Final Release Group Report

COMS 319: Construction of User Interfaces, Fall 2019 Kaden Kilburg, Trent Woodhouse, Steven Sheets G90 - CyBuzz

Successfully Implemented Story Cards

• Story Card 24:

- o Name of the Story: Frontend API request setup
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Updated ApiRequestsService to work with TypeORM update
 - 2. Copied over entities folder into CyBuzz directory
 - 3. Cleaned up Angular tests

• Story Card 29:

- Name of the Story: Implement routing
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Generated index, profile, and post hive modules and components
 - 2. Linked up routing between their modules and AppModule

• Story Card 31:

- o Name of the Story: **Enable Okta Self Service**
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Implemented user ability to self-register for a compatible Okta account
 - 2. Implemented login checks to access Profile view
 - 3. Added 404 page and invalid login page with redirects for each

Story Card 32:

- o Name of the Story: **Post page**
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Copied post template from IndexComponent to PostComponent
 - 2. Created function for formatting timestamps
 - 3. Implemented view with backend requests

• Story Card 34:

- o Name of the Story: Search Widget
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Implemented backend search function
 - 2. Implemented user-friendly search bar within SearchWidgetComponent
 - 3. Created SharedModule for reusing components in more than one module

• Story Card 35:

- Name of the Story: Implement Comments
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Implemented CommentsComponent and CommentFormComponent on Post page
 - 2. Begin comment up/downvoting implementation

• Story Card 36:

- Name of the Story: Implement index
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Added PostBoxComponent
 - 2. Added backend usage
 - 3. Added button for creating a Hive on Index view

Story Card 40:

- Name of the Story: Edit/Create Post
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Implemented create/edit functionality for Post
 - 2. Added button for editing Hive and creating Post on Hive view
 - 3. Added date to PostBoxComponent

• Story Card 41:

- o Name of the Story: **Permissions**
 - Assigned Team Member: Kaden Kilburg
 - Tasks Accomplished:
 - 1. Added permissions
 - a. Must be logged in to create a hive, post, or comment or to vote on a post or comment
 - b. Must be the creator of a Hive or Post to edit it

• Story Card 23:

- o Name of the Story: Set up other backend API requests
 - Assigned Team Member: Trent Woodhouse
 - Tasks Accomplished:
 - 1. Every other entity was set up, including the relation between users and comments/posts to allow for upvotes and downvotes
 - 2. API requests work with typeORM and return results from the database correctly
 - 3. All returned objects contain all the necessary elements within them

Story Card 33:

- o Name of the Story: Create Hive Page
 - Assigned Team Member: Trent Woodhouse
 - Tasks Accomplished:
 - 1. Prints off hive title and description
 - 2. Prints off every available post within that hive
 - 3. Posts show post title, owner, and an upvote/downvote button
 - 4. Posts can be opened by clicking the box

• Story Card 22:

- Name of the Story: Set up comment backend API requests
 - Assigned Team Member: Trent Woodhouse
 - Tasks Accomplished:
 - 1. Comments can be fetched from the database

• Story Card 18:

- Name of the Story: Implement Entities
 - Assigned Team Member: Trent Woodhouse
 - Tasks Accomplished:
 - 1. Entities have been configured using TypeORM
 - 2. Starting the backend also updates database tables

• Story Card 30:

- o Name of the Story: Enable TypeORM with server.js
 - Assigned Team Member: Trent Woodhouse
 - Tasks Accomplished:
 - 1. server.js can get entities based on TypeORM's structure
 - 2. server.js runs automatically and automatically updates

• Story Card 28:

- o Name of the Story: Merge Create-Server
 - Assigned Team Member: Trent Woodhouse
 - Tasks Accomplished:
 - 1. The server can run in tandem with the frontend

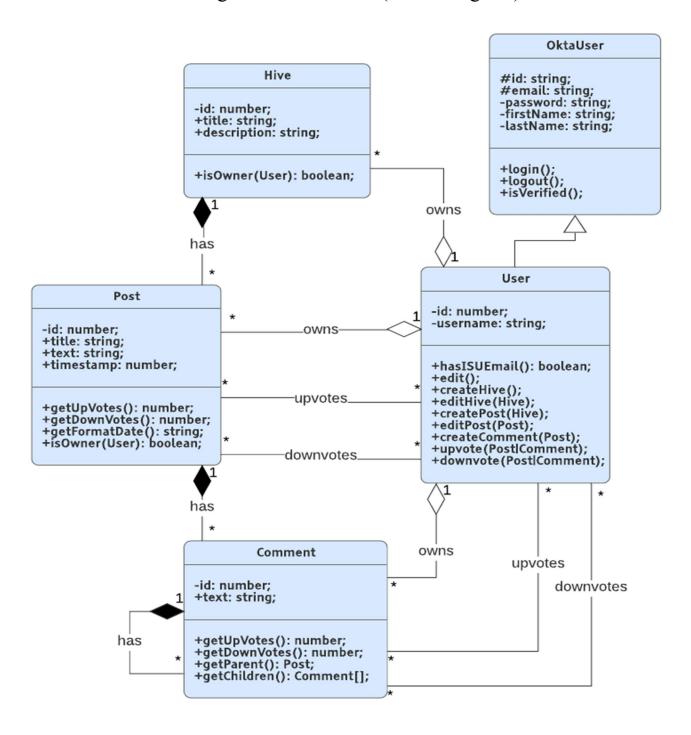
• Story Card 29:

- o Name of the Story: Investigate Hive Design
 - Assigned Team Member: Steven Sheets
 - Tasks Accomplished:
 - 1. We determined certain UI aspects of the project

• Story Card 37:

- o Name of the Story: Update Navbar
 - Assigned Team Member: Steven Sheets
 - Tasks Accomplished:
 - 1. Navbar updated to include username post successful login

<u>Design Documentation (Class Diagram)</u>



Implementation Outline

Platform

• Web Application

Front-End Language/Technologies/Framework

• Angular with TypeScript, HTML

Back-End Language/Technologies/Framework

- Node.js
- TypeORM with TypeScript

Database, Server, IDE, and Design/UML Tools

• Database: MySQL

• Server: Apache

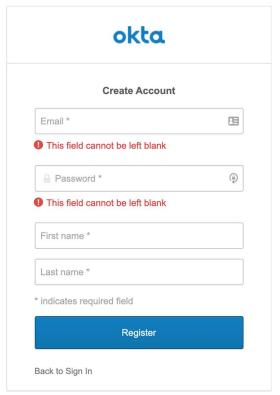
• IDE: WebStorm, Visual Studio

• UML: LucidChart

UI Description with Screenshots

Screenshots with description for each successful story card...

• Story Card 31: Enable Okta Self Service

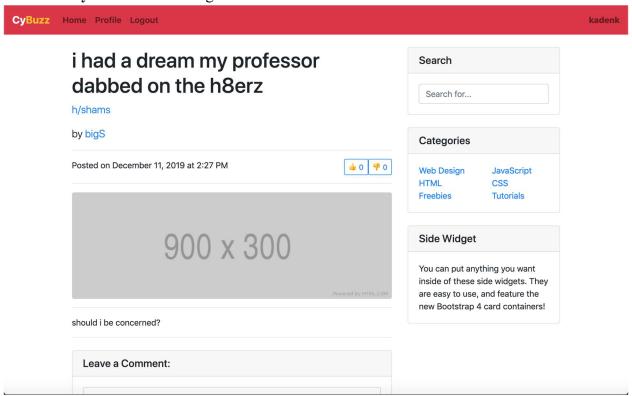


Okta Self-Service for registering new accounts



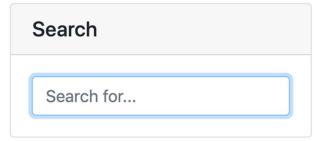
Invalid login redirect for accounts not using ISU emails.

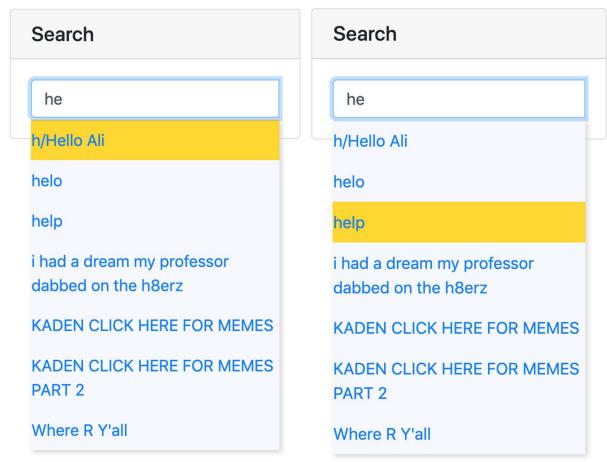
• Story Card 32: Post Page

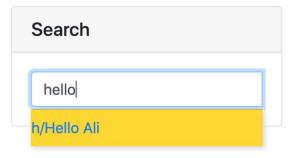


View for Post

• Story Card 34: Search Widget

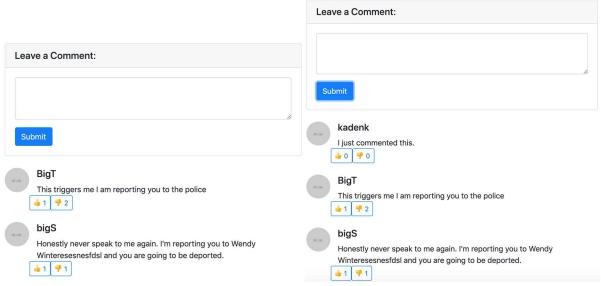






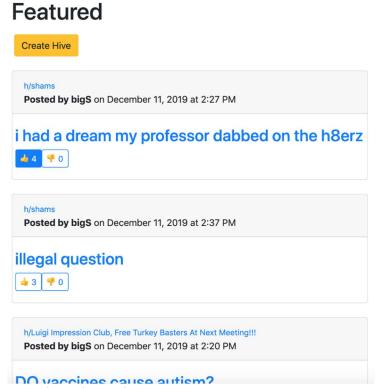
Search widget to search for Hives and Posts

• Story Card 35: Implement Comments



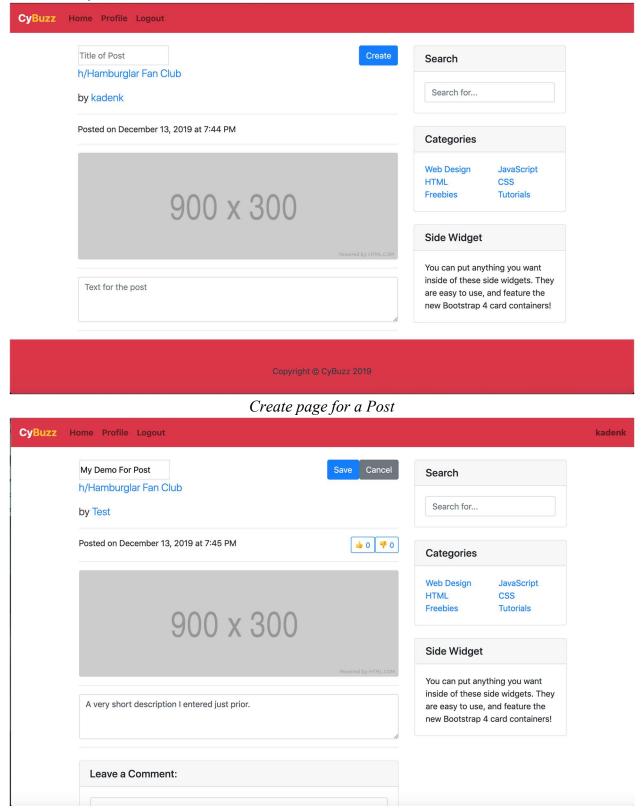
Comments to add feedback to a Post or other Comments

• Story Card 36: Implement Index (Homepage)



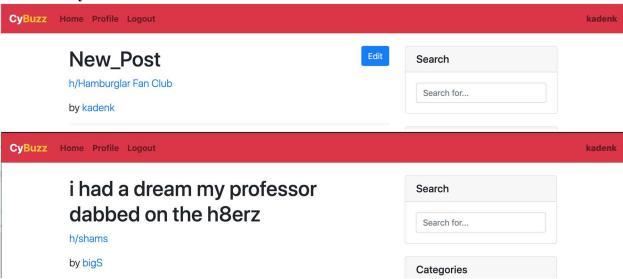
Preview each Post on the index with a PostBox component. A "Create Hive" button added.

• Story Card 40: Edit/Create Post

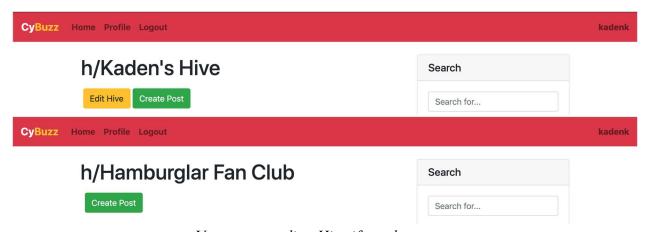


Edit page for a Post if the user is the owner.

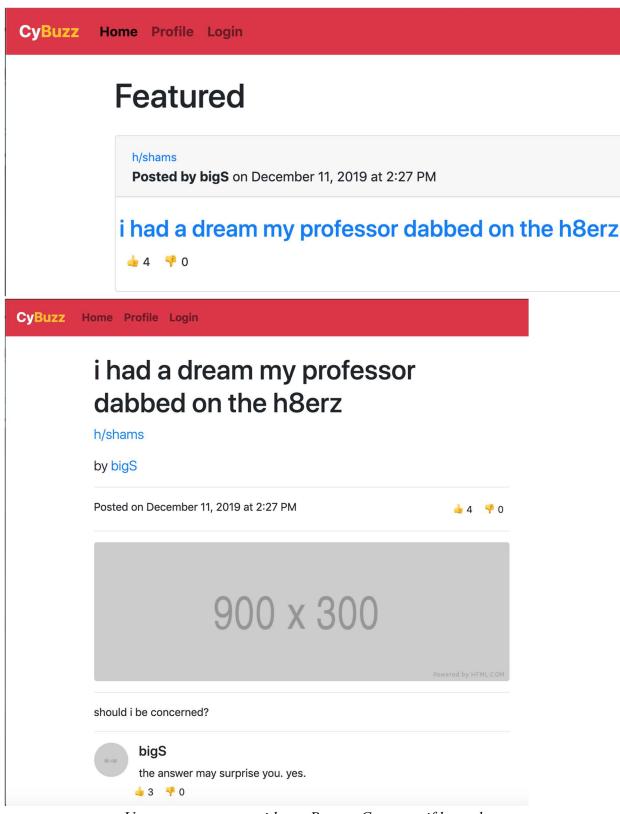
• Story Card 41: Permissions



User cannot edit a Post if not the owner.



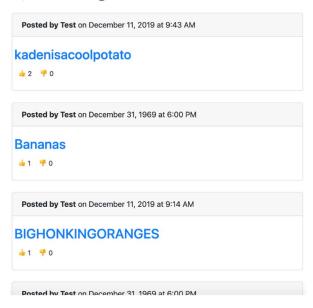
User cannot edit a Hive if not the owner.



User cannot vote on either a Post or Comment if logged out.

• Story Card 33: Create Hive Page

h/Hamburglar Fan Club



• Story Card 29: Implement routing

IndexModule,
ProfileModule,
HiveModule,
PostModule,
AppRoutingModule,

The different Angular modules created for routing and organization.

• Story Card 18: Implement Entities



CyBuzz's TypeORM entities folder/list

• Story Card 30: Enable TypeORM with server.js

```
✓ CyBuzz_server
✓ server
〉 node_modules
✓ src
〉 controllers
〉 entity
〉 routes
Ts index.ts
◆ .gitignore
{} ormconfig.json
```

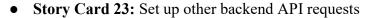
Directory update to the CyBuzz_server to incorporate TypeORM

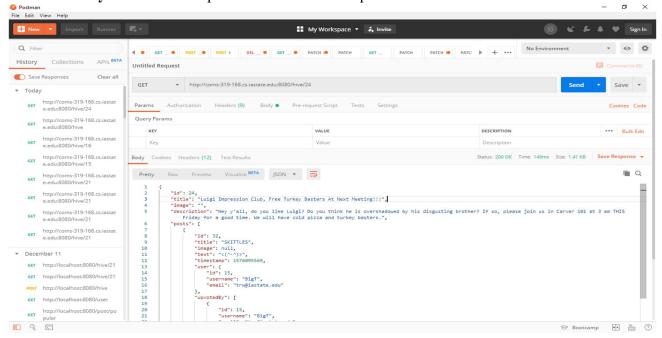
• Story Card 24: Frontend API request setup

```
import {Comment} from '../entity/Comment';
import {Hive} from '../entity/Hive';
import {Post} from '../entity/Post';
import {User} from '../entity/User';

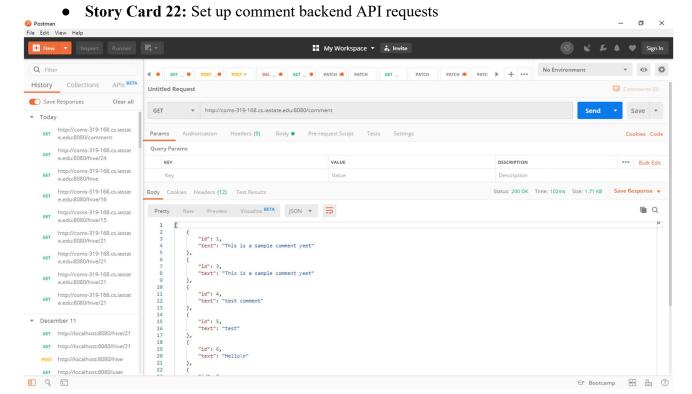
@Injectable({
   providedIn: 'root'
})
export class ApiRequestsService {
```

Able to use TypeORM entities in the ApiRequestsService





Hives return extra fields such as upvotedBy, downvotedBy, and posts for the front end to obtain access these entities.



Comments can be fetched, updated, set, and deleted

Story Card 28: Merge Create-Server



Screenshot of commit from GitLab

General flow of the app is as follows...

Navbar Pre-signing in CyBuzz Home Profile Login Registration Page okta **Create Account** Email * Password *

First name * Last name * * indicates required field

Register

Back to Sign In

Sign-In Page

okta

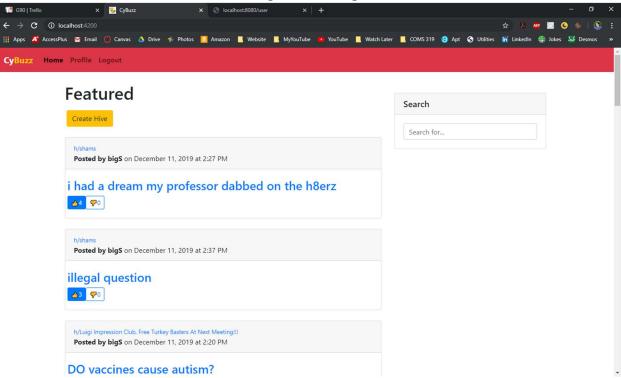


Sign In

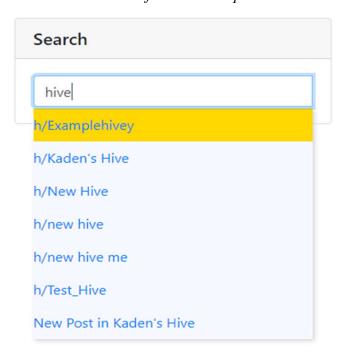
Username	
smsheets@iastate.edu	
Password	
•••••	
Remember me	
Sign In	
Need help signing in?	

Don't have an account? Sign up

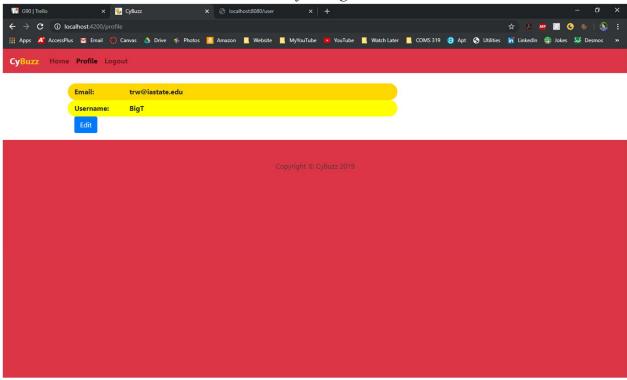
Registration Page

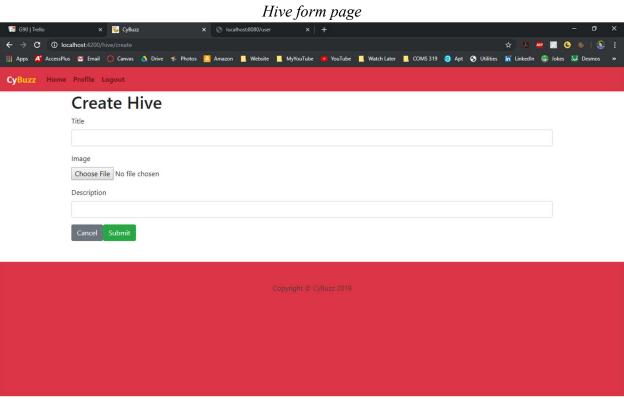


Search bar for hives and posts

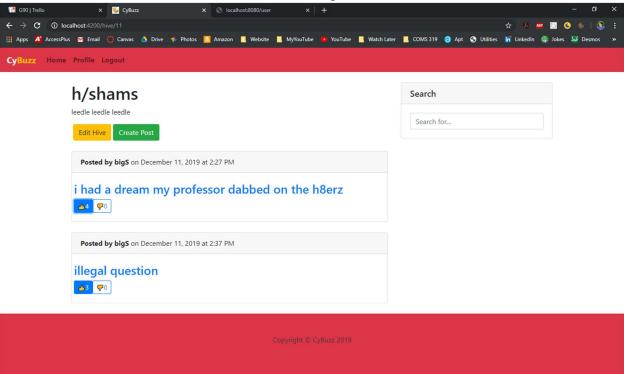


Profile Page

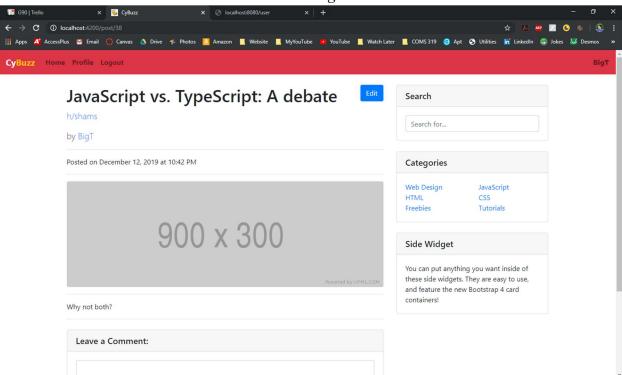




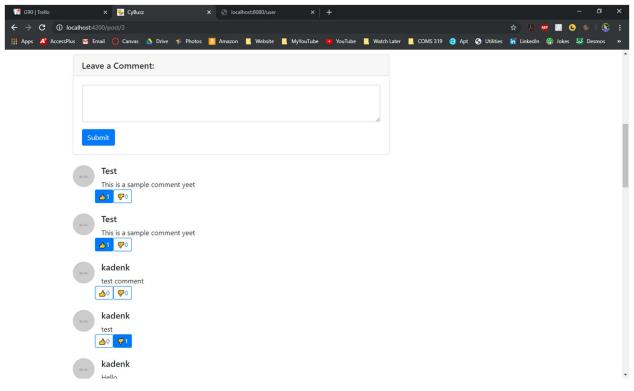
Hive Page



Post Page



Post Comments Section



Testing

Systems testing was the main form of testing used in this project.

- Using the console log, we were able to test the
 - o backend data-flow
 - frontend data retrieval and manipulation both isolated from the user interface and with user interaction
- Specifically, testing was done to ensure separate JSON objects held their correct, respective attribute fields and values in those fields. TypeScript proved very useful here, enforcing these checks.
- User interface tests were also done on the website itself by observing each DOM
 elements for proper display of data and well as for ease of use in the areas of general feel,
 responsiveness, and navigability.

Summary

In short, we are quite pleased with how CyBuzz turned out. We learned an enormous amount of programming and project management knowledge, the final product's layout looks better than we hoped, and each feature works smoothly and successfully. This project was quite the leap for us. Although familiar with HTML and JavaScript, we had to quickly learn Angular, NodeJS, TypeORM, and TypeScript all in the matter of four short weeks. We did fall behind at one point due to each member's own responsibilities and commitments, but, thanks to their efforts, we caught up and had a remarkable product to show for it. It was a great learning experience, and we are planning on continuing it after the class and finals have concluded to make it even cleaner.

