**Morrisons**
Since 1899

# XD6002 Collaborations & Professional Associations 2

## Brief 1 - TAB - Sustainable Shopping

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# Contents

# The Brief

# Brief

The food system is responsible for a **third** of global greenhouse gas **emissions.** How can we make shoppers aware on the **climate impact** of their food consumption?

How do we help them make more **informed decisions** when food shopping in order to generate **lasting** behaviour **change?**

**Lowering** the environmental impact of our food consumption doesn't require a massive lifestyle **change**, so how do we support and enable shoppers to do so?

## Key Points

- Focus on cutting down emissions.

- **Cue > Accomplish > Reward**

- Can we make this sustainable?

- Educate shoppers.

- Focus on change.

# Morrisons

Morrisons are a Yorkshire retailer and have been serving customers with their first store opening in Bradford in **1899** as a market.

Morrisons business is mainly grocery and food. **Uniquely** Morrisons process most of their own fresh good from their own manufacturing facilities. They have more skilled colleagues that prepare food in store than any other retailer.

They pride on delivering a great service to **11 million** households each week with their competitive delivery service and they have permanently low prices that help save their customers money every day.

# Research

# Sustainable Shopping

## Lifestyle

There seem to be two main factors when it comes to sustainability within the supermarket sector. How sustainable individuals are and what supermarkets are doing to inform their customers about how this can affect them and change their shopping experience.

We did some user interviews and found that poorer people can't afford to shop as sustainably as rich people, because the more sustainable foods require a lot more effort to manufacture.

A lot of sustainable foods don't just change the packaging and usually more premium products are sold with sustainable packaging because there is overhead for that.

During our research we also found that while the rich may shop more sustainable their carbon footprint is more overall because they usually also have a better car that they use more, go on holidays more and have a bigger house that costs more to run.

# Environmental Research

**Political/Industry**

Hundreds of companies have signed a pledge to reduce their plastic use to currently help half food waste. Morrisons is on that list and as one of the "big 4" supermarkets they have a large part to play to reducing food waste.

Morrisons have also signed up to WRAPs UK Plastic PACT which is an industry initiative to stop all plastic pollution.
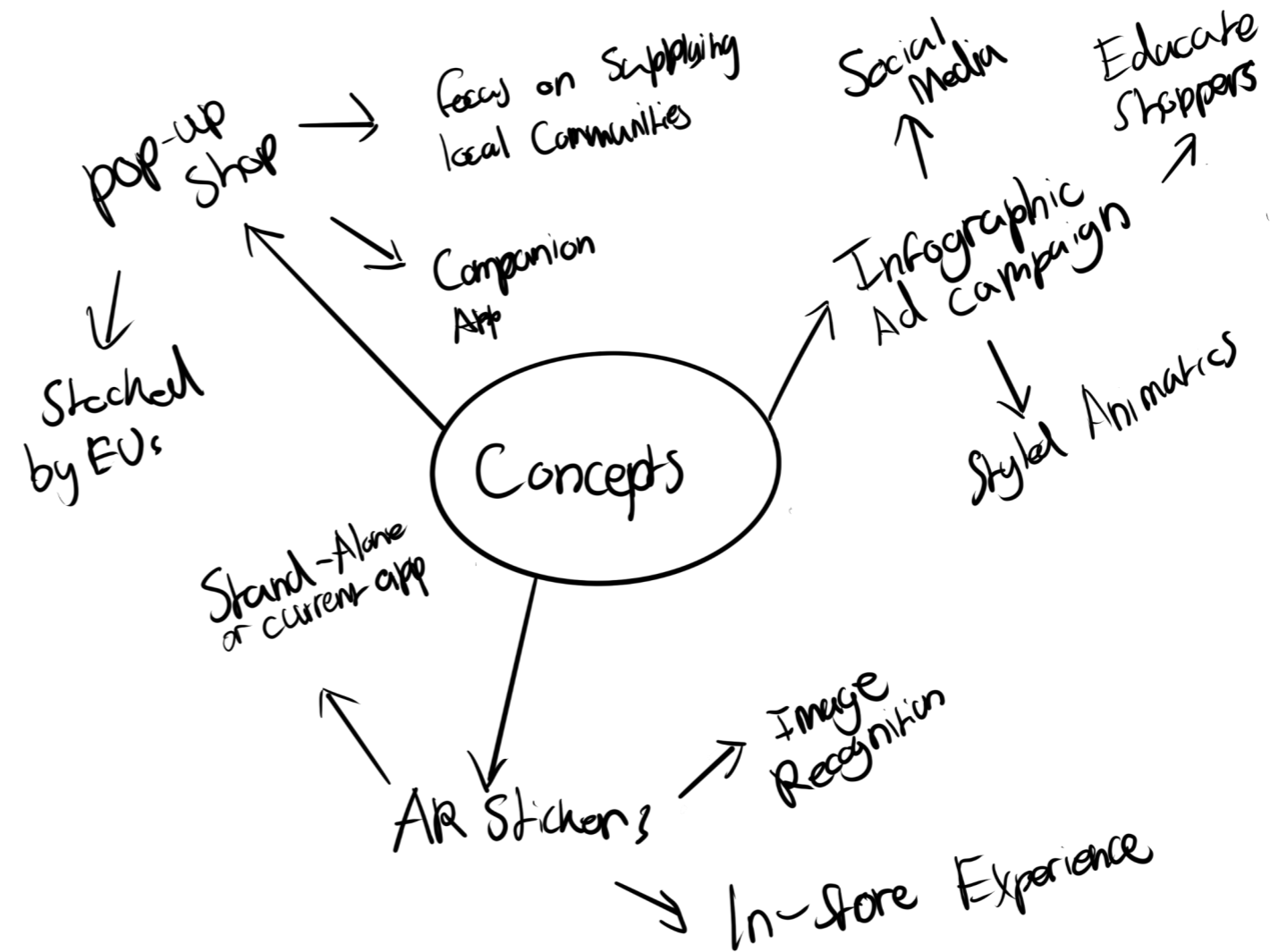
- They reduced their carbon emissions by 45 percent from 2005 to 2019.

- 99.5 percent of store waste has been diverted from landfill.

- They installed energy efficient fridge doors which reduced emissions by 30-40 percent.

- Installed LED fixtures instead of Fluorescent, reducing emissions by 4%.

- By using bigger trucks, they reduced the number of trips needed to make to the stores whilst delivering the same volume of goods.

- By using special systems that design delivery routes, they were able to improve the average miles per gallon.

- Offering customers to use reusable paper carrier bag, removing 176 million plastic bags.

# Contextual Research

## Mind Map

As a group we explored some other areas that could help us with the conceptual phase of our final design. We did some mind maps and mood boards to achieve this.

Pop-up Shop → Focus on Supplying local Communities

Social Media

Educate Shoppers

Companion App

Infographic Ad campaign

Stocked by EUs

Concepts

Styled Animatics

Stand-Alone or current app

Image Recognition

AR Stickers → Image Recognition

In-Store Experience

# Moodboards

# Market Research

## Competitor Analysis

As a group we explored the various apps and technologies that Morrisons competitors use. This is the weakest part of Morrisons business as both of their apps are badly designed in comparison to their competitors.

## Tesco Groceries

*What does it offer?*

Tesco Groceries is Tesco's primary mobile experience. This application is a well designed mobile experience that allows users to order a delivery to their home.

The app has a number of features such a slot booker that make it more convenient.

It also saves old orders and recommends products depending on your purchase history. Since the service is available on web and tablet it ties well in with those services also.
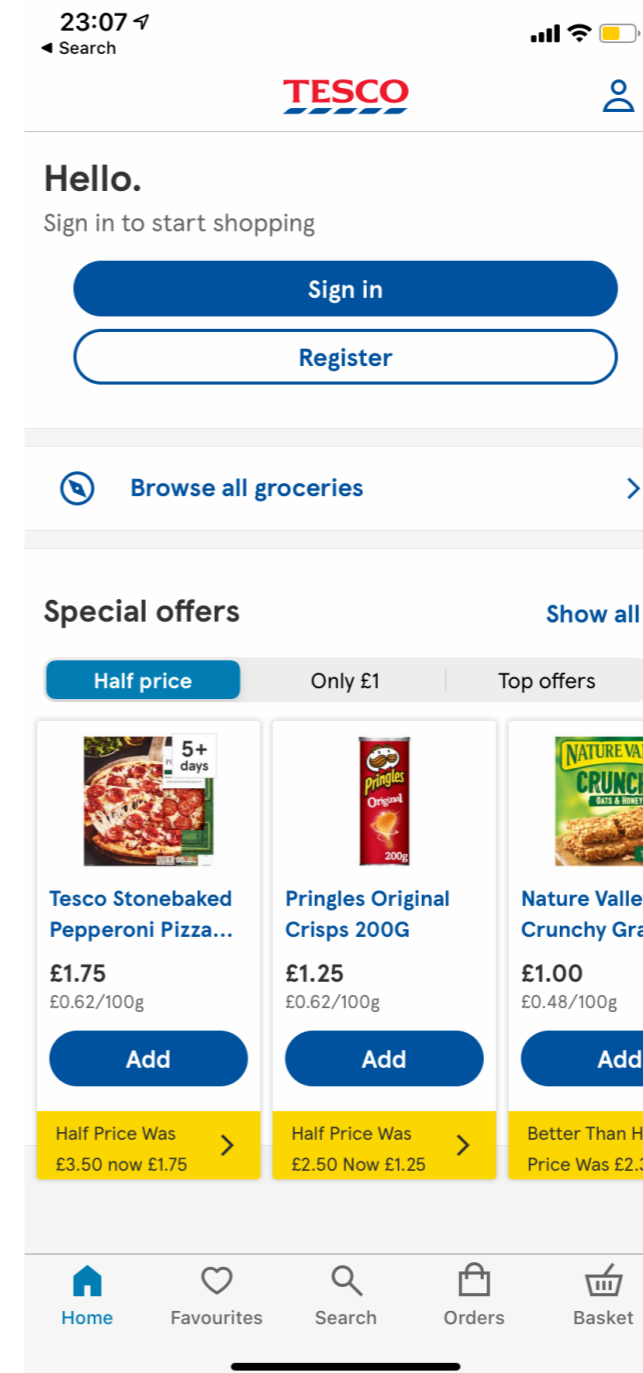
# Market Research

## Sainsbury's SmartShop

Sainsbury's SmartShop is a good example of how an application can integrate well into an in-store experience.

### What does it offer?

This application allows the user to scan products they pick up from the shelves and pay for it within the application. This increases the speed they can get through their shop as they don't have to wait in queues at the checkout.

It gives the users prompts to scan products in-store and most Sainsbury's stores are equipped with these special self-checkout tills. They also advertise the applications around these tills so that users know that the option is available.
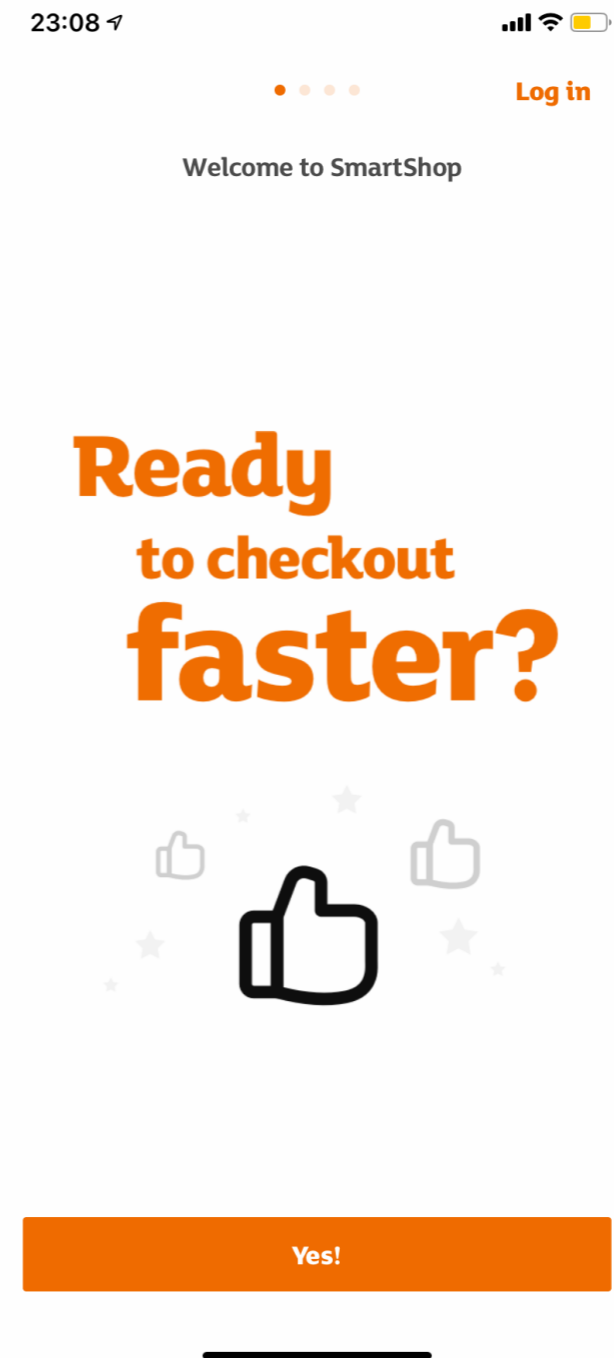
## Co-Op Food Magazine

Users seem to enjoy getting recipes every month in a food magazine that is available on the app store. This would inspire users to cook and try new foods with a easy to access recipe list and fully documented nutritional information on a meal basis.

## *What does it offer?*

A user could see a nice recipe endorsed within the latest issue and attempt to make that at home using Co-op ingredients.
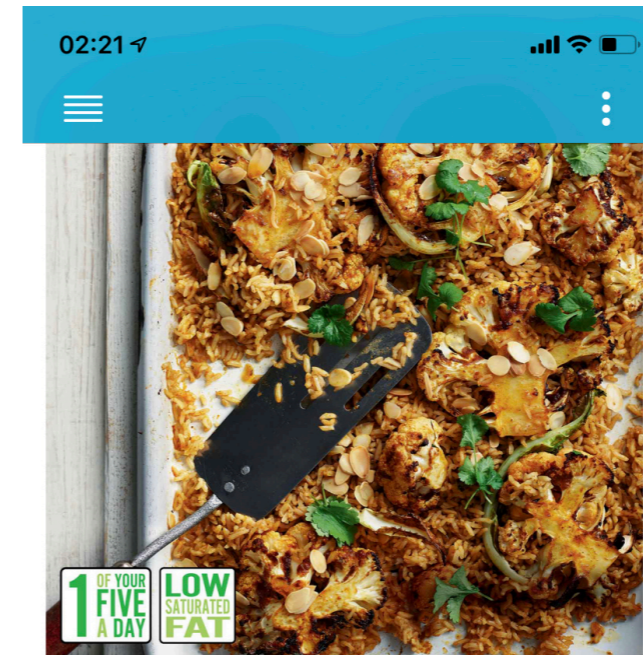


*Cauliflower pilaf traybake (VG)*

Our five-ingredient version of a traditional rice dish is really easy to make — and elegant enough for a special dinner during the Easter break

**Feeds 4 • Ready in 40 mins**

Preheat the oven to 200°C/fan 180°C/Gas 6. Trim the **cauliflower**, then slice vertically into 6 thick steaks. Arrange in a single layer on a large baking tray. Mix half the **curry paste** with 2 tbsp cold water, season, then brush over the steaks. Bake in the oven for 15 mins. While the steaks are cooking, put the rest of the curry paste in a bowl with 100ml cold water and mix until smooth. Add the **wholegrain rice**, season and stir well to

# Other Competitors

## Other

After exploring more sustainability focused applications we found a number of competitors with well designed applications.

## TooGoodToGo

### What does it offer?

TooGoodToGo is an app that allows shops and restaurants wasted food to be sold off for a big discount. Their app is well designed and they offer a Morrisons too good to waste package.

It uses your location to recommend the nearest store and then recommends nearby businesses that need to get rid of left-overs or uneaten fresh produce. The restaurant gets to make a small profit and the user could end up with a quick meal.

Much like a grocery app it allows users to favourite certain apps and get a notification when their favourite businesses are offering food.
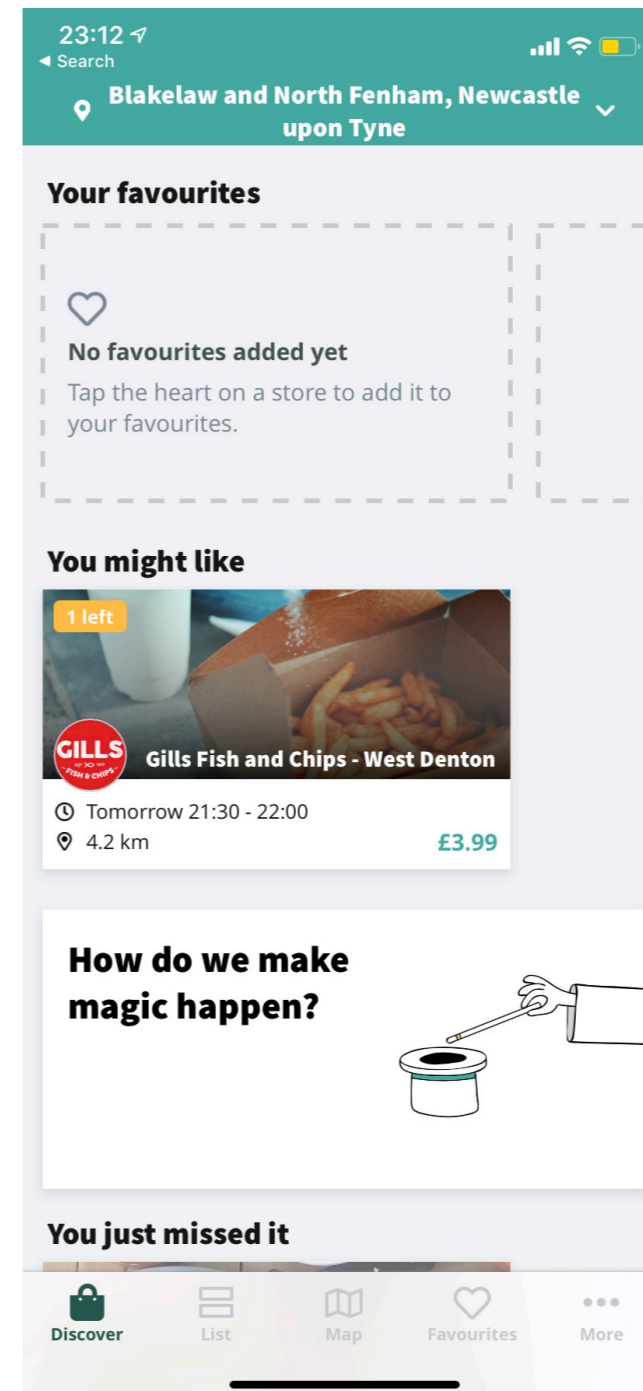
## Capture: My Carbon Footprint

Capture: My Carbon Footprint is an app that lets you track your carbon footprint by compiling information you can add.

The good thing about this application is it works in a similar way to a fitness tracker application, in which it allows users to add journey's they've made to build a picture of how large their carbon footprint is and areas in which they could reduce it.

*What does it offer?*

Like a fitness tracker it allows the user to update their information at their own rate. This is the most unobtrusive method to grabbing the attention of the user, as it isn't annoying however it may have less retention rate and the user might stop using it after a while.
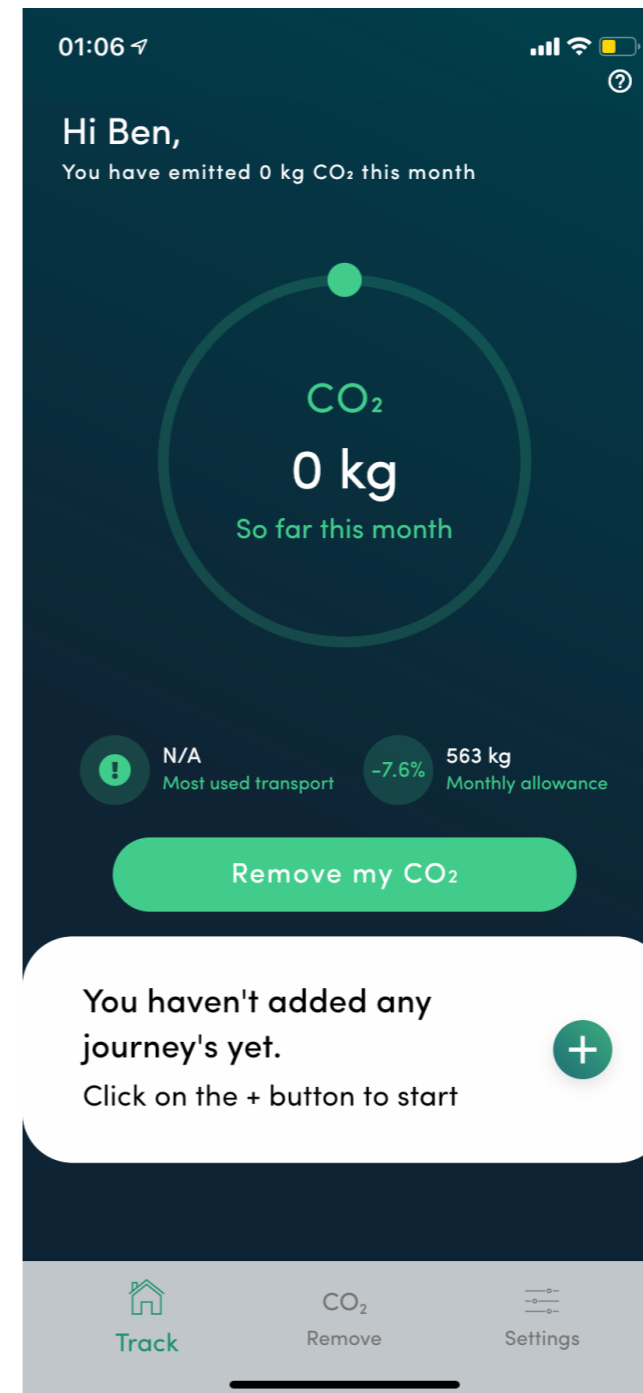
# Visual Research

## Brand Colour/Image

Morrisons has a very distinctive brand colouring system alongside a recent logo redesign, to bring it up to date with modern standards making them a more recognisable brand.

## New Typeface

In 2016 Morrisons did a full band redesign from the old style logo they had been using since 2007. They also increased the contrast of the companies main logo and opted for a typographic logo instead of a "large" M which increased the clarity of the brand.
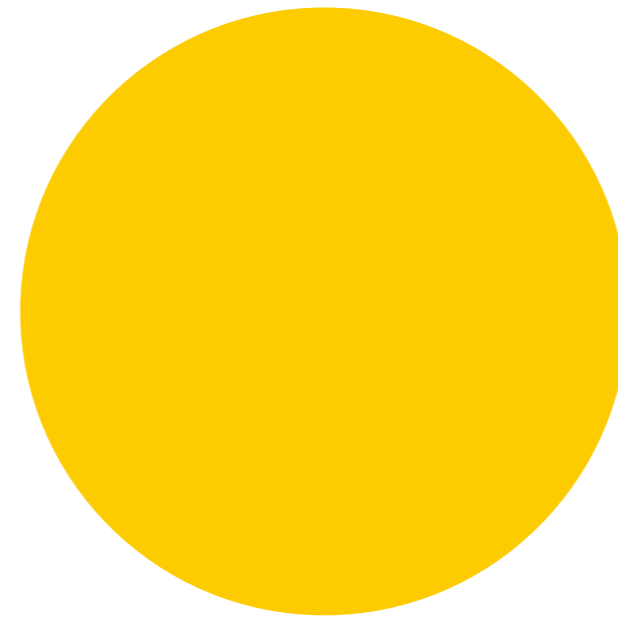
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**Morrisons**

Since 1899
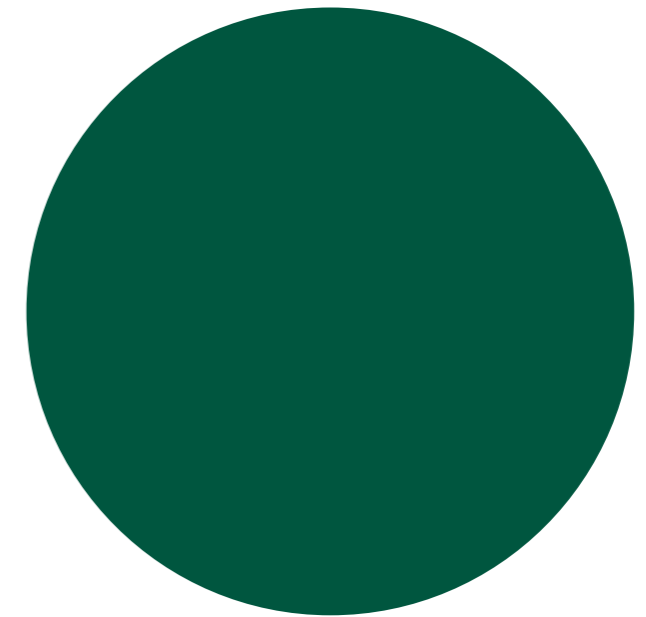
# Morrisons Current Services

## Morrisons More

We had a look at other services Morrisons offered apart from their standard delivery application. They have a Morrisons More app which links with your Morrisons More card and allows you to collect points on your shopping, which you can redeem for offers and services.

This application has a much more modern design compared to their delivery application. It's well laid out and has a good use of typography and colour making it easy to use and understand.

The main issue is how much this application differs in design compared to their delivery application which could end up confusing customers if they were to use both.
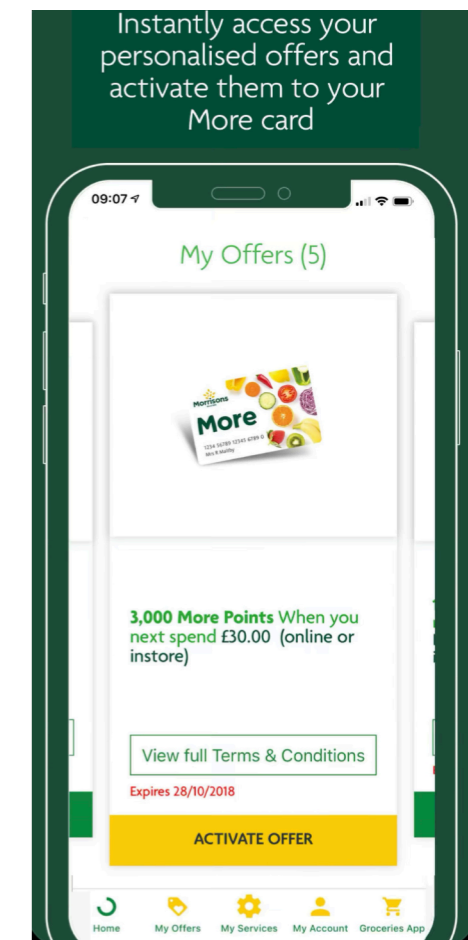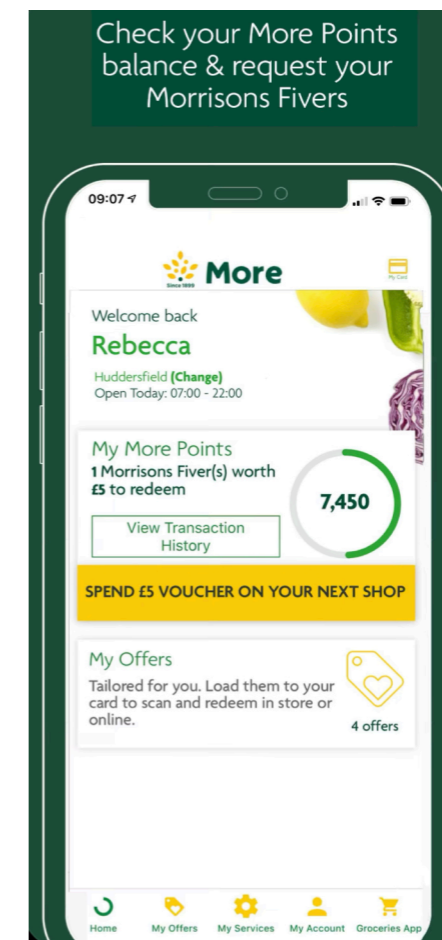
# User Research

# User Interviews

## Morrisons Interviews

We did some user interviews by asking members of the public outside of a Morrisons supermarket. We tried to ask different age ranges, classes and genders to get a broad range of data we could use when developing our concept further.

**How do you feel about some sort of reward system based on your carbon footprint?**

1. Add it to the current more card system.
2. I live alone so it wouldn't be worth it, however for big families it could be.
3. It would be a good idea but people who don't spend a lot wouldn't be able to take advantage of the system like with many points systems.
4. Store Card

**Where do you find about sustainable living?**

1. Online
2. TV, News and Online
3. Social Media
4. Economist Magazine
5. Smartphone news

**What drives your purchases?**

1. Cheapest
2. Brand Quality
3. Best Value
4. Quality Brands
5. Quality

**Would you change your purchase decisions to reduce emissions?**

1. Yeah if there was a more local Morrisons.
2. -
3. Organic produce would need to be the same price as none organic.
4. Yes
5. Yes

**Do you care about being eco-friendly?**

1. Yes
2. Yes
3. Yes
4. Yes
5. Yes

**What do you think Morrisons could do to help shoppers be more sustainable?**

1. Stop packaging vegetables in plastic.
2. -
3. -
4. More paper and less plastic products.
5. Not sure.

# User Persona - Tim

## Tim Alder

**47,** Doctor

| CARING | INDEPENDENT | PUNCTUAL | CHARM |
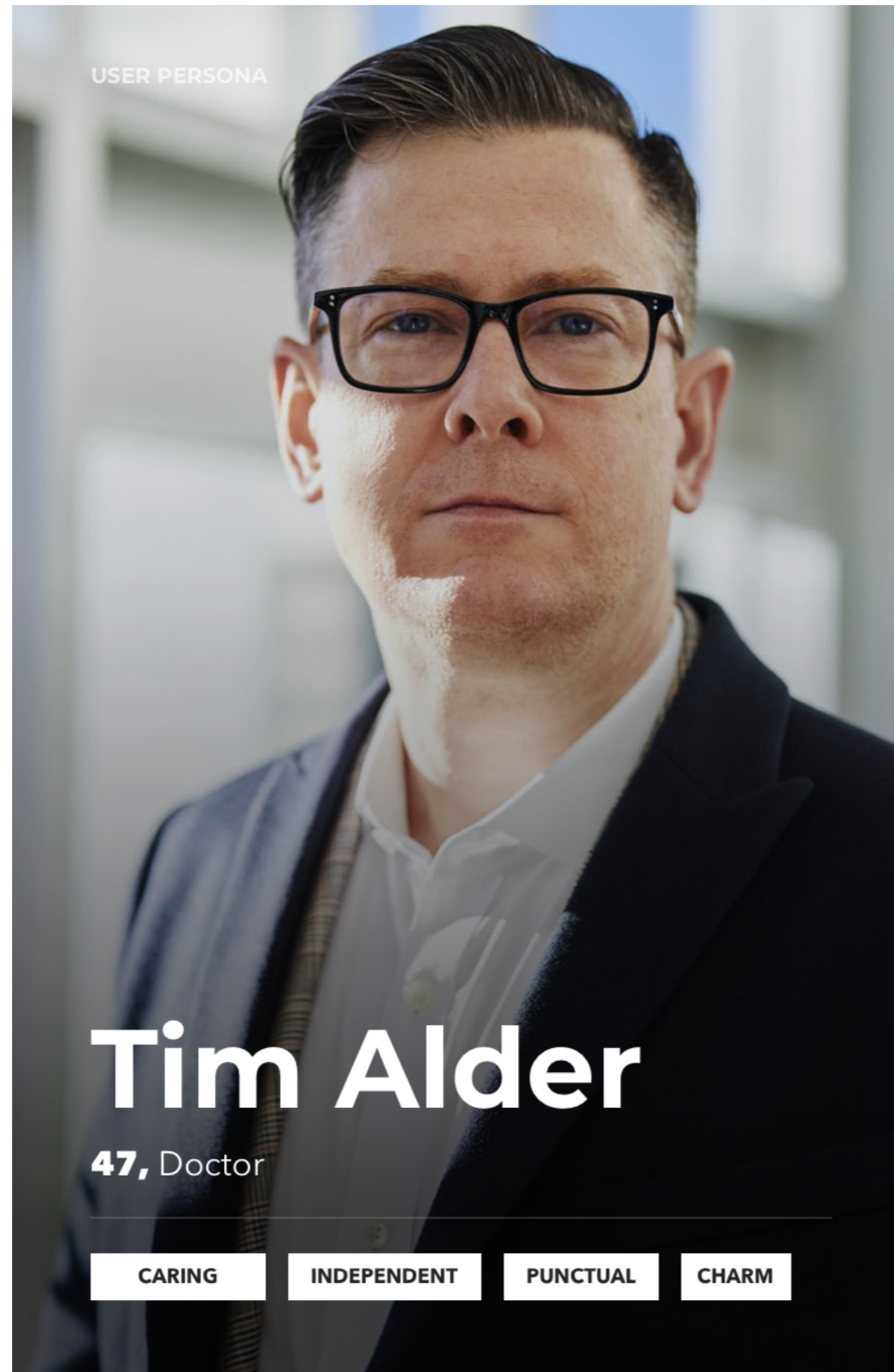
### ABOUT

Tim is a GP in Newcastle upon Tyne, he is a middle class citizen and is educated in sustainable shopping. He mainly does he weekly shop at Tesco but Morrisons is closer to his workplace so that is where he goes for lunch and petrol for his car. At Tesco he buys products based on packaging and quality. He puts the latter first though and if a product has better quality but has a larger footprint he is still likely to choose those products over the sustainable ones.

He feels that it's mostly up to the supermarkets to incentivise sustainable shopping rather than the shoppers themselves. Market sustainable items more and make them cheaper or create a green points system based on the sustainability of their shops. This would create a big boom around helping the planet in a similar way banning plastic bags has.

### GOALS

- Incentivise shoppers to do more sustainable shopping

- Create a bigger reason to shop at Morrisons rather than convenience

- Educate shoppers in better shopping practices in-stores rather than with marketing or social media.

### FRUSTRATIONS

- Supermarkets mainly market deals or offers over sustainability

- Prices for sustainable items can be more expensive or be less quality than known brands

# User Persona - Jane

**Jane Doe**

**55,** Retired Mother

| PASSIONATE | LOVING | POOR | HONEST |

## ABOUT

Jane is a retired mother. She has two teenage daughters and lives in a moderately small house for the size of their family. She is also quite poor and shops at Morrisons because it is extremely convenient. While she has heard of sustainable shopping she prefers to focus on the more deal and offer focused shop. She also buys items that save her money even if they have a larger carbon footprint overall. She does appreciate the wonky line of food that Morrisons offer allowing her to get cheaper vegetables as she doesn't need the quality to be top notch for daily family meals.

She doesn't use the Morrisons app at all because she finds it finicky and there isn't any incentive to use the service as she shops on the cheaper end of the scale the delivery cost already is a large part of the overall price.

## GOALS

- Just wants the cheapest foods. Doesn't matter if they are sustainable
- Wants the best quality for the cheapest price. Doesn't have much brand loyalty
- Shops at other locations aside for Morrisons more regularly

## FRUSTRATIONS

- Sustainable ingredients are more expensive
- Doesn't like the Morrisons application

# User Persona - Helen



**USER PERSONA**

**Helen Martin**

**21,** Design Student

OPTIMISTIC  INDEPENDENT  CREATIVE  FUNNY
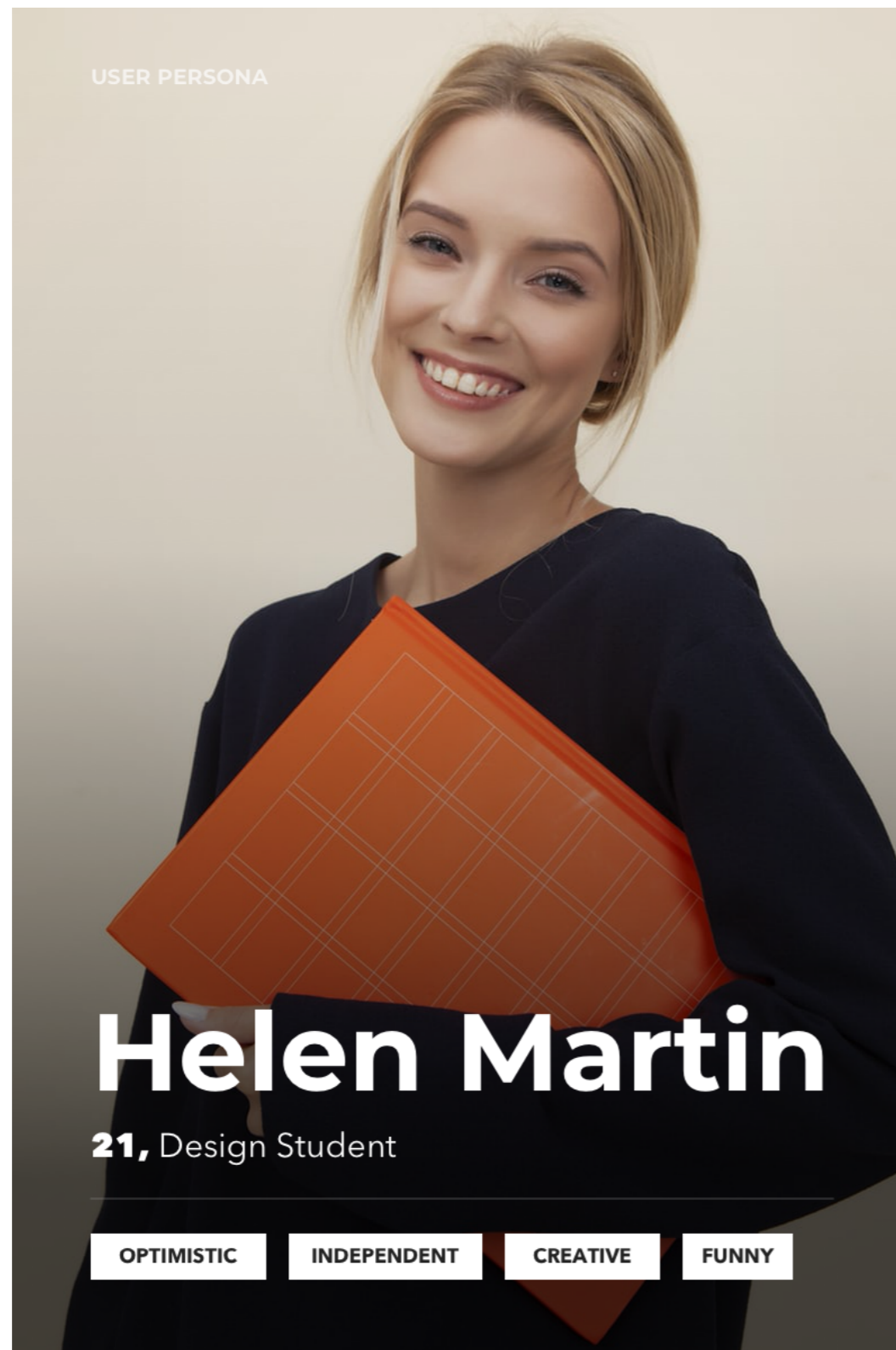
**ABOUT**

Helen is a 21 year old design student. She lives Edinburgh but comes from Newcastle. She has just started her first year at University and has only started shopping for herself. She is a vegan who would like to be more sustainable but doesn't know how to.

She also found it hard educating herself about how to live sustainability and most of the main supermarket apps only focus on delivery to avoid customer confusion but don't show any impact these purchases may have on the planet and green options are definitely not prioritised over price.

**GOALS**

- She wants to easier and cheaper for more people to become vegans.

- It was hard for her to learn what foods to buy perhaps stores could do that.

- Often price is the main purchase factor rather than the effects that it will have.

**FRUSTRATIONS**

- Shops that have loads of food waste.

- People who use cars to go for small shops like work lunch.

- Lack of information in shops about sustainable practices.

# Research Summery

# Research Summery

## Insights

- Morrisons primary focus needs to be modernising their application. Making their application better would get rid of the bad reviews therefore making their delivery service more popular.

- This would allow them to focus on sustainability and increase the popularity of their online which is the weakest part of Morrisons.

- Morrisons offer a very sustainable experience compared to their competitors by offering the wonky vegetables line of food and being the first supermarket to switch to paper bags. Focusing on this aspect while users are in-store would boost their

- From our user research we found that a lot of users didn't even know that Morrisons have a mobile application. Including some sort of promotional material in the application or in store would help inform users of a new app with a focus on sustainability.

- Morrisons have a points card they could use for sustainability based offers. During our user research we asked if users would be okay with the idea of rewarding people if they buy more sustainable produce and users said they would be more likely to as currently there isn't many incentives.

- All the people we interviewed said that they care about being eco- friendly, but during the conversation it felt like that they are more concerned about the supermarket being local and that the price for sustainable shopping is not high.

# Main Focus

## In-Store Experience

So after a group discussion we wanted to find out what the main issue was informing shoppers of sustainability within their stores. We concluded that Morrisons just don't have the online expansion like many other supermarkets do.

However they have a comparable or superior in-store focus on sustainability and we need to inform the users of this by creating a new mobile experience that goes hand in hand with an in-store one. So we decided to come up with an application design for an in-store experience.
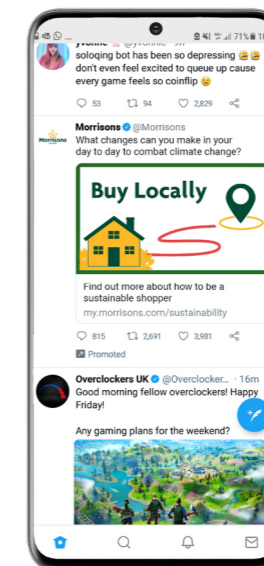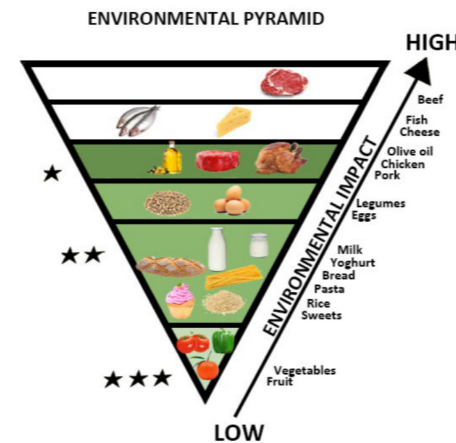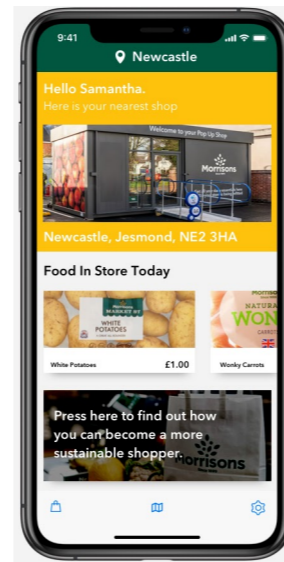
# Idea Generation

# Brainstorming

We started by brainstorming ideas and came up with three primary ideas we wanted to develop further.

**Morrisons Pop Up Shop**

**Infographic Advertisement Campaign**

**Sustainable Stickers & Companion App**

# Morrisons Pop-Up Shop

### Idea 1

**Concept**

This would be a pop-up shop that could be moved every week to a new area. This would sell a small number of items with a focus on sustainability. These shops would have their own companion app to show the user information such as stock and a GPS tracker to find the users closest pop-up store.

**Use Case**

By making multiple pop-up shops closer to home each user wouldn't have to use a car to get to them or travel a lot less. These would be smaller and offer a selection of essential buys with a focus on sustainability meaning users would be less likely to buy food they would waste.

The companion app would inform the user of these "deals" and where the nearest one is. This would move around the local area often.

## Key Points

- Smaller Local Shops

- Reduce Travel Time

- Easy to find tracking

- Moves around so more people could have access.

# Infographic Ad Campaign

## Idea 2

**Concept**

Social Media Campaign with a primary focus on uneducated users. This would use infographic styled animatics to educate shoppers on sustainable living.

**Use Case**

Educating people is the main factor when it comes to sustainable shopping. Most people think they are helping the planet by buying healthier or better packaged foods however if they drive a nice car to the shop they are impacting the planet more and need to be educated.

## Key Points

- Educate a new generation

- Easy to understand infographics

- Cheaper than television or physical

- Broad target audience

# Quick Scan

**Idea 3**

**Concept**

Application with in-built scanning functionality that can scan stickers placed on products. This will then bring up sustainability information on that product and give it a rating. The more sustainable the product the higher the rating. It can also inform users where it was made and how sustainable that process is.

**Use Case**

Already educated tech-savvy user wanting to find ways to shop more sustainable. This helps them do that without it being as intrusive as scanning to shop or mobile payments like with other competitors. It also ties in well with the sustainable focus Morrisons currently have.

## Key Points

- Uses a mobile which could improve Morrisons existing delivery service

- Could help Morrisons get up to date with their mobile experience

- Offers an in-store experience which could make it more interactive

# Storyboarding

# Storyboards

She noticed that in the cold seasons it´s getting warmer and it makes her feel concerned about climate change and how it will impact her child.

During a chat with her neighbour she became aware that she can make an environmental impact through food consumption.
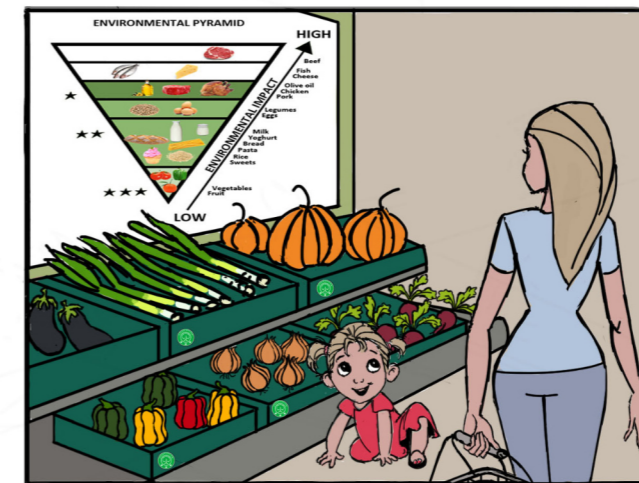
Therefore she wants to get more informed about sustainable shopping. She wonders if her local shop Morrisons has more information about sustainable products.
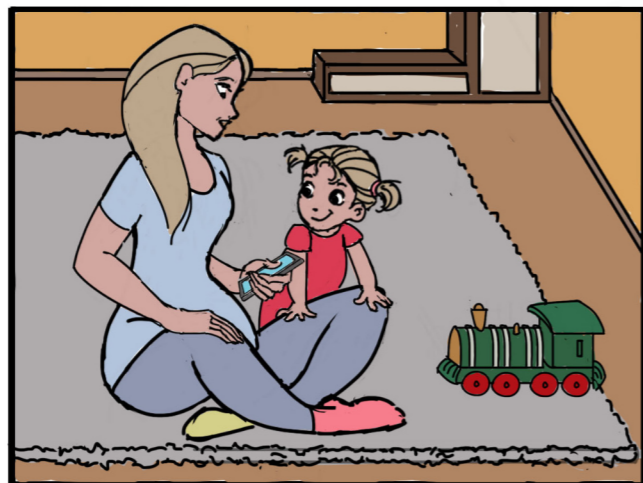
Great! Morrisons provides scannable green option stickers. She sets up an account in 2 minutes.

Nik needs to do food shopping today and she sees Morrisons´s outdoor advertisement.

Indoor advertisment like the environmental pyramid gives Nik a quick understanding about sustainable products.

In a few seconds the products are scanned through the app and the information about sustainable food are saved.



Morrisons´s scannable stickers also have a star rating system which helped Nik to decide which products are more sustainable.



After her child is in bed Nik can relax and look up her saved information on the Morrisons´s app about sustainabe products.

# Scenario

**Background**

A married woman and first-time mother who also works as a part time nurse. She noticed that in the cold seasons its getting warmer and it makes her feel concerned about climate change and how it will impact her child.

During a chat with her neighbour she became aware that she can make an environmental impact through food consumption.

Therefore, she decided to get more information about sustainable products.

She figures out that her local shop Morrisons has an app that provides scannable green option stickers, with a star rating system, for more sustainable shopping experience. The app is easy to use, quick to understand and user friendly.

**Issue:**

- Lacks information of sustainable products.

- Can not spend to much time in store because of her demanding child.

- Can not spend to much time on the app because of the attention her child needs.

**Wants:**

- Easy, quick information about sustainable food on one screen

- User friendly app

- Easy access and a way to safe information about sustainable food through the phone app, to be able to read informations later when she has more time.

## Nik

Age: 39 years old
Status: Married
Occupation: Nurse
Other: Has a 3-year-old toddler

# Technical Research

# Possible Solutions

## Alternative Technology

There are many ways phones can use image recognition to scan objects in the real world.

Most systems just use a database of images and tries to match images you take or scan with your phone to that database of imagery.
Some of the more modern systems can use machine learning to adapt and learn on the go.

This makes the system become more accurate overtime as more people use it however at first it can be inaccurate since there is a lack of data.

QR codes can be used to look up websites or to match an image. These don't use any image recognition as it's just a visual code for something. These can be good if the user wanted to search up a website for example or in this case the Morrisons application on the app store.
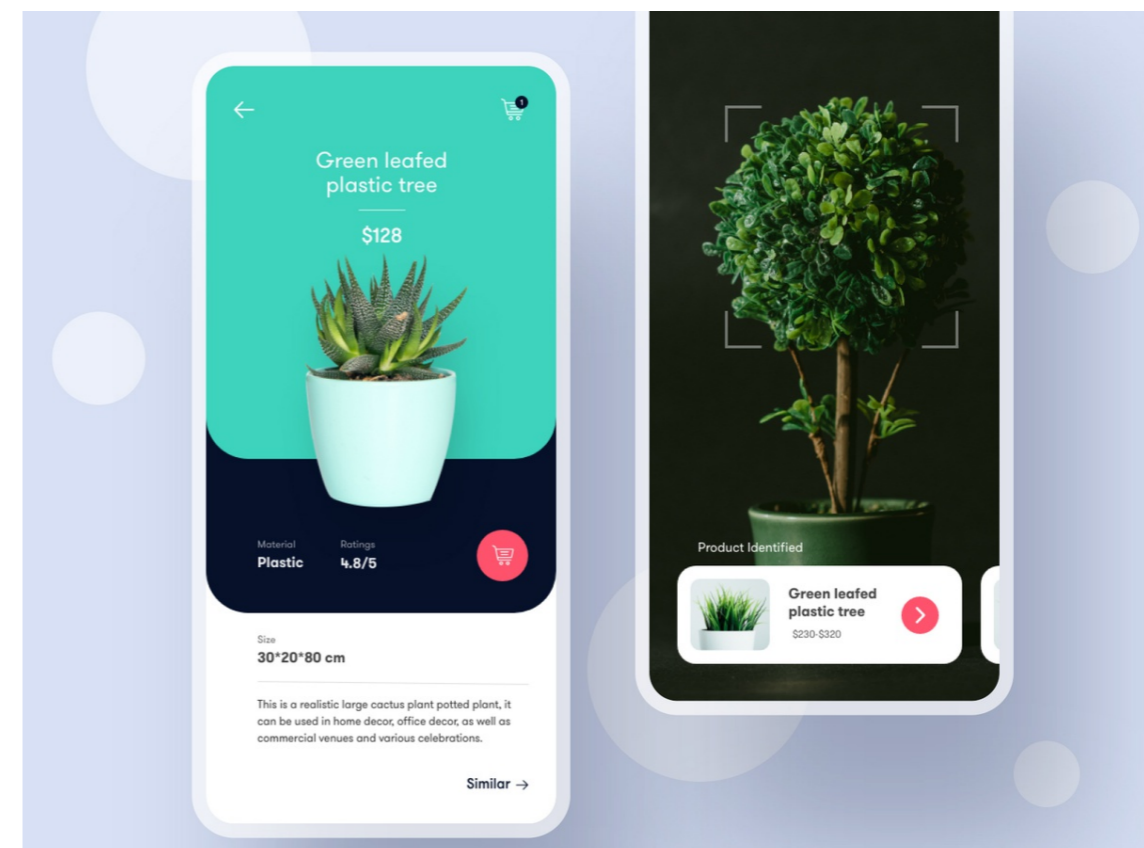
# Image Recognition

## Image Recognition

After deciding on our final concept and idea we needed to explore if scanning images to bring up information was possible. We found several apps that could scan objects such as coins and flowers to bring up information based on that object.

Modern phones are capable of some form of augmented reality functionality. Since the primary focus of the application was helping users become more sustainable based off their product choice rather than an interactive AR experience we wanted to keep it more simple and use image recognition rather than AR.

Image Recognition is used in lots of industries and for thousands of applications this technology can be implemented into Morrisons Sustain and allow users to scan stickers to get the information.
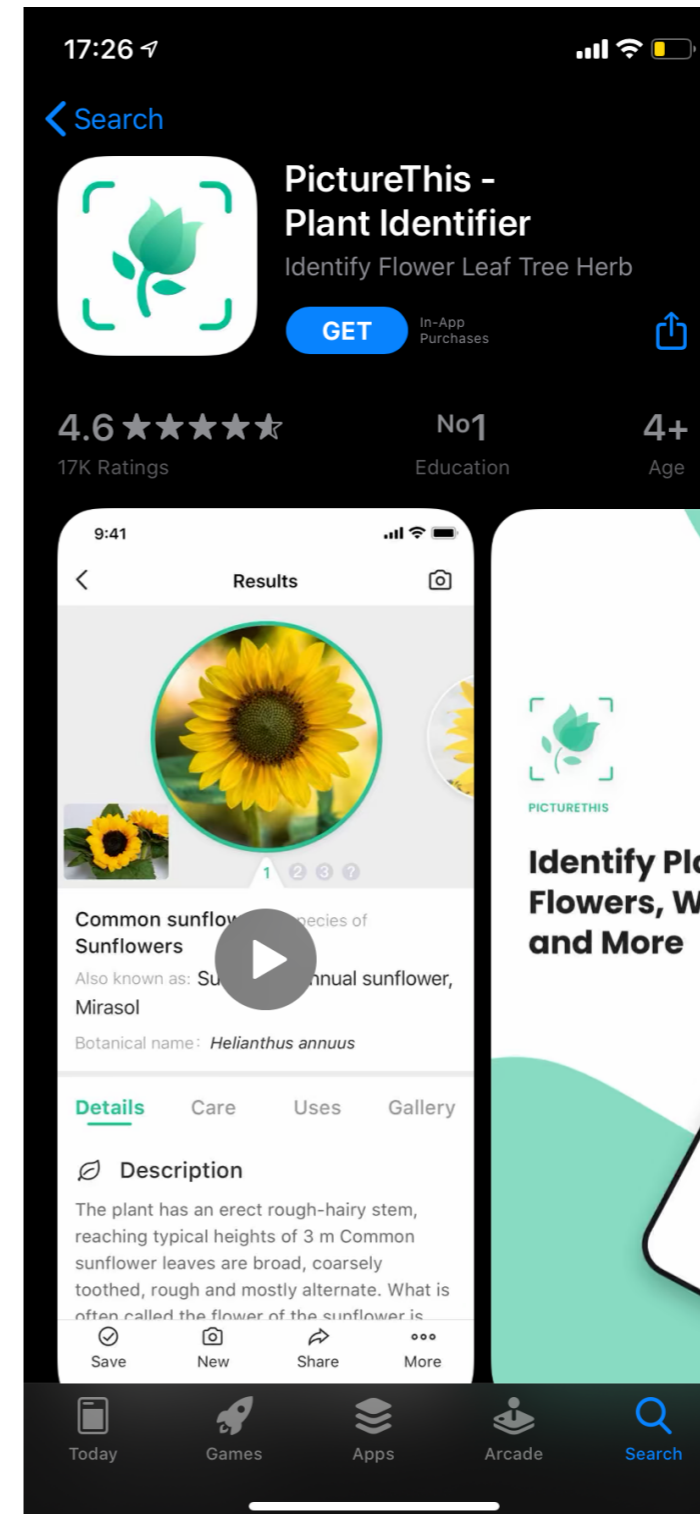
# Existing Image Recognition

**Existing Systems**

We tried exploring current systems and applications that use image recognition to convey information to the user.

**PictureThis - Plant Identifier**

PlantIdentifier is a subscription based application that allows the users to take a photo of a plant they want to identify and using AI it can recognise that plant and bring up information and details about that plant.

Users can then favourite and save this information for a later date it can also give help on how to care for that plant and it can also identify plant diseases.

# More Image Recognition

## Vivino

Vivino lets users take pictures of wine labels at restaurants or their friends houses and places where they don't have access to purchase the wine to bring up information about that brand/label with places where they can purchase the wine for themselves.

This application has an editors choice award and uses image recognition in it's wine scanning system.
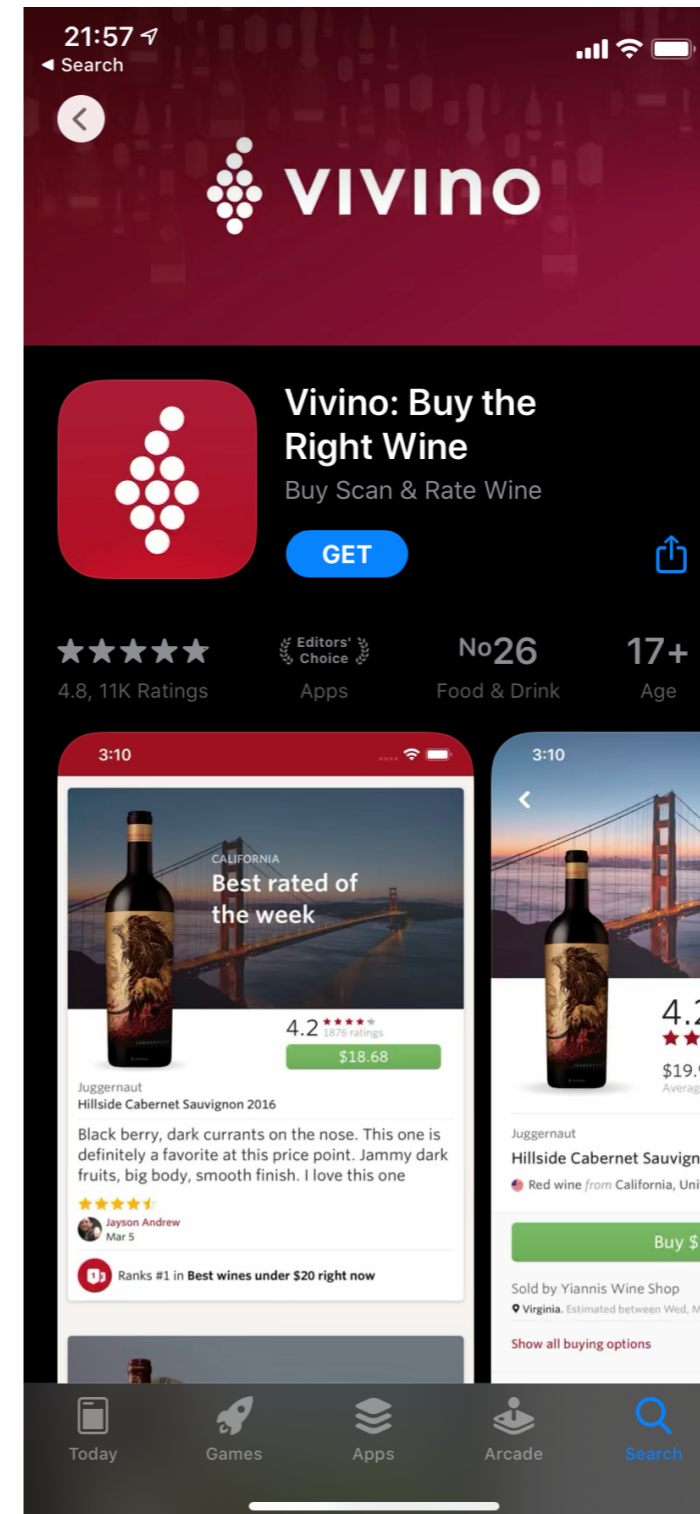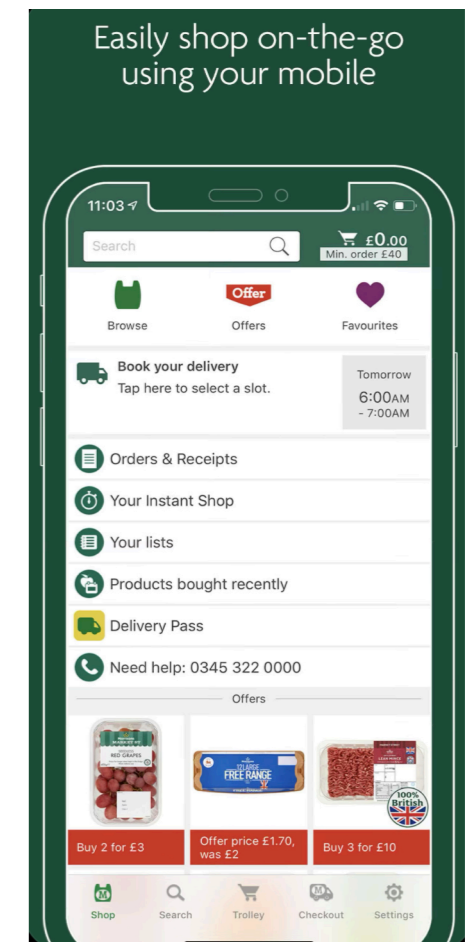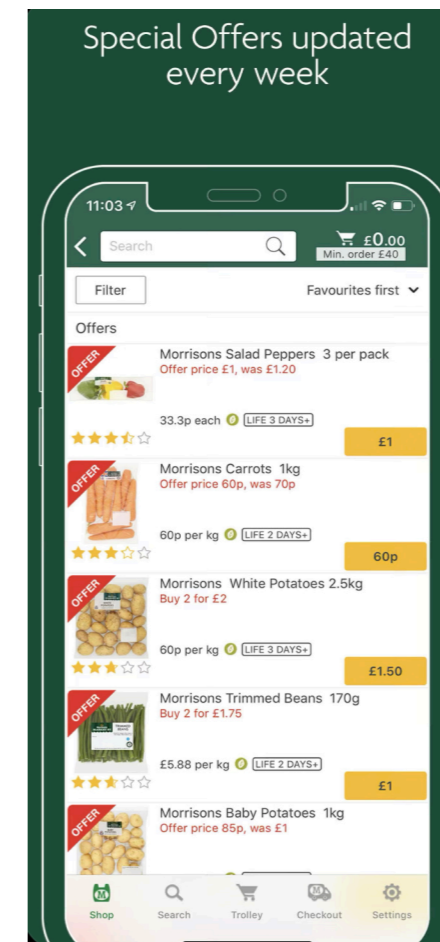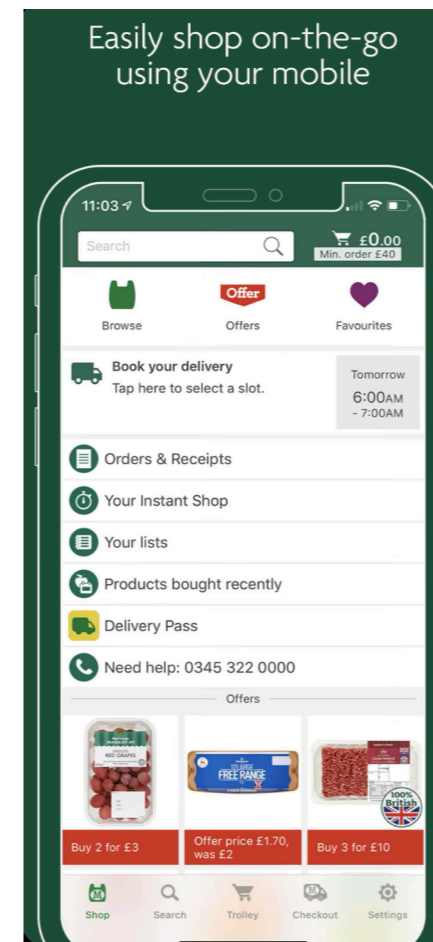
# Wireframes

# Application Design

## Current Application

We wanted to explore Morrisons current application to see if any improvements could be incorporated into our conceptual phase.

Morrisons current application design is dated compared to their competitors and they are far behind with their online infrastructure primarily focusing on their website or providing for third party services such as Amazon Now and TooGoodToGo.

This would need to be improved if they were going to introduce any new services such as a new application service.

# Low Fidelity Wireframes

## Wireframes

As a group we came up with some wireframes that could improve the current design and fit in with the new concept we have come up with.

## Low Fidelity Wireframes

As a group we made some low fidelity wireframe sketches. We wanted to explore some ideas for the general application design and we had a broad range of ideas.

We eventually settled on this design for the final application.

We also the idea of making a introduction wizard that would walk users through the set-up process.

I mage

product
Image

Sustainable

Info                    ○
                    Favourite
↑                     Icon
Reading
and
product

Finish

---

logo

Search Function

User  Update

product

Company Update

Tab Bar

---

logo

Search

Favourite Items

product
Cards

---

logo

Search

Scanned Content

Scanned Item
Info

○ ○

Tab items

---

logo

Search

Scan

Scan Feedback

tab items
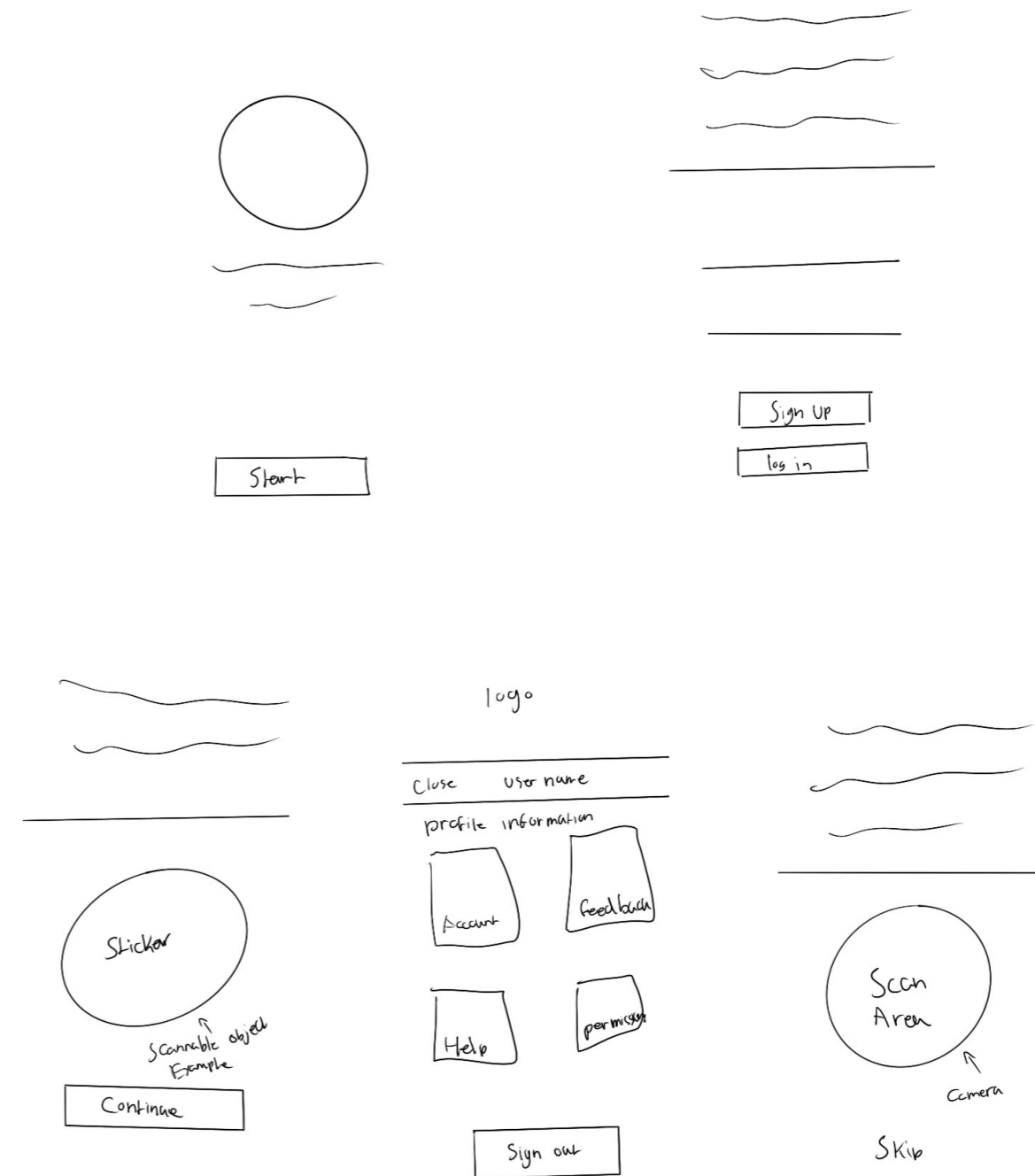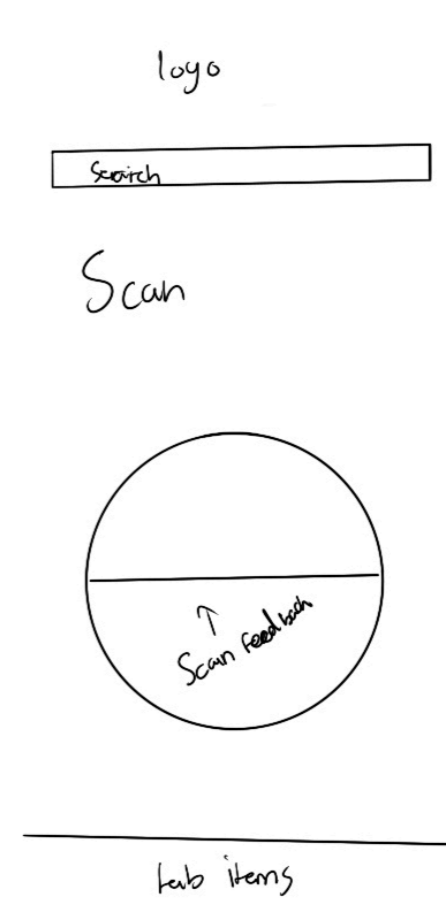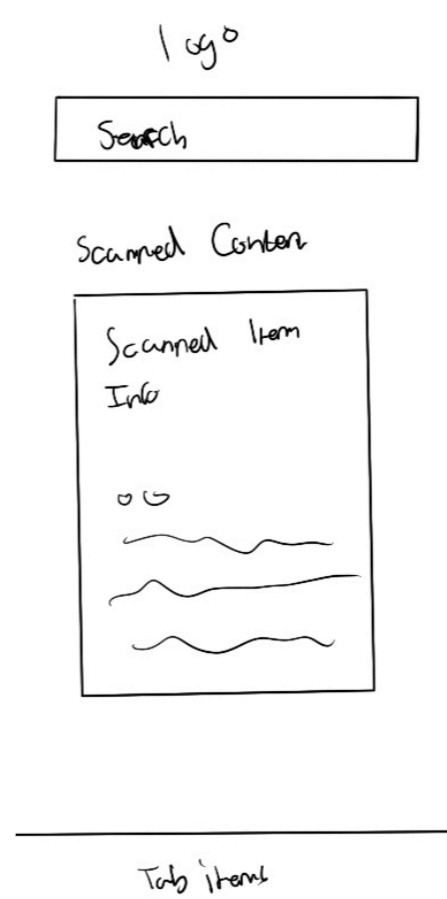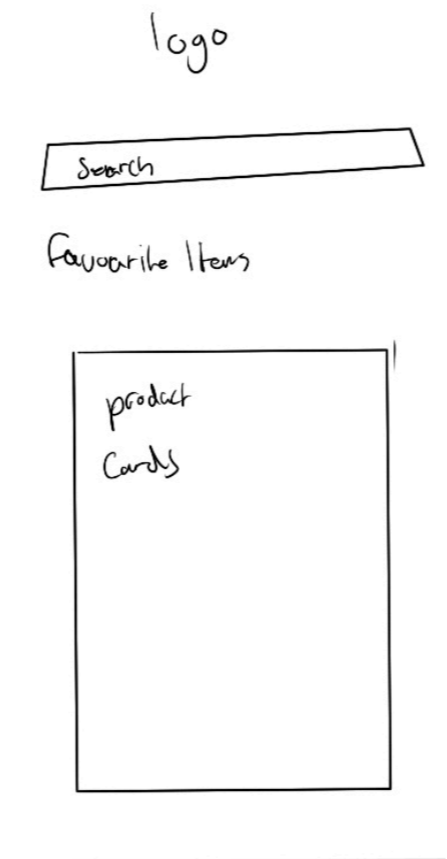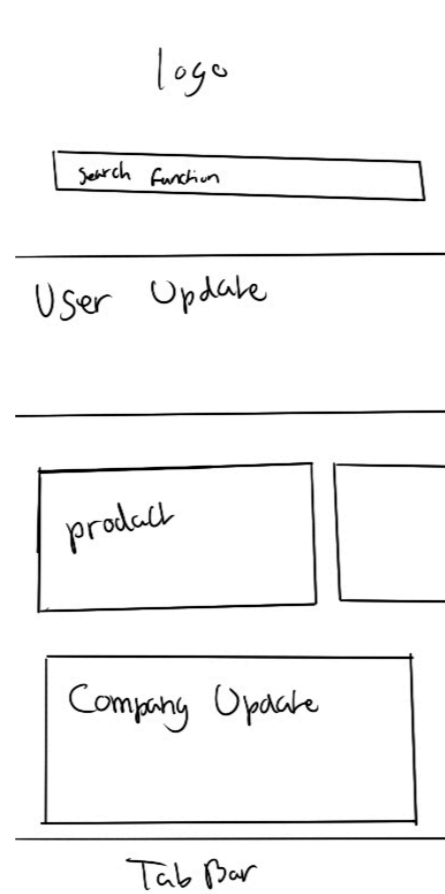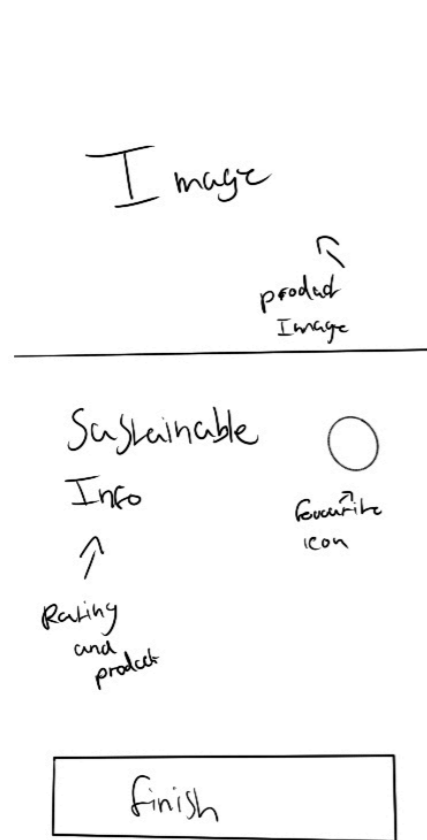
# High Fidelity Wireframes

## More Wireframes

After mocking some quick wireframes we wanted to get a sense of how the final layout could look so we made some high fidelity grey-scale wireframes.

This allowed us to get a clearer picture of the final application design.

This is where we added some more features and picked the colours for the final application design.

# Service Blueprint

# Blueprint



Blueprint for Morrisons´s established scannable green option stickers

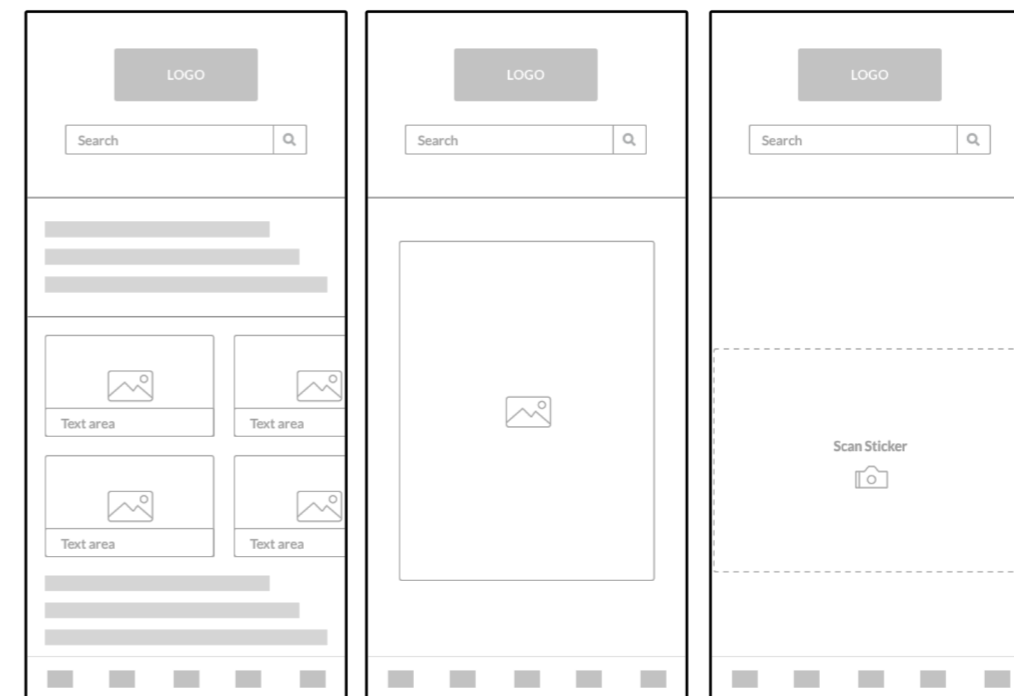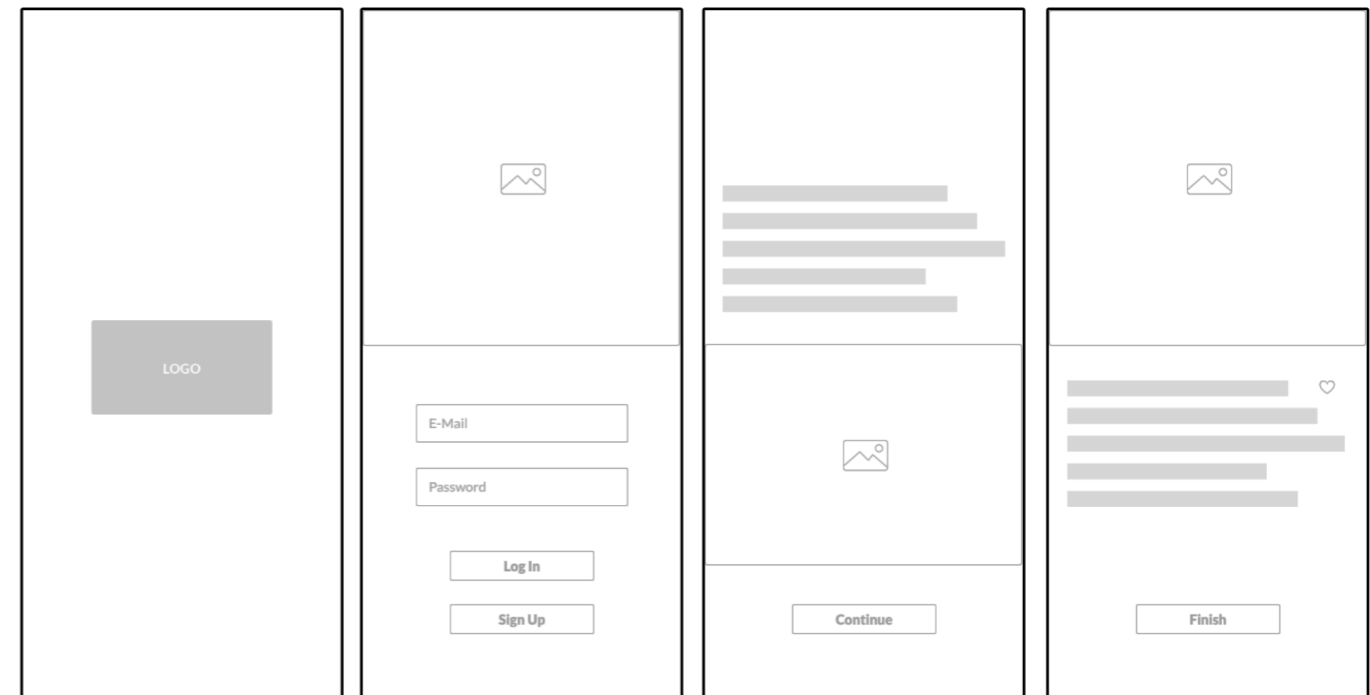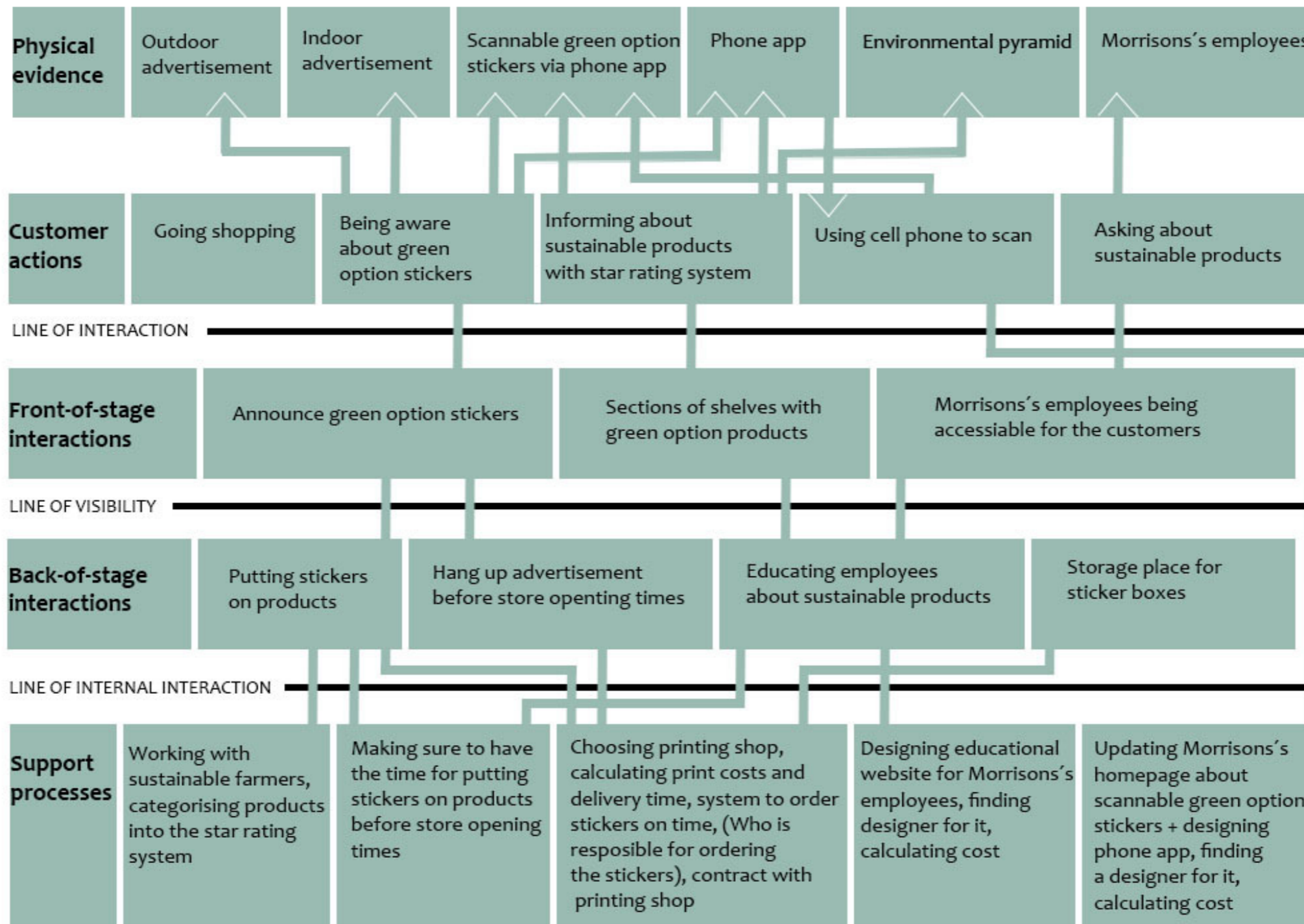| | | | | | | |
|---|---|---|---|---|---|---|
| **Physical evidence** | Outdoor advertisement | Indoor advertisement | Scannable green option stickers via phone app | Phone app | Environmental pyramid | Morrisons´s employees |
| **Customer actions** | Going shopping | Being aware about green option stickers | Informing about sustainable products with star rating system | Using cell phone to scan | | Asking about sustainable products |

LINE OF INTERACTION

| | | | |
|---|---|---|---|
| **Front-of-stage interactions** | Announce green option stickers | Sections of shelves with green option products | Morrisons´s employees being accessiable for the customers |

LINE OF VISIBILITY

| | | | | |
|---|---|---|---|---|
| **Back-of-stage interactions** | Putting stickers on products | Hang up advertisement before store opening times | Educating employees about sustainable products | Storage place for sticker boxes |

LINE OF INTERNAL INTERACTION

| | | | | | |
|---|---|---|---|---|---|
| **Support processes** | Working with sustainable farmers, categorising products into the star rating system | Making sure to have the time for putting stickers on products before store opening times | Choosing printing shop, calculating print costs and delivery time, system to order stickers on time, (Who is resposible for ordering the stickers), contract with printing shop | Designing educational website for Morrisons´s employees, finding designer for it, calculating cost | Updating Morrisons´s homepage about scannable green option stickers + designing phone app, finding a designer for it, calculating cost |

# Branding

# Branding

## Promo Material

After finishing the concept, we needed to come up with a branding element for the project to get it into the hands of Morrisons shoppers. We started by looking at Morrisons current brand image and how we could adapt our concept to fit into those guidelines.

All of our promotional material we have made uses the colours and sticks with their theme. We have also used their logo typeface wherever we can within our application to help users understand that it is a Morrisons app they are using.

We have also used their logo typeface wherever we can within our application to help users understand that it is a Morrisons app they are using.

Since we found during our user research that not a lot users use Morrisons online services such as their website or app we wanted to focus on broadening the in-store experience.

To do this we focused on physical forms of promotion that can be placed in and around Morrisons stores or the local area.

# In-Store Promo & Sticker Design

## Stickers & Banners

We did some concepts of what branding could look like within a Morrisons store. This would be coupled with the application used in-store to create a better in-store experience for users.

# Application Posters

# Colour

## Application Colours

With the application colours we wanted to take into account the brand image of Morrisons we found during our visual research phase. We found that using hints of the yellow in some design elements while keeping mainly with a green and white palette allowed the brand image to be conveyed well enough to the user but also easy to understand.

Initially we tried incorporating yellow into the design more but found it hard to create a distinctive design that way. Morrisons have started using white in a lot of their new sustainability designs such as their paper bags and new uniforms.

#00564F

#FFC20E

#FFFFFF

# Typography

**Application Typeface**

We wanted to pick a typeface that fits in in well with the Morrisons application. For the headings and titles we decided to use Morrisons logo font a variant of Agenda and for the normal text we just used Avenir Next as we think it's a clear and nice font supported in a lot of systems and applications.
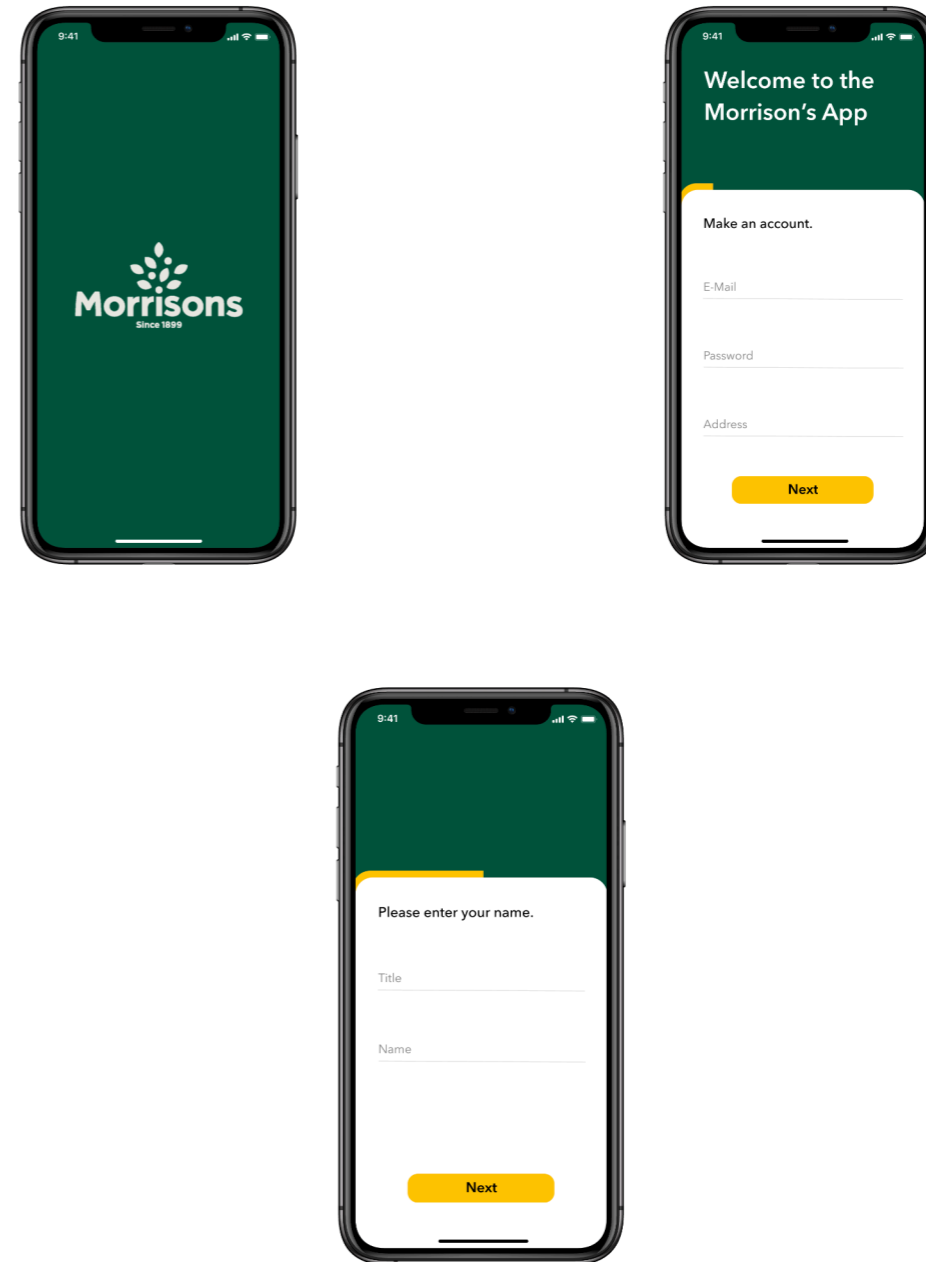
## Aa
**Agenda**

## Aa
**Avenir Next**
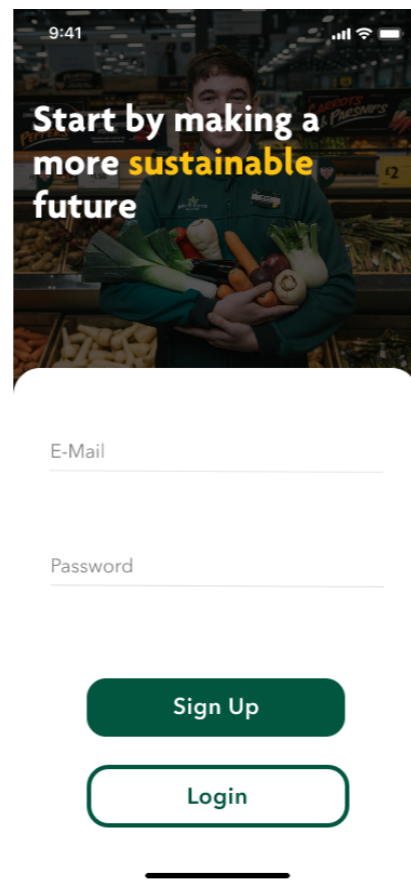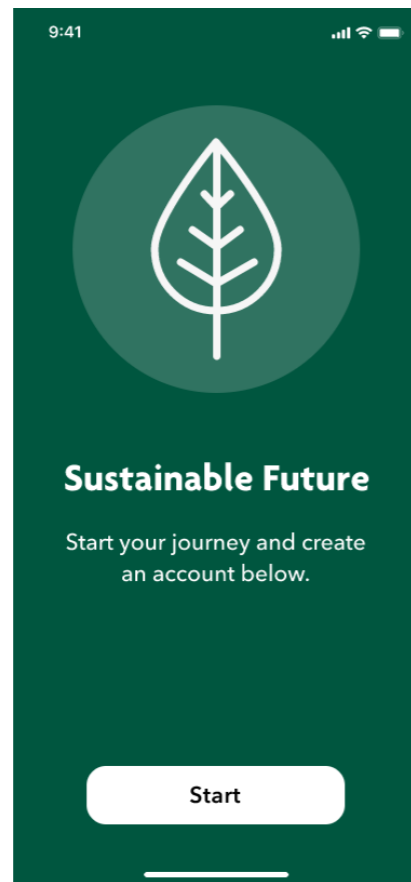
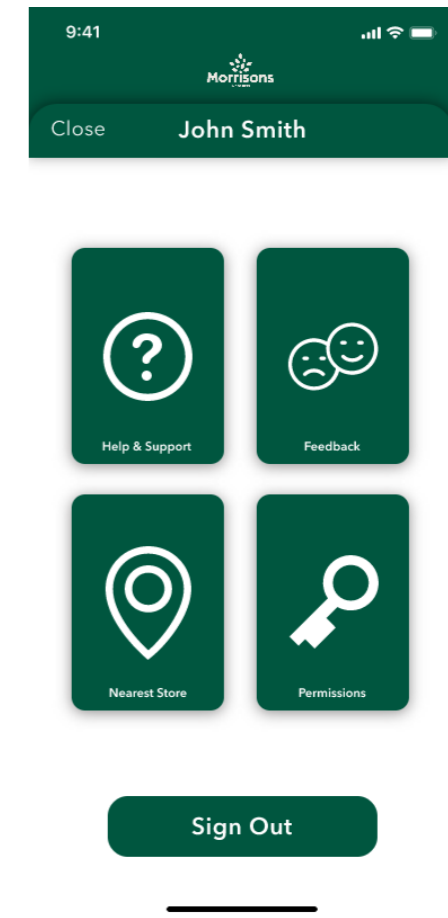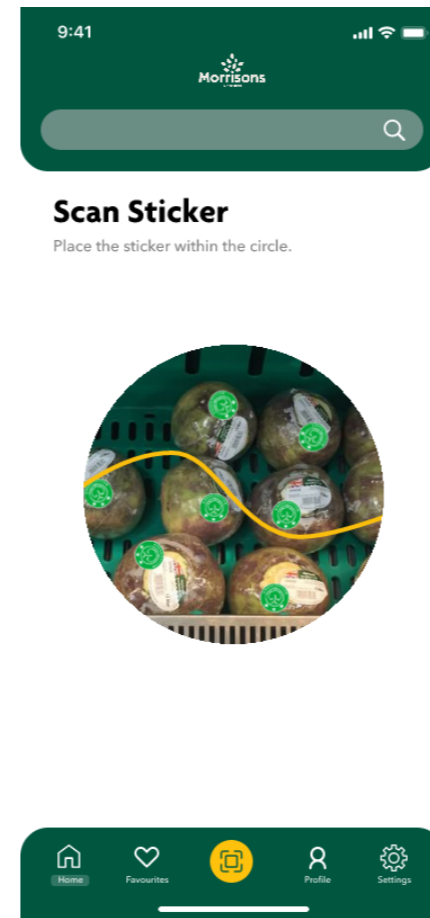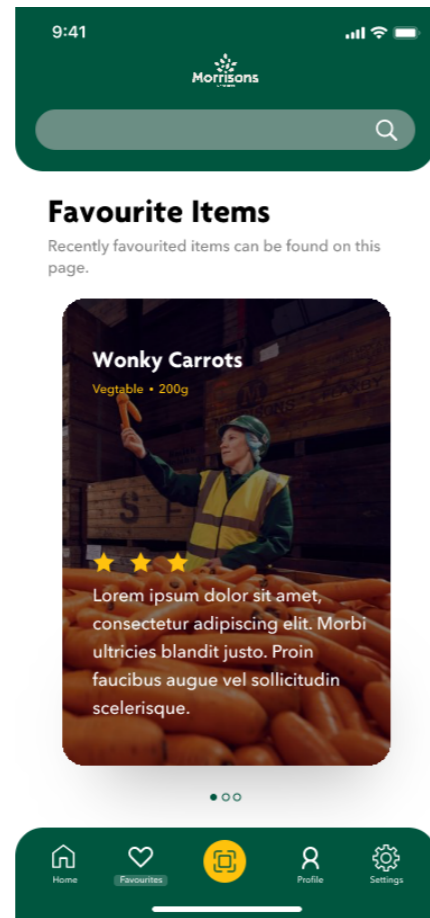# Final Design

# First Iteration

**Early Prototype**

We wanted to make a few iterations of the final design rather than going straight in after the wireframes. So we started by designing an early prototype of the application. This would end up getting changed a lot however it cemented the idea that we wanted to include a start up wizard for new users that a lot of grocery applications don't have.

This would allow users to get slowly engaged the applicat and Morrisons online servic rather than been linked to a site like the current applicat does.

# Final Application



**Morrisons Sustain**

**Sustainable Future**

Start your journey and create an account below.

Start

**Start by making a more sustainable future**

E-Mail

Password

Sign Up

Login

**Look for these stickers in-store**

GREEN OPTION

Continue

**Why don't you try scanning your first sticker now?**

Skip

**Wonky Carrots**

Vegtable • 200g

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ultricies blandit justo. Proin faucibus augue vel sollicitudin scelerisque.

Finish

**Hey Ben.**

Check below on how sustainable the food you are buying is.

White Potatoes

Wonky Carrots

Wonky Limes

Wonky Peppers

Press here to find out how you can become a more sustainable shopper

Home    Favourites    Profile    Settings

**Favourite Items**

Recently favourited items can be found on this page.

**Wonky Carrots**
Vegtable • 200g

★ ★ ★

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ultricies blandit justo. Proin faucibus augue vel sollicitudin scelerisque.

Home    Favourites    Profile    Settings

**Scan Sticker**

Place the sticker within the circle.

Home    Favourites    Profile    Settings

**Scan Sticker**

Place the sticker within the circle.

**Whole Swede**
Vegtable • 1 Item

★ ★

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi ultricies blandit justo. Proin faucibus augue vel sollicitudin scelerisque.

Home    Favourites    Profile    Settings

Close    John Smith

Help & Support

Feedback

Nearest Store

Permissions

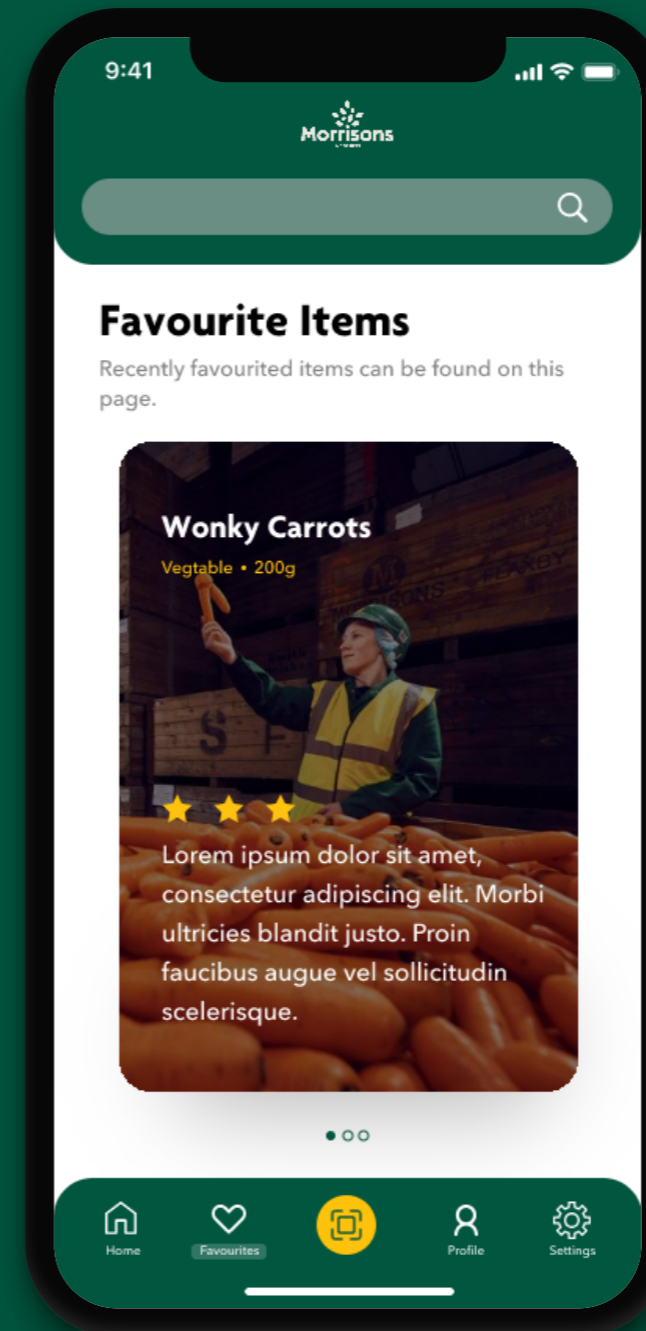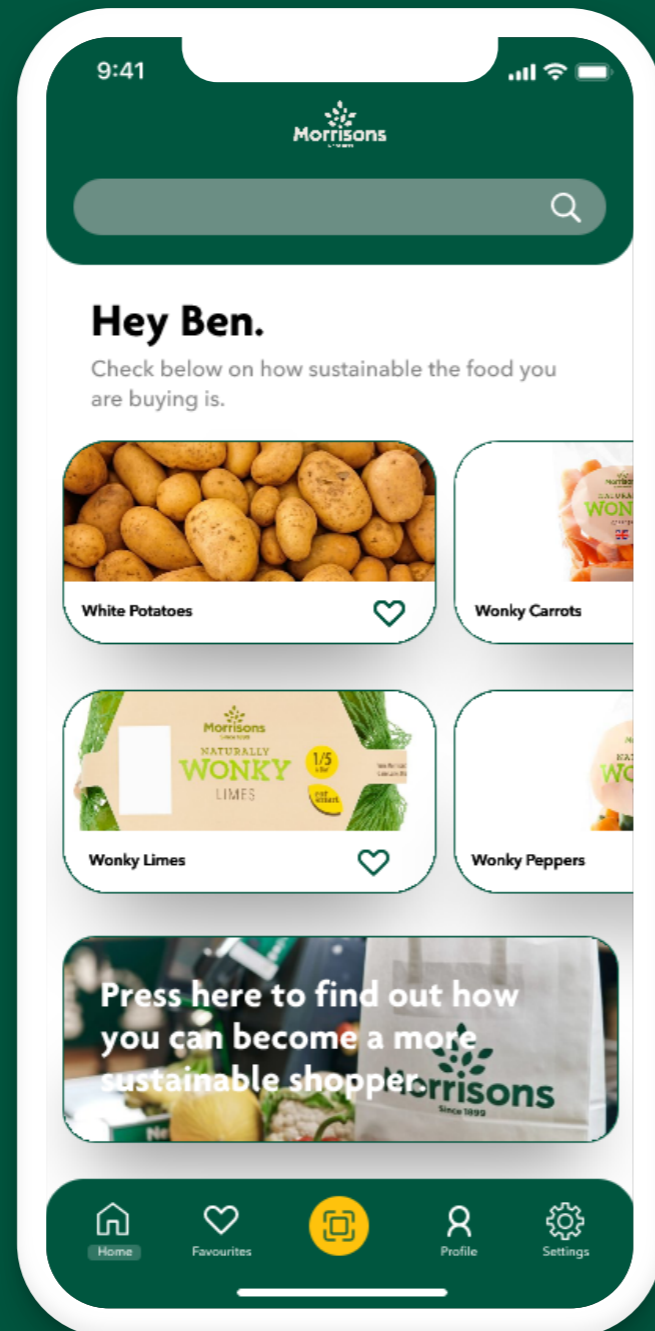**Sign Out**

# Video Prototype

# Filming

## Video Production

Filming this project was a challenge because of the quarantine restrictions in place at the time of recording.

We had to do a lot of improvisation when it came to showing an experience the user could go through while using the final application.

Without access to the TRC for equipment we also had to rely on the use of equipment we already had and mobile recording solutions.

Luckily we had a flexible tripod we could use to stabilise the shots and a member of the group had a microphone we could use to capture voice overs.
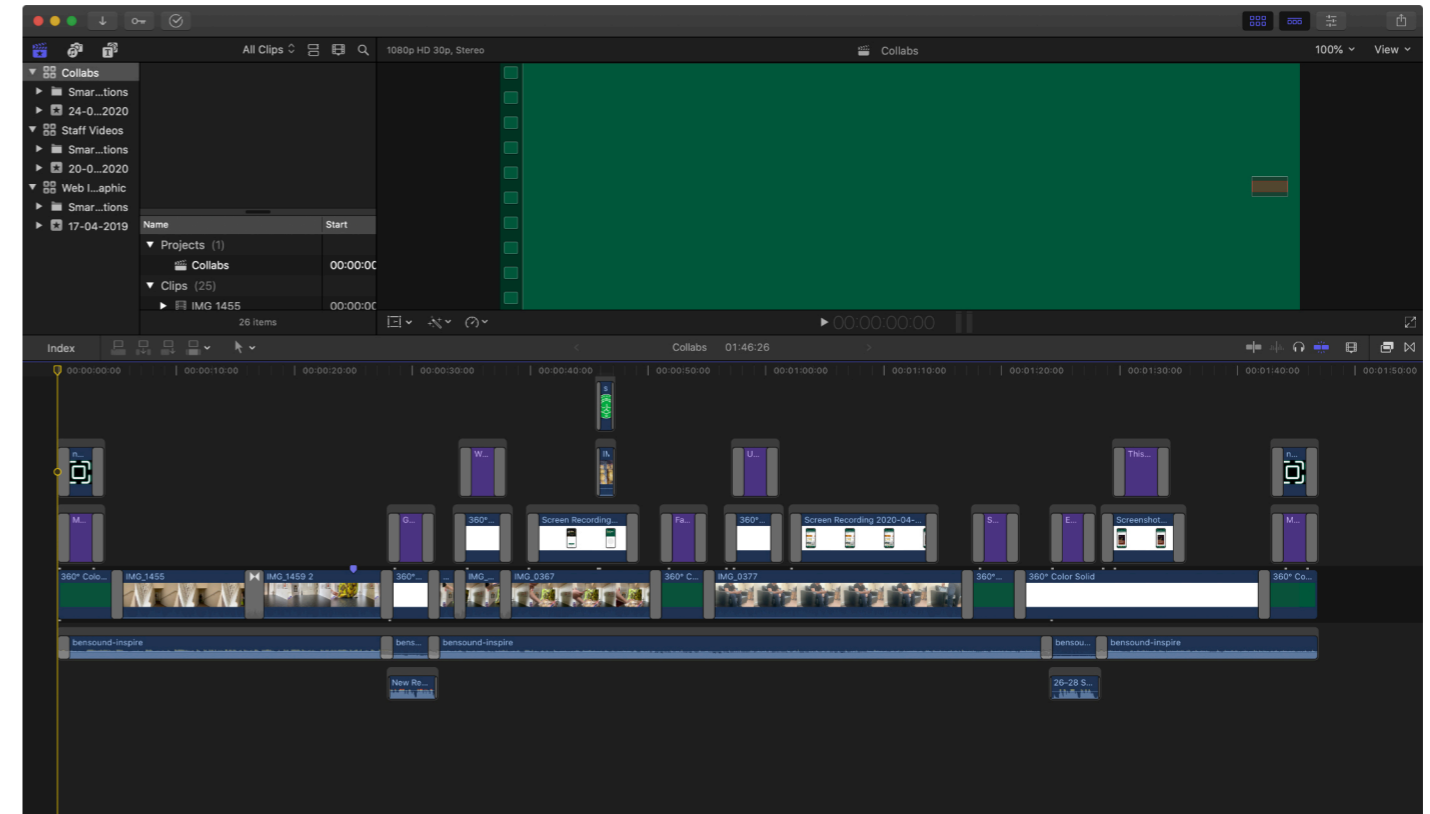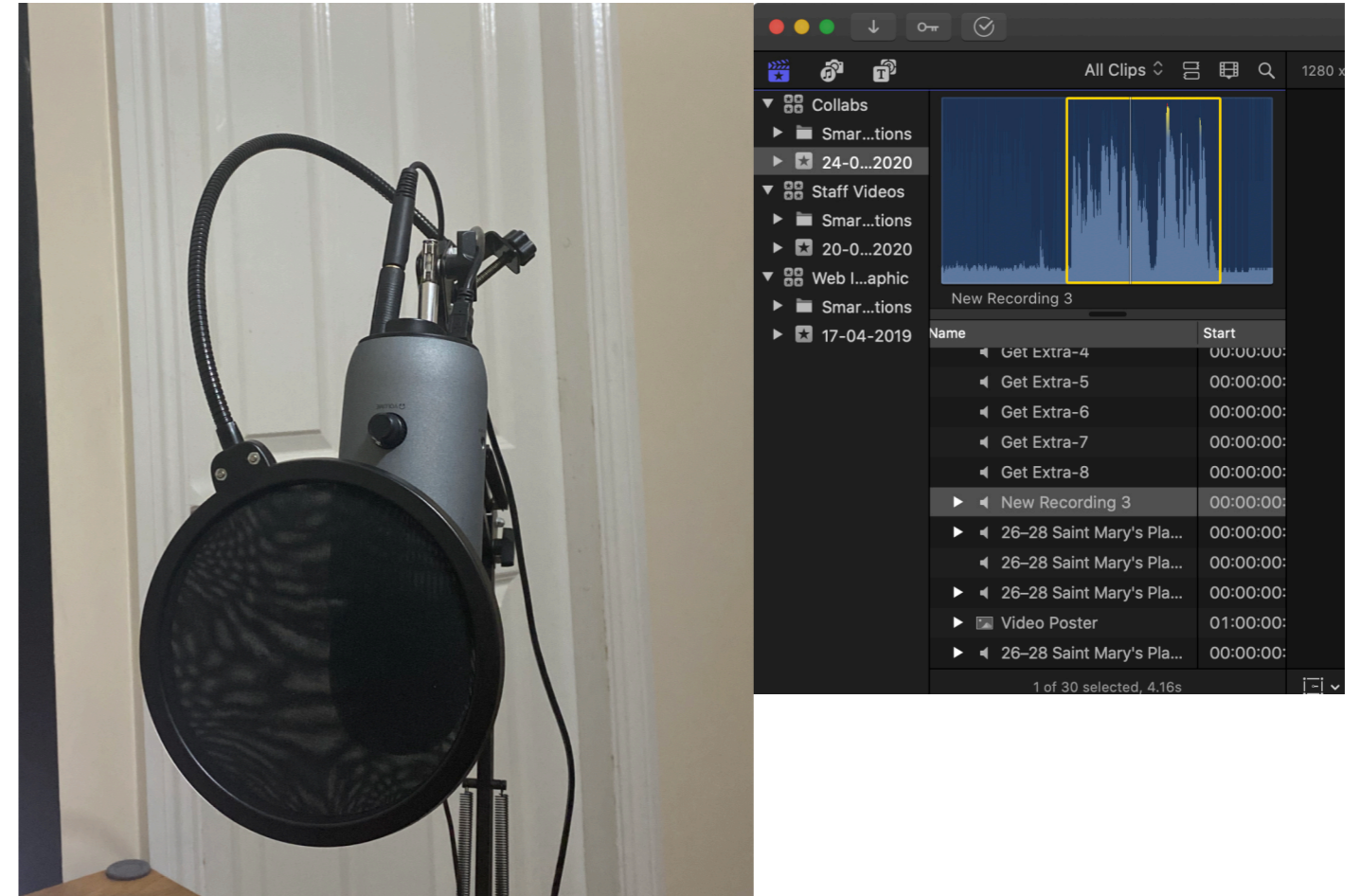
# Audio

## Audio

To enhance certain parts of the video and to make them more accessible we decided to record some.

We applied the magic audio tool to improve the quality and reduce the noise.

We made sure the lower the music while the voice over is happening and the blend the two with a a transition.

We used a backing track for the music and lowed the volume slightly as it was too loud to begin with.

We used a copyright free soundtrack from bensound for the backing track.

# Equipment

## Audio

We set up an iPhone with a simple tripod system to the record the main footage for the application video.

For the audio recording we used a Blue Yeti USB microphone attached microphone arm.

# Application Animation

## Application

To animate the application we used an application called InVision Studio. This allows you add simple animations to a mobile animated view of the application design and add transitions with a iPhone X border to make it look realistic.

We can record these transitions by using the screen recorder and add them to the video alongside some background removable, transforms, crops and edits to make them fade in and out of the side view of the video.
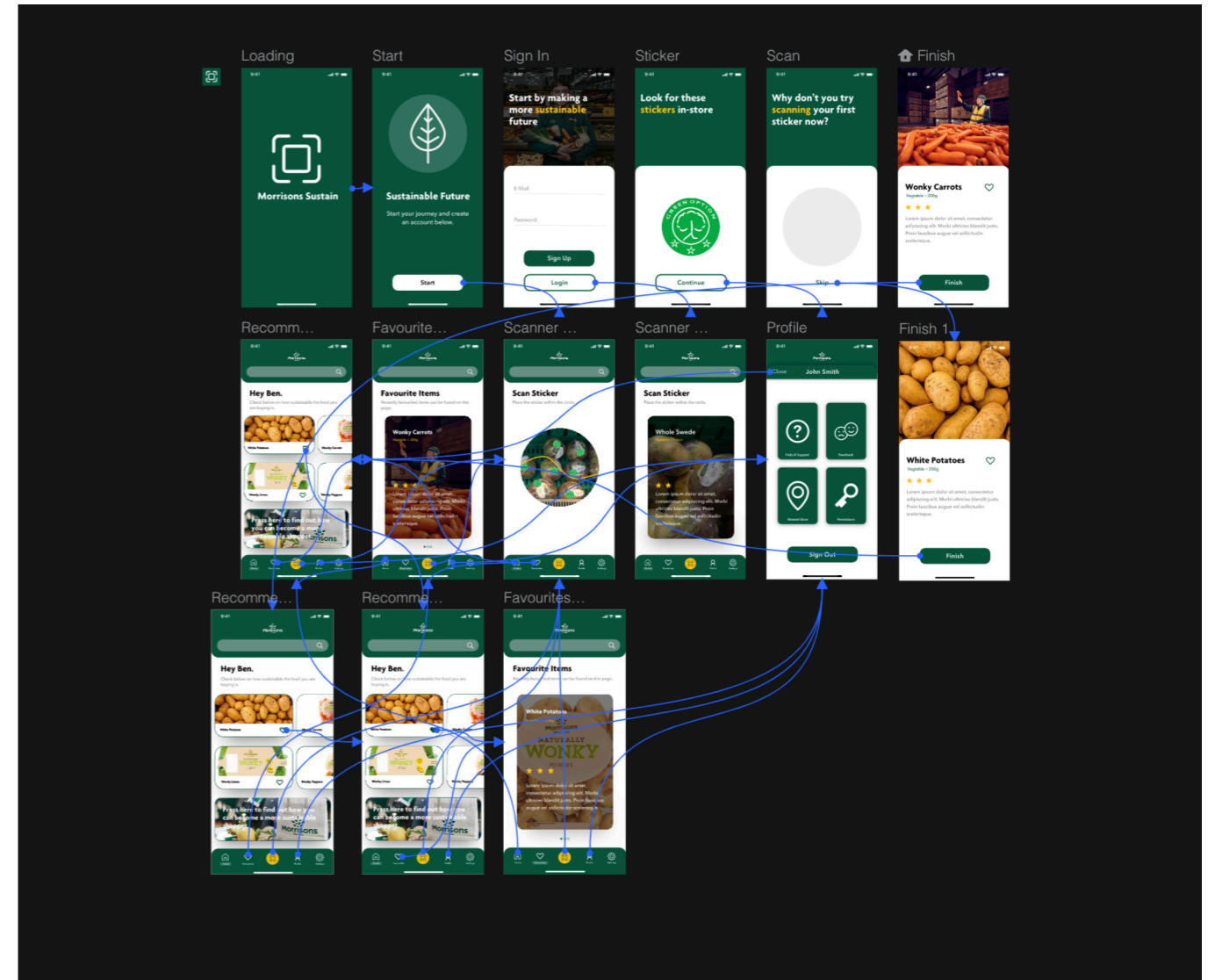
# Finalised Video

## Finished Video

With the limited production we feel like we produced a good quality to display the use case of our application and how a user could realistically use it from home.
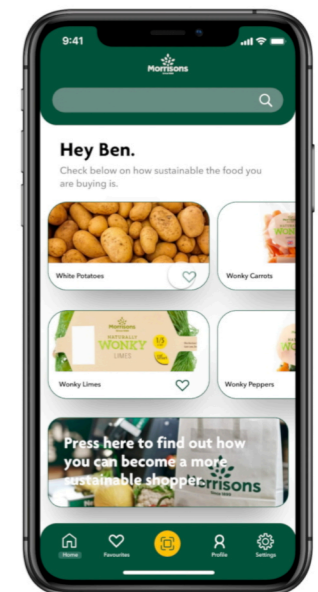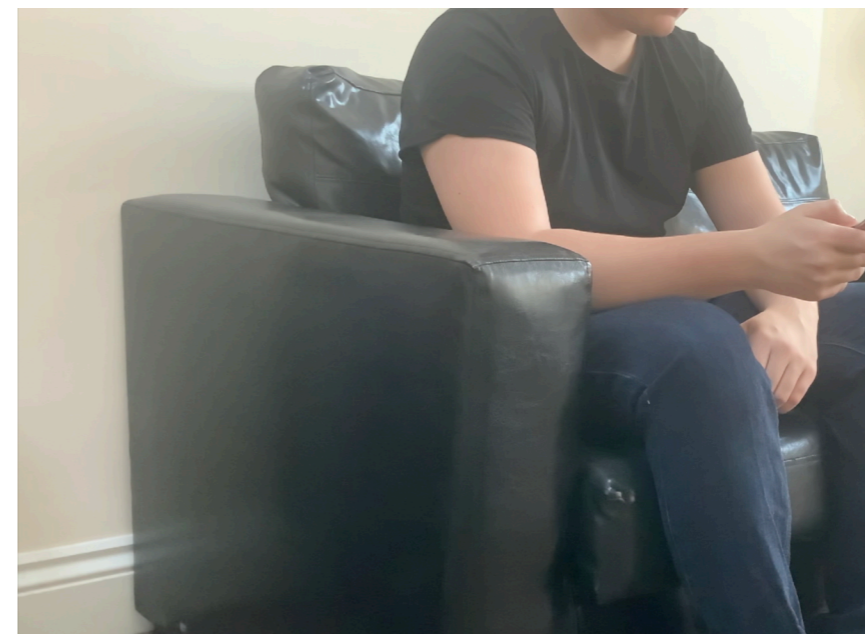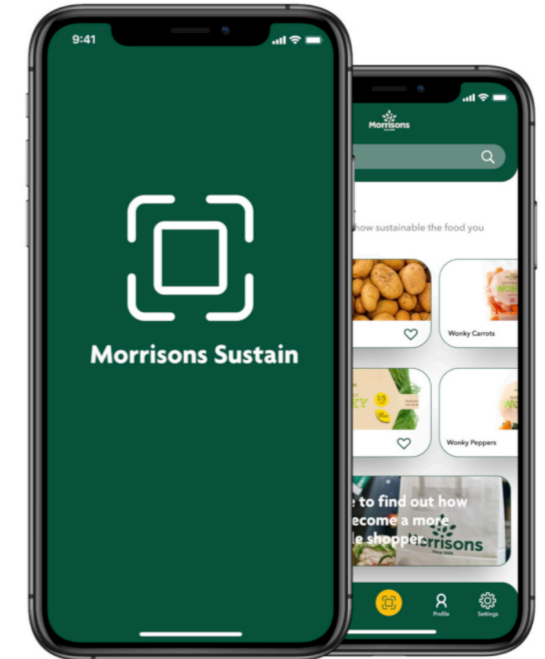
# Future Insights

## Machine Learning

Machine learning could be integrated into the application to help with image recognition at a later date so stickers won't be needed for the application to detect and scan products. This would make the scanning process even simpler.

## Reward System

Reward cards could be used to create a reward system for users which would incentivise them to use the application so they can end up saving money on their next shops. This would also help make sustainable products cheaper allowing them to become more accessible to poorer households.

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