Buffonomics

Team Members:

- Elijah Boyer (spell-bound)
- Stephen Le (Wheatlys)
- Ali Siddiqui (Ali-Sidd11)
- Sutchin Somanathan (chaisoma)
- Pranav Meka (PranavM06)
- Kai Janipalli (kaja4447)

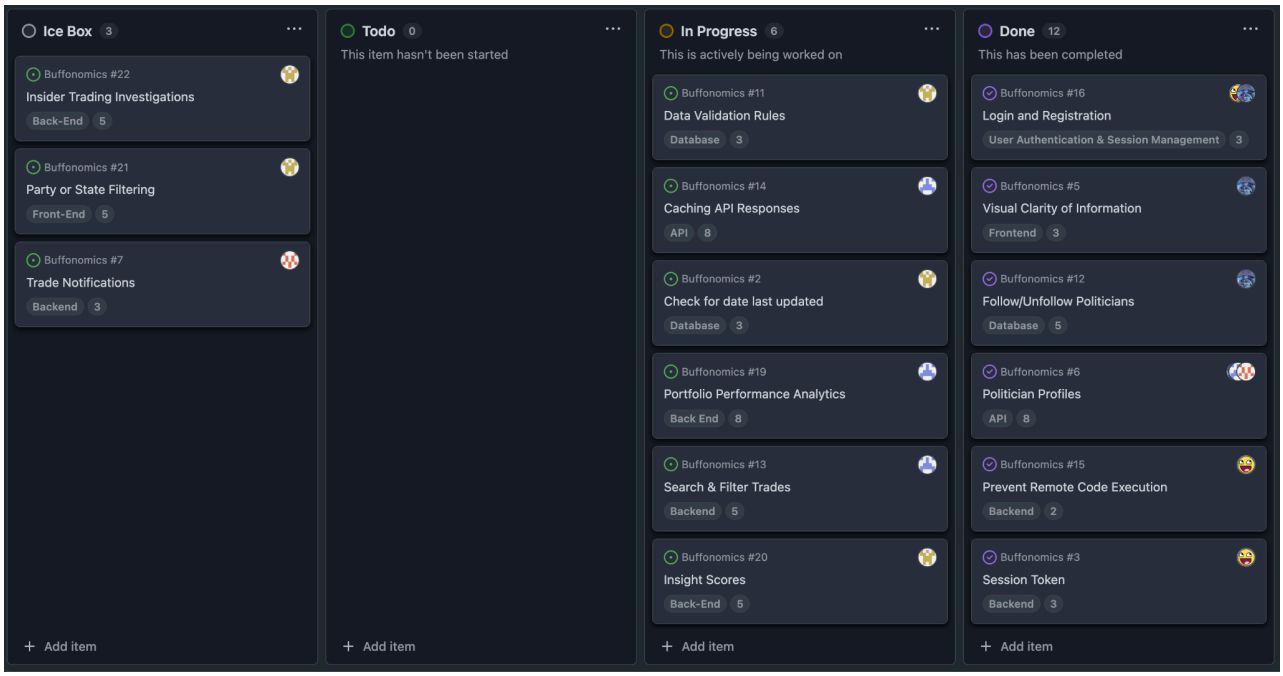
Project Description

Buffonomics is a secure, end-to-end web app that tracks stock trades disclosed by U.S. Congress members. After logging in, users land on a live dashboard that highlights the day's most active lawmakers, shows recent high-volume trades, and lists any congress members they follow. From there, a search or card click opens a detailed profile view. Each profile aggregates trade history pulled from Quiver Quant's congressional endpoints, deduplicates the records, and displays filing dates, transaction descriptions, party affiliation, chamber, district, and the trade's estimated excess return relative to the S&P 500. Users can follow or unfollow a member from either view, and the watchlist updates instantly.

Under the hood, the app is built with Node.js and Express, a PostgreSQL cache for politicians and trades, and vanilla HTML, CSS, and JavaScript on the client. Docker Compose runs the Mocha and Chai unit tests and then starts both the PostgreSQL database and the Node.js server. User credentials live in PostgreSQL with passwords hashed to keep accounts protected. The same containerized build deploys to Render, where environment secrets such as the Quiver API key, database credentials, and the session secret are managed. Development follows GitHub project-board practices with feature branches, pull requests, and release notes so the stack remains reproducible and easy to extend.

Project Tracker – GitHub Project Board

- Link: https://github.com/users/Wheatlys/projects/3



Video Demo

- Video Link: https://app.screencastify.com/watch/s5Rx4XVxJ4AyyIkY1LIW?checkOrg=8b47a464-5709-45de-a432-bdf838e0aaf9
- Features covered: Login/registration page, dashboard homepage, politician profile pages, settings page, following/unfollowing of politicians.

Version Control

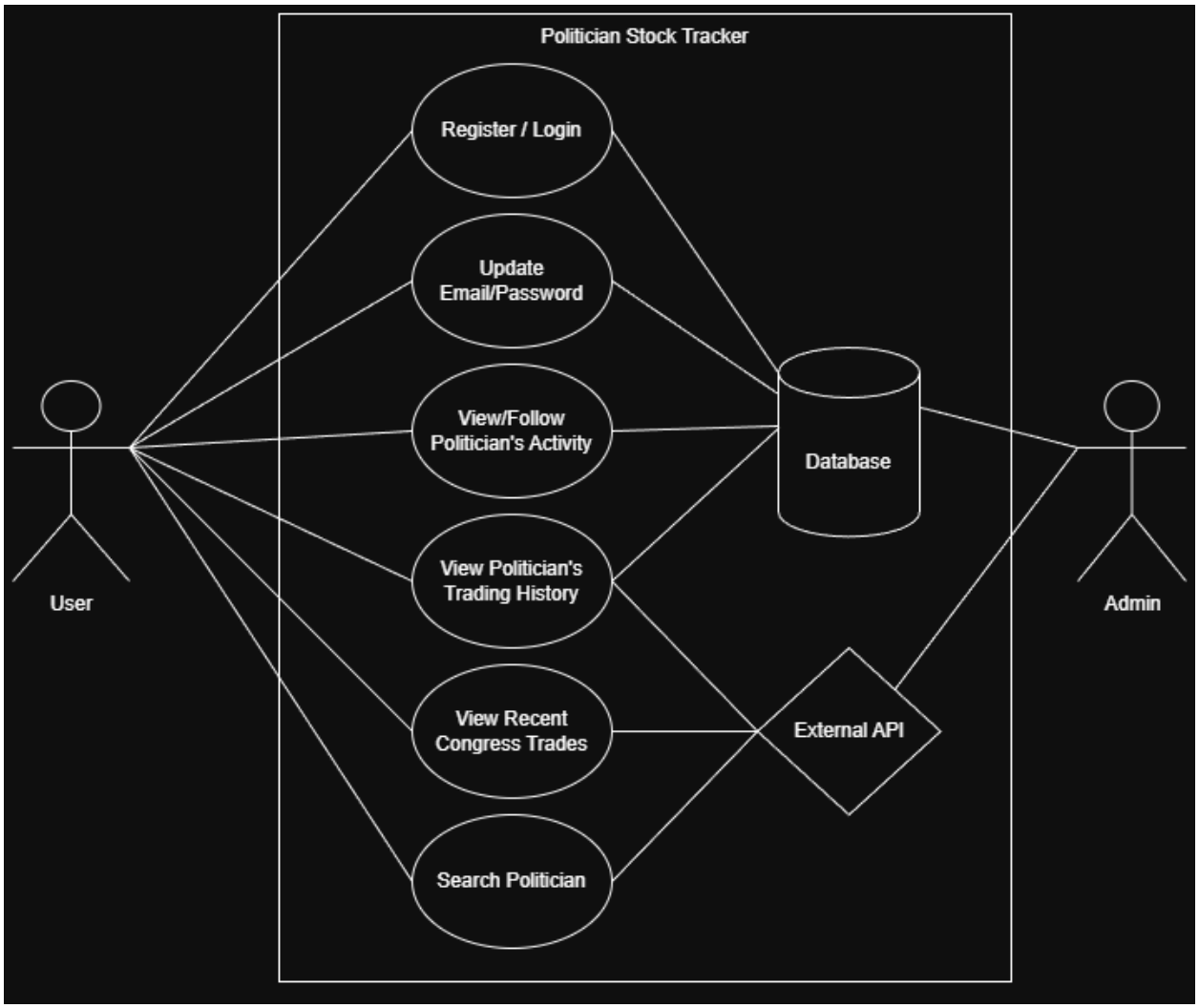
- Repository: https://github.com/Wheatlys/Buffonomics
- Commits: https://github.com/Wheatlys/Buffonomics/commits/main/
- Branches: https://github.com/Wheatlys/Buffonomics/branches

Contributions

1. Elijah Boyer – Implemented the congress members profile page, specifically the backend. Created the database and set up the API integration with Quiver Quant. Set up the congress profile pages to store API calls in the database as a backup in the event that there is an issue with the API. Completed all of the labs for the group project. Deployed and managed the web service on Render. Helped with managing version control, pull requests, and merge conflicts. Recorded minutes of the meeting and updated weekly release notes. Wrote the readme file. Wrote this report.

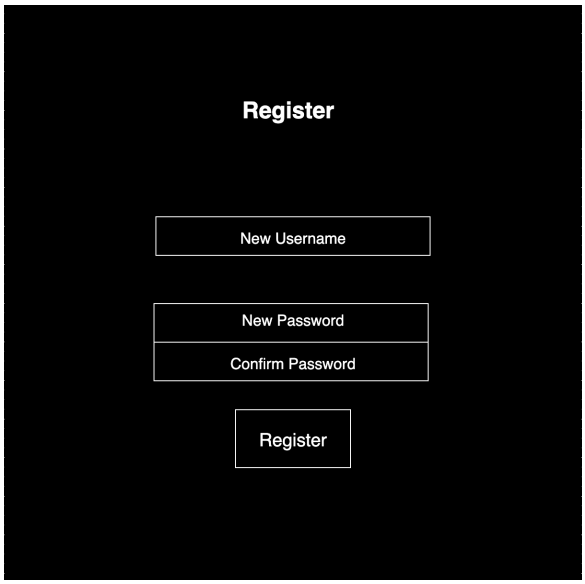
2. Stephen Le – Designed and implemented the login page and dashboard page user interface and worked heavily on frontend and CSS for settings page and overall website design. Implemented politician name cards using the QuiverQuant API. Included a welcome modal and threads background for the settings page using open source code from reactbits on github. Tweaked CSS for Ali's implementation of the following list and CSS for Elijah's politician page. Worked on page routing and ensured the logout function wiped out the session cookie ensuring a full sign out. I then helped out with the API functionality on the politician page as they were not fully displaying the politician stock data and total trade volume.
3. Ali Siddiqui - Implemented some of the frontend and backend for the homepage, fixed bugs that arose with the homepage after other group implementation and routing, added following section to the homepage, created UAT diagrams for project planning, and made a demonstration video explaining our project and features that we implemented.
4. Sutchin Somanathan – I produced wireframes, styled and refined the login and registration screens wireframes, and ensured accessibility across all interactive cards and buttons. I also built the initial version of the politicians-following list before database integration, and implemented the profile picture feature to improve personalization and user experience.
5. Pranav Meka – Owned project board hygiene, wrote video script, and handled Render environment variables plus Quiver key troubleshooting. Wrote the backend for the settings page and made the change email and pass word back end components. Also helped with some of the ui design.
6. Kai Janipalli – Designed initial profile page layout prior to backend integration and routing, including avatar placeholders, stats tiles, and visual structure. Helped shape UI decisions to support future routing and user data display. Also contributed to Release Notes and project documentation , and clear communication of features progress and deliverables

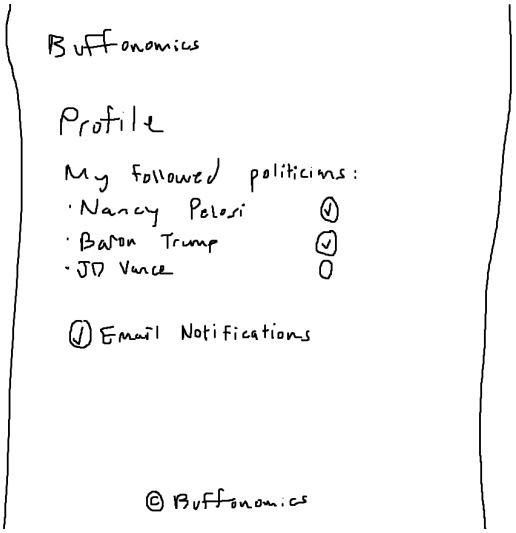
Use Case Diagram

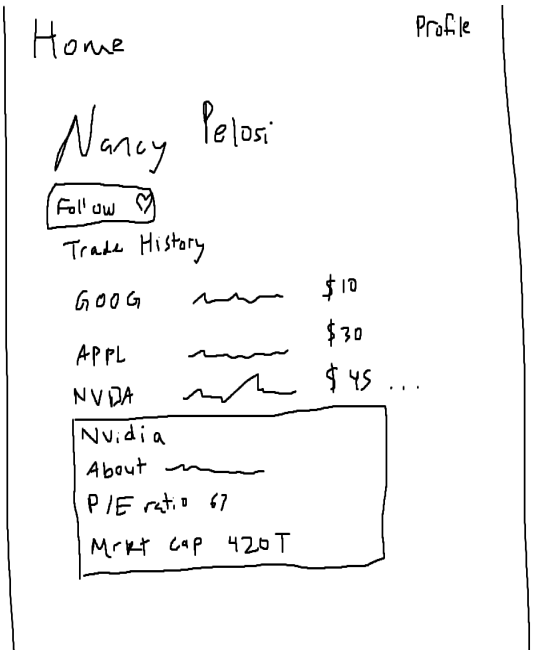


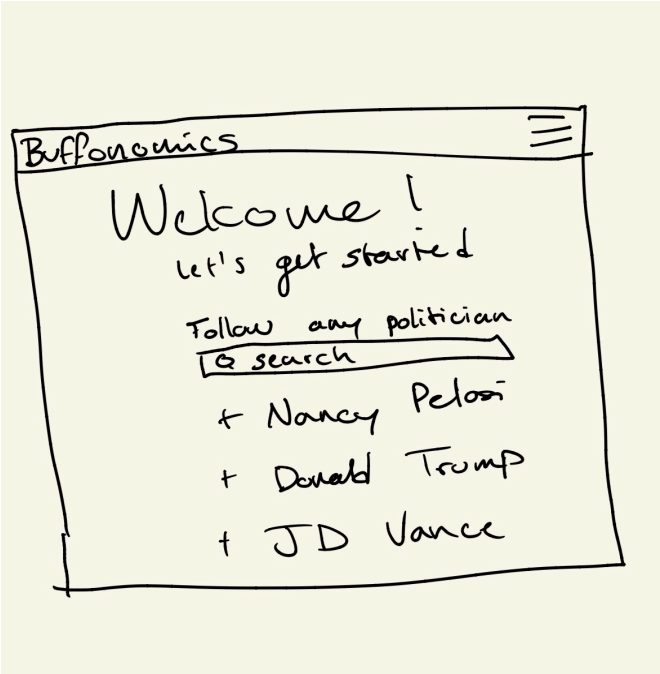
Wireframes


Login
Username text box
Password text box
Login button
Don't have an account? create account


Register
New Username
New Password
Confirm Password
Register


Buffonomics
Profile
My followed politicians:
· Nancy Pelosi
· Baron Trump
· JD Vance
Email Notifications
© Buffonomics


Home
Profile
Nancy Pelosi
Follow
Trade History
GOOG $10
APPL $30
NVDA $45 ...
Nvidia
About
P/E ratio 67
Mrkt Cap 420T



Test Results

Test Case ID	Status	Environment	Notes
Reg-01	Pass	Render	The user attempts to register with a new account, entering a valid email/password. The site redirects the user to the /login page after successful account creation.
Reg-02	Pass	Render	The user attempts to register an account with an email that is already registered. The browser rejects the registration and provides an error that the user already exists. This is expected as the user already exists in the database.
Reg-03	Pass	Render	The user attempts to register an account with atsada.com as the email. The browser rejects this attempt as this is not a valid email address. This is the expected outcome as this does not meet the requirements for a valid email address (missing @site.domainextension).
Log-01	Pass	Render	The user attempts to login to their account to access the site. Attempting to visit the homepage of the site without being logged in redirects the user to the login screen. The

			user enters the correct email/password and is redirected to the homepage dashboard. This is the expected result as logging in should redirect to the dashboard.
Log-02	Pass	Render	The user attempts to login with a correct email but an incorrect password. The site sends an error that the email/password is incorrect, redirecting the user back to the login page rather than redirecting them to the dashboard. This is expected.
Trade-01	Pass	Render	The user types a politician's name into the search bar from the home page. After clicking the name of the politician that comes up, they are redirected to that politician's profile page where they can see more information about the politician and their trading activity. The politician's profile page correctly displays information about the politician's political party, state, and trade history. The search successfully calls the Quiver Quant API and returns the relevant data for the user's search.
Trade-02	Pass	Render	The user attempts to follow a politician of interest. Initially, the user has some difficulty finding the follow button for the politician. After following the politician, the user navigates back to the homepage and can now see their newly followed politician on the following sidebar. Unfollowing the politician from the sidebar updates the database, removing the politician from the user's followed list both on the front end and back end. While this was the expected site behavior, we were not expecting the user to take so long to find the follow button. In the future, we could consider adjusting the color of the follow button to improve the readability of the user interface.

Deployment

- Live URL: https://buffonomics.onrender.com