SHANNON MAY HALL

SAINSBURYS: SELF-CHECKOUT EXPERIENCE CASE STUDY

Hey, I'm Shannon May, a visual UI designer from the UK

GRAPHIC DESIGN
DIGITAL ASSETS
UI DESIGN
WIREFRAMING
DESIGN SYSTEMS

I'm a passionate creative that has worked across print, digital and social media design. My career began with a certification in computer science but quickly moved into more creative spheres, where I've been creating design solutions ever since.

I have recently focused my study on visual UI/UX design, culminating in a UX design certification from the School of UX. I'm interested in the gaming and education sectors especially, and would love to work with you on your next project!

NATURAL HEALTH
Beauty
Awards

DC THOMSON
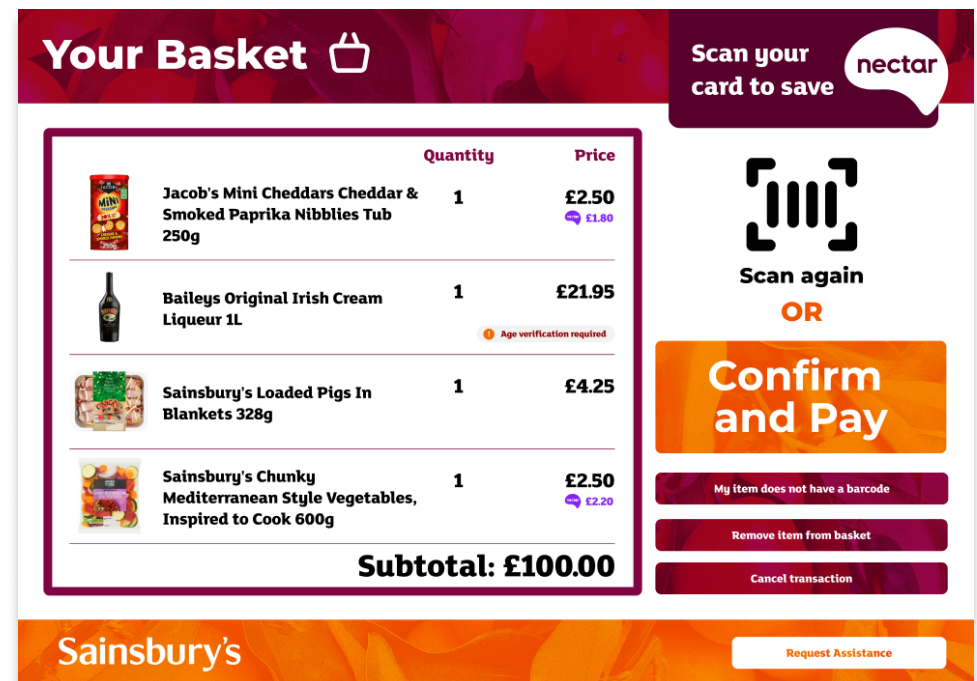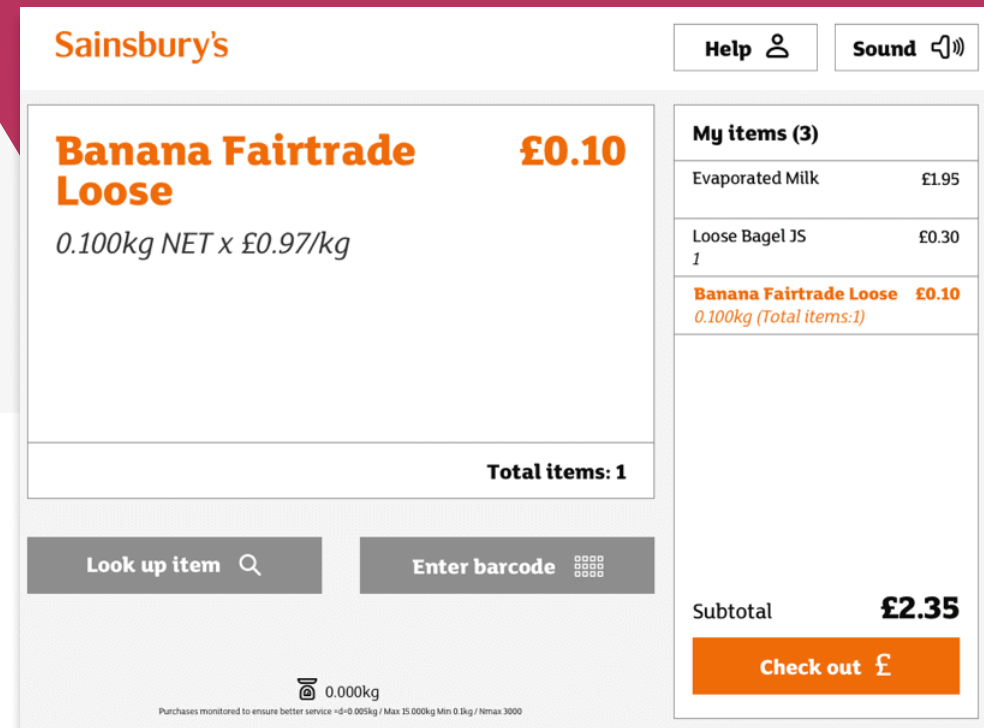
EPIC
GAMES

Self-checkout

Redesigning the Sainsburys' self-checkout UI without the bagging area for small shops

WHATS THE PROBLEM?

The premise for this case study was to envision an update for Sainsbury's self checkouts based on some key data-driven conclusions:

- Shoppers get frustrated with the bagging area not weighing items correctly, slowing down their checkout experience.
- Nectar card signups, that provide shopping discounts, have been declining.
- Customers find looking through the list of scanned items on screen difficult.
- Complex transition animations between screens frustrate customers as the hardware the self checkouts are running on runs slowly and sometimes freezes.

SKIP TO THE FINAL SCREENS & PROTOTYPE

Sainsbury's

Help 👤   Sound 🔊

Banana Fairtrade Loose	£0.10

0.100kg NET x £0.97/kg

Total items: 1

Look up item 🔍   Enter barcode ▦

🔒 0.000kg

Purchases monitored to ensure better service =d=0.005kg / Max 15.000kg Min 0.1kg / Nmax 3000

My items (3)

Evaporated Milk	£1.95
Loose Bagel JS 1	£0.30
Banana Fairtrade Loose 0.100kg (Total items:1)	**£0.10**

Subtotal   **£2.35**

Check out £

Your Basket 🛒

Scan your card to save **nectar**

Scan again

OR

		Quantity	Price
	Jacob's Mini Cheddars Cheddar & Smoked Paprika Nibblies Tub 250g	1	£2.50 £1.80
	Baileys Original Irish Cream Liqueur 1L	1	£21.95 ⓘ Age verification required
	Sainsbury's Loaded Pigs In Blankets 328g	1	£4.25
	Sainsbury's Chunky Mediterranean Style Vegetables, Inspired to Cook 600g	1	£2.50 £2.20

Subtotal: £100.00

Confirm and Pay

My item does not have a barcode

Remove item from basket

Cancel transaction

Sainsbury's

Request Assistance

Design review

Initial design review, formed from my professional opinion and data provided in the initial problem statement

WHAT WORKS

✅ Clean UI with clear delineated sections, making navigation easy for the user.

✅ Large buttons for ease of pressing make the software very accessible.

✅ Clear use of Sainsburys branding that we want to take forward and perhaps even enhance with Sainsbury's secondary brand colour.

WHAT COULD BE IMPROVED

❓ Visual clarity of the list of scanned items. This could be improved with actual product images.

❓ Nectar card integration is minimal, and could be higher to encourage future signups.

❓ Slow transitions between checkout pages could be mitigated with simpler animations, or eliminating unnecessary animations.

❓ The path to remove items from the basket is not clear. We do not want to directly encourage this behavior, but we do not want to make it unnecessarily difficult.
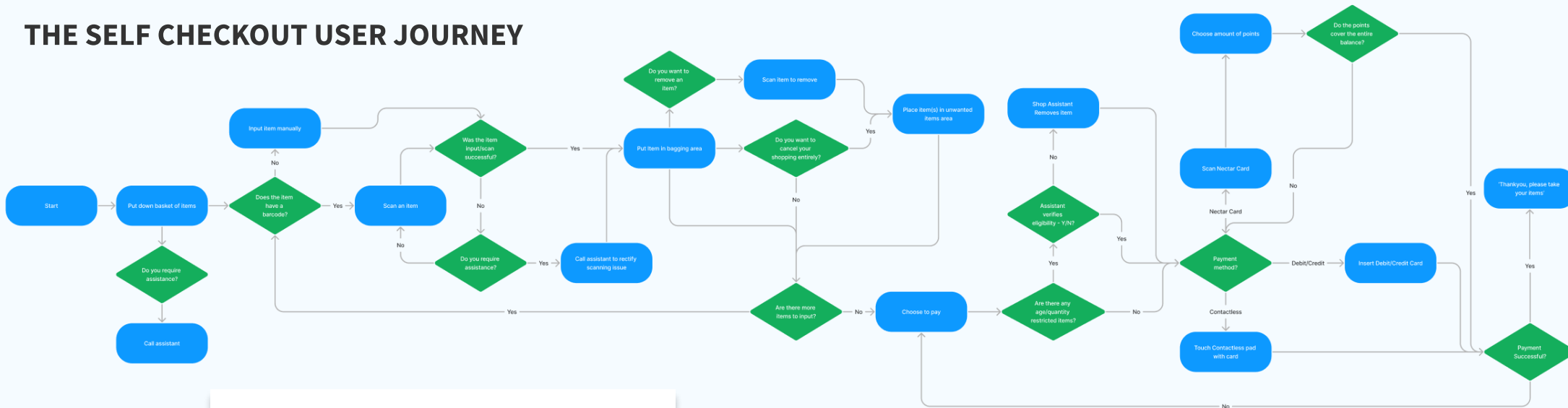
User journey

Understanding the journey of a shopper using a self checkout system

Thankyou for shopping with

Sainsbury's

Print Receipt

Next Customer

THE SELF CHECKOUT USER JOURNEY

Are you sure you wish to cancel your shopping?

Yes, cancel my transaction

No, go back to my basket

Request Assistance

Sainsbury's

UNHAPPY PATHS AND ERROR STATES

Users are not always going to have a perfect experience - this user journey also covers the unhappy paths of a shopper, such as having to cancel an item or a payment is declined.

Information architecture

Displaying information clearly to the shopper is an integral part of the checkout process

Nectar card integration is minimal, and could be higher to encourage future signups.

✓ **Pass**

NECTAR DISCOUNTS

Discounted prices are now displayed beneath the standard item price - As well as the prompt in the upper right corner, this encourages the user to scan their nectar card to obtain these discounts. There is also an additional nectar card nudge just before payment.

Your Basket 🧺

Scan your card to save nectar

		Quantity	Price
	Jacob's Mini Cheddars Cheddar & Smoked Paprika Nibblies Tub 250g	1	£2.50 / £1.80
	Baileys Original Irish Cream Liqueur 1L	1	£21.95
			⚠ Age verification required
	Sainsbury's Loaded Pigs In Blankets 328g	1	£4.25
	Sainsbury's Chunky Mediterranean Style Vegetables, Inspired to Cook 600g	1	£2.50 / £2.20

Subtotal: £100.00

Scan again

OR

Confirm and Pay

My item does not have a barcode

Remove item from basket

Cancel transaction

Sainsbury's

Request Assistance

ITEM IMAGE INTEGRATION

Using data from the existing online Sainsburys product database, preview images can be used during checkout to visually confirm the item that the shopper has just scanned.

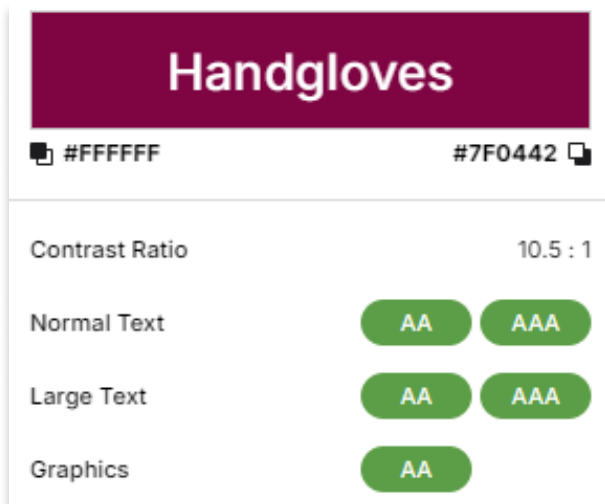Visual clarity of the list of scanned items. This could be improved with actual product images.

✓ **Pass**

Accessibility

Accessibility is very important for a system used by a wide variety of shoppers with a wide variety of needs

Total Color Blindness

Total color blindness is much less common, (less than 0.001%) but it's an effective rubric to check for design efficacy. If your design is working without color, it is also likely also well organized, using reasonable hierarchies, and clearly laid out.

WCAG AA Compliance Guidelines

- Add redundant UI signals for states.
- Error and success conditions should be

Simulate   **Reset**

WCAG VALIDATION

The checkout software design is compliant with the 2.3 Web Content Accessibility Guidelines.

- ✅ Legible text sizes and large buttons
- ✅ AA Standard colour contrast ratios
- ✅ Short load / response times

Handgloves

⧉ #FFFFFF   #7F0442 ⧉

Contrast Ratio	10.5 : 1	
Normal Text	AA	AAA
Large Text	AA	AAA
Graphics	AA	

VISUAL ACCESSIBILITY

The design was tested using visual impairment simulation tools - the new design is suitable for colour blind users, users with light sensitivity, and users with vision acuity.

PERFORMANCE

Animations are now only used on the initial screen, and the final screen of the system to minimise lag and help prevent crashes (This gives a better user impression at both the start and end of their experience, and improves usability during the actual scanning and payment stage)
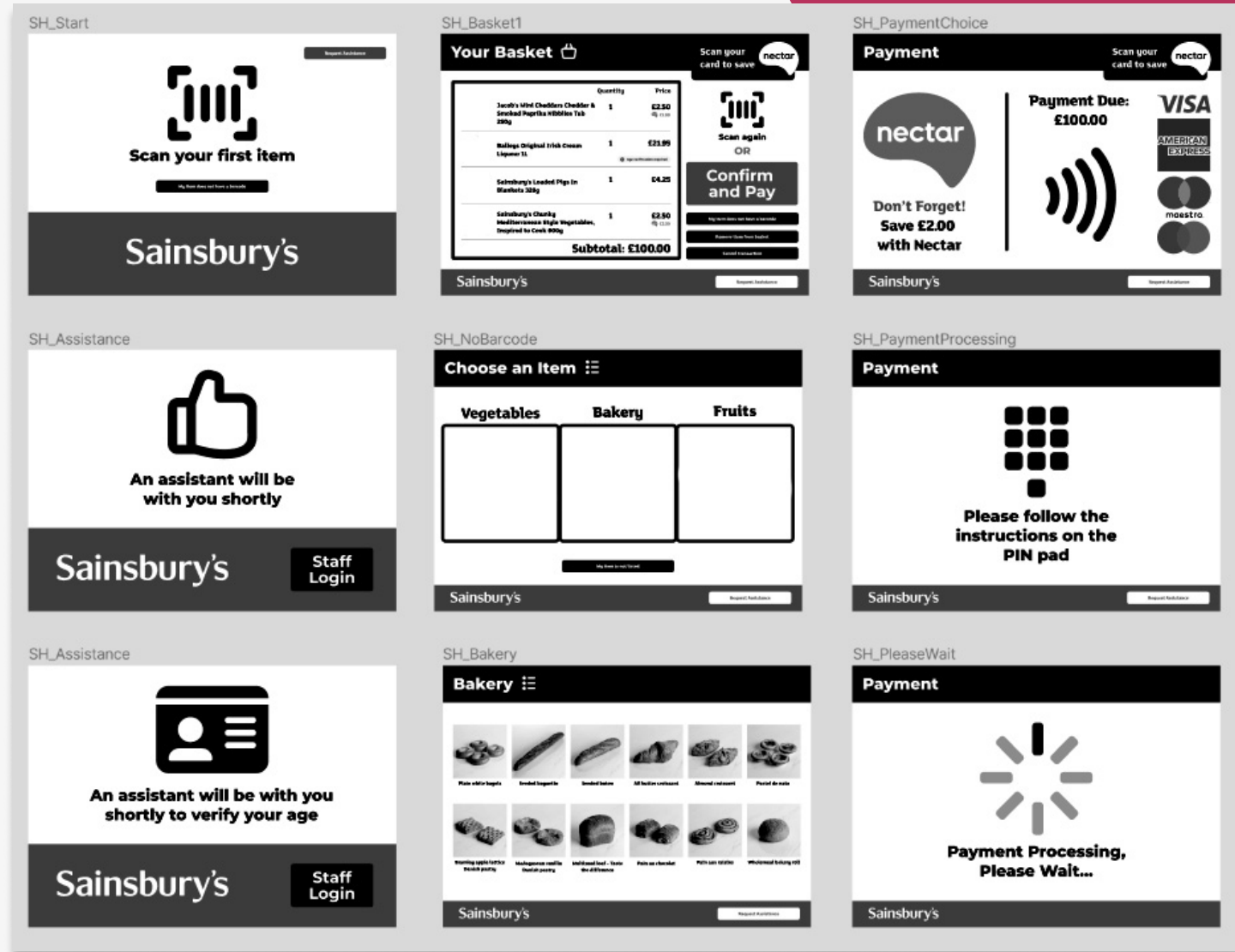
Slow transitions between checkout pages could be mitigated with simpler animations, or eliminating unnecessary animations.

✅ **Pass**

Wireframing

The wireframes were achieved with a combination of figma tools and Sainsburys' design system Luna, to make sure that the final design followed Sainsburys existing brand style.

Variable Components

Scan your card to save nectar

You saved money with nectar

Don't Forget!

Save £2.00 with Nectar

You've **saved** **£2.00** with Nectar

Jacob's Mini Cheddars Cheddar & Smoked Paprika Nibblies Tub 250g
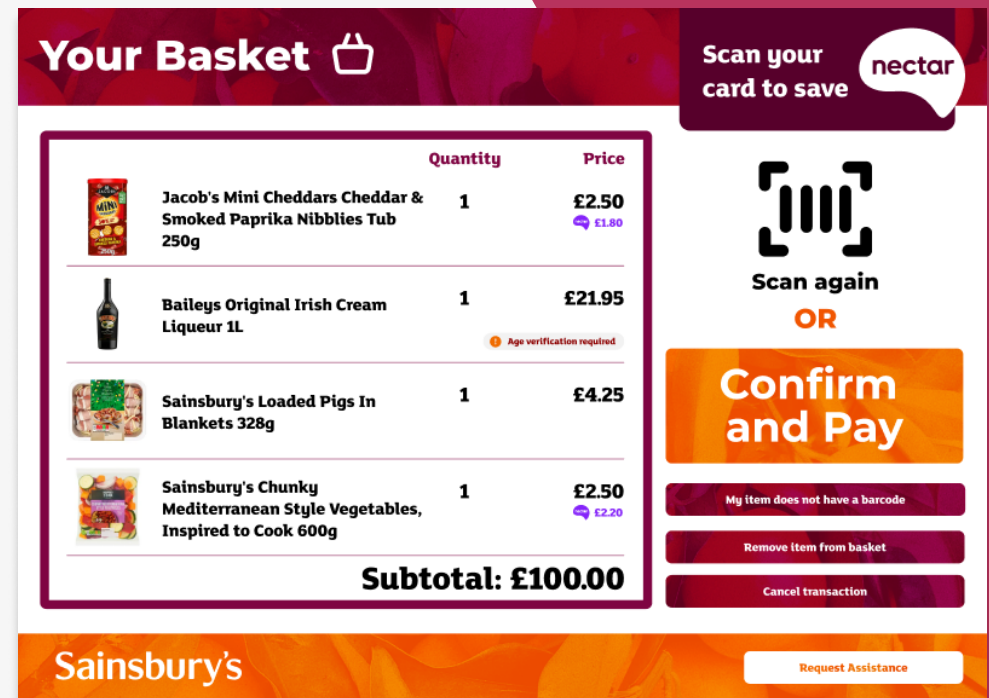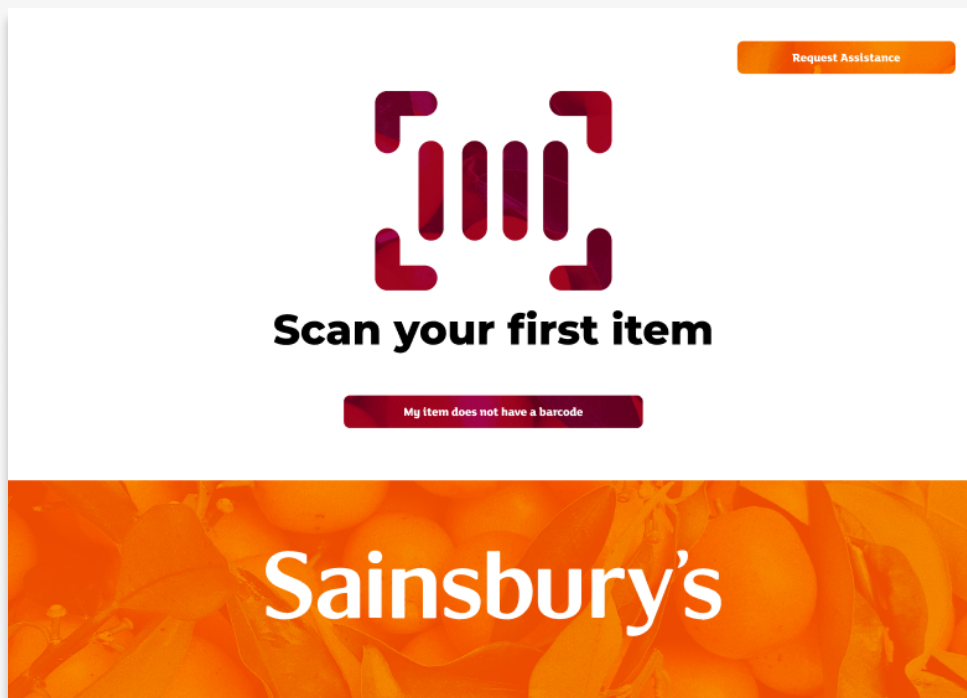
1

£2.50

£1.80

⚠ Age verification required

Prototype Screens

You can access the interactive prototype at
www.shannonmay.co.uk/sainsburys.html

SAINSBURYS

Request Assistance

Scan your first item

My item does not have a barcode

Sainsbury's

Your Basket 🛒

Scan your card to save   nectar

		Quantity	Price
	Jacob's Mini Cheddars Cheddar & Smoked Paprika Nibblies Tub 250g	1	£2.50 £1.80
	Baileys Original Irish Cream Liqueur 1L ⚠ Age verification required	1	£21.95
	Sainsbury's Loaded Pigs In Blankets 328g	1	£4.25
	Sainsbury's Chunky Mediterranean Style Vegetables, Inspired to Cook 600g	1	£2.50 £2.20

Subtotal: £100.00

Scan again
OR
Confirm and Pay

My item does not have a barcode

Remove item from basket

Cancel transaction

Sainsbury's   Request Assistance

Are you sure you wish to cancel your shopping?

Yes, cancel my transaction

No, go back to my basket

Request Assistance

Request Assistance

Please place the items in the put-back trolley

Sainsbury's

Request Assistance

Please place the item in the put-back trolley

Sainsbury's

Request Assistance

Scan item to remove from basket

Sainsbury's

An assistant will be with you shortly

Sainsbury's

Staff Login

Choose an Item

Vegetables

Bakery

Fruits

My item is not listed

Sainsbury's

Request Assistance

An assistant will be with you shortly to verify your age

Sainsbury's

Staff Login

Bakery

Plain white bagels

Seeded baguette

Seeded baton

All butter croissant

Almond croissant

Pastel de nata

Bramley apple lattice Danish pastry

Madagascan vanilla Danish pastry

Multiseed loaf - Taste the difference

Pain au chocolat

Pain aux raisins

Wholemeal bakery roll

Sainsbury's

Request Assistance

Fruits

Plain white bagels	Seeded baguette	Seeded baton	All butter croissant	Almond croissant	Pastel de nata
Bramley apple lattice Danish pastry	Madagascan vanilla Danish pastry	Multiseed loaf – Taste the difference	Pain au chocolat	Pain aux raisins	Wholemeal bakery roll

Sainsbury's

Request Assistance

Payment

Scan your card to save **nectar**

nectar

Don't Forget!
Save £2.00 with Nectar

Payment Due: £100.00

VISA
AMERICAN EXPRESS
maestro

Sainsbury's

Request Assistance

Vegetables

Plain white bagels	Seeded baguette	Seeded baton	All butter croissant	Almond croissant	Pastel de nata
Bramley apple lattice Danish pastry	Madagascan vanilla Danish pastry	Multiseed loaf – Taste the difference	Pain au chocolat	Pain aux raisins	Wholemeal bakery roll

Sainsbury's

Request Assistance

Payment

Please follow the instructions on the PIN pad

Sainsbury's

Request Assistance

Payment

Payment Processing,
Please Wait...

Sainsbury's

Enter Quantity

How many?

‹ 1 ›

Add to basket

Sainsbury's

Request Assistance

Thankyou for shopping with

Sainsbury's

Print Receipt

Next Customer

Like this case study?
Hire me!

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Or see the rest of my portfolio at:
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