

Seasoned

Cooking App for the Elderly Concept Design

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Abertay
University®

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Introduction

Cooking apps have been a staple for most home cooks since first getting their hands on a smartphone. It can provide several helpful features from storing recipes, providing helpful tips, and converting measurements. Whilst easy to use for most tech-savvy cooks who grew up with smartphones these can sometimes present a daunting prospect for the elderly.

This report will explore the conceptual design of a cooking app aimed at the elderly. It will cover a brief research stage and primarily focus on the sketching, storyboarding and low-fidelity prototyping of the app design.

User Research

A brief research exercise was undertaken amongst the target audience to fully gauge the user goals, needs and pain points for a cooking app (Appendix A).

This has helped form the personas shown below (Figure 2.1).



Isabelle | The "Seasoned" Veteran

"The Experienced Home Cook"

- 68
- Lifelong Homemaker
- Windsor, England
- Family Oriented
- Loves sharing recipes with others

Bio

Isabelle is a lifelong homemaker who has spent her life raising and supporting her family of 4 children. She has learned lots of recipes from her family growing up which she has tweaked and refined for years of cooking for her own family. Isabelle wants to not only learn new recipes but wants to share the ones she has learned with others to allow them to enjoy.

Isabelle is not very tech savvy leaving most of the technology to her children and grand children to deal with. She wants an app that is easy to use once its been explained to her.

Core Needs	Pain Points
<ul style="list-style-type: none">Ability to share recipes with other peopleAbility to find new recipes easilyAbility to save recipes she likes so they are easy to revisitSimple User Experience	<ul style="list-style-type: none">Intimidated by using technologyFancy ingredients with no alternativesFinds tech hard to use with poor eyesight



Albert | The Keen Bean

"Novice Cook Eager to Learn"

- 72
- Retired Joiner
- Ballymoney, Ireland
- Recently Widowed
- Loves spending time with Grandkids

Bio

Albert is a retired joiner who has recently been widowed. His husband used to do all of the cooking for the family and his recent death has left Albert anxious about providing for himself and his family when they come to visit. He is a willing learner with some novice cooking skills he learned from his husband but finds it difficult to follow his old recipe book and deciding on meals. He would love to get his grandkids involved in the cooking process when they come round. Albert is fairly familiar with technology with his own phone and grandkids showing him all the latest tech.

Core Needs	Pain Points
<ul style="list-style-type: none">Wants to get help with choosing mealsSimple, easy to follow recipesRecipes that his grandkids can help withWants to develop his cooking skills over time	<ul style="list-style-type: none">Feels low on confidence due to lack of cooking experienceFeels intimidated cooking for large groupsDoesn't know what recipes are good or bad

Figure 2.1 - User Personas

Initial Sketching

During the initial sketches (Appendix C), it was key to capture the main features which would look to tackle the core needs and pain points of the user personas.

The main features that were considered were as follows:

- Simple Intuitive Onboarding
- Ability to search recipes and save for easy access.
- Simple navigation and tooltips for users
- Clear feedback from the UI
- Instructional videos
- Useful recipe information (time to cook, difficulty etc.)

Onboarding

Main design points:

- Accessibility settings button allows users to change to suit their specific needs making the app more accessible to users.
- Graphics displaying onboarding action show the user clearly what the text below is referring to and will help “prime” the user for what’s to come when using the app (Weingarten et al., 2016).
- Large Icons, high contrast, furthers the accessibility for the user making it easy to distinguish different parts of the app from each other.
- The onboarding process is broken down into manageable steps making it less intimidating for users and seem more manageable (Whitenton, 2013).

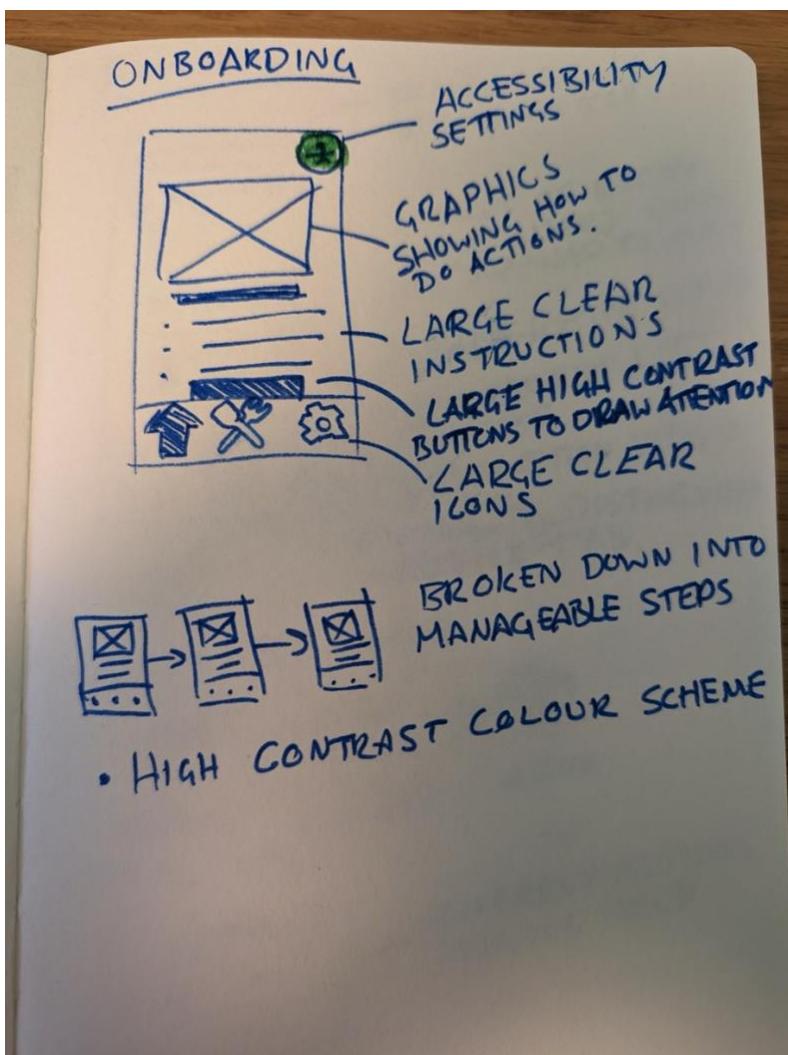


Figure 3.1 - Onboarding Design Sketch

Recipes

Main design points:

- The search bar sticks to the top of the screen to always be visible to the user for ease of access.
- The use of images of the finished product can show the user how the food “should” look. It gives the user a better sense of what they would like and helps set measurable aspirations.
- Instructional videos are used to help users with less experience and perhaps don’t enjoy reading to follow along.
- UI feedback indicates the current page and for saving recipes.
- Tooltips to appear on pages to assist users if they are stuck with a task.
- Useful info for recipes to be provided to prime user expectations.
(Weingarten et al., 2016)

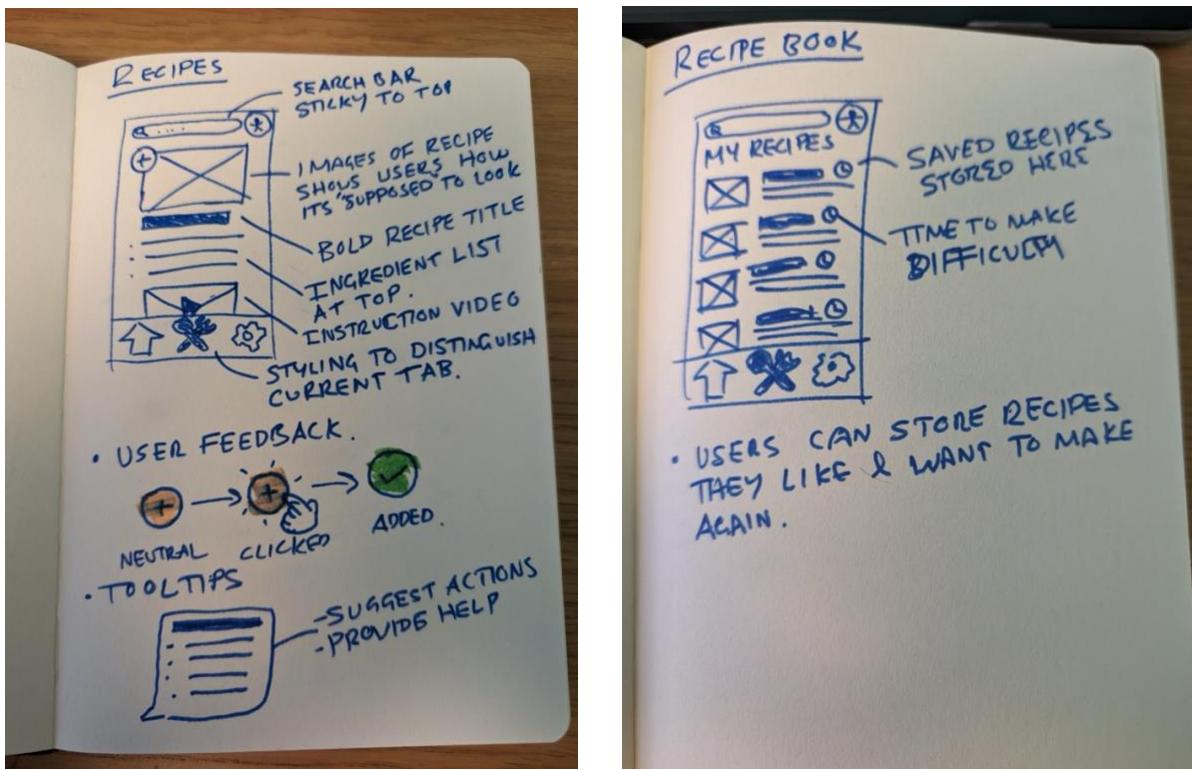


Figure 3.2 - Recipe Feature Sketches

Storyboarding

Storyboarding is a key aspect in the initial design as it helps to further the understanding of the users' flow through the app when completing a task.

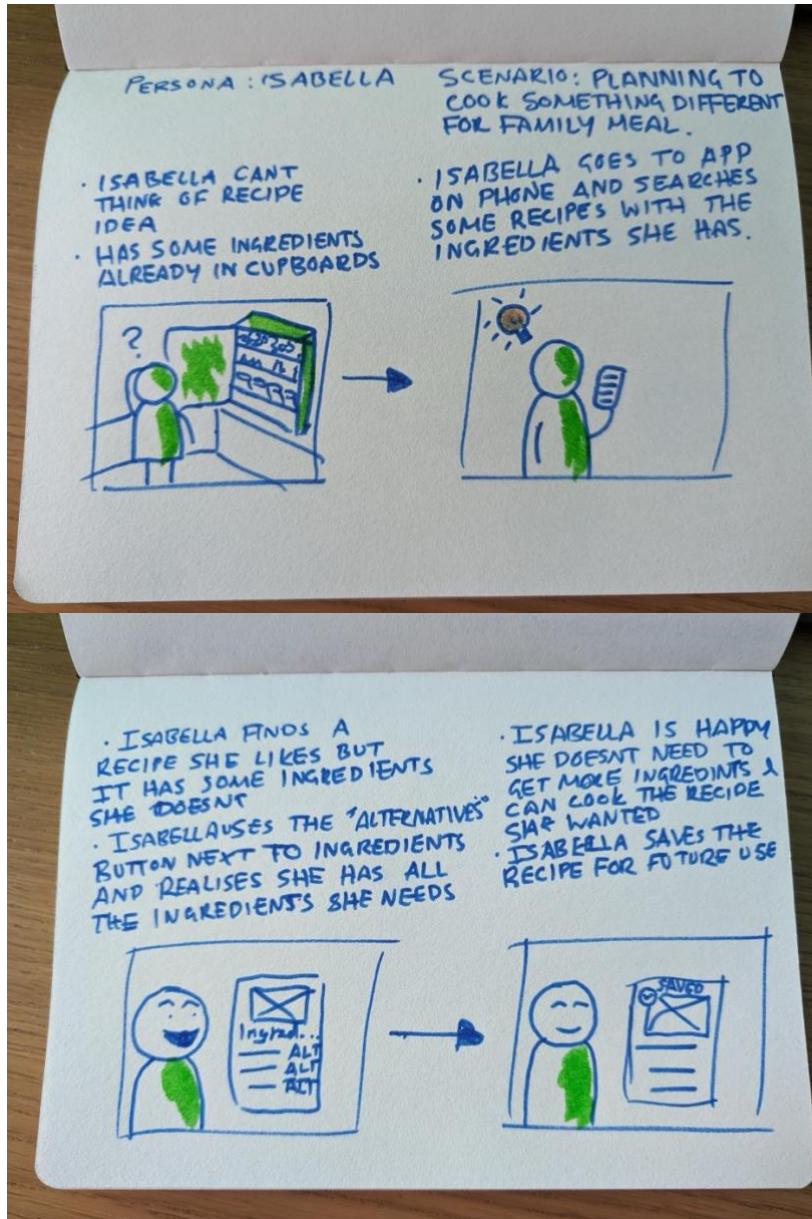


Figure 4.1 - Initial Storyboarding

Low Fidelity Prototyping

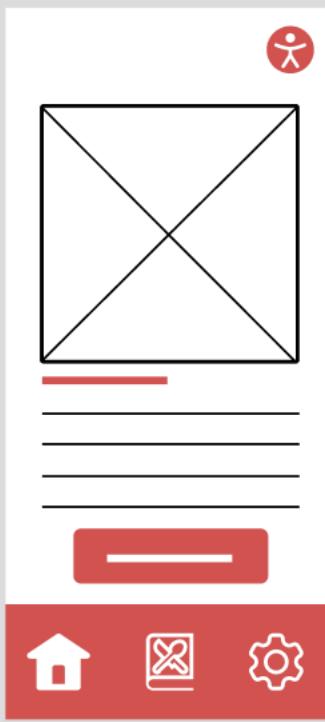
Using the sketches and storyboarding previously outlined some low fidelity prototypes were developed using Figma.

This can be viewed online here:

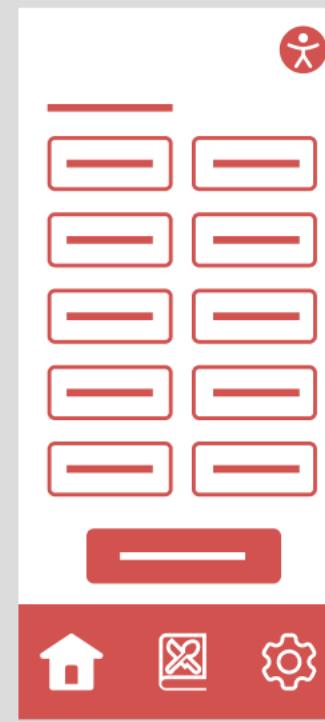
<https://www.figma.com/proto/QhaUy0x0IxWOyUAR2jjJ6P/Seasoned-Low-Fidelity-Prototype?page-id=0%3A1&type=design&node-id=2-633&viewport=248%2C185%2C0.25&t=TBf8qvKDQnY0HXci-1&scaling=scale-down&mode=design>

User Flow

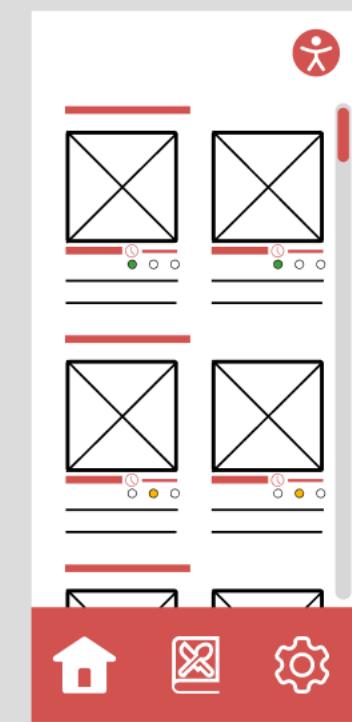
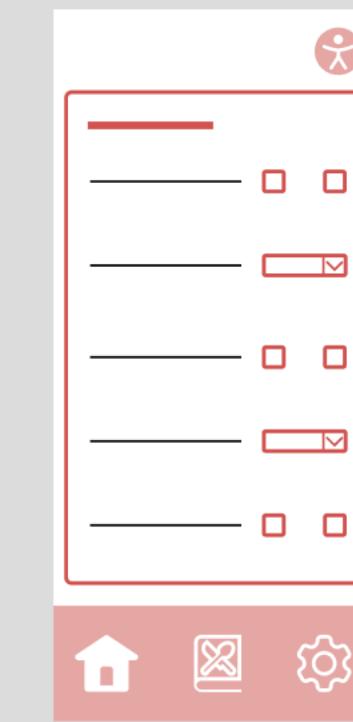
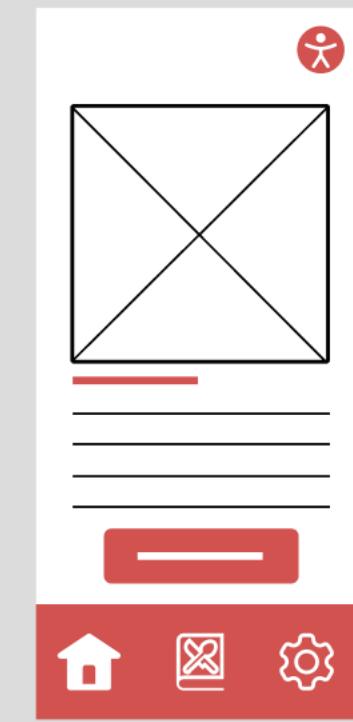
It's key to understanding the anticipated flow of the users, it can help designers identify blind spots in their design and ensure that the design remains user-centric for an enhanced user experience.



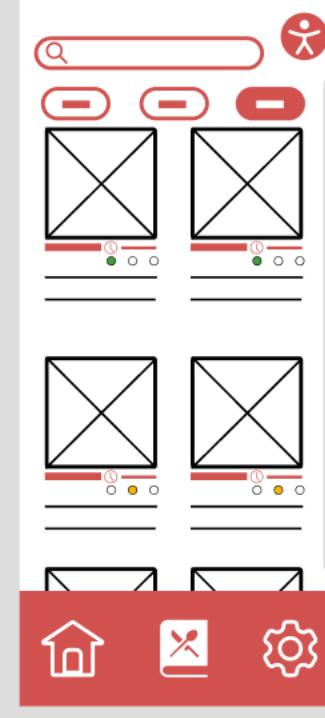
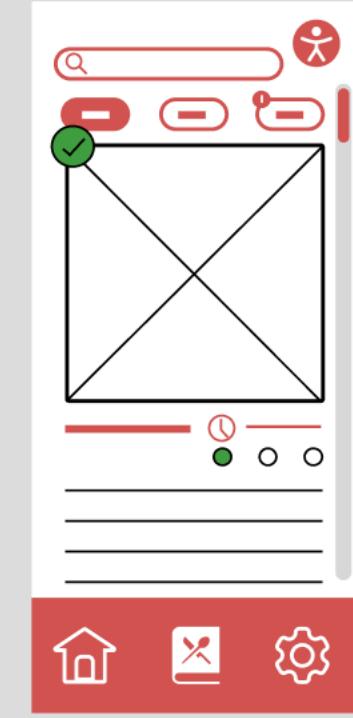
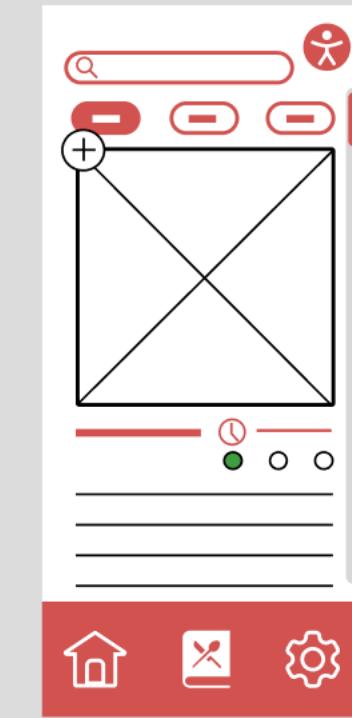
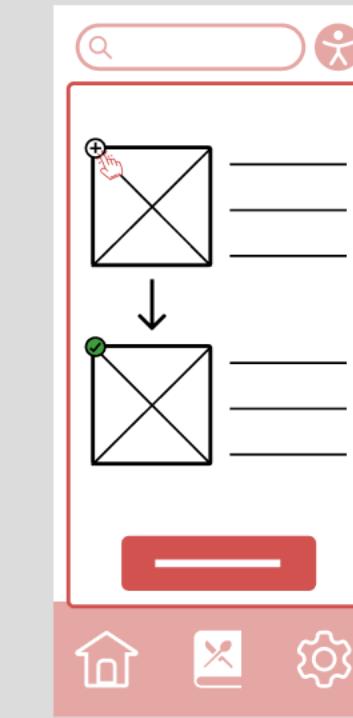
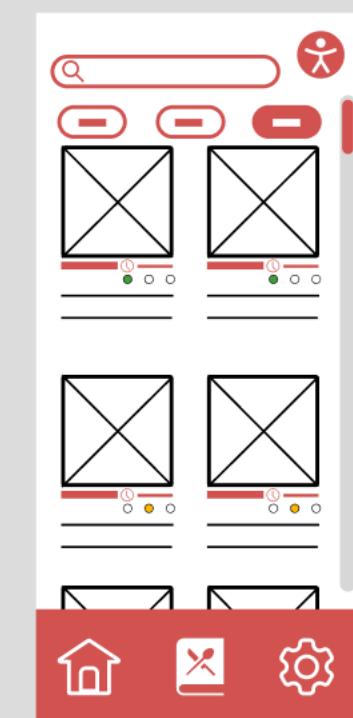
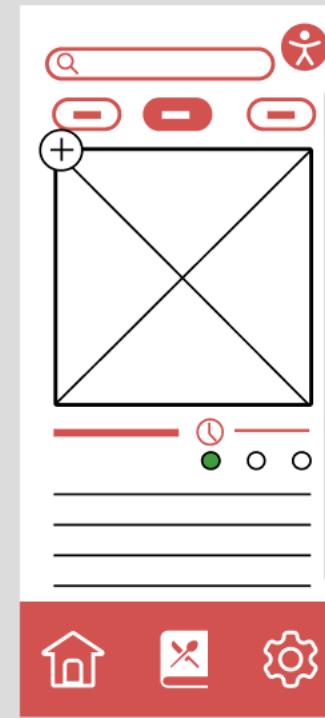
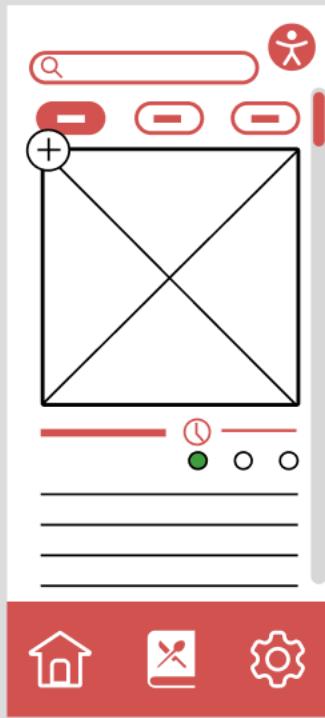
1. User loads up the app and is greeted with the first onboarding page



2. User continues through the onboarding and can access the accessibility menu at any time in the top right



3. Once onboarding is finished the user is then directed to the homepage.



4. The user can use the nav menu at the bottom to find recipes. They can then navigate through the tabs in the recipe page to view and search recipes.

5. The user can get tooltips throughout their journey on the app which have helpful tips for actions in the app. In this case it suggests the user can save recipes for repeated use. The user gets visual feedback that they have saved the recipe and can view this in the tab with saved recipes

Design Reflections

Reflecting on the design presented in this report there is a great deal of effort put into providing an app at the centre of which is accessibility for its elderly users. There are several features which promote this such as a high-contrast colour scheme, simple UI and tool tips.

Despite these good design points, it is important to recognise that improvements could still be made. Efforts could be made to make the design even more user-friendly such as in app dictation for users whose eyesight is particularly poor which was not initially considered in the design. Further improvements could also be made in the realm of the app's social features users could be introduced to sharing their recipes and rating others which could enhance the experience for some and give the app a greater community feel which would hopefully improve the user experience. There could also be further automation in the app perhaps in the form of automatic shopping list generation for recipes which users can add and omit ingredients they have in their cupboards to allow the shopping process to be easier.

References

- Weingarten, E., Chen, Q., McAdams, M., Yi, J., Hepler, J. and Albarracín, D. (2016). From primed concepts to action: A meta-analysis of the behavioral effects of incidentally presented words. *Psychological Bulletin*, 142(5), pp.472–497. doi:<https://doi.org/10.1037/bul0000030>.
- Whitenton, K. (2013). *Minimize Cognitive Load to Maximize Usability*. [online] Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/minimize-cognitive-load/>.

APPENDIX A – USER RESEARCH

INTERVIEW 01

INTERVIEW QUESTION 01 – WHAT IS YOUR EXPERIENCE COOKING?

ANSWER

I have been cooking pretty much all my life, I was largely a homemaker with my husband out working I raised our children and made sure dinner was ready every night when the family came home from work or school. I learned a lot of recipes passed down from my mother and aunts which have influenced my cooking and some of my own recipes I created too.

INTERVIEW QUESTION 02 – WHAT IS YOUR EXPERIENCE WITH TECHNOLOGY?

ANSWER

I have some experience with it but I wouldn't say that I'm the most tech savvy in the world. I tend to need quite a lot of hand-holding when using my phone. I can pick things up if they are explained clearly to me.

INTERVIEW QUESTION 03 – WOULD YOU FIND USE FOR A MOBILE APP IN THE KITCHEN?

ANSWER

Though I'm not very tech savvy I would find use for something that allows me to store my recipes and share them with others. It would be great to get that sense of community amongst home cooks across the globe. I would also really enjoy an app as well to help me pick meals as sometimes I want to step out of my comfort zone and try something new or sometimes can't even decide what to pick! I'd love something that's able to give me some ingredient alternatives as sometimes you just can't find the ones they list on the recipe in the shops or you don't want to leave the house and can use something you have in your cupboards.

INTERVIEW 02

INTERVIEW QUESTION 01 – WHAT IS YOUR EXPERIENCE COOKING?

ANSWER

I don't really have much experience, to be honest, my husband used to do a lot of the cooking, but he sadly passed away last year. I would love to learn some easier recipes and get better as my family come around a lot and I'd love to cook for them.

INTERVIEW QUESTION 02 – WHAT IS YOUR EXPERIENCE WITH TECHNOLOGY?

ANSWER

I am fairly tech-savvy; I had a smartphone that I used for my job before I retired and have a few choice apps that I'm quite adept at. I do sometimes find it quite daunting on some complicated apps though so enjoy it when the app holds my hand a little in the beginning before I get to grips with it.

INTERVIEW QUESTION 03 – WOULD YOU FIND USE FOR A MOBILE APP IN THE KITCHEN?

ANSWER

Well with my lack of experience in the kitchen, you can imagine I don't know where to start really. I often struggle to even think of meals so having something that would allow me to search for meals and save them for repeated use would be great. I'd also like something that I can input the ingredients I have and find meals that suit, as you can probably tell my husband used to do all the shopping as well and I've still not quite got to grips with it yet. I'd love to get some recipes that my grandkids could help with as I enjoy spending time with them and think they would enjoy it a lot.

APPENDIX B – USER PERSONAS



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Isabelle is not very tech savvy leaving most of the technology to her children and grand children to deal with. She wants an app that is easy to use once its been explained to her.

Core Needs

- Ability to share recipes with other people
- Ability to find new recipes easily
- Ability to save recipes she likes so they are easy to revisit
- Simple User Experience

Pain Points

- Intimidated by using technology
- Fancy ingredients with no alternatives
- Finds tech hard to use with poor eyesight



Albert | The Keen Bean

"Novice Cook Eager to Learn"

- 72
- Retired Joiner
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Albert is a retired joiner who has recently been widowed. His husband used to do all of the cooking for the family and his recent death has left Albert anxious about providing for himself and his family when they come to visit. He is a willing learner with some novice cooking skills he learned from his husband but finds it difficult to follow his old recipe book and deciding on meals. He would love to get his grandkids involved in the cooking process when they come round. Albert is fairly familiar with technology with his own phone and grandkids showing him all the latest tech.

Core Needs

- Wants to get help with choosing meals
- Simple, easy to follow recipes
- Recipes that his grandkids can help with
- Wants to develop his cooking skills over time

Pain Points

- Feels low on confidence due to lack of cooking experience
- Feels intimidated cooking for large groups
- Doesn't know what recipes are good or bad

APPENDIX C- DESIGN SKETCHES

ONBOARDING



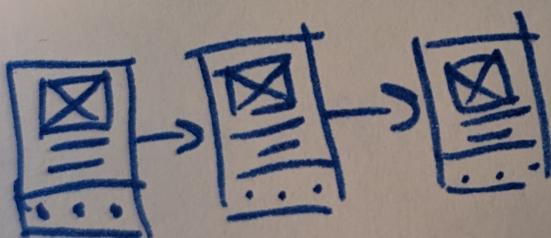
ACCESSIBILITY
SETTINGS

GRAPHICS
SHOWING HOW TO
DO ACTIONS.

LARGE CLEAR
INSTRUCTIONS

LARGE HIGH CONTRAST
BUTTONS TO DRAW ATTENTION

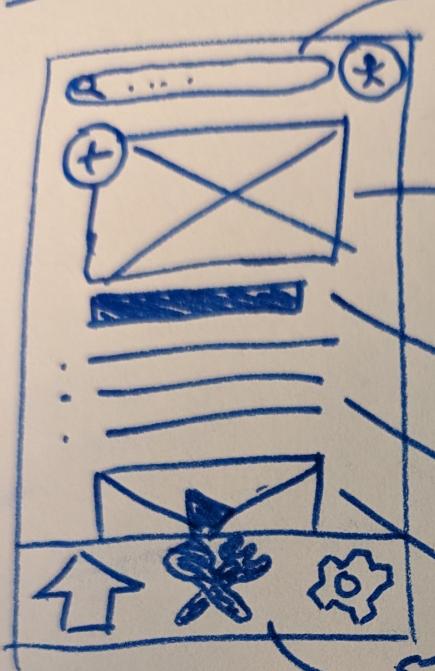
LARGE CLEAR
ICONS



BROKEN DOWN INTO
MANAGEABLE STEPS

• HIGH CONTRAST COLOUR SCHEME

RECIPES



SEARCH BAR
STICKY TO TOP

IMAGES OF RECIPE
SHOWS USERS HOW
ITS 'SUPPOSED' TO LOOK

BOLD RECIPE TITLE

INGREDIENT LIST
AT TOP.

INSTRUCTION VIDEOS

STYLING TO DISTINGUISH
CURRENT TAB.

• USER FEEDBACK.

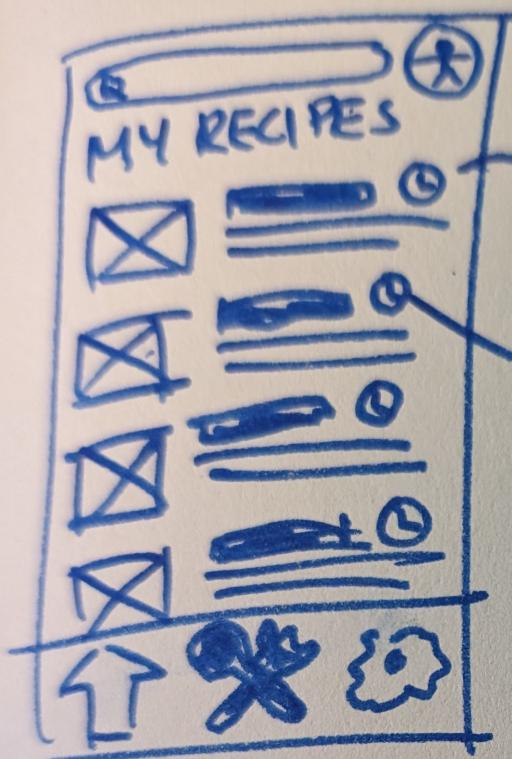


• TOOL TIPS



- SUGGEST ACTIONS
- PROVIDE HELP

RECIPE BOOK

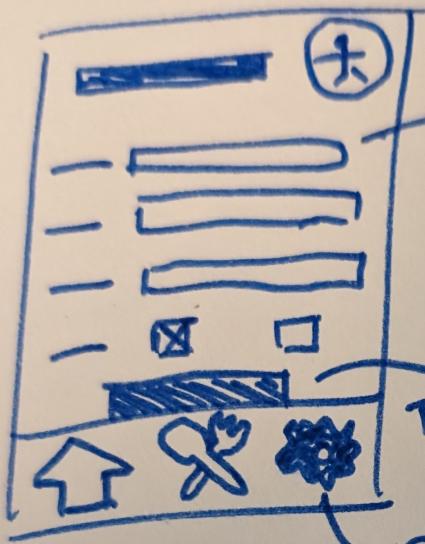


SAVED RECIPES
STORED HERE

TIME TO MAKE
DIFFICULTY

- USERS CAN STORE RECIPES THEY LIKE & WANT TO MAKE AGAIN.

SETTINGS SIMPLE DESIGN



SMALL
MANAGEABLE STEPS

HIGH CONTRAST
BUTTONS.

STYLING TO DISTINGUISH
CURRENT TAB

BRANDING

- BOLD COLOURS → IDENTIFYABLE
- HIGH CONTRAST → ACCESSIBLE
- ROUNDED EDGES → EASE STRESS
- SIMPLICITY → ACCESSIBLE

MASCOT CONCEPT - TOMMY TOMATO.

