

IM3080 Design and Innovation Project (AY2023/24 Semester 2)

Individual Report

Name: Hong Fan Jie Joel

Group No: 1

Project Title: Moodify

Contributions to the Project (1 page)

Project initiation/design phase:

- Brainstormed ideas/design/tech-stack for potential projects.

Frontend:

- After selecting the project, crafted some designs for the app.
- Refactored and refined the entire app whilst team shifted their focus on the VR Concert feature.
- Implemented the Light mode theme for the entire app
- Created artist screen and album screen, artist details and album details,. Added more screen navigations.
- Preliminary music player function.

Backend:

- Set up 23 API End Points to SpotifyWebAPI (Request for access token, play music, song info)
- Assist Frontend team with API integration.
- Global scope for the access token using React hook useContext
- Implement search function for general item (song, artist, playlist, album)

Dev-ops:

- Set up the tech-stack. Created GitHub Repository, added the collaborators, and added the README.MD as a guide for my group members on how to use GitHub (correct workflow, branches, pulling, pushing, and rebasing).
- Initialized Firebase, added the apps required for the app (Authentication, Firestore Database). Integrated the base features (Log in with email and password, log out, how to add and read data from the database) into the React Native project and pushed to the GitHub for my group mates to start working on.
- Created the React Native Project and set up the Android Studio Emulator. Then I added instructions to the GitHub README to teach my group mates how to create and start the project.
- Debugging, code refactoring, and teaching my group mates JavaScript, assisting them in their code.
- Researched GeniusAPI for lyrics preview.
- GitHub management, resolving merge conflicts, reviewing pull requests, and merging branches.
- Fixing package upstream dependency conflicts
- Quality Assurance Testing. Performed tests on the application.

Student:

- Acted as skeleton force for app, completing both frontend and backend tasks while team focused on other features
- Demo video

Reflection on Learning Outcome Attainment

Reflect on your experience during your project and the achievements you have relating to at least two of the points below:

- (a) Engineering knowledge
- (b) Problem Analysis
- (c) Investigation
- (d) Design/development of Solutions
- (e) Modern Tool Usage
- (f) The Engineer and Society
- (g) Environment and Sustainability
- (h) Ethics
- (i) Individual and Team Work
- (j) Communication
- (k) Project Management and Finance
- (l) Lifelong Learning

Point 1: Engineering Knowledge

During the project, I applied a lot of the skills I learnt during my internship, mainly software development. I acted as the product manager and Backend developer for the team. I managed the GitHub repository and ensured my teammates followed the proper workflow (version control and branch management). By managing the GitHub repository, I was able to review everyone's code and therefore was able to provide ad hoc assistance. Though my experience was mainly in frontend, I was tasked with the backend part of the project, which was something I had to learn along the way. I read a lot of documentation and eventually got the backend part of the app working well. As a product manager, I also assisted both the frontend and backend of the team, and shared my expertise in React JavaScript to help them whenever they were facing difficulties with the code. I also refactored the application to make it more efficient and eliminate any potential bugs. I also took on some of the frontend team's work and assisted them in meeting the deadlines.

Point 2: Individual and Team Work/Communication

I was used to working alone, doing full stack development. Working in a team is very different than working alone, especially when it comes to developing projects. During the project, I encouraged my teammates to reach out to me if they required any assistance. I was able to share my expertise with my teammates and helped them overcome any blockers they faced. In aspects I was unfamiliar with, I was able to learn from my teammates. At times when the team did not have a clear goal, for example no clear direction as to what to do for the current week, or during meetings where the agenda was not explicitly defined, I took the initiative to lead the group towards a concrete goal.

Being in a team also refined my communication skills. There were times when I had to work directly with some of the group members, which I was not very used to. However, I feel like this experience made me more comfortable with reaching out to others.

Each of my group mates had their own skills and some may be knowledgeable in areas that I am not, while I may be more experienced in a certain field than them. Thus, it was important for me to be understanding and try my best to share my knowledge, and receive the knowledge they share with me, to mutually benefit from one another.

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