

HomeCooked

Team 5 - Project Backlog

Akhil Thata, Colton Scott, Hawkins Peterson, Sebastian DSouza, Vincent Cui, Yash Velagapudi

Problem Statement:

Food scarcity and waste are at an all-time high, with little improvement and the solutions to this problem typically require professional chefs to make costly food. Our app, HomeCooked, will allow the average person a platform to share their home-cooked food as a means of clearing space in the fridge and sharing culture. The consumers will be able to access healthy, home-cooked meals that they wouldn't have access to otherwise, due to either not having enough time or money to make said meals personally.

Background Info:

Audience: This app is targeted at two groups of users. The producers will be users who are opening their kitchens and homes and posting their food/recipes online to give. The consumers will be users who are using the app in search of homemade food. Producers are likely types of people who like to cook large meals and always have leftovers with nothing left to do with them; alternatively, they could be users who are trying to make extra side cash, cooking solely for the tip but this is entirely optional and up to the producers individually. The consumers are users who have extra time to taste and possibly replicate the recipe or need homemade food. These users will likely be those in search of homemade food or search for food from a culture different than their own.

Platform Similarities: There are similar platforms that allow consumers to obtain food from others, but the only people who can produce these foods are professional chefs. Our app aims to satisfy the average person and allow them to make food and have consumers pick up the food without having to have professional credentials that could narrow the scope of potential producers as well as prevent huge price gaps that professional chefs would require.

Limits: Apps like Grubhub or Doordash allow one to order food to be delivered from a restaurant to one's house or place of employment, however, they don't allow people to sell home-cooked food. Also, these apps charge extra surcharges for service fees as well as for paying the drivers. Our application will allow consumers and producers to equally manage the burden of giving and receiving the product with no extra cost.

Functional Requirements:

- As a user, I'd like to
 - Be able to create an account
 - Be able to login to said account after creating it
 - Be able to set name, password, and email address
 - Be able to send emails to users when they ask to forget their password
 - Be able to see the change password verification screen
 - Be able to view the change password screen once the password has been changed
 - Be able to change your password using the "Forgot Password" button
 - Be able to view a settings page so that I can list a pickup address, display reviews, and show a biography
 - Be able to change their address and biography
 - Be able to view dropdowns for states and city
 - Be able to change their profile picture
 - Be able to edit and have a template to format a profile page
 - Have the ability to log out of the page
 - Have the ability to delete an account
 - Be able to search for other consumers and producers
 - Be able to view other producer and consumer profiles
 - Be able to create reviews for producers
 - Be able to utilize a text based message system
 - Be able to see all current message threads and click into them to view message board
 - Be able to view their history of interactions on the app.
 - Be able to generate receipts for food they ordered/supplied
 - Ability to export data from an event you are signed up for to your calendar
- As a Producer, I'd like to
 - See my overall rating of myself on my profile page
 - Create a list of food items I'm willing to offer/sell
 - Be able to list a meal on the menu
 - Be able to unlist a meal
 - Be able to label a meal as already sold
 - Import an image to represent a meal
 - Set a pickup location for meals
 - Add ingredients to the food item
 - View labels detailing potential allergies
 - View all outstanding meals available
 - View all meals transactions that have been completed
 - Only provide an address to those to whom I decide to give.
 - Unlist a meal from the page
 - Have the ability to **quickly** change to a consumer mode/account.
 - Be able to communicate with consumers via an in-built chat application
 - Link to other apps / leave my phone to talk with consumers further

- Be able to end communication with a consumer/block a consumer
- Be able to add a personal label to meals as vegetarian, vegan, or other similar qualities
- See my reviews left by people who have eaten the food
- Reply to consumers who message inquiries about the food
- Be able to disclose the meetup location
- Create an event in the Events page
- Modify an event page's time, location, and description
- Get notified of RSVPs and comments
- As a Consumer, I'd like the
 - Ability to search areas other than my current location by use of zip-code
 - Ability to view all people who are providing food within the city of choice
 - Ability to view all offerings of a person
 - Ability to see all offerings in the city of choice
 - Ability to see an image of food being given
 - Ability to see description of the offering
 - Ability to see ingredients that are used in the offering
 - Ability to view the city location of the Producer
 - Ability to view a pickup location for a meal
 - Ability to rate the meal they picked up
 - Ability to communicate with producers via an in-built chat application
 - Ability to end communication with the producer when no longer interested in an item
 - Allow consumers to message via different platforms
 - Ability to leave a review of a post, with a rating of 0-5 and some text
 - Ability to direct message a post owner
 - Ability to switch to producer mode
 - Ability to view all items that I have been given and the information about the item.
 - Ability to sign up for events that have been listed and receive notifications when they are upcoming
 - Ability to get notified of event changes when they are made from an automated message/notification

Non-functional Requirements:

Architecture/Performance: We plan on having a separate backend and frontend for our application. The backend will be written in Python using Django. Django is a web framework that follows a Model View Template format and comes with a login system, database connection, and a plethora of libraries to utilize.

For the front end, we will be using React.js since it is scalable and simple to develop. In addition, the reusable components of React will remove a lot of redundant code, making the development process more efficient.

Security: One issue we see with most services like this is rate limiting. To prevent users from spamming meals, we plan to add a form of rate limiting, which will allow producers to put at most 10 items up within 24 hours of each other. For our SQL statements, we plan to use parameterized statements as opposed to injecting raw string data to prevent SQL injections into our code.

Usability: Our interface should be easy to navigate as well as simple to understand for a consumer to browse through, as well as well equipped with the tools and services for the consumers to advertise and showcase their products for the consumers. We would like for our application to work in polynomial time and minimize latency to at least a second.

Hosting/Deployment: Since the application has both a frontend and a backend, we plan on hosting it on Heroku. It allows users to host full-stack applications in a fast and efficient manner.