CVWO Final-submission Write Up

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User Manual

Getting Started

- **Access the Forum**: Open the forum here. If a "Network Error" appears, wait a minute for the backend server to start and retry.

Account Management

- **Sign Up**:

  1. Click "Sign Up" (top-right corner).
  2. Enter your email, username, and password.
  3. If the email is already in use, try a different one.
  4. Successful sign-up redirects you to the homepage.

- **Log In**:

  1. Click "Log In" (top-right corner).
  2. Enter your email/username and password, then click "Log In."

- **Log Out**:

  1. Click the profile icon (top-right corner).
  2. Select "Log Out."

Navigation

- **Navigation Bar** (at the top of the page):

  - **Logo** (top-left): Redirects to the homepage.
  - **Search Bar**: Enter keywords to search posts. Filter categories using the dropdown menu.
  - **Profile & Settings**: Toggle light/dark mode, view/create a profile, or access settings.

Profile Management

- **View Profile**:

  1. Click the profile icon (top-right corner).
  2. Select "Profile" to see your posts and comments.

- **Edit Profile**:

  1. Click the profile icon and select "Settings."
  2. Update your username or upload an avatar, then click "Update."

Homepage

- **View Posts**: Click the logo (top-left) to go to the homepage, where posts are listed.

- **Sort Posts**: Use the "Sort By" option to order posts by newest or oldest.

- **View Post**: Click on a post to view its details.

Posts

- **Create Post**:

  1. Click "+ CREATE" (top-right, when logged in).
  2. Fill in the topic, content, and category, then click "Submit."
  3. A pop-up confirms successful post creation.

- **Edit/Delete Post**:

  1. Navigate to your post.
  2. Select "Edit" to update or "Delete" to remove the post.

Comments

- **View Comments**: Comments and their authors appear under each post.

- **Create Comment**: Type in the comment box under a post and press "Comment."

- **Edit/Delete Comment**: Navigate to your comment and select "Edit" or "Delete."

Reflections

Before I began this project, I did not know anything about web development, aside from some basic HTML and Javascript. Honestly, I was quite overwhelmed by jargon like "RESTful API" or "MVC model", and the briefing left me more confused by the end of it. Before starting, I decided to find resources to gain an overview of web development and better understand what I was dealing with.

For the next few weeks, I spent several hours a day learning and covering the tech stacks required for the project, from basic HTML and CSS to frontend library (React) and backend frameworks like Ruby on Rails. Although I didn't finish the whole course, it did give me a firm footing and general idea of where to start, and I thought that what better way to learn than start diving straight in.

Challenges

Although setting up the databases was easy enough, I faced a lot of difficulty setting up the user database for authentication. I used the Devise gem for authentication, and it was originally intended to be used with Rails as a full-stack web app. However, since I was using Rails as the backend and communicating through API calls, I had to tweak Devise to use JWT tokens for user authentication, which took quite a lot of time reading through StackOverflow and searching tutorials. In the end, I managed to successfully integrate JWT authentication with the Rails API and React front-end. Aside from that, I also had a lot of trouble deploying the site. At one point, I had to create a new project and compare it with my current one to see what I did wrong. I also had to use a Linux virtual machine since it just gave me more control over the development. However, when I successfully saw my site up and running, it was extremely satisfying and relieving.

A part that I did not give much thought about at first, but now I recognize as very important, is UI design. Midway through the project, I was getting more and more sick of my own website, partly because implementing any features takes hours to read through the documentation, find bugs, scroll through pages of StackOverflow, etc... To add on, since I only focused on developing features first without any attention to UI, the forum was a chore to look at. So I decided to take a break and revamp the website design, from adding a few basic styling to installing UI Library to make use of pre-existing components. I think that UI design is a very rewarding process, as having a visually appealing will have a much more direct impact on users. Styling is not easy though, since there is no "error" per se, and requires a more subjective sense of aesthetics (and I don't have the best aesthetic sense, but I tried my best).

Final Thoughts

The semester is starting to become hectic so I decided to stop the project here and finalize the submission. Overall, it was an immensely educational process and I learned a lot from it. To be honest, I underestimated the complexity of the assignment and did not manage to implement all the features I planned. However, I am quite proud of it, as it's the first project as a CS student that I finished all on my own. Whether I successfully applied or not, I really appreciate CVWO for giving me the motivation and guidance to go through this project and develop my skills in web development, and giving me some ideas for starting my own future projects as well.