

# Proposal for Orbital 23

## Team Name

StockXtreme

## Proposed Level of Achievement

Apollo 11

## Motivation

When you are into stock investment, you don't know where to start, and you are not yet ready for the risks of the real market, why not get yourself into a virtual one?

Apart from our Computing majors, we also have interests in Finance and stock market analysis. As such, we want to build our own website, which can represent updated live-time market data and key statistics of the companies. The platform will allow investors to create and track their portfolios and for beginners, we want our website to facilitate beginners in their investment practice by providing a virtual environment for stock trading, using our own virtual currency.

## Aim

We aim to create a platform where you can view the live-time stock data, and create and track your portfolios. If you are a beginner, our platform can perform virtual tradings with real market data using our own virtual currency.

## User Stories

1. As an investor, I want to be able to view live-time market data, and create and track my portfolios.
2. As a beginner, I want to learn basic things about the stock, to know about companies and investments, by accessing live-time stock data.
3. As a finance enthusiast, I want to do paper trading, but after that, I can acquire skills from the real market, as the trades are based on real market data.

## Features and Timeline

### Features:

1. Stock visualization
  - The website provides live-time market data and key statistics and news about the companies. The data of stock of each company will be presented by candlestick graph or chart

2. Personal user account and TheStockXtreme
  - The website allows users to synchronize their data and customize their website “game” account
  - Each user will start with 1,000,000 coins and will receive a bonus of 100,000/day each time logging in
  - Users can search for ticker symbols and can view all of the relevant data (floor price, reference price, ceiling price, stock chart, etc.)
  - The website allows investors to create and track their portfolio investments
3. Report
  - Users’ total balance, gains, and losses will be provided after each daily cycle
  - All data will be provided in numerical or chart form to help users have better overviews of their trading decisions
4. Stock prediction
  - We aim to include in our product a feature that can represent our own prediction about companies’ stock prices using data analytics

**Timelines:**

1. By the end of May
  - Create a master plan or documentation
    - + Research and understand the Tech Stack
    - + Decide the functionality and constraints of the features
  - Learn React, Node.js, and MongoDB to begin developing the application
2. By the end of June
  - Create the Interface for users
    - + Personalize the users’ accounts
    - + Setting up TheStockXtreme - the virtual environment where users buy and sell shares using a virtual currency
  - Create the real stock data reading tool
3. By the end of July
  - Complete the stock data visualization tool
  - Integrate the stock data visualization into TheStockXtreme
  - Test the website to make sure it runs smoothly
4. By the end of August
  - Work on feedback from users and mentors
  - Enhance the UI/UX design
  - Prepare for the final presentation and documentation of the application

## **Tech Stack**

1. Stock API (Polygon.io)
2. HTML/CSS/Javascript/React
3. Python/Java
4. MongoDB
5. Firebase

## **Qualifications**

1. Do Gia Hien - A0262365A
  - a. Achievement:
    - Get grade A- in CS1101S
  - b. Technical Skill:
    - Proficient in Java, JavaScript, HTML, CSS, React
2. Dao Trong Khanh - A0255826W
  - a. Achievements:
    - Get grade A CG1111A, A+ MA1512
  - b. Technical skills:
    - Proficient in Python, C, C++, HTML, CSS, TypeScript