

Team 16 Project Charter

RoomEase

Team Members:

William Parodi, Carter Ellis, Ishan Muhkerjee, John Raub, Krish Patel, and Nathan Huang

Project Title:

RoomEase: An All-In-One Roommate Platform

Problem Statement:

Having roommates can be a challenge especially when it comes to coordinating schedules, quiet hours, chores and other expenses or day to day challenges. RoomEase addresses these problems by creating an application that allows roommates to create groups where they can share chores, grocery lists, and organize quiet hours/calendars. While there are applications out there that handle these individual tasks, like splitwise for grocery sharing, or google calendar for calendar sharing, there doesn't exist any one application to handle all of the coordination challenges that a roommate group might face.

Project Objectives:

- Develop a single application that consolidates roommate tasks—such as chore assignment, grocery list sharing, and expense tracking—into one accessible hub
- Provide a clear and fair system for assigning, tracking, and rotating chores among roommates, including automated reminders and progress updates
- Integrate a simple, transparent method for splitting grocery costs and other shared expenses, with the ability to track payments and balances in real time
- Implement a calendar feature that allows roommates to set quiet hours, schedule events, and manage any overlapping appointments, reducing conflicts and maintaining harmony in shared spaces
- Offer push notifications and in-app messaging so that all roommates receive timely updates on new tasks, expense entries, or changes to the schedule
- Ensure that all roommate groups, personal information, and financial data are securely stored and only accessible to authorized users within each group

Stakeholders:

- Users: Standard users would be anyone with roommates
- Developers: William Parodi, Carter Ellis, Ishan Muhkerjee, John Raub, Krish Patel, and Nathan Huang

- Project Manager: Danning Xie
- Project Owners: William Parodi, Carter Ellis, Ishan Muhkerjee, John Raub, Krish Patel, and Nathan Huang

Project Deliverables:

- ReactJS frontend web app that allows users to organize tasks with their roommates in a variety of different ways:
 - Grocery Split functionality: Split payment of groceries between roommates based on the items everyone needs.
 - Chore list/splitting: Divide chores between roommates
 - Room alert/calendar app: Shared calendar between a room to notify others when a room is needed (for interviews, etc.).
- NodeJS backend that will manage user data and help set up a lot of backend logic that is involved with the data stored in the MongoDB database.
- MongoDB database that will work with the NodeJS backend receiving requests via a REST API from the ReactJS frontend to store all the user's information including groups they are in, amount they are owed/owe, calendar events, etc.
- Integrate the Google OAuth API that allow users to sign into the app using their Google Accounts