



CRYPTOLEAGUE

Team 8: Project Backlog

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Project Statement

We are building a web app which lets people build their cryptocurrency portfolio¹ using virtual money so that they can practice and make informed investments in the real world with cryptocurrency. The users will be able to participate in weekly leagues² and compete with other players for the most amount of gains, and winning our prize tokens in the process! The unique competitive nature of the leagues will encourage players to learn from each other, and hence get better understanding of the market for investing in real money and hence contribute to the growth of cryptocurrencies.

Background Information

The Problem

Cryptocurrencies have received a huge amount of attention in the recent years spawning an entirely new market. But, the volatility and the sheer complexity of getting started with investing in cryptocurrencies can be overwhelming for many.

Domain and Targeted Users

The domain of our users include amateur as well as professional investors and blockchain enthusiasts. Our targeted users are newcomers from all around the world who are looking for resources to understand the market of cryptocurrencies.

Similar Platforms

There are some platforms which are similar in certain aspects to our platform like GameOfCoins.de and prism.exchange. GameOfCoins.de lets users build virtual account with \$10,000 of virtual money and invest in cryptocurrencies with real-time prices. Prism.exchange lets users build their custom portfolio with Ethereum smart contracts and browse public portfolios of other players and follow them.

¹A **cryptocurrency portfolio** is a collection of cryptocurrency assets owned by an individual or by an institution.

²**Weekly leagues** are contests where players compete in groups of 10 - 100 with their cryptocurrency portfolios for a prize pool.

Limitations

While the existing platforms try to encourage users to invest in cryptocurrencies, they fail to engage their user-base to keep learning. GameOfCoins.de does not let users update their portfolios on a changing market. Whereas, Prism.exchange requires users to invest with real money to create their portfolios which may discourage newcomers who do not want to risk their assets.

We aim to address these problems by creating a platform which allows users to learn the market of cryptocurrencies without risking any assets while providing them with a competitive environment in which they can learn from each other.

Requirements

Functional Requirements

1. As a user, I would like to be able to register for a CryptoLeague account with either email or social platforms like Facebook or Google.
2. As a user, I would like to be able to login and manage my CryptoLeague account.
3. As a user, I would like to be able to change my password.
4. As a user, I would like to be able to see my current tokens.
5. As a user, I would like to be able to watch real-time market prices of cryptocurrencies.
6. As a user, I would like to be able to see current cryptocurrency related news.
7. As a user, I would like to be able to see current leaderboard of top performing players.
8. As a user, I would like to be able to see profiles of people in the leaderboard.
9. As a user, I would like to be able to see various leagues.
10. As a user, I would like to be able to see the rules for different leagues.
11. As a user, I would like to be able to see the buy-ins and payouts for different leagues.
12. As a user, I would like to be able to join a league.
13. As a user, I would like to be able to see the status of my current league.
14. As a user, I would like to be able to see the leaderboard of my current league.
15. As a user, I would like to be able to make my cryptocurrency portfolio.
16. As a user, I would like to be able to add various cryptocurrencies to my portfolio.
17. As a user, I would like to be able to select a captain coin whose gains/losses will be doubled in the final score.
18. As a user, I would like to be able to easily modify my portfolio before the league starts.
19. As a user, I would like to be able to visualize my current league portfolio.
20. As a user, I would like to be able to see my portfolio in a list-view.
21. As a user, I would like to be able to see the real-time market data of cryptocurrencies in my portfolio.
22. As a user, I would like to be able to see the the time for the league to start and end.

23. As a user, I would like to be able to see the prize distribution of the league.
24. As a user, I would like to be able to my current rank in the league.
25. As a user, I would like to be able to see my previous leagues.
26. As a user, I would like to be able to see my current statistics.
27. As a developer, I would like to be able to restrict users to join only one league at a time.
28. As a developer, I would like to be able to replenish user's tokens if they do not have enough to join the lowest league.
29. As a developer, I would like to be able to have multiple leagues running at the same time.
30. If time allows, as a user, I would like to protect my account with two factor authentication.
31. If time allows, as a user, I would like to be able to generate private leagues.
32. If time allows, as a user, I would like to be able to join private leagues.
33. If time allows, as a developer, I would like to be able to make the tokens tradeable on the Ethereum platform.

Non-functional Requirements

1. As a developer, I would like to have a backend with Node.JS, which will serve the APIs to drive the frontend.
2. As a developer, I would like to create a frontend with Angular 4 which will use APIs served from the backend to create a fully functional web-app.
3. As a developer, I would like to make the UI seamless and easy to use.
4. As a developer, I would like to make the frontend responsive such that users can access it from their mobile phones.
5. As a developer, I would like to store all of the data in a MongoDB database.
6. As a developer, I would like to have my backend host concurrent leagues.
7. As a developer, I would like to make sure that a player can join a league within 500 milliseconds.
8. As a developer, I would like to assign unique wallet addresses to the users to secure their tokens.
9. As a developer, I would like to prevent the users from seeing the portfolio of other users in the league until the league is over.
10. As a developer, I would like to be able to host my frontend and backend separately.
11. As a developer, I would like to deploy on AWS after testing.