues to step 3 of **Access Stock on User's Owned List Stocks**.

9. Pull up options box for a particular stock

1. User clicks on stock row

2. A small option box posing options to User will emerge. This little box will appear on the side of the name in a z-index greater than that of the main list.

3. Row of the stock clicked will be highlighted.

4. Options will include: Add Notes, Graphs and Simulations.

10. Add Note to stock option

1. User clicks on stock name

2. **Use Case 9** carries through.

3. User clicks on this option.

4. A text box slides down from the top of the screen up to the stock's y-0th position index.

5. The view of the stock and its whole row is slightly enlarged.

7. Keyboard slides up to row bottom.

8. User types note.

9. User presses done.

10. Message appears that note has been saved.

11. Small note icon appears on the higher right corner of the cell which contains the stock's name.

11. Graph Analysis on one stock option

1. User carries on with **User case 9**.

2. User clicks on the "Graphs" option.

3. System pulls data regarding the stock from the day's movement. This includes analysis results from both databases, Google's and Yahoo!'s.

4. Simultaneously, a new screen slides in from right to left with a gridded graph of the daily information of this stock.

5. The default graph displayed is the current day's graph.

6. On the lower part 1/9th of the page, there will be an option bar including the curve options to display as well as the date range.

12. Perform Simulation

1. User carries on with **User case 9**.

2. User then presses on the "Simulations" option.

3. A new screen slides in from right to left with a centered option box.

4. The option box includes the following options: If Buy, If Buy + , If Short Sell, Option Outlook and Create Formula.