

WD Diploma - Capstone Project

Project Title: *Stonkers stock tracker*

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Cohort: *Web Development winter 2022 - Mountain*

Project Overview

1.1 Description

Stonkers is a stock tracker application that allows the user to check quotes, charts and stats of stocks. It also allows the user to add their favorite stocks to a watchlist for them to keep track of.

1.2 Problem

The stock market and the world of investments is one that is gatekept by unnecessary noise and complexity by incumbent financial institutions. Many people are afraid to take control over their financial situation because it all seems too complex and time consuming to learn and to manage. Stonkers seek to provide a simple to use interface for people who seek to keep an eye on their investments while still allowing them to spend their time on what really matters to them.

1.3 User Profile

The target users for the application are people who want to be able to keep an eye on their investments without having to deal with a steep learning curve and with the complexity of traditional stock platforms. It helps them by providing the relevant information for the average joe investor while having a UI that is simple and intuitive enough to be used by anyone with less knowledge and experience. It is not aimed at professionals or experienced traders. The design has to be simple and avoid complex lingo.

1.4 Requirements: Use Cases and Features

Target features:

- MVP: Pull a quote with search (able to search by ticker symbol and pull the latest price and the variation)
- MVP: Show the graph of the stock pulled above.
- Show data about the stock: (ie market capitalization, dividend yield, volume, etc.)

- Watchlist: Make it possible for users to add stocks to a watchlist to keep track of
- Authentication: make it possible for users to log in so their watchlist stays intact from session to session

Nice-to-have features:

- Holdings: be able to add, delete, edit holdings a user might have and display the total value of the portfolio
- Company News: add a section where the user can see the latest news about the stock
- Portfolio Data: be able to see the pie chart of the allocation of the user's holdings

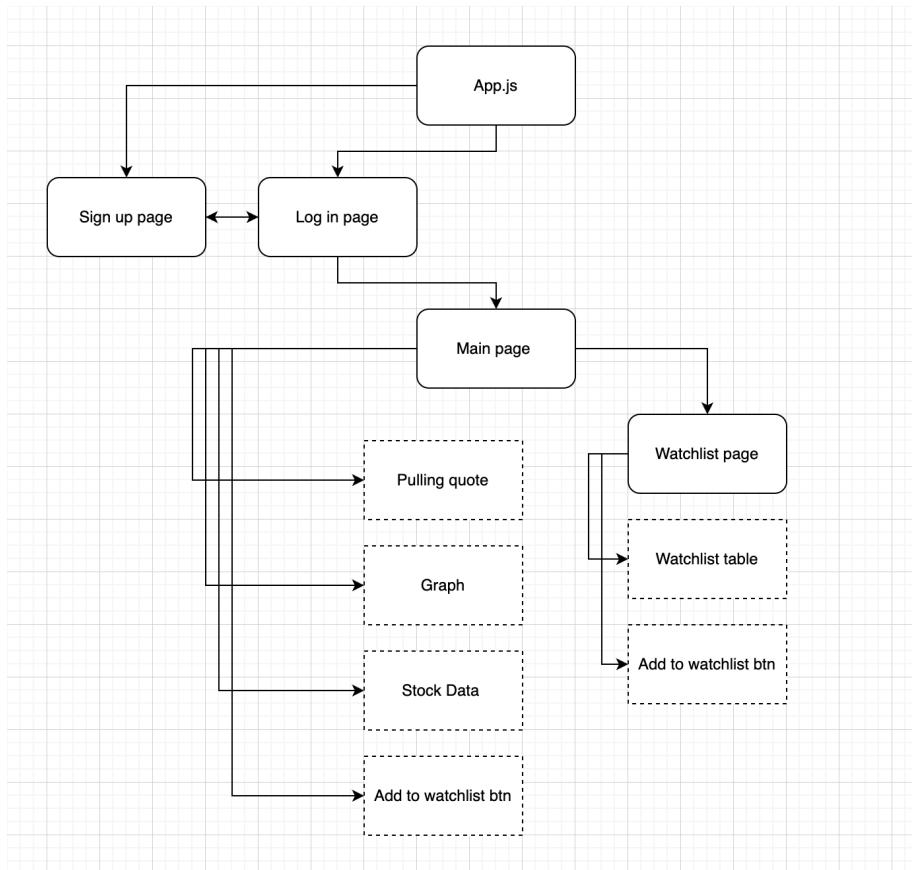
1.5 Tech Stack and APIs

- Front-End: React, Sass, Axios, Charts.JS, Material UI (Icon Library)
- Back-End: Express, Node.JS, MongoDB, JWT
- API: <https://finnhub.io/>
- Deployment: Heroku or Firebase (not sure yet)

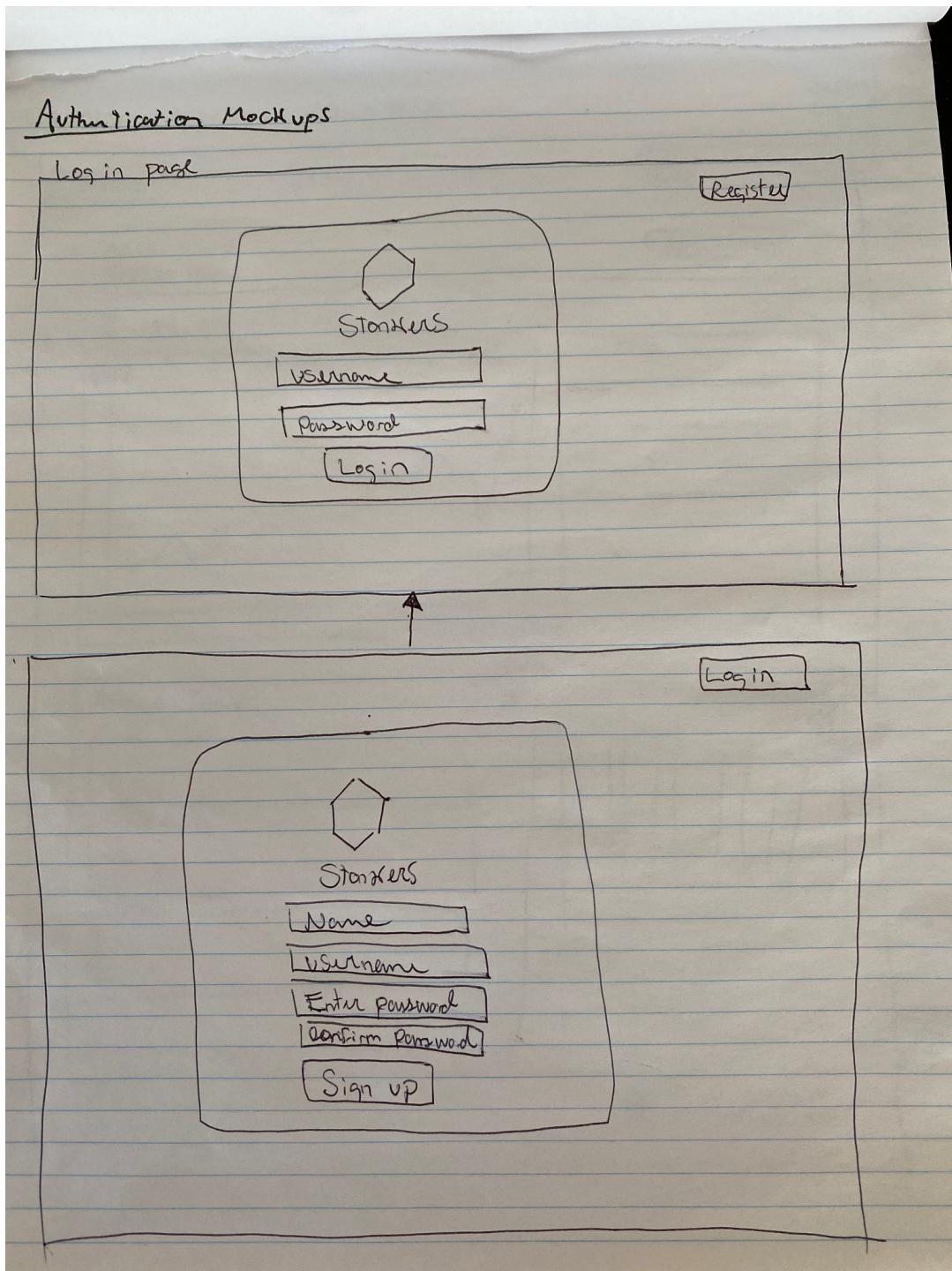
2. Client-Side Implementation

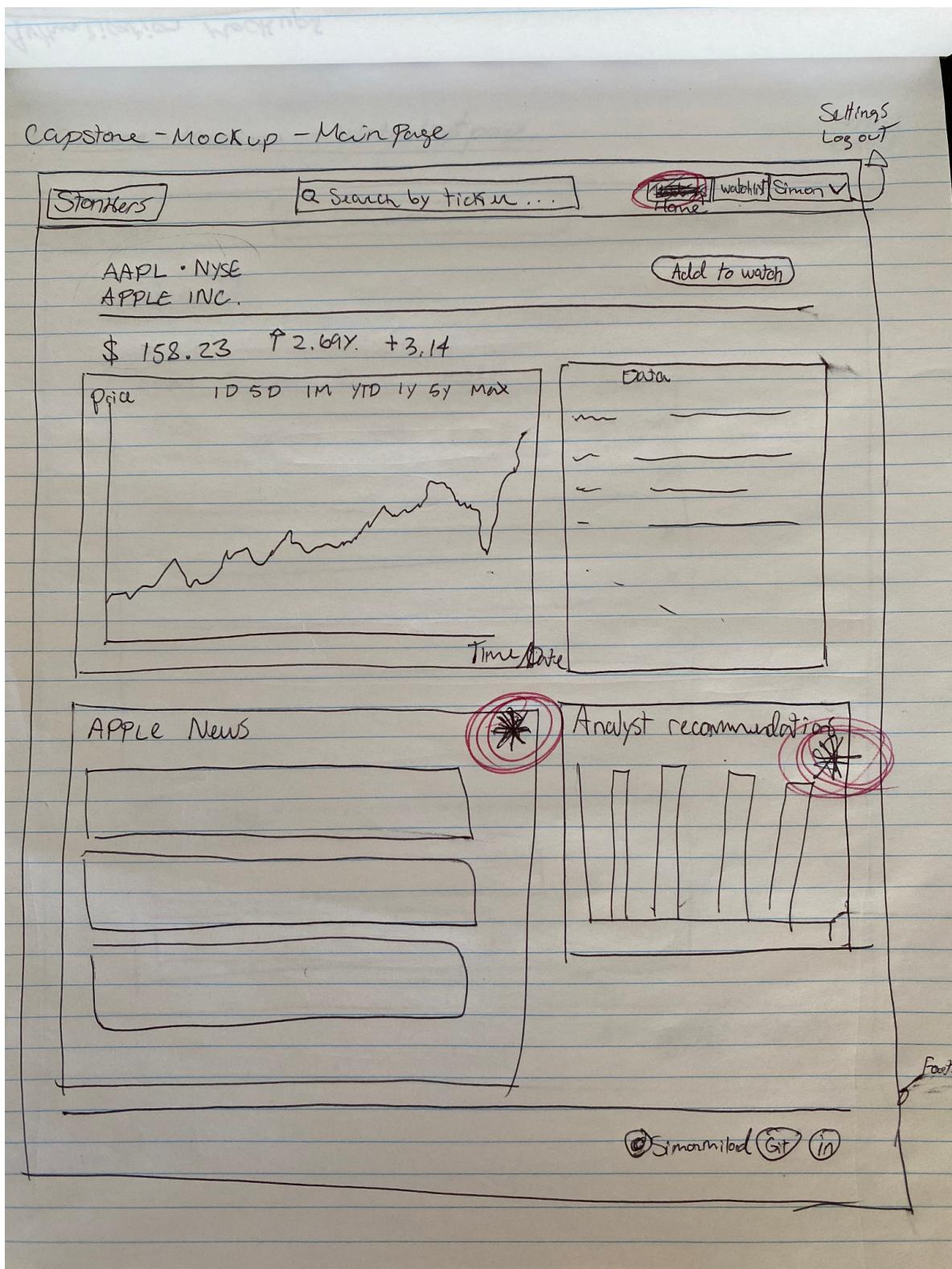
Site Map

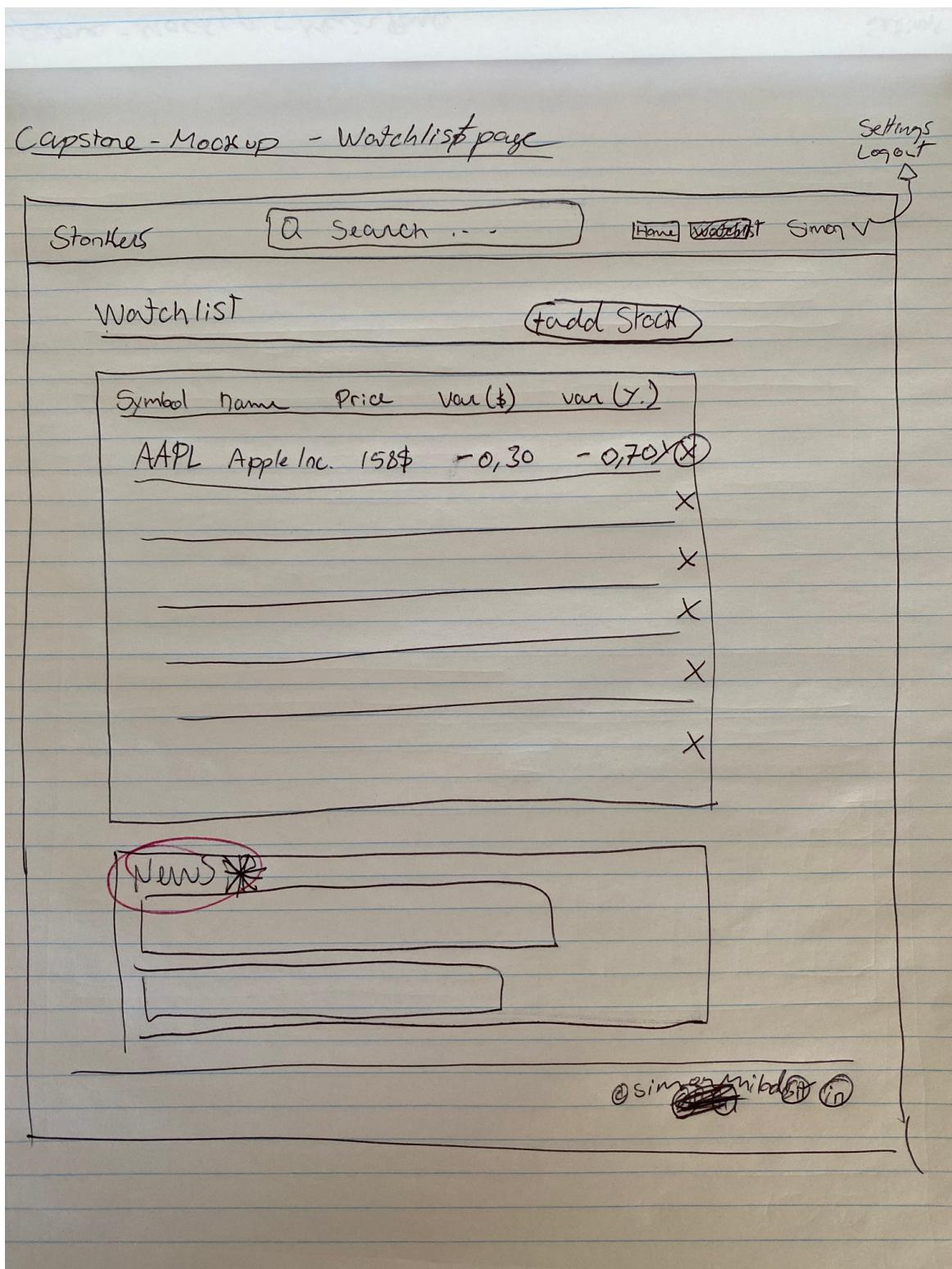
List of pages/screens that your project will implement with brief descriptions. You can use [draw.io](#) to make technical diagrams. e.g.)



Screen Details (in red are nice to have features)







3. Server-Side Implementation

3.1 End-Point Descriptions

A list of endpoints your server will implement, HTTP methods for the end points, and any parameters that the endpoint will accept to fulfill the request. e.g.:

| End-point | Response Format |
|---|---|
| HTTP GET - /user/:id (get a user by id to log in) | { todos : [{ text : 'STRING', done : TRUE/FALSE, ID : NUMBER } ...] } |
| HTTP POST - /user/:id (POST a user by id to DB when signing up) | |
| HTTP GET - /user/:id/watchlist (get a user watchlist of stocks) | |
| HTTP POST - /user/:id/watchlist (post to a user watchlist of stocks to add a new stock) | |
| HTTP DELETE - /user/:id/watchlist (Delete a stock from the watchlist) | |

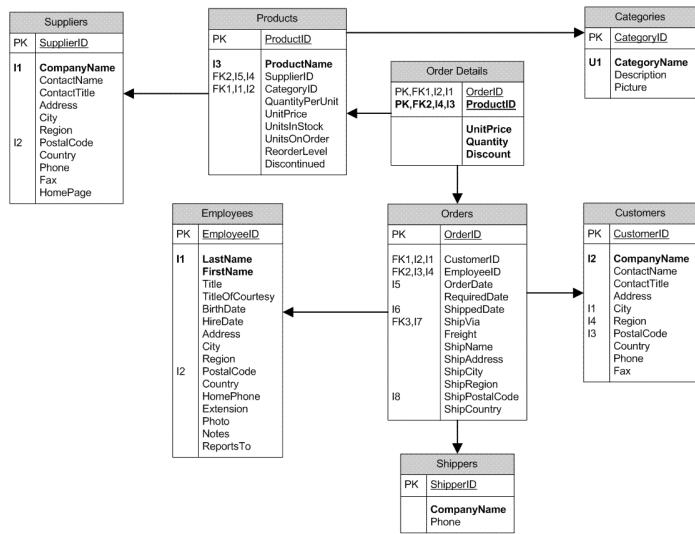
3.2 External APIs that will be consumed

- API: <https://finnhub.io/>

It will be used to get all the daily market data. From Prices, Company news, etc.

3.3 Database Structure

If your project includes a database, the structure should be described including tables with fields (for relational dbs), or documents and attributes (for non-relational dbs). If your table does not include a database, describe any persistent storage that you will be using (e.g. flat-files, directories). If desired, diagrams can be drawn using tools such as [draw.io](#)



3.4 Authentication/Authorization and Security

Description of any user profile/login functionality that you need, as well as any authentication/authorization that your project will use.

Planning to use server-side Authentication with JWT. Only 1 type of user here so authorization should not be necessary

4. Project Roadmap

Phase 1

A subset of the features that you have listed in Section 1.4. This is what you are committing to have completed for demo day. Your project will be marked based on what you commit to in Phase 1. Think about what you can reasonably complete within 8 - 10 working days, and what will demonstrate your skills in an interesting way to the audience on Demo Day. Note that the more clearly you have planned out your project in the preceding sections, the easier it is to focus on implementing your project step by step.

You must scope out Phase 1 as accurately as you can as a 1 week “mini-sprint”. Assuming that you begin your project on Tuesday of Week 9, and everything is due on Wednesday of Week 10, that gives 7 working days to work on your final project. The more detailed you can be, the more you can be assured that you can complete your plans. Also note that you may encounter “problems”, consider having 1 day of buffer time to account for unexpected problems. e.g.)

| Day | Goal |
|-----|------|
| | |

| | |
|-------------------|--|
| <i>1 (Wed)</i> | <i>Create database and design models</i> |
| <i>2 (Thurs)</i> | <i>Build server boilerplate and hook up to database</i> |
| <i>3 (Friday)</i> | <i>Define all Endpoints in express, connect endpoints to any external web api</i> |
| <i>4 (Mon)</i> | <i>Implement functionality of endpoints - create JSON response and verify endpoint responses</i> |
| <i>5 (Tues)</i> | <i>Build React App overall structure and high-level components</i> |
| <i>6 (Wed)</i> | <i>Connect smart components to end-point APIs</i> |
| <i>7 (Thurs)</i> | <i>Test/debug end-to-end functionality of app</i> |
| <i>8 (Fri)</i> | <i>Implement CSS/Styling</i> |
| <i>9 (Mon)</i> | <i>Code Clean up, refactoring, final styling</i> |
| <i>10 (Tues)</i> | <i>DEPLOYMENT, README, SLIDES</i> |
| <i>11 (Wed)</i> | <i>DEMO DAY</i> |

Phase 2

Nice-to-have :

- Holdings page
- Company news
- Portfolio data

Phase 3

5. Demo Day Information

Please fill out the Google Forms that will be sent out via Slack. This information will be used to complete your presentation and to showcase your profile on the BrainStation website.