

## Homemade

Travel through your kitchen.

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### **Problem & Solution Overview:**

Travelers often find it difficult to experience local culture and have authentic experiences when they don't know locals. Additionally, many people want to experience new cultures but find travel inaccessible.

Homemade provides a solution to both of these problems by facilitating a cultural exchange. We bring these two groups together through food, a universally-valued aspect of culture. Travelers and locals meet, teach each other to cook a recipe from their respective cultures, and enjoy their meal together. As a result, traveler authentically experiences the local culture and the local learns about their guest's culture by traveling through their kitchen.

## **Tasks & Final Interface Scenarios**

#### Simple (Traveler): Meet local people and share interests/passions

In this task, travelers can easily break the ice and schedule a meal with the locals. We chose this task because it's something that LOTS of travelers want to do, but sometimes they may be a little shy. We are helping the travelers meet people without having to go through the uncomfortable process of striking random conversations with unknown locals.



Note: This task can also be accomplished by a local that wants to meet travelers; it is just not showcased in our prototype.

# Moderate (Traveler): Share a meal with locals to authentically experience culture

We considered this task to be important because it is crucial in determining if people will be able to share a meal or not. This is an important task because it bridges the connection between two people.



Note: Task shows flow in which local confirms a request. It could also be the case that the traveler confirms a request made by local.

# Complex (Local): Get to know someone from a different culture without traveling.

This final task is vital in ensuring that a meal runs smoothly and that a connection is formed between those sharing the meal. We accomplish this by facilitating the conversation and ameliorating the language barrier.



during meals are found here. Users

can listen to the translation by

clicking on the audio button.

#### Extra:

These are the meal screens that are available every time that a user can view the ingredients of a recipe.





Ingredients - 1 pound white shrimp - 5 tablespoons extra virgin olive oil, divided - 4 tablespoons salted butter - 3 heads fresh garlic, minced - 1 temon

- ½ teaspoon course Hawaiian sea salt (regular sea salt is ok) - ¼ teaspoon pepper

EXPORT INGREDIENTS LIST





- 1 small onion - 2 cloves of garlic

- 3 tbsp of curry powder

- 2 chicken breasts

- 1 cup plain yogurt

- 1 bay leaf - 3/4 cup of coconut milk

1/2 lemon, juiced

EXPORT INGREDIENTS LIST



Ingredients

- 1/4 cup coarse sea salt
- 8 ounces salmon fillet
- 1/2 cup finely diced white onion
- 3 tablespoons finely chopped green onions - 1 cup diced tomato
- 16 iceberg lettuce leaves
- 0.25 cup butter, melted

EXPORT INGREDIENTS LIST



Ingredients

- -1 (.25 ounce) package active dry yeast
- 1 cup warm water - 3 tablespoons milk
- 3 tablespoons mili
  1 egg, beaten
- 1 teaspoon salt

- 4.5 cups of bread

- 0.25 cup butter, melted

EXPORT INGREDIENTS LIST

### **Design Evolution**



Initial UI Sketch



Task flow to request a meal through Lo-Fi Prototype

The initial user interface designs for Homemade were centered around the geographical locations of users. As a result of this focus, the application was organized into "Explore", "Notification" and "Profile" pages. The explore page featured map navigation to display users' location in order to capture the experiential travel from interactions between users from different countries and cultures. However, from lo-fi testing it became clear that the

map design was a source of inconsistency in the user experience for both groups when a user's current location is not where they are from. Specifically it was confusing to display a local user's current location on the map and to display a traveller's hometown on the map.



Task flow to request a meal through Med-Fi Prototype

We replaced the unintuitive map design with an interface design centered around the meals that drive the user's tasks. As result of this, the application was reorganized into "Explore," "Favorites," "Meals," and "Profile" pages. For simplicity, the "Explore" page displays users in a list view that includes where each user is from. The new "Meals" page allows for the best organization and display of information relating to each meal as an event. Now, users can immediately see the status and any required actions for each meal without clicking back and forth in the application.

#### New "Explore" Page



Before: UI Sketch

After: Hi-Fi Prototype

#### **Reorganized Notifications**



Before: UI Sketch



After: Hi-Fi Prototype

## **Major Usability Problems Addressed**

In this section, we discuss several of the major usability problems we found through our Heuristic Evaluation process. Please see the Appendix at the end of the report for further changes.

Include a way for the host to explicitly select which meal the guest will be preparing through the app so that both parties are informed before the meal.

This way, the guest will know which meal they will be preparing beforehand, and the host will be able to keep track of which meal they selected for the guest to prepare and easily access the list of ingredients they must purchase.



Added this meal selection page to the confirmation flow.



Added the selected recipe and ingredients to confirmed meal details page.

#### Allow users to edit and cancel a requested or confirmed meal time.

This is important in case an emergency or other conflict comes up and one or both of the parties is no longer able to make the scheduled meal. We added a button that allows user to edit/cancel a confirmed or requested meal.



#### Make time selection more user-friendly and easier to click.

When requesting a meal, instead of choosing times from a drop-down menu, users now select times using a "time picker," which is larger and more intuitive for choosing times.

|                   | Control of the more likely it is that your schedules will reach that it is the more likely it is that your schedules will reach the more | Call         Call <t< th=""><th>Control of the set of the se</th></t<> | Control of the set of the se |
|-------------------|--|---|---|
| Send Availability | SEND AVAILABILITY  | SEND AVAILABILITY   | SEND AVAILABILITY   |

#### Before

After

When confirming a meal, users select their desired time by pressing a single radio button instead of selecting the date, start, and end times from three different drop-down menus. This decreases the number of clicks the user must make to confirm the request and makes the task more efficient.

| Select your prefered date and or deny the request if none are         | time to confirm,<br>e suitable for you. |  |  |  |
|---|---|--|--|--|
| Tuesday, October 30<br>Wednesday, October 31<br>Wednesday, October 31 | 7PM - 9PM<br>10AM - 2PM<br>7PM - 9PM    | Select your preferred date a decline the request if none | Select your preferred date and time to confirm, or decline the request if none are suitable for you. |  |
| Select date   | -                                       | Friday, December 7                                       | 8:00AM - 10:00AM   |  |
| Select start time   | -                                       | Friday, December 7                                       | 7:00PM - 9:00PM<br>9:00AM - 11:00AM  |  |
| Select end time   | -                                       | Saturday, December 8                                     | 7:00PM - 9:00PM  |  |
| 0   |   | After  |  |  |

#### Before

#### Have fewer buttons and more relevant information about the users on the "Explore" page.

We found that there were too many buttons on the "Explore" page and that the "Favorite" and "Schedule" buttons should only appear on the profile page after you click on a user. We removed these buttons from the "Explore" page and replaced them with other relevant

information about the users. We added **icons that represent users' interests** so that users can make quicker decisions about who they might want to request for a meal without having to click into each profile to view this information. We also added a **star rating** for each of the users because many travel experiences (such as Yelp) have ratings, and it provides an incentive for hosts to make the experience a good one for their guests.



## Allow users to view other user's recipes and ingredients from their profile before scheduling a meal with them.

Since the recipes and ingredients may influence who users choose to share a meal with, it is helpful to access this information before requesting a meal. Though the recipe images were displayed before, they are now clickable to view the ingredients.



#### Add error message if the user has a conflict with an inputted time.

Otherwise, a user might accidentally double book a meal. This cautions users against committing to two different meals at the same time.



#### Did NOT add an extra confirmation/review page for the scheduling request.

We didn't think this was necessary because there is not that much information to look through, as it all fits on one screen without any scrolling. We assume that because of this, users will double check the times they entered. In the rare case they did make an error, our additional feature of editing a request can also support fixing this.

## Did NOT add counterpart users' dietary restrictions when viewing the ingredients for a recipe.

We didn't think this was necessary because when one party sees the dietary restrictions of the other party, they will know their own recipes well enough to know which recipes are accommodating. In addition, we assume that users will only prepare recipes that they themselves can eat, so this is not an issue when the host is choosing which of the traveler's recipe to buy ingredients for.

## **Prototype Implementation**

#### **Tools Used**

We chose to build this prototype for the Android phone using Android Studio and used Github in order for all us of to track version control and commit changes remotely. The two main languages we used were Java and the XML Framework for screen design. Android Studio is pretty intuitive for beginners and has a lot of documentation around it, which is great for developing a prototype, but is limited just to Android phones.

#### Wizard of Oz Techniques

Our main Wizard of Oz technique was to mimic the communication between two phones when a traveler schedules a dinner and a host responds. Another Wizard of Oz technique used was to create push notifications, which notify users when they receive a meal request, when their request has been accepted, and when it is time for a meal.

#### Hard-Coded Data

We hard-coded the profile data of Leila (the host) and Amrita (the traveler), as well as all of the dates and times for their meal. We also hard-coded the selected meal as Chicken Curry, and we put in other placeholder data such as other profiles and past dinners to make sure the app looks full and comprehensive. The map data (e.g. distance from the users) was also hard-coded, but we hope to replace that in the future by using Google Maps.

#### What's Missing & Future Additions

Right now, most of our basic functionality is hard-coded for the sake of the demo and to show how are three tasks work in unison. For this reason, there are features such as Google Maps and Google Translate that we chose not to implement as of now. In the future, we hope to implement filtering so that users can filter their potential dinner partners by dietary restrictions and interests. We would also like to add a login so that the user can continuously add information to their profile from social media and connect with others in the area. We could also potentially add in-app communication and a method of payment.

### Summary

Homemade was born out of a need to provide travel experiences that are novel, authentic, and accessible to destination travelers and local people alike. Currently, many travelers rely on personal networks for recommendations of things to do in a foreign location in attempt to shy away from typical tourist attractions. At the same time, travel is generally perceived to be a luxury getaway, and as a result many people are limited to their local area because of a lack of accessibility. We hope that interactions through Homemade reframe how people think of travel while meeting their needs for new and exciting experiences. Throughout the quarter, we tested and revised the user interface designs for Homemade to present a product that is consistent and intuitive for both user groups. Our team now looks forward to applying the design-thinking principles utilized in this project beyond the travel space.

## Appendix

### Additional changes made to Hi-Fi Prototype

#### Change the appearance of the toggle to make it more visible.

Before, users thought that it was easy to miss and users could get confused about what mode they are currently on. To ameliorate confusion, we darkened the color of the current mode and made the inactive mode more transparent.



#### More consistent search bars on "Explore" page for the two modes.

People found the search bars confusing and inconsistent for the two modes. For the "traveler mode," the "Current Location" is now a search bar but is automatically filled in with their current location (assuming they are traveling and looking for locals in the area). In addition, the "Origin" filter was removed, and some basic instructions were added to the "host mode" search bar.



Before: Host Mode

After: Host Mode

## Be consistent with the information displayed on the "Explore" and "Profile" pages depending on the mode.

If on host mode, use the location of origin for the travelers' profiles, and if on traveler mode, use distance for hosts' profile). Also, overlay the recipe names or put them below the recipes.

#### Traveler Mode, Viewing Host Profile:





#### Before

After

When sending a schedule request and your availabilities, we changed for format in a few ways, one being that now **all meal time slots are two hours long**. Because of this, users only need to select their desired start time, and the **end time will automatically be filled in** for them for two hours after their selected start time. We also added a standard four times, two for today and two for tomorrow. The user can choose to leave some blank if they are unavailable, but they must input at least one valid time before submitting their request.







#### Before

#### Add an email address for contact on the confirmation details page.

Only having a phone number for contact can be an issue if a traveler does not have an international phone plan or SIM card, etc., but still wishes to communicate with the local. Thus, we added email, for which only wifi is needed to communicate.



#### Before

After

On the pages where the user must make a choice, such as sending available times when making a meal request or the host selecting the guest's meal when confirming a request, we made the **"next" button disabled until a valid selection is made**. This helps with error prevention of the user sending invalid times or forgetting to select something at all.

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On the "Meals" page, we made **separate sections for "Current" and "Past" meals** to ameliorate confusion and make it clearer for the user which users they were currently interacting with versus ones they had previously interacted with.





Before



**Be more consistent with the color scheme, particularly on the "Meals" page.** We changed the color of checkmark after a person successfully confirms a request to be green to match with the "confirmed" color scheme.



#### Change wording of confirmation notification.

The original statement, "The status of the request will be reflected in your inbox," that pops up when you request or confirm a meal didn't feel user-friendly and the word choice felt archaic. The new wording is more friendly and easier to understand.



#### Change "Deny" to "Decline" on the schedule response page.

The user might feel guiltier when "denying" than "declining," so this language will be less harsh and make the user feel more comfortable declining a meal request.



#### Add buttons to listen to audio clips of the phrases.

Users might not know how to pronounce words in another language, even if written in phonetic letters from their native language. This allows users to listen to pronunciations and play the audio clips out loud if they are not comfortable enough to try speaking the foreign language.





Before

After

Make "Favorite" and "Schedule" buttons on the profile different colors so that they are more differentiable. This would prevent users from accidentally clicking one when they meant to click the other, and helps them more clearly see the difference between the two.



Make back buttons more visible and stand out more from the background so that the functionality is more clear.



Before

After

Make headers stand out more from other text so that they are more visible and differentiable from the rest of the page.



Before

After