Crypto/Stock Market Advisor

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The Crypto/Stock market advisor will eventually be able to recommend and show its user the latest news and trends regarding crypto and stocks and the users will be able to filter them according to their liking and preferences. The first scenario layout describes the overall layout of the app like signup and register page, user preferences, and the home page.

A key feature that will be implemented will be connecting with the apis for stock/trade news and its recommendations. We will also be connecting our application with a database like mysql or sqlite3 and will be storing the user information like name, email, password, etc in it. The password will be hashed before storing in the database for user's protection.

Scenario

When the user first starts the app, he or she is given the choice to log in or register. If he is an existing user, he can simply enter his username and password, and the program with the help of firebase will authenticate him and log him in. If he is a first-time user, he must create an account by picking a username and password and completing the registration process.The application will then first hash the password for user's security and store all that information safely in a database.

In this scenario, our main focus will be connecting the app to the database and integrating the application with APIs like Porygon to get the best recommendations based on the users preferences. The preferences tab has two main selections. The first one is the option between long term trade and short term trade. The second is selecting the industries in which the user is interested.

The users will have 11 options which are the official sectors of the stock market according to the Global Industry Classification Standards (GICS). These sectors are Energy, Materials, Industrials, Utilities, Healthcare, Financials, Consumer Discretionary, Consumer Staples, Information Technology, Communication Services, and Real Estate. The user will have to choose 3 of these 11 to generate recommendations. These preferences are set when a user registers for the first time. They will also have the option to change these preferences later on through the 'Manage Preferences' tab from the home screen which will be implemented in this scenario. The user's choice will be updated in the database.

The user will have his/her personalised recommendation shown on the home screen based on their preferences. We will integrate our application with the Porygon API, that will help us retrieve crypto/stock market data. We will process that data with the user preferences stored in the database. For example, if the users preferences are Energy, Healthcare and Real

Estate, their preference would be Marathon Petroleum Corp, Continental Resources Inc, HollyFrontier Corp, Sage Therapeutics Inc, Bio-Rad Laboratories Inc, Walgreens Boots Alliance Inc, Annaly Capital Management Inc, AGNC Investment Corp, and New Residential Investment Corp. These are the top stocks currently based on the selected categories.

The application will retrieve these recommendations from the API and then after processing, it will generate recommendations and update the database with it. Then Those recommendations will be retrieved from the database and will be shown on the home screen.

Figure 1: Diagram of the actions performed on the home screen