Cristine Joy D. Roa CSA 4

As the leader of the group, my role encompasses several critical responsibilities to ensure the successful development of the application. I oversee the compilation, assignment, and monitoring of tasks necessary for each feature, ensuring that every aspect of the project is organized and progressing according to plan. Additionally, I manage the front-end development, which involves designing and arranging the user interface elements, creating frames, and defining the application's flow to meet our requirements.

My responsibilities also include compiling a comprehensive list of locations or spots that need to be tagged or collected using the application and rigorously testing the app to identify and resolve any issues. This involves verifying that all features function as intended and that the app meets our quality standards before release. My role integrates project management, user experience design, and quality assurance to drive the project forward and deliver a well-functioning application.

CRISTINE JOY D. ROA Leader ASST. PROF. ARCELITO C.

QUIATCHON

Research Adviser

John Aron Marasigan CSA 4

My name is John Aron Marasigan, and I am the junior programmer on this team. I am responsible for managing the system's database, including updating its rules to ensure its longevity and security.

In addition to database management, my contributions include implementing Google login, reflecting user Google profiles on the map, storing user details in the database, displaying Google account usernames in the application, allowing users to change usernames and updating the database accordingly, developing admin login functionality, integrating database capabilities into the upload button and reflecting data in the database, retrieving images from the database and displaying them in a carousel, setting up storage and Firestore in Firebase, creating image backups, deleting images, enabling multiple image selection in the gallery, deleting tags in Firestore, implementing an upload function for tag editing, limiting users to three images with a warning upon reaching the limit, reflecting deleted images and the correct index in add and edit dialogs, displaying newly uploaded images in the carousel within the edit dialog, recording report tappable time, username, and image and storing it in Firestore, restricting users to one report per paid restroom, adding an index in Firestore, saving admin login details for persistent login, creating a logout function, and formatting location text. I am also tasked with troubleshooting issues and enhancing the functions I have developed.

CRISTINE JOY D. ROA Leader ASST. PROF. ARCELITO C.

QUIATCHON

Research Adviser

Ysmael L. Tanyag CSA 4

I'm Ysmael L. Tanyag, the group lead programmer focusing on implementing the A* algorithm in the system. I'm responsible for creating the polyline after the direction button is triggered, ensuring the path is the shortest possible. I also developed the functionality for estimating travel times for private cars, commute cars, and walking, as well as calculating the distance between the starting point and destination. I made sure the user's location was tagged on the map, the camera was focused on the user, and restroom images from the database were displayed on the user page.

Additionally, I created a feature to find the nearest high-rating recommendations, calculate average ratings, and ensure that reported restroom names were stored in the database. I ensured that admins completed all required information before adding a paid restroom to the map, helped design the map by removing all landmarks from the Google Maps API, and made sure user ratings were displayed in the review section. He also implemented a feature to allow only one review per day to avoid redundancy. I also contributed by handling the deletion and addition of markers based on admin actions. He ensured that markers could be deleted when requested by an admin and added when needed. I'm also responsible for displaying markers on the map according to their latitude and longitude data stored in the database.

CRISTINE JOY D. ROA Leader ASST. PROF. ARCELITO C.

QUIATCHON

Research Adviser