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Team Name: Team Shared Spaces

Members: Brittany Choy, Nicholas Curie, Kyle McDevitt, Cayleb Langhals, Paul Lucero, Daniel Parache

Description: The idea behind this app is to make the day-to-day experience of living with roommates easier. There's a host of issues that people are bound to run into, even with the best roommates. This app makes it easier to keep track of things, whether it's the amount of money owed between roommates, whose turn it is to do the laundry or dishes, or who left the moldy cheese in the fridge. Ideally, this should lead to a reduction or outright elimination of conflict amongst roommates, and make the college life experience better for all parties involved.

The app can also be extended beyond roommates to allow bookkeeping amongst circles of friends, so that it's easy to keep track of who's going to be able to make it to dinner three Fridays from now, who picked up the tab last time, and who to call if something goes wrong. This makes the app very versatile. It will also support multiple circles, so that you're not restricted to utilizing its benefits with solely your roommates or friends.

Shared Spaces offers apps for iOS and Android, as well as a robust web interface. This makes it easy to keep track of anything college-life related, no matter where you are.

Vision Statement: Living with roommates is tough, we make it easier. (Alternatively: College life; organized.)

Motivation: Originally began as strictly a bookkeeping app to keep track of money owed amongst friends/roommates. Eventually, the idea was brought up that there are many other logical extensions of such an app.

Risks: No-one in the group has experience developing mobile applications. We also have to learn new languages/frameworks in order to make it cross-platform.

Risk Mitigation Plan: React Native is touted as a framework that makes it easier to develop mobile apps that are cross-platform. With a relatively simple app such as this that does not have a complicated database model, this should make it easier to overcome that challenge. This will also help with being able to reuse code between the web and mobile interfaces of the application.

Version Control: Git through GitHub

Development Method: Work collaboratively on a minimal working example of the UI, refine features iteratively using Agile from then on

Collaboration Tool: Slack group chat, [softwarewdev.slack.com](https://softwarewdev.slack.com)

Proposed Architecture: React/React Native for UI, SQLite database on backend, the remainder tentatively TBD as needed

Ideas (in order of difficulty and interest):

- 1) Ledger app for keeping track of money owed
  - a) Challenges: OCR api (make something?)
  - b) Pros: small data base, easy to scale
  - c) Things we need: Web based, OCR, user accounts, user verification
  - d) Stretch goal: Mobile interface, implement Venmo/Paypal,
  - e) Architecture: HTML, CSS, PHP,
  - f) Description: Make the day-to-day experience of living with roommates easier. There's a host of issues that people are bound to run into, even with the best roommates.
- 2) Website generator (Weebly, Wix)
  - a) Challenges: Creating multiple layouts,
  - b) Pros: inherently interesting, not difficult
  - c) Things we need: Site generation tech (Jekyll), host as subdirectory to avoid need for hostnames, user accounts
  - d) Architecture: HTML, CSS (heavy), PHP,
  - e) Description: Web-page that presents users with variety of web-page formats and allows them to build their own web-pages requiring only the text/images they want the page to be presented with.
- 3) Roommate App
  - a) Features: Ground rules, schedules, chores, grocery list, contact info (normal & emergency), SMS integration, Bills, ledger
  - b) Stetch: Mobile interface, implement Venmo/Paypal
  - c) Unknowns: OCR, user accounts, user verification
  - d) Architecture: React Native, HTML,
  - e) Development preliminary plan: Get basic UI (lab & next week), work on features (back end, agile method)