

# PGOne Team Report



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# Introduction

## What is the product

Our product is a mobile app called Recipe Book for young people from different cultures living in Australia. Users can choose their favourite recipes from over 30,000 recipes from different countries with customised options. The app will help users with little cooking experience to create healthy and tasty meals by looking at the duration of cooking, ingredients and preparation process of each dish. In addition, users can use the Event feature to view or search offline food trade events happening or coming up in Australia, and share and discuss with food lovers from the same or different cultural backgrounds about the food they are interested in. The events users have attended or created will be saved in the users' accounts for them to view at any time.

## Why the product is important

Millennials eat out at restaurants or bars 30% more frequently than any other generation, spend only about 13 minutes on daily meal preparation, and spend more time in the supermarket picking up food ingredients than any other age group (Magner, 2021). The main reason for this is that the lifestyle of the younger generation makes it difficult for them to spend long hours in the kitchen as they spend most of their time in school, work and socializing (Magner, 2021). Research shows that cooking ability and cooking time are inversely correlated. Millennials rarely spend time cooking, which means they take longer to cook each time, so they need accessible and practical cooking instruction methods (Namin et al., 2020). Due to the fact that the usage scenario is mostly in the kitchen and the younger generation is more likely to use mobile apps to find cooking tutorials (Judkis, 2018), the Recipe Book has been designed as a mobile application that allows users to view cooking instructions more easily and quickly. Users can not only browse up to 30,000 recipes, each of which can be completed in just 30 minutes but also view detailed text tutorials and video tutorials, ensuring an all-around user experience to meet the needs of users with different cooking skills.

## Why the product is innovative

As Australia is a country of immigration, its residents, especially the younger generation, are of diverse cultural backgrounds. According to the Australian Human Rights Commission, one in four Australian residents was born overseas, nearly half has at least one parent who was born abroad, and one in five Australian households speaks a language other than English (Australian Human Rights Commission,

n.d.). Considering the specificity of the user group, this product is available in up to five languages to provide language convenience for people with different cultural backgrounds. Not only that, compared to other food teaching software on the market, this application has an innovative and unique feature that allows users to filter the food of the country they are interested in Event and to exchange and discuss food offline with the same type of food lover. This feature not only serves as a means to keep in touch with the user's own cultural background but also motivates the user to participate in exchanges with different cultural backgrounds.

## Prototyping

### Low-fidelity Prototype

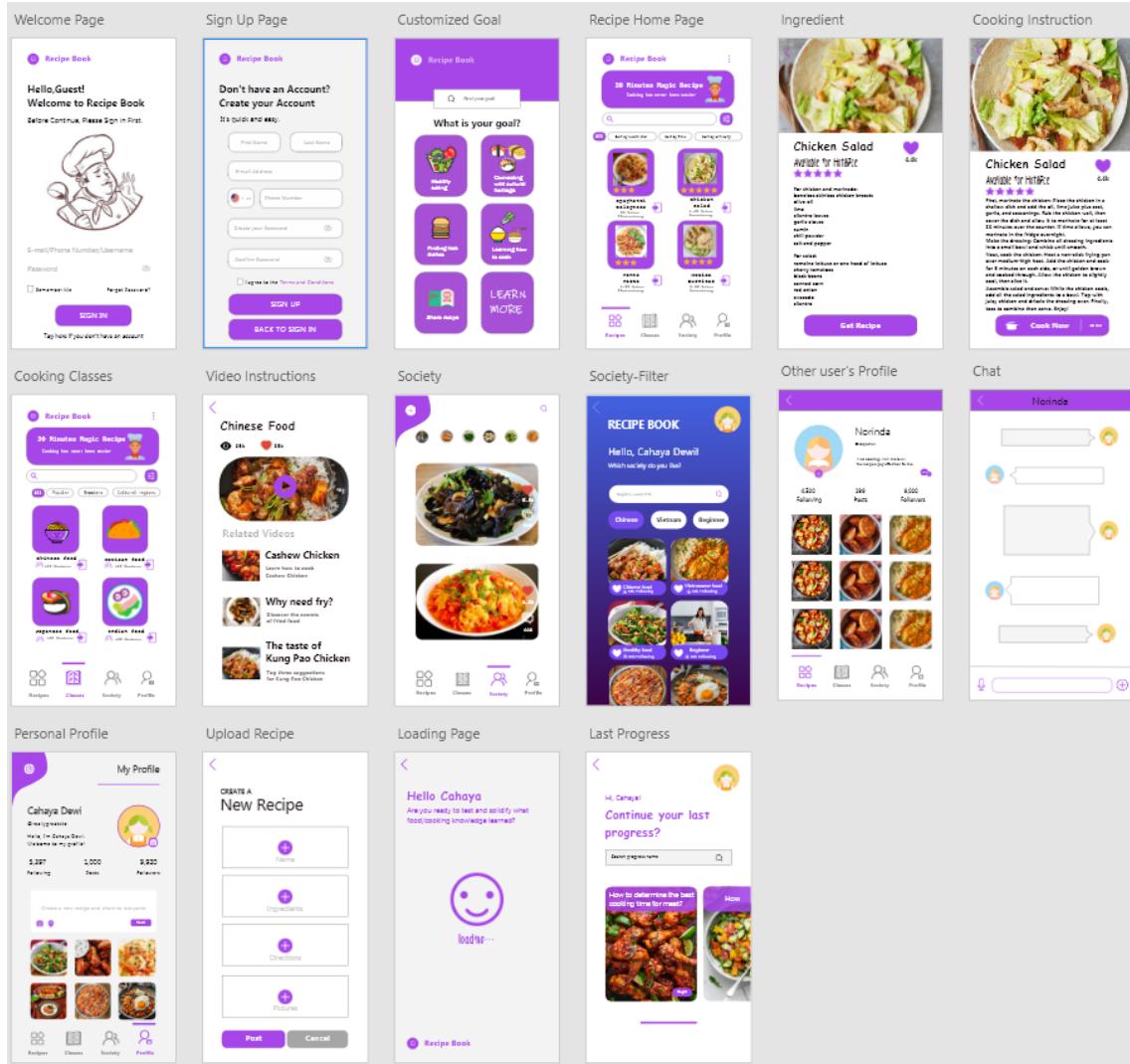


Figure 1: Overview of Low-fidelity Prototype

Figure 1 above is the overview of the low-fidelity prototype, detail of each page in this prototype can be viewed in Appendix A. According to research, young people today lack the time and experience to cook. Therefore, Recipe Book was designed as a mobile application to allow users to quickly and easily find out the ingredients and preparation process of their favourite dishes.

The application is designed with a vibrant, bright and simple user interface, taking into account that the target group is young people. After downloading the software, users will be taken to the Welcome Page and asked to register or log in to their account (Figure 1 in Appendix A). After completing registration or logging in, users will be asked to customize their personal goals (Figure 2 in Appendix A) and different cooking tutorials will be recommended to users on the Recipes page based on their chosen personal goals (Figure 3 in Appendix A). Hick's Law suggests that the more main functions in an application, the longer the user's decision-making time will be, leading to a decrease in user perception (Mads Soegaard, 2020). Therefore, this application is designed to have only four main functions in the bottom navigation bar, including Recipes, Classes, Society and Profile, thus reducing the complexity of options for the user.

When the user clicks on a recipe on the Recipe page, all the ingredients needed for the recipe are displayed, along with a specific text tutorial (Figure 4 in Appendix A). In addition, users can also view video versions of food tutorials in the Classes feature (Figure 5 in Appendix A). Users can also view the food tutorials shared by others in Society as well as view the profile of the publisher and chat with him (Figure 6-9 in Appendix A). In addition, when users have a good food idea, they can also upload their own recipe on the Profile page and share it with other users (Figure 10-11 in Appendix A).

## User Test of Low-fidelity Prototype

Prior to application development, user testing of the low-fidelity prototype was created to identify problems with existing designs and the real needs of target users in order to build a product that meets the needs and expectations of users.

5 interviewees from different cultural backgrounds and different genders, and between the ages of 19 and 28 were invited to participate in this user test. The purpose and use of the interview and the privacy policy associated with the interviewee were clearly communicated to each interviewee prior to the start of the interview (Figure 1 in Appendix B). Interviewees then received an interactive low-fidelity prototype of the Recipe Book and were asked a series of questions about the design of the product after they had played around with the prototype (Figure 2 in Appendix B). All interviews were conducted one-on-one via Zoom, and all the data mentioned below has been authorized by the interviewees themselves, interview questions are shown in Figure 2 below, and the complete interview records can be viewed in Appendix B.

1. Can you easily interact with the design? Why or why not? ↵
2. What do you think is the most important feature in this application and why? ↵
3. What do you think is the least important feature in this application and why? ↵
4. Have you ever used any cooking application before? ↵
5. What are your reasons for liking or disliking this kind of applications? ↵
6. Any suggestions for Recipe Book? ↵

Figure 2: the screenshot of interview questions

The result of the interview show that 3 out of 5 participants think the interaction and functionality of the prototype could be further improved, this includes (1) adding a Terms and Conditions page; (2) reducing the number of icons on the Recipes page and Classes page to reduce user selection hassles and make the page more concise; (3) reduce one of Recipes page or Classes page, or merge these two pages, since they are both similar in function; (4) consider how to improve the Society page since half of the participants thought they would not use this feature; (5) delete Create New Recipe page, Test Knowledge page and Continue Last Progress page since the main purpose of the target users is to learn how to cook, most users have no cooking experience and therefore do not upload their own recipes.

## Analysis of Existing Applications

Four existing applications including Tasty, Taste, Mealtime and Yummly are being analyzed with a focus on their interface design, functionality and user reviews. The interfaces and functionality of these four applications can be viewed in Appendix C. The purpose of this is to design an application that fits our target users by understanding existing solutions and analyzing their strengths and limitations.

Application	Advantages	Disadvantages
Tasty	Both images and textual explanation are provided for each recipe	Only support 1 language
		Features are the same as the other cooking apps, nothing special and unique
		Can't interact with other app users
Taste	Users can filter recipes according to kilojoules per serve and total time (prep+cook) for cooking	Only support 1 language
	Users can set a cooking time to remind you when you should start cooking every day (special feature)	Can't interact with other app users
	Ingredients including type and amount	There's no filter for users to use when

	are listed for each recipe	searching a recipe
		Only textual explanation are provided for each recipe, hard to understand
Mealtime	User can personalized meal plan for the whole week (unique feature)	Force user to choose the number of recipes for meal plan (users must and can only choose 7 for the whole week)
	Users can view saved recipes	Users cannot edit the meal plan once chosen
	Ingredient, instructions and cookware are listed	Users must follow the groceries list the system provided, cannot edit the groceries list
		There's no filter when choosing a recipe
		There are only "Coles" and "WWS" in the online store and users are not allowed to choose other stores
Yummly	Survey is provided to the users after creating a new account, different questions including dietary restrictions, favorite cuisines, allergies, level of cooking skills, etc. are asked to recommend recipes to the users according to their own	Only support 1 language
	Interaction interfaces are smoother and more professional than the other cooking apps. Loading icons, tip boxes, icon colours and image colours makes users less distressed while waiting for loading and allows them to always know where they are operating	Users cannot edit favourite cuisines once selected
	Filters including cuisine type, courses, diets, dishes, etc. are included when searching recipes, to provide users more choices	

Table 1: showing advantages and disadvantages of applications (Tasty, Taste, Mealtime and Yummly)

## Medium-fidelity Prototype

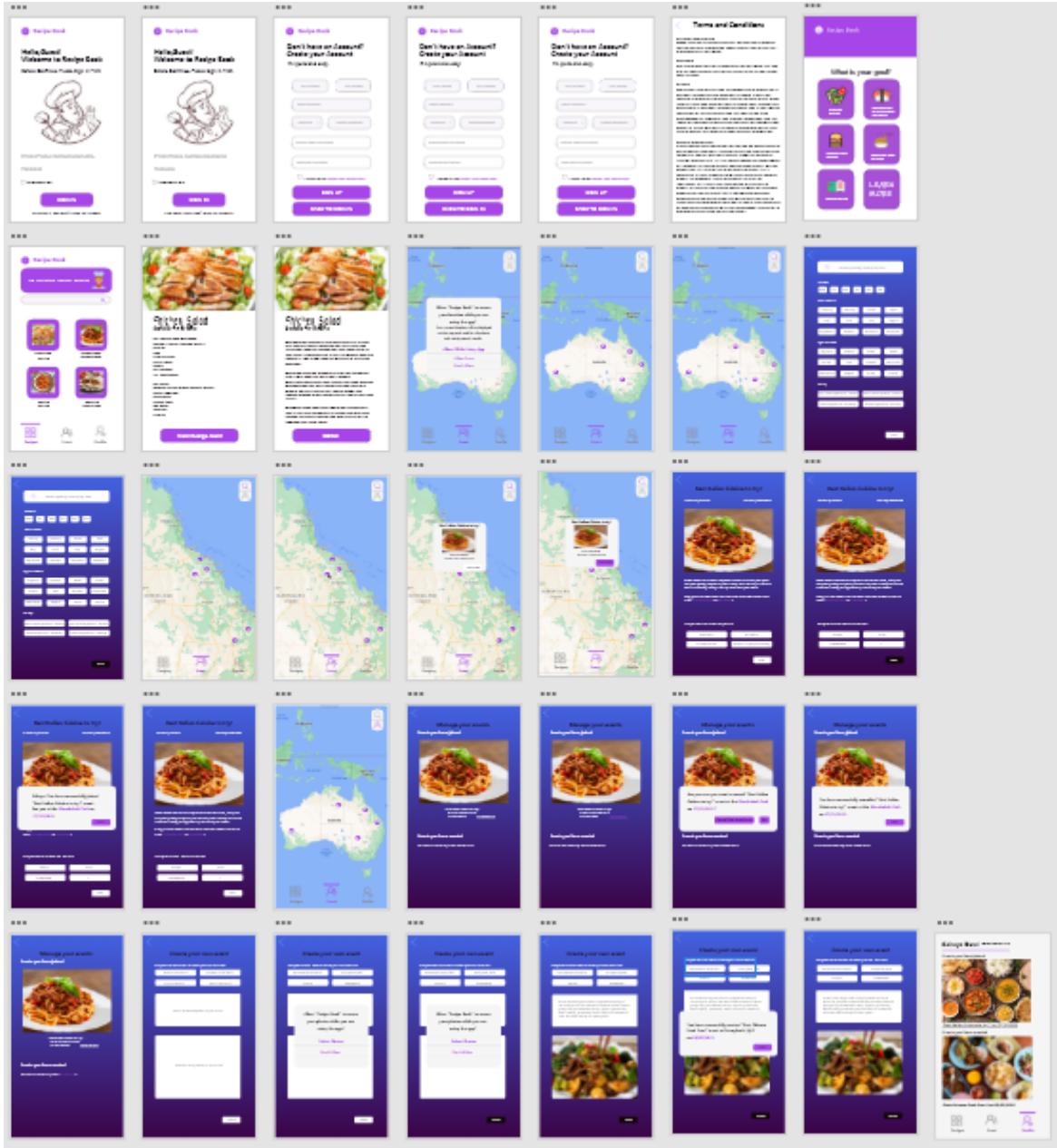


Figure 3: Overview of Medium-fidelity Prototype

The medium-fidelity prototype as shown in Figure 3 was developed based on the user test result of the low-fidelity prototype, existing application research and presentation feedback.

The details of the application interface have been improved to enhance the user experience. The Remember Me function has been added to the login screen to prevent users from repeatedly entering the same account number. The Terms and Conditions page is provided on the user registration page. To fully protect the rights of users, users who have not read this page will not be allowed to register. The

redundant icons on the Recipe page have been removed, so that users can simply click on the name of each recipe to enter the recipe tutorial, thus avoiding the user's trouble in choosing a recipe.

Considering that in low-fidelity user testing, most users found Recipes and Classes to be very similar, the two functional pages have been merged together and users can now see recipes with text, images and video tutorials on the Recipes page at the same time.

Based on the research result of the existing application as mentioned previously and the presentation feedback, the Society feature has been replaced by the Event feature. By clicking on the Event page, users can see offline food exchange events that are happening and will happen across Australia. Users can filter the events they are interested in based on different keywords including location, time and Cuisine Type, and they can also view or edit the events they have signed up for at any time on the Profile page and create their own events. This feature differentiates the product from other products in the market and is more suitable for young Australian users from different cultural backgrounds. Considering that one in five Australian households speaks a language other than English, the application offers a choice of up to five languages.

## Prototype within the competitive landscape

Although there are already a large number of cooking tutorials on the market, none of them have innovative features. By creating an offline food exchange and adding five languages, we were able to quickly differentiate our app from other existing apps and make it more relevant to our user base, which is young people living in Australia from different cultural backgrounds.

	Recipe Book	Tasty	Taste	Mealtime	Yummly
Support multi-languages	✓	✗	✗	✗	✗
Recommend recipes based on users' personal preference	✓	✗	✓	✗	✓
Both video and text instructions are included for each recipe	✓	✗	✗	✓	✓
Share food offline with other users	✓	✗	✗	✗	✗
Users can freely filter the recipes they are interested in	✓	✓	✓	✓	✓

Table 2: Comparison between Recipe Book and other applications

# Team Project Management

## Tools And Technologies Used

	<b>Tools</b>	<b>Reason</b>
Design	Adobe XD	Professional prototype design software, efficient and convenient, multi-person online.
Front End	React Native	As a platform software for app development
	Blue stack5	As an Android emulator to help develop, and help present the front-end page structure
Back End	Xampp	One of the most popular local host software, efficient and powerful.
	PhpMyAdmin	Database management, experienced and familiar with it.
	Android Emulator	In order to run and test the app development
	IntelliJ	A built-in IDE with android studio, is super compatible with android studio
	JSON	Store and transfers data
General	Android studio	As the main compiler and emulator for Android
	Visual Studio	Auxiliary compiler, it is easier to implement and change the code

Table 3: showing used tools and reason of using the tools

	<b>Technologies</b>	<b>Reason</b>
Back End	MySQL	The most basic and widely used database language
	PHP	Database connections and CRUD, HTTP request data connection and transfer
	Shell scripts/node	Adding packages, running the app etc.
	Apache	Database hosting, free and open-source cross-platform web server software
General	React Native/JavaScript	Light, live/hot reload feature, can also use for developing the iOS version of the app in the future

Table 4: showing used technologies and reason for using the tools

## Team Project Management and Collaboration Process

At the beginning of the semester, using the rules related to agile project management, the group developed a project plan in SOW, and completed the project strictly according to the planning of Timeline and Milestone (Appendix).

The group was divided into designers, front-end, and back-end, with two people in each group, strictly according to the iterative method of Scrum methodology, the designers designed different versions of the prototype, the front-end people finished the page and handed it to the back-end people, and after the completion of the user test, the prototype was adjusted according to the results of the user test, and then the designers optimized it, and so on. This mode of work allows all team members to advance the project at the same time and adjust to the next step of the project at any time.

After the fifth week, in order to get the tutor's feedback in time, the group meeting was increased to twice a week, on Wednesdays and Saturdays, where the group members elaborated on their different responsibilities, reviewed last week's work, confirmed what would be done this week, and identified the tasks to be done in the following week with the group members. In addition, the group chatted on WeChat every evening to confirm the progress as usual and to communicate the problems encountered by the group members. This ensures that the project progress is transparent and manageable.

The meeting tools used for the group meetings were Zoom and Microsoft Teams to facilitate communication with the tutor. We use WeChat and Microsoft Teams for group discussion, and Google Drive, Google Docs, and GitHub for document sharing.

## Ethics, Security and Data Privacy Considerations

High =  Serious =  Medium =  Low = 

	Risk Implications	Mitigation Measures
<b>Ethics Equal Rights Risk</b>	The application shall provide equal rights and treatment to all participants when holding offline activities.	A statement will be added to the Terms and Conditions requiring every user to treat others equally. In the future, a comment and complaint screen will be added to allow for public evaluation of offline activities.
<b>Induced Consumption Risk</b>	When users post, there may be malicious ads that lead users to spend money.	Add a statement in the Terms and Conditions, while the platform monitors that no ads will appear that are not verified by the application.

<b>Security Security of offline activities Risk</b>	Can the user confirm the security of the activity when conducting offline activities?	Users need to allow the application to upload their location as a way to ensure that their location can be confirmed at all times.
<b>Underage operation Risk</b>	Younger users are unable to independently cope with the risks that may arise during operation, leading to accidents such as burns and fires. Inability to ensure their own safety when participating in offline activities.	In future planning, users will need to verify that they are 16 years old or older as a way to avoid underage users.
<b>Data privacy User information exposure Risk</b>	After not using the application, users wish to delete all their information and postings.	Add a statement to the Terms and Conditions that users can cancel their accounts and completely delete personal information at any time by contacting the person in charge of the application.
<b>User photo location leakage Risk</b>	Users are afraid that their photos and location in the album will be exposed due to the use of this application.	Before you need to upload photos and locations, a confirmation page will pop up to confirm whether you agree to upload photos and locations.
<b>Account Security Risks</b>	When registering an account, the password is too simple, and there is no verification code to verify the identity when registering with a cell phone number.	In the future, it is planned that the user's password will be non-publicly displayed and will require feedback on the level of strength and weakness. A verification code is required when registering with a mobile phone number and email address.

## Recommendation for Future Development of Prototype

- 1: Add public comments, ratings and complaints functions to the activity page. After users participate in the activity, they can evaluate the activity.
- 2: Users under the age of 16 should not operate recipes alone to avoid accidents during cooking or the event offline.
- 3: Feedback password strength level when changing or setting password, simple password system to prompt. Verification of the device number is required during registration.
4. Due to the time problem, the user test of this application has only been carried out once. In the future, the user test will be carried out after each project update iteration to ensure that it is combined with the user's ideas and improved. Make functional and page design changes based on the results of user testing. Also, more user test methods such as card sorting, time-on-task, and expert testing will be used. At the same time, only five students took part in the test this time, so the sample size is small. In the following, the sample size will be gradually increased in order to obtain more accurate results.

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# Appendix

## Appendix A: Low-fidelity Prototype

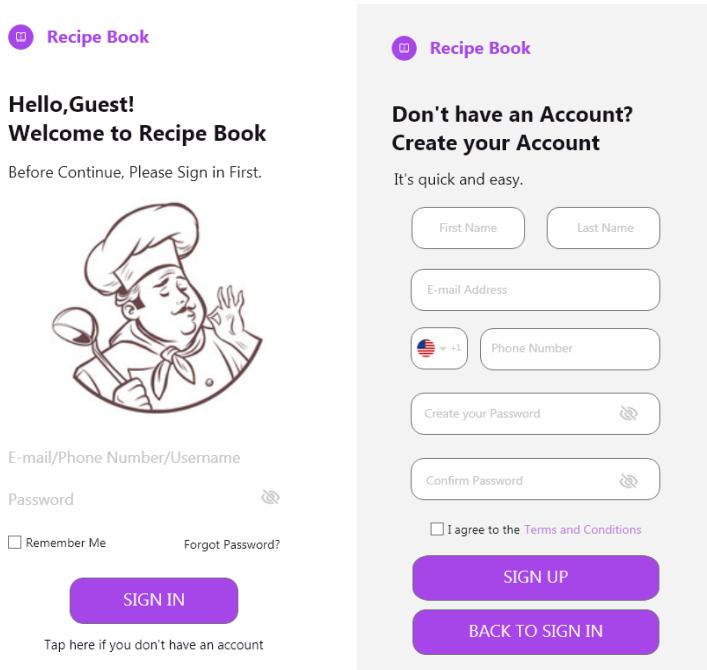


Figure 1: showing Welcome page and Sign Up page



Figure 2: showing Customized Goal page

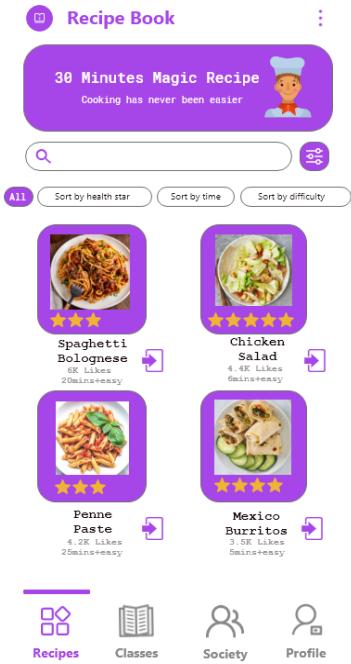


Figure 3: showing recommend recipes based on user's previous goal choice

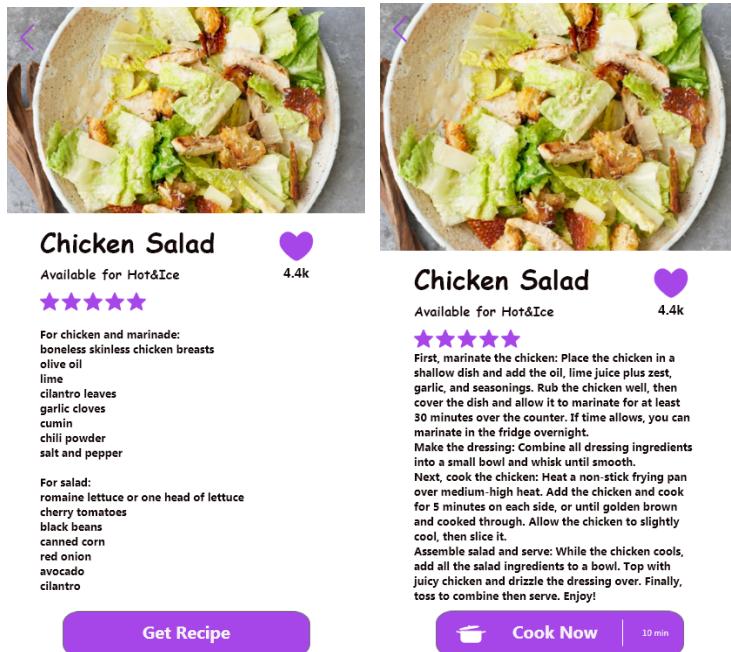


Figure 4: showing ingredients and cooking instruction

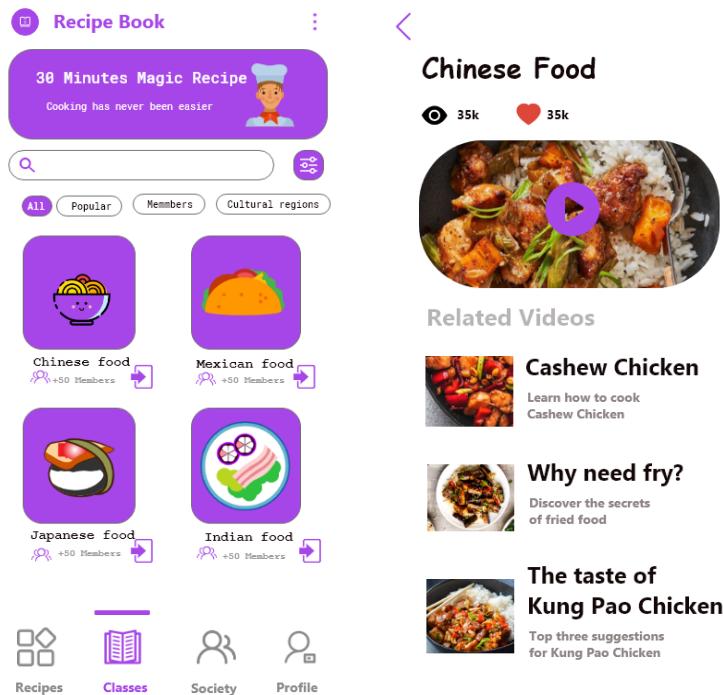


Figure 5: showing cooking classes from different cultural regions

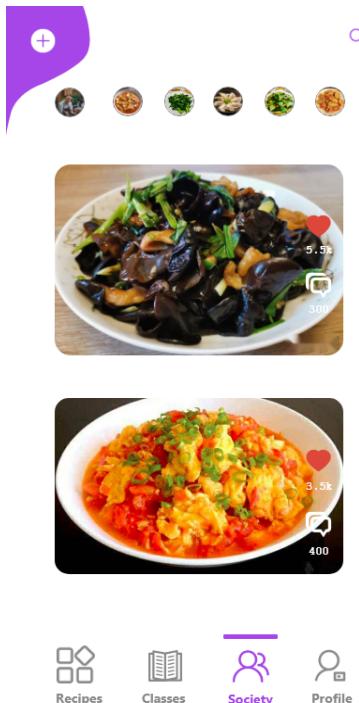


Figure 6: showing Society page

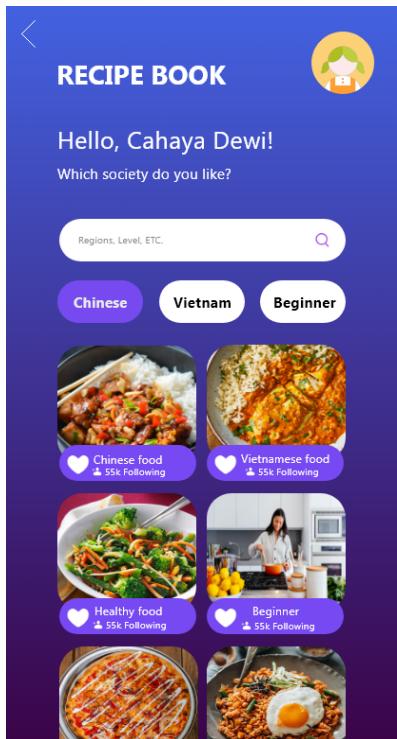


Figure 7: showing Filter options in Society page

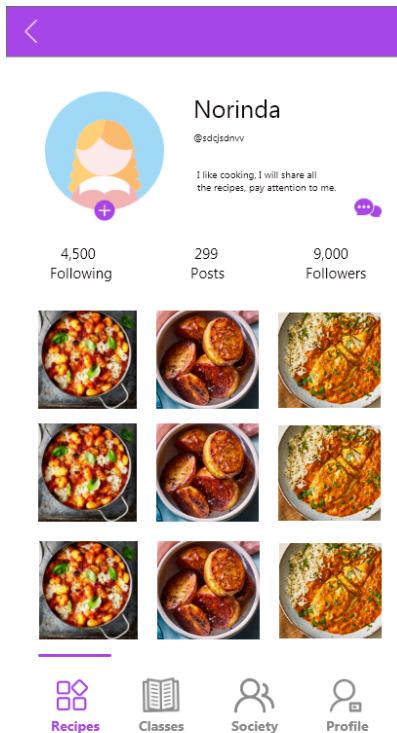


Figure 8: View other user's profile through the post in society

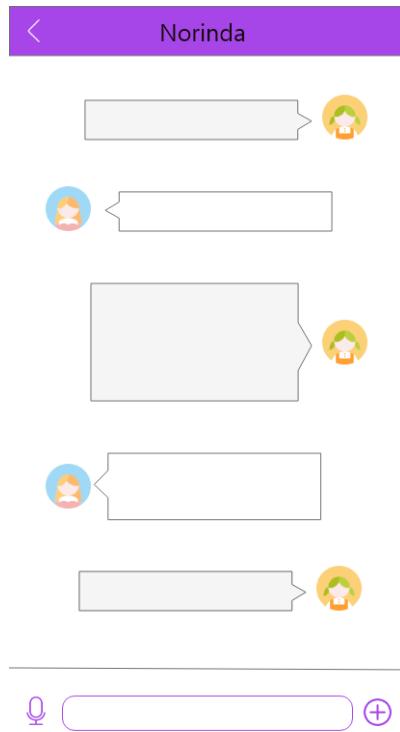


Figure 9: Chat with other users

## Appendix B: User Test of Low-fidelity Prototype

The purpose of this interview is to test the design and functionality of low-fidelity prototype of the mobile application called Recipe Book. All personal information and conversations will only be used for DECO3801 Design Computing Studio 3 – Build at the University of Queensland and will not disclosed to the public. We are committed to protecting your personal information and respecting your privacy. The interview will last approximately 20 minutes, we appreciated for your cooperation. If you have any concerns about ethics or your participation in this interview, feel free to contact me [jiatong.zhao@uqconnect.edu.au](mailto:jiatong.zhao@uqconnect.edu.au) at any time. ↵

Figure 1: Statement shown to the interviewee

### Interviewee 1

Name: Koh Jih Hong

Country of Birth: Singapore

Age: 23

Gender: Female

1. Overall I think it's fine. There are some icons that confuse me. For example, in the Classes, I thought I should click the door icon if I want to view the recipe but it only allows me to click the name of the

receipe. Also, I didn't get what's the difference between Classes and Recipes, are they just one text instruction, or one video instruction?

2. I think it's the chat feature because I can communicate with other users, otherwise this will be a very boring application.

3. I think it's the Recipes or Classes as they are basically the same thing.

4. Yes, I used a few before.

5. I have downloaded several similar applications before, but I found them really boring and then uninstalled them. Because if the application can only provide me recipes, I can go to youtube or google instead of downloading a special application.

6. Just like I said, maybe modify those icons in the interface and so on, so that the user can see them at a glance. Also, delete one of the Recipes and Classes features since they are basically the same thing.

### **Interviewee 2**

Name: An Wang

Country of Birth: Mainland, China

Age: 19

Gender: Female

1. I can interact with some of the interfaces easily. There are many details that cannot be interacted with, such as terms and conditions, likes, comments, and buttons when clicking on recipes (in the Classes feature) and creating new recipes. I assume these will be done in the future.

2. I think the most important feature is Recipes, since I can easily find out what I need to prepare, how long it takes to finish and instructions for cooking each dish. I don't know how to cook, so I think it is very useful for me.

3. For me, I think it must be Create New Recipe, since I rarely cook and will not upload recipes.

4. Yes.

5. I dislike when I want to view some recipes, the system automatically creates a shopping list based on the recipe. Because there may be some dishes I want to do, but will not exactly follow the ingredients it provides.

6. Creating some unique features that other cooking apps don't have will be helpful. Because at the moment there seems to be no difference between this application and the others on the market.

### **Interviewee 3**

Name: Shangqing Ju

Country of Birth: Mainland, China

Age: 25

Gender: Male

1. Yes, I can, interfaces are designed well to interact with.

2. Recipes, because there are detailed instructions that are easy to understand and follow.

3. Society? Because it is not compulsory for a cooking app. Some people may not like to share their daily lives on the platform.

4. No, because I usually check recipes on google.

5. Every cooking application is really similar in functionality.

6. Some features in the application may not be useful or necessary for all users. Also, some interfaces or design are not meaningful... For example, the icons on top of the Society page and the Continue last progress page at the end.

#### **Interviewee 4**

Name: Anne Khoo

Country of Birth: Korea

Age: 28

Gender: Female

1. It seems like some of the pages are not related to the other pages in the application. For example, the other user's profile, chat with other users, test cooking knowledge learned, and continue the last progress pages. Also, I can't click into Likes and Comments in the society page.

2. Recipes are the most important one because I can learn how to cook through this feature. I know I can also watch tutorial videos through Classes, but I think the detailed instructions work better for me. If I watch the video one, I think I will need to pause the video many times while cooking.

3. Chatting and uploading the new recipe seems unuseful to me.

4. Yes.

5. I like the detailed cooking instructions on this kind of app.

6. Some features are useful while some are not. The design of the interfaces seems a bit monotonous and unoriginal.

#### **Interviewee 5**

Name: Jason Wang

Country of Birth: Hongkong, China

Age: 20

Gender: Male

1. Yes.

2. Chat, comment, and likes. Because I like to communicate with others.

3. Create a new recipe? I think I will not use this feature...

4. No, I usually don't cook.

5. I think cooking is very boring and hard.

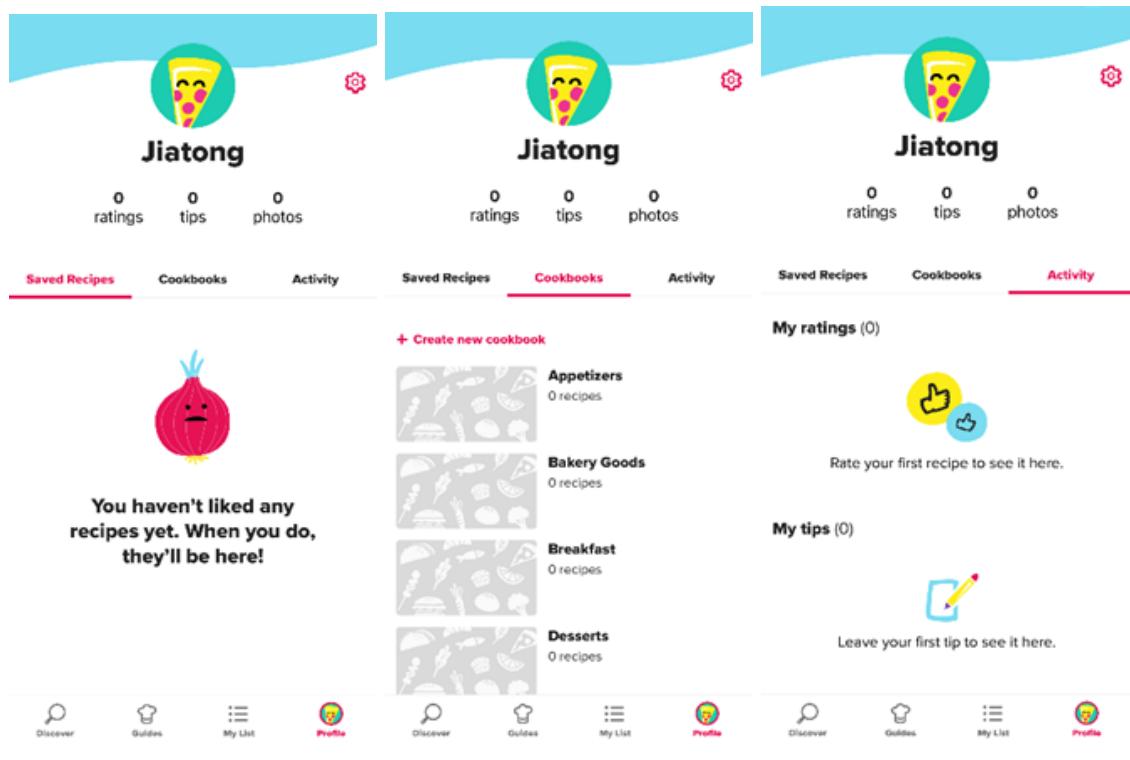
6. No.

## Appendix C: Existing Application

### Application 1: Tasty

The screenshot displays the Tasty app's main feed with several sections:

- Trending:** Shows three recipe cards: "Dirt Brownies", "Blueberry Overnight Oats", and "Slow Cooker Butternut Sc Soup".
- Popular Recipes This Week:** Shows three recipe cards: "Tasty's Top Drinks!", "Homemade Cinnamon Rolls", and "31 Cookie Re".
- Fall Produce Recipes:** Shows three recipe cards: "Discover", "Guides", and "Profile".
- Shopping List:** Features a cartoon notepad with a carrot icon and the text: "Add recipes and we'll organize your shopping list for you!".
- 31 October Recipes To Make All Month Long, From French Toast Casserole To Chocolate-Filled Halloween Cookies:** A featured article by Hannah Loewenthal with a photo of a woman and the text: "THIS IS RIDICULOUS.".
- Recipes you might want to make:** Shows cards for "Dirt Brownies" and "Blueberry Overnight Oats".



## Application 2: Taste

**Left Screenshot (Main Feed):**

- Log In button
- taste logo
- Search bar: Ingredient, dish, keyword...
- Featured dish: Quick & Easy (a salad)
- Trending search terms: Choc mint desserts, Finger food recipes, Easy family meals, He dir
- Bottom banner: You have access to 10 recipes on your free trial. Buttons: Home, Search, Heart, List, +SUBSCRIBE.

**Middle Screenshot (Search Results for 'Choc mint desserts'):**

- Search bar: Choc mint desserts
- Results: 64 recipes, sorted by Relevance. Filter button available.
- Card 1: Choc mint dessert lasagne recipe (4.5 stars)
- Card 2: Secret Mint Slice cake recipe (5 stars)
- Card 3: Choc mint ice-dream (5 stars)
- Card 4: Choc-mint hot chocolate (5 stars)
- Card 5: Choc-mint whoopies (4.5 stars)
- Bottom banner: You have access to 10 recipes on your free trial. Buttons: Home, Search, Heart, List, +SUBSCRIBE.

**Right Screenshot (Search Results for a different query):**

- Search bar: (empty)
- Results: 64 recipes, sorted by Relevance. Filter button available.
- Card 1: Choc mint dessert lasagne recipe (4.5 stars)
- Card 2: Secret Mint Slice cake recipe (5 stars)
- Card 3: Choc mint ice-dream (5 stars)
- Card 4: Choc-mint hot chocolate (5 stars)
- Card 5: Choc-mint whoopies (4.5 stars)
- Bottom banner: You have access to 9 recipes on your free trial. Buttons: Home, Search, Heart, List, +SUBSCRIBE.

# DECO3801

**Ingredients**

- 350g pkt Sara Lee frozen chocolate cake
- 250g pkt cream cheese, chopped, at room temperature
- 80g (1/2 cup) icing sugar mixture
- 1 1/2 tsp peppermint essence
- Green liquid food colouring, to tint
- 600ml thickened cream
- Spearmint leaves, to serve, plus extra, sliced, to decorate
- Mint Aero chocolate, coarsely chopped, to serve
- Darrell Lea Minty Crunchy Chocolate Balls, coarsely chopped, to serve

**Method**

- Step 1 Use a large serrated knife to trim the icing from the cake. Reserve. Cut the cake in half horizontally. Place the two cake halves in the base of a 16 x 24cm rectangular baking dish. Coarsely chop the reserved icing. Scatter chopped icing over the cake.
- Step 2 Use electric beaters to beat the cream cheese, icing sugar, peppermint essence and 10-12 drops food colouring in a bowl until smooth.
- Step 3 In a clean bowl, use electric beaters to beat half of the cream until firm peaks form. Use a large metal spoon to fold one-third of the whipped cream into the cream cheese mixture until just combined. Repeat with the remaining whipped cream until mixture is well combined.
- Step 4 Spread the cream-cheese mixture over the cake. Cover and place in the fridge for 2 hours or until chilled and slightly firm.

**Notes**

Lasagne can be prepared 4 hours ahead up to the end of step 5. Store in the fridge, uncovered, until ready to serve. Proceed with recipe just before serving.

**Related search terms**

- australian
- cheese
- easy

**Related recipes**

**Comments & Ratings**

**Filter search results** Cancel

**Choc Mint Desserts recipes**  
64 recipes

Kilojoules per serve: 0 - 7000+ kJ

Total time (prep + cook): 0 - 3+ hours

**My Cookbooks** Edit

1 Cookbooks

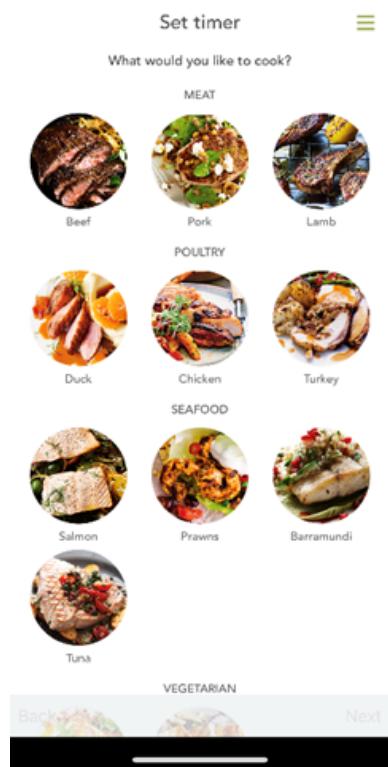
App Favourites

**Shopping list** Edit

+ Add an item

Dumpling salad recipe

- 1 tbsp vegetable oil
- 500g frozen prawn gyoza
- 350g packet Asian style salad kit
- 4 qukes (baby cucumbers) or 1 cucumber, peeled into ribbons
- 1 bunch radishes, thinly sliced
- 2 green shallots, shredded



### Application 3: Mealtime

The image shows a mobile application interface for meal planning. On the left, a sidebar displays a "Your personalized meal plan" section with a green button labeled "Build Your First Meal Plan". Below this, there are icons for "Meal Plan", "Groceries", "Favorites", and "Settings". The main content area shows a list of meals under the heading "Review your plan":

- Korean-Style Beef Rice Bowl with Cucumbers (2 servings)
- Spicy Peruvian Roast Chicken with Sweet Potatoes & Cilantro-Feta Salsa (2 servings)
- Black Bean & Veggie Quesadillas with Tomato & Avocado Salsa (2 servings)
- Mini Glazed Meatloaves with Mashed Potatoes & Roasted Carrots (2 servings)
- Turkey "Egg Roll in a Bowl" with Spicy Mayo (2 servings)
- Grilled Steak with Tomato, Corn & Avocado Salad (2 servings)

To the right of the meal list, a large modal window is open with the message "Nice job! Your meal plan is ready. 🎉 We've organized all the ingredients you need into your grocery list." Below this, a "Next Step" section says "Check out your grocery list." At the bottom right of the modal, there is a "Got it" button.

**Groceries**

PRODUCE

- lime 3
- avocado 3
- corn 1 ear
- english cucumber 1
- garlic 7 cloves
- ginger root 2 (2 ½ cm) pieces
- grape tomatoes 1 small pkg
- red onion 1 medium
- sweet potato 0.45 kg
- tomato 2
- yellow onion 1 medium

**Meal Plan**

Filter recipes by nutrients, grocery price, cook time, and more. Upgrade to Mealime Pro!

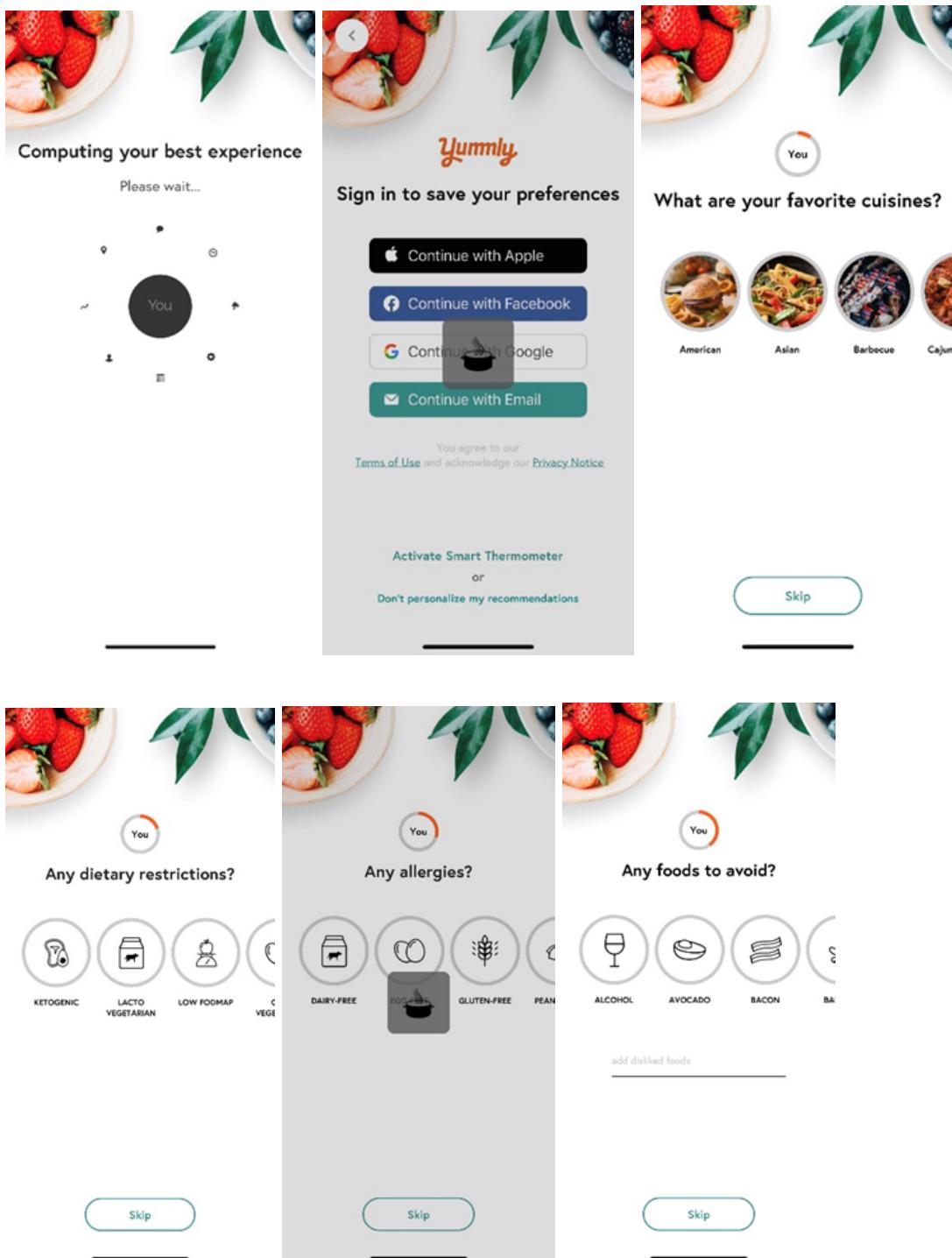
- Korean-Style Beef Rice Bowl with Cucumbers
- Spicy Peruvian Roast Chicken with Sweet Potatoes & Cilantro-F...
- Black Bean & Veggie Quesadilla
- Mini Glazed Meatloaves

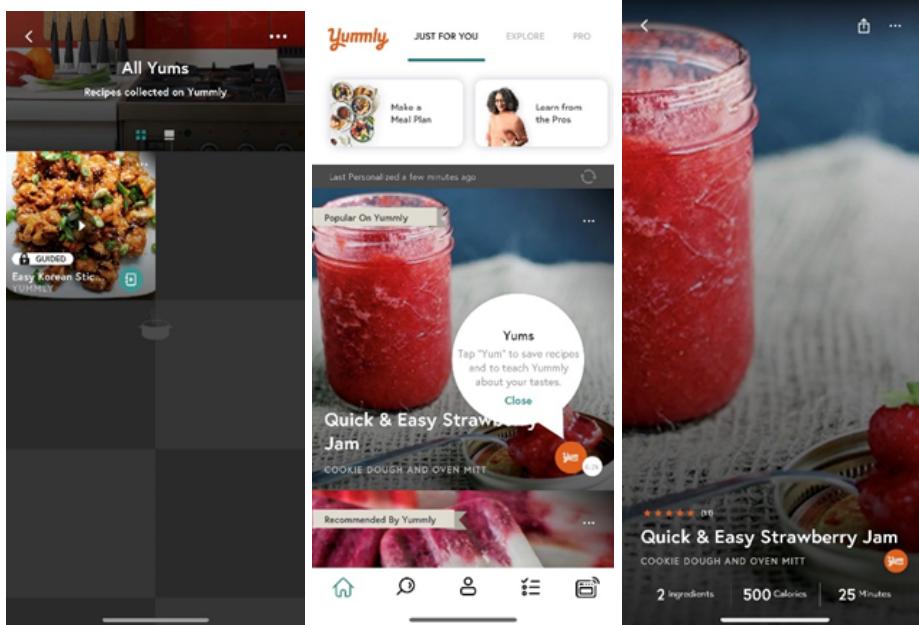
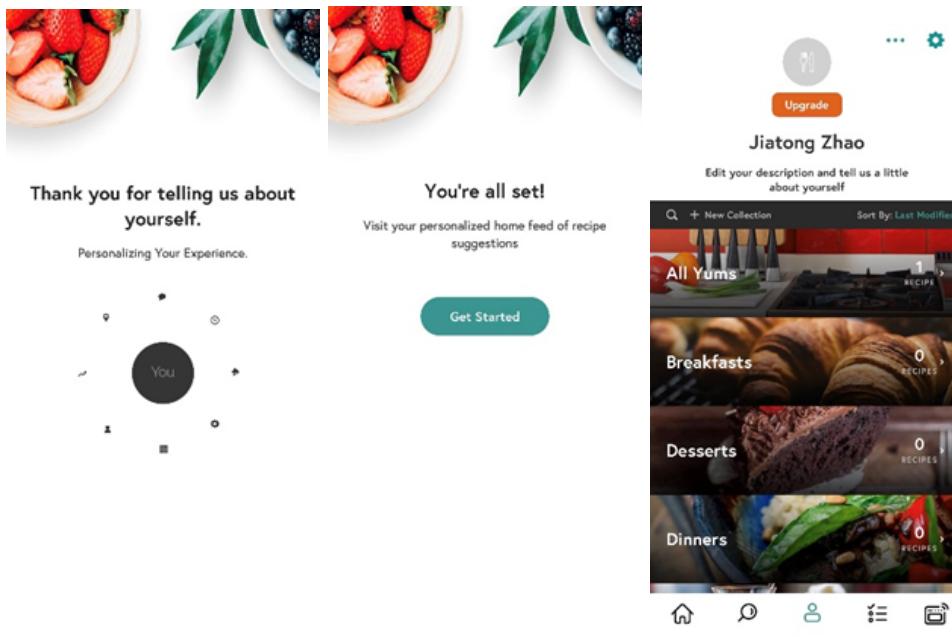
**Cookware**

Cookware	Ingredients	Instructions
chef's knife	English cucumber 1	1 Using a strainer or colander, rinse the rice under cold, running water, then drain and transfer to a small saucepan. Add water to the saucepan; bring the mixture to a boil over high heat.
colander	garlic 1 clove	½ cup jasmine rice 1 cup water
cutting board	ginger root 1 (2 ½ cm) piece	2 Wash and dry the fresh produce.
garlic press (optional)	green onions (scallions) ½ small bunch	1 English cucumber 1 (2 ½ cm) piece ginger root ½ small bunch green onions (scallions)
grater (optional)	jasmine rice ½ cup	3 In a medium salad bowl, combine and whisk together rice vinegar, honey, and crushed red pepper.
measuring spoons	lean ground beef 0.34 kg	1 tbsp rice vinegar 1 tsp honey ¼ tsp crushed red pepper
mixing bowls	chili-garlic sauce	4 Once the liquid comes to a boil, stir the mixture, cover the saucepan, and reduce
nonstick skillet	crushed red pepper	
small saucepan	honey	
stirring spoon	rice vinegar	
whisk or fork	soy sauce	

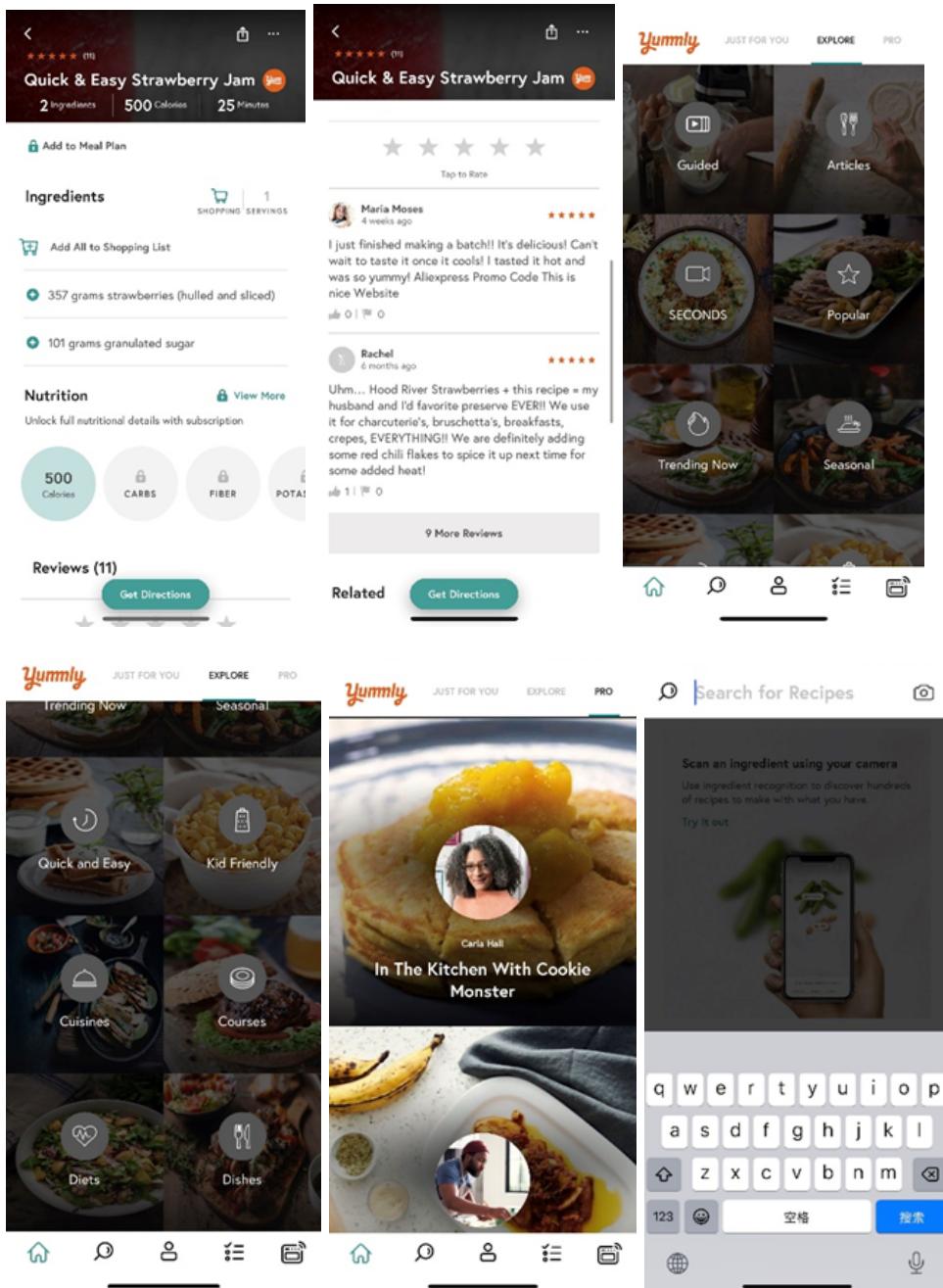
**Start cooking**

Application 4: Yummly





# DECO3801



## Appendix D: Medium-fidelity Prototype

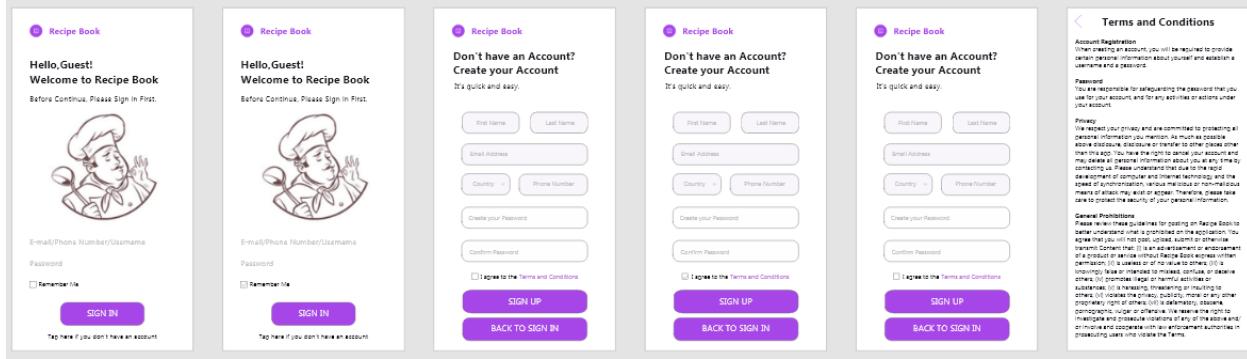


Figure 1: Sign in/Sign Up/ Terms and Conditions

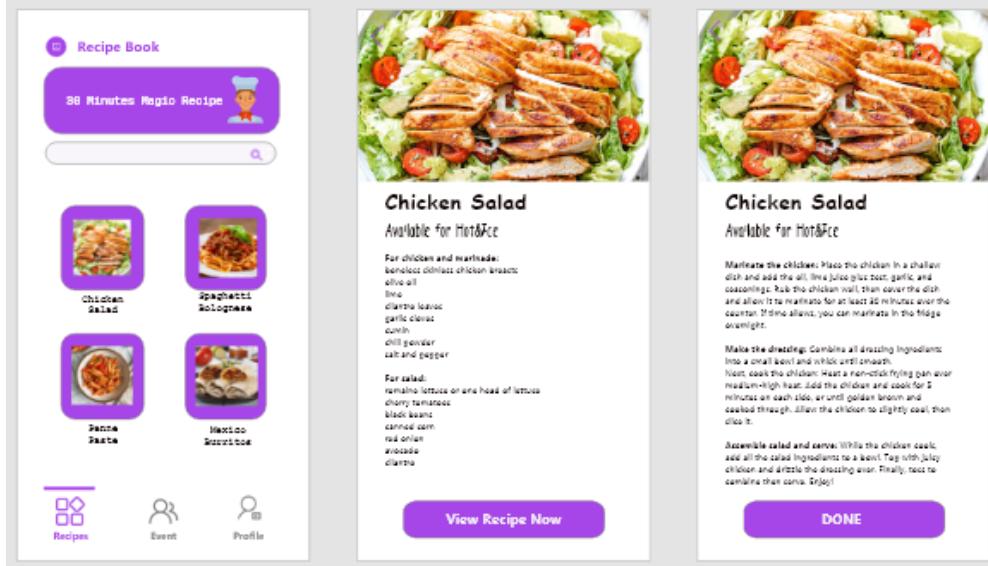


Figure 2: Recipes Feature

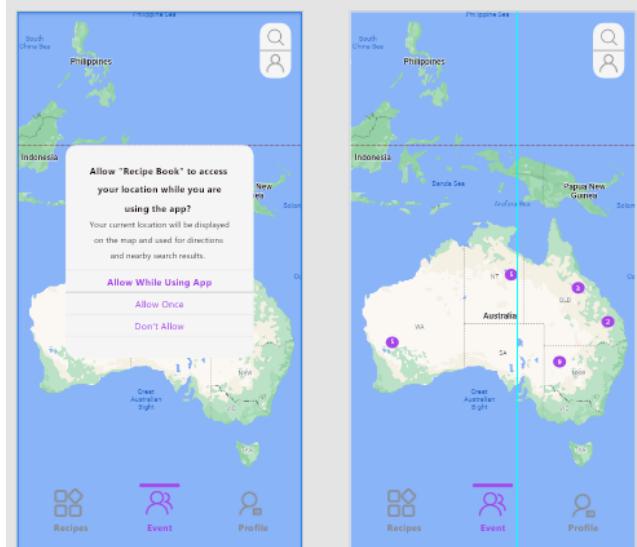


Figure 3: Location access in Event (New Feature)

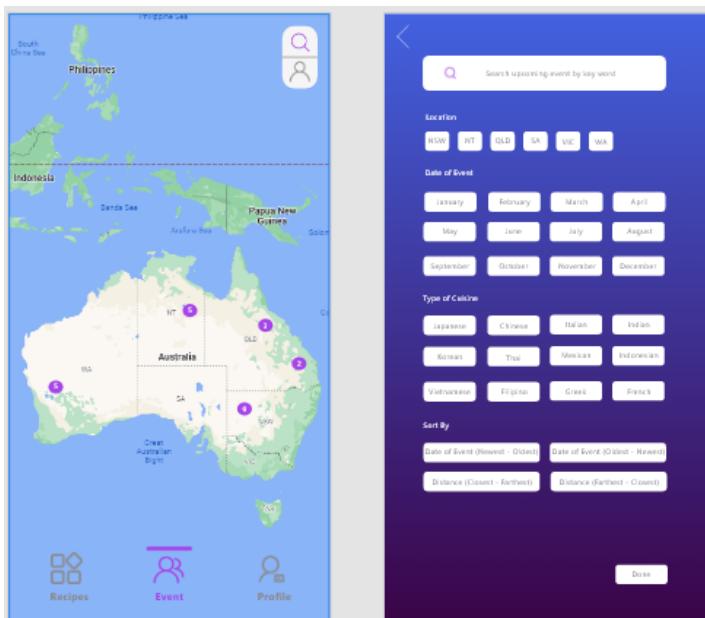


Figure 4: Search and filters in Event

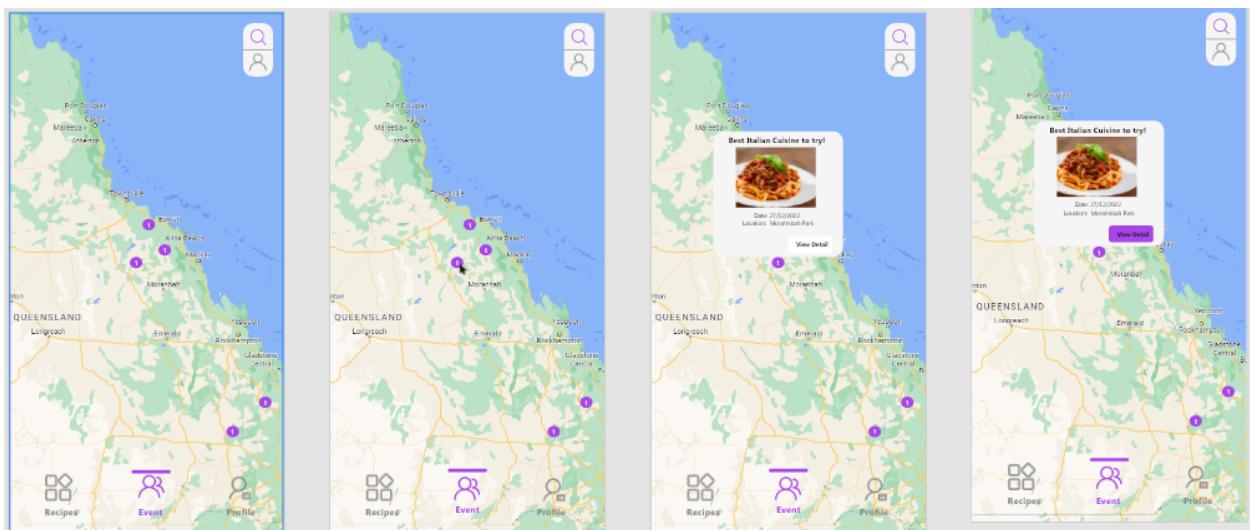


Figure 5: Search Result in Event

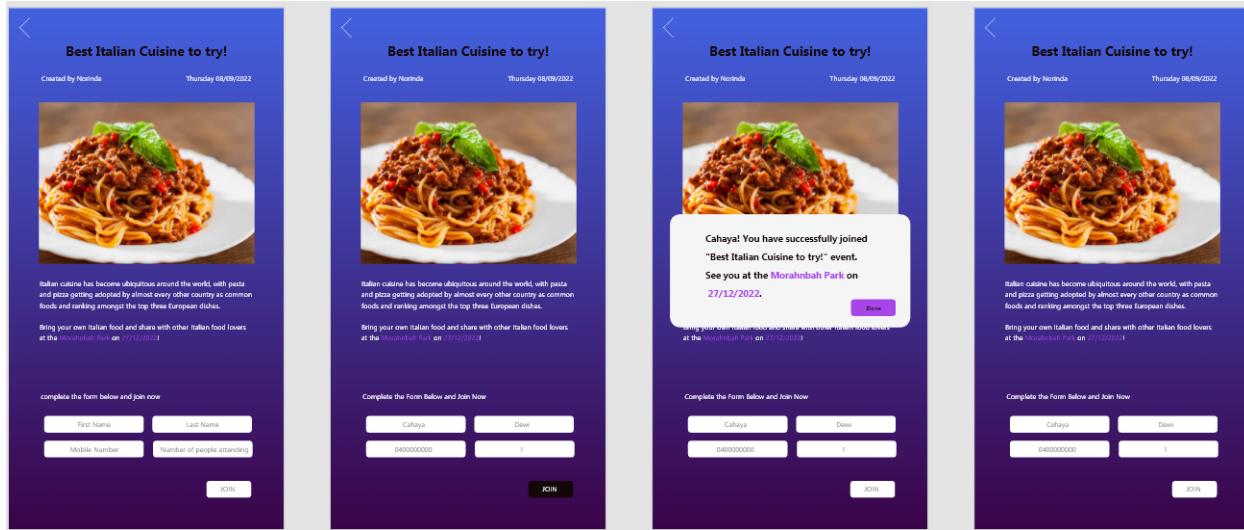


Figure 6: Join an event

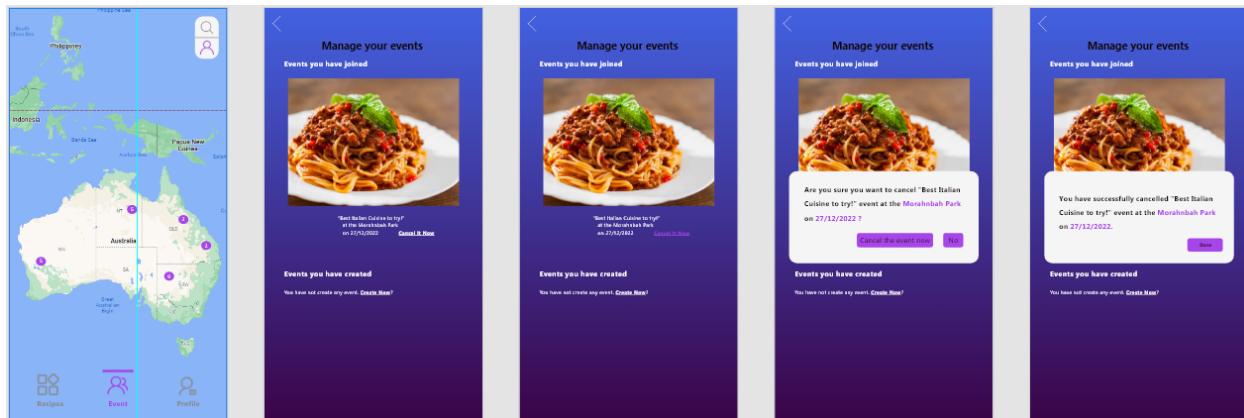


Figure 7: Manage and cancel an event

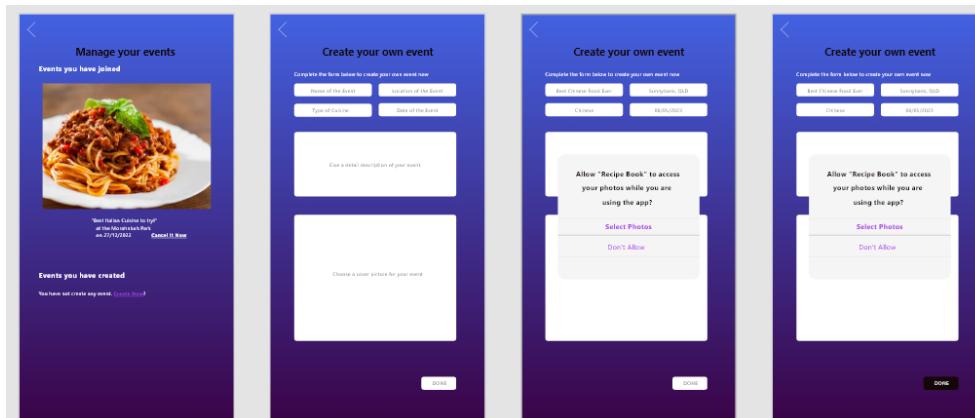


Figure 8: Create an event

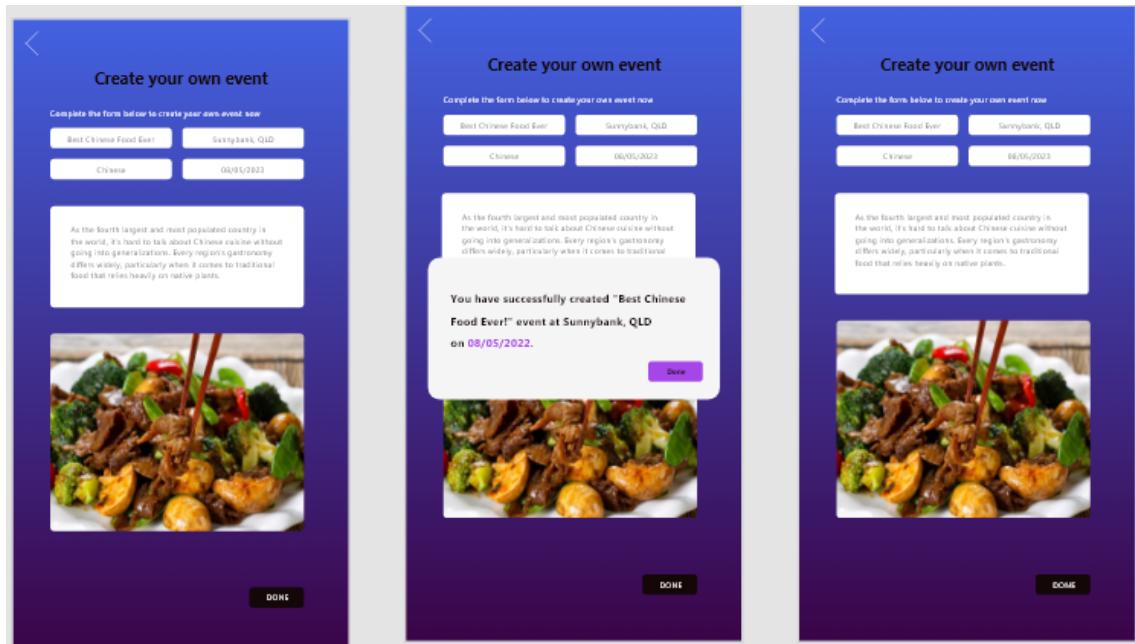


Figure 9: Successfully create an event

## Appendix E: Project Plan

### 4. The project plan

#### a. Timeline and milestone

Time	Tasks	Milestones
Week 1	Doing Project Preferences Form. Introducing each other.	Submitting Project Preferences Form.
Week 2	Doing SoW. Learning the goal of the project by reading the report. Division of work. Discussing primary features and secondary features.	Confirming the proposal.
Week 3	Doing SoW.	Submitting Sow.
Week 4	Making a low fidelity project. Designers should display a simple UI. Coders should start writing algorithms.	Finishing simple UI and basic algorithm.
Week 5	Primary features like adding and managing items to the shopping cart and displaying the user's current location on a real-time map should be implemented. Preparing a presentation.	Finishing mentioned features. Making power points for presentation.
Week 6	Primary features like paying method and filter item search should be implemented.	Finishing mentioned features. Giving a presentation on a project.
Week 7	UI design should be finished. Asking tutors for feedback on the presentation.	Finishing mentioned features. Making improvements according to suggestions from tutors.
Week 8	Primary features like search box and coupons should be implemented.	Finishing mentioned features.
Week 9	Reviewing the whole product and having a simple demo. Finding whether this app has bugs or other problems.	Finishing first iteration of the app. Ensuring that primary features work well.
Week 10-13	Making a high fidelity project. Implementing as many secondary features as we can. Writing personal reflection.	Finishing second iteration of the app. Giving a live demo on the project on week 13. Submitting personal reflection on week 13.

#### b. Project deliverables

Week 5	The low fidelity application should be finished and can be interacted with some primary functions like browsing products and adding items to carts.
Week 7	Users can interact with the application with the completion of UI design.
Week 9	The primary features are all implemented and users can browse items and make purchases.
Week 12	The high fidelity application should be finished. Most of the second features are implemented and the information presented on the application should be updated after the operations of users, such as the increasing discount caused by the increase of orders.

Table 1: Screenshot of project plan

Risk Assessment Matrix					
		Severity			
		Catastrophic -4	Critical -3	Marginal -2	Negligible -1
PROBABILITY	Frequent —4				
	Probable -3	Security of offline activities Risk		User photo location leakage Risk	
	Remote -2		User information exposure Risk	User information exposure Risk / Account Security Risks	
	Improbable -1		Equal Rights Risk	Induced Consumption Risk	

Table 2: Risk Assessment Matrix