Development Plan
4G06 - Software Engineering

Team #9, Housemates
Justin Dang - dangj15
Harris Hamid - hamidh1
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Sheikh Afsar - afsars

Table 1: Revision History

Date	Developer(s)	Change
9/25/23	All	Revision 0

This document provides the development plan for the Housemates app. The housemates app will allow for its users to better communicate with their housemates. Additionally the app will have a cost management and chore management system to allow for splitting of chores/costs amongst housemates.

1 Team Meeting Plan

The team will have a weekly progress check (1 hour on length) on either Monday afternoon during tutorial time (2:30 - 4:30 PM) or Friday afternoon (around 4:00 PM). The purpose of these meetings is to discuss what group member has done for the project in the last week. Additional meetings can be scheduled throughout the week if necessary. At the end of each meeting a discussion of what needs to be accomplished before the next meeting will occur. The details of each meeting will be recorded as an issue on GitHub.

2 Team Communication Plan

The team will primarily communicate through Microsoft Teams group chat. Discussions regarding specifics of documentation or source code may occur on an issue on GitHub. Group members can also be contacted by their McMaster email if necessary. All group members are expected to be readily available on these communication channels.

3 Team Member Roles

Justin Dang

- Database Engineer
- Latex Documentation

Harris Hamid

- Full stack Developer
- Team Liaison

Fady Marcos

- UI Designer
- Back-end Developer

Rizwan Ahsan

- Scrum-master
- Developer

Sheikh Afsar

- UX Developer
- Front-end Developer

4 Workflow Plan

For the duration of the project, our team will adhere to established guidelines to track and manage all of the code and document modifications. We will also leverage GitHub Actions as our CI tool to automatically build, run tests and enforce coding standards within PRs, which determine whether it passes or fails. The workflow is as follows:

- Open and describe a GitHub issue
- Create a new branch to work on the feature/bug
- Work on this feature/bug branch
- Commit changes to new branch
- Create a Pull request for changes

- CI pipeline is triggered
- Review and Approve PR if no test failures
- Merge changes with main branch
- Close GitHub issue

5 Proof of Concept Demonstration Plan

This problem boils down to a few goals, one of which is communication through text. The main risk would be whether we are able to communicate with all our housemates on time through the app. Receiving notifications or an alert remains outside the scope for the purpose of POC Demo, we will only be verifying whether text is received to all housemates within the app. We will showcase a user-friendly interface, emphasizing ease of use and efficient navigation within the application. Positive user feedback during the demonstration will indicate that we are on the right track in terms of user experience design. We will also simulate different user scenarios to test the application's scalability. Demonstrating that the system can handle a reasonable number of users without significant performance degradation will be essential to convince ourselves that it can scale effectively

6 Technology

- Android Studio: Integrated development environment for developing android applictions.
- Kotlin: Statically typed, high-level programming language derived from java, typically used for android app development,.
- VSCode: Convenient, good quality IDE to be used for front and back end development.
- GitHub: To be used for version control, CI, and collaboration.

7 Coding Standard

The coding standard we will be following will be similar to Java style coding. This means that all variable and function names will be written in CamelCase and will have neat accurate comments describing functionality.

8 Project Scheduling

Deliverable	Deadline
Problem Statement, POC Plan, Development Plan	September 25
Requirements Document Revision 0	October 4
Hazard Analysis 0	October 20
V&V Plan Revision 0	November 3
Proof of Concept Demonstration	November 13–24
Design Document Revision 0	January 17
Revision 0 Demonstration	February 5–February 16
V&V Report Revision 0	March 6
Final Demonstration (Revision 1)	March 18–March 29
EXPO Demonstration	April TBD
Final Documentation (Revision 1)	April 4