

Sprint 4: Stock Market Analytics and Recommendation



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This Sprint Objectives

- Stock api graph
- Design & Make UI user friendly
- Build public pages to market the cloud-based market recommendation system.
- Complete next user stories
- New Test case development

Risks & Challenges

- Finding a way to put all stocks into our own database and continue to have that data refresh daily (Due to our api call limitations).
- Finding the most efficient way to pull and store daily market data

Mitigation Plan

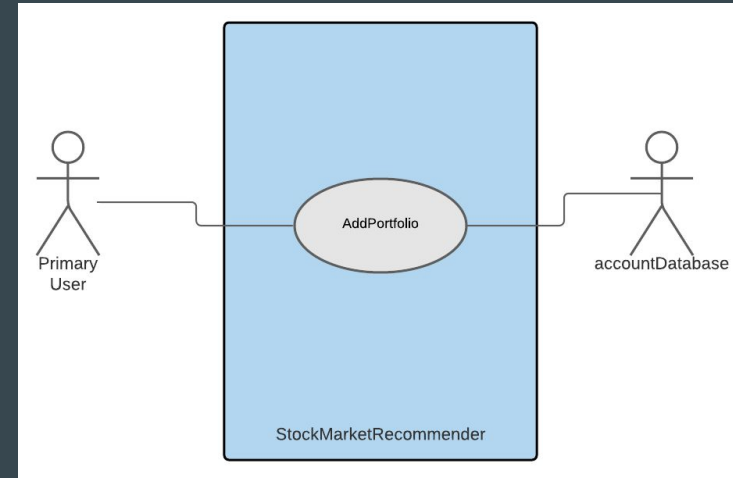
- We get 5 api calls per minute with Alpha vantage and 500 requests daily, we decided to limit our app to recommend from a superset of NASDAQ(100), Dow Jones(30), S&P 500.
- Instead of storing all daily market data and refreshing a database table each time we pull new data, we decided to store only the ticker, which would be associated with a User in the database and use API calls from IEXcloud to refresh data, which makes it much quicker and more efficient

Next Sprint Objectives

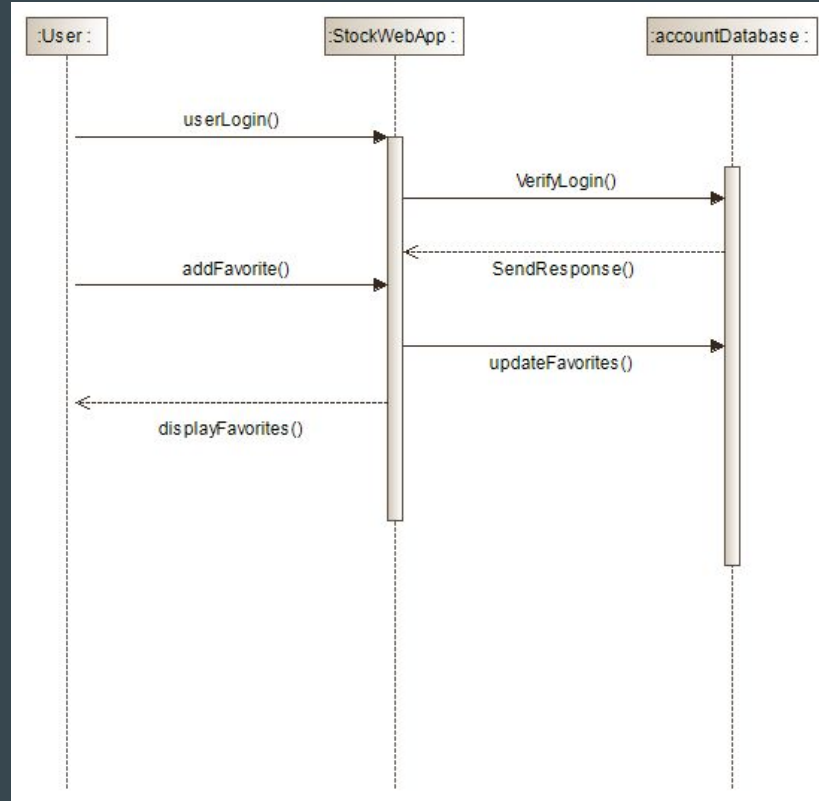
- Provide sector-based recommendation for investment
- Provide individual stock recommendation in each sector.
- New Test case development
- Implement ability to add stocks to portfolio

Next Use Case

- Add To Portfolio:
 - **Preconditions:** User requires an activated account
 - **Success Guarantee (Postconditions):** User adds chosen stock to their portfolio
 - **Main Success Scenario:**
 1. User logs into an activated account
 2. User searches for stock symbol
 3. User clicks add to favorites
 4. User gets notice that stock has been added to portfolio
 - **Extensions:**
 1. Page not loaded properly
 2. Stock failed to add to portfolio



Sequence Diagrams



Portfolio Page Design

Design Decisions:

- Add More stocks button that redirects you to upgrade your recommendation package

- Table that shows data on the current stock that is recommended

StockZ

HomePortfolioProfile SettingsLogout

Search Stocks...

Search

My Portfolio

+

Add More Stocks

Company Name	Stock Price	Previous Close	Market Cap	YTD Change	52Wk High	52Wk Low	Recommendation
TWTR	\$52.96	\$53.23	\$1235643366	0.03424222%	\$60.43	\$42.53	Hold
AMZN	\$3214.25	\$3215.15	\$32456644322	0.04352522%	\$3453.23	\$2853.32	Sell
GOOG	\$1902.96	\$1905.32	\$23466336564	-0.0324253%	\$1950.35	\$1760.45	Hold

Portfolio Page Design

Design Decisions:

- Green “Hold” to represent the stock is in good condition.

- Yellow “Sell” to represented our suggested time to sell your stock

StockZ

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Search

My Portfolio

+

Add More Stocks

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Demo