**Priority Level: 5, 4, 3, 2, 1 (from priority level: 5, 4, 3, 2, 1 (from high to low)**

**Story points: 1 point = 1 day**

Users:

* 1: All Users
* 2: Registered Users

**User epic story 1: All Users**

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| --- | --- |
| **ID** | 1.1 |
| **Name** | Visualised stock performance |
| **Description** | As an user, I want to be able to see graphs of how stocks are doing, so I have a visual reference of stock performance |
| **Acceptance**  **Criteria** | 1. Graph should contain:    1. Time vs price 2. Should display a graph of current stock market situation on front page 3. Should display on each stock details page |
| **Priority** | 2 |
| **Size** | 3 |

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| **ID** | 1.2 |
| **Name** | Search stocks by code |
| **Description** | As an user, I want to search stocks by code and/or name, so I can navigate different stocks more efficiently |
| **Acceptance**  **Criteria** | 1. Have a search bar    1. Searching displays list of matching items    2. If no items display text indicating no items 2. Clicking into search items will navigate to corresponding stock pages 3. Before searching, first 10 stocks alphabetically are displayed 4. Results should display stock name, and latest available unit price for the stock |
| **Priority** | 5 |
| **Size** | 4 |

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| **ID** | 1.3 |
| **Name** | Stock details |
| **Description** | As an user, I want to be able to see the details of specific stocks, so I can be informed about specific stock’s details |
| **Acceptance**  **Criteria** | 1. Stock page should display the following details:    * Stock name    * Market cap    * Current price    * Daily volume    * Number of shares    * Annual yield 2. Historical table shows details of performance over the last 5 days |
| **Priority** | 5 |
| **Size** | 4 |

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| **ID** | 1.4 |
| **Name** | Create account |
| **Description** | As an user, I want to be able to make an account, so that I can get access to registered features. |
| **Acceptance**  **Criteria** | 1. Should be able to click ‘register’ on the login page. 2. Unregistered users should be able to type in a password and email address to register.    1. “Email already exists” error    2. “Weak password” error    3. Sanitised inputs 3. Passwords should generally follow NIST password guidelines    1. <https://specopssoft.com/blog/nist-password-standards/> 4. Should be logged in if successfully registered 5. After creating account, has access to Registered user only functions 6. Can log out of account 7. Accounts are saved and can be logged back in 8. Accounts start off with $50,000 |
| **Priority** | 4 |
| **Size** | 3 |

**User epic story 2: Registered Users**

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| **ID** | 2.1 |
| **Name** | Logging in |
| **Description** | As a registered user, I want to log in to the website with my credentials, so that I can access my account |
| **Acceptance**  **Criteria** | 1. Should be able to click on login at home page. 2. Can enter credentials    1. Let user login if match    2. Error and prevent login if mismatch 3. If fail to login more than 3 times, lock for period of time 4. After logging, see website main page |
| **Priority** | 3 |
| **Size** | 2 |

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| **ID** | 2.2 |
| **Name** | Account details |
| **Description** | As a registered user, I want to be able to see my account details, so I can view things specific to me |
| **Acceptance**  **Criteria** | 1. Users can click on the “My Account” button at home page to navigate to their main account details page, this button is replaced from “Login” to “My Account” upon successful login by the user. 2. Account details page should contain the following    1. Total gains    2. Current Capital 3. Have update/change password buttons at the main account details page. 4. Have a close account button |
| **Priority** | 2 |
| **Size** | 3 |

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| **ID** | 2.3 |
| **Name** | Password reset when logged in |
| **Description** | As a registered user, I want to be able to change my password, so I can stop using any compromised passwords |
| **Acceptance**  **Criteria** | 1. Can click on ‘change password’ button on ‘my account’ page 2. Should be able to reset password    1. If current password doesn’t match, prevent changing password    2. Should type a new password twice, reset if matched, error if failed    3. “Weak password” error |
| **Priority** | 1 |
| **Size** | 2 |

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| **ID** | 2.4 |
| **Name** | Password reset without logging in |
| **Description** | As a registered user, I want to be able to change my password if I forgot it, so I can log in |
| **Acceptance**  **Criteria** | 1. Can click a ‘forgot password’ button on login page 2. Can change password for an email    1. Emails have a security question that when answered will allow changing password    2. Respective errors if answer is incorrect, new password is invalid, passwords don’t match etc. |
| **Priority** | 1 |
| **Size** | 3 |

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| **ID** | 2.5 |
| **Name** | Watchlist |
| **Description** | As a registered user, I want to be able to add stocks to my watchlist, so I can easily see how all the things im interested in are doing |
| **Acceptance**  **Criteria** | 1. Should be able to add to the watchlist through the stock details page 2. Should be able to remove a stock from the watchlist on the stock details page or via the ‘watchlist’ page 3. Should be able to view the details page of stock in watchlist when clicked 4. Watchlist should display some basic statistics    1. Stock code    2. Stock price    3. Stock performance |
| **Priority** | 3 |
| **Size** | 4 |

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| **ID** | 2.6 |
| **Name** | Buy/sell stocks |
| **Description** | As a registered user, I want to be able to buy/sell stocks, so I can profit. |
| **Acceptance**  **Criteria** | 1. Registered users can buy stocks when they have enough capital.    1. Error message if buying more stocks than they have capital 2. Registered users can sell stocks within their holdings.    1. Sell from the stock details page if it is owned    2. Error message if selling more stocks than they own    3. Only allows selecting stocks already owned to put on sale 3. Can see the total value of stock they are selling |
| **Priority** | 3 |
| **Size** | 3 |

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| **ID** | 2.7 |
| **Name** | User Assets / Owned Stock |
| **Description** | As a registered user, I want to be able to view and interact with my assets so that I can improve my overall portfolio performance. |
| **Acceptance**  **Criteria** | 1. Should be able to add to access individual investments through the user assets page 2. Should be able to click on “owned stocks” then display a list of user owned assets. 3. Individual stock pages should display some basic statistics    1. Stock code    2. Stock price    3. Stock performance    4. Total current worth    5. Total revenue if all units of an individual stock were sold 4. Stocks should automatically update or remove itself from the user assets/owned stocks page at each transaction. |
| **Priority** | 3 |
| **Size** | 2 |

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| **ID** | 2.8 |
| **Name** | Delete account |
| **Description** | As a registered user, I want to be able to delete my account, so I can stop playing this game |
| **Acceptance Criteria** | 1. Can click delete button on MyAccount page 2. Account scrubbed from database 3. Can no longer login with those credentials and can create new account with the email address |
| **Priority** | 1 |
| **Size** | 1 |

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| **ID** | 2.9 |
| **Name** | Investment Advisor |
| **Description** | As a registered user, I want advice on what stocks to buy, so I can make better investment choices. |
| **Acceptance**  **Criteria** | 1. Can be accessed from the home page 2. Five stocks will shown to the user as advised stocks to purchase 3. Advisor can tell user to sell anywhere from 0 - 5 stocks they own |
| **Priority** | 3 |
| **Size** | 2 |

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| **ID** | 2.10 |
| **Name** | Investment Challenge |
| **Description** | As a registered user I want to challenge the system to have a chance to increase my profits |
| **Acceptance**  **Criteria** | 1. The competition will be held weekly.    1. Begin at Sunday       1. Users are not allowed to bet after the stock market opens.    2. End at Saturday 2. A hidden cat entity is going to be used to do random investments for the user to ensure fairness.    1. The user is allowed to pick a subset of stocks for the hidden cat to invest.    2. Player issues the challenge to the system.    3. Player specifies a starting amount that can only be used within the challenge.    4. Player specifies a minimum of 5 stocks that can be invested.    5. At the end of the challenge absolute profit, is compared to determine the winner 3. There should be a link in the navigation bar to access the gamepage, which will contain the challenge information as well. 4. There is a minimum amount for users to bet(10000$). 5. If users win, they gain double bet price. 6. If users lose, they lose double bet price. |
| **Priority** | 2 |
| **Size** | 4 |
| **ID** | 2.11 |
| **Name** | Bet on your predictions |
| **Description** | As a registered user, I want to bet on how specific stocks will perform, so I can make profit off my bets |
| **Acceptance**  **Criteria** | 1. There should be a link in the navigation bar to access the gamepage, which will contain the prediction information as well 2. User predicts whether a specific stock will increase/decrease at the end of the week 3. User’s can only make one concurrent bet at a time. 4. User can place a bet on this prediction    1. User wins if they predict an increase/decrease correctly    2. The reward is the initial bet multiplied by the reward multiplier, which the user chooses    3. If they lose, they lose twice the money they betted |
| **Priority** | 2 |
| **Size** | 3 |