

## Overview

As a part of Stanford University's CS 147: Introduction to Human-Computer Interaction Design class, I worked with 3 other students to create a product from ideation and needfinding to a high fidelity iOS prototype. In our studio's theme of "crowd power", we tackled the problem of group dining decisions, where people may have conflicting schedules, dietary restrictions and general dining preferences. By using the power of the "crowd" and a simple 3 step decision making process, groups can easily figure out the best place to eat and efficiently plan their time spent together. At the end, we presented our project to a crowd of VC's, industry professionals, faculty and students.

## Objective

For this project, I was tasked with understanding the user goals associated with eating out with friends, sketching out the user flow, and contributing to the code base for building the code for Accord.io's MVP.

## Needfinding and User Goals

We wanted to better understand how people approached group decisions and what were their main points of frustration. Especially with our target market for our studio being the "crowd", it was difficult to narrow down to a specific segment of the crowd. Thus, we talked to a variety of people from professors and service workers to students and café goers, at a variety of places, from hair salons to restaurants. We found that people wanted to "personalize the crowd" and find specific people whose reviews that they could trust. In addition to having help from the crowd, users wanted a more streamlined way to make decisions.

Through needfinding, we also found interesting insights surrounding other user goals and motivations. People were particularly interested in what places were popular at this instance in time. This would later factor into a key feature we would implement in our final hi-fidelity prototype.

Through several in-depth 40-minute needfinding interviews, iterative empathy maps detailing what users think, say, do and feel, and later usability tests, we narrowed down the user goals to the following:

- Eat food they are satisfied with
- Spend quality time with friends

Although these goals seem quite simple, they are loaded with smaller goals such as having a faster decision making process, eating at a place everyone can agree on and being able to thoroughly evaluate presented restaurant options.

## User Tasks

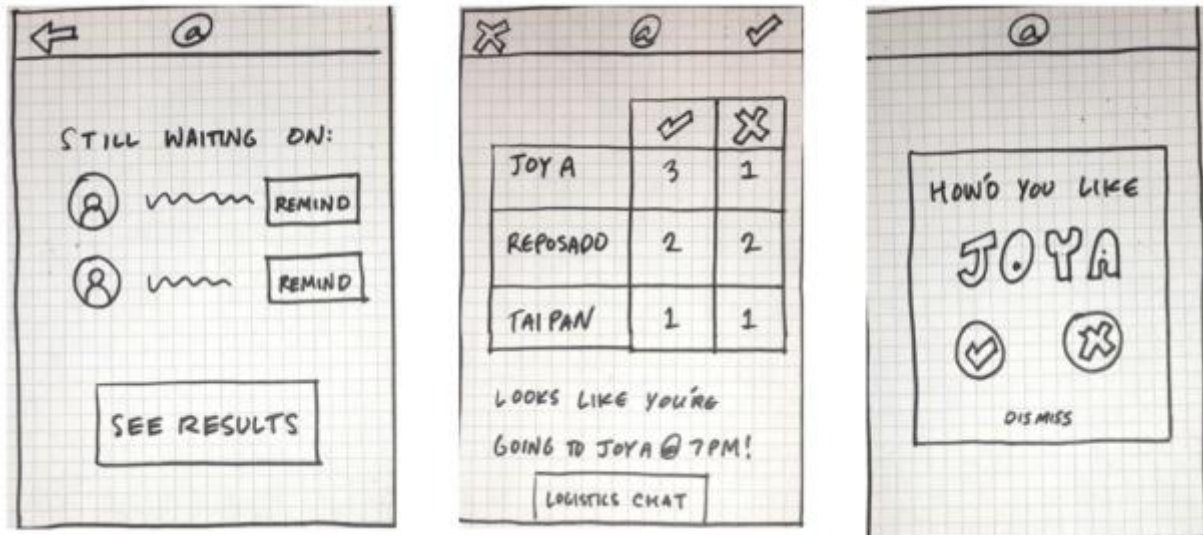
Then we laid out **user tasks** that could help fulfill those user goals:

As a user...

- I can input my personal preferences and know that they will affect the final restaurant decision

- I can see how the “crowd” has reviewed particular restaurant choices
- I can see how the final restaurant decision was made
- I can contribute to the crowd with reviews of the restaurant

## Low-Fidelity Prototype



For our first iteration, we experimented with many different mediums of delivering our product—an AR/VR experience prototype, paper mobile phone app, and paper smart watch app. From usability testing, we learned that people want “faster, easier and smarter” and something that was more ubiquitous so we decided on going forward with the mobile phone app. In terms of feedback, we learned that users wanted a simpler and shorter decision making process possible, signals to allow them to trust a decision being made and the “right” information density to make decisions upon.

## Medium-Fidelity Prototype

## Task #2: Vote on what the crowd recommends



Using Marvel and Sketch, we created a medium-fidelity prototype with changes based on insights gathered from our previous usability tests and studio feedback. We changed up our “newsfeed” to focus solely on the nearby restaurants most popular and showed more prominently the most positive reviews and most negative reviews. We learned that the type of reviews people cared about most were the most extreme reviews because the non-descriptive type of reviews did not provide users with information that would lead to a decision.

## Heuristic Evaluations

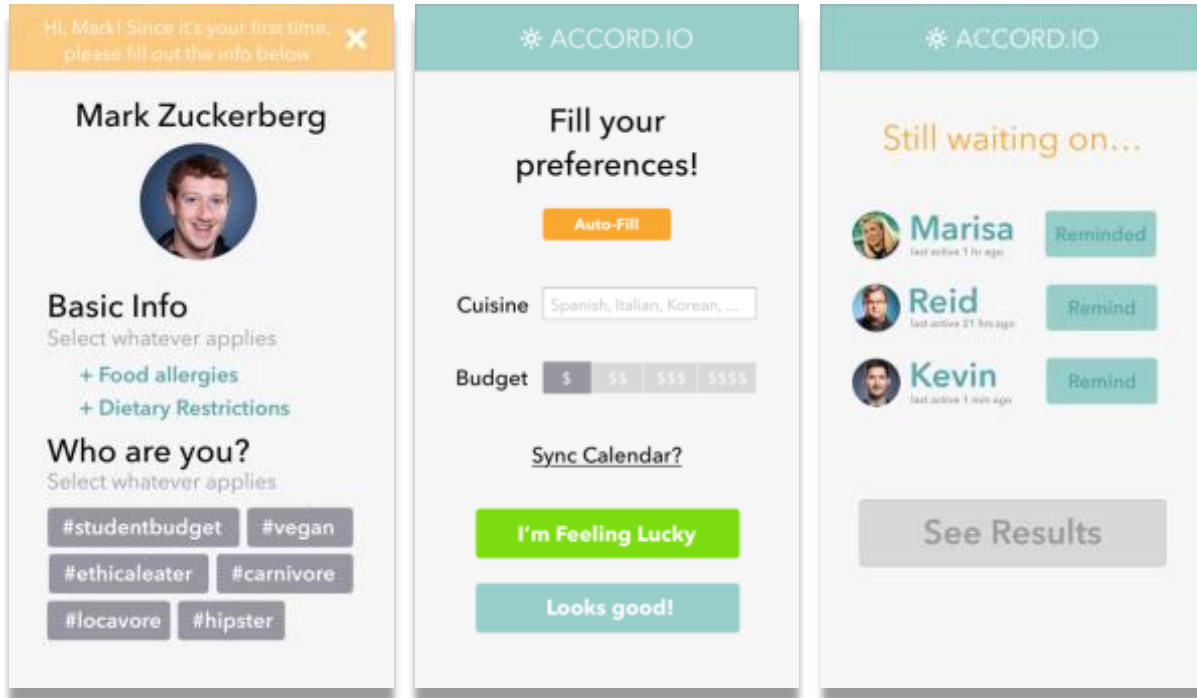
Before starting to code our final high-fidelity prototype, in-studio teams conducted heuristic evaluations on each other’s medium-fidelity prototypes based on Jakob Nielsen’s Usability heuristics. In addition to usability tests done for our medium fidelity prototypes, we were prepared to build our final high-fidelity prototype.

## High-Fidelity Prototype

We developed the mobile app using Swift and Parse. Because it was just a prototype, we did not make it fully functional with a complete backend. [You can download it here.](#)

## Mockups

Here are a few Sketch mockups from our medium-fidelity prototype.



The image displays three sequential screens of a mobile application for Accord.io.

- Screen 1 (Left):** A user profile for Mark Zuckerberg. It includes a profile picture, a "Basic Info" section with links for "Food allergies" and "Dietary Restrictions", and a "Who are you?" section with tags like #studentbudget, #vegan, #ethicaleater, #carnivore, #locavore, and #hipster.
- Screen 2 (Middle):** A "Fill your preferences!" screen. It features an "Auto-Fill" button, a "Cuisine" dropdown menu (showing Spanish, Italian, Korean, ...), a "Budget" selector (showing \$, \$\$, \$\$\$, \$\$\$\$), a "Sync Calendar?" link, and two large buttons: "I'm Feeling Lucky" and "Looks good!".
- Screen 3 (Right):** A "Still waiting on..." screen. It shows a list of users: Marisa (last active 1 hr ago, Reminded), Reid (last active 21 hrs ago, Remind), and Kevin (last active 1 min ago, Remind). A large "See Results" button is at the bottom.

## Future Plans

If we were to continue this project, we would need to begin acquiring users to make up the "crowd" since a major piece of value we provide requires the use of a foundational knowledge base. Furthermore, we would need to conduct more usability tests on our high-fidelity prototype and keep iterating to make sure we are providing the right value to our users.

## The Team + Poster

