

Individual Contributions to the Group Project

Group: 5

1.0 Terence Lim Chia Mao

1.1 Contributions to Team

Role

Team Leader and Programmer

Key Tasks Completed

As Team Leader

- Coordinated overall project timeline to ensure each teammate's tasks were clearly assigned and completed on schedule
- Organised weekly meetings to review progress, resolve issues and plan the next steps
- Helped define project scope, key features and priorities so the team stayed focused on the main goals

As Programmer

- Implemented Google login with Google OAuth 2.0
- Assisted with testing API connections and fixing minor issues
- Helped debug and refine features during development, especially when errors appeared during app builds or deployment
- Contributed to code reviews and provided slight improvements

Impact on the Project

- Enhanced the system's usability and security through the successful implementation of Google OAuth 2.0.
- Ensured the authentication flow remained secure and reliable
- Improved the system's performance and compatibility through repeated debugging and build testing on multiple devices/emulators.
- Reinforced the overall quality of the project by testing features and flows.

Collaboration Efforts

- Coordinated shared tasks effectively by assigning responsibilities based on each member's strengths.
- Encouraged open discussions during meetings so everyone could share ideas, concerns and potential improvements.
- Collaborated during critical phases by testing features and resolving bugs together as a team.

1.2 Commendations

Terence did an excellent job leading the team, particularly in coordinating duties and guiding us through difficult parts of the project. – Chai Yee Pei

Terence demonstrates strong leadership by consistently generating clear, practical, and valuable ideas for our system, while guiding the team with clarity and purpose. His technical expertise and problem-solving skills have been crucial in driving the project forward, ensuring both progress and quality in our work. – Tan Jun Yee

Terence was an excellent team leader who kept us organised and moving in the right direction. He guided us through difficult stages and contributed technically by implementing Google login with Firebase. His leadership and ideas greatly strengthened the project. – Joey Low Yan Hui

1.3 Percentage of contribution

25%

2.0 Chai Yee Pei

2.1 Contributions to Team

Role

Programmer and Analyst

Key Tasks Completed

As Programmer

- Developed backend functions for the face recognition feature using Face++ API (face add, detect, and recognise).
- Integrated Face++ responses with the app to allow for real-time attendance marking.
- Developed and built a database structure for users, face data, and attendance records.
- Connected the backend to the mobile app through Visual Studio Code.
- Assisted with some backend error checks, basic data validation, and response formatting.

As Analyst

- Analysed the full workflow for face recognition, from user face scan → Flask backend → Face++ face detection → face_token retrieval → face_token matching in database → name identification → attendance storage.
- Identified system constraints and proposed the best approach for integrating Face++ into the app.
- Evaluated different database options and recommended the most efficient structure.
- Helped plan the system architecture, including data flows, API interactions, and logic sequences.

Team & Documentation Tasks

- Coordinated and took part in team meetings to discuss design, progress, and problem solutions.
- Helped the team stay on track by sharing updates, clarifying technical concerns, and providing suggestions.
- Presented feedback to teammates during discussions regarding UI design and overall features.

Impact on the Project

- Ensured smooth and stable backend functionality, allowing the facial recognition capability to function properly.
- Improved system performance by creating a structured and streamlined database.
- Helped the team understand the technical requirements, resulting in better decision-making during development.
- Improved the project's quality with comprehensive documentation and well-planned backend architecture.
- Contributed to a stable API integration, which improved the app's usability and accuracy.

Collaboration Efforts

- Actively participated in all team meetings and discussions.
- Collaborated extensively with teammates to integrate backend coding with UI and mobile app development.
- Offered feedback, suggestions, and technical support when teammates faced difficulties.
- Facilitated effective communication and cooperation among all team members.

2.2 Commendations

Yee Pei demonstrated great intelligence and deep knowledge by successfully guiding us through the hardest implementation phase. Her analytical skills and programming expertise were crucial in overcoming challenges and ensuring the project's success. She consistently provided support and direction, helping the team stay focused and confident throughout the process. – Tan Jun Yee

Yee Pei handled the most challenging backend tasks and made the face recognition workflow run smoothly. Her analytical skills and guidance helped the team understand the system clearly. She consistently supported everyone and played a major role in keeping the technical side stable. – Joey Low Yan Hui

Yee Pei undoubtedly showcased her extensive backend experience, skills and clear analytical mind by bridging the backend with Face++, designing a clear workflow for the face recognition feature that was reliable and efficient. She has been the team's guide through the most difficult obstacles we have faced so far throughout the development phase. – Terence Lim Chia Mao

2.3 Percentage of contribution

25%

3.0 Joey Low Yan Hui

3.1 Contributions to Team

Role

Researcher and Programmer

Key Tasks Completed

As Researcher

- Researched different face recognition APIs to find the most suitable one for our smart attendance system.
- Checked whether the APIs supported multiple-face detection for group attendance.
- Studied the weaknesses of traditional attendance methods to support the need for a digital system.
- Reviewed other face recognition apps to understand their UI designs and main features.
- Suggested UI improvements based on research insights.
- Collected and organised information to help the team make informed decisions.

As Programmer

- Developed the main functions of the mobile app and ensured they worked smoothly.
- Built and integrated backend logic, including API calls and data handling.
- Connected all app pages to create a complete and functional user flow.
- Performed testing, debugging, and refinements to maintain system reliability.

Team & Documentation Tasks

- Created clear and well-designed presentation slides for the team.
- Coordinated team meetings to keep everyone aligned and updated.
- Helped document important findings, progress updates, and technical details.

Impact on the Project

- Improved the system's stability by delivering working app features and backend integration.
- Strengthened the team's decision-making with solid research on APIs, UI ideas, and traditional attendance issues.
- Helped the team stay organised through meeting coordination and clear presentation materials.
- Contributed to a higher-quality final product by combining technical skills and research insights.

Collaboration Efforts

- Worked closely with teammates throughout development and integration.
- Shared research results and testing findings to support others.
- Actively participated in discussions and helped solve technical challenges.
- Maintained smooth communication across frontend, backend, and research tasks.

3.2 Commendations

Yan Hui did a spectacular job supporting the backend work, particularly by implementing certain backend functions and assisting with integration challenges. – Chai Yee Pei

Yan Hui demonstrated outstanding performance in promptly resolving numerous small issues with efficiency and precision. Her problem-solving skills and technical knowledge allow her to deliver solutions in the fastest way possible, while also guiding the team whenever challenges arise. – Tan Jun Yee

Yan Hui played a crucial role in turning our ideas into executable code. She connected the pages to back-end logic so a smooth and complete user experience could be provided to users. She made up for many shortfalls that we would have otherwise been unaware of. This in turn has greatly improved both the stability and overall quality of our system. – Terence Lim Chia Mao

3.3 Percentage of contribution

25%

4.0 Tan Jun Yee

4.1 Contributions to Team

Role

Designer and Programmer

Key Tasks Completed

As Designer

- Created wireframes and interactive prototypes to validate workflows before development.
- Built reusable UI components (buttons, forms, icons) to ensure consistency across the Smart Attendance System.
- Conducted design reviews and user feedback sessions, refining navigation and improving overall user satisfaction.
- Designed responsive layouts optimised for multiple screen sizes, ensuring compliance with accessibility standards.

As Programmer

- Translated Figma prototypes into functional Flutter code in Visual Studio, achieving pixel-perfect accuracy.
- Leveraged Flutter's hot reloads and efficient rendering to minimise load times and enhance user experience.
- Programmed dynamic charts and tables to visualise attendance data for administrators in real time.
- Implemented clear error states and notifications to guide users when recognition fails or data is incomplete.

Team & Documentation Tasks

- Documented design specifications and workflows in Figma for smooth design-to-development handoff.
- Explained component behaviour and usage to developers, ensuring clarity across teams.
- Established coding conventions and reusable Flutter widgets to streamline development and maintain consistency.
- Contributed to Agile sprints, planning, and retrospectives with detailed updates on design and implementation progress.

Impact on the Project

- Reduced friction between design and development by directly implementing Figma prototypes in Flutter.
- Enabled automated attendance tracking through face recognition, significantly reducing manual errors.
- Delivered a system that is visually appealing, responsive, and user-friendly, improving adoption and usability.
- Built a modular Flutter front-end capable of supporting future features such as analytics and reporting.

Collaborations Efforts

- Partnered with back-end developers to ensure smooth API communication and data flow.
- Maintained open communication channels with the team to iterate quickly on design and functionality.
- Collaborated actively with teammates and testers to identify UI bugs and align system features with institutional needs.

4.2 Commendations

Jun Yee did a great job of designing the interface, particularly in developing a clean and user-friendly UI despite layout constraints. – Chai Yee Pei

Jun Yee created a clean, user-friendly UI and translated it perfectly into Flutter. Her designs improved our system's usability, and she worked closely with everyone to fix issues quickly. Her communication and teamwork made integration much easier. – Joey Low Yan Hui

Jun Yee created an intuitive yet sleek UI/UX made for easy use. Having someone like her who has a strong sense of design and clear communication is a massive help to the team - Terence Lim Chia Mao

4.3 Percentage of contribution

25%

Signatures

Terence Lim Chia Mao	<i>Terence</i>
Chai Yee Pei	<i>Yeepei</i>
Joey Low Yan Hui	<i>Joey</i>
Tan Jun Yee	<i>Junyee</i>