Group 30
Stock Price Prediction and Visualization

2- Should Have

Priority Order

1 - Must Have

3- Could Have

As a trader, I want to log into the website with my email ID, so that i can access the website in the state I left it earlier.

Acceptance Criteria

- If username entered already exists and password entered is correct, user should be able to get into the website.
- If username is not registered for the website, it should ask user to register with his new credentials.
- If username exists but the password entered is incorrect, it should ask user to enter the correct password.
- User should also be able to log out of the website.

As a user, I do not want my data to be publicly available to anyone so that my financial details and preferences could be secure.

Acceptance Criteria

- Portfolio and interested stocks details for every user should be secure and not displayed unless the user credentials have been provided.
- The login system should be secure enough to not leak the data or credentials of the user.

As a user, I want 2-factor-Authentication so that my data is secure.

Acceptance Criteria

- After successfully entering credentials, system should ask user to enter OTP and also send OTP to the email attacked with that account.
- After user enters correct OTP it should bring user to the account.
- If user enters wrong OTP, it should not allow user to enter.

As a newbie user, I want a tutorial how to use the website and how to access the functions in the website.

Acceptance Criteria

- After successfully creating an account for the first time in the website, a tutorial option appears asking if the user wants a tutorial.
- The user is also given the option to skip the tutorial if he wants to.

As a trader, I want to maintain a wishlist of stocks of my choice so that I can easily access data that I want.

Acceptance Criteria

- User should have feature to add stocks to wishlist.
 Once added they should be displayed on a separate page which contains all the wishlisted stocks of user.
- User should also be able to remove stocks from wishlist, after removal it should be removed from the list.
- If user tries to add stock in wishlist which is already in wishlist, it should notify user that the stock already exists in the wishlist.

As a shareholder, I want to take user feedback about the website so that I can understand their needs and issues better.

Acceptance Criteria

- Users who have logged in should be able to give feedbacks about the website.
- There should be a page where the users can go and submit their textual feedback and send it to the shareholder.
- Shareholder should receive the feedbacks given by all the users.

As a novice investor, I want a user friendly dashboard with easy-to-understand User Interface.

Acceptance Criteria

- The front page should not contain overwhelming amount of features.
- The UI should be easy to use and navigate for new users.

As an investor, I want to view a charts of previous trends of stock prices, so I can plan my investments.

Priority: 1

Acceptance Criteria

- The user can search for the stock that they want chart of and get the error or pop-down if it is not available.
- Description about the plots will be show on hovering if it is available else it won't show the tooltip.
- They could even add the stock to their bookmarks and get the confirmation if added else get the error if for any reason it was added.

As an investor, I want to be notified about stocks of my interest, so that I can be updated with latest changes in the trend.

Acceptance Criteria

 Every time there is a significant change in the prediction or the price of the stock which is in investor's interest, it should send a notification to the investor that there is a change.

As an user, I want the website to be accessible most of the times so that I can use it anytime I need.

Acceptance Criteria

- The shutdown period of the website should be very less(like a few minutes per day).
- The retraining of the model should be at the time when there are not many users.

As an investment firm, I want the website to be reliable so that I can trust it to make my investments.

Acceptance Criteria

- The website should not be having some malfunction which causes the website to give random or false(as in out of model) values.
- The website should not be claiming to give prediction if it does not actually have information or should not be showing random values.

As a stakeholder, I want my website to be predicting the future values of the stocks so that it can serve the primary function.

Acceptance Criteria

- The website should be integrated with the ML model.
- It should analyse the previous trends of stock prices and after processing it, it should give the estimate of the stock price in near future.
- It should be integrated with datasets of the stock prices and other features which affect the prices.

As a user, I want a discussion forum on every stock page so that I can discuss it among other users.

Acceptance Criteria

- Every stock page should have a discussion forum attacked to it.
- Users should be able to post comments on the stock and other users should be able to see these comments.
- User should have the ability to delete the comment they had made earlier.

As a data analyst, I want to have charts for different timelines, so that I can have better understanding of current and previous trends.

Acceptance Criteria

- Every stock page should have navigation bar for choosing different timelines (1 Year, 6 Months, 3 Months).
- After clicking on the particular timeline, user should be able to see the graph of that timeline and show error if unable to load.

As a trader, I want the model to be trained as efficiently as possible, so that I can get accurate predictions.

Acceptance Criteria

- Model should consider all the possible features.
- It should be trained on the best possible model.
- It should be trained on new data on a timely basis for the accurate predictions.
- And during this training, user should get the page of server maintenance.