Final Project: CU Clubs

Members: Grayson Hubbell, Vicky Lopez, Matt Bloomfield, Ahmad Sai

CU Clubs

Are you someone looking for a fun and engaging way to connect with other members of the CU family on campus? Look no further than CU Clubs! Our website is designed specifically for all CU affiliates, from students to faculty to professors, our website provides a platform for clubs to showcase their events and activities. With easy-to-use navigation, you can quickly find clubs that align with your interests and get involved with like-minded individuals. Join our club website today and take the first step towards making new friends, discovering new interests, and enhancing your college experience!

By Grayson Hubbell, Vicky Lopez, Matt Bloomfield, Ahmad Sai

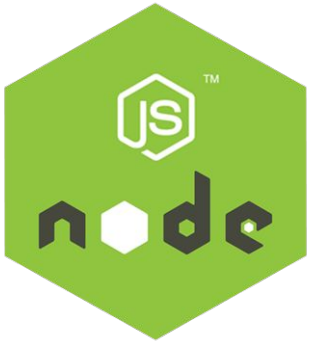
 # Tools we used! 

Front End

We built our application's front end using the following tools:

- ***HTML*** was used to create the underlying structure of the website and all the different pages it contains.
  - **Rating**: 5/5
- ***CSS*** & ***Bootstrap*** were used to stylize and customize the website to make it more appealing to the end user. We created our own CSS styles as well as imported Bootstrap styles.
  - **Rating (CSS)**: 5/5
  - **Rating (Bootstrap)**: 5/5
- ***Javascript*** was used to add functionality, interactivity, and overall logic to our application such as user validation, handling of API requests, and dynamic behavior on the search fields.
  - **Rating**: 5/5

Back End

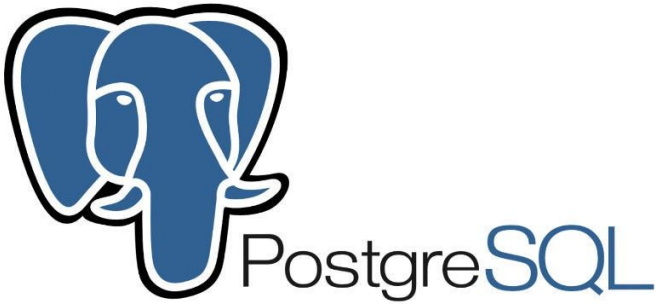


MOCHA

We built our application's back end using the following tools:

- ***Npm*** was used as the package manager for Node.js
  - **Rating**: 5/5
- ***Mocha*** was used to build and run test cases against our application to make sure it is functioning properly
  - **Rating**: 5/5
- ***Node.js*** was used to develop and build our real-time web application and the APIs associated with it using its asynchronous event-driven Javascript runtime framework.
  - **Rating**: 4/5

Database



We built our application's database using the following tools:

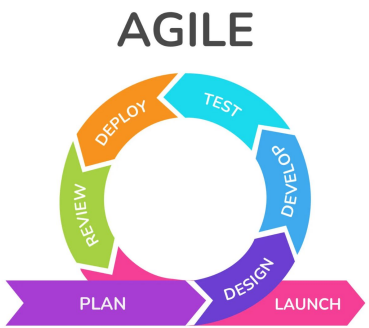
- ***PostgreSQL*** was used to create our database and tables such that we can store important and relevant information about our clubs and our registered users
  - **Rating**: 5/5
- ***Python*** scripts were made to help facilitate the cleaning process of the data, and the insertion of the data into their respective tables.
  - **Rating**: 5/5

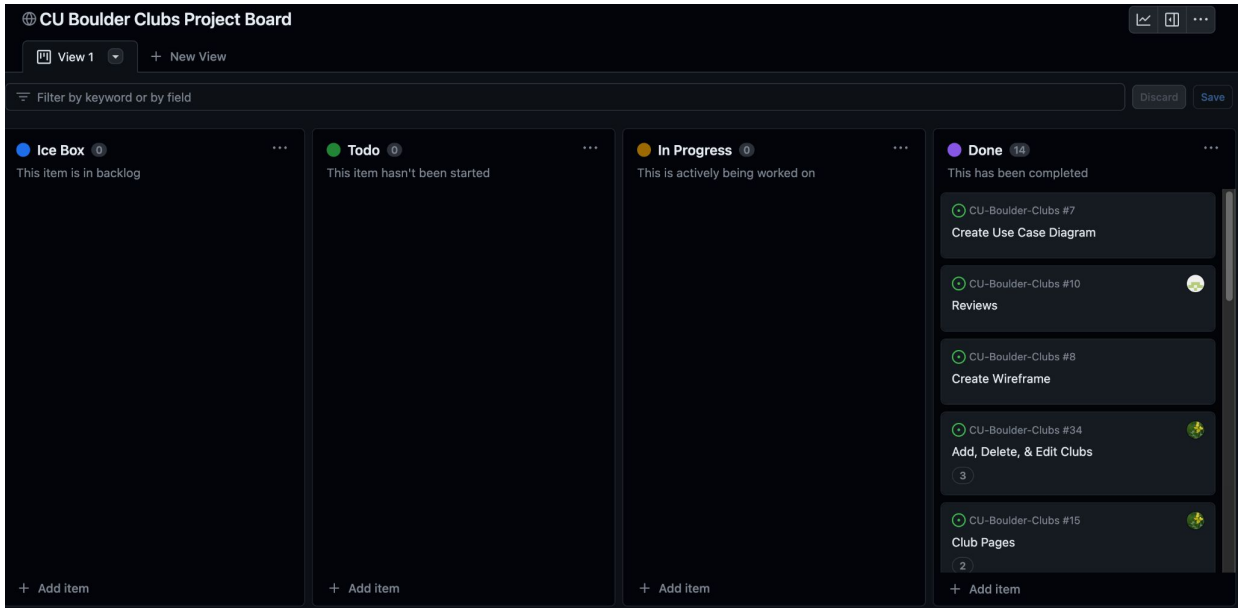
Software Development Tools

We built our application with the help of the following tools:

- ***Git*** was used as the control system and ***GitHub*** was used for the GUI and as the main resource for project tracking and collaborating.
  - **Rating(Git)**: 5/5
  - **Rating(GitHub)**: 4/5
- ***VSCode*** was used as our IDE and our software development environment
  - **Rating**: 5/5
- ***Microsoft Azure*** was used to host our fully built application and the database on the cloud.
  - **Rating**: 4/5
- ***Docker*** was used to create the separate containers on which the application and the database would live, as well as a way to work and test our application locally, before deployment.
  - **Rating**: 1/5

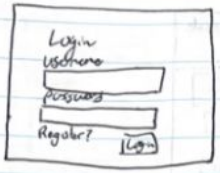
Methodologies



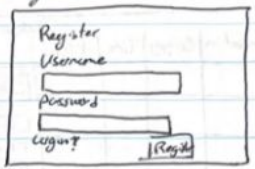


Wireframe Diagrams

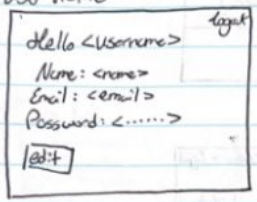
Login



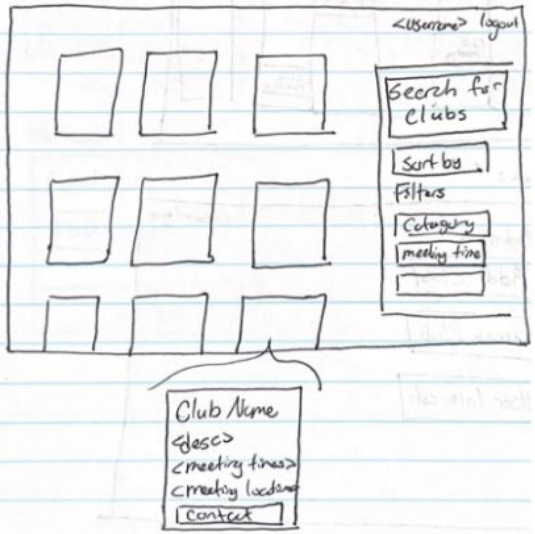
Register



User Profile

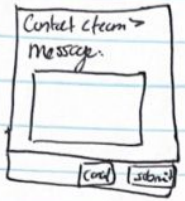


Clubs Directory: Cards:

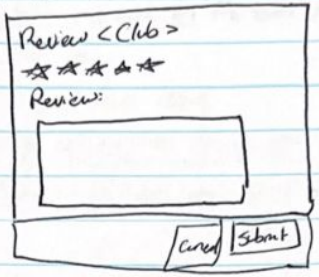


MODALS:

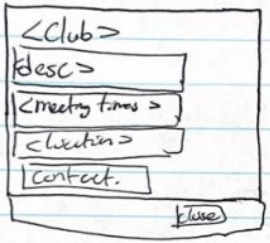
Contact:



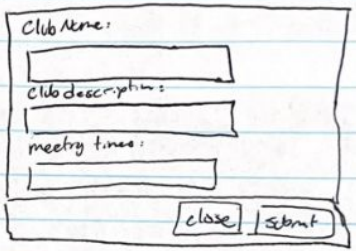
Review Club:



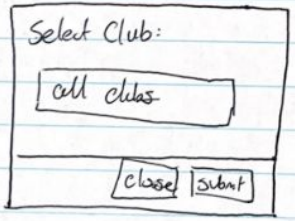
Club Info:



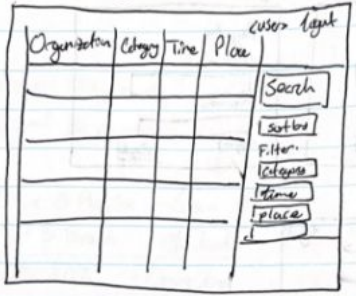
Add Club:



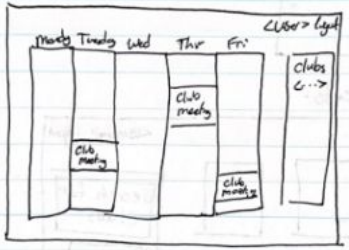
Remove Club:



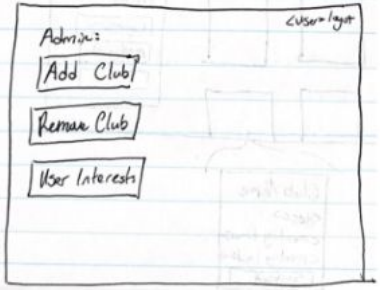
Clubs Directory List:



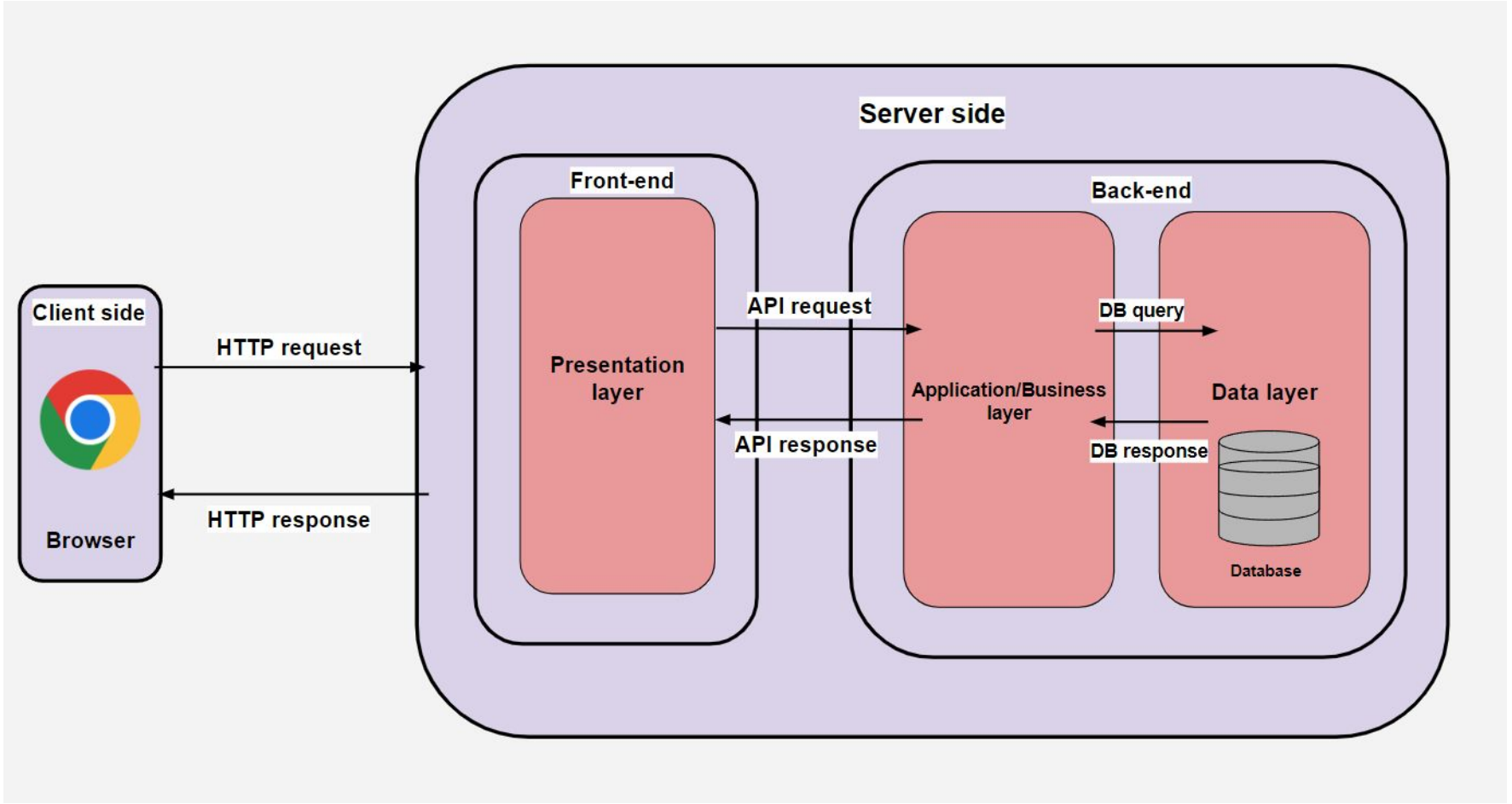
Calendar:



Admin:



Architecture Diagram


Server side
Front-end
Back-end
Client side
HTTP request
Presentation layer
API request
DB query
Application/Business layer
Data layer
API response
DB response
HTTP response
Browser
Database

Challenges

- **Getting a list of the clubs** was a challenge when we were planning the project as it wasn't publicly available and contacting the people that run the website would have to take a long time, so we had to manually extract the data from the website and create a CSV out of them.

- **Docker not working the same on all of our computers** was a huge issue. It turns out that we had different versions of Docker desktop and this was the root cause of a lot of issues. To solve this issue we had to figure out the correct version of Docker Desktop we are all meant to be running and we switched over to that.

- **Having to initialize every table and fill them in each of our systems** was a big challenge that encountered while working on this project. For each of us to get the application working on our system we each had to manually create the database, initialize every table within it as well as insert all the corresponding rows in the right tables, otherwise, the application wouldn't work.

Project Demo

Link: http://recitation-013-03.eastus.cloudapp.azure.com/

Improvements/Suggestions

1. Include an image for each of the clubs. Enhance the overall design.
2. Being able to provide accurate contact information for each club.
3. Add descriptions for each club, to do this we would have to contact them as we were not able to obtain that informations for all of the clubs.
4. Add the calendar feature

Thank you for your attention

Any questions?