

Bento

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Axure RP10 link:

<https://lll2vg.axshare.com>

User Interface Design (COMP1773)

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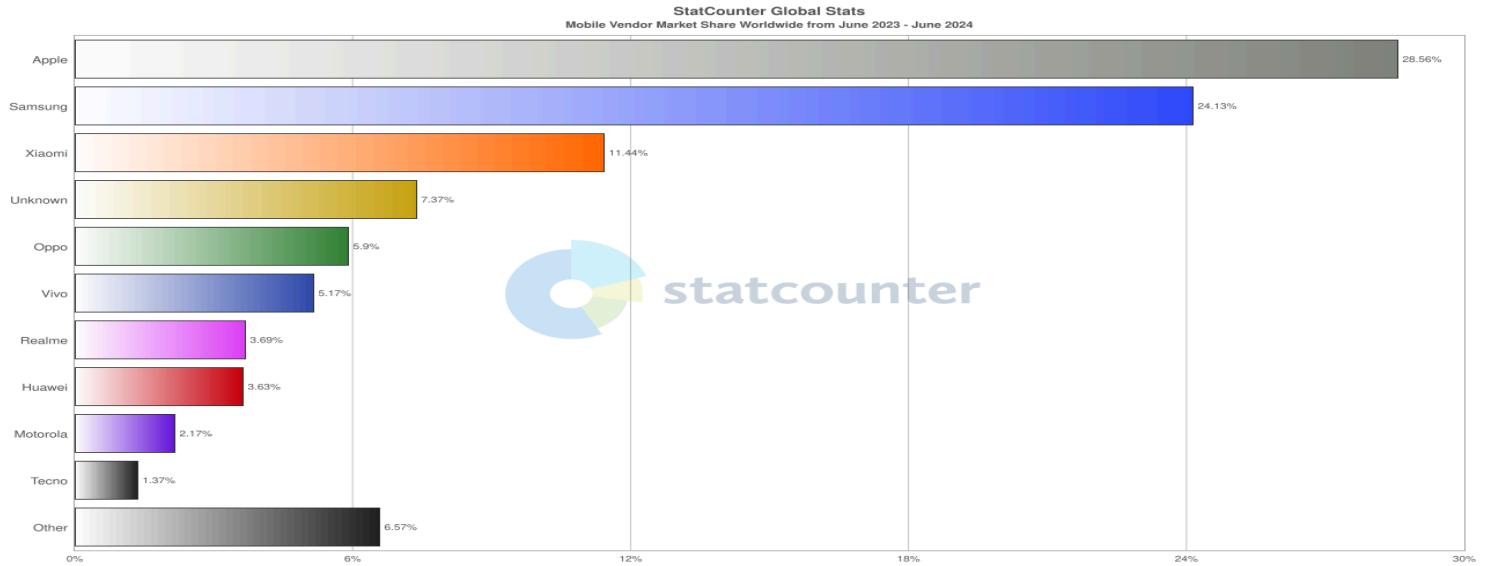
1. Introduction

Recipe and food delivery boxes have become appealing; thus, a new company focus in this field has come with a request to design a mobile food delivery application. Their hallmark is the locally fresh ingredients and diverse range of healthy recipes. Additionally, the app should focus only on one-person households and allow users to select meals or recipes and request delivery service to transport them to their houses. As required, two personas represent and clarify two user groups, and then the choices for the system's appearance, such as layout, colour typography, and graphic element usage. Two low-fidelity with two pages each will be shown to illuminate the prototypes' ideas after the prototypes are evaluated within a strict heuristic evaluation to decide which interface should be utilised for the recipe box app. Lastly, a mid-fidelity prototype will be created from the revised low-fidelity prototype with the name "Bento".

2. Background Research

The choices between IOS and Android devices are debatable; according to StatCounter Global Stats (2024), the market share from June 2023 to June 2024, iOS vendor leads the figure mentioned (see Figure 2.1). The salient position of iOS proactively affects the decision to choose an iOS device for the application prototype. Therefore, iPhone 13 Pro dimension (390 x 844 or 6.1 inches) is a feasible model for the prototype.

Figure 2-1: Mobile Market Share Worldwide from June 2023 - June 2024.



(source: StatCounter Global Stats, 2024)

Gestures are a prominent feature for both iOS and Android devices, gesture-based interaction could improve the intuitiveness of the system and the natural interaction of users; besides, common gestures on smart devices could provide advantages, such as a wider viewport for profiles and visual information (Stößel and Blessing, 2009).

In this prototype, register and login functionality will be installed to delineate the system's personalisation to strengthen usability. Decluttered form attributes significantly contribute to the effectiveness of guiding users' attention (Mullet, 1995). Labels of form lead users to achieve their goals and can combine with prompts and instructions to create a substantial form. Thereby, considerations of aligning labels, types of help, and validations will be selected following guidelines and heuristics.

Guidelines are fundamental to ensure user-friendly interfaces across various platforms have been ensured by guidelines (Mukhtar et al, 2015). Apple iOS Human Interface Guidelines are a potential option due to the assurance of usability and user satisfaction from their guidelines (Apple, 2024). Nielsen and Molich's 10 User Interface Design Guidelines (Nielsen, 1994) are also a feasible choice. Briefly, Apple iOS Human Interface Guidelines and

Nielson and Molich's 10 Golden Rules are the guiding principles; there will be some mix and match between them in this coursework.

In short, the previous discussions were about ideas for the context of use, design solutions, and evaluation of the UCD process. The research above is just a brief overview of the provision of the system, which means some of the ideas above are just considerations for understanding the context of the application and the heuristic evaluation method that will be performed in the related section.

3. User groups

3.1. Key facts

One-person households have begun to increase rapidly, particularly in Europe and the United States (Cohen, 2021). Women elders dominantly lead the trend, due to increasing widowhood and a higher rate of divorce (Masnick, 2015; Carr and Bodnar-Deren, 2009). The age group mostly ranges from 30-50 years old and above (OECD, 2024; De Vaus and Qu, 2015). As a result, two groups were conceived, the first is women aged 50 or more years to indicate the foremost group, and the second is men aged 30–50 relating to the smaller group.

To dig deeper, house-churning rates can be considerable. Masnick (2015) noted that most elderly are house owners and have been spending more than ten years in their house. This can be concluded as the first persona group has a greater amount of time to cook intricate meals.

Regarding the first persona's constraints, Kvalsvik (2022) surveyed a few grocery delivery service users and found that health constraints, prices and significantly constituted the movement, long delivery time also reduced their desire to choose the service. Conversely, some of these ideas can be interpreted as motivations or goals.

To reach further, Malani et al. (2020) indicated that most U.S. senior citizens said they are fond of cooking. John (2023) found that Washington D.C. held a large amount of single-person households among U.S cities, this

elaboration locates the first persona. The iPhone in the U.S. still holds a wide range of users among Gen X (Howarth, 2024). Consequently, the first persona could be familiar with iOS and its gestures.

For the second persona, Masnick (2015) indicated that a lion's share of renters are between the ages of 30 and 50, and prefer to stay in the same places for a short period, hence the second persona is inclined toward preparing simple dishes with basic ingredients. According to De Vaus and Qu (2015), most Australian men aged 35-50 years old have never married before.

Caperchione et al. (2012) found some attributes about men in a part of Australia, most of them have a clear understanding of healthy diet, but they lacked time to plan and prepare a meal. Moreover, some motivations for a healthy meal of Australian men entail their good feelings and vigorous (Caperchione, 2012). Worsley et al. (2014) noted that Australian meal preparers are willing to learn new cooking techniques and expand their repertoire.

Despite the willingness to eat healthier, Winkler and Turrell (2010) noted that vegetable preparation confidence varied among men, if the cooking person has poor skills in vegetable preparation, the number of vegetable purchases is reduced.

For the occupation, Curtis (2022) noted that the average age of a construction worker is around 38 years old and has long working hours from six to seven days a week (Sweet, 2021), which fits the persona. Consequently, this persona will lack time and promote quick healthy meals. In Australia, Corke (2024) reported that iOS owners accounted for more than half of Australian smartphone users, with Millennials spending around 6 hours each day for iOS usage.

Briefly, some attributes such as motivations and goals, constraints and pain points have been vaguely revealed. Adapting the format of Interaction Design Institute, a completed version of the first and second persona will be presented (see [Figure 3.2-1](#), [Figure 3.2-3](#)).

3.2. Personas and Scenarios

Figure 3.2-1: Persona 1



Olivia Homan
Senior chef

Age: 53
Gender: Female
Occupation: Retired
Marital status: Widowed
Education: Bachelor
Location: Washington, D.C., United States
Preferred Device: iPhone

Who influences Rebecca?



Former experience:

- She has tried a few grocery delivery apps before.
- She's familiar with smartphones.
- She knows many food terms and understands culinary lingo.
- She is familiar with iPhone, but she will need a clear descriptions and instruction where needed.

Olivia's situation

Frustrations and pain points:

- She lives in the capital, so she wants to optimise her finances.
- Due to health constraints, she is not able to walk and carry a lot of stuff for a long distance
- Bad health affects the ability to remember recipes.
- Some delivery apps take a lot of time to deliver the food.

Motivation and goals:

- Avoiding high prices with discount coupon
- Reducing strains on physical health.
- Exploring various recipes for preparing meals.
- She has a lot of time as she is retired.
- Cooking food is her hobby, but her health prevents her from remembering intricate recipes.

Keywords:
food, cooking, recipes, convenience, ingredients, gourmet dishes, culture cuisine

Olivia's story

Food and cooking are part of her life; she has been doing housework for a lifetime. When her husband passed away. She has relied more on cooking as her hobby, which occupied her mind for the rest of her day.

She lives alone in the capital of the US to enjoy her peaceful retirement time. During the holidays, her kids will be at her home for a family reunion. However, due to health problems, she can not remember the recipe for each dish and carries a full bag of ingredients from the store.

She fancies gourmet dishes from various cultures to be on her to-do list. Fresh and healthy local ingredients are also a preference of her. Lastly, she wants a fast delivery service, as she hates losing her precious time.

Based on the first persona, a scenario for it is created to demonstrate the interaction between the persona and Bento.

Figure 3.2-2: Olivia's scenario

 OLIVIA'S SCENARIO 	
Actor	Olivia Homan
Motivator	Olivia wants to find a new recipe for her dinner
Intention	She needs a meal that different from her native dishes.
Action	At first, she enters the app and sees a hot Italian recipe. After that, she adds the recipe box to the cart at a reasonable price with a coupon.
Resolution	She orders them and checks delivery process.

Figure 3.2-3: Persona 2



Charles Horgan

Hard worker

Age : 40
Gender : Male
Occupation : Construction worker
Marital status : Single
Education: College
Location: Brisbane, Australia
Preferred Device: iPhone

Who influences Charles?



Charles often has to work overtime at the construction site. Therefore, he wants to have a healthy diet to balance his health and also improve his cooking skills when he has time.

How will Charles interact with Bento?

Questions Charles will ask:

- How does he know the dish's content?
- Where can he see the steps of a recipe?
- How can he choose a specific vegetable dish?

Reasons to return:

- Looking for meals during work hours.
- Looking for more vegetable dishes.
- Looking for guides to improve his cooking skills

Former experience:

- He has a certain familiarity with iOS, though his work restricts him from spending too much time on the phone.

Charles's situation

Frustrations and pain points:

- He has to work long hours and in some weeks he has no days off.
- He has to move a lot; therefore, he always lacks the time to cook a proper meal.
- Cooking is not his aptitude, especially when preparing dishes with vegetables.

Motivation and goals:

- He wants to improve his health with a healthy diet.
- Cooking is also a skill that he wants to pay more attention to.
- Vegetable dishes are vital to health, so he wants at least one dish a day.

Keywords:
cooking, recipes, healthy diets, vegetables, culinary skills.

Charles's story

His profession has an impact on how he eats, he wants to balance his health so that he won't regret it when he is older. Also, he wants to take care of himself, as he is single. Construction work creates a lot of strain, therefore creating a great meal is like a gift for him. However, his culinary skills do not serve him well, so he is striving to improve them, specifically, vegetable dishes will help him a lot.

He is also a house churner, so he needs to be mobile even with his meals, quick and simple dishes associated with a high nutrition amount are his preferences during busy days.

Charles's scenario stems from his love for a healthy diet and vegetables; therefore, the scenario focuses on his passion for health and veggie dishes.

Figure 3.2-2: Charles's scenario

CHARLES'S SCENARIO	
Actor	Charles Horgan
Motivator	Charles is looking for a quick healthy lunch after comes home from work.
Intention	He wants a healthy, vegie meal for his lunch.
Action	He browses the app for the dishes, picks a main dish with a salad looks for its details and then adds them to the cart.
Resolution	He proceeds to check out to pay for them and wait for delivery.

4. Visual design

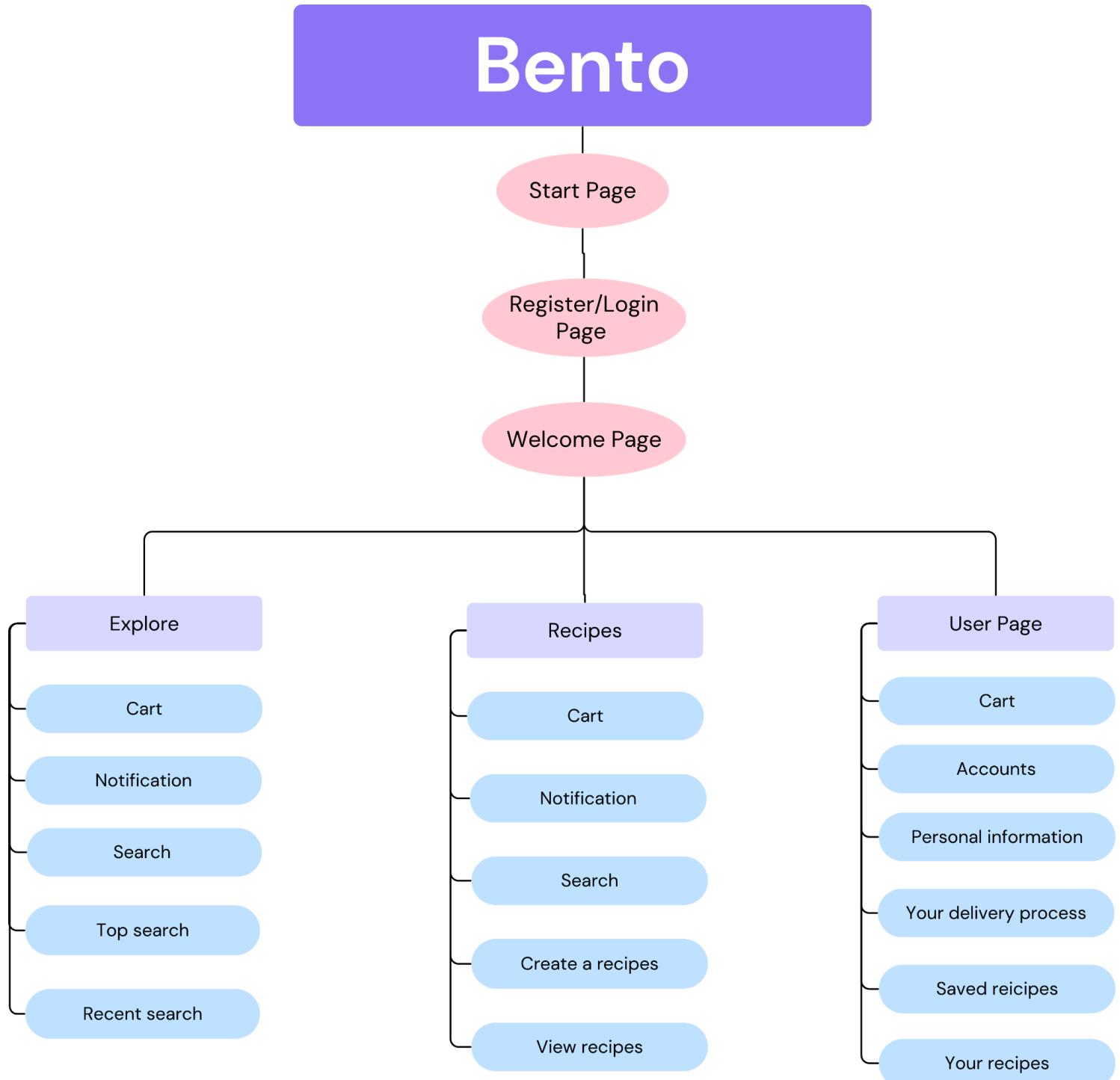
4.1. Layout

Firstly, the provision of a navigation diagram to delineate how the application is structured, the site will have four sections:

- Meals
- Recipes
- Ingredients
- Users

Created these pages to fulfil the tasks mentioned in the scenario and the requirements given by the company.

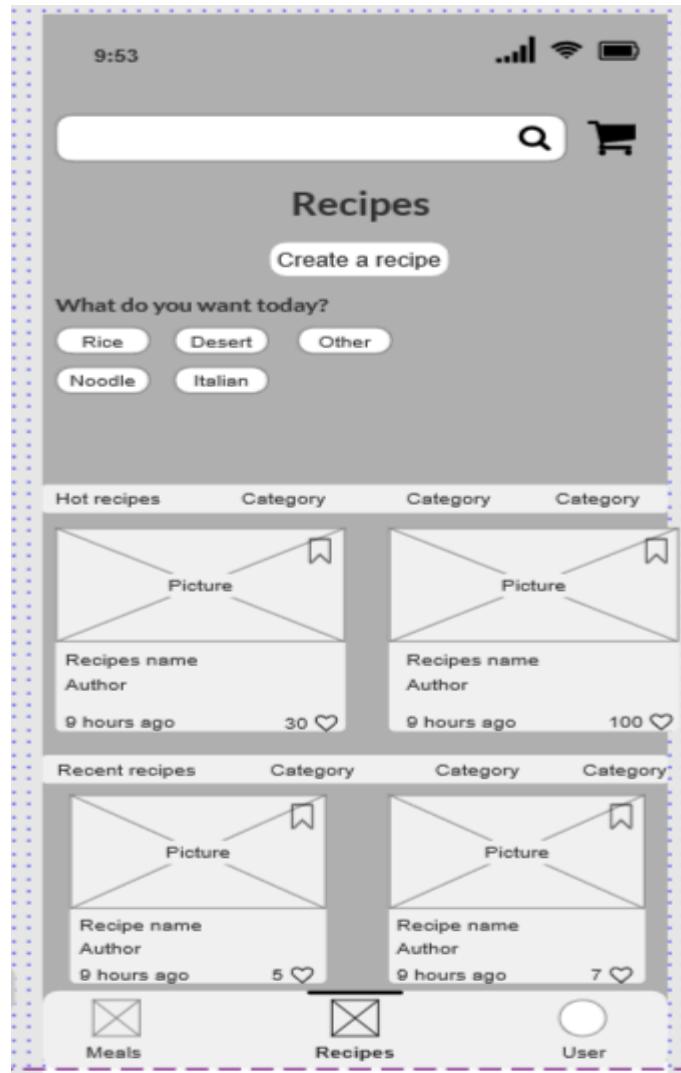
Figure 4.1-1: Navigation Diagram



To navigate the application, following the Apple guidelines for mobile applications, tab bars are recommended, allowing users to switch between top-level sections of an application swiftly and inform users of their current session. Secondly, hub and spoke will be performed to list brief details of recipes. Since the prototype is on a mobile device, brief and minimal captions for each input field, associated with top-aligned labels are the feasible

options for effective form. Moreover, projecting essential questions, providing help symbols and setting placeholders for instructions will be the approaches for users' inquiries and preventing problems. Another consideration, the size of fields informs users how many characters they are required to type (Babich, 2018), thereby the length of input fields abolishes the unnecessary and guides users to achieve their goals. Contents are aligned to the left with clickable buttons on the right to fit one-handed users or users with a cradling style, as for specific observation, a wireframe of the recipes page is shown below.

Figure 4.1-2: Wireframe of Recipes Page



4.2. Colour Scheme

Figure 4.2-1: Color scheme



#FFD24A

RGB 255, 210, 74

#A3EBB1

RGB 163, 235, 177

#68B984

RGB 104, 185, 132



#3D5656

RGB 61, 86, 86

#FFFFFF

RGB 255, 255, 255

#000000

RGB 0, 0, 0

Local, fresh ingredients are the core value of the company; thereby, utilising cool colours with some adjustment of hues brings a fresh and friendly atmosphere to the application. Moreover, neutral colours such as black and white

are applied to complement and be the background for some pages of the project. The colour #A3EBB1 will be the main colour of the design and has most of the colour palette.

4.3. Font style

Utilising clear, basic font styles are recommended to reduce excessive constraints; additionally, widening the space between each line and minimising the fonts for each page are also recommendations for readability (Myfonts, 2024). Thereby, sans serif fonts will be adapted to ensure stability and readability with a large text size of 36-48px for headers with a body font size of 15-25px and bold to emphasise keywords. Additionally, headers will apply one type of sans serif font and the body will be another to separate the contents (Pettengill, 2017).

4.4. Graphic design element

Metaphors are a considerable aspect that positively enhances users' experience Icons are responsible for representing a function, or feature of a system (Stevens, 2023). In this prototype, some universal icons such as the magnifying glass, the cart and the gear icon, as well as a bookmark icon to save and a heart icon to show love for the recipes. Besides, unique icons will be used to symbolise specific features in Bento.

In addition, images for food and recipes are obvious to show users a clear view of what they will choose to buy. Hence, the app will display pictures of food or recipes in a pervasive place of a rectangle shape that contains the related information.

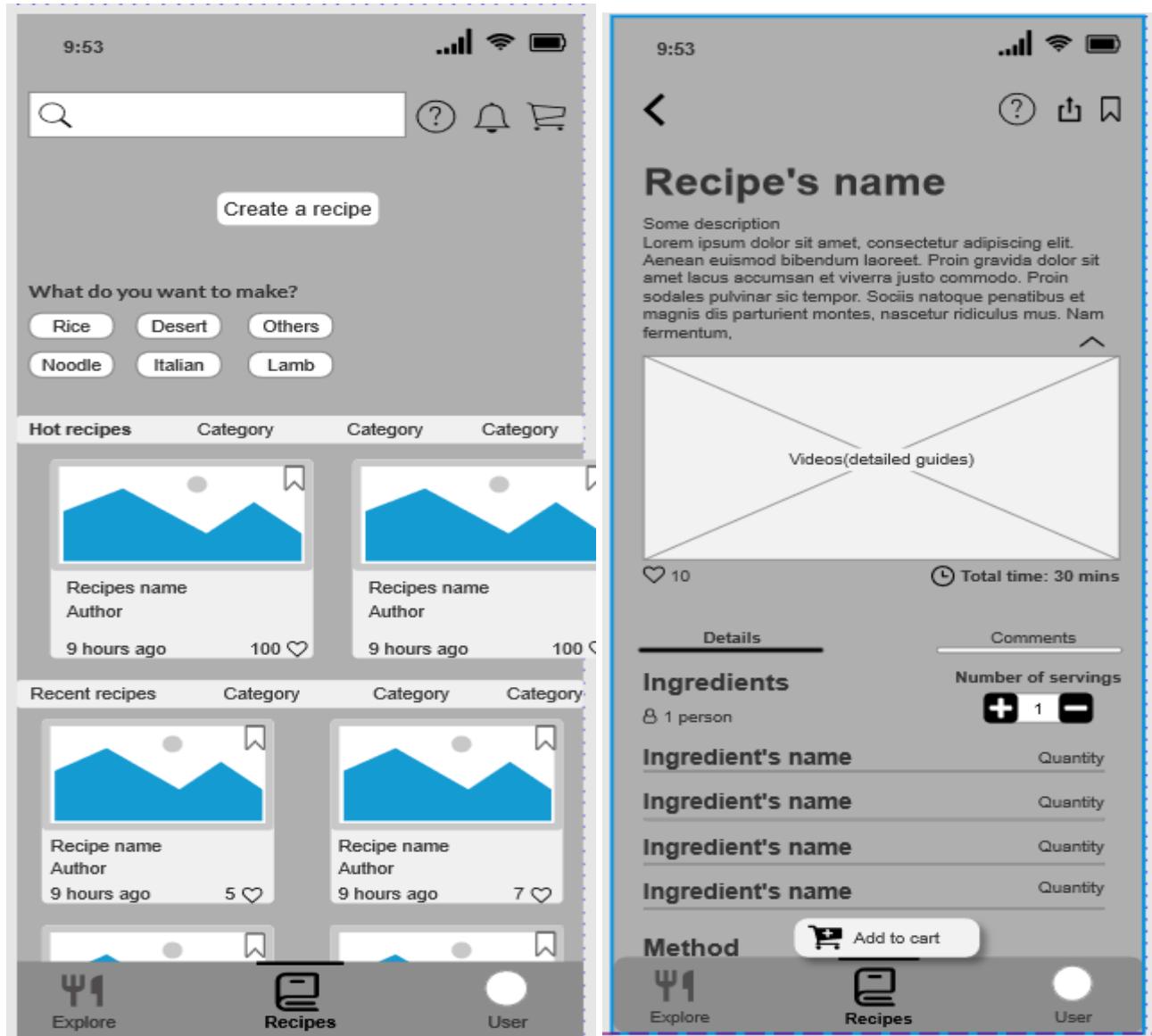
Figure 4.4-1: Some metaphors and shapes in use

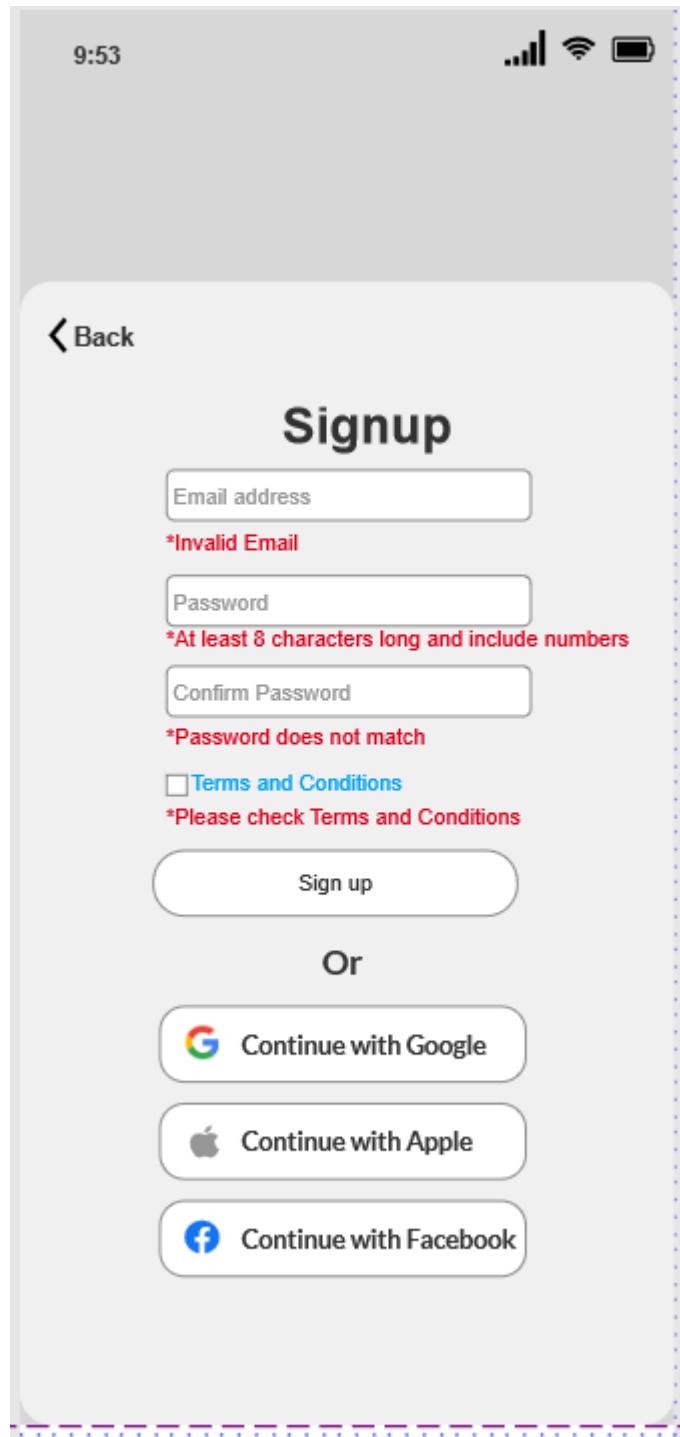


5. Low-fidelity prototypes

Firstly, two low-level prototypes are shown with three pages to observe their differences. Prototype 1 will be abbreviated as P1 and P2 for the second prototype. Creating low-fidelity prototypes to have a first step of the design process and an overview of the design. Firstly, the recipes page shows all the contents relating to recipes and recommendations for users. Secondly, the detailed recipe page or the detail page demonstrates the details of a recipe such as ingredients, guides or methods, comments, etc. Lastly, the registration page or signup page shows the form organisation.

Figure 5-1: P1's pages

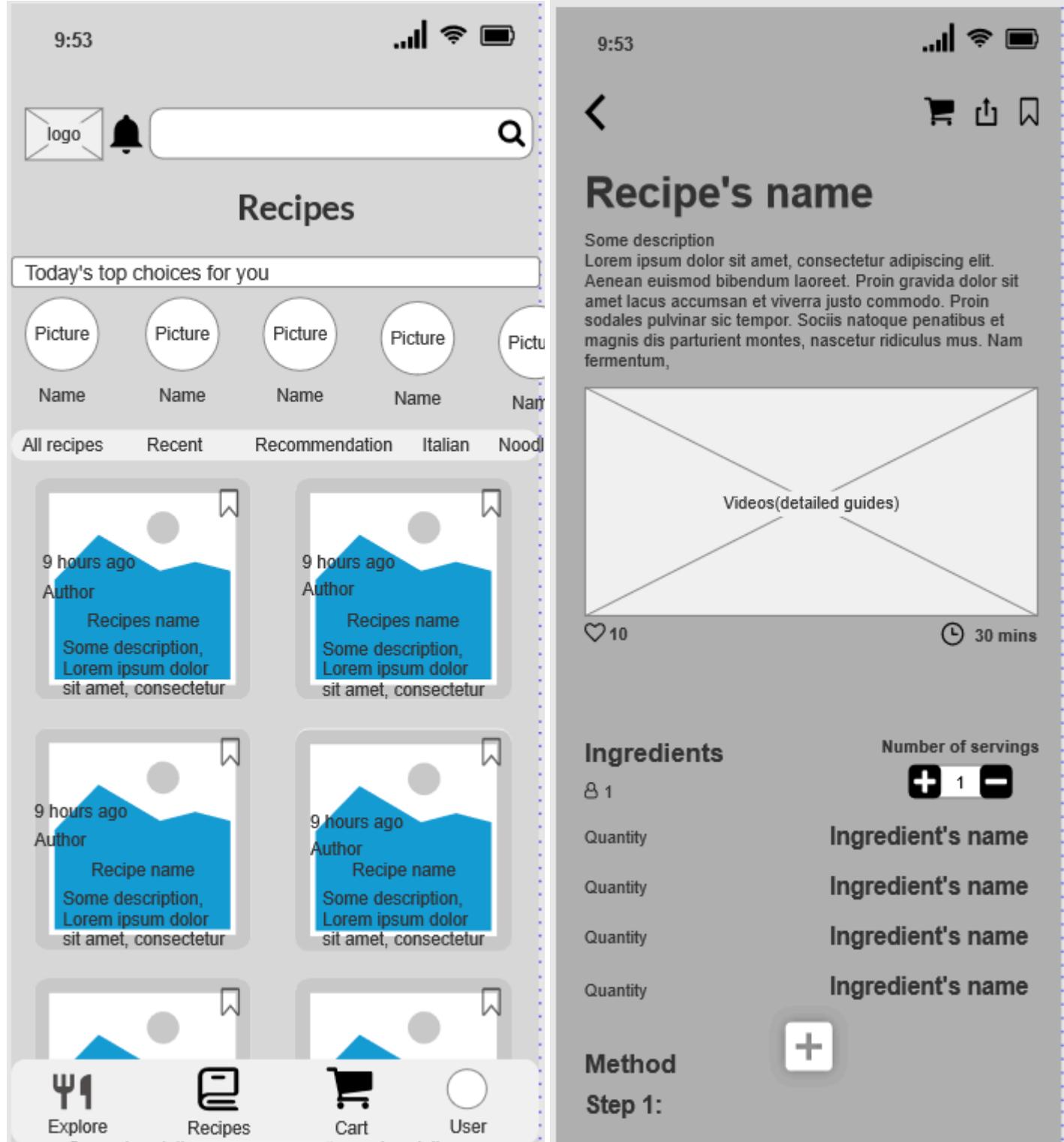


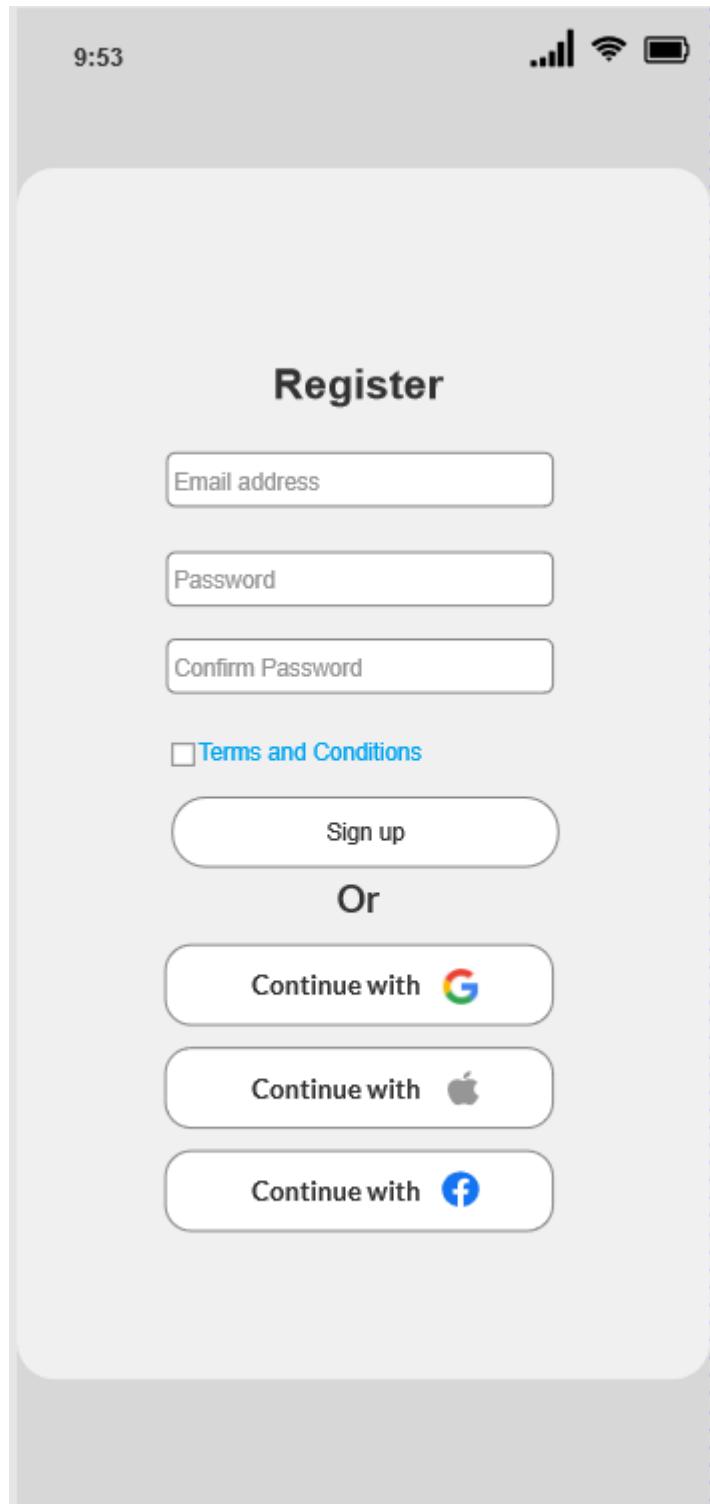


Three pages of P1 have some information that is not displayed in the prototype. These are the parts that will be shown by using the scrolling advantages of a smartphone. The recipes page will use horizontal and vertical scroll, while, the detailed recipe page will use a vertical scroll to display more information, however, the outline above will remain. The P1's recipe page will use a rectangle to show core information about a recipe. Regarding the

detailed recipe page, there are two tabs details and comments to separate the contents. The signup page provides basic input fields for users.

Figure 5-2: P2's pages





Regarding P2, the contents of a recipe have a full image as a background and images for the top choices bar which is different from P1 with only text. The left alignment of the page is also an option for this application. In terms of the detailed recipe page, it reduces excessive details compared to the P1 counterpart such as using a clock icon without explanation and always displaying the description of a recipe. Besides, add to cart is changed into a plus

icon to provide more space for the screen. Also, the registration page still gives input fields for users and reduces some words.

6. Evaluation and selection process

The importance of evaluation is undeniable; it is vital to ensuring system quality and success, there are multiple methods to perform an assessment, such as UX expert review, focus groups, etc. Focus groups hold some disadvantages of being biased for UI testing (Nielsen, 1997). Moreover, cognitive walkthrough serves as a great solution for a company without the appearance of users (Salazar, 2022), though it is hard to apply in the coursework. Applying the heuristic evaluation method is the most feasible. As users judge a product by its usability, a trustworthy and renowned heuristic like Nielsen and Molich's 10 Rules of Thumb (Nielsen, 1994) is an adequate underpinning for the evaluation process.

Ranking system for heuristic evaluation:

- Very good - completely match the criteria with some elaboration.
- Good - match the criteria but still need to improve.
- Average - match the criteria but need more improvement.
- Bad - not match the criteria.
- Very bad - not match and poorly demonstrate the criteria.

To conduct the heuristic evaluation, there will be a table separating the two prototypes and a column for the contents of Nielsen's 10 Heuristics.

Table 6-1: Heuristic Evaluation

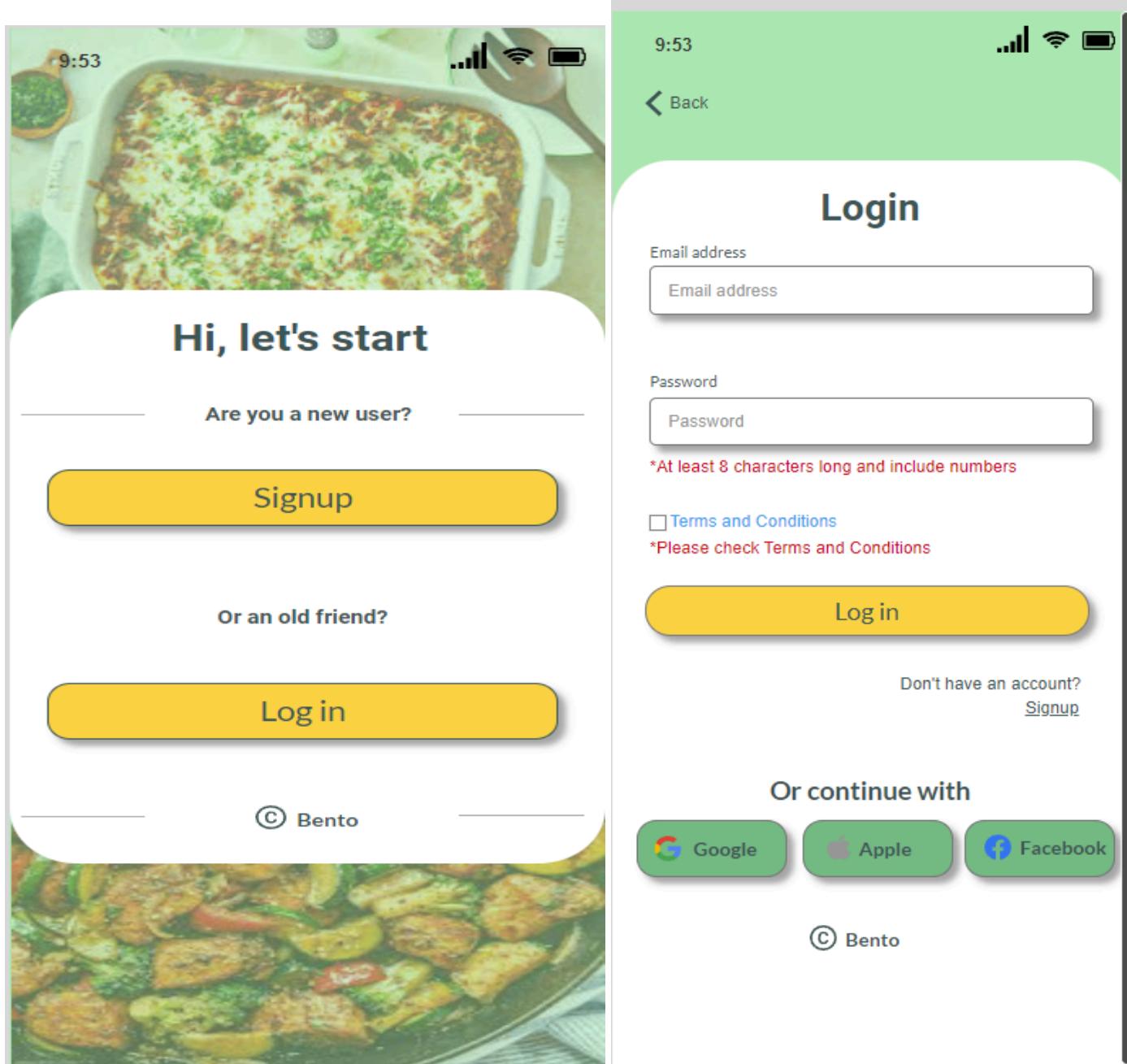
Nielsen's Ten Heuristics	Prototype 1	Prototype 2
1. Visibility of System Status	Good - the recipes page has only the tab bar to emphasise the state, may need more elaboration, such as title. Other pages provides sufficient messages.	Good - all pages are noted with titles, although needed more emphasis such as different colours on the tab bar to inform users.
2. Match between System and the Real World	Very good - all pages have universal icons of iOS and familiar icons in the real world. Naming and texts are kept as simple as possible	Good - all pages have universal icons and realistic icons, but the add icon in the detailed recipes page can be misinterpreted.
3. User Control and Freedom	Good - for the detailed recipe page a back button to get users back to the previous page and a drop up arrow to allow users to shorten the description. But may need more additions.	Average - the detailed page has a back button but doesn't have the drop-up to shorten the descriptions. Therefore, more elaboration is needed.
4. Consistency and Standards	Very good - icons of all pages follow the external standard such as cart. A tab bar also appears on two pages.	Bad - icons showing the stability yet, the add in the detail page is confusing. The tab bar is not showing on the page, either. The register label and singup button may be confusing
5. Error Prevention	Good - functions such as the back button and drop arrow or minus or plus for the number of people can give them the tool to prevent any misclick. Signup page showing help so that users can follow.	Very bad - Giving back button, but not having the drop up for users. The signup page doesn't have clear messages for input fields' requirements
6. Recognition Rather than Recall	Very good - most of the unique icons have a clear label, and universal icons are familiar with iOS users.	Average - Most icons do not have labels and may be vague for users. However, the universal icons are familiar
7. Flexibility and Efficiency of Use	Average - all pages will follow iOS gestures and functions to accelerate intermediate users, but lack of demonstration in this prototype.	Average - all pages will follow iOS gestures and functions to accelerate intermediate users, but lack of demonstration in this prototype.
8. Aesthetic and Minimalist Design	Good - all pages keep clear and informative contents with adequate visual elements, but may need improvement throughout the process	Bad - the recipes page may have excessive images that overlap the description, but the pictures of the top choices bar are a good recommendation. The detail page may cause confusion caused by the alignment of content.
9. Help Users Recognize, Diagnose, and Recover from Errors	Average - the signup page gives messages but overlaps with criteria 5. Other pages have no clear messages. Need more elaboration.	Average - no clear messages from all pages. Need more elaboration.
10. Help and Documentation	Very good - the signup page provides help within the field and other pages will have an help icon showing help if needed.	Good - the signup page gives some help within input fields but may need adequate support for users to achieve their goals.

In short, P1 excels over P2 after evaluating with the heuristic, although, P2 still retains some strength that can be migrated to P1 such as the title for the recipes page. In contrast, P1 outlines its layouts distinctly and follows the guidelines, for example, the consistency of the tab bar across two pages, icon metaphors or having a pleasing design. However, some weaknesses can reduce the usability of P1, thereby, they are noted to enhance further throughout the design process. Therefore, P1 will be selected and developed for the mid-fidelity prototype.

7. Final Mid-fidelity Prototype Design

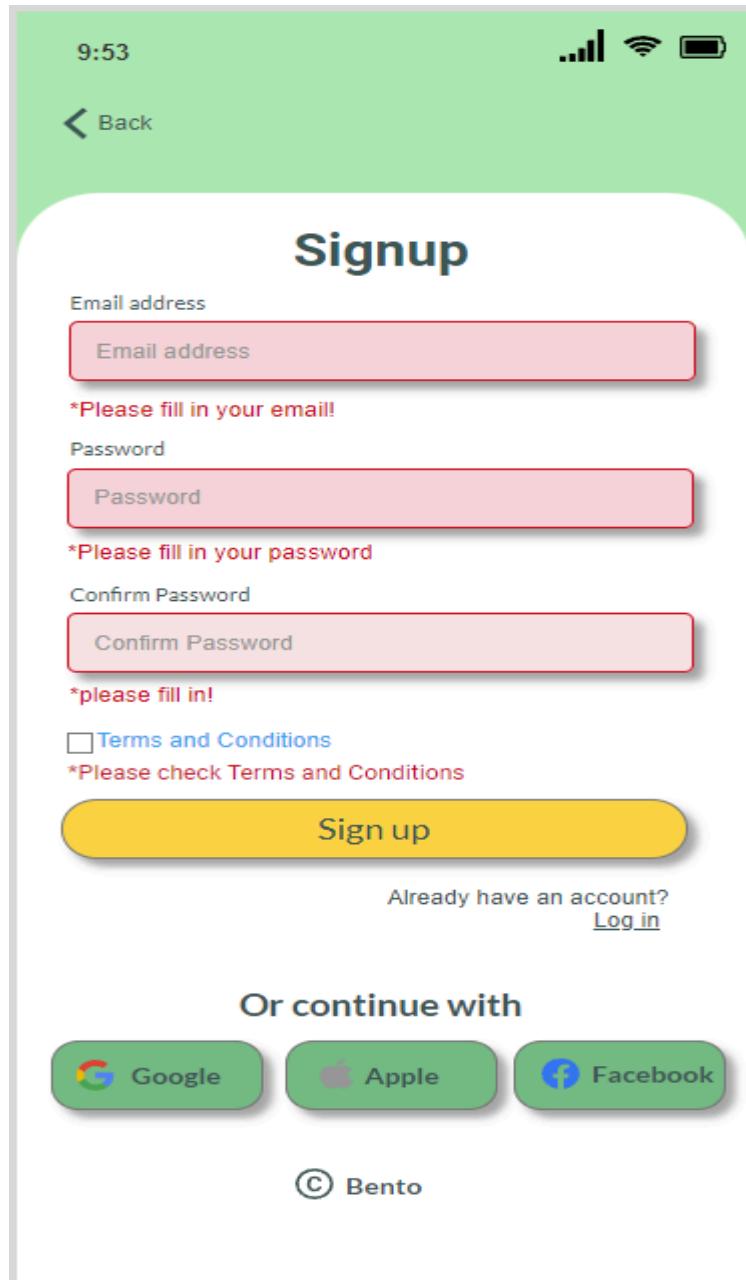
To start with the first section of the mid-fidelity prototype, users will be greeted with a start which appears only the first time they enter the app. There will be two pictures of the start page and the login page because login is considered not valuable for the first interaction and its functionality is quite similar to the more insightful signup page.

Figure 7-1: Start Page and Login Page



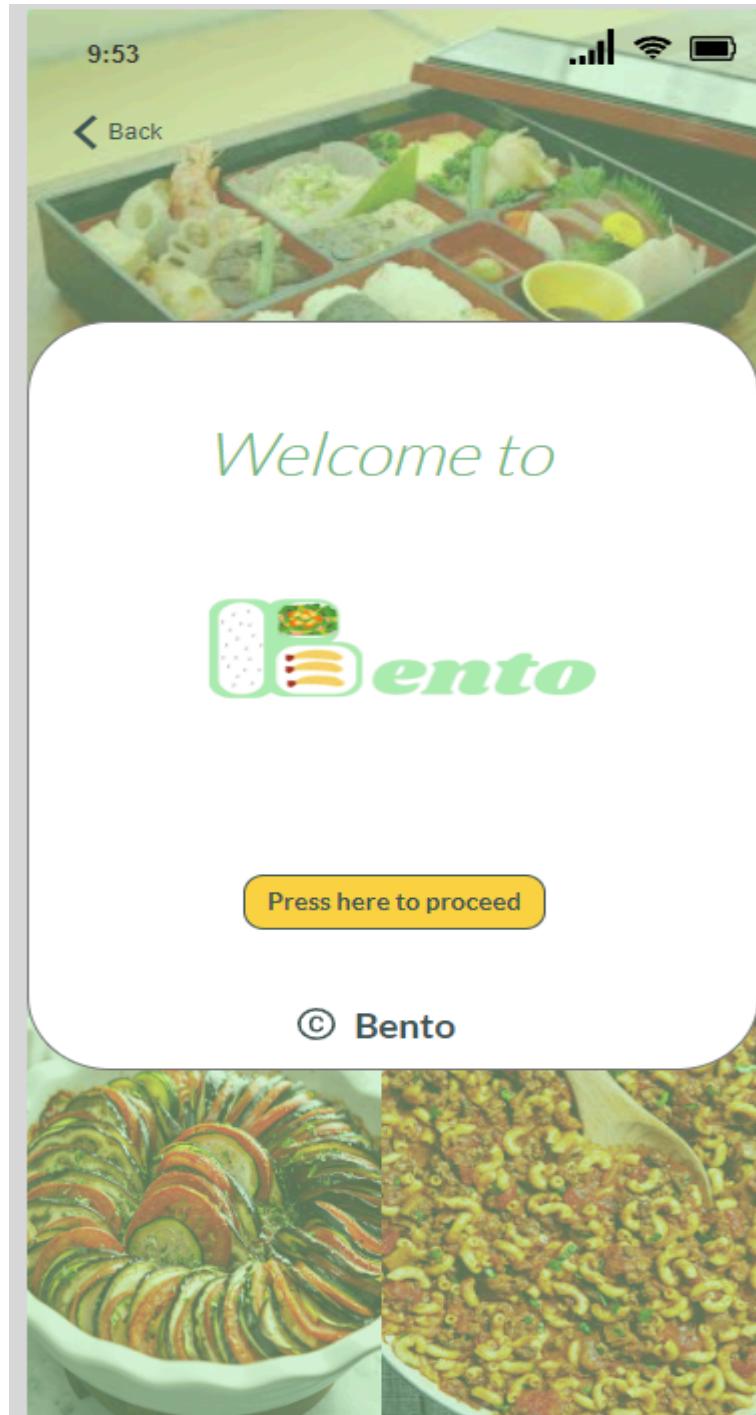
Users can choose between two options, and navigate to the designated page noted on the button. Next, the signup page will be displayed. The signup page will provide a field so that users can recheck their password and it also has functions to check for validation of password and email. Consequently, this matches some of the heuristics of Nielsen, such as the numbers 3 and 9 or the title of each page being placed at the most pervasive position to match the number 1.

Figure 7-2: Signup Page



Then after signup, users will be greeted with a welcome page to announce that they have successfully accessed the application.

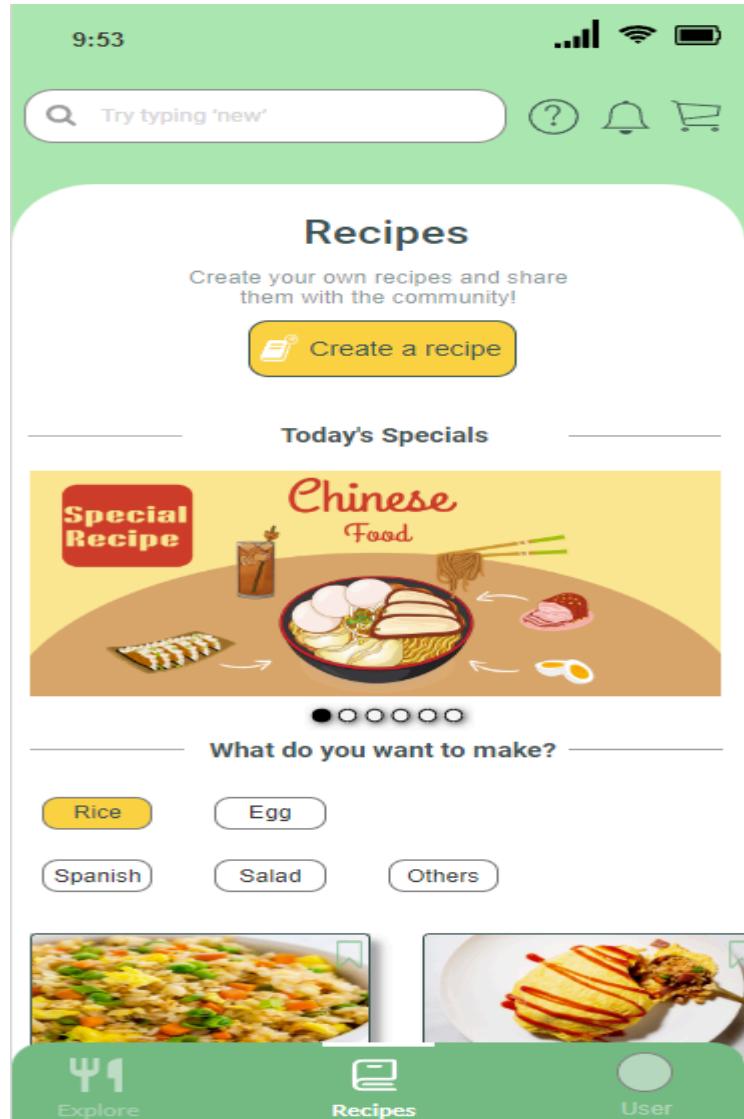
Figure 7-3: Welcome Page



Then they can proceed to the homepage to see all the recipes. Moreover, icons such as the bell and cart give users the ability to understand their functions quickly as they match the real-world object or the book for recipes. Every

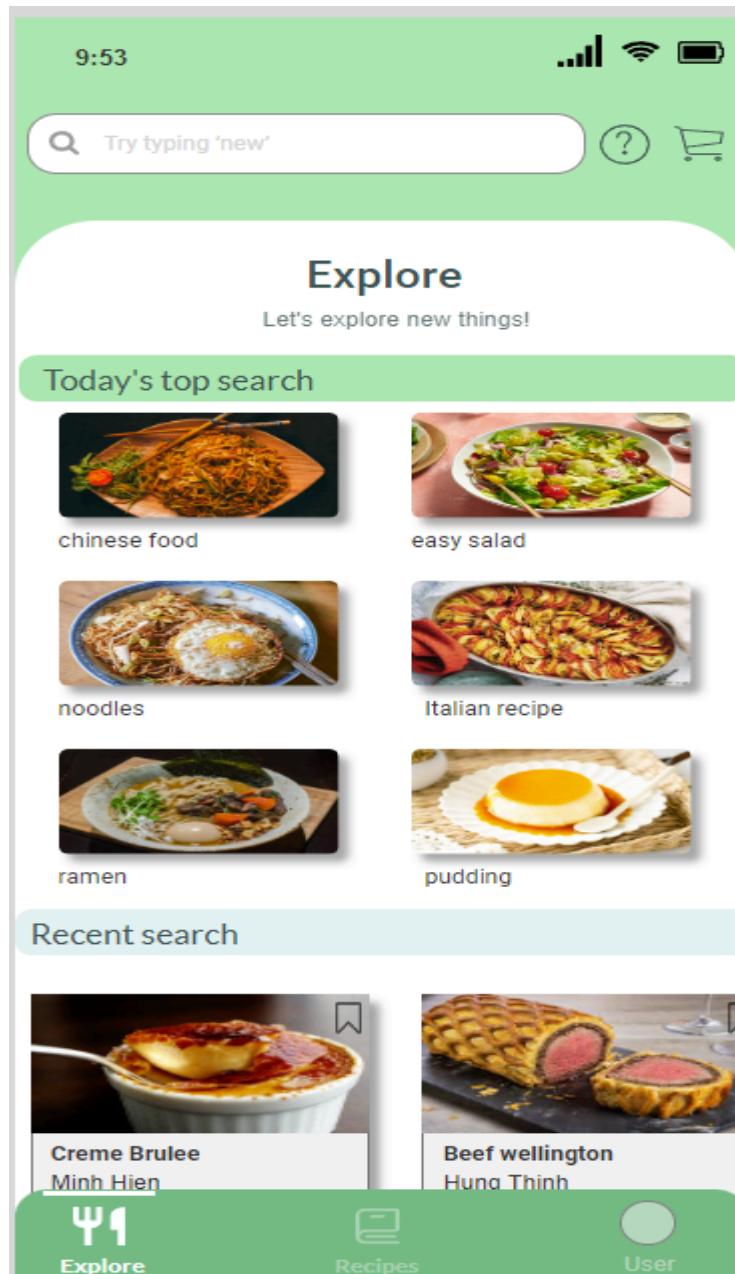
new icon or button will be noted to reduce users' constraints of recalling their functions. A back button will also provided so that users can go back from their unwanted state or fix a problem.

Figure 7-4: Homepage



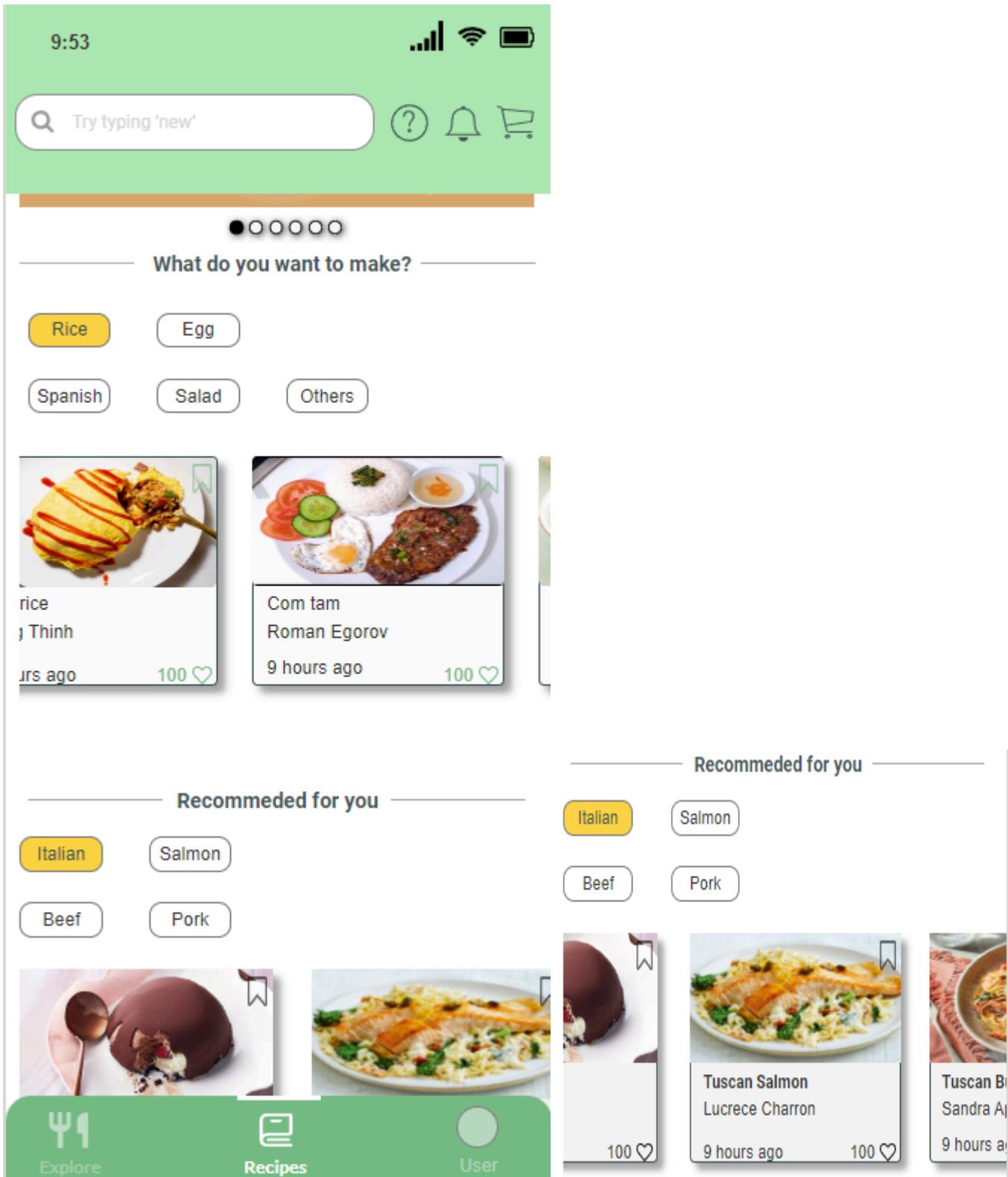
From this page, the first and second persona will browse the application and find their desired recipes.

Figure 7-5: Explore Page



They can check the Explore page and find some recent search results. Or they could go back to the Homepage and start searching based on the recommendations. The tab bar always shows the consistency between the two pages mentioned in the pages.

Figure 7-6: Browsing the Homepage



The first persona chose the Italian section saw a recipe and then tapped to see the recipe details. She can scroll to view all the recipe specifications such as a video for method, ingredients, a text method, and a nutrition table. The

recipe's method will be attached with a video so that the second persona can easily follow and increase his culinary skills.

Figure 7-7: Detail Recipe Page with method and nutrition

The screenshot shows a mobile application interface for a recipe. At the top, there is a header with a back button, a help icon, and a bookmark icon. The title of the recipe is "Tuscan salmon" by Lucrece Charron. Below the title, there is a description: "This zingy yet creamy Tuscan sauce is the perfect accompaniment to beautifully pink pan-seared salmon fillets. Serve alongside a fresh green salad and crusty bread for dipping or herby new potatoes." To the left of the description is a video thumbnail titled "An easy guide to EPIC sal...". Below the video thumbnail are the number of likes (100) and a "Details" link. To the right of the video thumbnail are the total time (30 mins) and a "Comments" link. The main content area is divided into sections: "Ingredients" and "Method". The "Ingredients" section lists the following items with their prices: Olive oil (Price: £2 per 1 bottle), salmon fillets (Price: £2), and medium onion (Price: £2). Each item has an "Add to cart" button next to it. The "Number of servings" is set to 1. The "Method" section contains five steps, each with a "Step X" label and a descriptive text. Step 1: "Heat 1 tablespoon oil in a large, heavy-bottomed frying pan over a medium-high heat. Pat the salmon fillets dry using kitchen paper then season with salt and pepper. Carefully lay the fillets skin-side down in the hot pan and allow to fry for 5 minutes giving each fillet plenty of space to cook." Step 2: "Once the skin is golden and crisp, carefully flip each fillet using a spatula and fry for a further 2-3 minutes until just cooked through. If the salmon is browning too quickly, turn down the heat." Step 3: "Remove the salmon from the pan and transfer to a plate while you make the sauce. Add the remaining oil to the pan and turn down the heat to medium. Add the onion and fry for 3-4 minutes until starting to soften, then add the garlic along with a pinch of salt and fry for a further 1 minute." Step 4: "Remove the stalks from the parsley and finely chop, keeping the leaves for later. Add the parsley stalks and sun-dried tomatoes to the pan and fry for another 1 minute." Step 5: "Tip in the cherry tomatoes and fry for 2-3 minutes until they have softened and released their juice. Season with salt and pepper to taste." At the bottom of the screen are three navigation icons: "Explore" (fork and knife), "Recipes" (book), and "User" (circle).

Tuscan salmon

by Lucrece Charron

Descriptions

This zingy yet creamy Tuscan sauce is the perfect accompaniment to beautifully pink pan-seared salmon fillets. Serve alongside a fresh green salad and crusty bread for dipping or herby new potatoes.

An easy guide to EPIC sal...

100

Total time: 30 mins

Details

Comments

Number of servings

+ 1 -

Ingredients

1 servings

Olive oil
Price: £2 per 1 bottle

salmon fillets
Price: £2

medium onion
Price: £2

Add to cart

Method

Step 1: Heat 1 tablespoon oil in a large, heavy-bottomed frying pan over a medium-high heat. Pat the salmon fillets dry using kitchen paper then season with salt and pepper. Carefully lay the fillets skin-side down in the hot pan and allow to fry for 5 minutes giving each fillet plenty of space to cook.

Step 2: Once the skin is golden and crisp, carefully flip each fillet using a spatula and fry for a further 2-3 minutes until just cooked through. If the salmon is browning too quickly, turn down the heat.

Step 3: Remove the salmon from the pan and transfer to a plate while you make the sauce. Add the remaining oil to the pan and turn down the heat to medium. Add the onion and fry for 3-4 minutes until starting to soften, then add the garlic along with a pinch of salt and fry for a further 1 minute.

Step 4: Remove the stalks from the parsley and finely chop, keeping the leaves for later. Add the parsley stalks and sun-dried tomatoes to the pan and fry for another 1 minute.

Step 5: Tip in the cherry tomatoes and fry for 2-3 minutes until they have softened and released their juice. Season with salt and pepper to taste.

Add to cart

Explore

Recipes

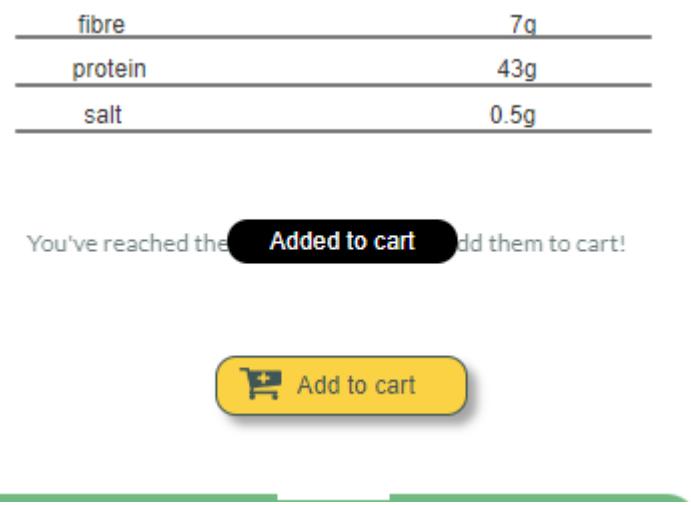
User

Nutrition: Per serving ^

<i>Nutrient</i>	<i>Unit</i>
kcal	721
fat	44g
saturates	16g
carbs	34g
sugars	19g
fibre	7g
protein	43g
salt	0.5g

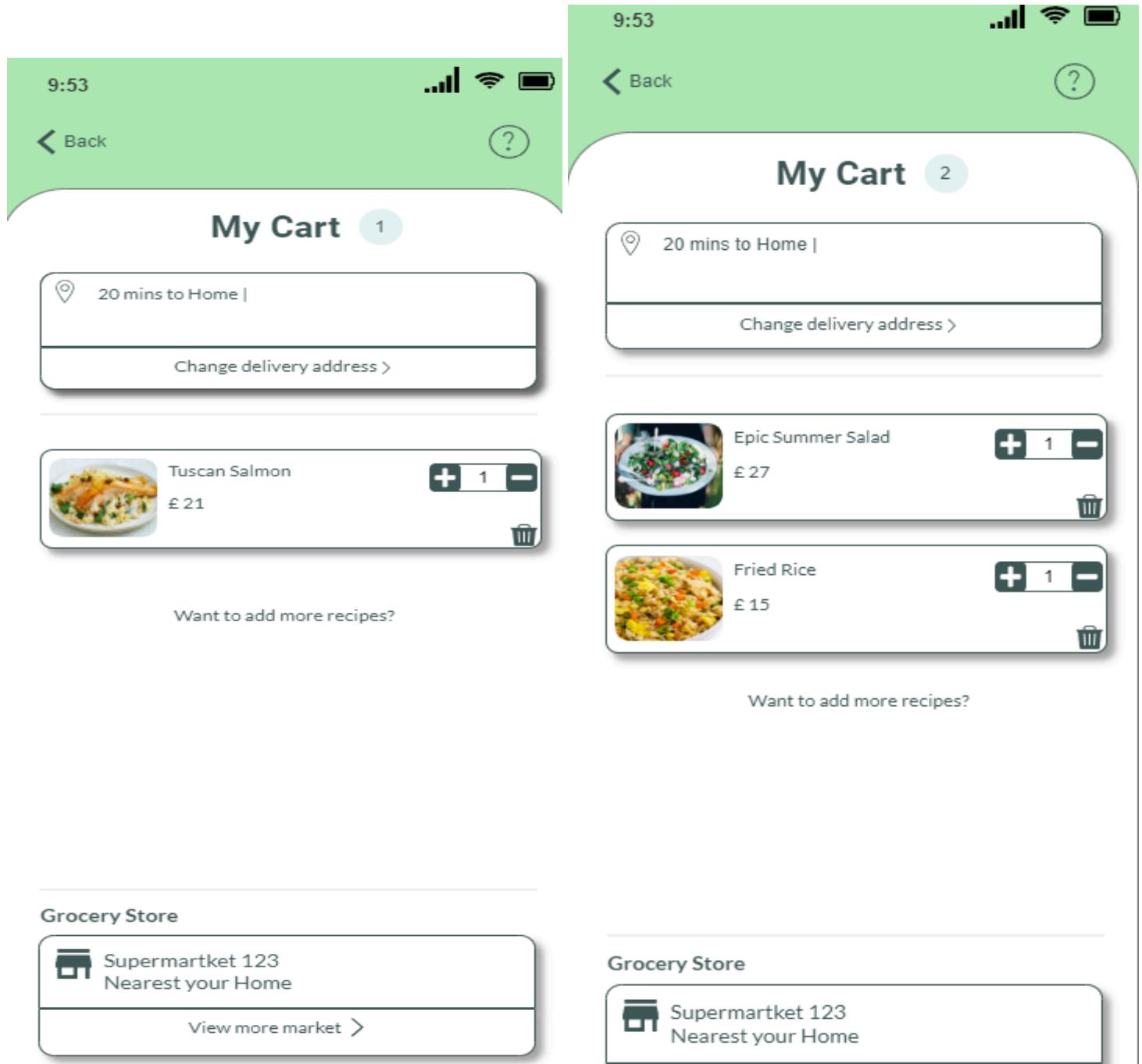
Then click the add to cart button, and a message will appear to notify the user.

Figure 7-8: Added to cart message



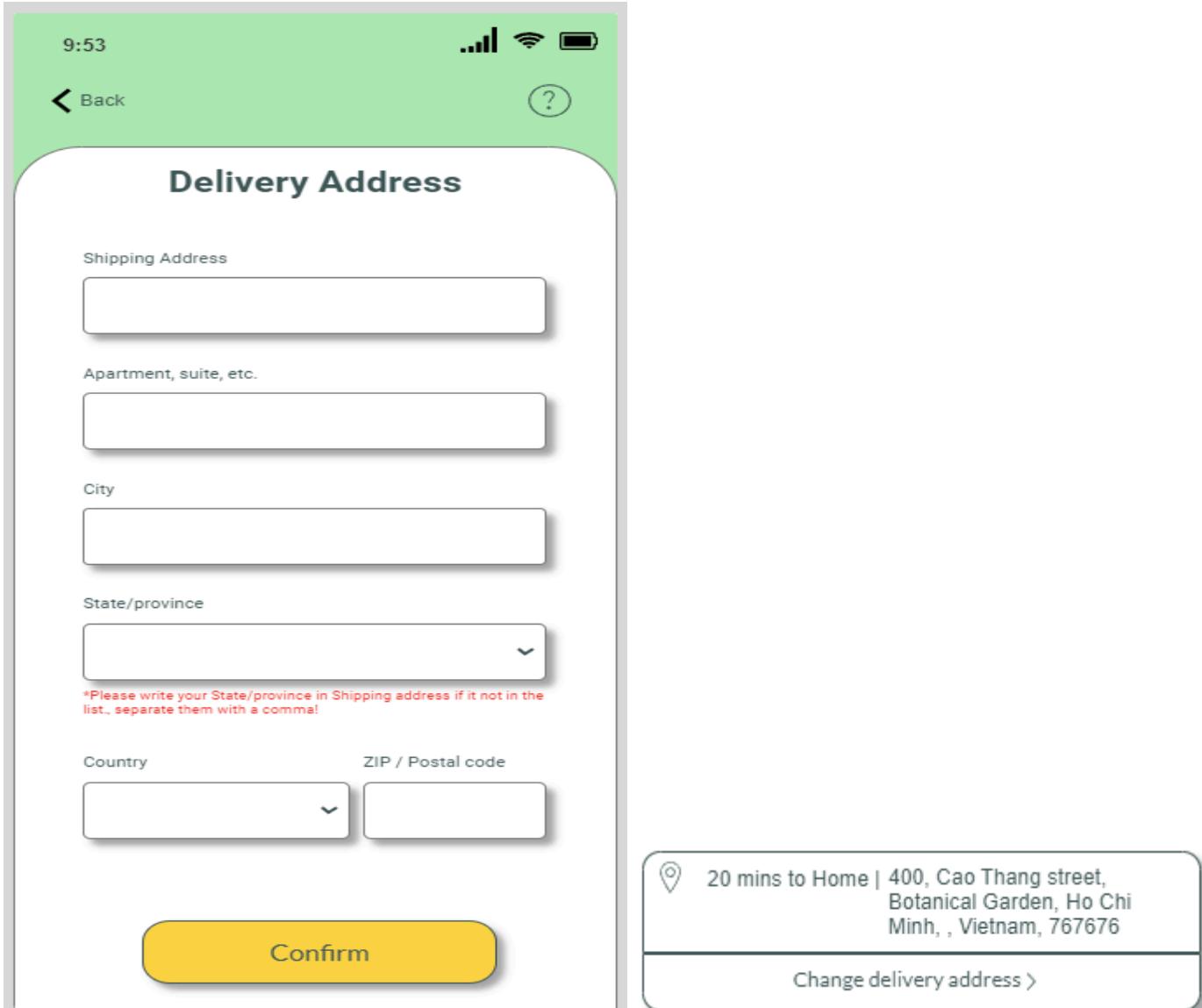
Moving to the cart page for checkout from this stage two screenshots of how two personas will finish their checkout. The cart will have a place to fill in the user's shipping information. Screenshots below are the two personas' carts after they browse through the app and pick their recipes.

Figure 7-9: Cart Page for two personas



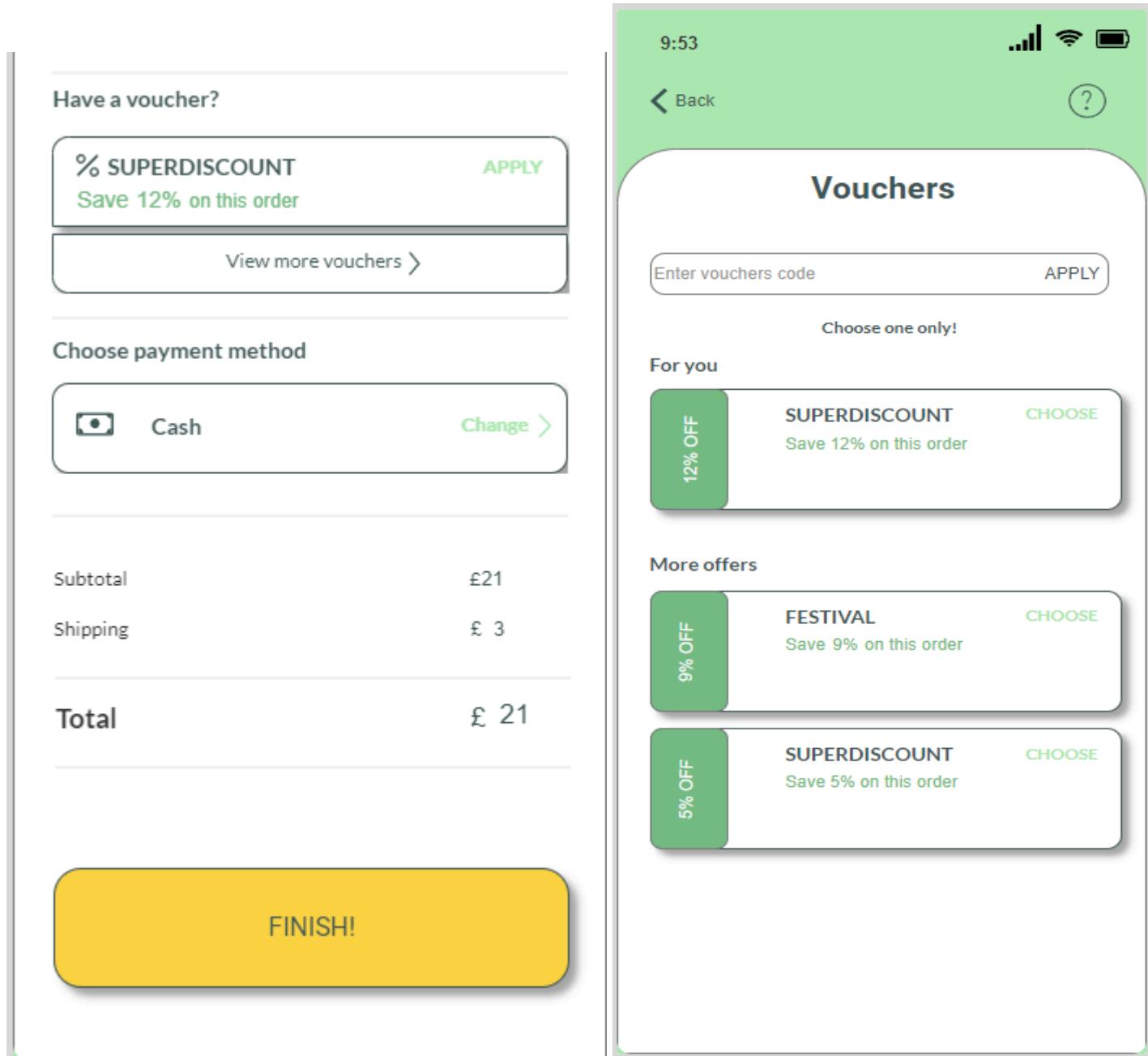
They can follow the instructions and fill in the form, as the vision of elders is not as precise as it was before, so every stage of the form will have labels similar to the login and signup with red colour for important notes. Following these steps, the address will be updated.

Figure 7-10: Delivery Address Page and updated address



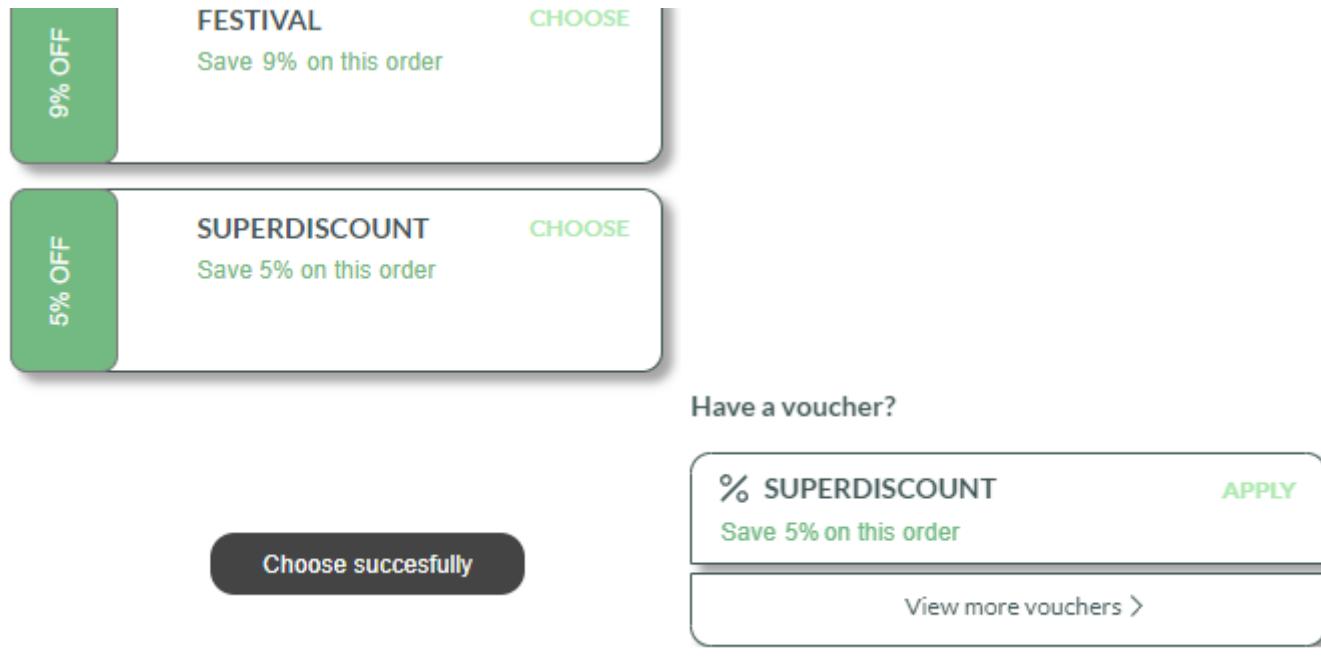
Moving to the rest of the cart page, where they can access the vouchers and payment method, they can easily choose vouchers and apply them using view more vouchers button, then they will be shown the vouchers page where they can choose their preferred vouchers.

Figure 7-11: Vouchers Page



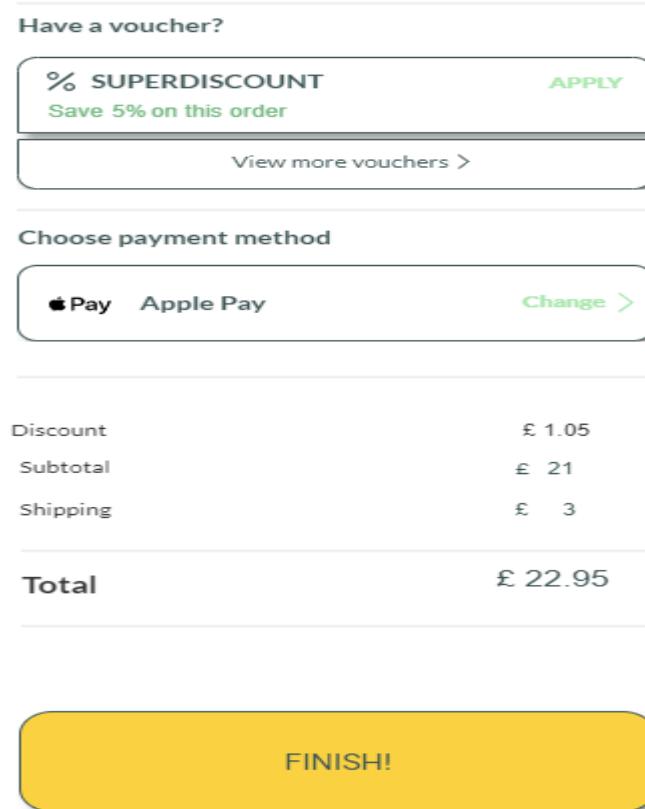
Click choose and a message will pop up to notify users, and back to the cart, users will see that the voucher has been updated.

Figure 7-12: Updated Vouchers



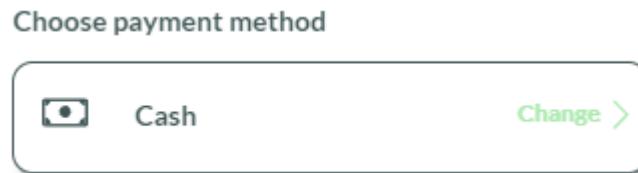
When users click on the apply button users can see the discount and total cost of the cart.

Figure 7-13: Applying vouchers



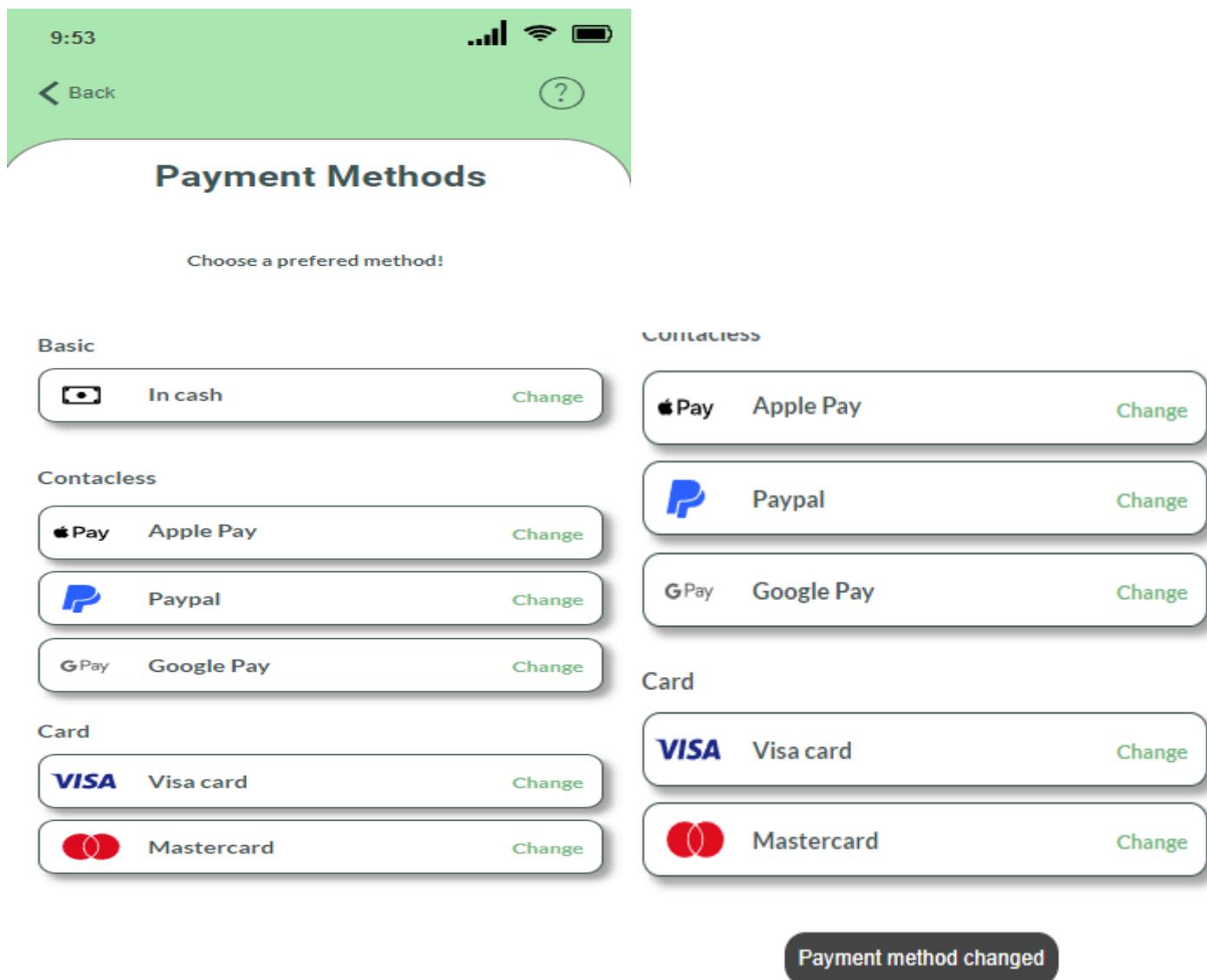
The next step is the payment method, they can click the change button.

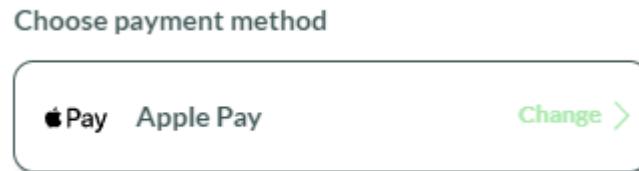
Figure 7-14: Payment method changing



Then navigate to the payment method page, for example, if the users choose the Apple pay method. They can choose the change button next to the wanted method. Consequently, a message will show to announce users. After back to the cart, the payment method will change.

Figure 7-15: Payment method Page and its notification





Lastly, click the proceed button, and they can see a processing panel and a finished order panel. Lastly, moving to the delivery process.

Figure 7-16: Total Price with discount and processing panel

Discount	£ 1.05
Subtotal	£ 21
Shipping	£ 3
Total	£ 22.95

FINISH!

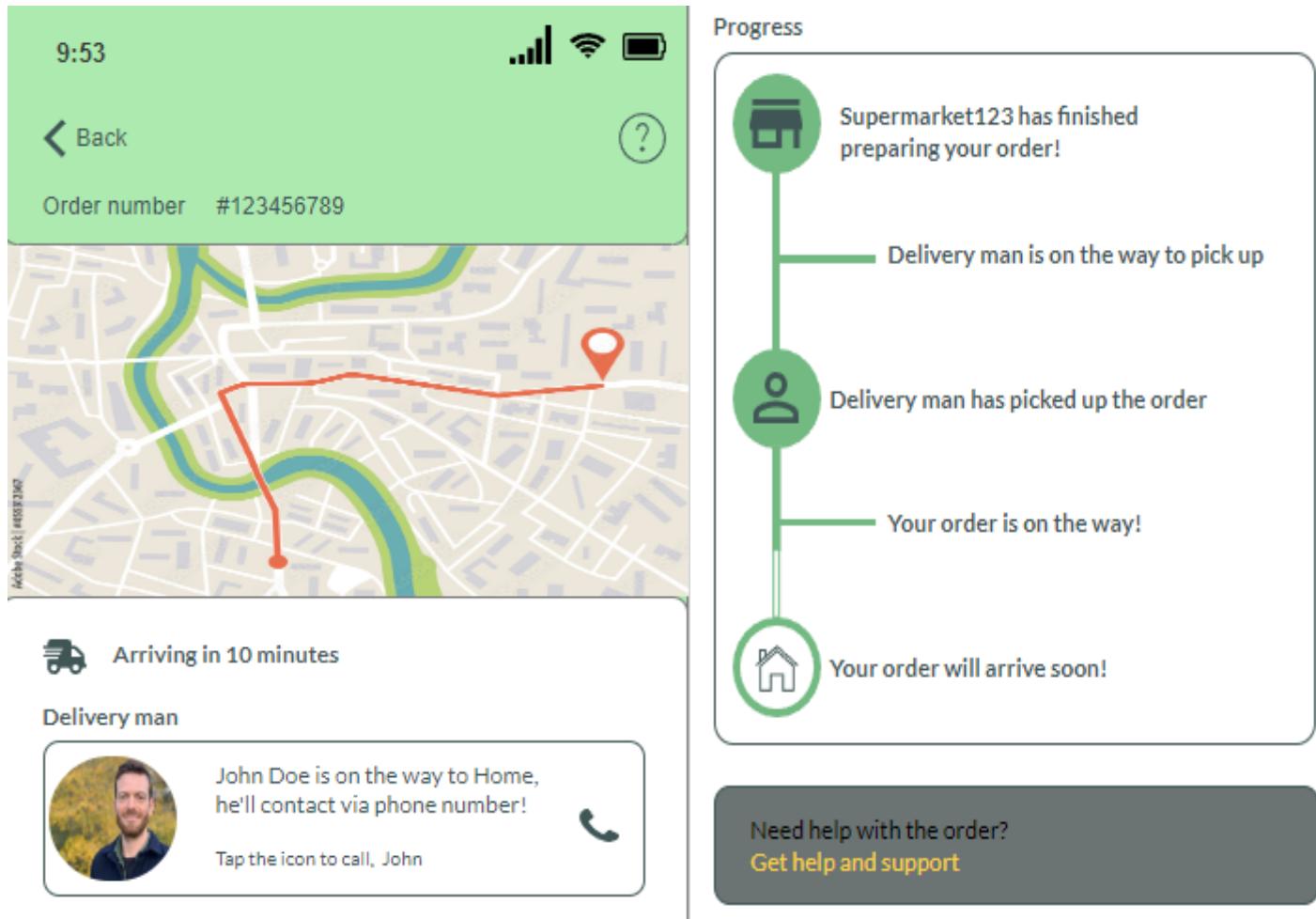
Processing.....

Order Placed!

A composite image showing the flow of a payment and order placement process. It includes a table of total costs, a yellow "FINISH!" button, a "Processing" state with a circular progress icon, and a green "Order Placed!" confirmation with a checkmark icon.

Then users move to the delivery process where they can see the order number, the delivery man, arriving time and the phone button to call him.

Figure 7-17: Delivery Process Page



The progress is also on the delivery page to show which step of the process they are in.

Briefly, following the scenarios and personas associated with the chosen guidelines, an adequate mid-fidelity prototype is created to fulfil the tasks. Likewise, each page shows consistency and minimal attributes to ease the elders's constraints. Moreover, notifications for each task are shown whenever users press a button. Consequently, the prototype satisfies most of the guidelines and user's requirements.

8. Critical reflection

During this project, I have learned a lot about the UCD process from understanding the context of use to evaluating the design and redoing it again. The prototype gives me experience in designing mid and low-fidelity prototypes,

additionally, understanding more about the constraints of designing. Moreover, conceiving personas and specifying their requirements are quite a struggle because of the context of the report.

While the prototype has many weak points such as lack of interaction, most of them stem from the unfamiliarity with the Axure rp10. Some functionalities such as editing personal information of the accounts are not created, while creating recipes function is rudimentary. Briefly, this prototype can be advanced further to bring a realistic overview before the real application.

Knowing the design process can be helpful, especially in the context and identifying the user phase. Because it can reduce the time spent on knowing the user group and quickly understand the designated groups. Indeed, it can prominently contribute to the design of any products in my future career. Moreover, guidelines and knowledge of different laws in UI/UX give me a wider range when it comes to designing the most intuitive and usable for users. In short, knowledge of UI/UX can strongly consolidate my future career.

9. Conclusion

In conclusion, this project outlines an application that focuses on recipe and food delivery services. This report has gone through the design process of this application from identifying user groups to designing prototypes. Additionally, colour, fonts and graphic design elements are discussed and decided with a navigation diagram to show each page and its contents. Besides, two low-fidelity prototypes were evaluated to finally determine which one would be chosen for the mid-fidelity prototype. Lastly, each page of the mid-fidelity prototype was shown and discussed based on the guidelines and the scenario to demonstrate insightful steps of user interaction with the application.

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