Virtual Stock Market Game

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Outline

1. Background
2. System overview
3. Functional & non-functional requirements
4. Development timeline
5. Work division

Background

Motivation: To simulate "playing" the stock market minus the risks

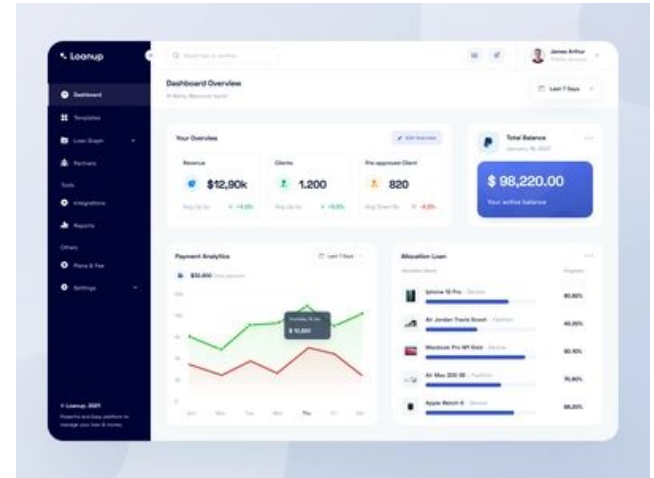- Uses virtual currency only
- Learning tool

System Overview

- Each player given a fixed initial sum of virtual currency
- Can use this currency to virtually invest in real stocks
  - AAPL, TSLA, AMZN, etc.
- In-game stock performance corresponds to real world
- Friends system to see your friends' portfolios
- News section to help in deciding moves
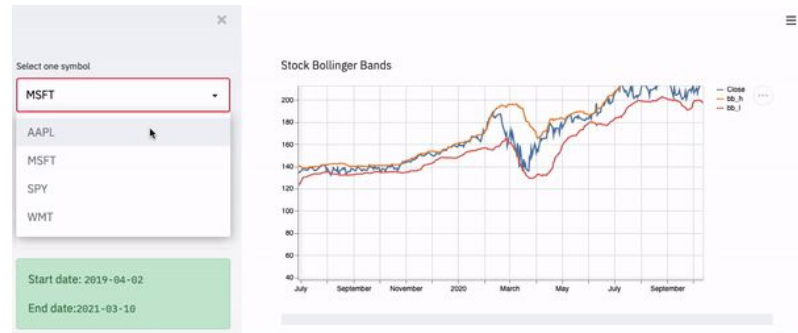- **Bottom line: No real money is invested!**

Functional Requirements

- Clearly display initial sum of money players start out with
- Allow users to measure changes in stock rates over time
- Allow seamless buying and selling of stocks
- Allow for a quick and functional searching system
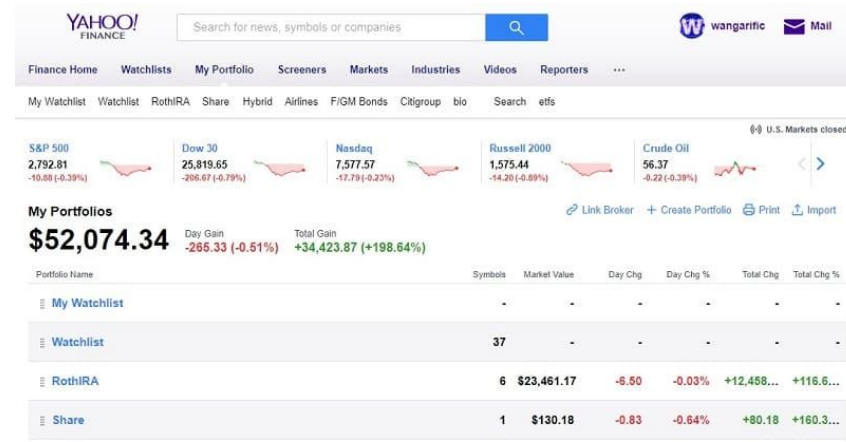- Allow for options trading

Functional Requirements (cont.)

- Display portfolio information currently (percentage in certain sectors etc.)
- Display portfolio growth over time
- Allow for sharing of portfolio/daily moves on social media
- Notification system that alerts user to significant stock changes as well as dividends entering account

Functional Requirements

- Give user ability to create and add to watchlists without having to purchase the stocks themselves
- Have a friends list for friends to be able to see each other's portfolio balances
- Show the status of trending stocks/ETFs
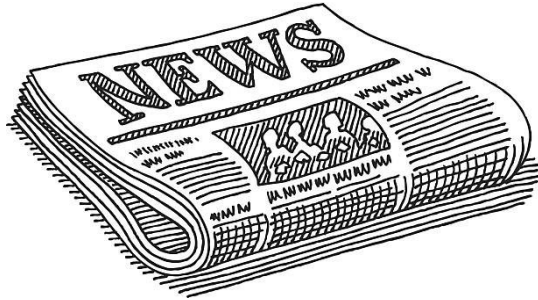- Display highest moving stocks that day

Functional Requirements

- Allow advertisers to pay to put advertisements on system
- Allow user to pay for ad free version of application
- Allow users to see "players who bought this stock also bought these five other stocks"
- Display PE, Dividend yield, and other markers for stocks

Functional Requirements, cont.

- Have a news section of the app displaying recent events that can change stock prices

- Show analyst recommendations for stocks

- Allow users to set a portfolio benchmark goal and notify when they hit it

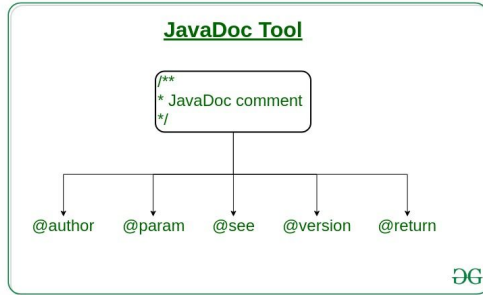https://www.istockphoto.com/search/2/image?mediatype=illustration&phrase=newspaper+clipart

https://stockanalysis.com/analyst-ratings-explained/

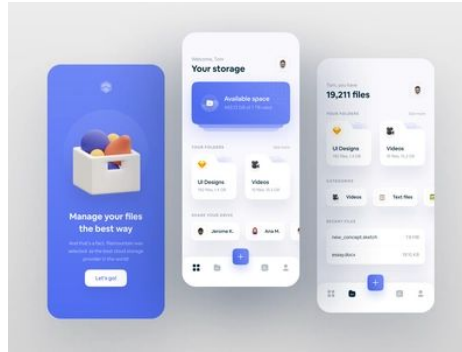https://www.citywatchla.com/index.php/christian-cristiano/11329-want-to-hit-your-health-goals-think-smart

Non-Functional requirements

1. Have robust documentation and tutorials (ease of use)
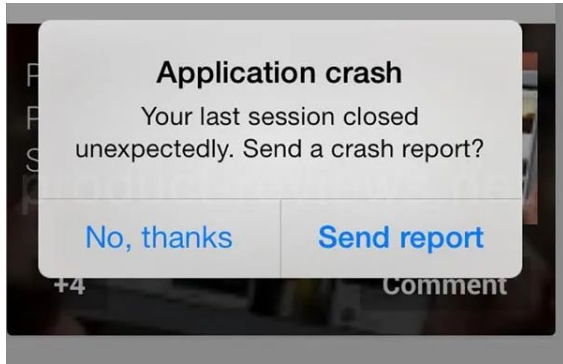
2. Very usable and intuitive UI

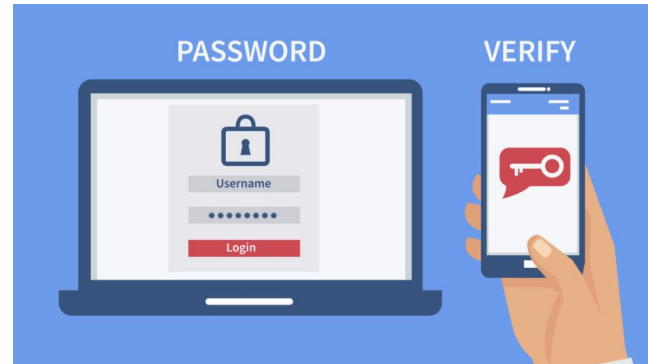3. Speedy response to user commands (searching for stocks or buying and selling shares)

Non-Functional requirements, cont.
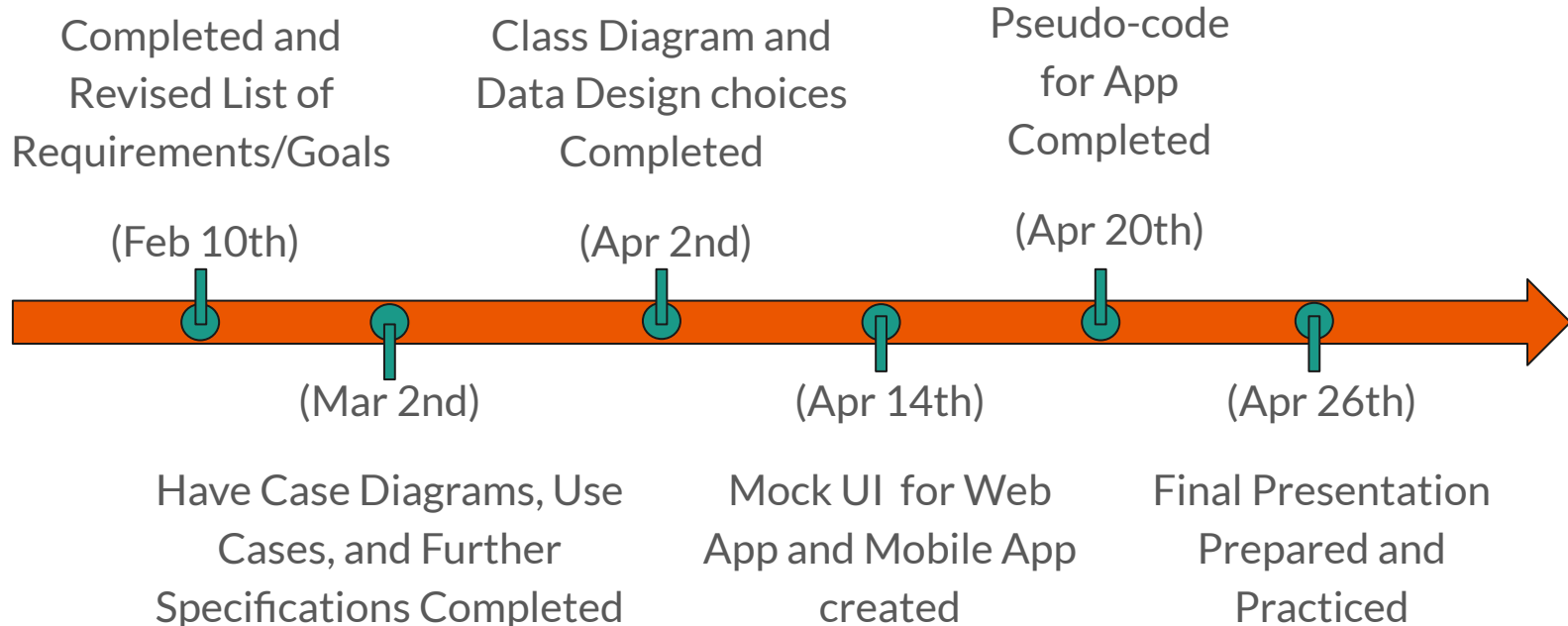
4. Reliable app with little to no bugs/crashes

5. Secure accounts that are password protected with two factor authentication

Development Timeline

Completed and Revised List of Requirements/Goals

(Feb 10th)

Class Diagram and Data Design choices Completed

(Apr 2nd)

Pseudo-code for App Completed

(Apr 20th)

(Mar 2nd)

Have Case Diagrams, Use Cases, and Further Specifications Completed

(Apr 14th)

Mock UI for Web App and Mobile App created

(Apr 26th)

Final Presentation Prepared and Practiced

Work Division

Josh Ho	User Interface Lead
Lance Aguilar	Communication Lead
Justin Lee Nelson	Specification and User Experience Lead
Michael Laurent Pigeon	UML/Class Diagram Lead
Pierre Sarabamoun	Feature Implementation Lead

Are There Any Questions?