

# TFL - Digital Oyster Cards Case Study

Bharath, Najma and Nelly

# PROJECT OVERVIEW

**THE PROBLEM:** Frequent commuters often struggle to keep hold of their oyster cards whilst commuting especially during peak times. They often result to using their contactless bank cards on their phones to pay for travel and as a consequence, get overcharged or are unable to save money on travel using the current discounted travel incentive on the oyster card.

**THE SOLUTION:** The app intends to provide a platform where customers can register for a digital Oyster Card and be able to use the digital Oyster Cards to tap in and out of Underground Tube Stations similar to how contactless payments are made at the barriers. The user should be able to open up the app on their phone and tap in and out of the gates, streamlining the commuting process on TFL services.

**OUR ROLES:** UX Designer (Group Project), UX Researcher

**TOOLS:** Figma, Google Forms, In-Person Interviews, Zoom Interviews, Audio Recordings

# DIGI-OYSTER

## MOBILE PROTOTYPE

The app will be designed using Figma and will consist of multiple pages with information on how customers can register for a digital Oyster Card and be able to use the digital Oyster Cards to tap in and out of Underground Tube Stations similar to how contactless payments are made at the barriers. There will be an in-built functionality where the user can open up the app on their phone and tap in and out of the gates.

## GOAL

To be able to create a mobile app for TFL users where it provides commuters the option to add their registered Oyster Card onto the app and be able to tap in and out of the Tube stations without needing the physical copy of the Oyster Card. This intends to work similar to how contactless payments works for Apple Pay but the app focuses on Oyster Card users and serves as an incentive for commuters to save money on travel costs so they don't feel the need to switch over to contactless payments. There will be an option to top up the Oyster Card within the app itself and users can simply open this app if they want to use their Oyster Card on TFL services.

## OUR ROLE & RESPONSIBILITIES

To analyse the benefits and disadvantages of existing TFL apps and attempt to correct the weaknesses with our prototype design. We will be carrying out research through interviewing frequent London commuters from diverse backgrounds and collating all their insights into one data set. The data set will be used to guide the process of building the mobile app for TFL users that aims to solve the pain points based on the data from the interviews.

## TIMELINE

3 weeks

# DIGI-OYSTER



01. WHAT WE DID

02. THE PROCESS

03. USER RESEARCH

04. IDEATION

05. INTERACTIVE PROTOTYPE

In this research project, we planned and conducted 5 interviews (face to face and online virtual meetings) with stakeholders, current users, and potential users in London.

**5**

1-1 Interviews

## User Attributes

- Location: London
- Commute Method: Public Transport
- Frequency: Frequent
- Lifestyle: Busy



# USER RESEARCH

Digi-Oyster



# OBJECTIVES

- As a user researcher, I want to understand the user's thought patterns and the different factors that influence their decision on how they commute on TFL services via contactless or Oyster cards.
- As a user researcher, I want to understand the user's perception towards the Oyster Card travel cards and find out about how TFL can incentivise commuters to switch from Contactless payments to Oyster Cards.
- As a user researcher, I want to understand the ways of making the commuting process as intuitive and user friendly as possible and to find out about ways to help the user to register and keep using the Oyster Card as their method of travel on the TFL services.
- As a user researcher, I want to find out about the motivations for the Oyster Card and understand their preferences, wants and their reasons for making the decisions they do and understand how to ensure their commute is as cost-effective and streamlined as possible.



# PROTO-PERSONA



- **USER**

Ricardo Galli

- **BIO**

21 years old; single man; graduate business analyst; lives in Clapham, London with flatmates; commutes around an hour a day to/from work with London Underground tube 4 times a week

- **LIKES**

Networking, socialising, meeting new people, being organised; getting out of his comfort zone, trying new foods, getting tasks done; plans his time; football, outdoor recreation activities; keeping up to date with business trends

**DISLIKES**

Commuting; crowds; pickpockets, cash payments, wasting time, train delays, wasting money, rush hour traffic, having to take out cards out of his wallet

# INTERVIEW PLAN

1. What do you do for a living?
2. What does your typical work week and weekend look like?
3. What mode of transport do you frequently use and why?
4. Can you describe your habits when using TFL?
5. Why do you prefer xxxx over using xxxx? ( Oyster/ contactless)
6. What's your budgeting process to pay for TFL? And how do you feel about this process?
7. Tell me about some of the barriers that you feel are preventing you from saving money on public transport?
8. How long have you used your oyster/bank card for public transport and have you ever misplaced or forgotten your cards? How often do you have to renew it? Talk to me through your experience.
9. Talk me through the process of obtaining and keeping your card and what challenges you encountered.

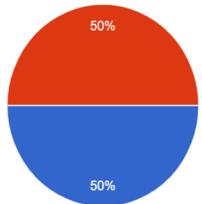


# USER INTERVIEW INSIGHTS

Based on the online survey, this is what we found.

Do you own an Oyster card?

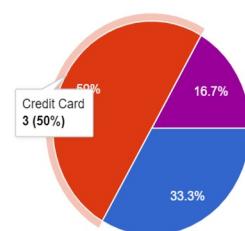
6 responses



- Yes
- No

How do you currently pay for your travel in London?

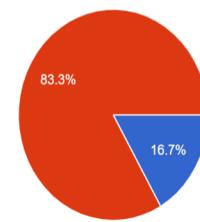
6 responses



- Direct Debit
- Credit Card
- In A Store
- At The Station
- Website

Do you prefer using an Oyster card or contactless for tubes?

6 responses



- Oyster Card
- Contactless

50% of commuters own oyster cards while 50% don't.

50% of commuters use their credit cards to pay, 16.7% pay via the TFL website and 33.3% via direct debit. 0% of the commuters pay for travel physical in store or at the train station.

83.3% of our surveyed commuters prefer using contactless cards for payment while only 16.7% prefer using the physical oyster card.

# AFFINITY DIAGRAM



Link to Full Affinity Diagram on FIGJAM:

<https://www.figma.com/file/R8MSKS8FG8VlWLsLzX3BO/DIGI-Oyster?type=whiteboard&node-id=0-1&t=8jamzfNIE9B2G3zO-0>

# USER PERSONA



<b>AGE</b>	21
<b>JOB TITLE</b>	Graduate, Business Analyst
<b>STATUS</b>	Single
<b>LOCATION</b>	London, U.K.

OUTGOING

CONFIDENT

SOCIAL BUTTERFLY

ADVENTUROUS

# Ricardo Galli

## ABOUT

Ricardo is recent graduate living and working in London. He works long hours on the weekdays. At the moment he is required to work from the office in the city four days a week. Ricardo also spends a lot of his weekends exploring London and using public transport to get around quickly to meet his friends. Ricardo uses TfL regularly through out the week but contactless payments have started to add up, he is interested in a way that he can save some money as the cost of living continues to rise. Ricardo also values the ease that contactless mobile payments offer.

## GOALS

- Find a convenient solution to pay on TfL
- but also allows Ricardo to save money as prices continue to rise.
- Wants the process of making payments to be quick and easy.

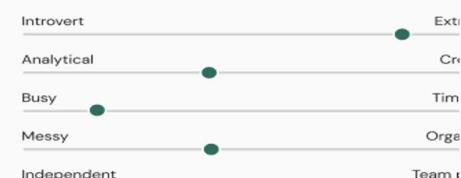
## PAIN POINTS

- Wants to avoid crowds and get through stations a quickly and smoothly as possible.
- Has had his wallet stolen before- Dislikes any payments that require taking out wallet in stations.

## NEEDS

- Quick and easy payments.
- Access to cheaper fares, as he uses TfL almost everyday.

## PERSONALITY





# **DEFINITION AND IDEATION**

Digi-Oyster

# USER INSIGHT STATEMENT



Frequent Commuters across London struggle to save time and money whilst commuting. They need more practical and effective ways of paying for and saving on transport while commuting because forgetting or misplacing their physical cards can lead to stress, disruption in their travel experience, additional costs and anxiety which poses a risk in fulfilling their day to day activities.



## PROBLEM STATEMENT

Frequent commuters often struggle to keep hold of their cards whilst commuting especially during peak times. They often result to using their contactless bank cards on their phones to pay for travel and as a consequence, get overcharged or are unable to save money on travel using the current discounted travel incentive on the oyster card. How might we help London Commuters save time and money on travel while commuting so that they can have a seamless experience using TFL services?

# IDEATION - I LIKE, I WISH & WHAT IF...?

## I LIKE...

I like that I can save money with adding Travel cards to my Oyster.

I like that I am not overcharged.

I like that I can add my railcard on to my Oyster for added discounts on travel.

I like that I can control how much money I have on my oyster card.

I like that the travel cards are helping me to save money in London which is otherwise expensive.

I like that I able to see ticket prices ahead of time on the TfL website

I like that I can use contactless to easily swipe through the barriers at tube stations

I like that I can use my Apple Pay on the Wallet app to quickly go through the barriers at the tube stations

I like that there are the options of travel cards to help make travel in London more affordable and cheaper.

I like that I can precisely budget for my travel as I can have set prices for travel cards.

I like that there are the options of travel cards to help make travel in London more affordable and cheaper.

I like that I can use my phone to scan and pay for travel at the platform gates and just go straight through

## I WISH...

I wish discounts will automatically be applied when I use my phone to pay for a ticket at the gates.

I wish that there was more incentive for me to buy an Oyster Card with all the benefits I can experience

I wish public transport in London was cheaper than driving a car, I have little reason to want to use public transport when my car is more convenient.

I wish there was a way for me to learn about the benefits without spending lots of time on research on why I should own an Oyster Card.

I wish there was an easier way to register for an Oyster Card and make me more likely to use one.

I wish I didn't have worry about locating my physical oyster card during trips

I wish that I didn't have to wait 24 hours after my first travel on my oyster card to register it.

I wish there was more of an incentive to buy Oyster Cards, especially for people who come from outside London and don't travel often.

I wish that I didn't have to pay £10's each time for a new card when it was lost or misplaced

I wish it wasn't so much of a hassle to top up Oyster Cards after registering for one, there should be an easier less stressful way to do this.

I wish I could be notified at point of payment of how much I am about to spend before commuting as prices frequently fluctuate at different times.

I wish there was a single app to manage my TfL travels instead of having to switch between different apps

I wish I didn't have worry about locating my physical oyster card during trips

I wish that I was able to add my oyster card to my Apple Pay or Google Wallet.

## WHAT IF...?

What if there was a way to incorporate Oyster Cards onto a system similar to Apple wallet?

What if I could have the option to switch between contactless payments and digitalised Oyster Card using the Apple Wallet?

What if I could plan journey and be given the price, and pre pay for that journey.

What if I could get push notifications that tell me how much I'm spending on the TfL services?

What if there was an option for travellers outside of London for the Oyster Card, so the Oyster Card can cater to travellers coming from outside London?

What if I could be presented weekly/monthly with a comprehensive statement of my travel spending habits on transport with recommendations on how to save more.

What if I could be able to top up and add travel cards to a digital oyster

What if there was a feature which allowed me to budget my travel similar to the functionality in the budgeting app 'Emma'?

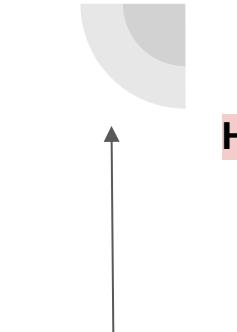
What if I could get live bespoke notifications on how busy the station is so I could better manage my anxiety traveling underground.

What if I was able to use a Digital Oyster to pay for all of the transport option in London or purchase the tickets to be added on the digital card. (Bus, Tube, Tram, Emirates cable cars, Santander bikes, River bus)

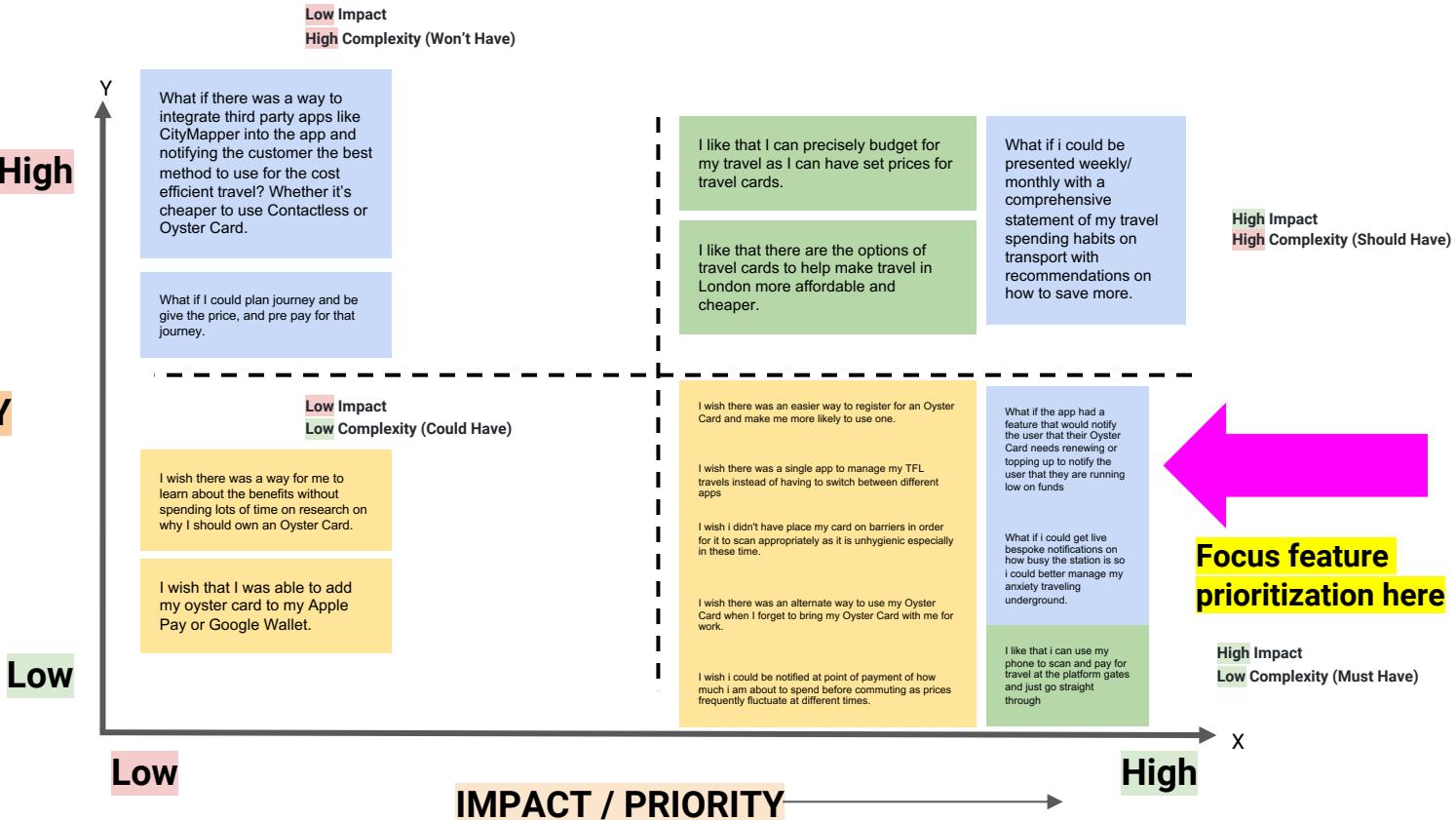
What if the app had a feature that would notify the user that their Oyster Card needs renewing or topping up to notify the user that they are running low on funds

What if there was a way to integrate third party apps like CityMapper into the app and notifying the customer the best method to use for the cost efficient travel? Whether it's cheaper to use Contactless or Oyster Card.

# FEATURE PRIORITISATION MATRIX



**COMPLEXITY**



We use the 2x2 MoScOw matrix with the variables 'complexity' and 'impact / priority' to prioritise the most important features for the app we intend to develop. FigJAM Link to Full Board: <https://www.figma.com/file/R8MSKS8FG8VIIWIzX3BO/DIGI-Oyster?type=whiteboard&node-id=60-2232&t=Qr1NG7RwGrHuJ1-0>

# VALUE PROPOSITION



“Want to save money on TFL services in London? We understand how difficult it can be to manage living expenses in London. ‘Digi-Oyster’ aims to digitalise the Oyster Card and be able to manage your card all within a single app. No need to go through a long registration process online when you can manage everything from the app itself. We introduce incentives and features to top up or manage your Oyster Card within the app itself. You can also have the option of registering your Oyster Card so you may no longer need to have the physical copy of your Oyster Card with you to scan through the barriers at tube station. We aim to make the commuting process as stress-free and easy as possible with this digitised Oyster Card!”

# VALUE PROPOSITION (Continued...)



Digi-Oyster is collaborating with TFL to develop an app to help London commuters manage their Oyster Card from a centralised place and efficiently manage their expenses on public transport. Many commuters often resort to using contactless payments, resulting in either being overcharged or unnecessarily spending on public transport, which can be a huge opportunity cost for people living in London. This app intends to help commuters manage their living expenses as well as their Oyster Card from a centralised location. In addition, we want to incentivise commuters to register for the Oyster Card and stick around for the long-term by offering various discounts and features that will compel users to stick to the app, making it less likely for them to want to switch back to contactless payments on TFL services. We know the difficulty of the cost of living crisis and so, London based users will be grateful for any solution to keep expenses as low as possible whilst also making the public transport as simple as possible.



## USER SCENARIO

1. Ricardo has secured his first graduate job and has to commute via public transport for his onboarding meeting at 09:30 am. Cost of living has gone up and Ricardo has bought the oyster card to help him save cost.
2. He leaves home in a rush to catch the tube to Clapham. At the gates, he realises he has forgotten his oyster card at home. He is frustrated and can't rush back home to get it.
3. He uses his contactless card on his phone and pays the full cost to get through the barrier.
4. He is overcharged for the journey.
5. Consequently, he arrives to work late and annoyed



# USER JOURNEY MAP



## User Name

Ricardo Galli

## Age

21 Years Old

## Occupation

Graduate Business Analyst

## Location

London, UK

## User Motivations

Ricardo has got a new job as a graduate business analyst at the KPMG office in London and has taken up that job. He is required to come into the office 4 days a week but he sees this as a really good opportunity for his career progression and personal development. Ricardo decides to relocate to London and also manages to reconnect with the friendships he formed during his time at university. He values both career development and also his social life and wants to live independently away from his parents. Ricardo wants to be in a place where all the opportunities are for his career and social life. He doesn't like to live in small towns and prefers the vibrant lifestyle that is prevalent in large cities like London. He is not able to afford a car at this point in time so he relies on public transport to get around. Ricardo wants to be able to reach the places he wants to meet as efficiently as possible and also save money while he can and he definitely does not like to waste money given the expensive living costs in London.

1

## UX Scenario

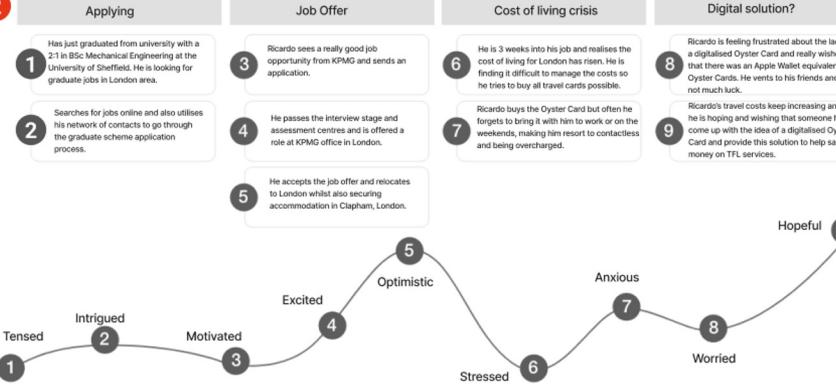
Ricardo is going to be starting his new job soon and has already relocated to London in a shared accommodation with flatmates. He has reconnected with his old friends from University as well as formed new friendships from all the social events in London. He wants to progress in his career whilst also making the most of his social life in London. He can't afford a car at this point in time so he relies on public transport to attend social and networking events as well as commuting into the office.

## Goals

- Wants to save as much money as possible
- Wants to keep the living expenses low
- Wants to explore the social opportunities in London
- Wants to go through career progression
- Wants to live comfortably financially in London

2

## The Experience



The diagram illustrates the user journey for Ricardo. It starts with 'Applying' (steps 1-4), followed by 'Job Offer' (step 5), then 'Cost of living crisis' (steps 6-7), and finally 'Digital solution?' (step 8-9). Below the steps is a情感 (Emotion) curve with points corresponding to each step:

- Step 1: Tensed
- Step 2: Intrigued
- Step 3: Motivated
- Step 4: Excited
- Step 5: Optimistic
- Step 6: Stressed
- Step 7: Anxious
- Step 8: Worried
- Step 9: Hopeful

3

## Opportunities

The Digi-Oyster app can have a discounted option for graduates who register with the app and can experience further benefits on discounted prices after registering. Digi-Oyster can partner with TfL to provide these incentives to first-time users.

The Digi-Oyster app can also provide other benefits like discounted rates at restaurants and leisure places similar to how AMEX provides benefits for users who use their card.

Digi-Oyster app can also provide information or help guides on how to keep the costs low and also making the most out of the Oyster Card especially for those who are new to living in London.

Users who forget their physical copy of the card can have the peace of mind of using their phone for the Oyster Card and being able to top up their Oyster Card within the app itself so it's all done in a centralised location.

The Digi-Oyster app can have referral links which users can earn a reward if they recommend the app to 5 other people similar to how GIGAF or other providers works.

FIGJAM Link:

<https://www.figma.com/file/R8MSKS8FG8V1WVLslzX3BO/DIGI-Oyster?type=whiteboard&node-id=0-1&t=Ge9SIZKGdNnfitoT-0>



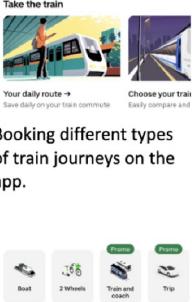
# PROTOTYPING

Digi-Oyster

# COMPETITOR ANALYSIS

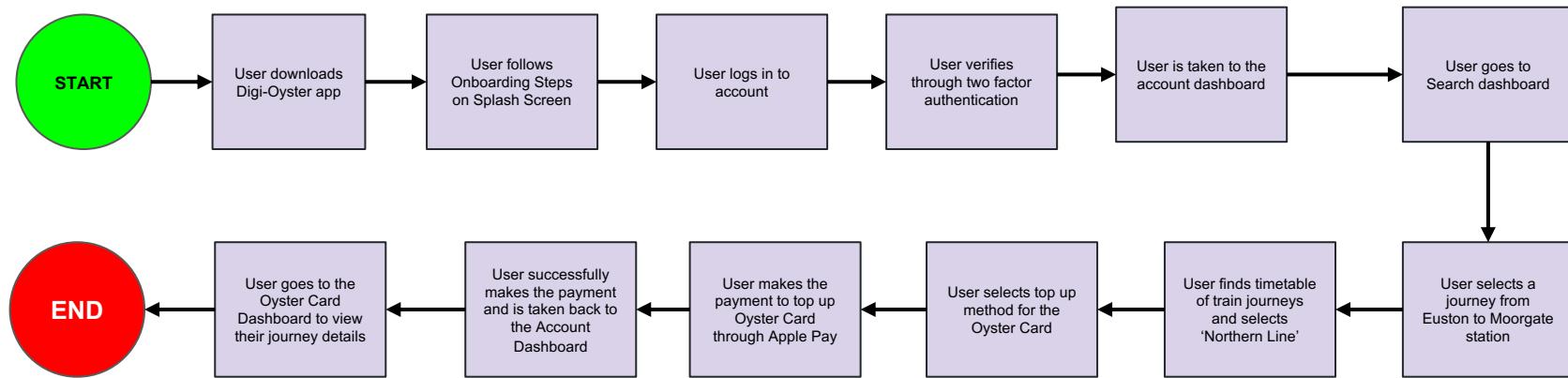
Direct Competitor	Feature Analysis	Screen shot	Competitive Advantage	Customer Reviews	General notes
Apple Pay	<ul style="list-style-type: none"> <li>Express mode feature</li> <li>Links to a bank account to pay for TfL.</li> <li>No App needs to be downloaded- Powered by iOS</li> <li>Secure- Facial recognition to make payments.</li> <li>Users can still make payments for up to Five hours after entering Low power mode.</li> </ul>		<ul style="list-style-type: none"> <li>Familiarity- Users are very familiar with Apple as well being able to navigate the interface easily.</li> <li>The user does not need to download any additional app.</li> <li>It is free to use.</li> <li>Users can see how much they have been charged through their banking app. (If they have push notifications through their banking app, they can have notification of payment price).</li> <li>Travellers can still travel even when their phone has died- Pain point of digitalised tickets etc.</li> </ul>	N/A	<p>Apple Pay is working alongside banks and TfL allowing iPhone users to be able to have a digitalised safe and secure way of payment on public transport. Being that it is built into the iOS systems it allows for more convenient features such as using the digital card on TfL for up to 5 hours after your phone has gone on Low power mode.</p>
trainline	<ul style="list-style-type: none"> <li>Trainline Digital Rail</li> <li>Partnership with national rail to provide railcards/ digital railcards giving users up to 1/3 off Travel.</li> <li>Favourites Feature- Giving quick option to access the favourite/frequent journeys.</li> <li>Gives diagrams for users to be able to identify how to collect tickets from stations.</li> <li>Bottom Navigation bar- clear and easy to use.</li> </ul>		<ul style="list-style-type: none"> <li>Trainline allows users to pre purchase the ticket in advance- Making it more convenient and travellers can plan in advance/ also budget.</li> <li>The app books travel for not only just London- Users do not need to have multiple apps to book trains.</li> <li>Trainline is a direct partner with National rail.</li> </ul>	Trustpilot/ 4.3 Stars.	<p>Trainline allows for a varied experience for travellers. It allows for a single app solution to travelling. which could be a simpler experience for users.</p>

# COMPETITOR ANALYSIS (Continued...)

Indirect Competitor	Feature Analysis	Screenshot	Competitive Advantage	Customer Reviews	General notes
Uber	<ul style="list-style-type: none"> <li>Bottom Navigation bar- very easy to use and clear.</li> <li>Selection of all services</li> <li>Reserve Journeys in advance.</li> <li>10% back in Uber credits and <del>Avois</del> points when you book a train with Uber.</li> </ul>	 <p>Booking different types of train journeys on the app.</p>	<ul style="list-style-type: none"> <li>Uber has now become an extremely popular app for hailing private car journeys, travellers might be more comfortable with the familiarity of using a company that they used in the past.</li> <li>A single solution for different users. As well as the different requirements a user might require at different points for modes of transport.</li> </ul>	Trustpilot/ 2.8 Stars	<p>Uber is mainly identified for its private taxi hiring. However, Uber continues to branch out into different avenues such as Uber Eats . But now it is also booking train journeys. However, I did attempt to purchase a generic ticket using a TfL tube journey, and an alert to demonstrate that tickets had all sold out. This may not be the best solution for everyday journeys, such as daily work commutes, but instead journey travelling outside of London on regional trains.</p>
Bla Bla Cars	 <ul style="list-style-type: none"> <li>Push notifications- allows the user to be able to regularly updated with journeys to their searched</li> <li>Bottom Navigation bar- has all the apps features easy to access.</li> <li>Offers carpooling and bus selections.</li> </ul>		<ul style="list-style-type: none"> <li>Users have the comfortability of a private car option for travel however for a lower price but carpooling.</li> <li>Users have a variety of pricing options passed on whether they want to carpool or use Bla Bla bus.</li> </ul>	Trustpilot/ 1.3 Stars	<p>Bla Bla offers another avenue for travel for users; it provides them with the option to travel in a private car but through car pooling. This is convenient as it provides another mode of transport that is not traditional, with another pricing range, to a fit variety of travellers.</p>



# TASK FLOW

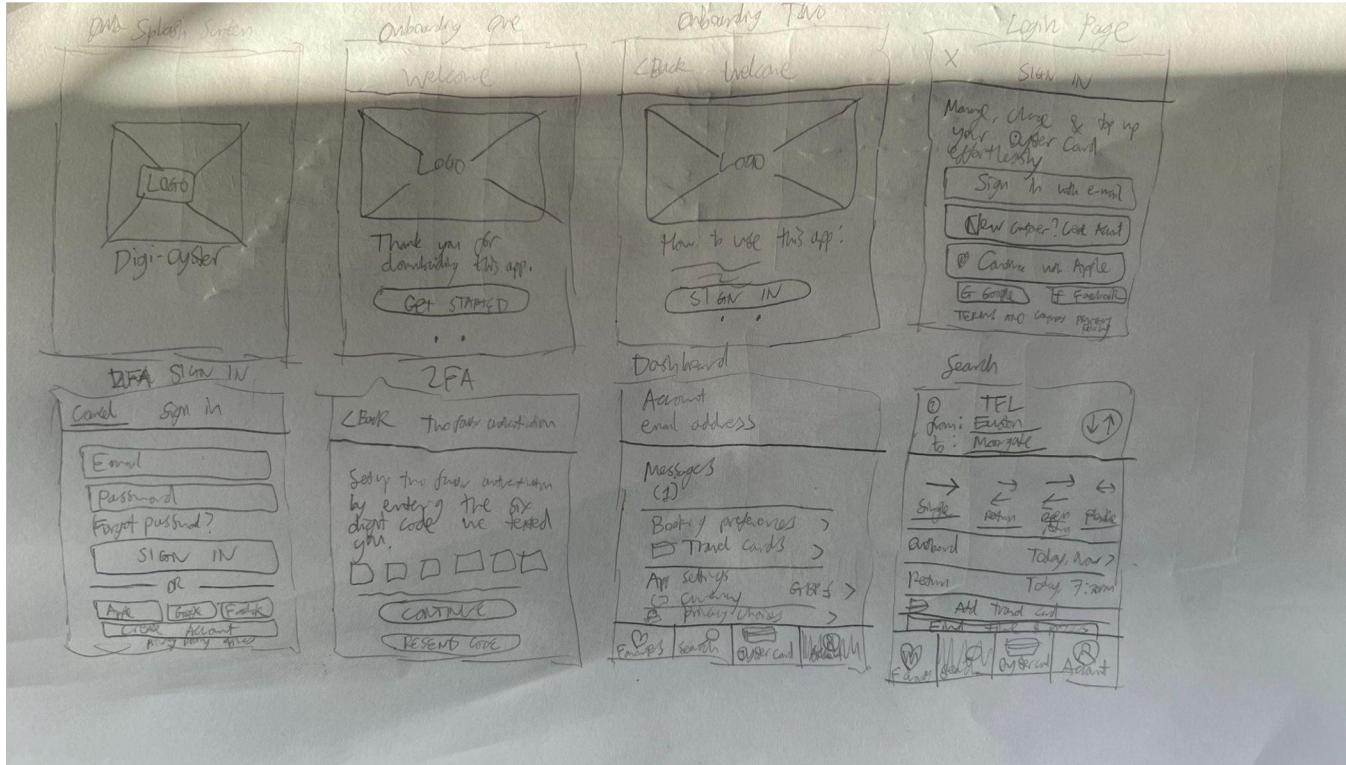




# USER FLOW

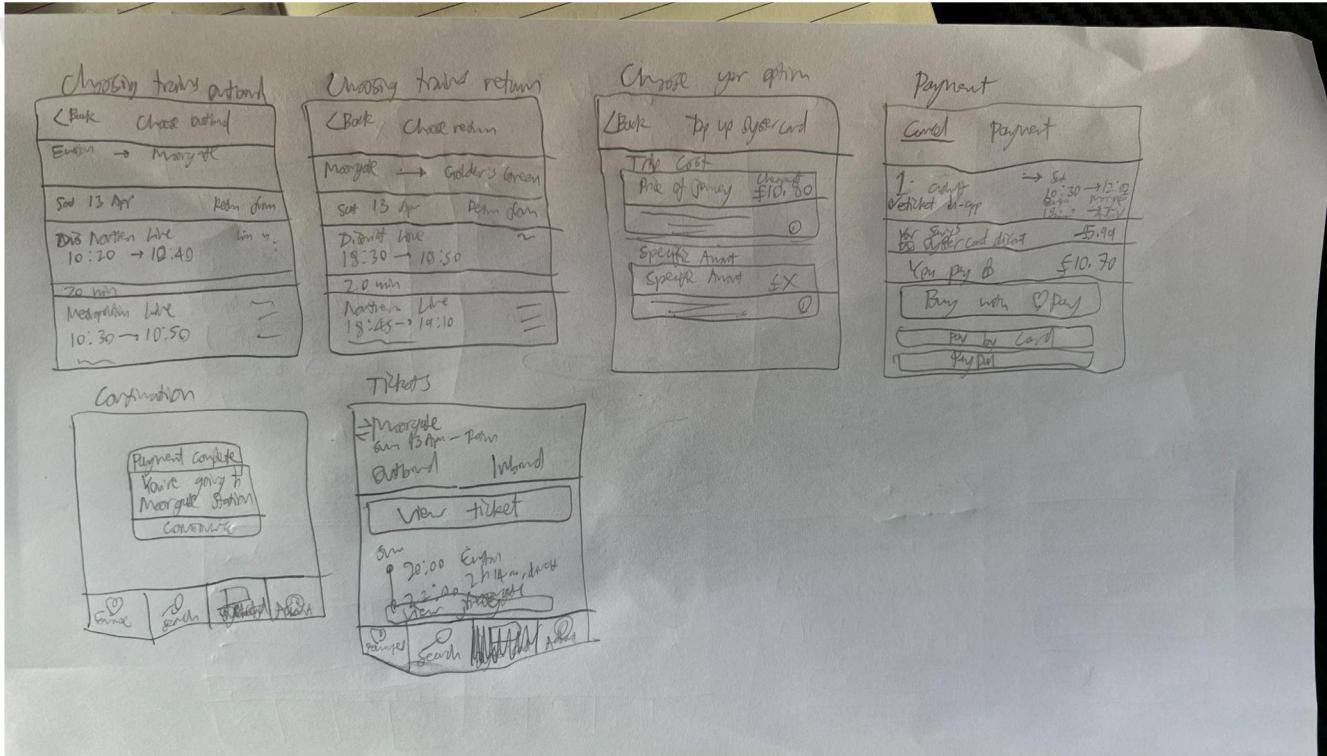
Link to User Flow: <https://www.figma.com/file/R8MSKS8FG8VlWLsLzX3BO/DIGI-Oyster?type=whiteboard&node-id=0-1&t=8jamzfNIE9B2G3zO-0>

# WIREFRAME SKETCHES



- Link to Google Drive for Wireframe Sketches: [https://drive.google.com/drive/folders/1Q9dkf-ltNCQN64Dp4eXA7U4q0W9g899-?usp=drive\\_link](https://drive.google.com/drive/folders/1Q9dkf-ltNCQN64Dp4eXA7U4q0W9g899-?usp=drive_link)
- Link to Figma for Paper Sketches: <https://www.figma.com/file/pTFEqjueCyJMiakW6Xu111/Group-Project---TFL-Oyster-Card-App-Najma%2C-Baz%2C-Nelly?type=design&node-id=26-2&mode=design&t=7QmaYTig1CyTZVtf-0>

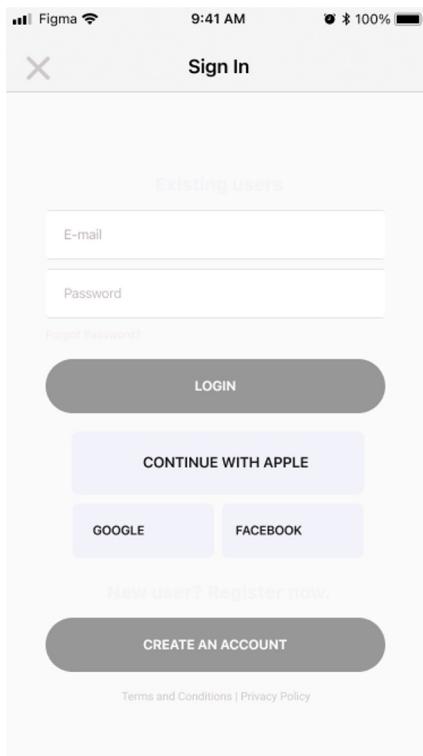
# WIREFRAME SKETCHES



→ Link to Google Drive for Wireframe Sketches: [https://drive.google.com/drive/folders/1Q9dkf-ltNCQN64Dp4eXA7U4g0W9q899-?usp=drive\\_link](https://drive.google.com/drive/folders/1Q9dkf-ltNCQN64Dp4eXA7U4g0W9q899-?usp=drive_link)

# LOW FIDELITY WIREFRAMES

Here is a preview of a few low-fi digital wireframes made in Figma.



Sign In

Existing users

E-mail

Password

Forgot Password?

LOGIN

CONTINUE WITH APPLE

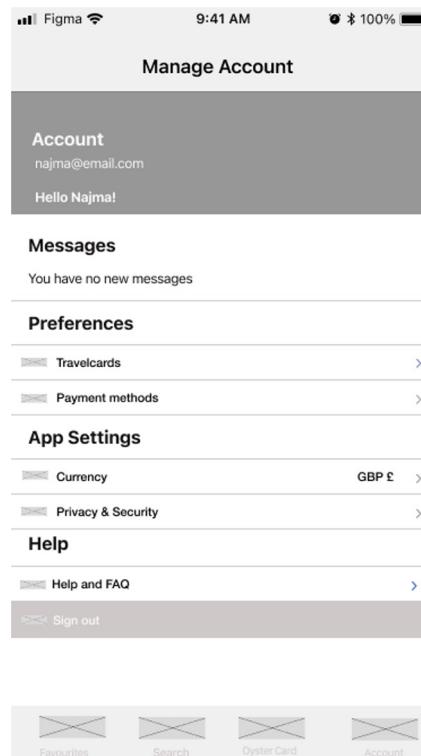
GOOGLE FACEBOOK

New user? Register now.

CREATE AN ACCOUNT

Terms and Conditions | Privacy Policy

Favourites Search Oyster Card Account



Manage Account

Account  
najma@email.com

Hello Najma!

Messages

You have no new messages

Preferences

Travelcards >

Payment methods >

App Settings

Currency GBP £ >

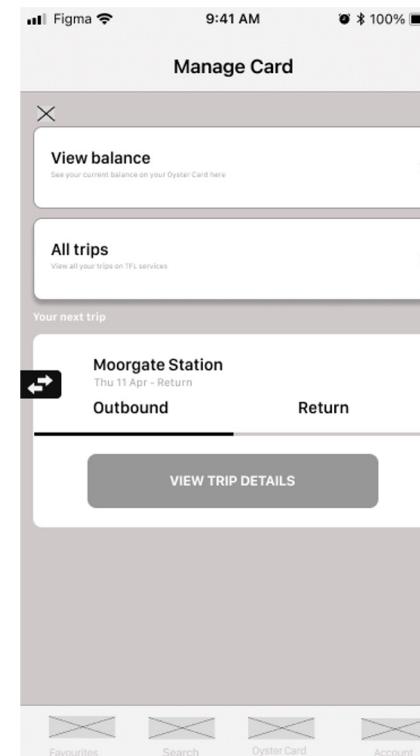
Privacy & Security >

Help

Help and FAQ >

Sign out

Favourites Search Oyster Card Account



Manage Card

X

View balance  
See your current balance on your Oyster Card here

All trips  
View all your trips on TfL services

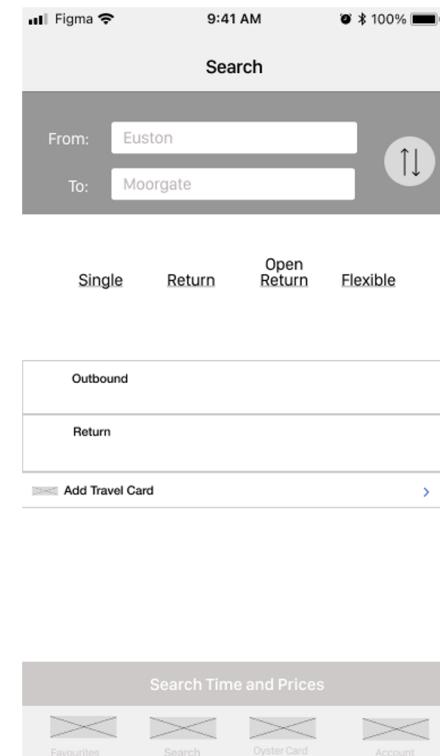
Your next trip

Moorgate Station  
Thu 11 Apr - Return

Outbound      Return

VIEW TRIP DETAILS

Favourites Search Oyster Card Account



Search

From: Euston

To: Moorgate

Single    Return    Open Return    Flexible

Outbound

Return

Add Travel Card >

Search Time and Prices

Favourites Search Oyster Card Account

Link to Google Drive link for full wireframes: [https://drive.google.com/drive/folders/1dr-ktudtzrop8-ELOgPq3AI85DIhZum?usp=drive\\_link](https://drive.google.com/drive/folders/1dr-ktudtzrop8-ELOgPq3AI85DIhZum?usp=drive_link)



# DIGITAL PROTOTYPE

Link to Clickable Lo-Fi Prototype: <https://www.figma.com/file/pTFeqjueCyJMiakW6Xu111/Group-Project---TFLOyster-Card-App-Najma%2C-Baz%2C-Nelly?type=design&node-id=117-749&mode=design&t=7QmaYTig1CyTZVtf-0>



# **TESTING AND ITERATING**

Digi-Oyster

# GUERRILLA TESTING PLAN



## **Objectives:**

Can a user successfully create an account and log in to the dashboard?

Do users understand what Digi-Oyster is about when they see the splash page and onboarding screens?

Can a user successfully top up their Oyster Card for their tube journey on TFL?

## **Task:**

Log into account for 'Digi-Oyster'

Try to book a journey from London Euston station to Moorgate station

Select the option of topping up the Oyster Card for the journey duration.

Make the payment, get a payment confirmation and return to the dashboard once the transaction has completed.

## **Feedback:**

Overall, the design is intuitive. User navigated through quickly. However, they struggled to go back to the previous page. The back button isn't visible.

Make find my journey more clear, back buttons where clear and easy to use.

Make the payment price more specific. Make the first section of price and discount in the same.

Make the specific amount more clear, maybe change the wording.

Add the price to the view ticket, show a collapse station in between, Maybe number or stops.

The layout is good and clear. The logo was consistent.

# RECORDED USER TESTS



We recruited 5 different users to test out the 'Digi-Oyster' prototype app. The tests were carried out virtually using screen recording software because of convenience and being able to record down the evidence to refer back to when working on any iterations for the prototype.

Here are the findings detailed in the spreadsheet:

<https://docs.google.com/spreadsheets/d/12ZAZwM5pljk6SwW73ZfT8HVzV6QFQc8XtjTxxLU-iw/edit#gid=557779913>

Google Drive:

[https://drive.google.com/drive/folders/1V11fv0ifl4KmFhQCvb4slaChOCD7JQPd?usp=drive\\_link](https://drive.google.com/drive/folders/1V11fv0ifl4KmFhQCvb4slaChOCD7JQPd?usp=drive_link)

# GUERRILLA TESTING ANALYSIS

## Positives

The Layout was clear and easy to understand

Najma Ibrahim

The sign out button was very visible, it was in a red colour.

Najma Ibrahim

Easy and clear directions

Najma Ibrahim

The app has everything that I could need in terms of my Oyster card.

Najma Ibrahim

## Navigation

The flow was slightly confusing, I was not able to proceed to the page to start a trip.

Najma Ibrahim

The proceed buttons on the payment page could be slightly bigger.

Najma Ibrahim

Simple and straight to the point, easy and clear to navigate.

Najma Ibrahim

Navigating the payments page was really easy to use.

Najma Ibrahim

## Visuals

The capitalised font on some of the buttons was almost 'screaming at me' because it already highlighted in another colour, maybe it doesn't need to be in capitals.

Najma Ibrahim

Dashboard is clear.

Najma Ibrahim

The sign out buttons placement could be moved, it just didn't visually fit that placement.

Najma Ibrahim

Some font sizing needs to be enlarged

Najma Ibrahim

Make the journey selection prompt bigger.

Najma Ibrahim

Colour scheme was consistent.

Najma Ibrahim

## Things to reconsider

An option to add oyster card to my apple wallet.

Najma Ibrahim

The top up oyster page needs more clarity.

Najma Ibrahim

## Frequency of Responses

High

High-Mid

Average

Low

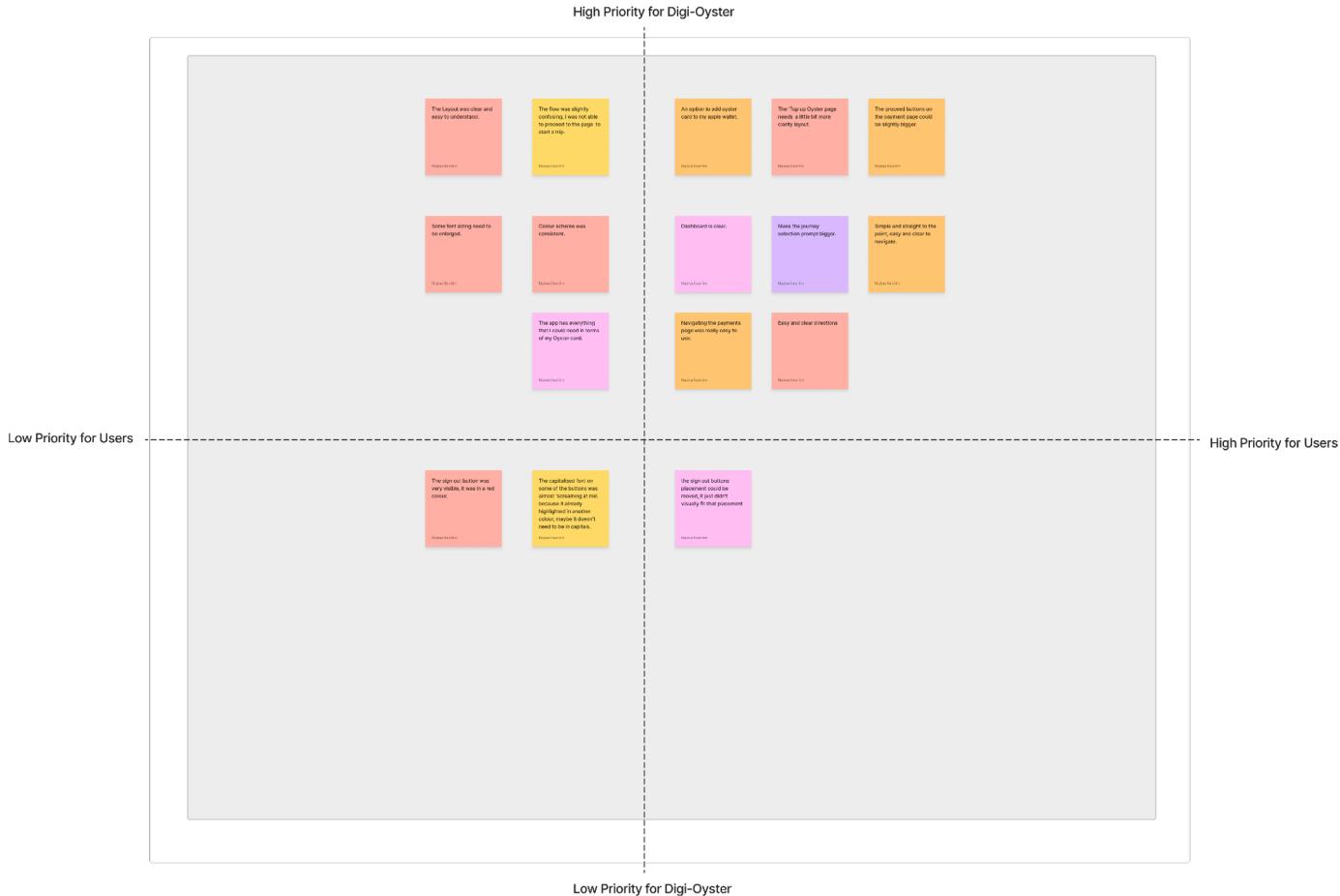
Bharath Kannan

Bharath Kannan

Bharath Kannan

Bharath Kannan

# GUERRILLA TESTING 2x2 MATRIX





# KEY LEARNING FROM USER TESTS

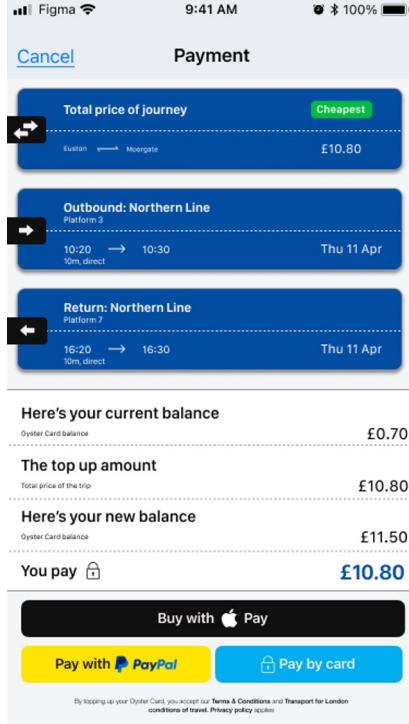
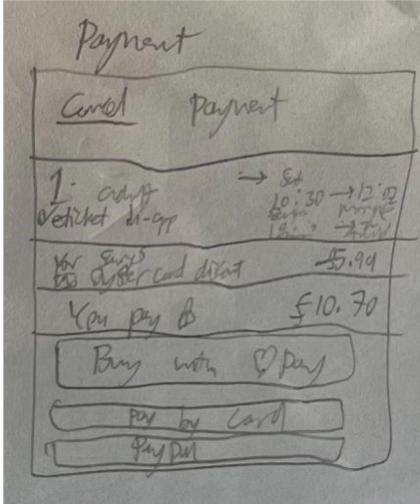
Whilst conducting the user tests as part of the design process, we learnt the importance of focusing on a user-centric approach to solving real world problems. Some users preferred fewer screens whereas others wanted more clarity in the sign up process, and other users wanted a clear breakdown on the prices with payments and Oyster Card top ups. We also learnt the importance of effective navigation by introducing back buttons in the appropriate places.

It also made us realise that during the design thinking process, the importance of well thought out research and synthesizing the research into concrete features that will help to achieve the objectives we set out to achieve. We found it very eye opening how many users from our user interviews did not find much incentive to maintain their Oyster Card and showed us the importance of introducing features that will have a high impact on the users in London as well as managing the complexities of each feature.

We also want to ensure that navigation is as intuitive as possible for the user and that the user does not feel confused or overwhelmed when navigating between the screens. One such example is making the size of the prompts bigger so it's clear to the user what to do next when navigating to the next screen. If given more time, we definitely would spend a lot more time tweaking the padding, margins and sizing to ensure it meets the accessibility and design standards. All of the feedback received has been very useful in the design thinking process and has allowed us to consider different viewpoints and perspectives to make iterations for the high fidelity prototype. What we will be focusing on for the future iterations are the inclusion of more features initially listed from our ideation phase and feature prioritization matrix.

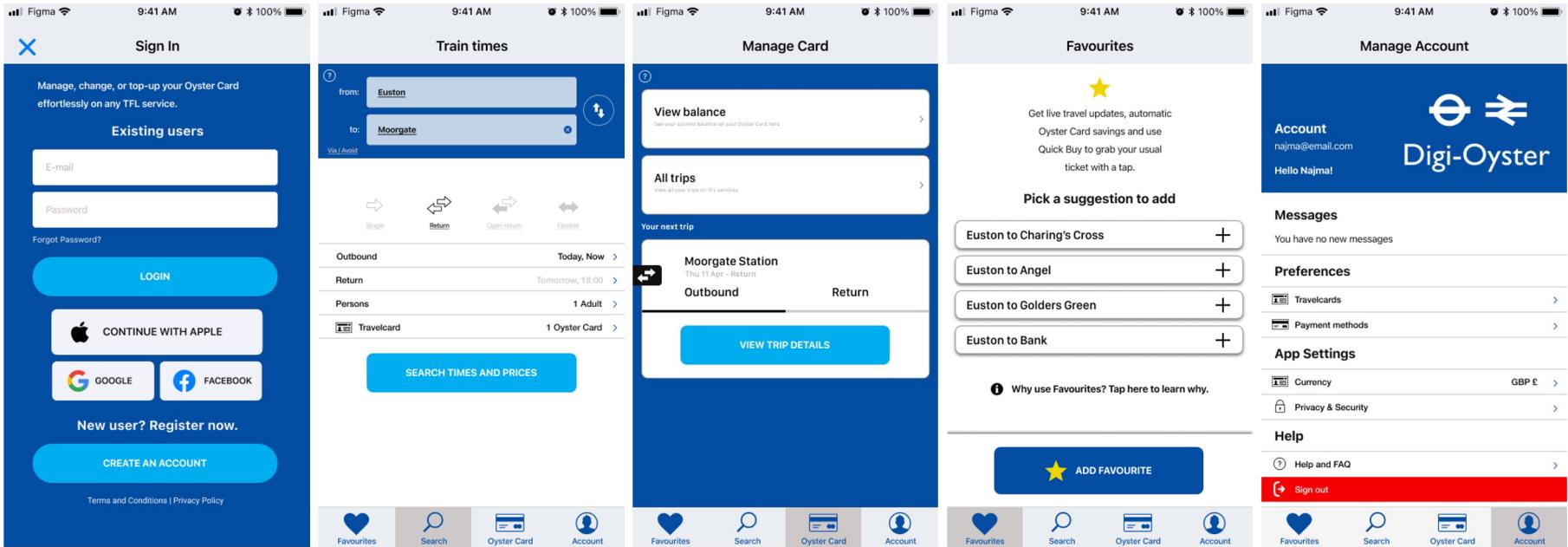


# ITERATIONS MADE BASED ON USER TESTS



- Payment price more specific.
- The first section of price and balance in the same area.
- Login screen shortened to one screen instead of two.
- Add the price to the view ticket.
- Show a collapse station in between, number of stops.
- Make the 'Specific Amount' more clear
- Make the search journey more clear, back buttons should be more clear and easy to use
- Struggled to go back to the previous page, the back button wasn't visible.

# iOS MOCKUPS



- Full link to all of the High Fidelity Mockup Designs in Figma: [https://www.figma.com/file/pTFEqjueCyJMiakW6Xu111/Group-Project---TFL-Oyster-Card-App-Najma%2C-Baz%2C-Nelly?type=design&node\\_id=30-79&mode=design&t=ziOTBa7q5Ru8mMyv-0](https://www.figma.com/file/pTFEqjueCyJMiakW6Xu111/Group-Project---TFL-Oyster-Card-App-Najma%2C-Baz%2C-Nelly?type=design&node_id=30-79&mode=design&t=ziOTBa7q5Ru8mMyv-0)
- Google Drive link to Wireframes: [https://drive.google.com/drive/folders/1H\\_hJxm9LS1eqsGxED7Op4v\\_Pa6aj-3Du?usp=drive\\_link](https://drive.google.com/drive/folders/1H_hJxm9LS1eqsGxED7Op4v_Pa6aj-3Du?usp=drive_link)
- Note, please refer to the Figma file when reviewing the iOS mockups and prototype as it's not appearing to display properly when we export it from Figma as a JPEG or PNG file.

# iOS PROTOTYPES



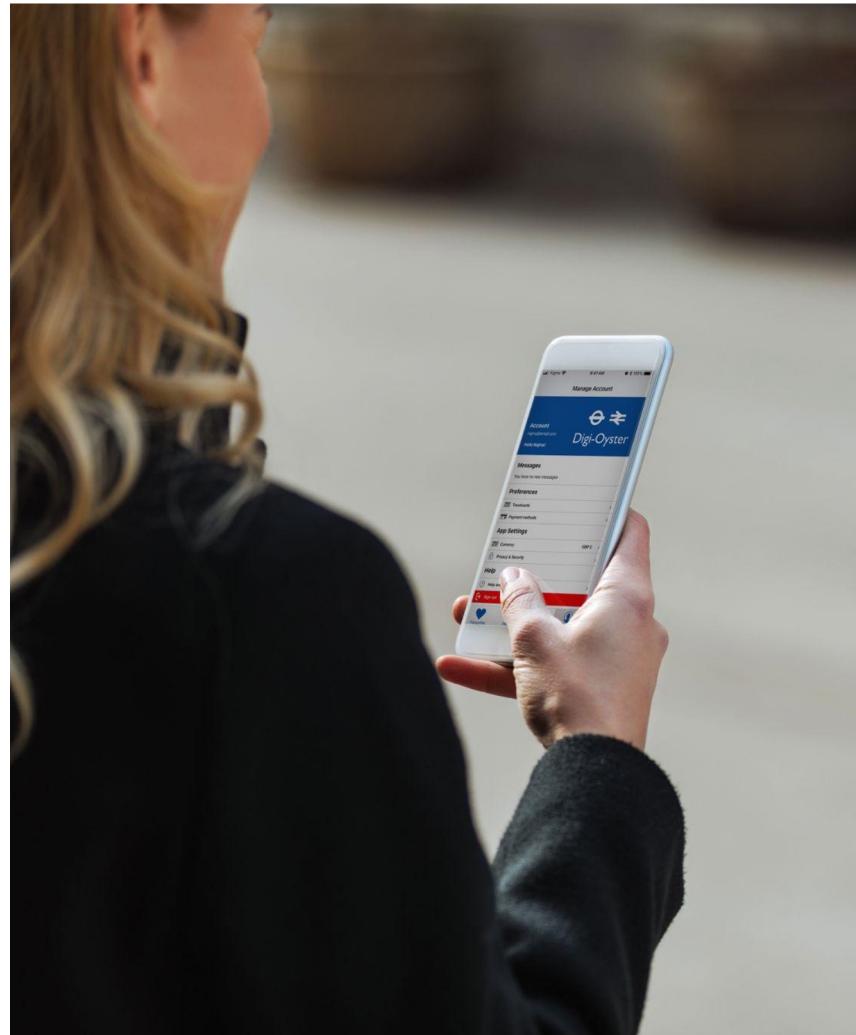
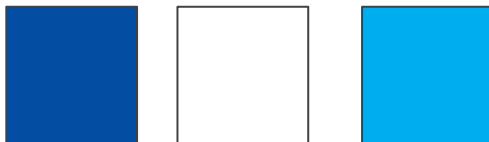
The high fidelity prototype made in Figma shows the 'Digi-Oyster' app using high quality images and a preview of what the actual app would look like on the iPhone 8 device.

Clickable Hi-fidelity Prototype Figma link:

<https://www.figma.com/file/pTFEqjueCyJMiakW6Xu111/Group-Project---TFL-Oyster-Card-App-Najma%2C-Baz%2C-Nelly?type=design&node-id=30-79&mode=design&t=ziOTBa7q5Ru8mMyv-0>

We established some design guidelines for the TFL app.

#034EA2 #FFFFFF #00ADEF





# FUTURE DEVELOPMENTS

If we had more time to work on this project, we would approach this project differently through:

- Iterating current product sign out button and prompts to ensure that the padding and margins are meeting design standards
- Introducing the “Add to wallet” feature
- Introducing Budget tracking feature to meet one of the features from our feature prioritization matrix
- Introducing Incentives for commuters to get travel discounts and keep them on the app for the long-term



## FINAL THOUGHTS

- Prominent insight: 98% of users found the oyster card to have no incentives, identifying a gap in the market for TFL and giving us room for more opportunities.
- Team working: We used Trello, Whatsapp, Slack & Daily stand ups to communicate with each other and keep updated on our progress.
- This was a project close to home.