

# *ATeam top\_HATS*

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## *Project STOK Design Doc*

### What is our project?

STOK is a stock market simulation game based on real-time stock prices. In order to play the simulation, a user must create an account. To start a game, they begin by choosing their difficulty which adjusts their starting balance accordingly. Based on how much money they have, they will be able to look up and purchase stocks to add to their portfolio or sell stocks in their portfolio. Only a user's last three transactions will be saved. The top ten users with the highest balances per level will be displayed on a leaderboard visible to all users and updated after every transaction. Once a game is started, it must be continued unless a user chooses to end the game. Then, their account is reset and they are able to start a new game with a new difficulty.

Once the simulation is implemented, STOK hopes to grow to be more of a social media platform, where one can visit their friends' pages, and check what stocks they're working with as well as how they're doing on the market. On your feed, you may like or dislike friends' activity (buying/selling) indicating approval of their purchase.

### Tasks

#### FRONT END

- Taylor Wong(aka Taytay the PM)
  - Bootstrap, CSS, jinja
  - HTML pages
  - Work on front-end - app.py

#### BACK END

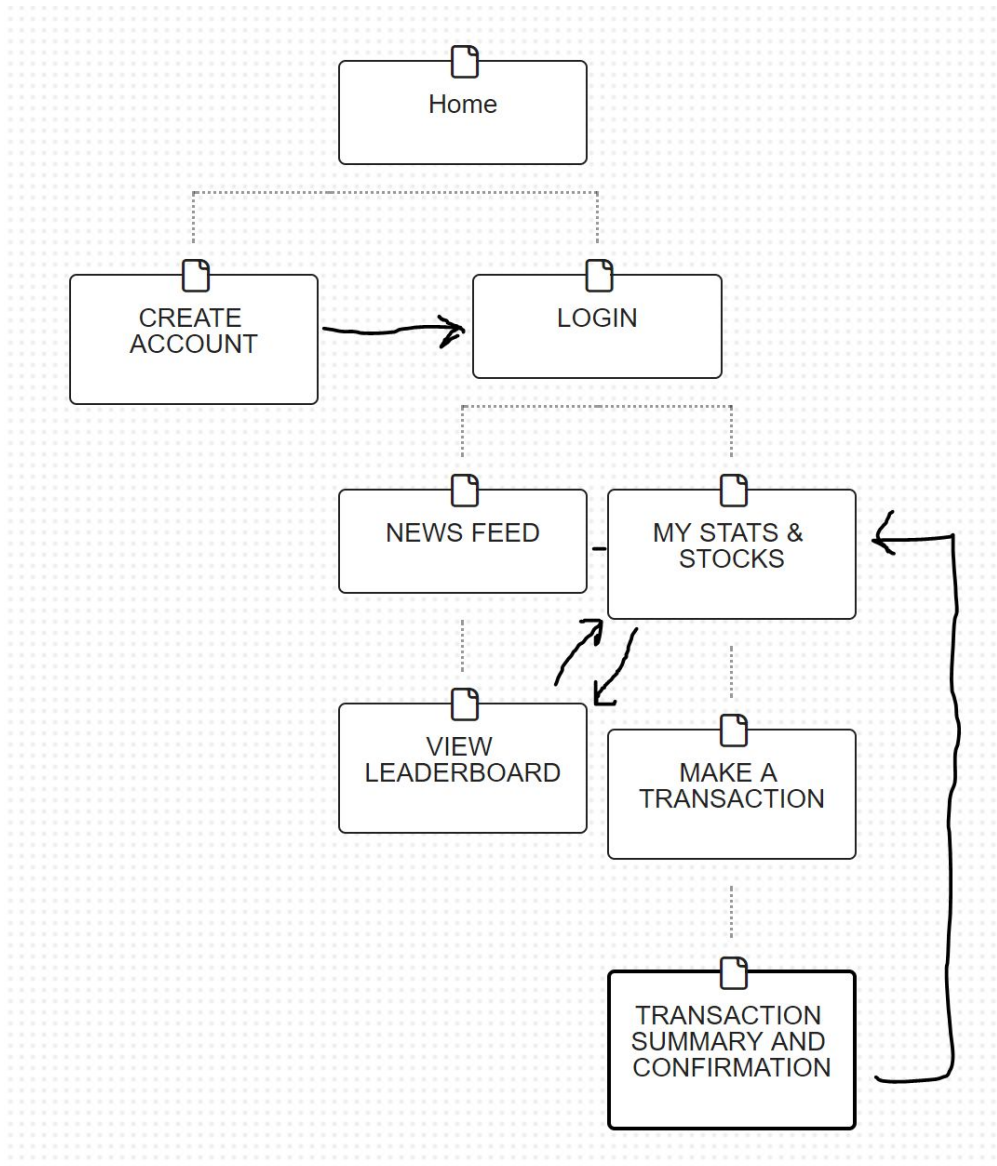
- Samantha Ngo(aka NGO)
  - Set up accounts
  - User Transactions and Updates
  - Work on front-end - app.py
- Adam Abbas(A^2 - 1 [arm] )
  - APIs
    - AlphaVantage
      - Do the bulk of the stock work
    - Finance News (E\*TRADE, NYT, etc.)
      - To be displayed on your feed
    - Currency Exchange
  - Mechanics
    - Keeping track of transaction history
    - Working on building the MVP up to a social media platform, from a simulation
  - Filler Boi - help other members in need aka Red Cross but for code
- Holden Higgins(aka H^2)
  - Databases
    - Transaction history
  - Leaderboard
  - Mechanics
    - Leaderboard
  -

#### IF TIME

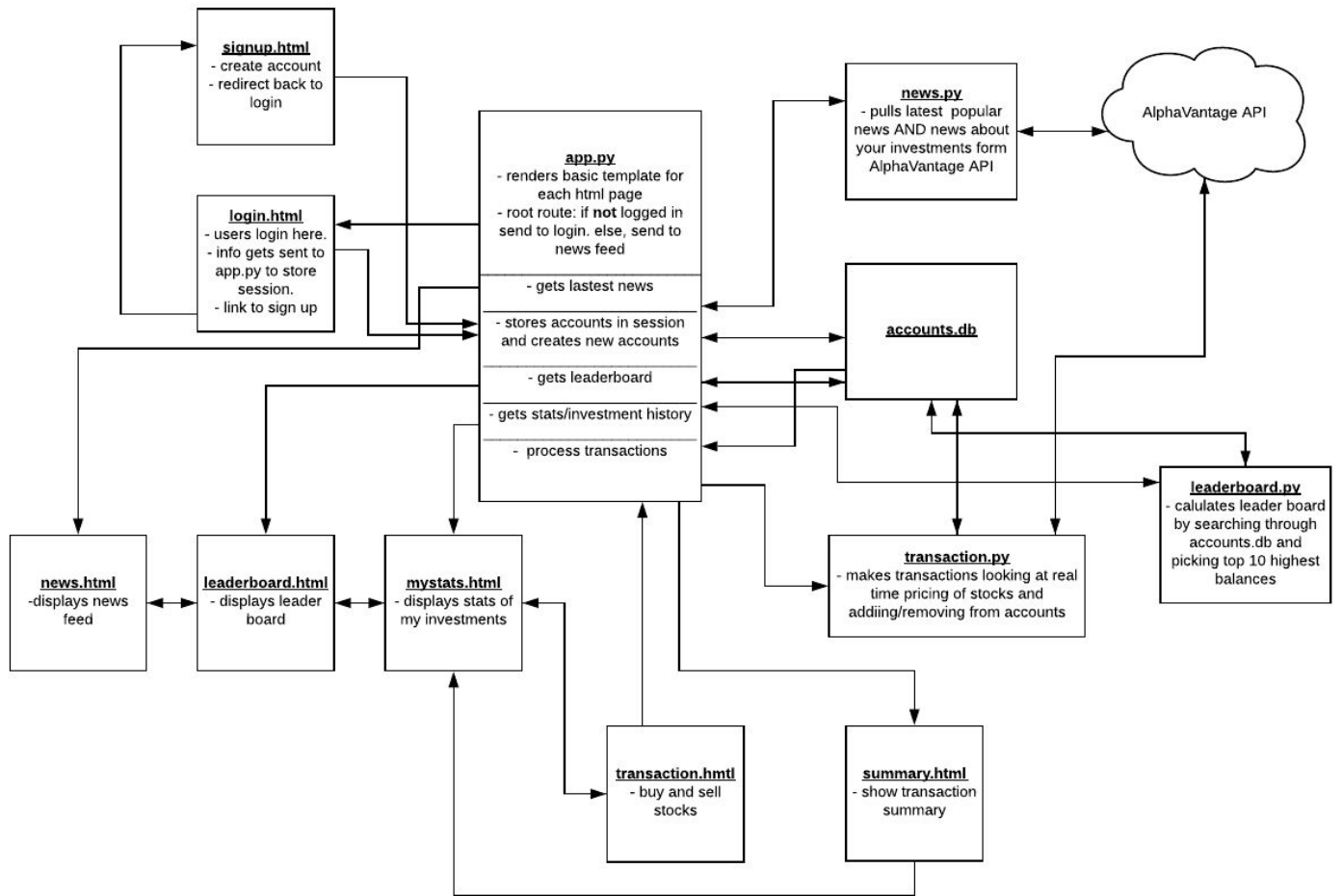
- Search users by username

- Can see their last three transactions
- Maybe be able to “friend” them
- Social Media
  - Adding friends
  - Seeing friends’ investments, liking/disliking
  - Group investments
- Search/Track stocks to display on your feed (Keep up to date yuh)
- Game history - keep track of what games you played previously and how much you made

## Site Map



## Component Map



## Database Schema

id	password	name	balance	friends	first_investment	first_price	second_last_investment	second_price	third_last_investment	third_price
"twong7"	#hashed	"Taylor"	100.00	N/A	GOOG	10	APPL	40	AMZN	25
"aabbas"	dehsah#	"Adam"	50.00	"sbob96", "pstarr"	AABA	5	MSFT	45	EBAY	10



