

Test Cases

Stockalytics

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Introduction

The purpose of testing Stockalytics is catch bugs when users are viewing, tracking and adding stocks to their portfolio. The user can view each stock on the New York Stock exchange and compare prices against peers. This easy to use application also comes with a trending stocks section which displays the top gainers and losers for each week.

Constraints

Three of the members, Alyssa, Derek, and Horatio will be testing the application for bugs which include text inputs in forms and other user interactions.

Test Items & Environment

We will be using Webstorm 2017 2.4 and Brackets 1.12 for our IDE. We will be using Gitkraken for our git commits which allow us to manage, track, and view each team member's commits. For bug reporting purposes, we will be using GitKraken Glo. When a team member finds a bug they will go in to the interactive message board and add a bug to the board which will automatically notify each team member. We will keep the most important bugs at the top of the list.

Approach

The type of testing we will be using is manual black box testing. Black box testing will be used to test the input/output behavior of each test case.

Roles

Derek Brown: Manager of the ISM team. Will work on RAD document and Test Cases, as well testing for bugs. Will assign tasks to his team members.

Alyssa Drohan: Team member responsible for a large portion of the black box testing, working on RAD document, and testing for bugs.

Daniel Gaisberger: Team member in charge of implementing Firebase and main developer for the homepage.

Phillip Gil-Perea: Team member responsible for use cases. (Edit User Settings, Log out, Forgot Password)

Horatio Hodge: Team member responsible for developing use cases and keeping them up to date. Responsible for developing and updating Test cases as well as testing the appropriate functions of the webpage and searching for bugs.

Jarrett Horton: Manager of the team and in charge of writing up anything from user documentation to creating software. Responsible for managing the team and assigning code to members to test.

Isaiah Johnson: Team member responsible for both the interface design and general coding. Will help create Trending Stock, FAQ, gainers and losers table, and settings page.

Russell Quao: Team Member in charge of writing and formatting use cases (calculate price alert, calculate trending stocks, search for stocks). Will participate in designing the search GUI for the application.

Isaac Silvius: Team member in charge of testing for bugs and trying to break the application. If the application is broken or bugs are found, he will proceed to fix those issues. Will work on JavaScript and CSS with different application processes.

Schedule

Schedule can be found on page 27 at:

<https://github.com/StockAppSoftwareEng450/Stock-App/blob/master/Ghant%20Chart/Gantt%20Chart.pdf>

References

The Requirements Analysis Document (RAD) and other project information is available on the stock application website:

<https://github.com/StockAppSoftwareEng450/Stock-App/blob/master/RAD/Rad.pdf>

Test Cases

Test Case ID TC001 “Register”

Summary: Verify that a user can create an account as long as the user uses a valid email that is not in the database and the Password and Confirm Password fields are the same.

Prerequisite: Application has the Register screen loaded.

Instructions: The tester will enter data into the email field and press the Create Account Button to test if the application will check for symbols in an email address.

Test Data and Expected Result:

1. Change the Email field to “bobdylongmail.com” and press the Create Account.
2. Change the Email field to “@gmail.com” and press the Create Account.
3. Change the Email field to “bobdylo/@gmail.com” and press the Create Account.
4. Change the Email field to “bobdylon”@gmail.com” and press Create Account button.

Result: System should display a prompt saying the email is not valid.

Instructions: The tester will enter data into the password and the confirm password fields and press the Create Account Button to test if the application will check for invalid characters.

Test Data and Expected Result:

1. Change the Password field to "password," and change the Confirm Password password field to "password2" and press the Create Account button.
2. Change the Password field to "password2," but leave the Confirm Password field blank and press the Create Account button.

Result: System should display a prompt saying the passwords do not match.

Instructions: The tester will enter data into the First Name field and the and press the Create Account Button to test if the application will check for invalid characters.

Test Data and Expected Result:

1. Change the First Name field to "Bob#" and press the Create Account button.
2. Change the First Name field to "Bob14" and press the Create Account button.
3. Change the First Name field to "Bob*" and press the Create Account button.
4. Change the First Name field to "Bob " and press the Create Account button.

Result: System should display a prompt saying names may only contain alphabetic symbols.

Instructions: The tester will enter data into the Last Name field and the and press the Create Account Button to test if the application will check for invalid characters.

Test Data and Expected Result:

1. Change the Last Name field to "Dylon1" and press the Create Account button.
2. Change the Last Name field to "Dylon#" and press the Create Account button.
3. Change the Last Name field to "Dylon*" and press the Create Account button.
4. Change the Last Name field to "Dylon " and press the Create Account button.

Result: System should display a prompt saying names may only contain alphabetic symbols.

Instructions: The tester will enter the correct test data above to verify that the application will create an account in the database and redirect to the homepage.

Test Data and Expected Result:

1. Change the first name field to "Bob".
2. Change the last name field to "Dylon".
3. Change the email field to "bobdylon@gmail.com".
4. Change the password field to "Testing1234"
5. Change the confirm password field to "Testing1234"

Result: System should create an account in the firebase database and redirect to the login screen.

Test Case ID TC002 “Login”

Summary: Verify that a registered user can log in to the stock application that is connected to firebase authentication.

Prerequisite: Application has the Login screen loaded and a account with the following data has been created.

1. Email: Bobdylon@gmail.com
2. Password: password2

Instructions: The tester will enter data into the email and password field and press the Login button to check if the user has provided the correct information to access the application.

Test Data and Expected Result:

1. Enter “Bobdylon@gmail.com ” in the Email field and “password1” in the password field and press the Login button.
2. Enter “fakeemail@hotmail.com ” in the Email field and “password2” in the password field and press the Login button.
3. Enter “Bobdylon@gmail.com ” in the Email field and “password2” in the password field and press the Login button.
4. Enter “Bobdylon2@gmail.com ” in the Email field and “pas32” in the password field and press the Login button.

Result: System should display an error message stating the username or password is incorrect.

Instructions: The tester will enter the correct data into the email and password field and press the Login button to check if the user has provided the correct information to access the application. The user should be transferred to the home screen.

Test Data and Expected Result:

1. Enter "Bobblylon@gmail.com " in the Email field and "password2" in the password field and press the Login button.

Result: The application should display an confirmation message to the user and the user should be transferred to the home screen.

Test Case ID TC003 “Reset Password”

Summary: Allow the user to reset their password by entering their email address. Firebase will send the user an email link and the user can change their password.

Prerequisite: The user is connected to the internet and is on the reset password page. The user has created a valid account.

Instructions: The tester will enter the incorrect data into the email field and press the reset password button.

Test Data and Expected Result:

1. Tester enters “@@@bobydylan@gmail.com” in the email field and presses the reset password button.
2. Tester enters “bobydyla34n@gmail.com” in the email field and presses the reset password button.
3. Tester enters “bob!!!!yylan@gmail.com” in the email field and presses the reset password button.
4. Tester enters “bobydylangmail.com” in the email field and presses the reset password button.

Result: The system displays an error telling the user that the email is not found.

Instructions: The tester will enter the correct data into the email field and press the reset password button.

Test Data and Expected Result:

1. Tester enters “bobydylan@gmail.com” in the email field and presses the reset password button.

Result: The system displays a confirmation that the email has been sent to the user.

Test Case ID TC004 “Logout”

Summary: Verify that the user can log out and that the user will be transferred to the login page. Verify that if the user goes back to the homepage that the user will be transferred to login page instead of the homepage.

Prerequisite: The user has created an account and is logged in and currently on the homepage, trending stocks page, individual stock page, or the FAQ page.

Instructions: The tester will click on the logout button at the top right of the page.

Test Data and Expected Result:

1. Click the logout button within the top navigation bar.

Result: System should display a pop menu with “Ready to Leave? Select ‘Logout’ below if you are ready to end your current session. Cancel, Logout”.

Instructions: The tester will click on the logout button at the top right of the page and select the cancel button when the popup dialog box appears.

Test Data and Expected Result:

1. The user clicks on the logout button at the top right of the screen. The user then selects the “Cancel” button when the dialog box appears.

Result: System should return the user back to the previous screen.

Instructions: The tester will click on the logout button at the top right of the page and select the logout button when the popup dialog box appears.

Test Data and Expected Result:

1. The user clicks on the logout button at the top right of the screen. The user selects the “Logout” button after the dialog button appears.

Result: System should redirect the user to the login page.

Test Case ID TC005 “Start Application”

Summary: Determine if the user has logged on to the website previously.

Prerequisite: The user is connected to the internet and has access to the firebase database. The user has created an account and is logged in. The user is on the homescreen.

Instructions: The tester will click on the the links on the page.

Test Data and Expected Result:

Dashboard Button:

1. Click on the dashboard button

Result: The user is transferred to the homepage.

Settings:

1. Click on the setting button at the top of the page.

Result: The user is transferred to the setting page.

Trending Stocks:

1. Click on the trending stocks button at the top of the page.

Result: The user is transferred to the trending stocks page.

My Portfolio Stock Items:

1. Add Apple Inc. stock to the portfolio. Go to the dashboard. Click on Apple Inc.’s stock symbol link in the portfolio table.

Result: The user should be transferred to Apple Inc.'s individual stock page.

My Watchlist Stock Items:

1. Add Apple Inc. stock to the watchlist. Go to the dashboard. Click on Apple Inc.'s stock symbol in the watchlist table.

Result: The user should be transferred to Apple Inc.'s individual stock page.

Instructions: The tester will add stocks to their portfolio.

Test Data and Expected Result:

Percentage Change Bar Chart:

1. On the dashboard, hover over a stock on the percentage bar chart.

Result: A tooltip should appear with the stock symbol and the percentage number of that stock.

Stock Portfolio Diversity:

1. On the dashboard, hover over a stock in the Stock Portfolio Diversity

Result: A tooltip should appear with the quantity of stocks in the users portfolio.

Delete Stocks in Portfolio

1. On the dashboard in the portfolio section, select the delete button on a stock.

Result: The stock is deleted from the portfolio and from the database.

Delete Stocks in Watchlist

1. On the dashboard in the watchlist section, select the delete button on a stock.

Result: The stock is deleted from the watchlist and from the database.

Test Case ID TC006 “Edit User Settings”

Summary: Allow the user to edit their email, password, preferred currency, first name and last name. These changes will be updated to the database.

Prerequisite: The user is logged in and is on the Settings page.

Instructions: The tester will change the email to an existing email in the gmail.

Test Data and Expected Result:

1. Change the Email field to “test@gmail.com” and press the save button.
2. Change the Email field to “existingUser@gmail.com” and press the save button.
3. Change the Email field to “[existerUser1@gmail.com](#)” and press the save button.
4. Re-enter the users email.

Result: System should display an error message saying the email entered is not valid.

Instructions: The tester will change the email to an invalid email with excessive symbols.

Test Data and Expected Result:

1. Change the Email field to “[chuckb@#\\$%!lillychoe@gmail.com](#)” and press the save button.
2. Change the Email field to “[@gmail.com](#)” and press the save button.
3. Change the Email field to “[@#\\$%!lillychoegmail.com](#)” and press the save button.
4. Change the Email field to “bobDylangmail.com” and press the save button.

Result: System should display an error message saying the email entered is not valid.

Instructions: The tester will change the email to one that is valid.

Test Data and Expected Result:

1. Change the Email field to “newEmail@gmail.com” and press the save button.

Result: System should display a confirmation message and the updated string will be sent to the database.

Instructions: The tester will change the password to one that is invalid.

Test Data and Expected Result:

1. Change the password and confirm password to “password” and press the save button.
2. Change the password and confirm password to “!@#” and press the save button.
3. Change the password and confirm password to “password!@#” and press the save button.
4. Change the password and confirm password to “123” and press the save button.

Result: System should display a error message that lets the user know the password must contain one uppercase, eight characters, one number, and no symbols.

Instructions: The tester will change the password to one that is valid.

Test Data and Expected Result:

1. Change the password and confirm password to “Testing1234” and press the save button.

Result: System should display a confirmation message that updates the database.

Instructions: The tester will change the first name and last name to one that has numbers and symbols.

Test Data and Expected Result:

1. Change the first name and last name to “Joe4 Wilson” and press the save button.
2. Change the first name and last name to “Joe Wilson4” and press the save button.
3. Change the first name and last name to “JoeWilson 4” and press the save button.
4. Change the first name and last name to “Joe -Wilson” and press the save button.

Result: System should display an error that lets the user know the first name and last name fields are invalid.

Instructions: The tester will change the first name and last name to one that is valid

Test Data and Expected Result:

1. Change the first name and last name to “Joe Wilson” and press the save button.

Result: System should display a confirmation message at the top of the screen.

Test Case ID TC007 “Search for Stocks”

Summary: Allow the user to search for a public company in the NYSE either through a company name or through the companies stock symbol.

Prerequisite: The user is logged in and has clicked the search bar.

Instructions: The tester will enter a stock symbol that does not exist and hit enter.

Test Data and Expected Result:

1. Enter “AAPL!” into the search field.
2. Enter “MSFT@” into the search field.
3. Enter “GOOG#” into the search field.
4. Enter “AM”D” into the search field.

Result: The autocomplete will return nothing to select in the input field.

Instructions: The tester will enter a company name that does not exist and hit enter.

Test Data and Expected Result:

1. Enter “Apple!” into the search field.
2. Enter “Microsot” into the search field.
3. Enter “goolles#” into the search field.
4. Enter “AMAssD” into the search field.

Result: The autocomplete will return nothing to select in the input field.

Instructions: The tester will enter a stock symbol that exists and hit enter.

Test Data and Expected Result:

1. Enter “AAPL” into the search field.

Result: The autocomplete will return transfer the user to the respective individual stock page.

Instructions: The tester will enter the full name of a public company and hit enter.

Test Data and Expected Result:

1. Enter "Apple Inc." into the search field.

Result: The autocomplete will return transfer the user to the respective individual stock page.

Test Case ID TC008 “View Trending Stocks”

Summary: Allow user to view the trending stocks (gainers and losers).

Prerequisite: The user is logged in and the user has clicked on the trending stocks page at the top.

Instructions: The tester will click on the links to make sure the links transfer to the respective individual stock page.

Test Data and Expected Result:

1. Click on stock symbol “aapl” in the gainers section.

Result: The user is transferred to the individual stock page of the selected stock.

Instructions: The tester will click on the links to make sure the links transfer to the respective individual stock page.

Test Data and Expected Result:

1. Click on the stock symbol of any stock.

Result: The user is transferred to the individual stock page of the selected stock.

Test Case ID TC009 “View Individual Stock Page”

Summary: Allow the user to get an in depth look at the respective stock. Price, key stats, peer price, company overview, and related news article are displayed on this page.

Prerequisite: The user is logged in and is viewing Apple Inc.'s individual stock page.

Instructions: The tester will hover over the graph in the middle of screen

Test Data and Expected Result:

1. Hover over the 5 year graph
2. Hover over the 2 year graph
3. Hover over the 1 year graph
4. Hover over the year to date graph
5. Hover over the 6 month graph
6. Hover over the 3 month graph
7. Hover over the 1 month graph

Result: The system will display the date and the price to the left of the graph.

Instructions: The tester will click on the buttons beneath the graph in the middle of screen

Test Data and Expected Result:

1. Click on the 5 year graph
2. Click on the 2 year graph
3. Click on the 1 year graph
4. Click on the year to date graph
5. Click on the 6 month graph
6. Click on the 3 month graph
7. Click on the 1 month graph
8. Hover over the 1 day graph

Result: The system will change the graph to update the respective timeline

Instructions: The tester will click on the news article links down at the bottom in the news section

Test Data and Expected Result:

1. Click on the first card in the news section
2. Click on the second card in the news section
3. Click on the third card in the news section

Result: The link will redirect the user to the news site where the article was written.

Instructions: The tester will click on the links in the peers section

Test Data and Expected Result:

1. Click one of the links in the peers section.

Result: The link will redirect the user to a selected companies individual stock page.

Test Case ID TC010 “Add to Watchlist”

Summary: Allow the user to add a particular stock to their watchlist. The watchlist will display the current price, 3 month percent, 6 month percent, and 1 year percent of each stock.

Prerequisite: The user is logged in and is on the individual stock page.

Instructions: The tester will click on the add to watchlist button on the individual stock page.

Test Data and Expected Result:

1. The user clicks on the “add to watchlist” button at the top of the individual stock page.

Result: The stock is added to the watchlist table on the dashboard and in the database.

Test Case ID TC011 “Add to Portfolio”

Summary: Allow the user to add a particular stock to their portfolio. The portfolio will display the date of purchase, purchase price, current price, quantity, purchase cost, current equity, net profit/ loss, after tax profit, and current percentage change of each stock.

Prerequisite: The user is logged in and is on the individual stock page.

Instructions: The tester will click on the add to portfolio button on the individual stock page and enter incorrect data for date.

Test Data and Expected Result:

1. The user clicks on the “add to portfolio” button at the of the individual stock page. Enter the following:
Date: 1/!/2018
Price: (leave current price)
Quantity: 1
2. The user clicks on the “add to portfolio” plus button at the of the individual stock page. Enter the following:
Date: (Blank)
Price: (leave current price)
Quantity: 1

Result: The stock is not added to the portfolio and an error message appears.

Instructions: The tester clicks on the add to portfolio button on the individual stock page and enters incorrect data for the current price.

Test Data and Expected Result:

1. The user clicks on the “add to portfolio” button at the of the individual stock page. Enter the following:

Date: 1/1/2018

Price: bob

Quantity: 1

Result: The stock is not added to the watchlist table and an error message appears

Instructions: The tester clicks on the add to portfolio button on the individual stock page and enters incorrect data for the current price.

Test Data and Expected Result:

1. The user clicks on the “add to portfolio” button at the of the individual stock page. Enter the following:

Date: 1/1/2018

Price: (Keep current price)

Quantity: (Leave blank)

Result: The stock is not added to the watchlist table and an error message appears

Instructions: The tester clicks on the add to portfolio button on the individual stock page.

Test Data and Expected Result:

1. The user clicks on the “add to portfolio” plus button at the of the individual stock page. Enter the following:

Date: 2/18/2018

Price: \$123.45

Quantity: 45

Result: The stock is added to the watchlist table in the database.