

CmpE 352/451 Project Description

Traders Platform

Spring/Fall 2019

This project aims to create a social platform for people who can be considered as a trader. Traders platform lets people follow and trade indices, stocks, ETFs, commodities, currencies, funds, bonds, and cryptocurrencies. The platform will support various interactions, such as sharing ideas (as an article), commenting and rating ideas of other users, commenting about trading equipment. Users will be able to follow other users and trading equipment and set alerts for certain levels of trading equipment. The system will notify users in accordance with their alerts. And, importantly will make predictions about trading equipment.

There will be two main types of users: basic and trader. Both users must sign up via providing necessary information for their user type (using Google account to retrieve necessary information for signing up/in is a plus). Basic users are expected to provide their name, surname, e-mail address, and location. The user is also expected to specify their location through specifying on Google Maps. The platform allows guests to view the price of a trading equipment and read user comments about trading equipment.

After signing in and validating their e-mail address, users will be able to access the basic functionality of the platform. Additionally, trading users should be able to invest in any trading equipment (e.g., buying XAU by selling USD).

The platform will support searching for users and trading equipment. Searching process should consider all the information available in user profiles and trading equipment (e.g., "EUR/USD" trading equipment should also be founded by typing "euro dollar"). The application should allow semantic search, which will try to find semantically similar users and trading equipment based on the context information provided in the semantic tags. For example, semantic search can be used to retrieve users, which have similar portfolios. Moreover, the application should support location-based search. For example, users should be able to filter other users in a city or district.

Each trading equipment should include many functionalities, including but not limited to: the previous close, percentage change with the previous close, amount change with the previous close, day's range, and moving averages (i.e., MA5, MA10, MA20, MA50, MA100, MA200).

Each user is expected to have at least one portfolio. Users can rename their portfolio and add any trading equipment they want to their portfolio. The users should also be able to share their portfolio in their profile page, and other users can follow the shared portfolio. In this way, they will easily track the changes in the trading equipment they are interested in.

Each user is expected to have a "Profit/Loss" section. This section will be private to the user. Basic users should be able to see their profit/loss amount in terms of the currency they choose by manually entering their investments (e.g., 1000USD was bought by selling 5300TL yesterday, current USD/TL exchange rate is 5.2, so what is the profit/loss amount in terms of

TL?). Trading users should be able to see their profit/loss amount in terms of the currency they choose by both manually entering their investments and using the investments they made in the Traders Platform.

Each user is expected to have an “Events” section. In this section, users can chase economic events with different significance levels (e.g., one star, two star, three star). Users should be able to filter economic events by considering their significance level and country base. Users should also be able to search for any economic events.

Trading users is expected to have “My Investments” section. They should be able to invest on any trading equipment, make a buy order for a specified rate, and set stop/loss limits.

User profiles can be either public or private to the other users. In order to see the contents in a private user profile, user (with the private profile) should be followed. Also, each users prediction success rate should be visible in their profile page.

The application should include a recommendation system. It should recommend articles or trading equipment to the users based on their histories (e.g., trading equipment or users they follow).

Lastly, the platform should support [W3C Web Annotation Data Model](#) [1] and follow [W3C Web Annotation Protocol](#) so that the contents (e.g., graph, figure, comment) can be annotated by users.

The application is expected to have a native web and native mobile (Android) client. Hybrid applications are **NOT** allowed. The application should be deployable on a remote and manually configurable server. We strongly recommend you to use Amazon EC2 or Digital Ocean.

The implementation of this system should follow the standards introduced by the [World Wide Web Consortium \(W3C\)](#) [2]. In addition to the rules defined by the standards body of W3C, any related software standards should be followed. As always, ethical considerations is an important issue of this project. Most of the contents within this platform are personal. The personal information, contact information, copyrighted contents, license issues and everything related to these paradigms should be respected and considered. (Please read the ethical considerations in Piazza with respect to ethical concerns what is expected of all participants!)

Open source software with appropriate use permissions may be used, as long as it is properly attributed and documented, and unless otherwise specified.

References

[1] *The World Wide Web Consortium – Web Annotation Data Model*, Accessed: February 2019.

[2] *The World Wide Web Consortium – Standards*, Accessed: February 2019.

Example annotation:



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Comment

Cancel