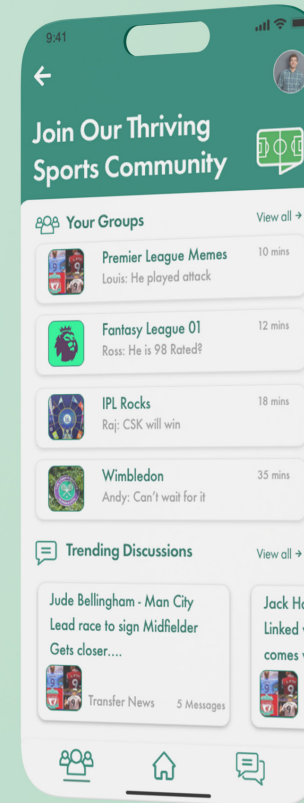
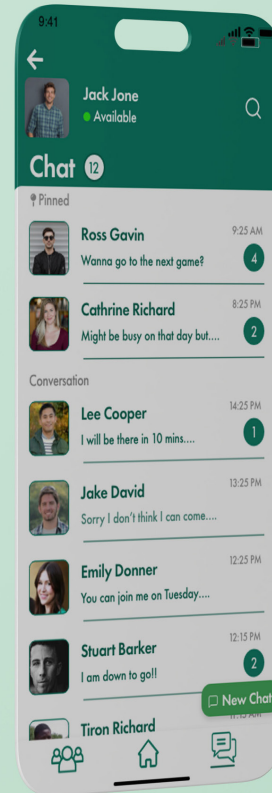
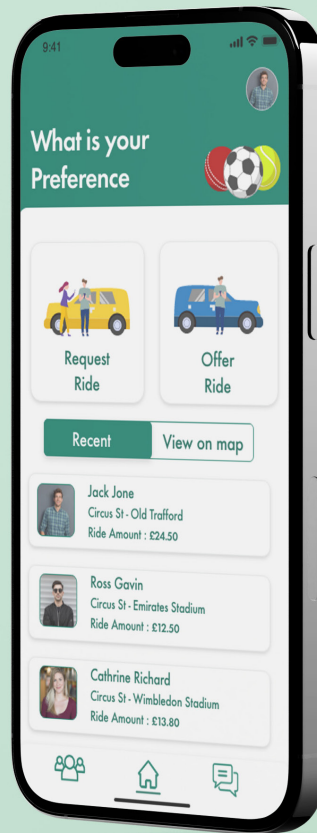
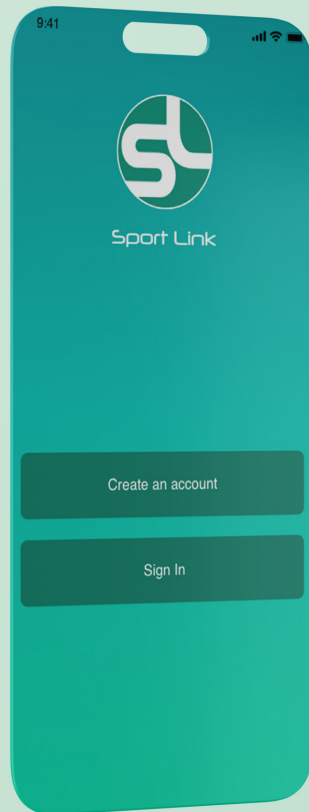


Independent Portfolio Project / IDM05

App : SportLink



Check App
Link

Neel Amin

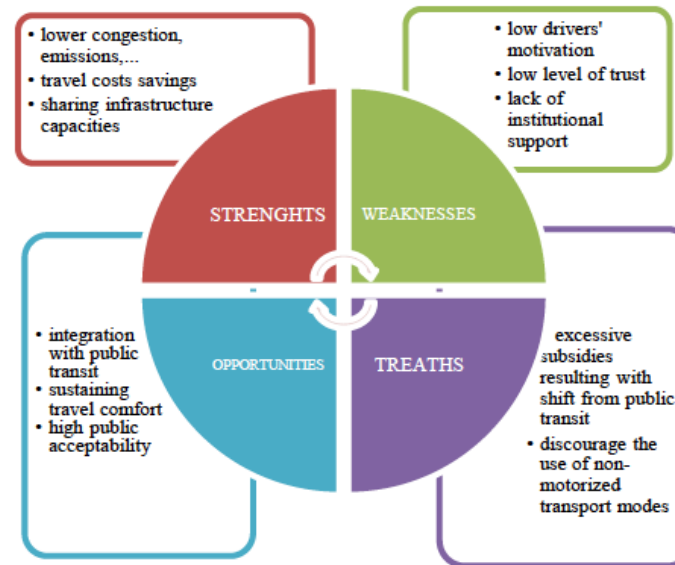
Introduction

Carpooling has been around since long especially now since a lot of people use Uber share to travel together to save cost. This is however for short journeys and its hard to find someone for a long journey. To start off I looked at a lot of secondary research and for primary I asked my friends if they would carpool and they said yes.

Anne (2021) suggested Most people agree that the growth of carpooling is a tool for reducing traffic and decarbonising commuting behavior. Her research suggested carpool needs something to make it more appealing. I felt carpooling to sports games would help this as you want to travel long distances with people who have similar interests like yours to make it interesting. My initially research also suggested there is only a few carpool sports app which are mostly targeted towards kids being dropped to sports activities. Hence I feel there is a lot of opportunity to create a app where people can travel together to sports games.



Source : Shutterstock



Parezanović 2015 SWOT analysis

Why carpooling is good?

Carpooling has many advantages especially in current times. With diesel and petrol car production being banned soon carpooling may help a lot reducing pollution if people travel together. It also helps save cost on both fuel and train/bus cost. It also has a good social element. Swot analysis done by Parezanović (2015) above helps showcase strengths and opportunities of carpooling.



All research led to this idea. It will be a sports carpool app where people can travel together to sports games. It not only helps the environment, save money but also creates a social element where sports fans can interact with each other. To stand out from the other app it will also have a messaging feature and a sports community page.

Reflective Report

For this UX project, I choose to make a Carpool app targeting sports fans. To start off, I asked people I know who are sports fans if they would use an app like this and all agreed it was a good idea. I had also looked into other app ideas but felt this was the most unique one and would be helpful to the users.

Background Research

To start the background research I did a competitor analysis to see if there are any other similar carpool apps in the market. I did find a few however, they were normal carpool apps not targeting sports fans. The main issue with them is that the drop of location will be different (as they are not going to the same match), hard to match with people travelling at the same time, and it is also hard to socialise as people may not have the same interests as you. I did find a sports carpool app for kids however its main target is kids going to sports clubs and doesn't have many downloads.

I had also looked into other apps such as the food recipe app which suggests recipes from the ingredients you have in your fridge however from research I found out there are already

similar apps in the market hence it would be hard to make it stand out. I created a NUF table with all the ideas and scored how original the ideas were. The sports carpool app felt the most unique and with a lot of focus on helping the environment I felt this would be useful as you save CO2 emissions by travelling in groups. I also asked some sports fans if they would use a sports carpool app and they all said yes as not only would it help the environment but also save money and you get to meet new people with similar interests.

Personas

Three personas were created based on different types of people. An 20 year old student who loves football matches, An 29 year marketing manager who likes to attend cricket matches and 30 year software engineer who like to attend football and rugby games. They all wanted a carpool app and this one covers all their aims and needs.

The user personas were created using Goodwin, K.(2008) 'Perfecting Your Personas' guide for effective persona creation. This includes considering about, goals, pain points, use case etc. The persons were also varied use case where 2 users wanted to request rides where as one is offering ride to gain different perspectives.

The main goals includes saving money on fuel by carpooling, better social experience while travelling with people (who have similar interest), Helping environment by travelling together instead of alone and meeting new people. This can all be achieved using the Sport Link app. The personas help us see various user who may use the app and what their different aims may be.

Task Scenarios

Two task scenarios were created one using Nardi, B.A (1992) method and second a illustrative one. Each task shows how the different personas could interact with the app. Both show the scenarios in which the user wants to go to a sports game using the Sport Link carpool app. The results of the scenarios provided useful information such as what steps user takes when doing a process. It also helps analyse how the journey could be made as easy as possible in the design so that the user can accomplish the task quickly.

Name/Colour Branding

Few names were generated however with a focus group the name Sport Link was chosen as it merges sports with link to suggest linking sports fans together as a community and the word 'link' can also mean roads joinings to suggest the idea of travel.

The colours were inspired from sport pitch colours merged together green-

blue. Green is usually associated with nature and calm whereas blue with being trusty and relaxing. This helps people interact with the app and not make them anxious or confused with whats going on.

Lo-Fi Prototype

A lo-fi prototype was created which consisted of login, home page, request ride page, message page, forum page and profile page. These screens were initially sketched and then turned into prototype. The sketches show basic layout with inspiration from apps like Uber and whatsapp for messaging page.

Lo-fi was more detailed and digital version of the sketches. An observation test was also done to see if users understand what the page is about and what the icons mean. Most of the feedback was positive apart from redesigning the profile page which was done. People also asked the type to be made bold on headings with colours which don't

merge with the background hence dark green was used.

Testing

For the testing methods I wanted to use 2 different ones to get better insights. Hence I use observation testing by giving users task to do and observing how they interact with the app. Nielsen's Heuristics was also used where after the observation testing users were given a form to fill out with the heuristics to pinpoint what could be changed to improve the app.

For the observation testing I gave users task such as booking ride, offering ride, publishing post in forum page and just interacting with the app. All tasks were completed successfully. I observed one user use different route to booking from recent directly compare to entering location which also helped see how users can interact differently.

From the heuristic form I did get a few improvements. For error prevention the users asked for a option to cancel offered ride which was added. A delete post button was also added in the forum so that people can delete post which they posted accidentally (in forum). One user asked the profile button to be in more places so the user can quickly go to it instead of trying to find it from different pages which were also added. Overall the testing was really helpful as I got insight which I didnt think of and more testing would be done in the future when app is live so that better data is received and app keeps improving.

Hi-Fi Prototype

The hi-fi prototype use inspiration from apps like Uber (booking), Reddit (forum) and Whatsapp (messaging) so that users recognize what the functions are. It used minimal colours so that it is not distracting and easy to read text. I felt I could have experimented with more colours hence I did use some illustrations e.g on home page but didn't

want to over do it as I was trying to focus on the user journey and not making it look over 'flashy'. I did feel the prototype looked like a app in the real world and it was also what people said from the testing. I did do all the improvements from the feedback and it helped improve the app.

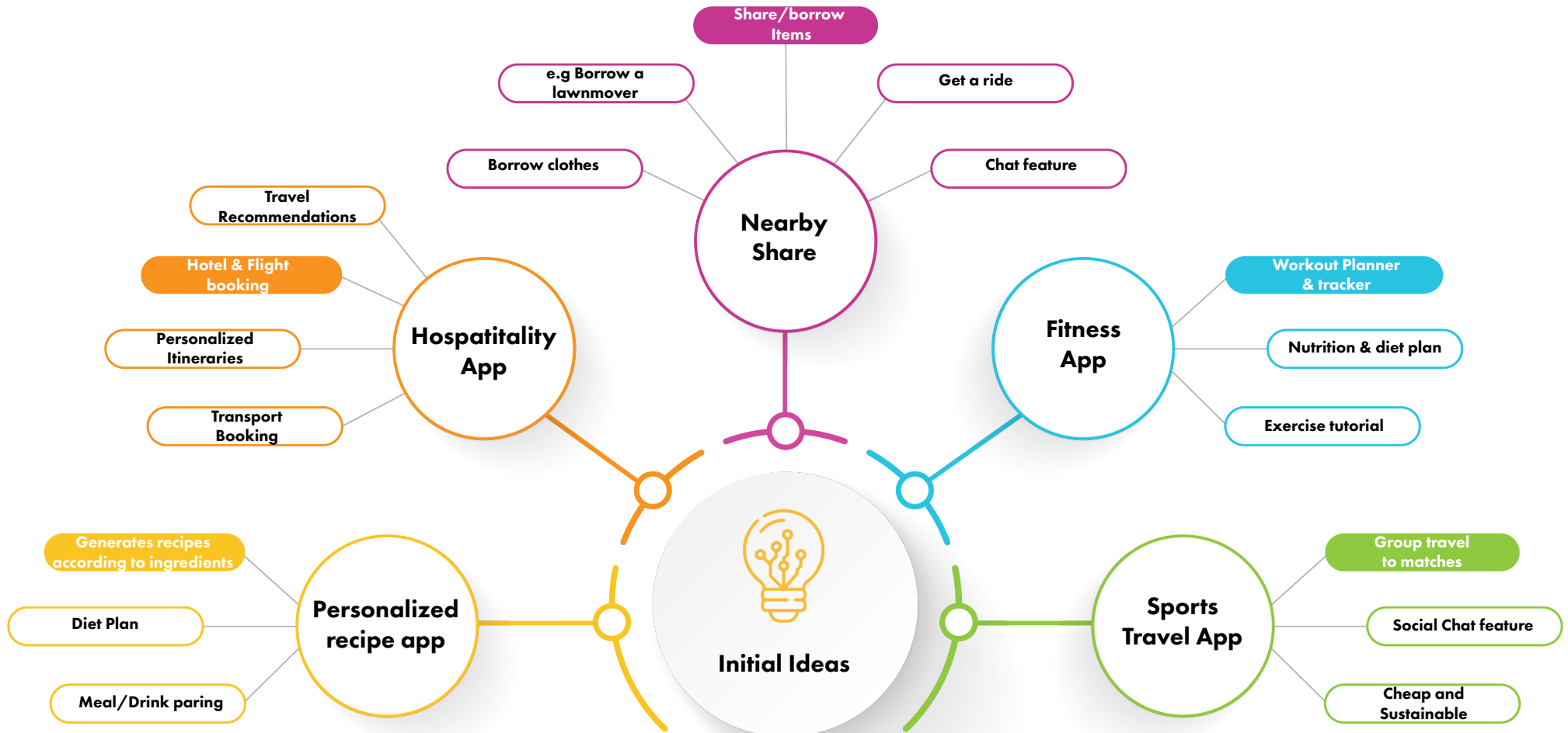
Conclusion

All the stages from ideation to defining problems (swot analysis) to empathizing with user (personas/scenarios) to making prototyping to testing helped create a good portfolio project in my view.

I did feel I could have improved by doing a questionnaire (at the start) and more research however I felt it was not required as I did find data that suggested why the app is needed/would be helpful and asking focus group also helped with this. The testing which was done was useful and all task varied to cover main tasks in the app. I could have done the observation testing for the lo-fi more professionally like the hi-fi one but it helped get what I needed from it.

Overall I am positive with how the app turned out and it would be a great addition for my portfolio as it shows my thinking process to the final product. There are some areas where I could improve however with more practice I could achieve that considering I only started with UX course back in September. The app created shows great possibilities and more features could be added in the future e.g live scores to gain a wider audience.

Ideation - Initial Ideas

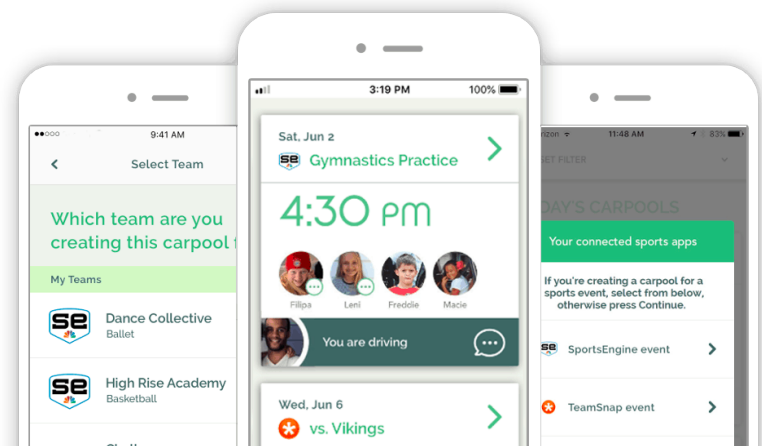


Initial Idea Research

Sports Carpool App

A app which allows you to carpool or travel together to matches e.g football. Just enter the match you got tickets for and it will show nearby people with same tickets. Chat with them and create a group travel to save money and travel sustainably.

Similar Apps



GoKid - Carpool for Kids

<https://www.gokid.mobi/gokid-for-teams/>



CarpooltoSchool

<https://carpooltoschool.com/>

Analysis

I looked at a range of app (also shown later) however the main aims of these apps to get user one location to the other. The carpool apps which are make for the sports audience targets mostly kids going to classes (us based) and not for adults. I feel like making a app targetting sports fans is a new market and would do well. Having similar interests e.g football would make the travel journey more interesting and not boring also thousands of people travel to sports games hence it would help a lot of people.

Hence I have decided to go with this idea and carry out more research on how to make it useful app for people to use.

User Needs - Research

User Needs

What Users want

- Carpooling to a match
- Travelling with people with similar interests.
- A way to socialize with fans

What Users Hate

- Not knowing who you travel with.
- Being dropped off far from actual destination.
- Complex app design

Main Aims

- 1 Encouraging carpooling to reduce traffic congestion and carbon emissions
- 2 Provide a user-friendly interface that allows fans to easily find and connect with potential carpooling partners.
- 3 Promote socialization and community building among fans who share similar interests and transportation needs.
- 4 Making it easier for fans to find carpooling partners

Market Research

The global car pooling market is expected to grow from \$13.06 billion in 2020 to \$20.56 billion in 2021 at a compound annual growth rate (CAGR) of 57.4%.

The market is expected to reach \$35.29 billion in 2025 at a CAGR of 14%

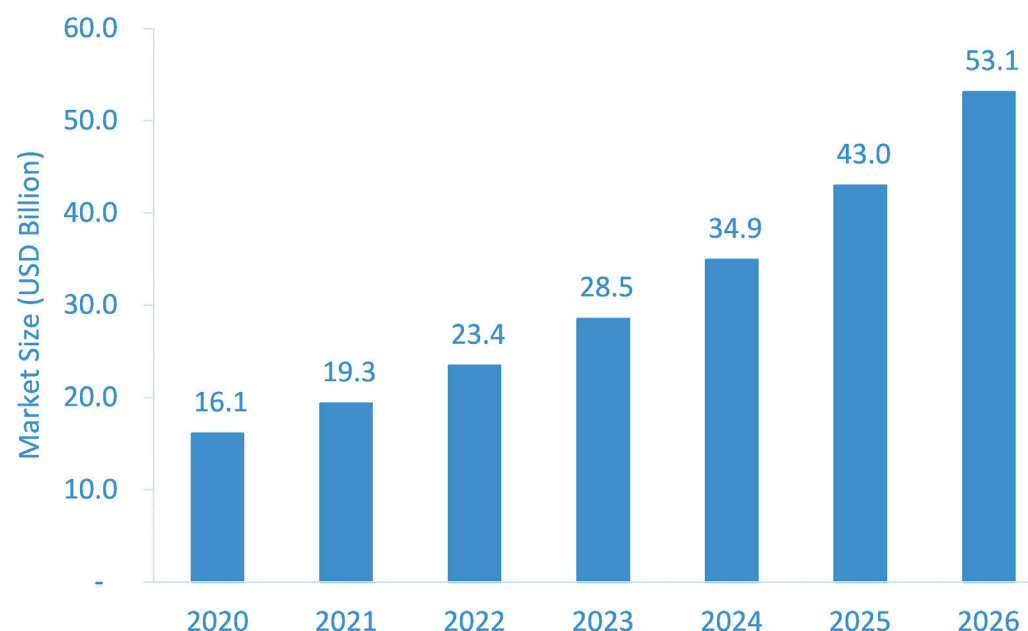


Figure Starview Research : Global Carpooling Market Size, 2020-2026 (USD Billion)

Idea Selection

Once I looked at various different app options and current competitors I evaluated them using a NUF table as they all had potential. This will show how new/unique the app is, how useful it would be and how realistic it would be to manufacture.

From the table we concluded Idea 5 scored the highest followed by 4. Both are relatively unique however for the sports carpool app there is no direct competition and it has great potential as there are millions of sports fans across UK and this app could be useful to a lot of them.

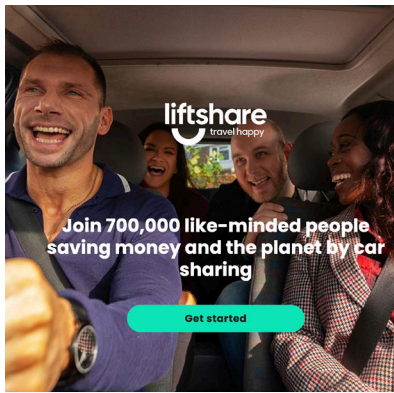
IDEA	NEW/10	USABLE/10	FEASIBLE/10	TOTAL
1	5	7	6	18
2	6	7	7	20
3	6	6	7	19
4	7	8	6	21
5	8	7	8	23

- 1) **Nearby Share** - A app which allows you to share items e.g lawn mover with nearby people.
- 2) **Fitness App** - A app which allows you plan your workouts and learn from tutorials.
- 3) **Hospitality App** - An app that connects travelers with local hosts who can provide a unique and authentic experience.
- 4) **Personalized Recipes** - An app that creates recipes based on a user's food preferences and dietary restrictions.
- 5) **Sports Carpool App** - An app that creates recipes based on a user's food preferences and dietary restrictions.

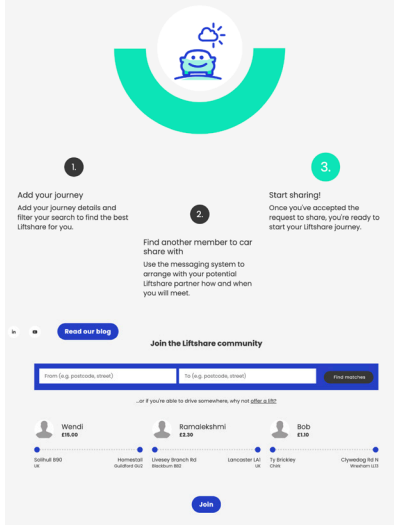
Competitor Analysis

LiftShare

With the help of LiftShare, you can carpool to reduce costs and protect the environment. Simply enter the destination, look for a fellow member to carpool with, and start sharing at a low cost.



Get on your way with Liftshare today

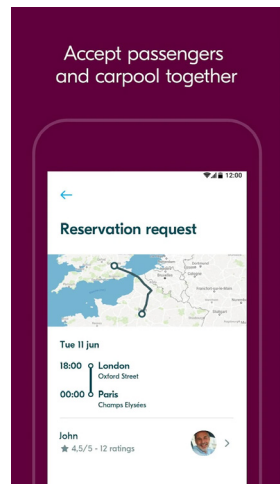
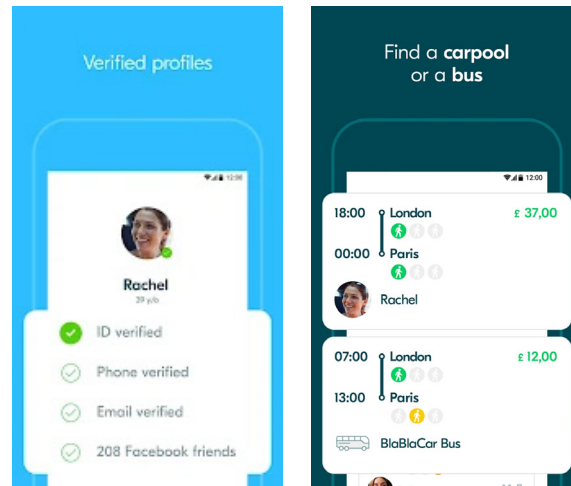


Source: Liftshare

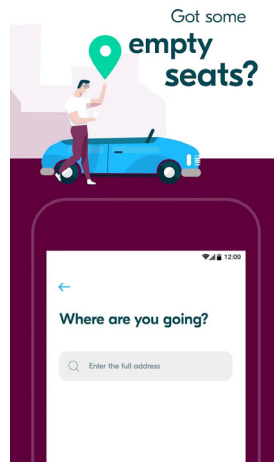


BlaBlaCar: travel by carpool

You can choose from hundreds of places and find a ride nearly door-to-door when you carpool. Use BlaBlaCar to schedule or promote your next journey!

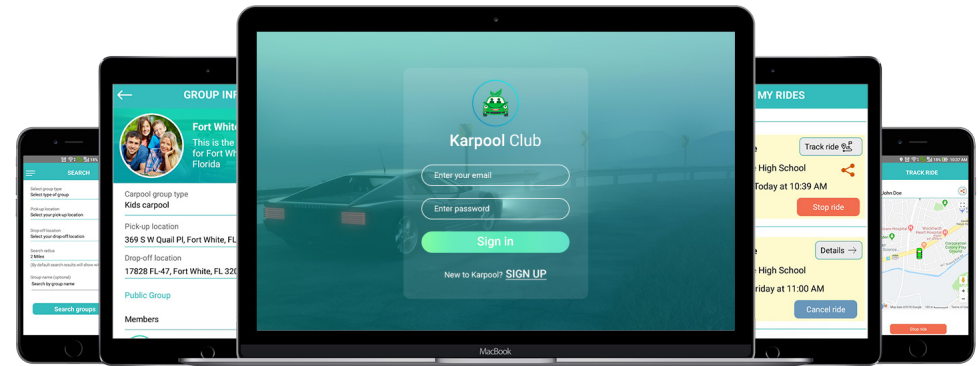


Source: Blablacar



Karpool Club

You can use Karpoolclub to select your favourite groups to rideshare with. A better use of your vehicle, van, and reliable network to share rides with children, adults, elders, and even pets.



4 EASY STEPS TO CARPOOL

1. CREATE, MANAGE...

- Start a new carpool group or join a group with parents you trust

2. SEARCH FOR KARPOOLERS...

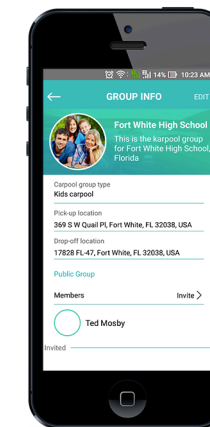
- Search for groups going to the same team activity, afterschool or School and join them for efficient time management and student safety

3. COMMUNICATE...

- Keep your group members updated on your schedule and communicate better using the App

4. TRACK THE RIDE...

- Karpools "Track the ride" keeps everyone in loop to see your children are on a safe route



Source: Karpool Club

This allows us to see current competitors so we can make our app more unique from them. These app allow you to get a carpool ride however its really **hard to find riders** and you will carpool to the location decided by driver hence may be a bit **far from intial destination**. It also gets boring travelling on long journeys as you **dont have similar interests**.

SWOT Analysis

I did a SWOT analysis of current apps and opportunities my app could have to help develop the app.

Strengths	Weaknesses
Free to use Easy to input destination Helps save cost Easy to publish ride	Hard to find rides on exact time. Not for sports fans Drop-off point is not the same. Hard to socialize with people
Opportunities	Threats
Targetting sports fans so drop off point is same and better timings (as people are going to same matches). Will have more of a sports community.	Having less users which would mean less riders. (would need marketing to solve this) People not feeling save to travel with people.

Empathy Map

I need to watch the next arsenal game but its expensive to travel

Downloads carpool apps and books tickets

Says

Does

What if I carpool the next game?

Hope I find a app which finds me someone going to the same match so I can talk with them.

Thinks

Feels

Name Ideas

Sport Link

Drive Share

CarpoolSport

SportRide

DriveTeam



Sport Link

I asked people what they felt was the best name and people choose Sport Link. I also preferred it the most as it merges the sport with link to suggest linking sports fans together and link can also mean roads.

User Profiling 1a

Profiling Table

Characteristic	Detail	Design Implications
Age	The primary age range is between 18-30 but anyone with interest in sports matches will also be targeted	The design of the application would have to appeal to a with variety of audience and will need to be simple so people in all ages can interact easily withthe app and it should be easy to offer and get a ride.
Gender	The app can be used by both male and female.	The design should appeal to both male and female.
Ethnicity	The app can be used by any ethnicity.	The design should appeal to all ethnicity and making sure no offensive icon are there. Using universal icons.
Location	The app will intially roll out in the UK but may expand to US and more.	In future the app would have language translations to cater to a wide variety of audience.
Education	The app will be target to people who understand basic booking language e.g (taxi booking)	People using a app would need to have some basic technical knowledge.
Socioeconomic status	To use the app the users will need to have a modern smartphone.	To carpool a ride users would have to share cost with the person offering rides.
Religion	The app will be used by various people who are from various religions.	Consideration will be given to make sure the app doesn't have offensive icons or images.

User Profiling 1a

Characteristic	Detail	Design Implications
Knowledge- Smart Phone Domain Knowledge	The application is designed primarily for mobile use and users should have knowledge operating a smartphone.	This application should follow designs from booking apps such as Uber out there to increase familiarity.
Learning Style	The app interface should be similar to a lot others but a tutorial could be added.	A walk-through or setup may be necessary upon login.
Disability- Cognitive	The application would encourage user with disabilities to reach out to people nearby for assistance.	Design considerations will be put in place for easy interface for common cognitive disabilities. e.g font increase option.
Disability- Physical	Some users may have physical disabilities which would enable use of smartphone.	Considerations may be put in place in future.
Vision	Some users may have glasses, or color blindness.	The interface would have to be minimal, with legible size/type, less conflicting colours etc.
Hand Preference	Users of the application could be left or right handed.	It should be accessible for both usage.

Characteristic	Detail	Design Implications
Ownership	To use the app the users would need a modern smartphone.	The app will work on both Android and iOS. It would also work on smartphones and car navigations in future.
Ethos	To app can be informative and will have social features	The app should be appropriate for use by anyone.
Task Environment Frequency	To app can be used regularly but aimed for social use e.g sports games.	The app would have a forum page to promote daily use and also messaging function.
Language	To app would be be designed for people who know english however more languages would be added.	The app may have more languages added in the future.
Affect-Attitudes	The apps primary use is for users to carpool to sports games.	The app should encourage use to help move towards a sustainable future and incentives should motivate people to use it.
Visual Literacy	To use the app users should have some visual literacy whicle using the app.	The app may have more languages added in the future.
Knowledge- Task Domain Knowledge	The interface would be similar to that of a apps like Uber which is widely used.	The application would be similar to other apps so that users know how to interact with the app easily.

User Persona 1

Jake David

About

Jake is a Business student, Ever since he was young he loved the nature and appreciated it. He has basic understanding of technology with basic level of technical knowledge and visual literacy on all electronic devices. He supports Arsenal is a member and loves to watch all thier games. It is hard for him to watch all the matches as most of them are in London and its expensive to travel there.

Goals

- Watch Arsenal football matches
- Sustainably travel to different places
- Cheaply travel to London

Pain Points

- Really hard to find people to travel to the same games as him
- No carpool app which he can use to travel to sport games (exact location).

Use Case

Jake wants to see the next Arsenal game against liverpool which is in London however he doesn't have a car so he finds this app. He first downloads SportLink app and creates his account. He next sets up his profile with his address and phone number. He selects request ride and types his current location and final location. The app shows him other people travelling to London on the same day (for the match). He selects the closest one and messages him in the app. He gets a response and agrees to split the cost of travel and they decide the meet up location. On the day Jake meets his carpool linkup and they travel together to the stadium. They also travel back together and decide to go to the next game together aswell.



User Characteristics

Age: 20

Organization: University of Brighton

Year: First year Undergraduate student

Location: United Kingdom

Languages: English (Fluent)

User Persona 2

Jess Baker

About

Emily enjoys watching sports and enjoys going to cricket games on the weekends. She frequently travels to various stadiums throughout the UK, but she discovers that travel expenses pile up. Additionally, because Emily just moved to Manchester and is still developing her social circle, she views carpooling as a fantastic way to meet people who share her enthusiasm for sports.

Goals

- Find a convenient and affordable way to travel to cricket matches
- Meet other sports fans who share her passion for the game.
- Have more social and enjoyable travel experience

Pain Points

- Worried about coordinating carpool for sports games.
- Wants to ensure that she finds carpool partners who will arrive on time.

Use Case

Emily want to attend an upcoming cricket game at a venue outside of Manchester. She establishes a profile and downloads the app. She enters her preferred location on the request ride website. She sees other people making their way to the same game. One of them reacts right immediately when she sends him a message. They decide where to meet up and how much money they will split. On the designated day, the guy shows up promptly, and they both travel to the stadium together. He and she get along, and they both decide to get back together. To reduce costs and find new friends who share her interests, she decides to utilise the app every time.



User Characteristics

Age: 29

Occupation: Marketing Manager

Location: Manchester, UK

Languages: English (Fluent)

User Persona 3

John Richard

About

John is an avid sports lover who enjoys watching various rugby and football games in his spare time. He has a car and is willing to share transportation with others who are also going to the same games. He frequently attends with his family and friends, but they don't necessarily travel from the same place or attend the same game. John likes the notion of carpooling because it gives him the chance to meet new people and pass the time by chatting with them about the matches as they travel.

Goals

- Watch football and rugby games
- Have more social and enjoyable travel experience by carpooling.
- Meet new people.
- Save money on fuel

Pain Points

- Finding a carpool app which can match him with people with similar interests going to same games as him.
- Needs to ensure that he can find trustworthy partners who will not cancel or cause delays.

Use Case

For an upcoming rugby game in Cardiff, John recently bought a ticket. He has one open seat, but he has two more buddies who are planning to travel down from Manchester. In order to help them save money and meet new people, he decides to post it on the app in case someone wants to travel with them. He uses an app to provide a ride, entering the location, date, time, and price. He receives a message and decides where to meet the driver. They get together that day and have a great time discussing their preferred games. After dropping him off at the stadium, they agree to remain in touch.



User Characteristics

Age: 30

Occupation: Software Engineer

Location: Manchester, United Kingdom

Languages: English (Fluent) , French (Basic)

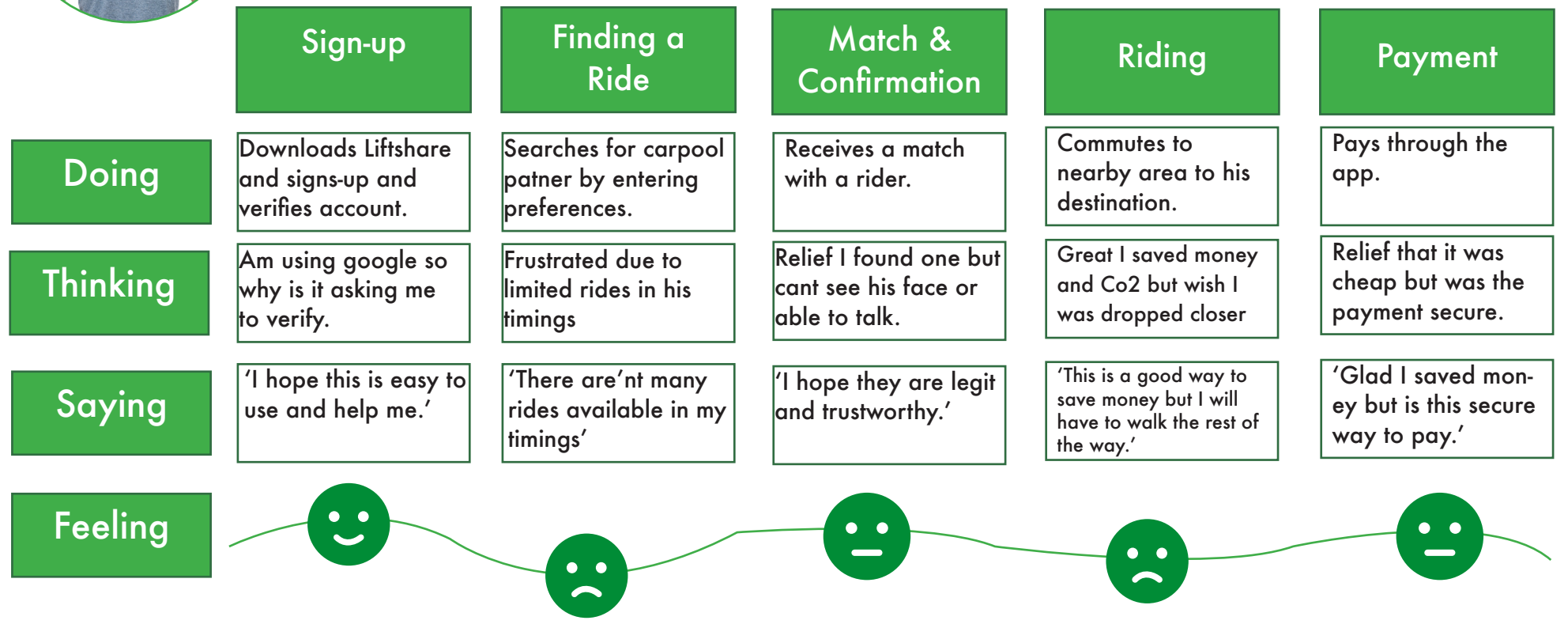
Journey Map

By creating a customer journey map for the carpool app that includes what Jake's doing, saying, thinking and feeling, we can better understand his user experience and identify areas for improvement to make our own carpool app more user-friendly and secure for users like him. We will aim to make log in simpler (option to login from google straight-away), targeting sports users allows better matches (in his timings), allowing messaging/calling (build trust), better drop off as they are travelling to to same match and payment in person through e.g Paypal for better security.



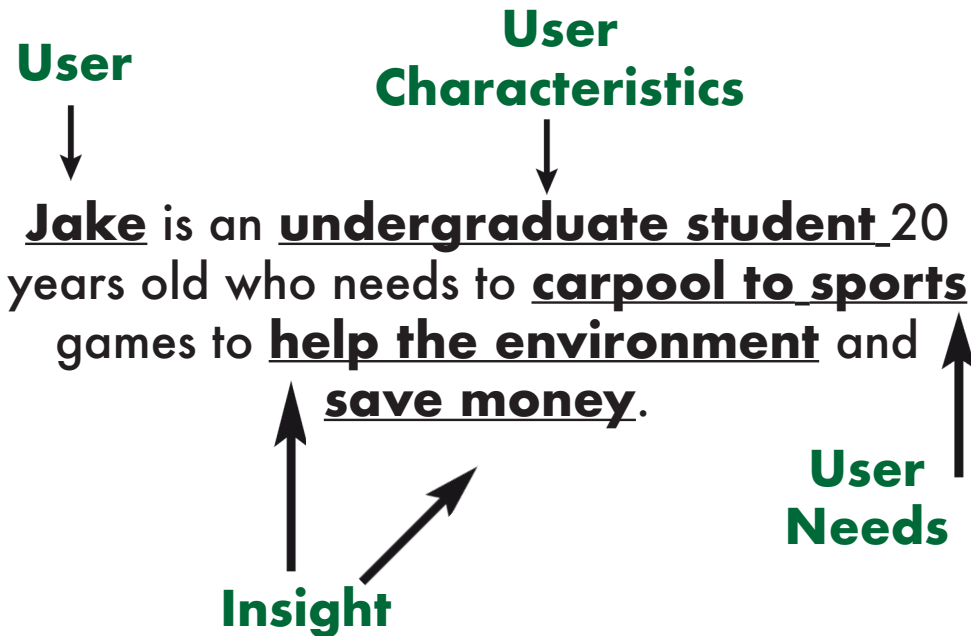
Jake David

Scenario : Jake loves football and wants to watch the football game in London but cares about environment and saving money. His friend recommends him to download a existing carpool app.



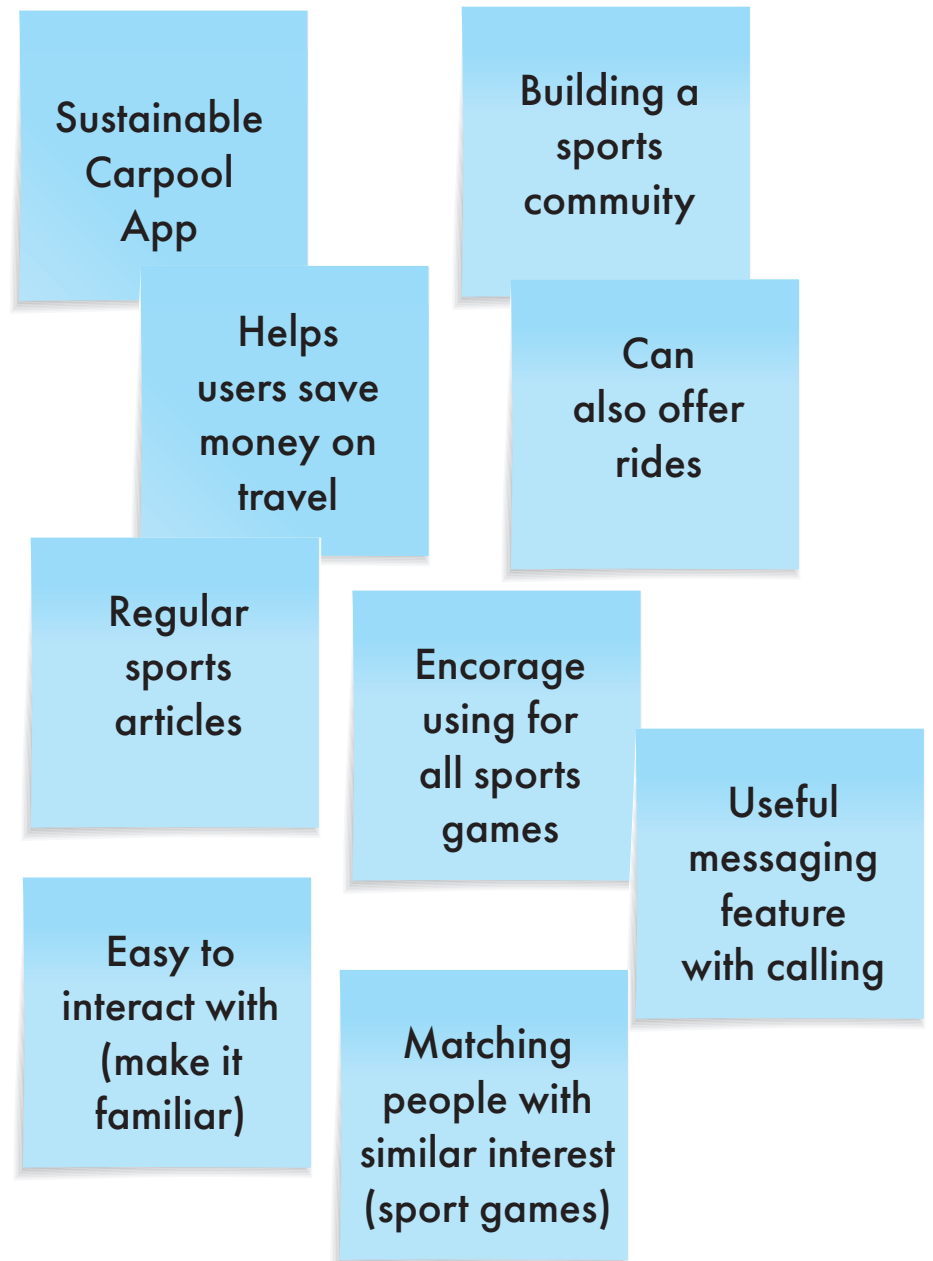
Problem Statement

Defining the problem is a crucial stage and it includes user characteristics, insights and needs. It helps plan a role in planning upcoming activities.



This gives a summary what the user wants so the app should help solve jacks problem.

Card sorting ideas



Task Scenarios

Some literature was used to create effective scenarios in this project. Nardi, B.A (1992) defines task scenarios as description of set of users, context and sets tasks the user will perform. Fulton Suri, J and Marsh, M (2000) added to the research of Campbell (1992) (use of task scenarios) by highlighting need to include illustrations to 'make real' scenario of the experience of user doing the task.

This project will adapt both the task scenarios (1 each) to show a variation. One will be a written format describing scenario, context, task and user in depth (template on right). Second would be a scenario using illustration to help visualize the task to understand the UX better. Both scenarios will use the different personas we used earlier to gain insightful data we can use later.

Task Scenario

[Text in square parenthesis should be deleted or replaced.]

Project Title: [The name of the product and version]
Date: [The date of the latest revision.]
Company: [The organization name.]
Authors: [Your name.]
Contact Details: [Contact details for questions and/or clarifications.]
Confirmed by users (or their representatives): Date

This document describes details of a key task using the developed software.

Scenario [Number]: [Descriptive title]

Practical Goal: [Description]

Context: [Note relevant details of:

- Physical environment
- Frequency of task
- Time constraints
- Concurrency with different tasks
- Concurrency with different versions of the same task
- Prioritisation and scheduling
- Resource conflicts
- Individual or group activity
- Known problems or error situations
- Criticality (Life & Death, Economic Consequence, Legal Consequences, Data Corruption, etc.)]

User/s: [List of user groups]

[Describe the situation pertaining when this scenario is enacted. In particular, record the state of both the system to be designed and any external system and documentation. Also record the event or circumstances that initiate this task.]

1. [Describe the activities that make up the task, each action on a numbered line.]

Task Scenario 1

Project Title : SportLink

Date : 20/04/23

Company: University of Brighton

Author: Neel Amin

Contact: N.Amin2@uni.brighton.ac.uk

This describes key task using SportLink and the app

Task Scenario 1

Scenario 1 : Student wants to go to a football game and save money.

Practical Goal : The goal would be to have the student successfully login into the app/make a account, request a ride, typing destination, finding a ride and messaging/ calling him/her.

Context: User can be any physical environment where there is internet access. The task can be done multiple times and there are no time constraints apart from booking a ride before the match. While setting up users will not be able to do other tasks and user can go on other pages while doing the primary activity however he will have to do the whole process (of typing destination/ requesting ride) again. This is an individual activity by the user where some situations can occur, such as internet not working or location not coming up. Legal consequences and data corruption are considered for the app as it will collect user location data.

User : Jake David

Situation : The situation revolves around 'Jake' wanting to see the next Arsenal game in London. He wants to save money and help the environment hence decides to carpool. He download the app and sets up his profile also sharing location so that app knows where he is. User now just has to go into request ride, type his destination and select someone to travel with. Once the people travelling to the same place come up Jake messages to see if he is available to take him and they decide the meetup location.

Task Scenario 1 Continue

Activities :

Installing the App

1. Install the app from apple or google play store
2. Wait for download to complete
3. Launch App
4. Allow Location

Onboarding

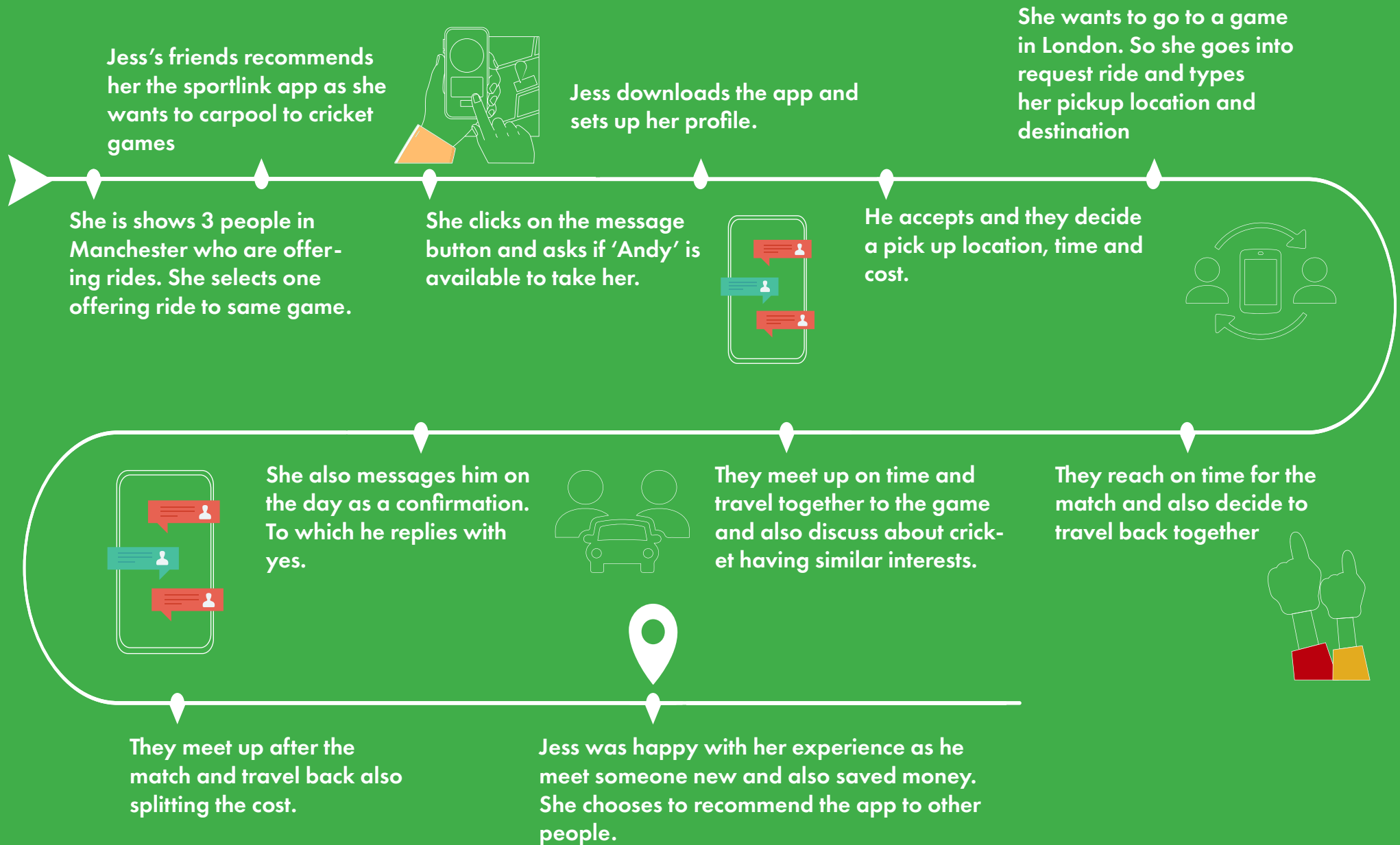
1. Slideshow about app and its features.
2. Sign up using google/facebook or create a account using email ID
3. Set up a password if doing by email ID
4. Agree to terms and conditions

Entering destination & confirming ride

1. Select Request ride
2. Enter current location and destination
3. Select a ride to travel with (who is travelling to same game)
4. Message or call the user to fix up a cost and meet up laocation
5. Reconfirm by messaging closer to the time

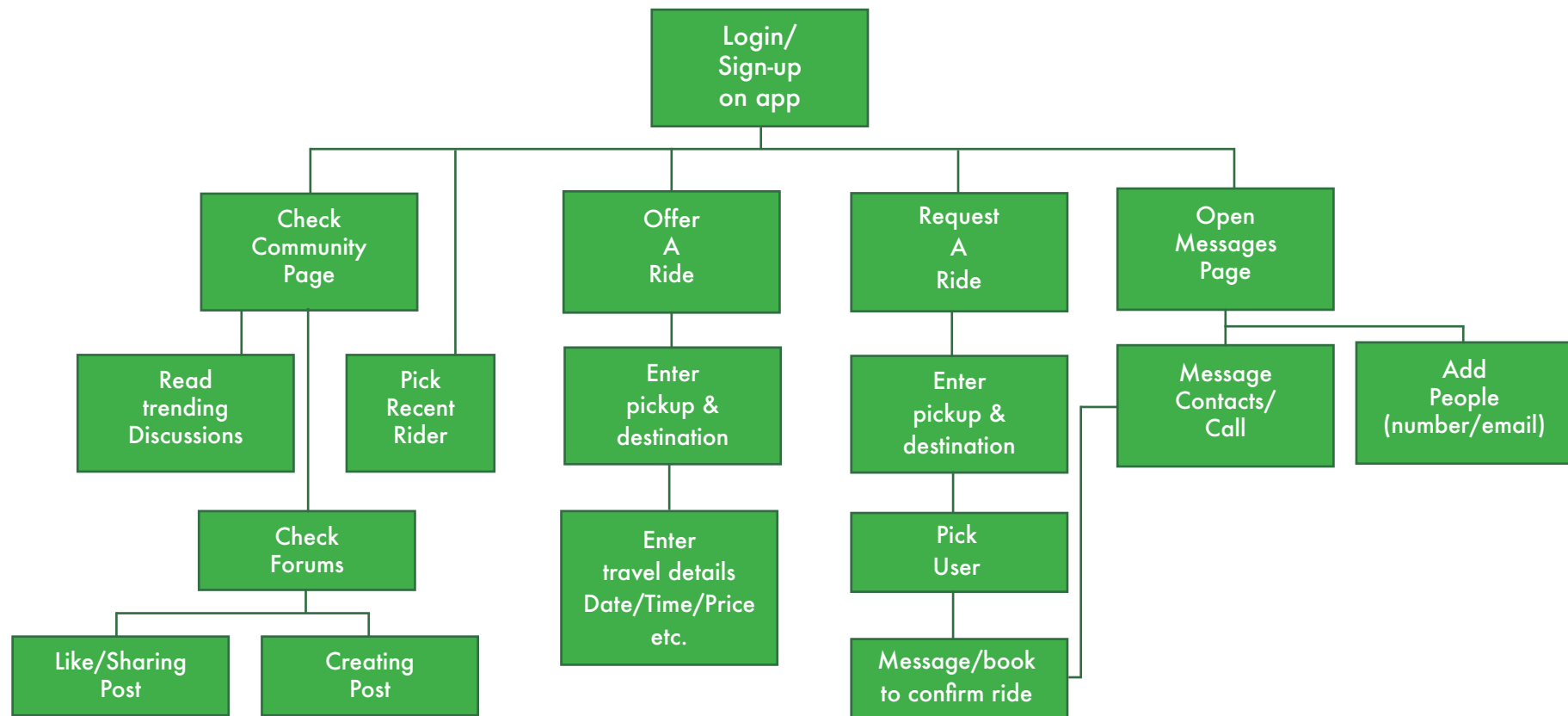
Task Scenario 2

Visual Representation



Abstract Task Model

This shows a task model a user undertakes in a hierarchal manner. The model summarizes all the features of the app from logging in, requesting a ride, offering a ride to creating a post in the community page. It was created to get a summary of what the app could do and show what tasks the user could perform when interacting with the app. 'Task Models in interactive system' was a good inspiration for the model by Paterno (2001).



User Conceptual Modeling

The conceptual model shows the primary use of the app which is similar to the task model but accomplishes user logging-in, requesting ride and messaging.

Other tasks may include offering ride, checking forum, discussion articles, texting with friends and more.

Primary Use Case

1. Open App
2. Log-in
3. Click request ride button
4. Enter pickup location
5. Enter Desired Destination
6. Click Go
7. Select closest person
8. Click and either call or message and make confirmation.

Other Use Case

Offer ride

Check Forum page in spare time or read sports discussions

Message other friends/ give them a call

Usability Requirements

For better understanding Shneiderman's (1998) 5 usability attributes were applied to ensure design adheres to usability requirements. With addition of Additional requirements for more depth.

Learnability

The app will be straight forward and easy to learn. The interface will be similar to other apps like Uber.

The user will need to log-in, click offer or request ride enter a destination and confirm with user. The worst outcome would be if user fails to accomplish the tasks however the best outcome will allow user to successfully complete routine tasks with no issues.

Speed

There are no time limits to complete the task however user would want to book a ride in advance to the match. The navigation to book a ride is straight-forward like a navigation app but users should make sure correct locations are entered to avoid further problems. An observation test should help define if app has any painpoints.

Accuracy

The app will have a clear flow with accurate buttons to avoid errors. If there are errors the app should have buttons such as back, exit, delete etc. to avoid them being caused or rectified. User can message their carpool ride to cancel or change date, time etc. Testing should help define this too.

Satisfaction

The app should satisfy most of the users so that they use the app again and again. It should also satisfy the user enough so that they would recommend it to others. The more the users of the app the better it is due to there being more people offering rides and carpooling.

Memorability

The app should be easy to remember the actions of how to navigate with easy icons and text. The user should not forget the primary action of the apps and this should be without any prompts. Having it similar to other interface such as maps or Uber would help with this.

Additional Requirements

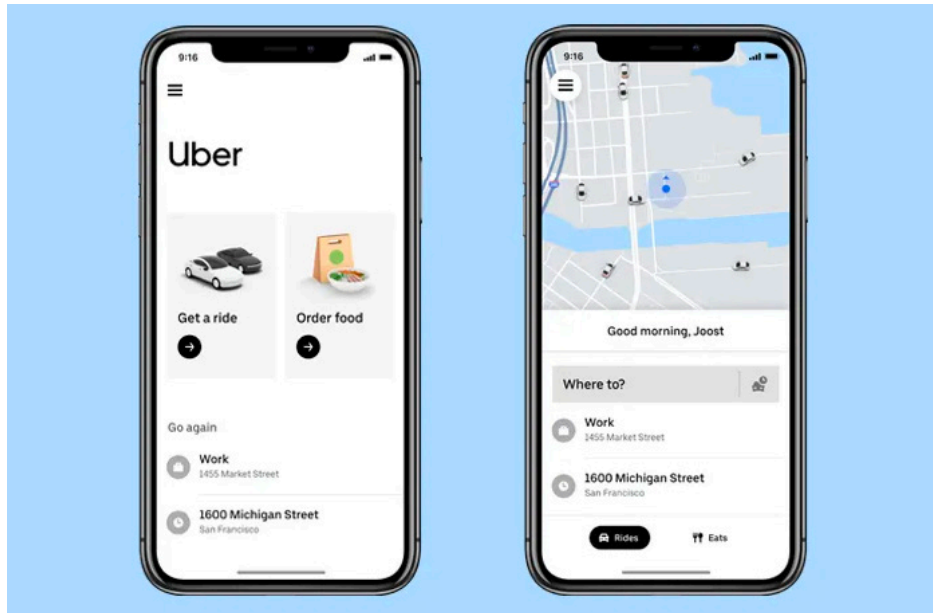
Accessibility

The app will need to be available on Google Play store and apple for better accessibility. It will also need to be targeted to people with e.g people with vision impairments.

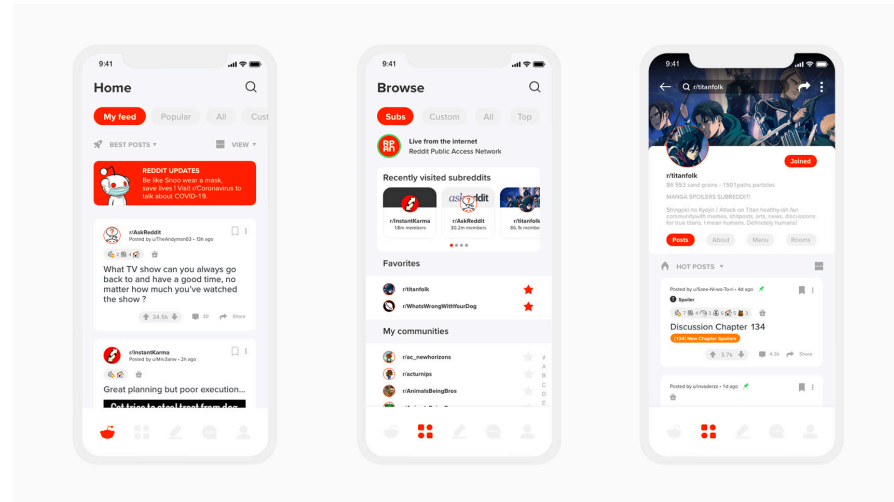
Organizational (Training)

The app will be straight forward and easy to learn. The interface will be similar to other apps so that is easy to use. The app will also have a help button option to help users if they need assistance. In future a tutorial may also be implemented.

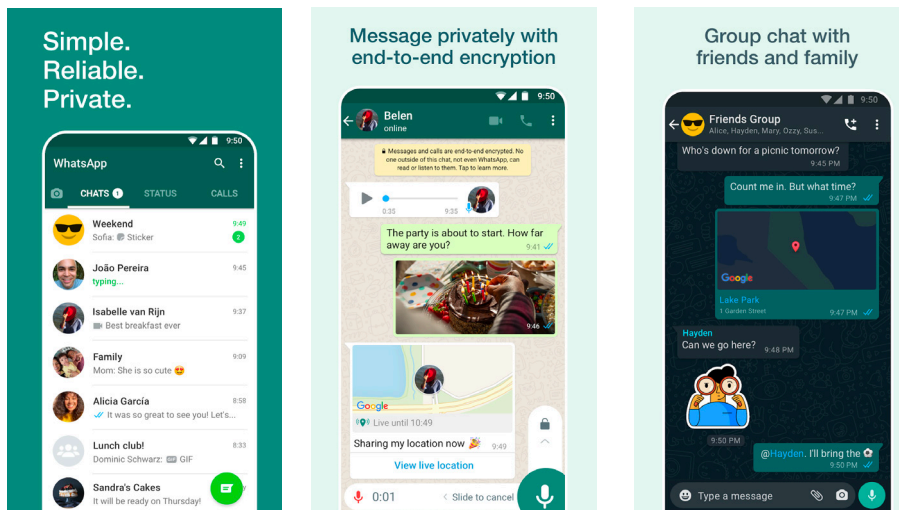
Implementation - Looking at similar interfaces



Uber App Interface : <https://www.itsnicethat.com/news/uber-re-design-digital-270919>



Reddit App Interface : https://www.reddit.com/r/UI_Design/comments/125dv4/ui_concept_for_reddit_app/

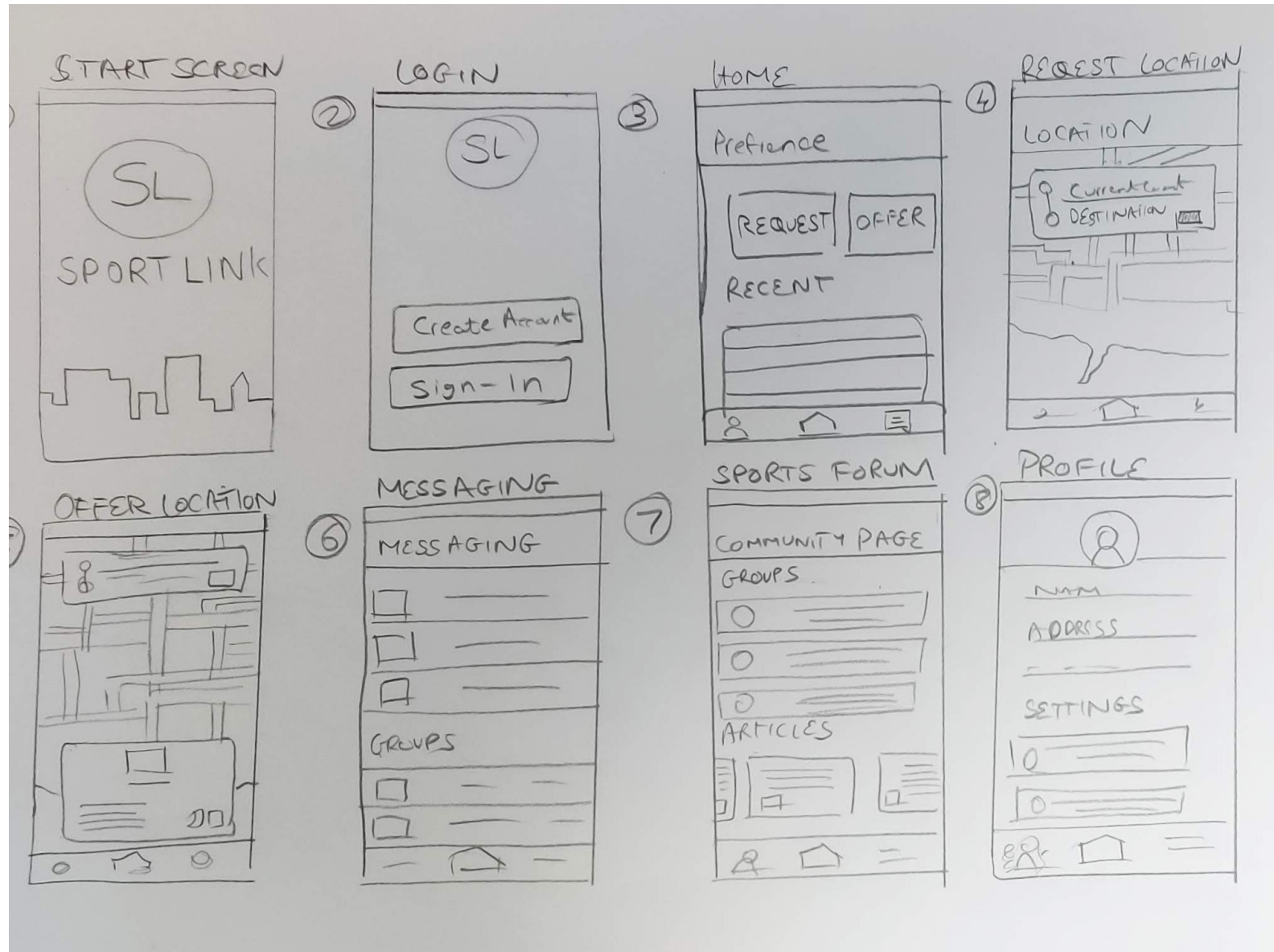


Whatsapp App Interface : https://play.google.com/store/apps/details?id=com.whatsapp&hl=en_GB&gl=US

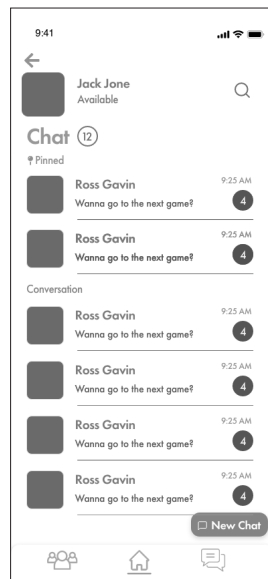
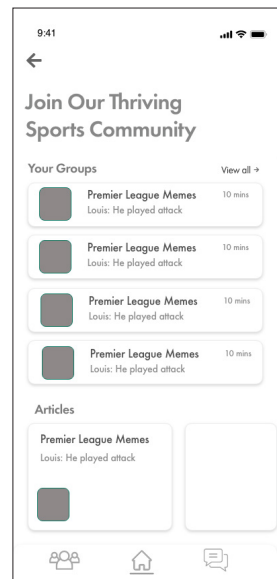
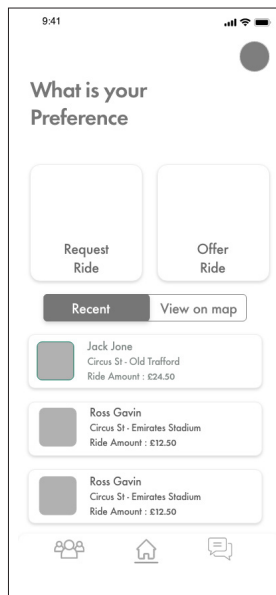
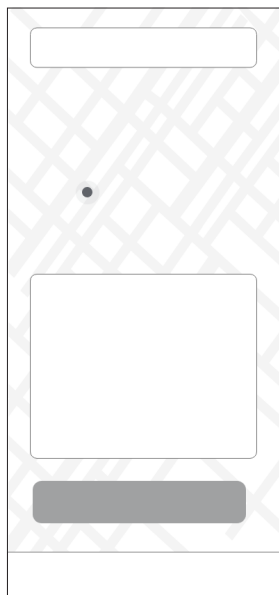
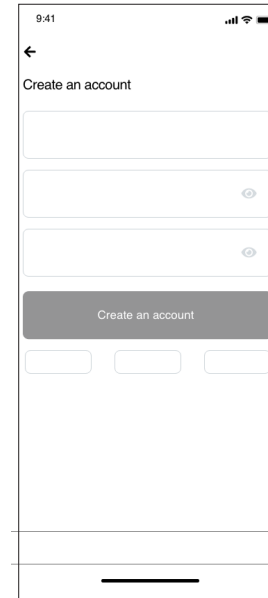
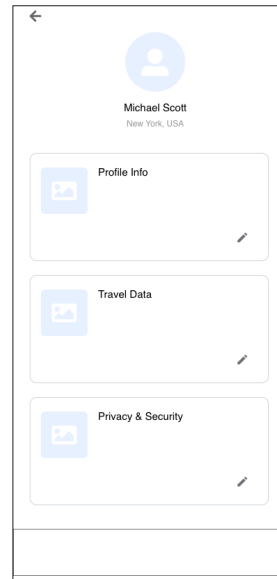
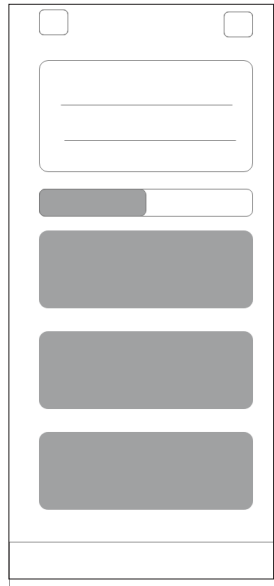
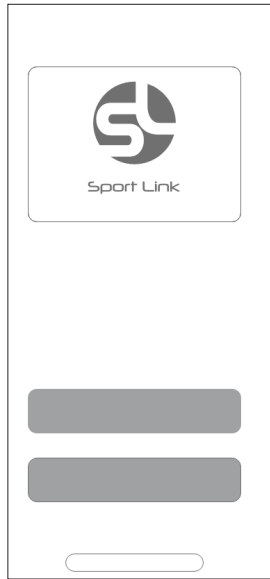
Initially I researched into a range of app but felt the interface of uber, whatsapp and reddit worked really well and are also well received. I took these as inspiration for my app e.g uber for navigation, reddit for forum and whatsapp for messenger. My app interface would be a bit different however it would adapt main feature which users are familiar with so that they can complete tasks quickly and don't have to learn using an app.

Implementation - Lo Fi Prototyping Sketches

Li-Fi prototyping was carried out as first stage to develop the design of the app. These show hand drawn sketches of how the basic elements would look like. A Lo-fi prototype will now be created and a basic observation testing will be done.



Lo Fi Prototyping



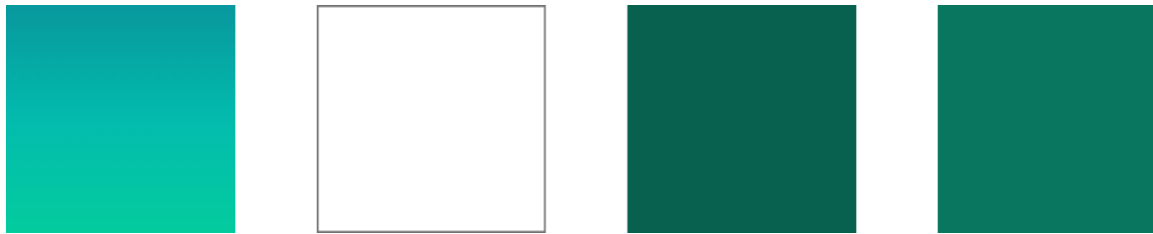
Observation Testing Evaluation

Lo-Fi prototyping was carried next to see how the app would look as digital screens. I also carried out a observation testing where I asked people to carry out basic tasks to see if they could understand the icons. Most of the feedback was positive and people did understand all the icons. The only feedback received was to improve the profile page and make sure all text is clear to see with dark colours / contrasting. The create account page will also be made more minimal with headings.

The main reason to not do additional testing was that the interface will be similar to a lot of existing apps and the testing which was done showed positive results. A more in-depth testing will be done with hi-fi prototype.

Visual Design & Colours

The Effects of Color Choice in Web Design (Theresa, 2019) helped impact my use of colours. Colours have significant impact to influence user experiences and evoke emotions. Sport Link colours were inspired from pitch colours however merged together to achieve better UX. Green is associated with nature, calm whereas blue with trusty, calm, relaxing etc. Hence both were merged (especially for login) and give a good feel to the overall app.



Logo



The Logo (without green back) had multiple variations however I felt a simple one would work for this app. It is made from the 'SL' from the name, it give a smooth feel to relate to actual roads and also chalk lines from pitches e.g football. The colour is used from the primary colours of the app to maintain consistency and name below also uses similar font to logo. On app store the icon would only show the round logo.

Font

Futura Pt Medium - ABCDefgh
Futura Pt Bold - ABCDefgh
Futura Pt Book - ABCDefgh
Futura Pt Demi - ABCDefgh

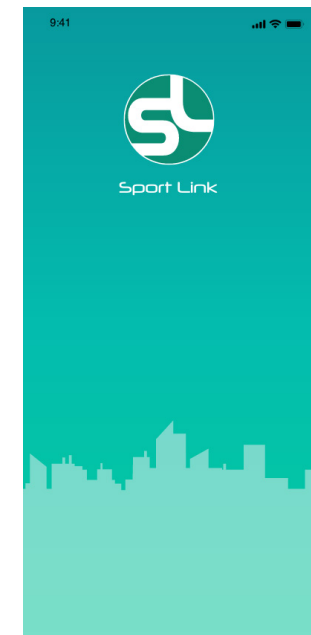
Futura Pt family was used as text is easy to read and also realates to the branding of the app due to its roundness (like roads) but still easy to read.

Inspiration



Screen

Example of a screen with logo and colours.



User Testing

I used Jakob Nielsen's 10 general principles for interaction design as it would be the most effective for my app. I also use the observation method by giving the users a set of tasks to complete and observing them as they do them. Once the tasks were completed they were asked to fill the Nielsen (1994) heuristics to get more in-depth information.

Task Checklist

Book a ride and confirm by messaging the person.

Offer a ride

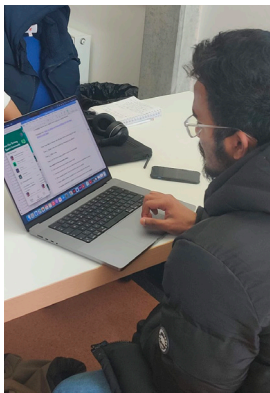
In the forum fantasy league page publish a post.

Interact with the app

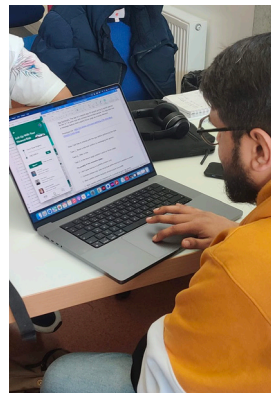
Participant 1



Participant 2



Participant 3



Usability Testing Heuristics A

This document details the heuristics studied during the in-class usability test. The main tasks included signing-up, Searching and starting a navigation and joining navigation with friends.

Heuristics	Comments	Recommendations
1) Visibility of system status	There is a similarity in car pool/ cabs apps - I totally understand how to engage with the app rather I don't use lots of this kind of apps.	N/A
2) Match between system and the real world	I really like that you consider voice message that might will be great solution for people with bad eyesight.	Could change the Icons of the group or suggest to add a text to all the navigation icons to prevent errors
3) User control and freedom	Easy to navigate to pages with nav bar.	N/A
4) Consistency and standards	Colors, fonts , layout is consistent which I like.	N/A
5) Error prevention	Ways to exit all pages and back button.	Ability to cancel/offer a ride - You should consider to add a button to prevent an error.

Usability Testing Heuristics A Cont...

Heuristics	Comments	Recommendations
6) Recognition rather than recall	Good titles on pages to tell where user is and app is simple to use like similar apps.	You should consider to highlight which page you are by make the icon bold and change the icon color. I will also suggest that can add the profile page button in more screens, but also add another way to access the profile
7) Flexibility and efficiency of use	For users without visual impermeant , the app works well, even the navigation icons are big and are in the right size that people with visual impermeant will recognize it.	N/A
8) Aesthetic and minimalist design	The design is minimal , not to overwhelming to the user, using 2 colors , and understandable design language	Add a tutorial above to the FAQ button.
9) Help users recognize, diagnose, and recover from errors	Back button on all pages to help with errors and hard to make many errors.	Ability to cancel-offer a ride - You should consider to add a button to prevent an error.
10) Help and documentation	Easy to navigate and there is help available.	You could add on the profile button that the user can read terms and privacy.

Usability Testing Heuristics B

This shows second testing which was positively received however got feedback to improve font in some page and delete forum post which I plan to add.

Heuristics	Comments	Recommendations
1) Visibility of system status	Easy to see all pages as required.	N/A
2) Match between system and the real world	All language and icon is easy to understand	N/A
3) User control and freedom	Navigation is similar to apps such as Uber with good nav bar.	N/A
4) Consistency and standards	2 main colours and is consistent. Looks great and matches industry standards.	Inconsistent font size in community page from other pages so could be changed.
5) Error prevention	Information Provided to avoid errors.	Ability to delete forum post could be added.

Usability Testing Heuristics B Cont...

Heuristics	Comments	Recommendations
6) Recognition rather than recall	All main application can be done from nav bar and no need to remember any functions.	N/A
7) Flexibility and efficiency of use	Back button helps go back to previous task on all pages and also the nav bar helps.	the task feedback is robust
8) Aesthetic and minimalist design	Good use of colours and text, its minimal and looks professional.	In community page the post icons are little congested
9) Help users recognize, diagnose, and recover from errors	Didnt get any errors while on the app.	Ablity to delete forum post could be added.
10) Help and documentation	There is documentation in the profile section, pages could be added.	N/A

Usability Testing Heuristics C

This shows second testing which was also positively received however got feedback to have button to cancel ride which I think is really important and will be added. A documentation will also be added to show T&C in profile page.

Heuristics	Comments	Recommendations
1) Visibility of system status	Good use of fonts which are big especially on headings.	N/A
2) Match between system and the real world	The icons and infographics match the real. World and easy to understand	N/A
3) User control and freedom	Easy to navigate between pages and no interference.	N/A
4) Consistency and standards	Has 2-3 main primary colours which are used throughout and its like other industry apps.	The font colors are too consistent and of same color and a change may be good in the future.
5) Error prevention	Information Provided to avoid errors.	Ablity to cancel ride if uploaded.

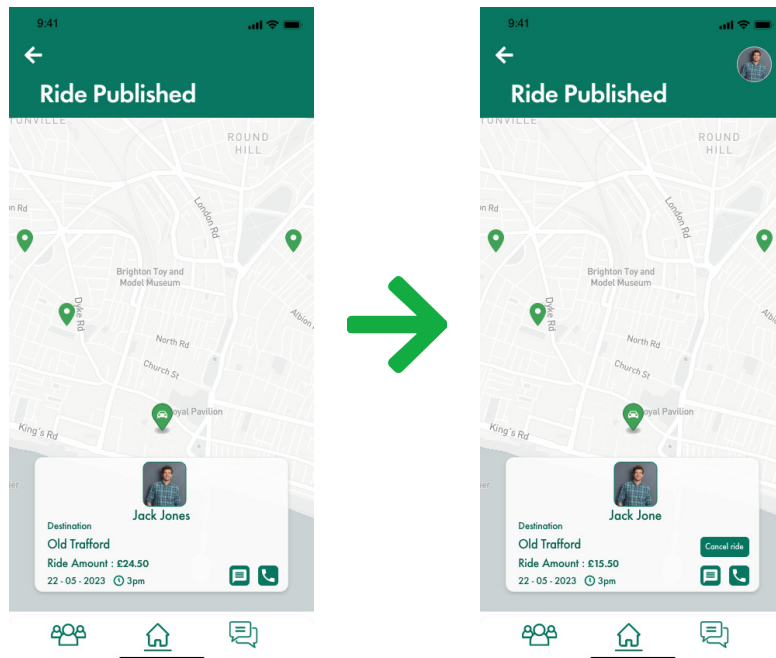
Usability Testing Heuristics C Cont...

Heuristics	Comments	Recommendations
6) Recognition rather than recall	All main application can be done from nav bar and no need to remember any functions.	N/A
7) Flexibility and efficiency of use	Back button helps go back to previous task on all pages and also the nav bar helps.	A documentation on the app might be helpful.
8) Aesthetic and minimalist design	The components are designed with precision. The fonts are of same color and family which is good.	Could be more clear distinction between the messages.
9) Help users recognize, diagnose, and recover from errors	Easy to to the tasks and hard to get any errors.	N/A
10) Help and documentation	There is documentation in the profile section, pages could be added.	A documentation on the app might be helpful.

Recommendations & Insights

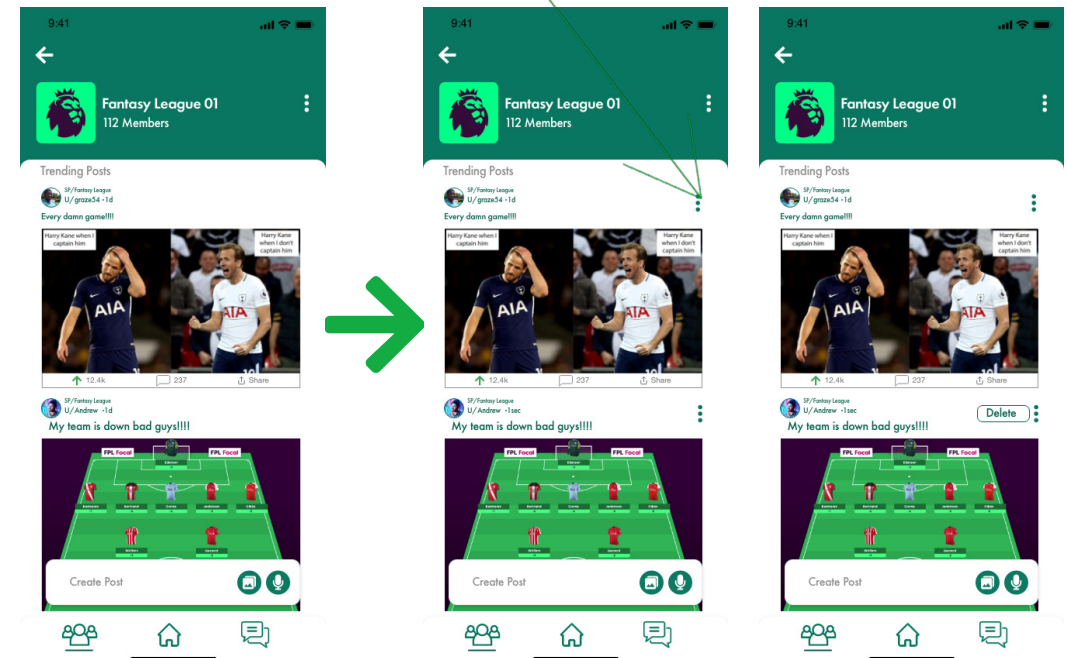
From the testing I found few things which could be done to improve the User experience off the app. Such as profile button on more pages, ability to delete offered ride/ post etc. Hence these were done and future testing will be done with more people (once live) to get more accurate feedback.

Cancel Ride Button - Offer Ride



2 Participants suggested adding a cancel ride button so that if a user has offered a ride and due to reasons he is unable to go, he can go to offer rides and cancel his ride. This also helps with error prevention.

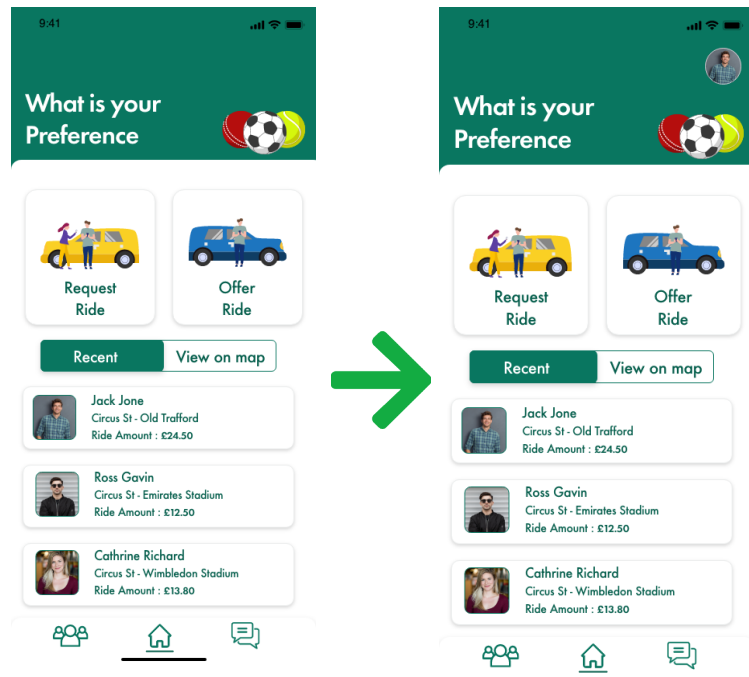
Delete post button - Forum Page



A participant suggested adding ability to delete a post once posted in the forum page. This has now been added and would also help with error prevention in case a user wants to delete a post.

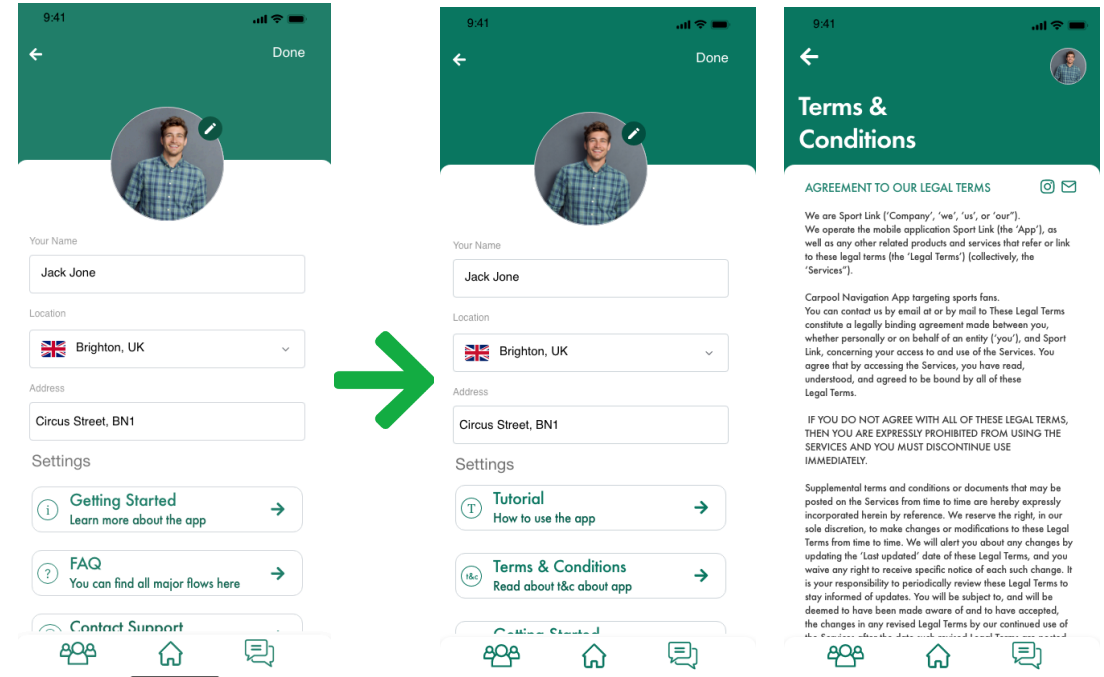
Recommendations & Insights Cont.

Profile Icon In More Places



It was also suggested to add the profile icon in more places so that user doesn't have to go back to one page to access it every time. Hence the profile button was added onto the home page, navigation pages, forum pages and users can click their image icon on the message page to also go on to it. This would help reduce steps needed to do certain tasks and help the UX of the app.

Tutorial button and T & C Documentation



2 changes were done to the profile found from the testing. Firstly a tutorial button was added so users can follow it if they don't understand how to use certain features of the app.

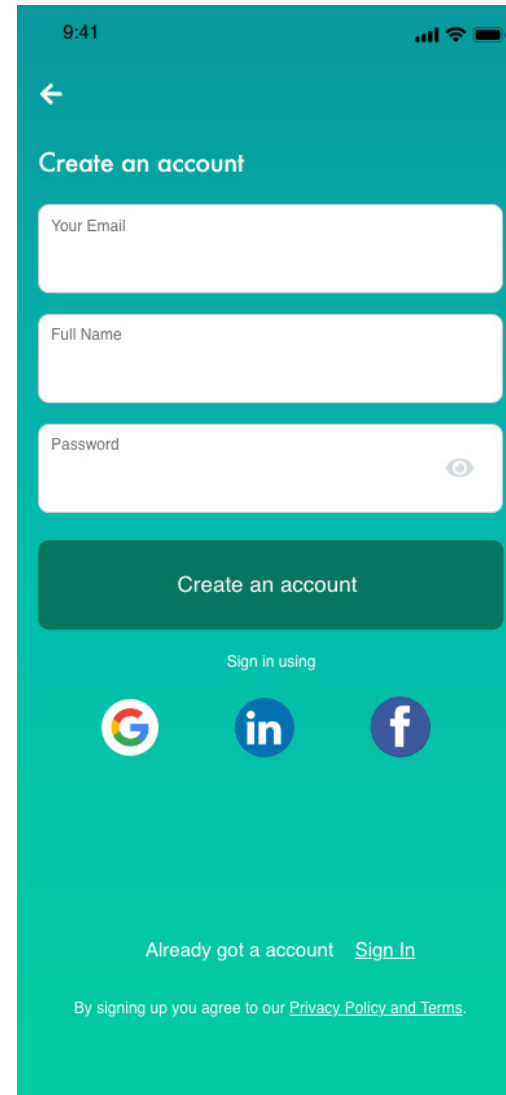
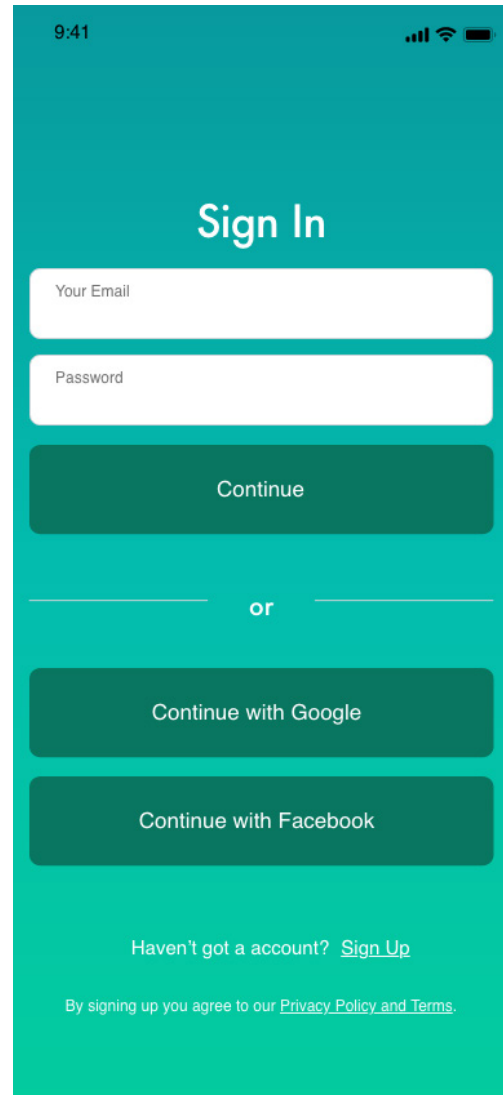
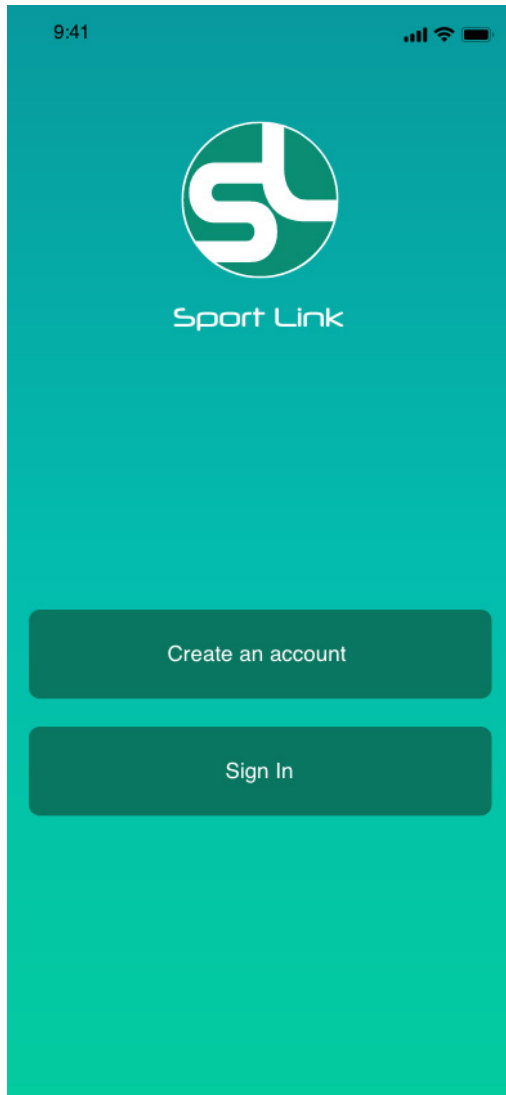
A terms and conditions page was also added as suggested with a button to access it from the profile page.

Hi-Fi Prototype

Hi-fi Prototype Link

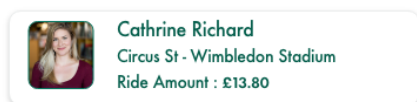
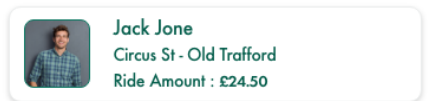
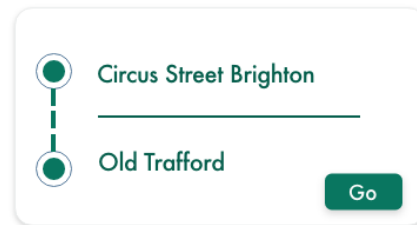
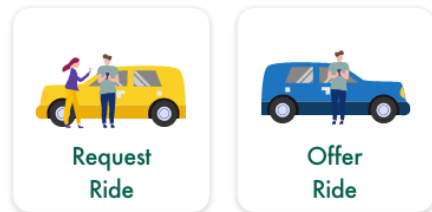
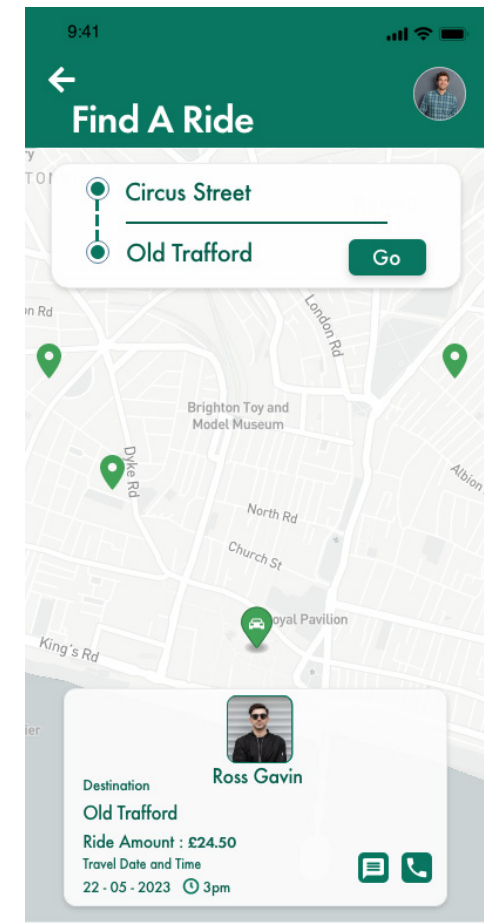
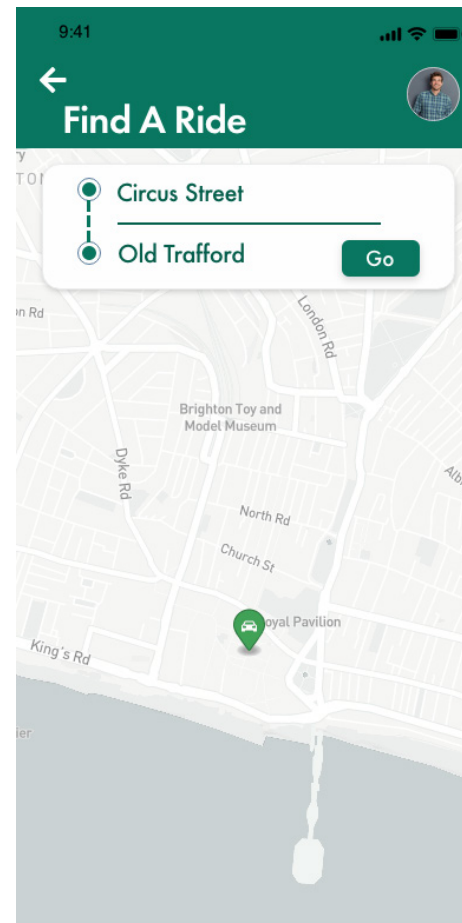
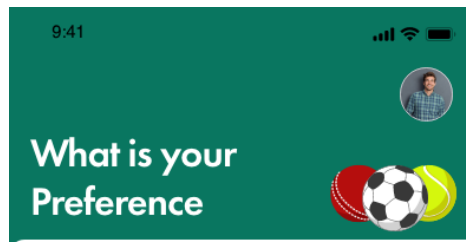
<https://xd.adobe.com/view/cef9360a-378f-45f4-96bd-5f8d5507b458-9baa/>

Account Setup



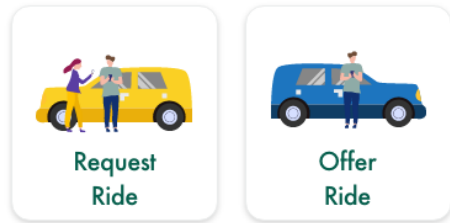
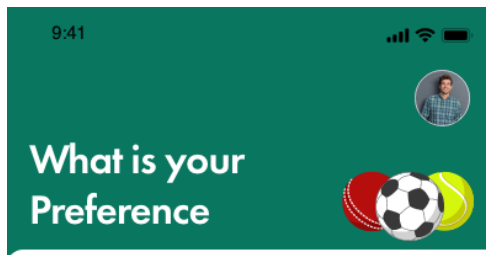
These the login pages. I used a colour gradient to make it look appealin the the first screen though still easy to read whats going on. Users can also login using google for each of use which a lot of other apps dont provide.

Finding a Ride






This shows the home page and going to requesting a ride. I made it so users don't have to interact with too many pages like we found from earlier studies. The Lo-fi also suggested users want to complete the task as easy as possible. Hence you just need to enter the location and nearest people will pop up. You can check if they are going to the same game (as it says that) then message them to confirm.

Offering a Ride



Recent View on map

-  Jack Jone
Circus St - Old Trafford
Ride Amount : £24.50
-  Ross Gavin
Circus St - Emirates Stadium
Ride Amount : £12.50
-  Cathrine Richard
Circus St - Wimbledon Stadium
Ride Amount : £13.80



Circus Street Brighton
Old Trafford

Set Price
£15.50 pp

Capacity
1 2 3 4

Time
3:00 pm

Date
22 - 05 - 2023

Go



Map showing location: Brighton Toy and Model Museum, Old Trafford, etc.

Jack Jone

Destination
Old Trafford

Ride Amount : £15.50

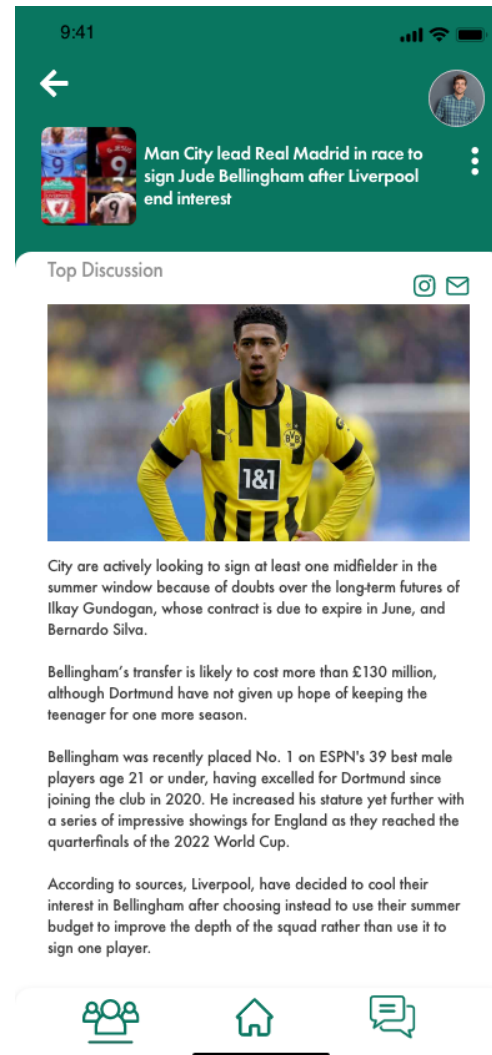
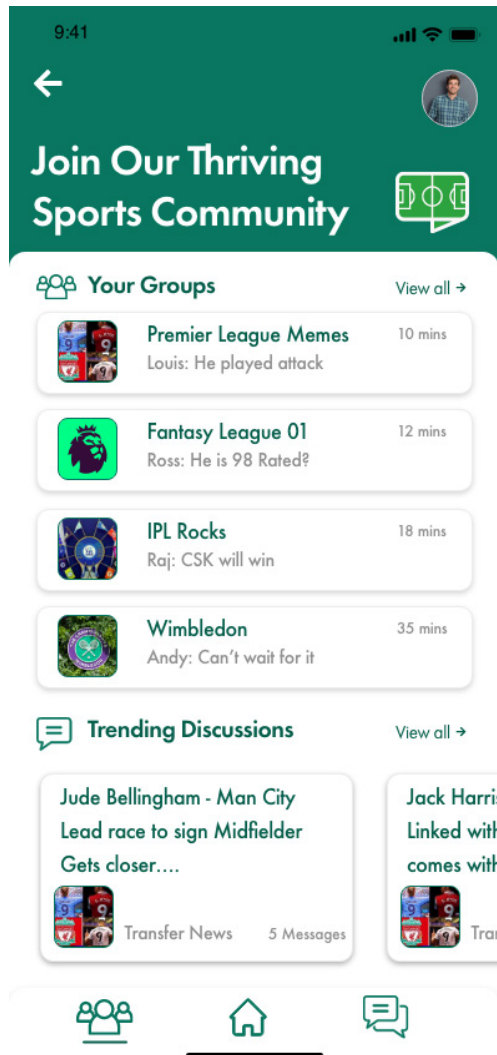
22 - 05 - 2023 3pm

Cancel ride



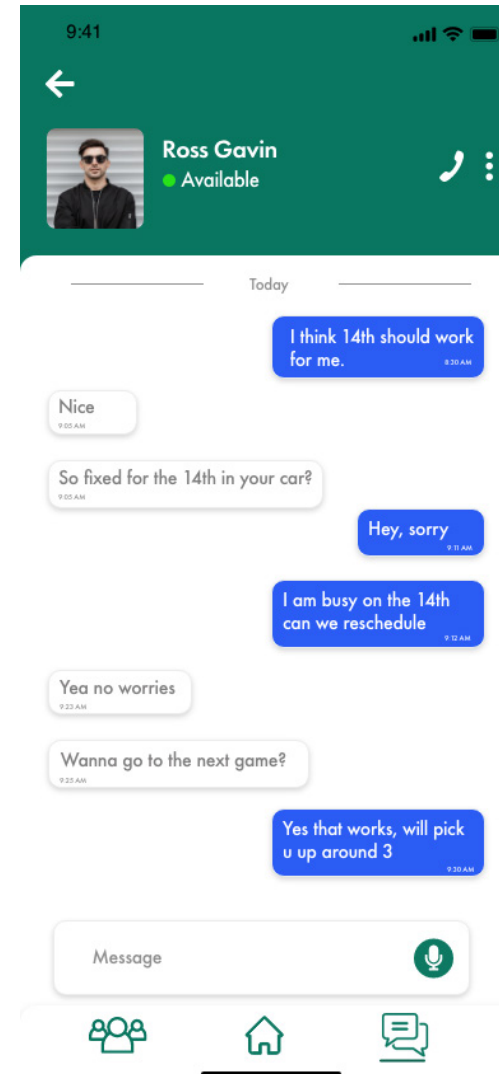
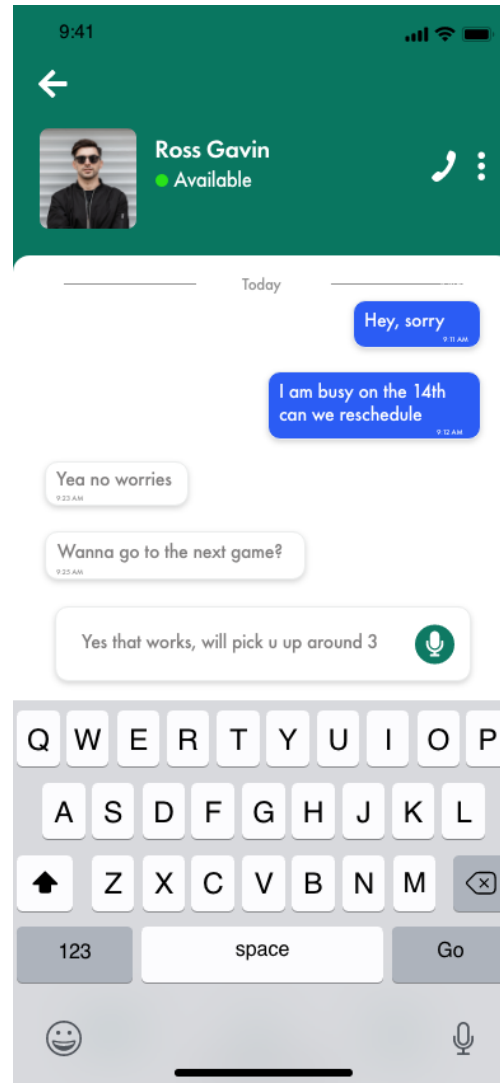
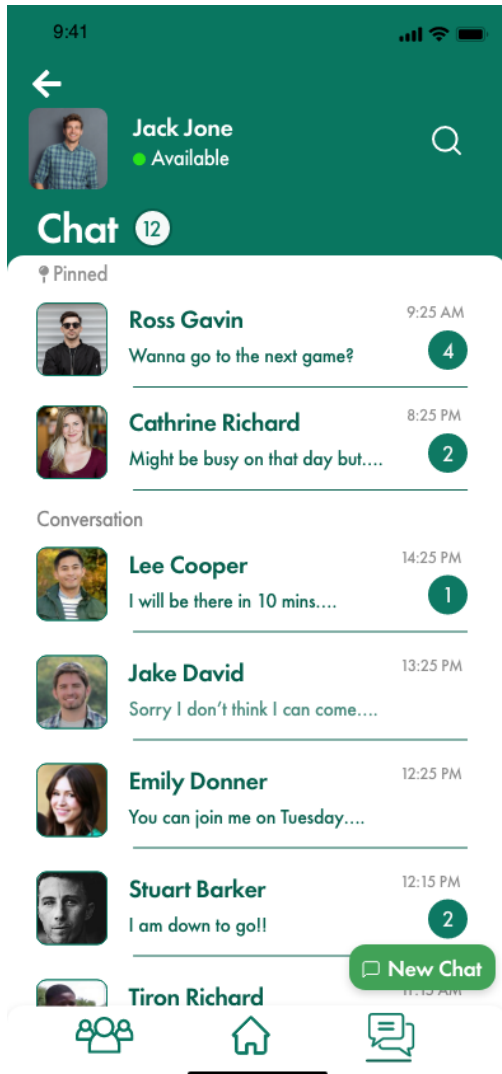
This is similar to the earlier screen but showing how to offer a ride. You just enter the stadium u want to visit with date, time, capacity and the price, and its live. As found from testing (hi-fi) profile button was put on more pages too.

Forum & Discussion Page



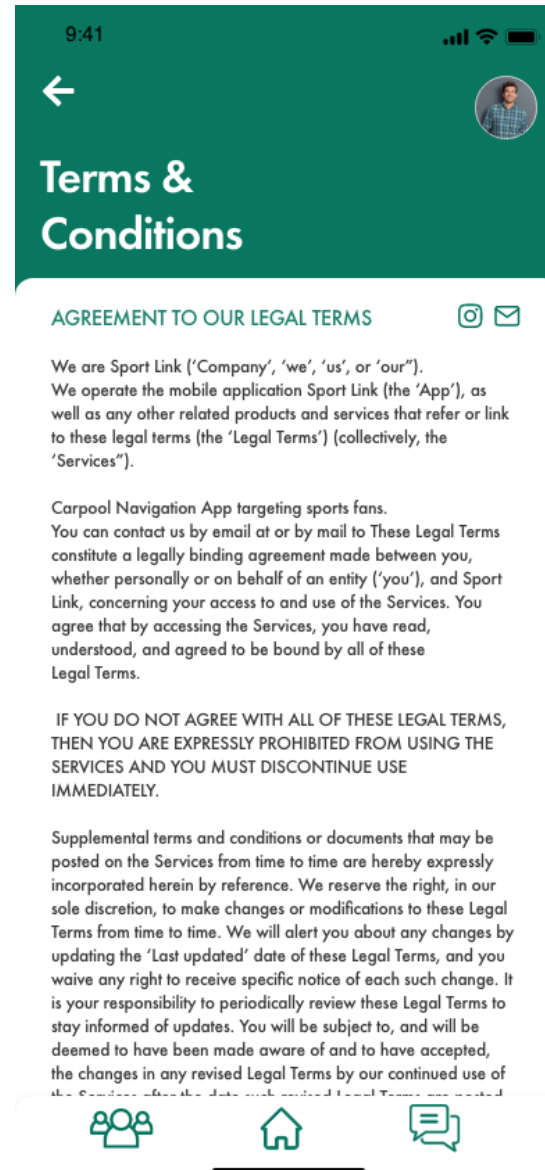
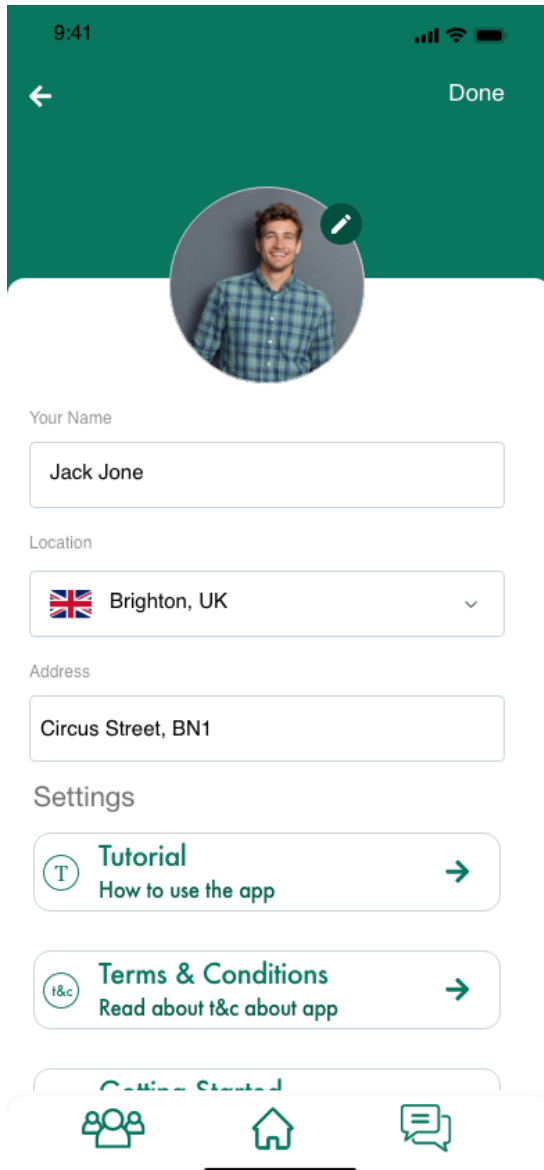
I took the inspiration of forum pages from apps like reddit so users know the interface. This page is where sports fans can interact with each other and also read trending articles in sport.

Messaging Pages



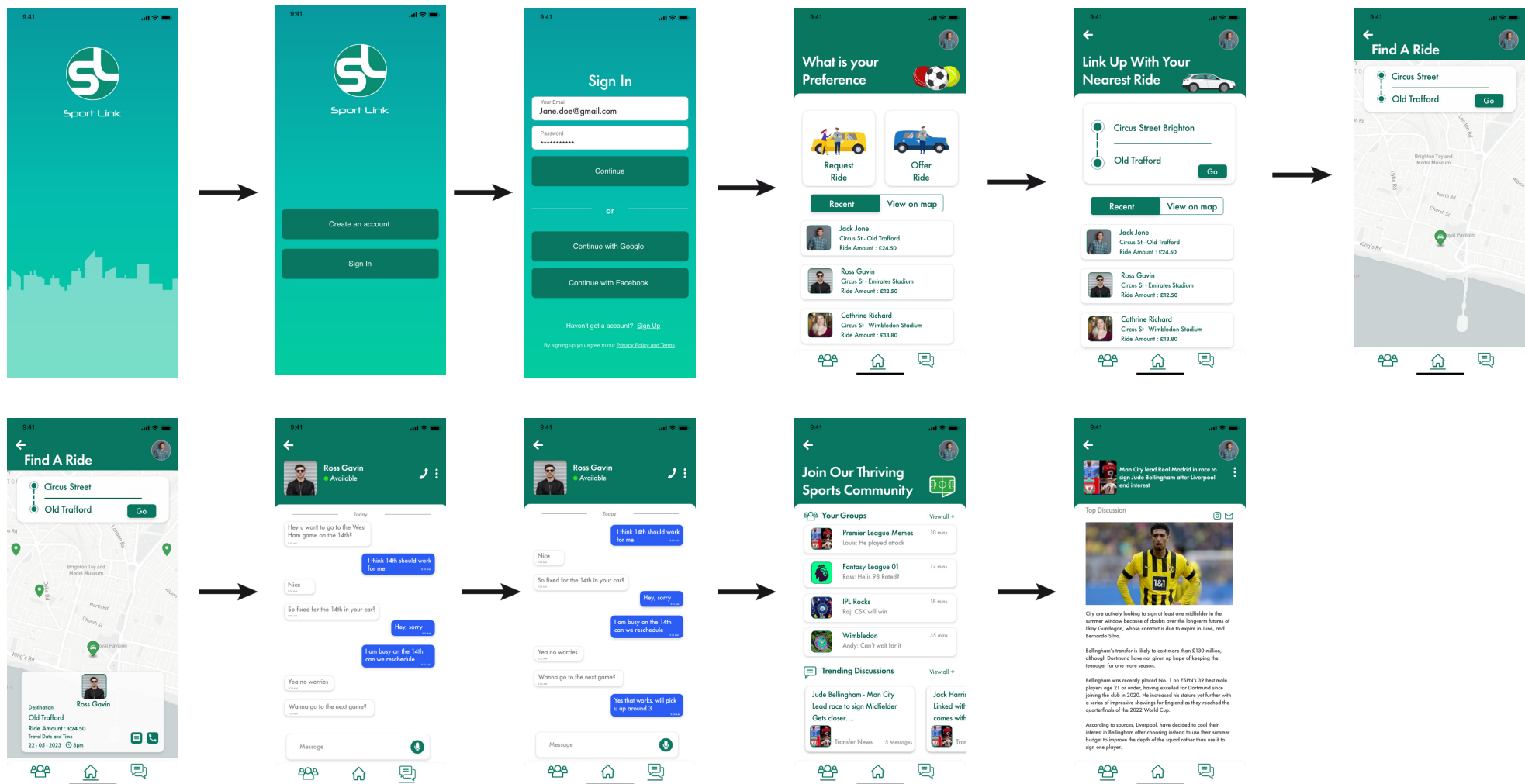
This shows the messaging page which is similar to whatsapp and Fb messenger. Its mostly so people can message each other in the app itself and dont need extra details for other apps.

Profile Page



This shows the profile page where users can do a tutorial fro app, read t&c, contact and support etc. The t&c was added as suggested from the testing.

In App Flow Example



This shows a app flow example of the screens a user would go through to sign-in, request a ride, find the nearest ride, message them and check a discussion from the sports community page. This would change if user is offering a ride as there would be less tasks.

Conclusion & Recommendations

Sport Link overall has been received positively judging from the feedback and will continue to improve over time with more testing. I am overall happy with the happy especially with the design, and its main purpose. I plan to keep improving my skills in future and may have more animations to make it look better.

Future Features

Future features could include connectivity with watch and even car navigation so user can interact from carplay/android auto. A payment feature could be added however I feel users feel more secure paying each other through Paypal in person but it could be looked into. The Sports community will keep developing with ways to also keep track of live score and chat about live matches with friends.

Legal Aspects & Guidelines

In terms of legal aspects this app doesn't require any personal data so there would be no legal issues regarding personal data. The only customer data required would be thier current location which the user would have to accept before using the navigation. The t&c is also in the app to state all this so there are no legal issues in future. The apple and play store guidelines were also looked to to make sure app matches all of it. It may change the font a bit however no interface or major design changes would be required for app to live in either store.

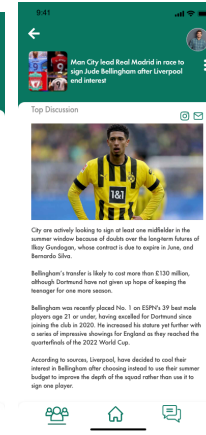
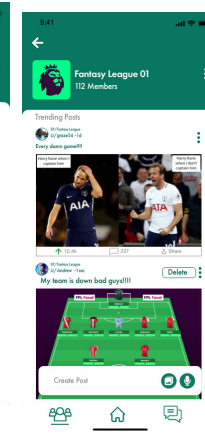
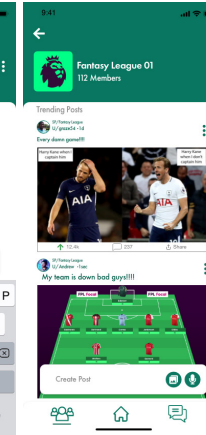
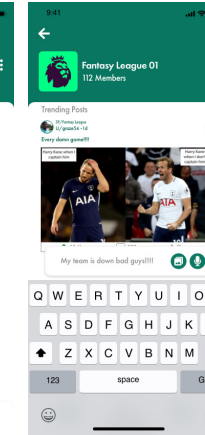
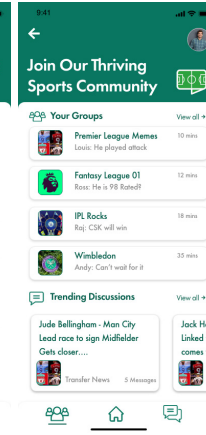
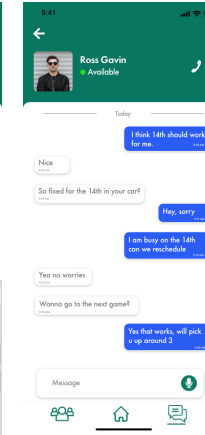
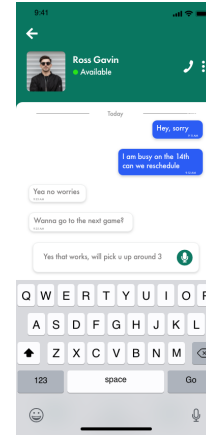
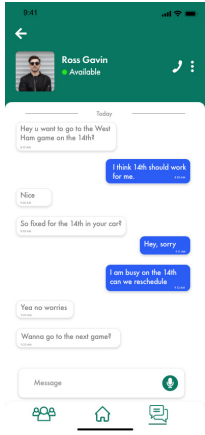
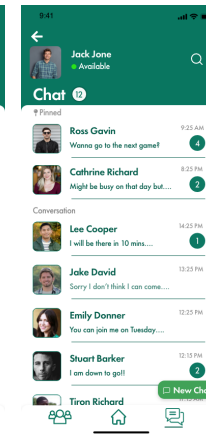
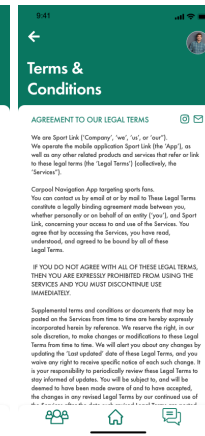
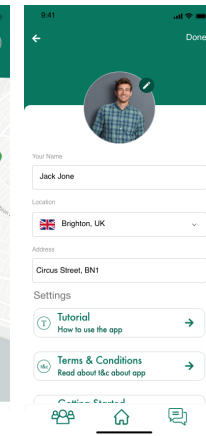
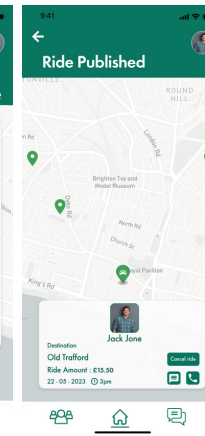
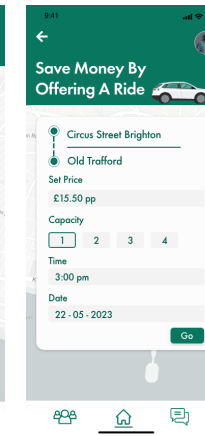
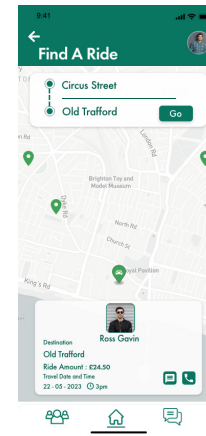
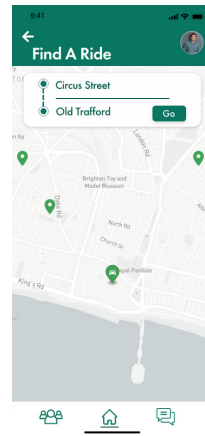
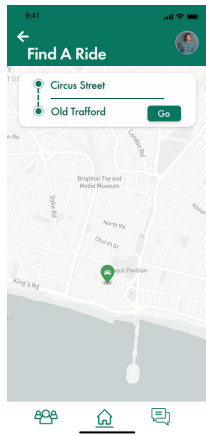
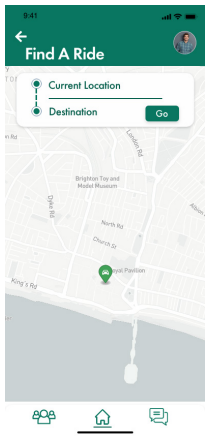
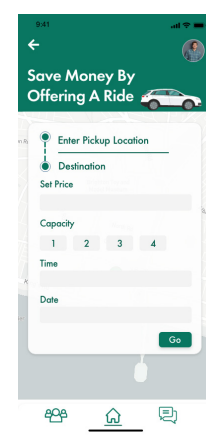
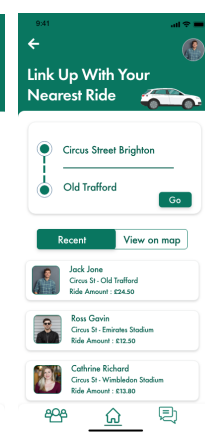
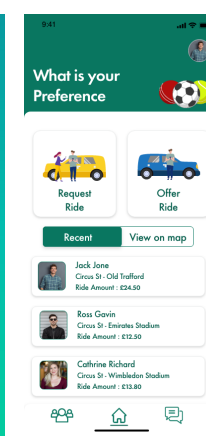
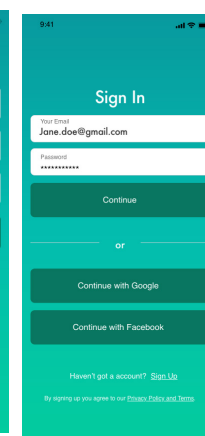
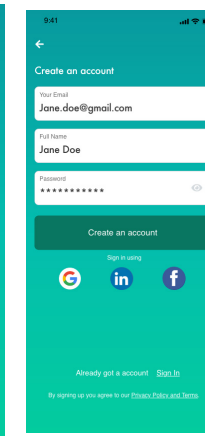
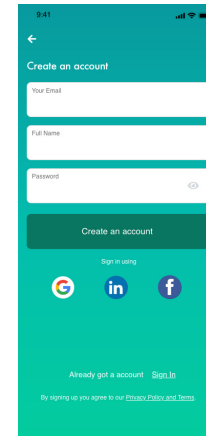
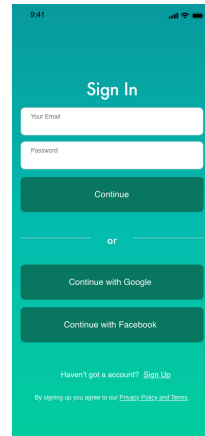
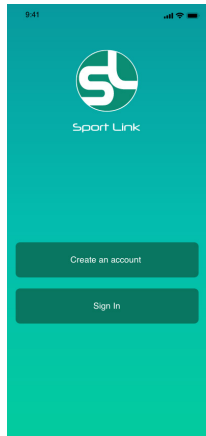
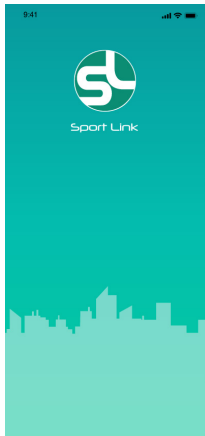
Hi-fi Prototype Link

<https://xd.adobe.com/view/cef9360a-378f-45f4-96bd-5f8d5507b458-9baa/>

App Mockup Showcases



All Screens



References

- Parezanović T.1, Petrović M. PhD.1, Bojković N. PhD.1, Prof. Pejčić Tarle S. PhD (2015) CARPOOLING AS A MEASURE FOR ACHIEVING SUSTAINABLE URBAN MOBILITY: EUROPEAN GOOD PRACTICE EXAMPLES . Pg 84 (Accessed Feb 25, 2023)
- Aguilera.A, Pigalle. E (2021) The Future and Sustainability of Carpooling Practices An Identification of Research Challenges. Available at <https://www.mdpi.com/2071-1050/13/21/11824> (Accessed: Feb 25, 2023)
- Gov.uk (2022) Transport and environment statistics 2022. Available at : <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022> (Accessed: March 12, 2023)
- Department for Transport. (2022). Decarbonising transport: A greener future. Retrieved from <https://www.gov.uk/government/publications/decarbonising-transport-a-greener-future> (Accessed: March 12, 2023)
- Nap. (2018). Sports event transportation. Transportation Research Circular E-C251. National Academies Press. Retrieved from <https://www.nap.edu/read/25271/> .Chapter 8. (Accessed: March 13, 2023)
- INRIX. (2018, September 12). The true cost of game day traffic: A study of congestion around UK sports venues. FleetPoint. Retrieved from <https://www.fleetpoint.org/top-news/the-true-cost-of-game-day-traffic-a-study-of-congestion-around-uk-sports-venues/> (Accessed: March 15, 2023)
- GoCarShare. (2019, March 5). Nearly 90% of sports fans are open to carpooling to matches. Retrieved from <https://www.gocarshare.com/blog/sports-fans-open-to-carpooling> (Accessed March 15,2023)
- N/A (2020). Global carpool market trends. Retrieved from : <https://www.stratviewresearch.com/1554/carpooling-market.html> (Accessed March 15,2023)
- CARG (2021) . Global Car Pooling Markets Report 2021-2025 & 2030. Retrieved from <https://www.prnewswire.com/news-releases/global-car-pooling-markets-report-2021-2025-2030-online-carpooling-platforms-app-based-carpooling-businesses-individuals-schools-others-301292819.html> (Accessed: 18 March 2023)
- Jakob Nielsen (1994) 10 usability heuristics for user interface design, Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/ten-usability-heuristics/> (Accessed: May 1, 2023)
- Fulton Suri, J. and Marsh, M. (2000) "Scenario building as an ergonomics method in consumer product design," Applied Ergonomics, 31(2), pp. 151–157. Available at: [https://doi.org/10.1016/s0003-6870\(99\)00035-6](https://doi.org/10.1016/s0003-6870(99)00035-6). (Accessed: March 15, 2023)
- Movano (2022) Movanohealth. Available at: <https://movanohealth.com> (Accessed: November 25, 2022).
- Nardi, B.A. (1992) "The use of scenarios in design," ACM SIGCHI Bulletin, 24(4), pp. 13–14. Available at: <https://doi.org/10.1145/142167.142171>. (Accessed: March 10, 2023)

Campbell, R.L. (1992) "Will the real scenario please stand up?," ACM SIGCHI Bulletin, 24(2), pp. 6–8. Available at: <https://doi.org/10.1145/142386.1054872>. (Accessed: March 15, 2023)

Shneiderman, B. (1998). Designing the user interface: Strategies for effective human (3rd ed.). Boston, MA: Addison Wesley Longman, Inc. (Accessed: April 22, 2023)

Marie, T. (2019) 'The Effects of Color Choice in Web Design on the Usability for Individuals with Color-Blindness' Sparks For Missouri State University. Pg8, 23. Available at : <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://bearworks.missouristate.edu/cgi/viewcontent.cgi?article=4376&context=theses> (Accessed: April 22, 2023)

App Research Refrences

Uber App Interface : <https://www.itsnicethat.com/news/uber-redesign-digital-270919>

Reddit App Interface : https://www.reddit.com/r/UI_Design/comments/l25dv4/ui_concept_for_reddit_app/

Whatsapp App Interface : https://play.google.com/store/apps/details?id=com.whatsapp&hl=en_GB&gl=US

Karpoolclub interface : <https://play.google.com/store/apps/details?id=com.karpoolclub.app&hl=en&gl=US>

BlablaCar Interface : <https://play.google.com/store/apps/details?id=com.comuto&hl=en&gl=US>

LiftShare Interface : https://play.google.com/store/apps/details?id=com.liftshare.liftshareapp&hl=en_GB&gl=US

Gokid App Interface : <https://www.gokid.mobi/gokid-for-teams/>

Carpooltoschool Interface: <https://carpooltoschool.com/>

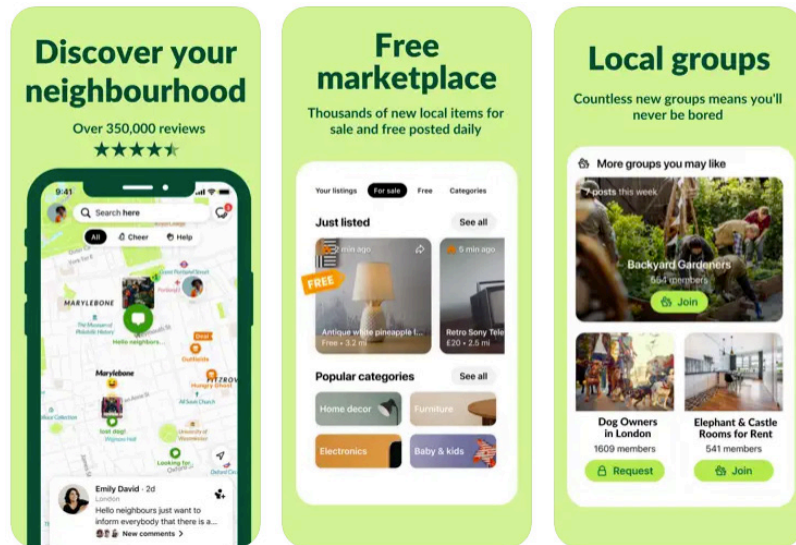
Appendix

Idea Research

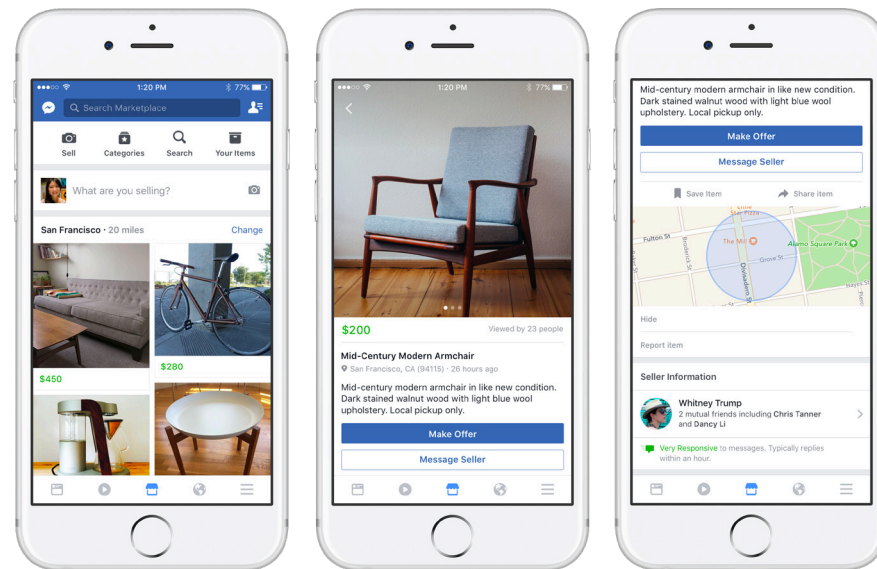
Nearby Share

A app which allows you to share items like a lawnmower with nearby people. The app would act like a social store for the neighbourhood. You can also chat with the neighbours with the use of app and also create social events. Carpool can also be a function.

Similar Apps



Nextdoor - Neighbour App



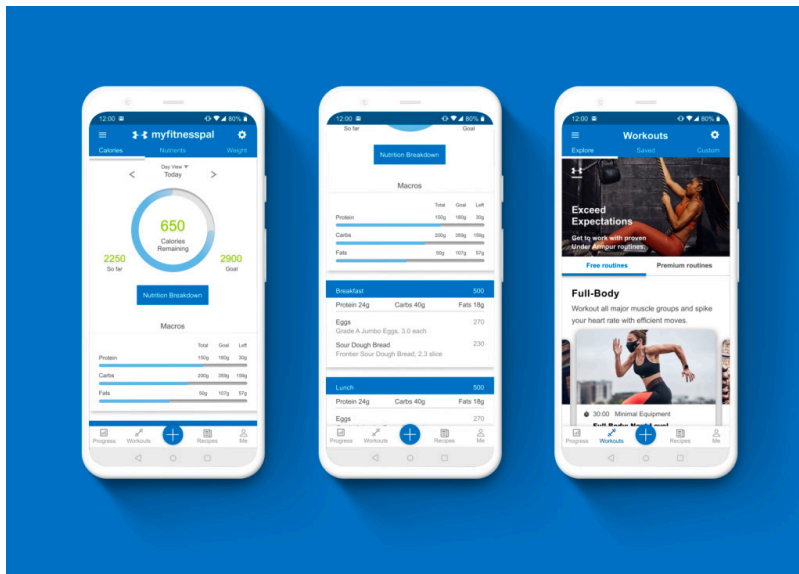
Facebook Market Place

Idea Research

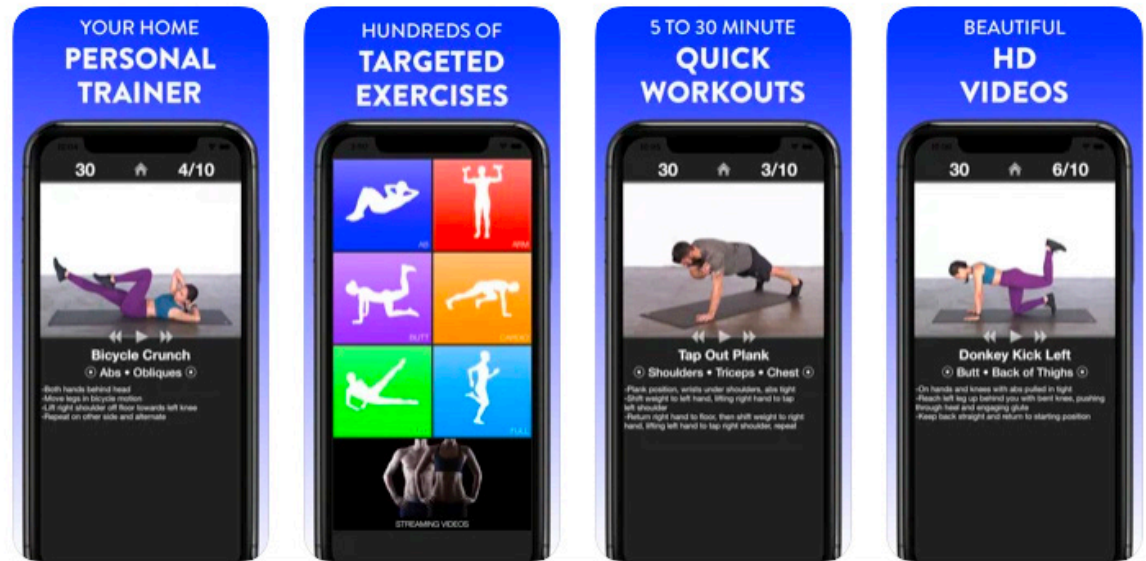
Fitness App (Phone & Smartwatch)

A app which allows you plan your workouts and learn from tutorials. Make a nutrition plan/ meal planning and keep track of calories. Social element to compare data with friends. Also connect with smartwatch. The app could also partner with fitness brands to offer discounts or rewards for completing challenges or reaching fitness milestones.

Similar Apps



MyFitness Pal



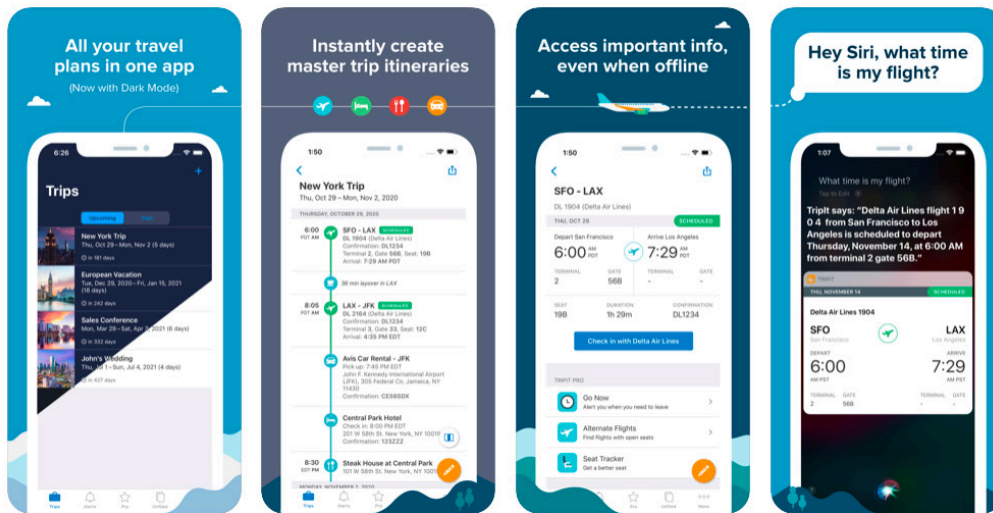
Daily workouts fitness trainer

Idea Research

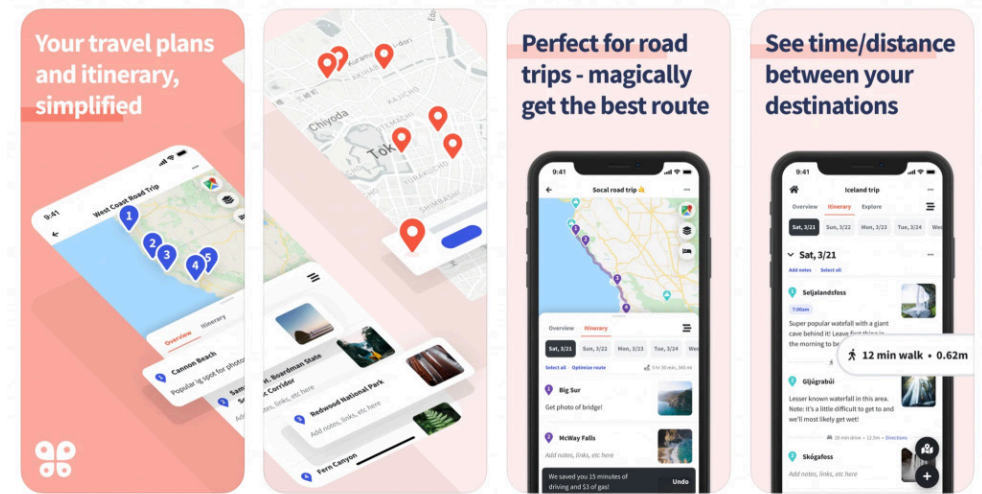
Hospitality App

An app that connects travelers with local hosts who can provide a unique and authentic experience. The local hosts could offer personalized tours, cooking classes, or cultural experiences, and the app would facilitate the booking and payment process. Use the app to view/track hotel & flight booking and create a itinerary plan. The app would recommend destinations, accommodations, and activities based on the user's preferences, interests, and past travel history.

Similar Apps



Triplt



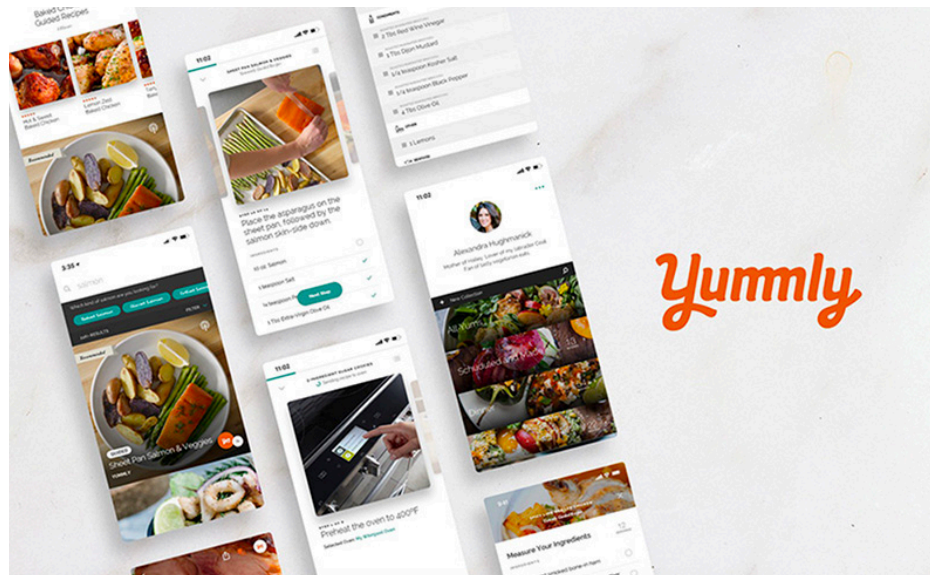
Wanderlog

Idea Research

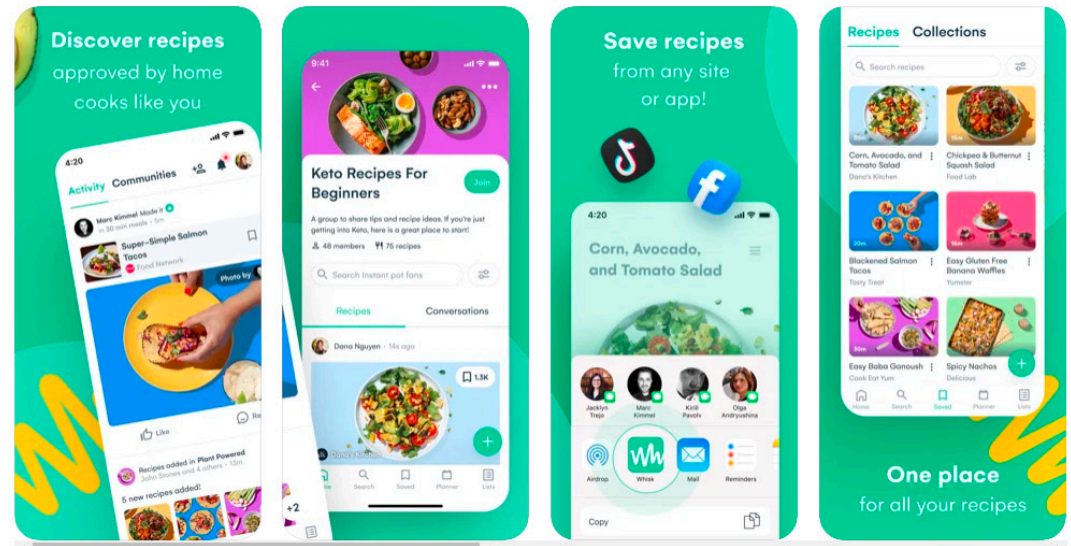
Personalized Recipes

An app that creates recipes based on a user's food preferences and dietary restrictions. The user could input their preferences and restrictions, and the app would generate recipes that meet their specific needs. Would show where to get the ingredients and input the ones you have to create recipes from what you have. The user could input ingredients that are about to expire, and the app would suggest recipes that use those ingredients. (reduce waste)

Similar Apps



Yummlly



Whisk

Benefits Of Recipe Apps

- According to a survey by the NPD Group, **83%** of people in UK and US cook at home at least once a week, and **58%** cook at home five or more times a week.
- A survey by Google found that **49%** of smartphone users use their device while cooking to follow recipes.
- The global recipe and food content market is expected to reach **\$8.2 billion** by **2027**, according to a report by Grand View Research.
- The top food and drink app in the Apple App Store as of February 2023 is Allrecipes, with over **43** million downloads.
- A study by the University of Michigan found that cooking at home is associated with a higher intake of fruits, vegetables, and whole grains, and a lower intake of sugar and fat.
- According to a survey by the National Restaurant Association, **37%** of adults said they use restaurant websites or apps to order takeout or delivery.