CREATION OF CAMPUS COMPANION

Part 1: Research Document

Part 2: Ideation Ideas

Part 3: Initial Prototype

Part 4: Usability Testing

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Part 1: Research Document

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Objectives: Knowledge Gaps

To address our current knowledge gaps, regarding the first-year experience, we needed to define some objectives for our research.

Decided Objectives:

- How the overall experience has been as a first-year student at Curtin.
- What things have been **hard/challenging** for students, and **why**.
- What has been **easy**, and **why**.
- What services were offered by Curtin to help them adjust to University life, and did services actually help.
- Were there any tools that made specific tasks/goals easier to achieve?
 - What were **students' experiences with these tools/services** (both digital and face-to-face)?
- How convenient were these tools/services to access/find?

Hypotheses

Based on our previous experience as first-year students, we had some idea of what the first-year experience at Curtin is like.

Hypotheses for our research:

- Knowing where to find what information is difficult, as it's spread accross multiple digital platforms and some is only accessible through face-to-face interactions.
 - This results in lots of time searching, which is frustrating.
- Communication is also spread over multiple platforms, increasing the chances of students missing vital information.
- It is difficult to understand Curtin's parking system.
- Campus navigation can be difficult, especially finding specific class rooms.
- Selecting elective classes can be difficult, as limited information is available about units, and it can be difficult to know what will compliment your major.

Methods: Forms of Research

The main aim for our research at this stage is to obtain qualitative data, so we can empathise with potential users and properly understand the problems faced.

Methods:

Preliminary Interviews:

These interviews will serve to **inform us about the different user groups**, the general **problems** first-year students face and will help us to **formulate more focused questions** for our full length interviews.

Full Length Interviews:

These interviews will be formulated based on **shared problems** that our users from our preliminary interviews had. This stage of research will allow us to **understand the users' experience** with specific tasks and goals at Curtin, as well as insights into **how they may be solved**. We will try and interview a **wide range** of students that **cover the three main user groups identified** after our preliminary interviews.

User Groups: Our Target Users

We were able to define three main user groups, based on primary goals, background, previous study experience and technological proficiency.

User Groups:

Fresh Students: These are students who are straight out of highschool (or close to) and have never experienced tertiary study.

- Primary Goals: Learn time management and organisation, familiarise self with course specific conventions.
- Technological Proficiency: Thorough experience with technology and digital educational platforms, however, unfamiliar with specific platforms used at Curtin.

Mature Aged Students: These are students who are over 23 and who are returning to study after other life experiences, such as a career or raising a family. These students may also have prior tertiary education experience.

- Primary Goals: Become familiar with digital platforms used at Curtin, adjust to changes in tertiary education & organise time around other commitments.
- Technological Proficiency: Reasonable technological proficiency, may be unfamiliar with digital educational platforms.

Change of Course: These are students who have changed courses that they're studying at Curtin. They have experience with most aspects of Curtin life but are unfamiliar with course specific information/conventions.

- Primary Goals: Become familiar with course specific conventions and plan new course electives/minor streams.
- Technological Proficiency: Very proficient with technology, including platforms used by Curtin.

Quick Findings: Key take-aways

After conducting our Preliminary and full length interviews, there were a number of key findings which were often expressed by multiple students.

Struggles With Campus Navigation

- Buildings not located in logical position; numbers don't correlate directly with location
- Confusing building and classroom location caused students trouble with arriving to class on time
- Lost on Campus app, unreliable and glitchy
- Online Curtin Campus map is lackluster and has no search functionality
- Had problems checking class room-numbers due to timetable being hard to access on mobile devices

Tools Used to Navigate Campus

- Lost on Campus application
- Google Maps
- Physical Maps on Campus
- Digital map on Curtin website

Students Had Trouble With Time Management & Self Discipline

- "My struggles were...having to learn to self-discipline myself to study and manage time well."
- "I was just thrown into the deep end with a big workload and no skills on how to manage."
- Brayden Gallop
- "It was a bit of an adjustment going back to studying after a bit of time working full time.

Getting back into the swing of things and learning to time manage my assessments."

- Nathan Cowley-Cooper

"With having to be physically at uni 4 days a week I found it hard to find enough time to sit down and think for longer lengths of time."

- Tim Coombs

Tools Used to Manage Time

- Creating Physical Time-tables/Calendars
- Using Elsie to keep track of assessment deadlines
- Use of Microsoft Power Planner to plan weekly schedule.
- Use of digital To Do lists and Google Calendars for notifications and reminders

Issues With Resources and Communications Spread Over Multiple Platforms (Oasis, Blackboard, E-Student & Email)

- Missed communications due to forgetting to check all platforms
- Missed opportunities and vital information as a result of missed communications
- Time wasted by checking four seperate platforms, chronically
- Students would appreciate having access to emails, timetables and notifications through Blackboard, rather than only Oasis
- Lack of consistency between platforms

Experiences With Mentoring Program

- Lack of one-on-one communication discouraged further contact with mentors
- Students would prefer real life communication, rather than purely online
- Had a helpful mentor who organised real life group meetings with other first years and gave valuable insights and advice

Where Did Students Find Out About Elsie?

- Noticed it advertised on Oasis
- Mentioned by Lecturers
- Unaware of Elsie, was never told about it

Preferences Regarding Advice for Elective Units and General Course Guidance

- In hind-sight, would have benefitted from speaking to Co-ordinators for course guidance
- Preference for meeting with Course/Major Co-ordinators/Tutors/Previous Students for course guidance and elective unit advice, over online resources
- Online resources for elective selection found to be lackluster
- Students would appreciate the ability to schedule meetings with Co-ordinators, Tutors and Mentors online, rather than relying on emailing and available office hours
- Students relied on advice from peers (often through Facebook groups) for Elective selection

Differences Between Highschool and University Experience

- Had to adjust to the unstructured nature of University
- Had to learn how to self study, which wasn't as important in highschool
- "I found uni is a lot more unstructured compared to high school and you have to be independent and figure everything out for yourself and work on your own time management or you will definitely fall behind."

Problems With Campus Parking

- Unaware of how to pay for parking
- Recieved fines as a result of being uninformed on parking conventions, on campus

User Goals: Aims & Desires

Through our research we were able to distill the goals of our various users groups into 5 main categories.

User Goals:

1) To select suitable units

Users want to take their core units in the correct order and want to select elective units that benefit them personally and acedemically

2) To find appropriate parking

Users want to find parking in an appropriate location, in good time and pay for it through an easy system

3) To find their classroom

Users want to find the building and classroom of their class easily and on time

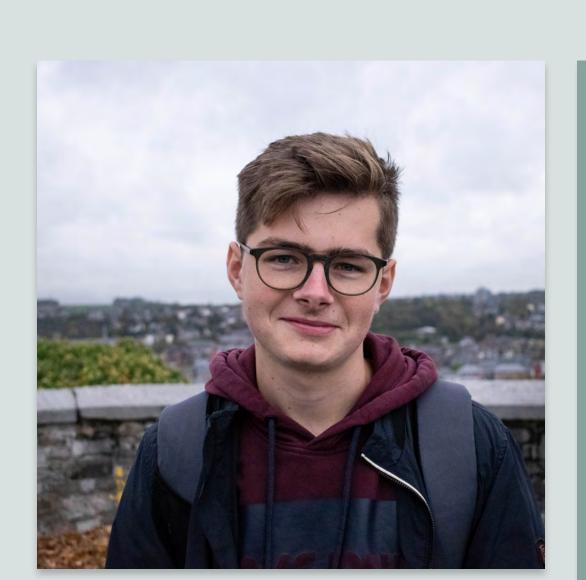
4) To submit assignments on time

Users want to be able to manage their time efficiently in order to reach personal deadlines and to submit assignments on time

5) To be informed of important information

Users want to be able to find important information and keep up with all important communications

User Personas



Connor Johnson

'Connor finished highschool last year and has entered straight into University at Curtin. He has trouble with time management, self discipline and the unstructured nature of University."

Age: 18

- **Course:** Engineering BSC **Changed Course:** No
- Occupation: Retail (Casual)

Goals

- Improve time management skills
- Improve self discipline
- Learn to self study
- Navigate around campus with more proficiency
- Choose useful elective units - Climatize to unstructured
- University environment - Keep up with information and communications via Oasis, Blackboard, E-Student & Curtin

Frustrations

Email

- Parking system confusing
- Steep learning curve coming straight from highschool
- Hard to keep up with four seperate University platforms
- Buildings & rooms aren't located where expected

Technological proficiency

Tools Used

- | Elsie mobile app
- Used for time management and navigation
- Keeps track of assessment deadlines and class room-numbers
- Lost on Campus mobile app
- Used for campus navigation - Uses the map and the search function to find classrooms & buildings

Mobile App Preference





Kim Fields

"Kim is a mother who has returned to University to study Graphic Design, as a mature aged student. . She has to schedule her time carefully due to commitments outside of University."

Age: 42

- Course: Graphic Design Major
- **Changed Course:** No
- Occupation: Student and Mother

Goals

- Schedule time to allow for commitments outside of University
- Navigate around campus with
- more proficiency - Choose useful elective units
- Keep up with information and communications via Oasis, Blackboard, E-Student & Curtin Email
- Adjust to University after not studying for years

Frustrations

- Challenge to understand academic texts again.
- Buildings & rooms aren't located where expected
- Difficult to choose electives without talking to a course co-ordinator in person

Technological proficiency

Tools Used

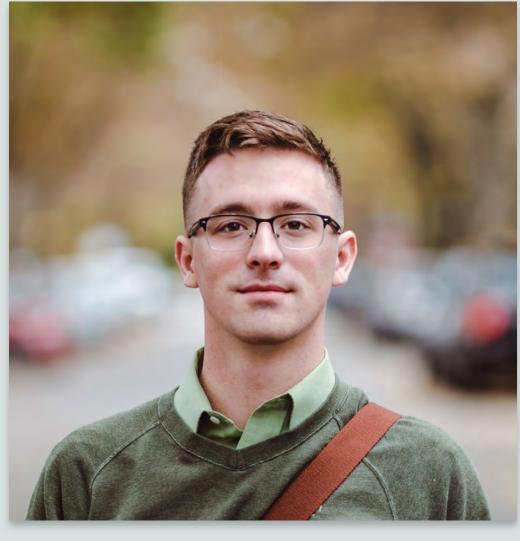
- | Elsie mobile app
- Used for time management and navigation - Keeps track of assessment deadlines and class room-numbers

Printed Timetable

- Used to organise life around University and family commitments
- Helps to keep up with assessment due dates

Prefers face-to-face advice





Jeff Chalmers

"Jeff has recently swapped courses to a Bachelor of Commerce, after completing a year of Chemical Science. After studying for a year already, he has a pretty good grasp of Curtin but is unsure about electives."

Age: 20

- Course: Bachelor of Commerce
- Changed Course: Yes
- Occupation: Hospitality (Casual)

Goals

Email

- Decide on which electives to take in his new course
- Find new buildings he hasn't been in before
- Keep up with information and communications via Oasis, Blackboard, E-Student & Curtin
- Schedule meetings with Course Co-ordinator to discuss study plan
- Speak to students who were already studying commerce

Frustrations

- Hard to select electives, due to underwhelming info online
- New buildings & rooms aren't located where expected
- Difficult to speak to a Course Co-ordinator as they are often already busy with other students during office hours

Technological proficiency



Tools Used

- To Do app (mobile)
- Used for time management and task reminders - Keeps track of assessment deadlines and progress
- Printed Timetable
- Used to organise life around University and sporting
- commitments - Helps to keep up with assessment due dates

Requires new study plan



Chase Winger

"Chase has recently moved to Curtin, after a year of studying Product design at Murdoch University. He has experience with tertiary University education but it unfamiliar with the conventions, specific to Curtin."

Age: 22

Course: Product Design major

Changed Course: Yes Occupation: Retail (Part-time)

Goals

- Decide on which electives to take in his new course
- Find his way around campus, and get to his classes on time
- Become familiar & keep up with Oasis, Blackboard, E-Student &
- Curtin Email - Schedule meetings with Major
- Co-ordinator to discuss study plan - Figure out the Curtin parking system

Frustrations

- Campus is very large and difficult to navigate
- Parking system is vastly different to Murdoch
- Has never used Oasis or E-Student before
- Lost on Campus often innaccurate

Technological proficiency

Tools Used

- Google Calendar (mobile)
- Used for time management and task reminders
- Keeps track of assessment deadlines and progress

Lost on Campus Mobile App

- Used for campus navigation - Uses the map and the search function to find classrooms & buildings

Requires new

study plan



Scenario 1: Connor Johnson



Connor Johnson

"Connor finished highschool last year and has entered straight into University at Curtin. He has trouble with time management, self discipline and the unstructured nature of University."

Age: 18

Course: Engineering BSC

Changed Course: No

Occupation: Retail (Casual)

Mobile App Preference



Connor woke up at 6am, half an hour earlier than he usually would so he could best prepare for his first class at 8am at Curtin. Connor showered, dressed and had breakfast, ready to leave the house. Connor put the address of Curtin University in his google maps as he wasn't too sure how to get there from Canning Vale. Although, he soon realised he would just need to travel through Vahland Avenue and stay on that road to reach Curtin University.

The traffic is really congested so Connor was relieved he had left half an hour early. When Connor got to Curtin University he took the entrance behind the stadium as his friend advised him to park in the green zone as it was the cheapest parking area. Connor started to panic when he saw that all the parking spots were full, so he exited and decided to go through another entrance and park in a different bay. When Connor starting driving through the yellow bays he was still panicking as their still wasn't any spots available that he could see. After 15 minutes of looking for a parking spot, Connor finally found one. However, despite finding a spot to park, Connor was still panicked as he only had 15 minutes to find his class. Connor started looking around for the parking machine but noticed he couldn't see one around, overwhelmed with anxiety Connor quickly left the parking lot to find his classroom. Connor thought he could ask his tutor during the lesson about paying for parking and would risk not getting a ticket due to it being the first hour.

Connor forgot to ask about the parking machine during his class, so he asked his tutor after the class. The tutor told him about Cellopark, in which he quickly downloaded the app putting his details in but soon realised he couldn't remember his license plate, starting to panic. Connor quickly ran to where he was parked to get his licence plate only to see that there was a parking ticket on his car for \$50. Connor was very upset and angry on his first day at University as there wasn't clear instruction on how to pay for parking.

Scenario 2: Kim Fields



Kim Fields

"Kim is a mother who has returned to University to study Graphic Design, as a mature aged student. She has to schedule her time carefully due to commitments outside of University."

Age: 42

Course: Graphic Design Major

Changed Course: No

Occupation: Student and Mother

Prefers face-to-face advice

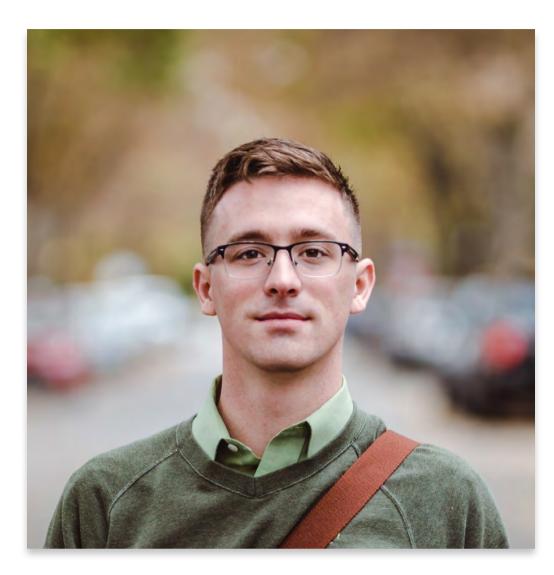


Kim feeds her two young kids, Alec and Laura before leaving them with their father to go to her first day of classes at Curtin University. Kim takes the bus, not living too far away from campus however she hasn't had a chance to visit yet, so everything is very new to her.

Kim has a counselling appointment with a counsellor at Curtin health services to go over feelings of anxiety she has about her first day an hour before her class. Kim knows her first class is in building 108 and that the counselling appointment is in building 109 so she isn't worried about getting to class late. Kim finishes up with the counsellor 10 minutes before her first class so she asks her counsellor for directions to building 108. The counsellor tells her that building 108 is on the other side of the campus. Kim begins to panic, as the class is on the other side of campus and she only has 10 minutes to get there, but she also needs to make sure she ends up in the correct building.

As Kim starts walking in a brisk pace in the direction the counsellor told her to, she pulls up the Elsie app on her phone and presses 'Map'. Kim types in 108 into the search bar and a list of results come up showing building 106 with .108 after. Kim assumes these are rooms 108 in the 106 building and starts to stress even more. Kim stops walking and cancels out of the search bar and user her finger to navigate through the map on Elsie. Kim finally finds building 108 and heads to it. When Kim finally makes it to building 108 she is 10 minutes late and is extremely anxious, defeating the purpose of the Counselling appointment. Kim is annoyed that the Elsie navigation map didn't have more accurate search results and is frustrated that the buildings have no correlation in her experience of directions.

Scenario 2: Kim Fields



Jeff Chalmers

"Jeff has recently swapped courses to a Bachelor of Commerce, after completing a year of Chemical Science. After studying for a year already, he has a pretty good grasp of Curtin but is unsure about electives."

Age: 20

Course: Bachelor of Commerce

Changed Course: Yes

Occupation: Hospitality (Casual)

Requires new study plan



It is a Monday afternoon and Jeff is excited to register for his new units at Curtin University. Jeff didn't have to pick any elective units on the course he previously studied, so picking electives is very new to him. Jeff is going through the eStudent portal and doesn't know what elective unit to put in for his course so he decides to research elective units on the Curtin handbook website. Jeff feels overwhelmed as he doesn't know which elective to pick as there are so many to pick from. Jeff starts looking at the unit outline one after the other trying to compare how many lectures and tutorials there are for each unit, trying to maximise his time by choosing a unit with less contact hours. Jeff is also trying to see which one sounds most interesting to him.

Jeff spends hours researching different electives and feels like he has gotten nowhere, mentally exhausted and overwhelmed. Jeff decided to email his unit co-ordinator to get some advice on how to pick units.

A few days pass and Jeff finally receives a reply from his unit-coordinator after a couple of days. Due to the time that had passed, Jeff grew more anxious and stressed, awaiting a reply. The unit co-ordinator apologises for getting back to Jeff so late and that they have been busy. The unit co-ordinator tells Jeff to go through the Curtin handbook for electives and pick one that appeals to him which Jeff has been trying to do. Jeff feels very frustrated from the response and feels like he is gotten nowhere so Jeff decides to join a Curtin Facebook group and makes a post, asking for help on how to pick electives. A 3rd year student privately messages Jeff and goes through his timetable and narrows down an elective that will help his degree and cater to his timetable. Jeff is very grateful for this act of kindness from this 3rd year student and wishes Curtin had a better help system to go about picking electives.

Conclusion: Summary of Findings

Through creating this research document, a number of insights have been discovered and things have been learnt.

Project Conclusion/Summary:

Preliminary Interviews: The preliminary interviews we held were incredibly helpful, allowing us to identify common experiences among subjects. Based on these areas, we then formulated questions for our full length interviews, to gain further insight into the struggles/experiences/behaviours/preferences that were ubiquitous among demographics of students. We were also able to distinguish key user groups, based off of these interviews, making it easier to target specific user groups in our full length interviews.

Full Length Interviews: The full length interviews allowed us empathise with our user groups, by asking them specific questions about their experiences and behaviours. These interviews gave us information that really helped us to create our experience maps, as we understood the feelings, actions and situations students were in, during their first year at Curtin.

Research Analysis:

The wide variety of students we interviewed and the ammount of questions we asked during our interviewing/research process, made it easy for us to identify and categorise common themes that came up. These were summarised in our quick findings & User Goals, and functioned as the basis of the rest of our analyses.

Personas were created based on the experiences expressed in the previous interviews. Each User Group identified in the preliminary interviews **expressed unique problems**, preferences and experiences, during their first year at Curtin, in the full length interviews. These served as the **foundation for the four different personas**.

The scenarios & experience maps, created, were all based on a **specific persona**, so we could **empathise with our user groups** and discover **realistic problems and situations** they may face. The questions about **specific experiences**, asked in our full length interviews, **were key** here as they allowed us to **accurately portray** the experiences of many students both in experience map and story form.

A3 Ideation:

Throughout our research we have had many ideas as to how we may solve user problems, in our next assignment. The idea that students wanted easier access between the four digital platforms used by Curtin (Oasis, Blackboard, E-student & Email) was almost ubiquitous. A way we may be able to solve this is to create an app that displays key information from all four, in one centralised place. Another common problem was trouble selecting courses and elective units. Since most students seemed to prefer face-to-face communication regarding enrolments, a service that allows online bookings for meetings with co-ordinators, tutors and mentors may be beneficial (think a timetable that graphically displays free slots and allows you to book them). A third area where our app may be able to help students, is with time management. An overwhelming number of students interviewed had struggled with time management when they started at Curtin. A centralised digital timetable/to-do list/calendar may help students to more successfully plan their time and therefore thrive in the University environment.

Part 2: Ideation Ideas & Sketches

Concept Ideation: Initial ideas and sketches

To come up with a concept for our application, we held a digital barinstroming session. We did two brainstorms; one for what we would like to include, to help first-year students, and one for how we might go about it.

Initial Brainstorm: What?

Interactive map which gives directions to specific classes

Searchable hi-res map

Game, where you can explore a virtual campus as an avatar

integrated timetable & map, plots journey from class room to classroom automatically

Social connection function - meet up with someone who knows the way to your class

- classroom door photo gallery streetview feature in map
- 2 destination directions get from class to class short cut forums / tips and tricks
- Frequently asked questions with answers

 Satelite / Terrain map version of the Campus

 2D/3D map model

 Audio navigation around campus

 Search bar of classrooms / buildings
- In our initial brainstorm we uncovered some
 promising ideas for an app that focuses on campus
 navigation and time management
- We came up with some ideas to make the application more fun, such as; an explore option where the user can run around the campus virtually, in game form.

Initial Brainstorm: How?

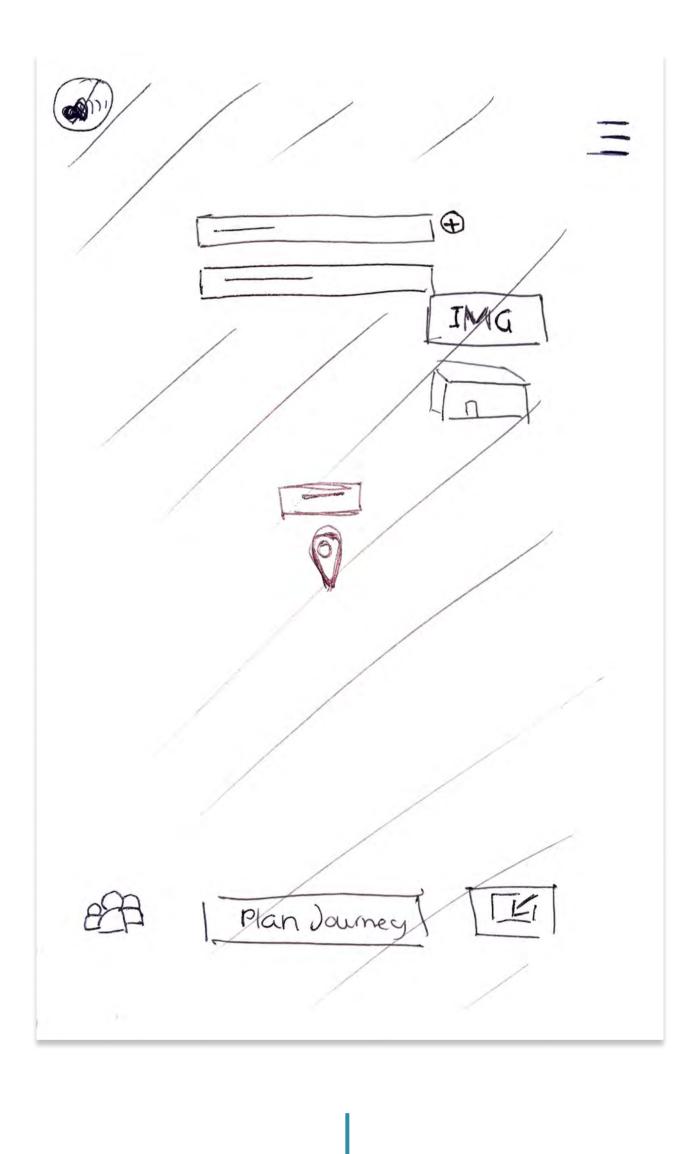
friends, etc.

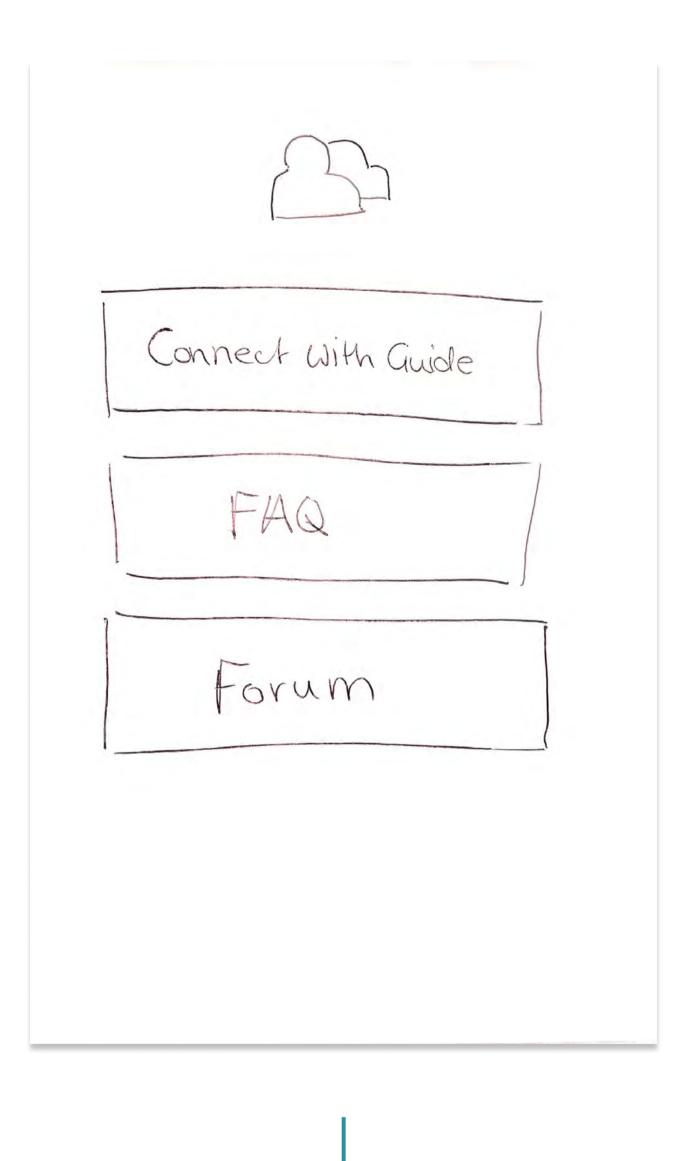
Plan your day with integrated schedule
- Add study slots, meet up with

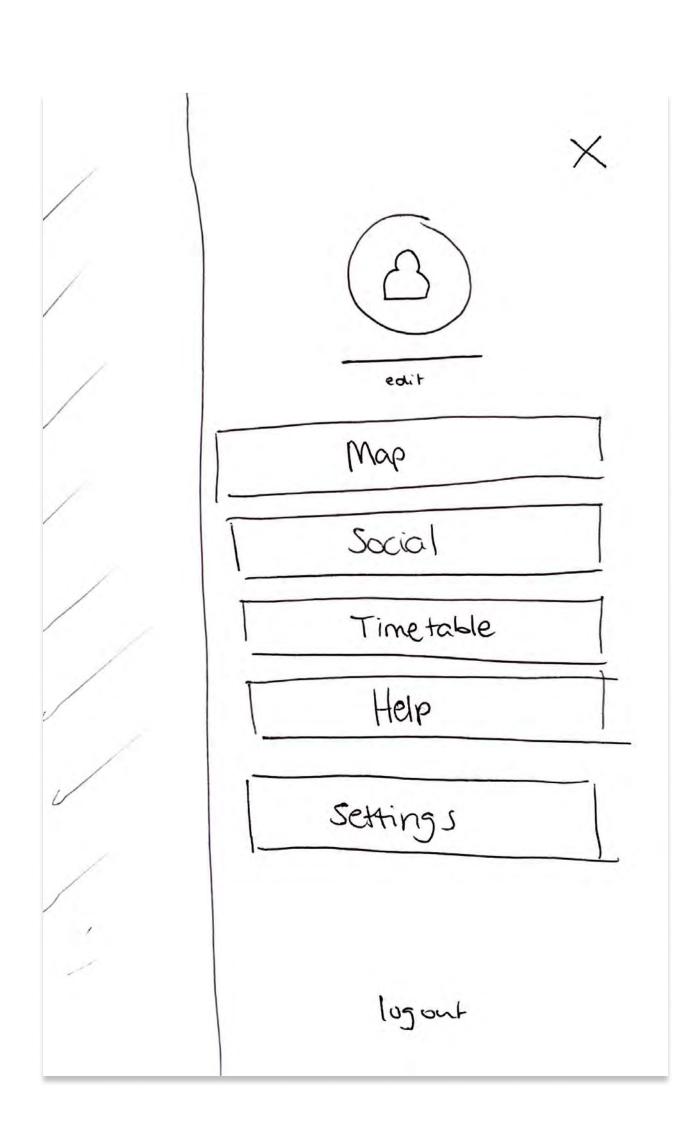
Location recommendations based on activity in schedule, eg. library for studying, common grounds for meeting a friend Inform user on which locations are busy, etc.

- Our second brainstorm revealed some ways in which we can implement the features that we want to include, in a single experience.

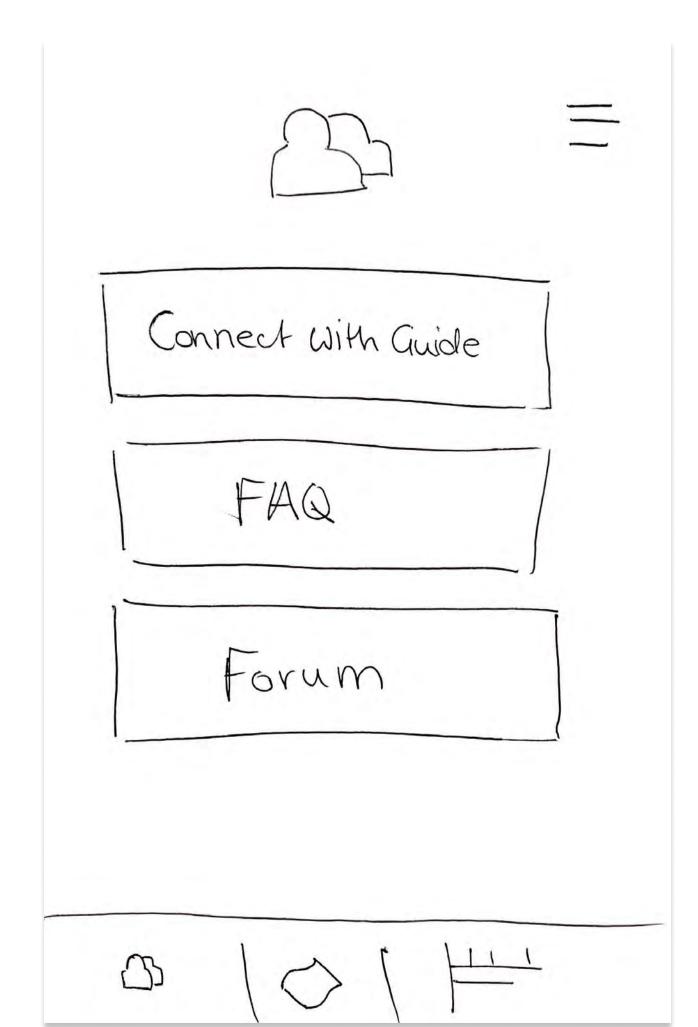
- Part of our brainstorm included some rough sketches of how the app could be laid out
- Through this brainstorming, we were able to come up with a solid idea of a joint navigation and time management application
- Some features include; being able to connect with users who know the campus well and can help you find a building/class, adding events to your timetable with campus locations and the ability to import your timetable into the map and have the journey for your whole day, plotted on the map





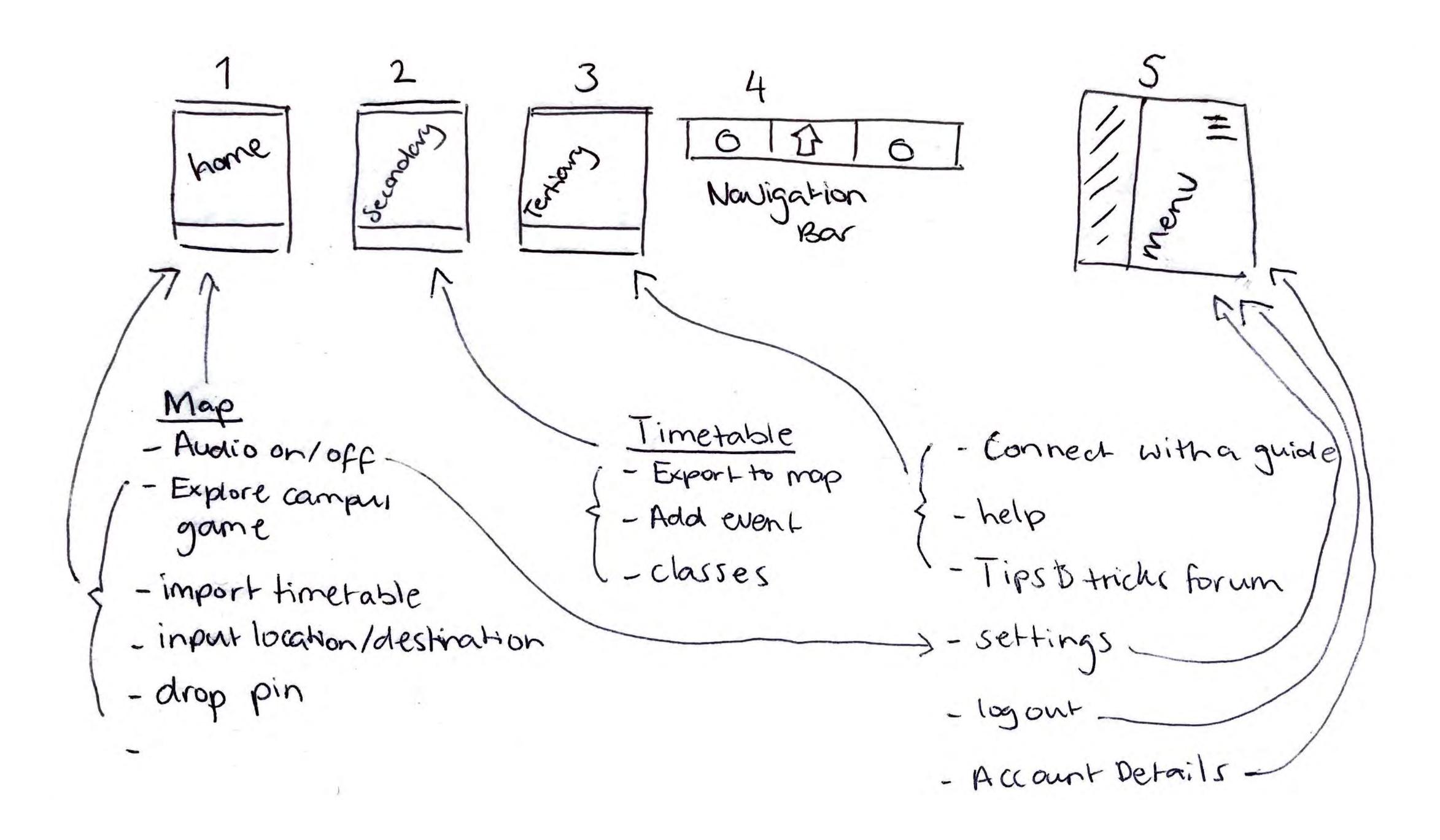






Information Architecture: Card Sorting

In order to create an experience with a logical and well structured display of information, we leveraged some Closed Card Testing sessions, with a user in one of our target demographics.

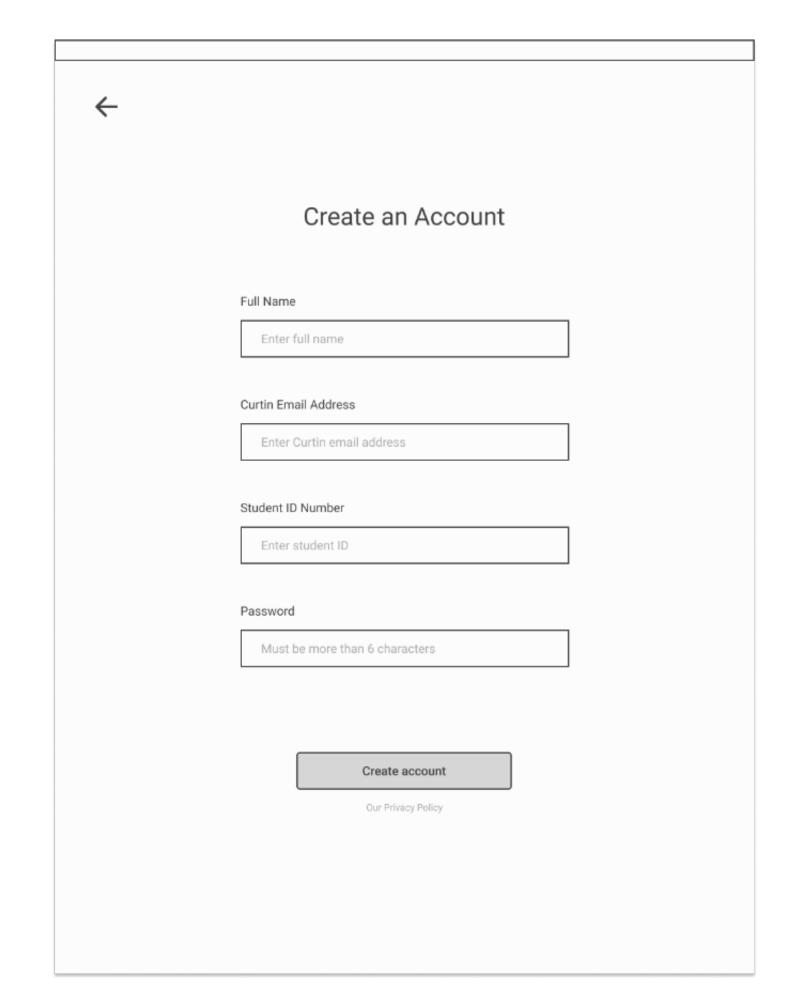


- Interestingly, our user came up with a similar Information Architecture to our initial concept sketches.
- Some minor changes included; putting the audio toggle within the settings page & including the help section on the third main screen.

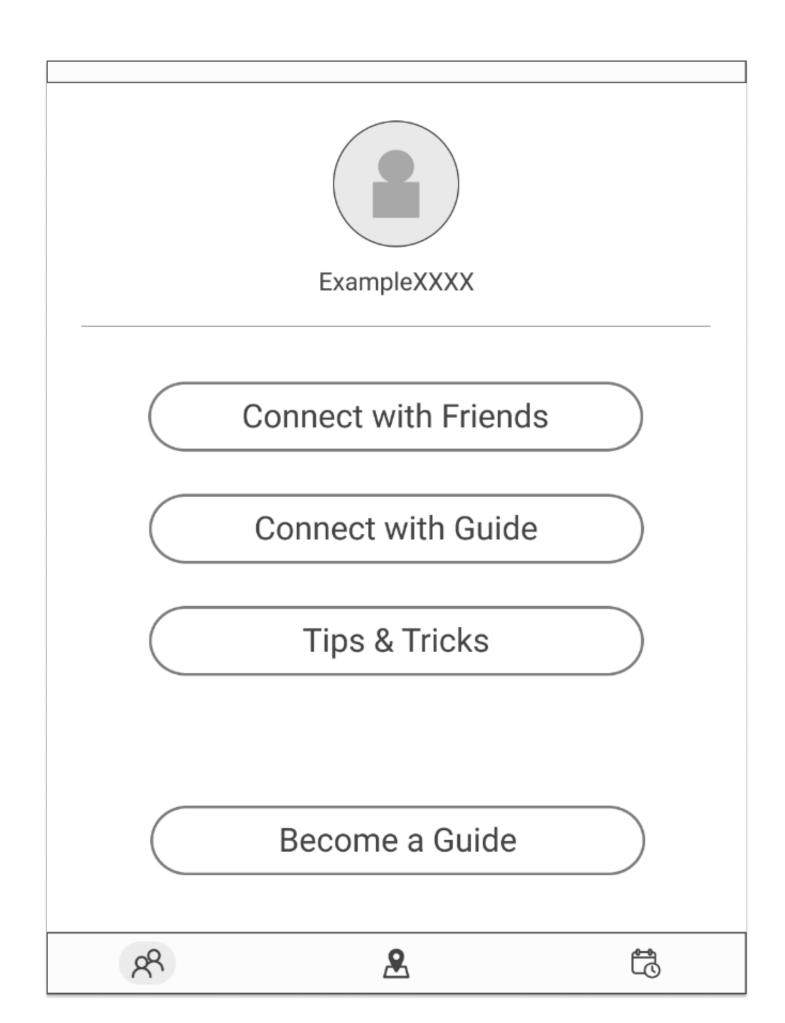
Prototyping: "Paper Prototype"

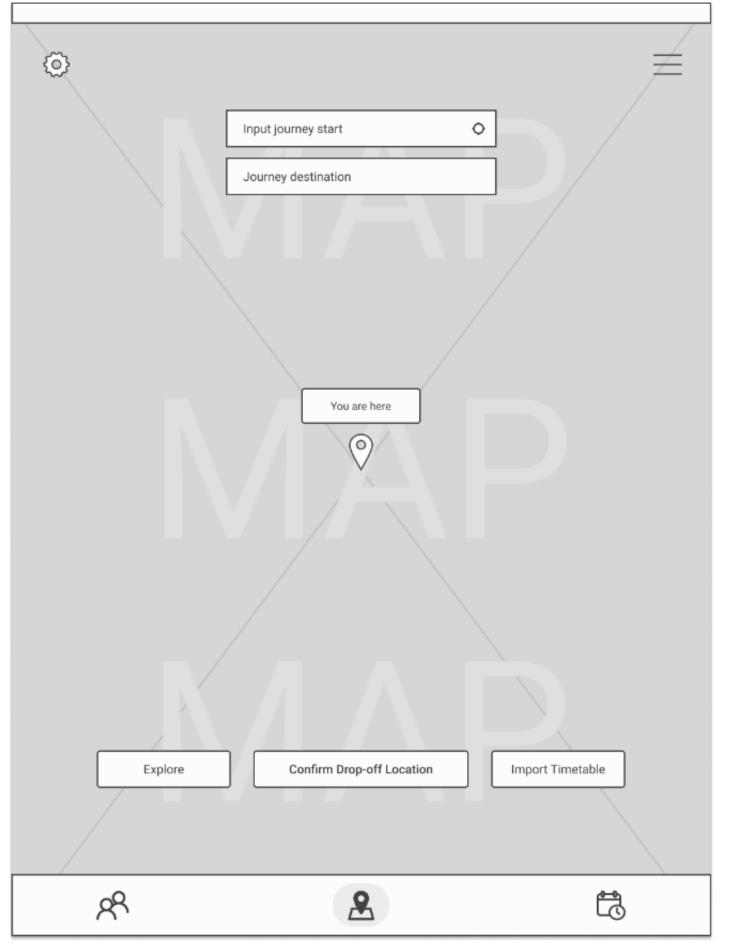
Now that our card sorting was done, we had an idea of the Information Architecture we could implement to create our application. Due to the environment at the time (COVID-19 isolation) our "Paper Prototype" was created by digitally designing some wireframes, in Figma, based on our initial sketches.

Wireframes: Week 11

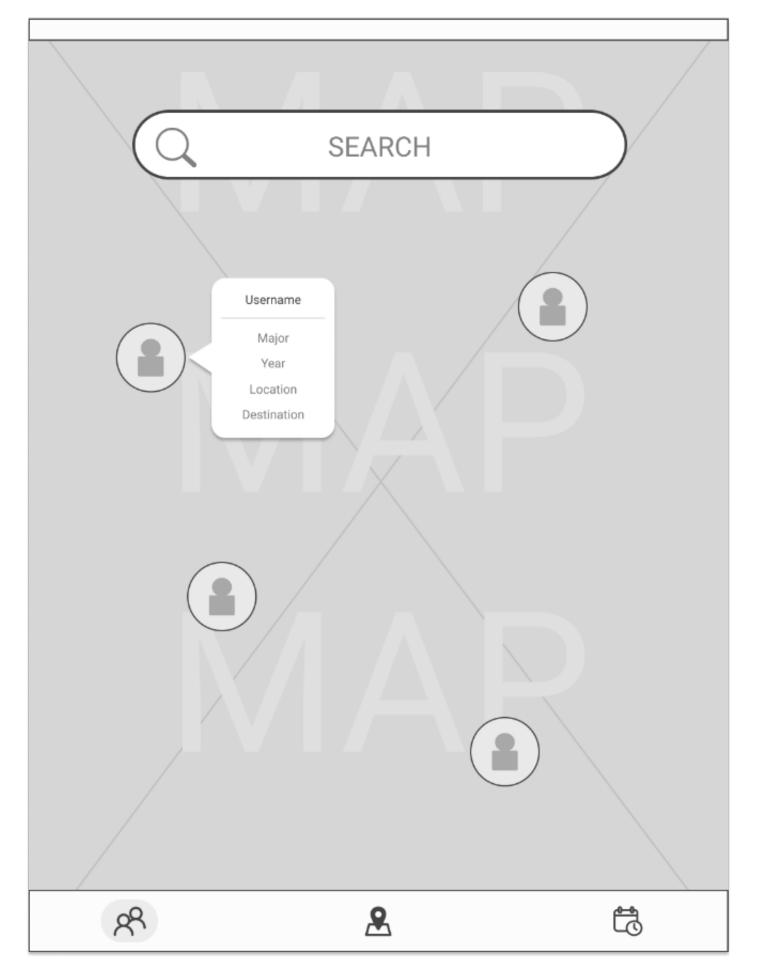


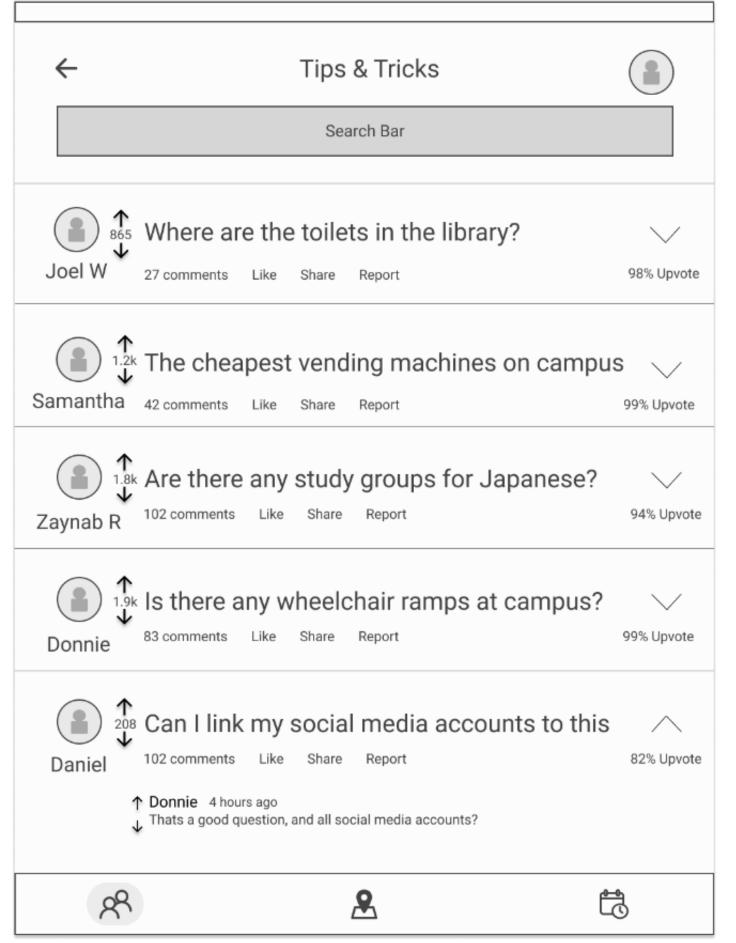


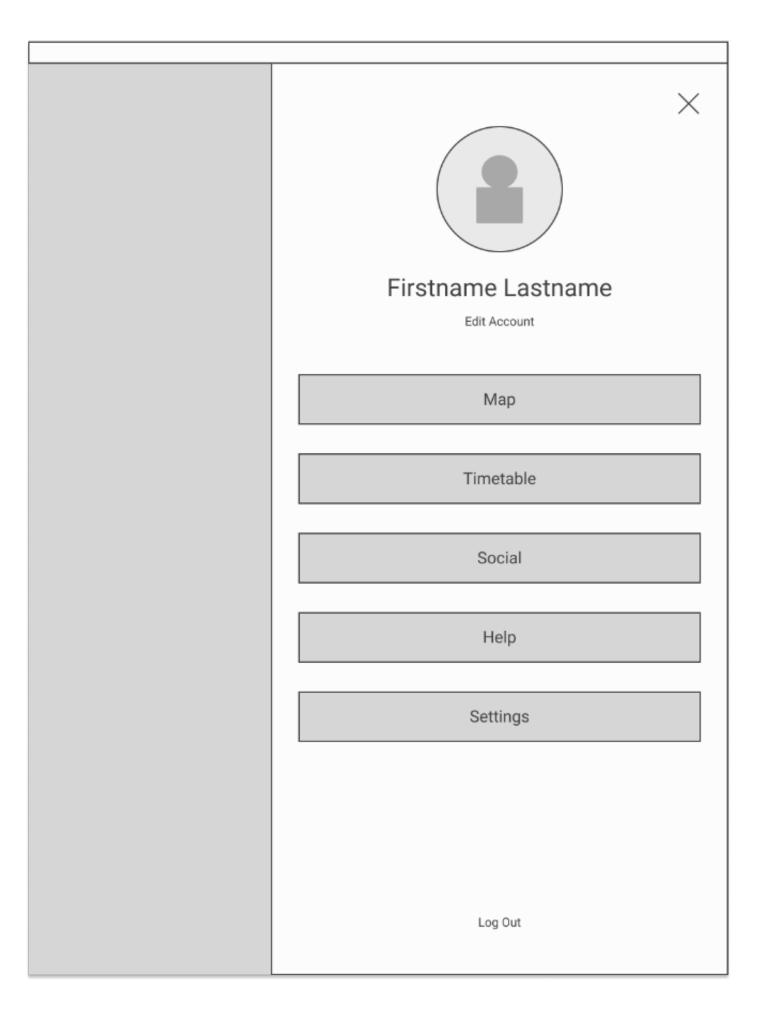


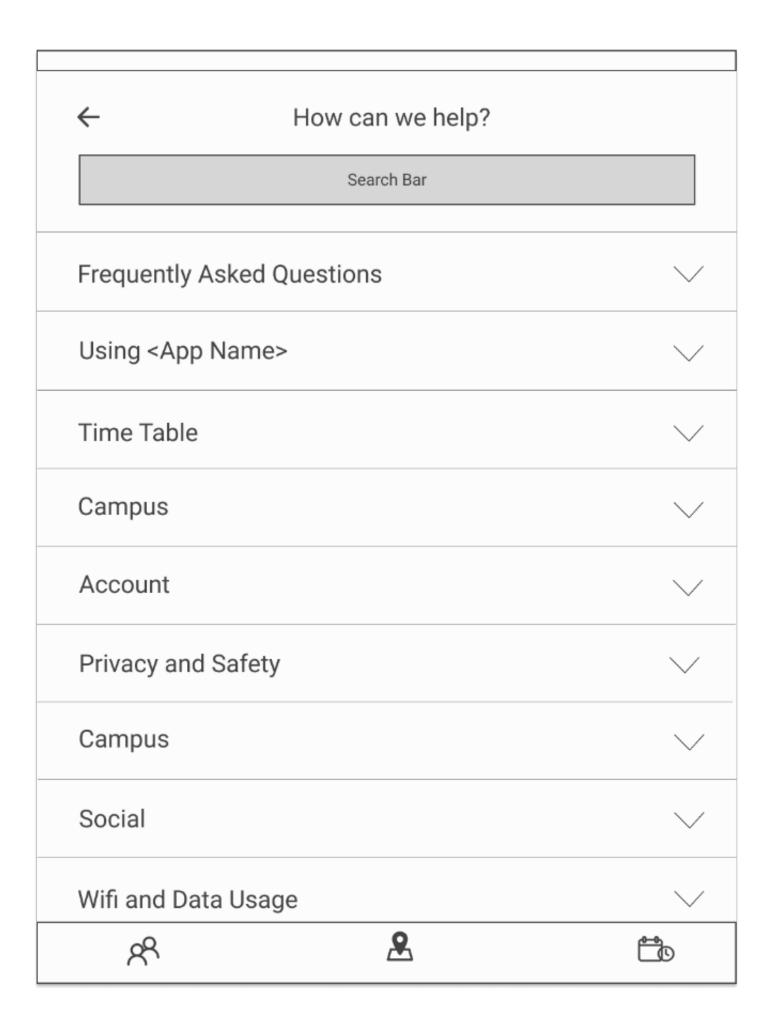


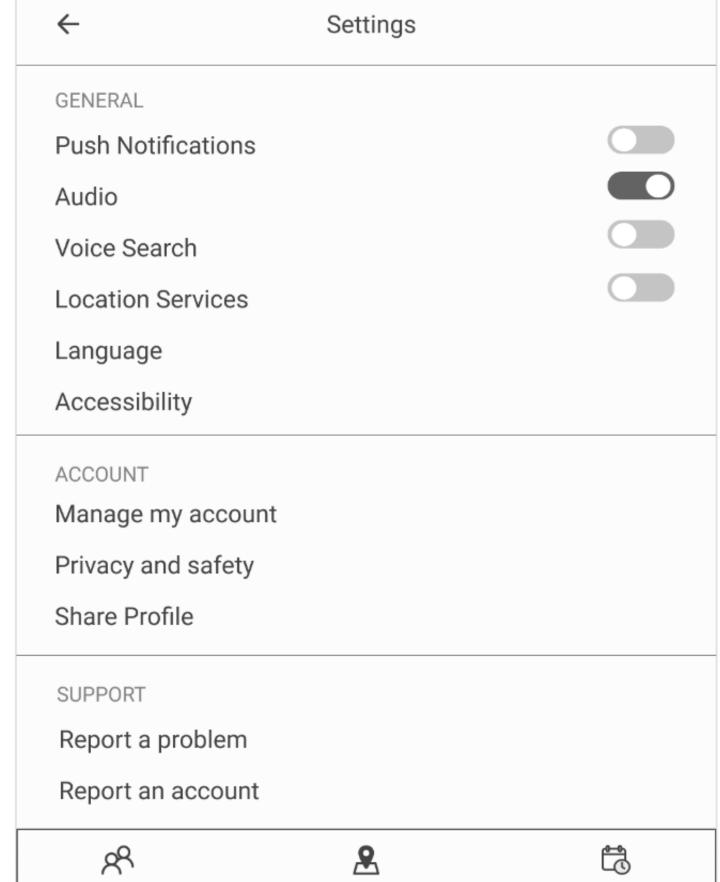


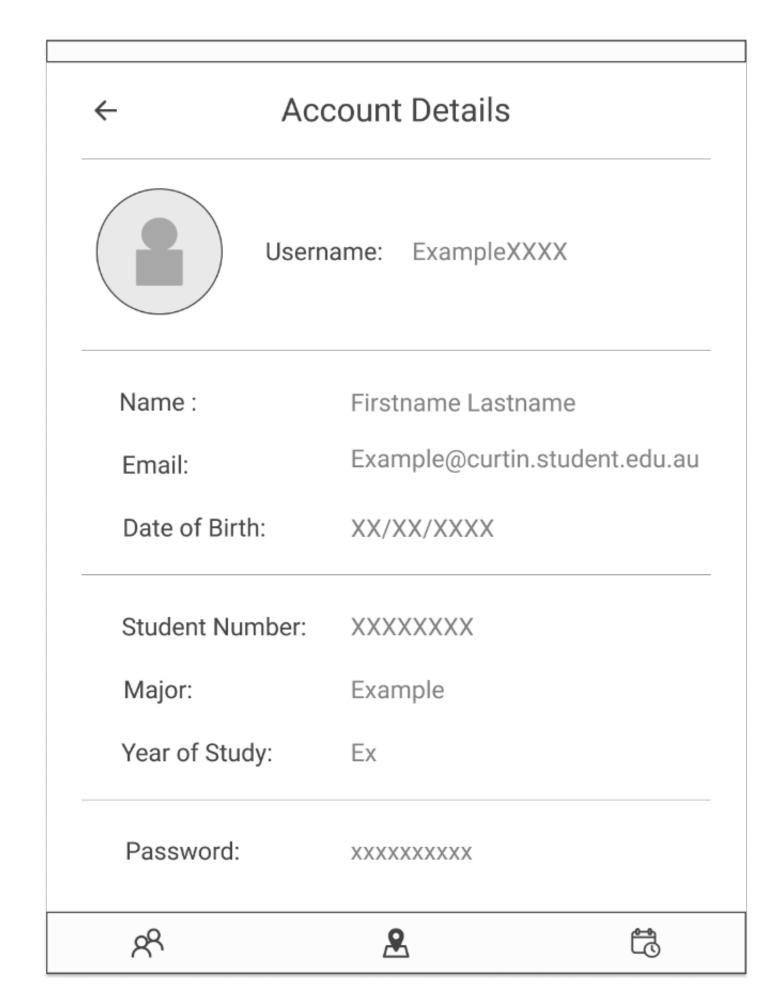












Low-fidelity User Testing

After creating our initial low-fidelity prototype, we decided to get some user testing before advancing to high-fidelity designs.



Blake Fordham

User group: Fresh first year student
Previously used university applications:

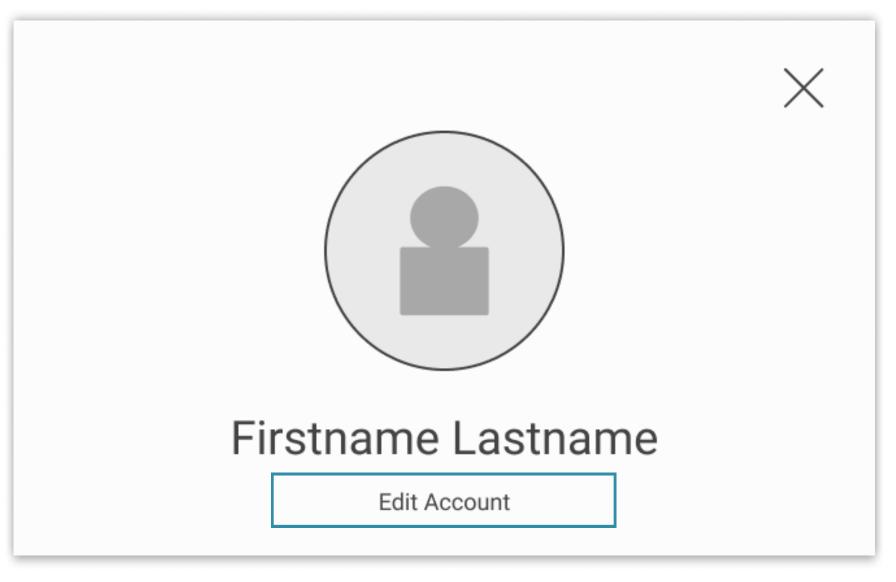
Blackboard

User Observations

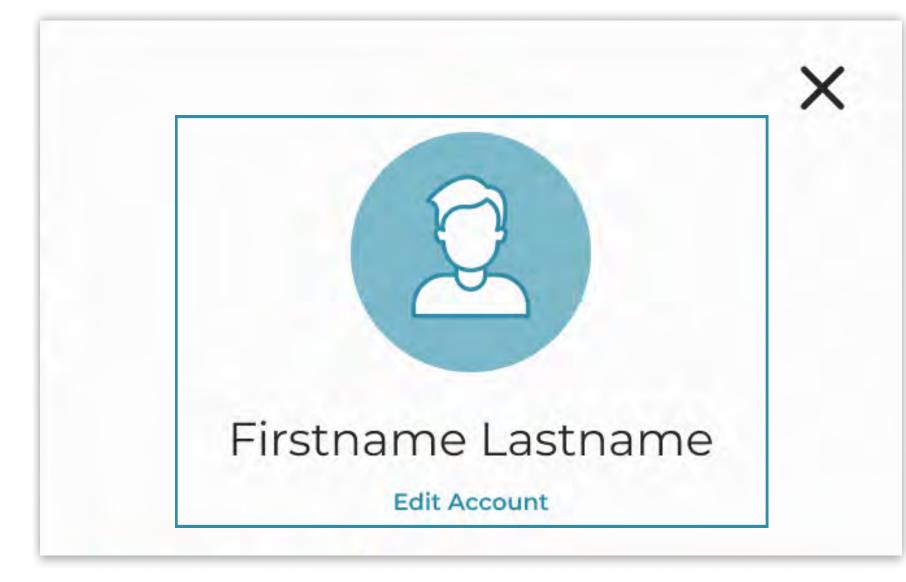
- User struggled to navigate to the account details page
- Unsure about the functionality of 'import timetable' button

User Feedback

- All tasks were very easy to complete.
- Could make the 'edit account' button more obvious
- More information needed about importing timetable into map.

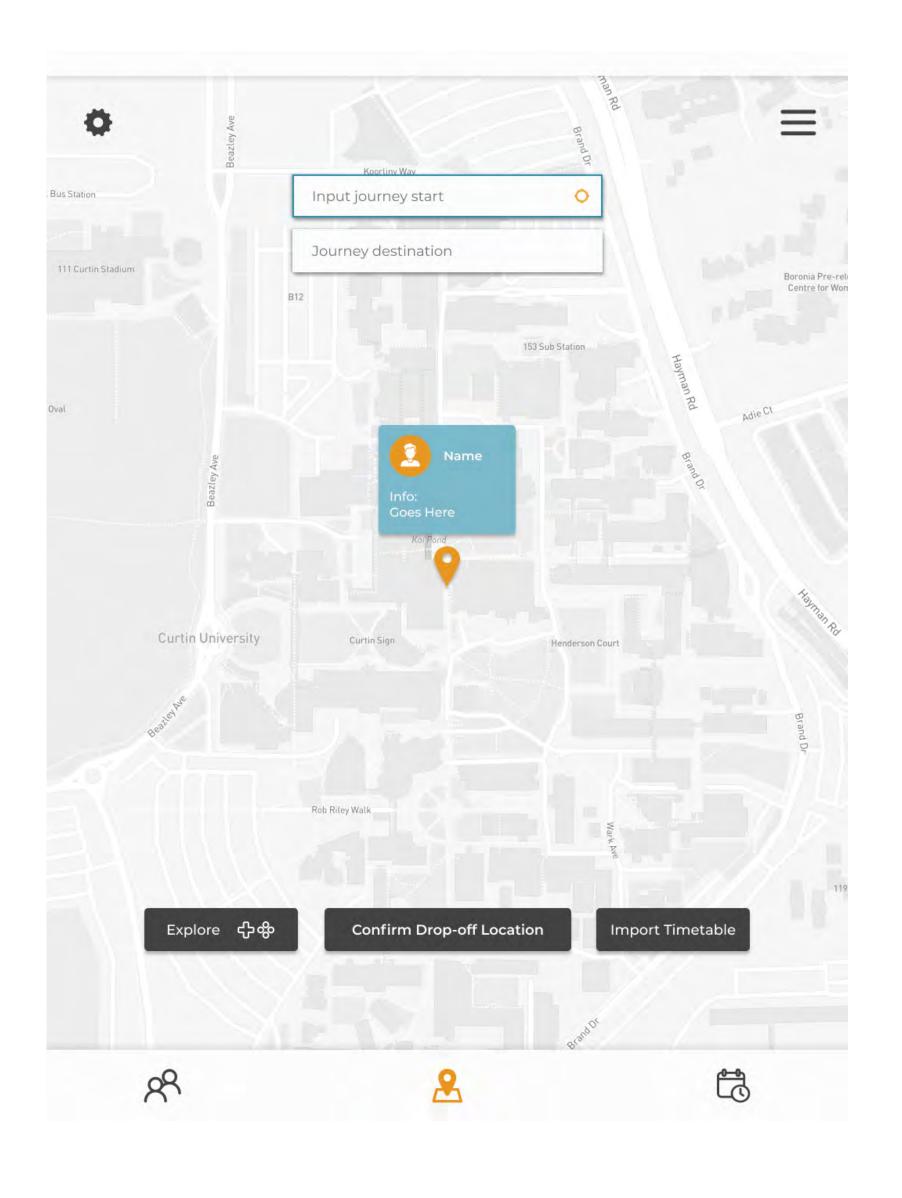


Clickable area

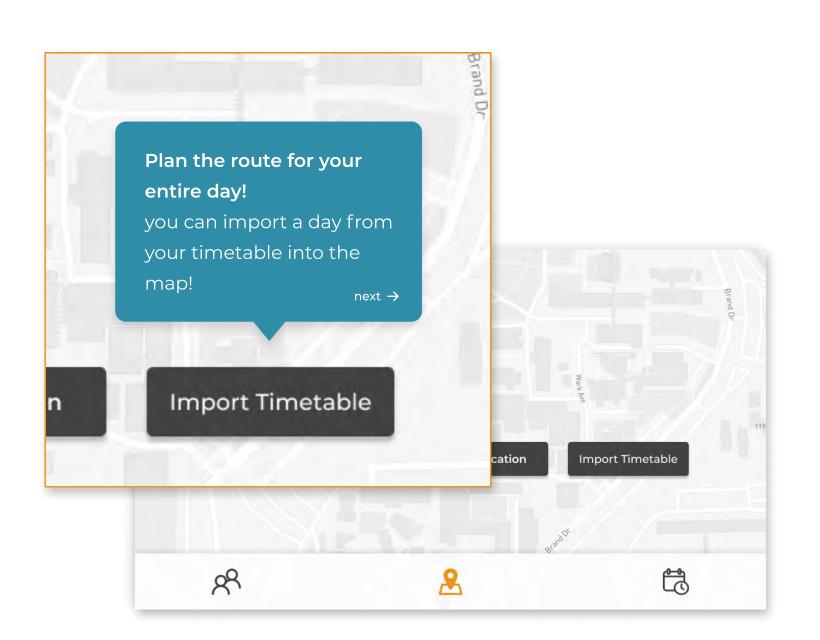


Refined clickable area

• Increased clickable real-estate will help users to navigate to the account page



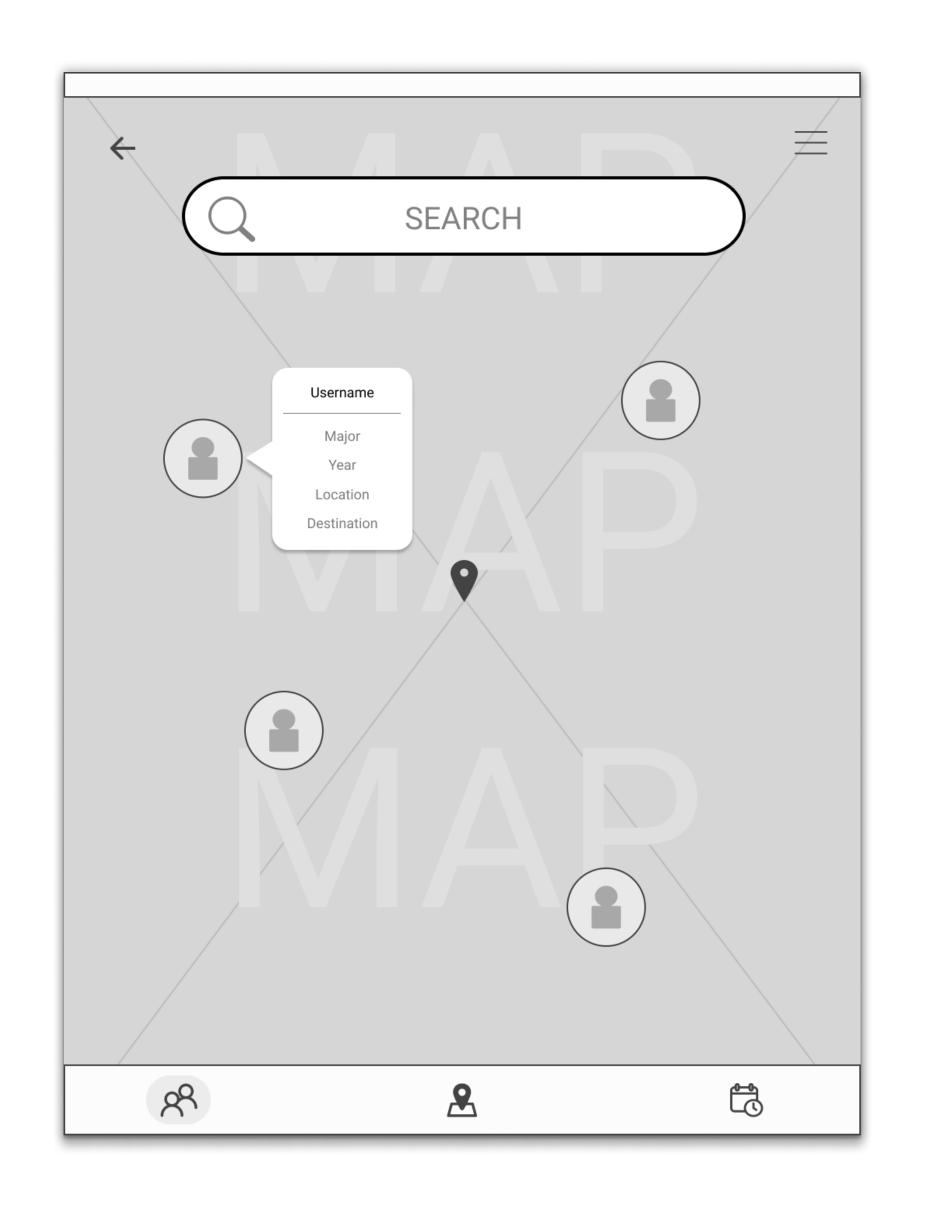
 To reduce confusion around the 'import timetable functionality', a tutorial could help to inform the user about the process and other more complicated features in the app.

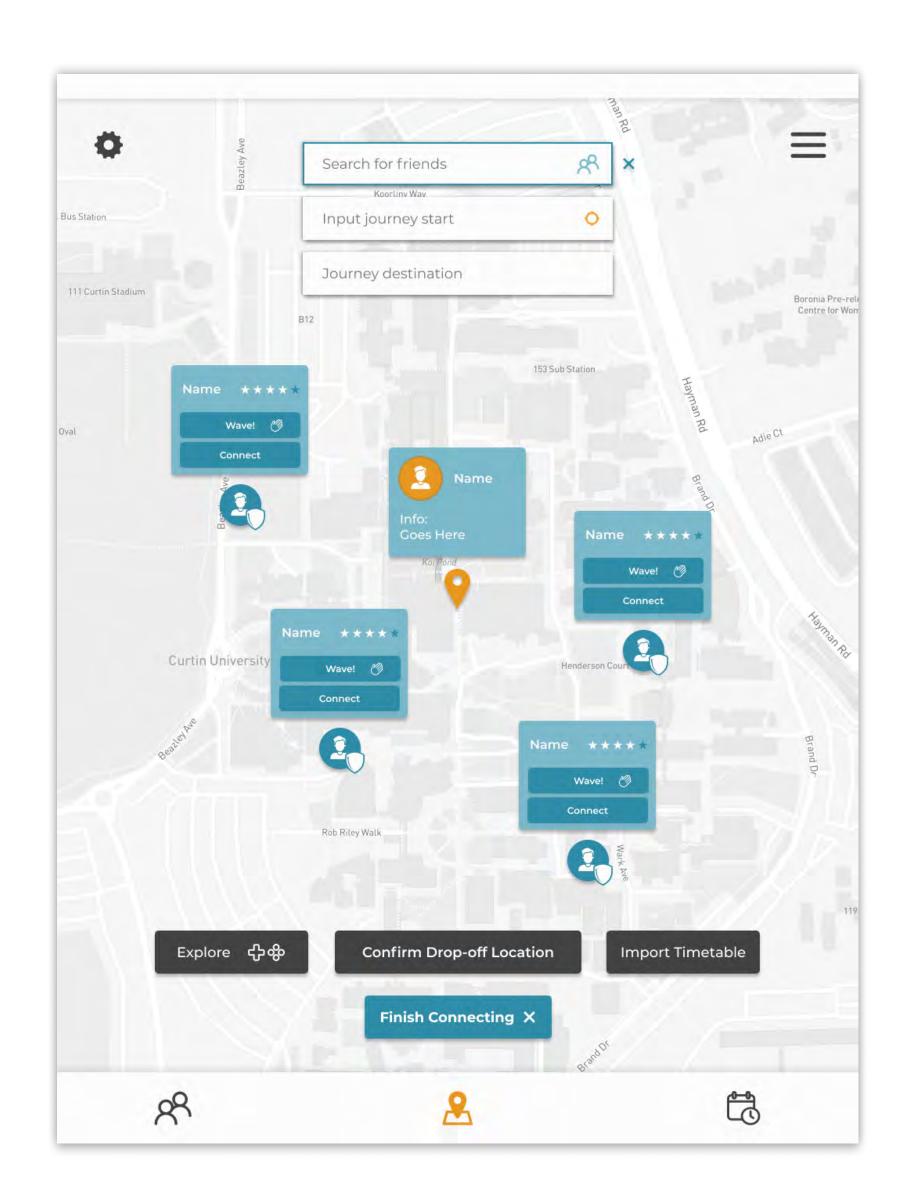


In-Class Feedback

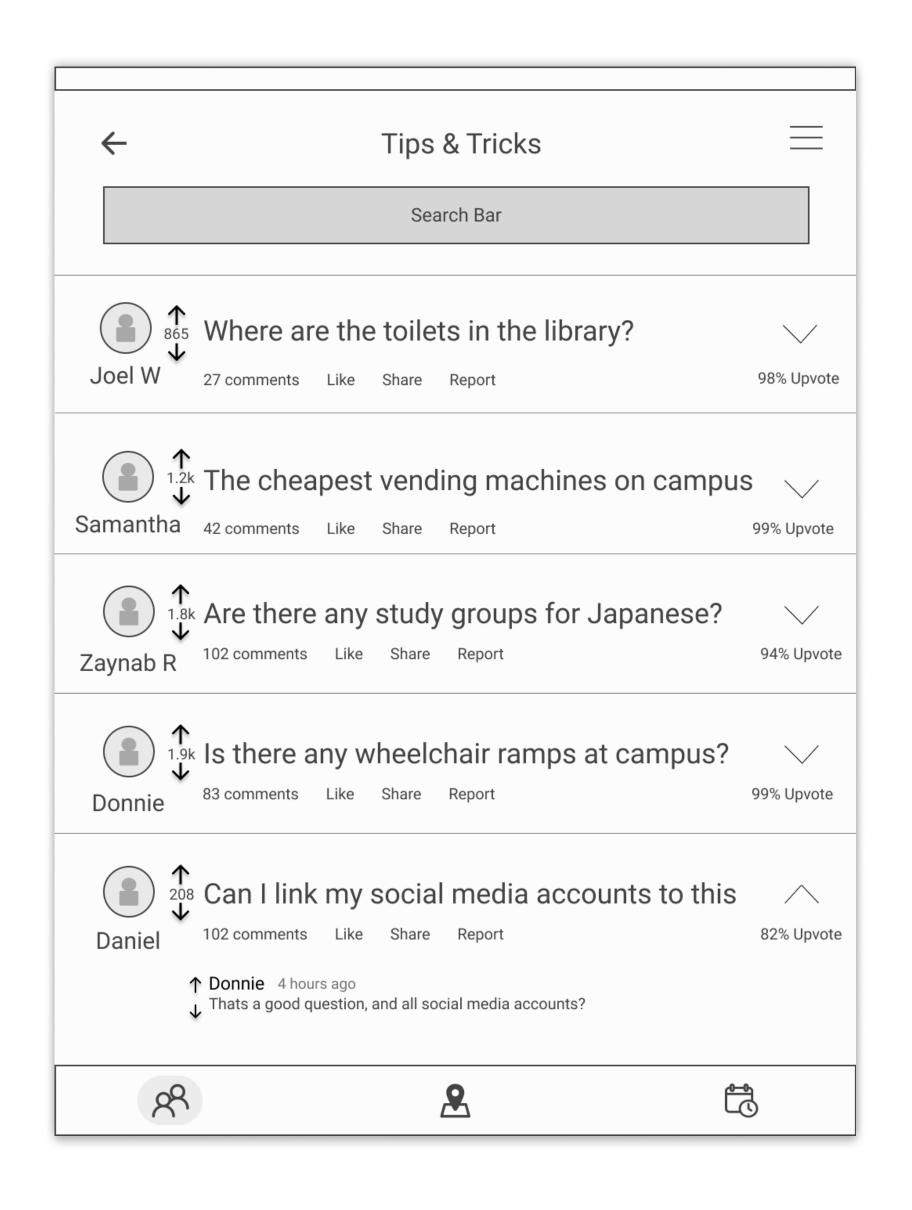
We recieved feedback in class about how our low-fidelity wireframes could potetnially be improved. This feedback was considered when designing our high-fidelity UI.

Feedback

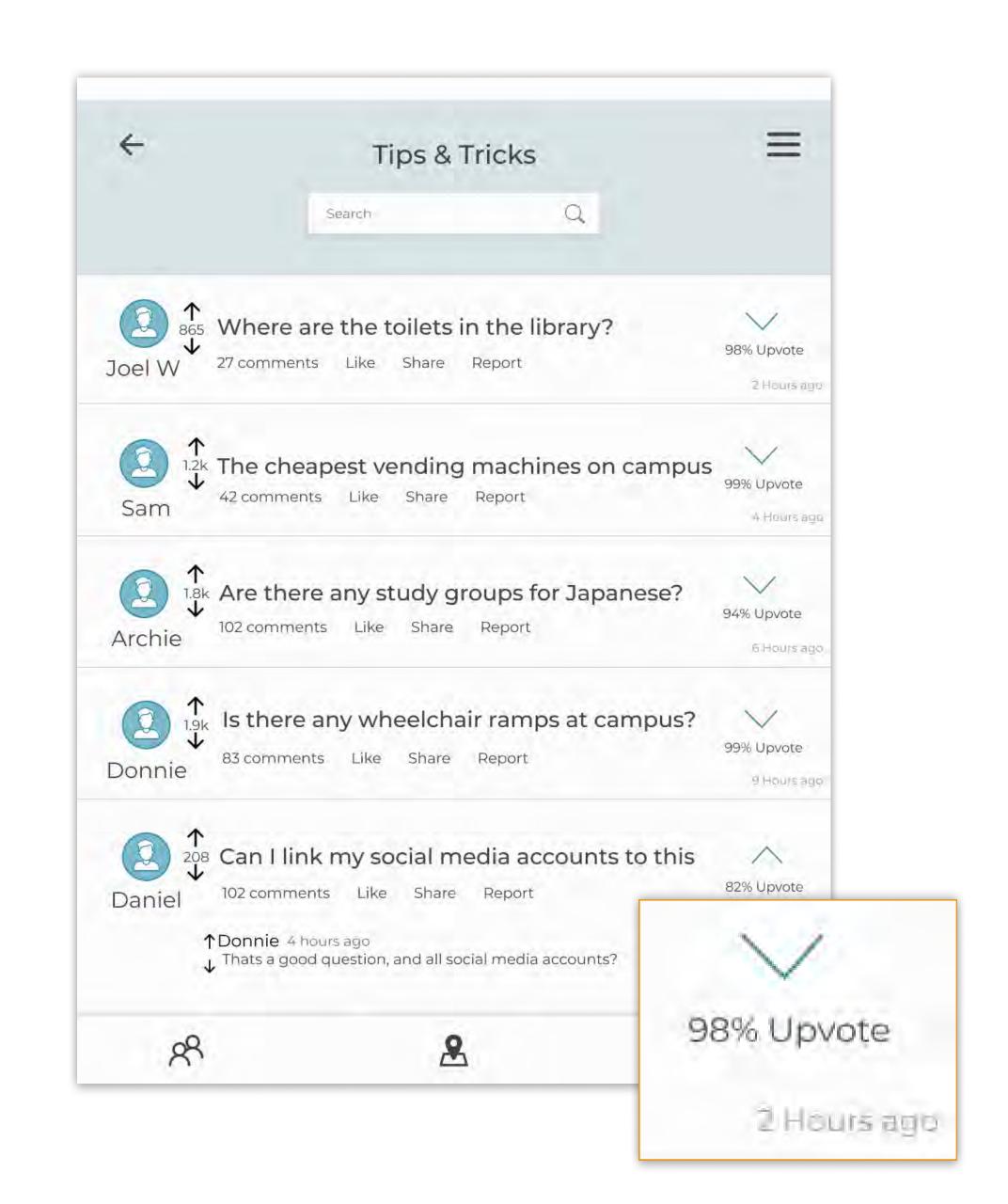


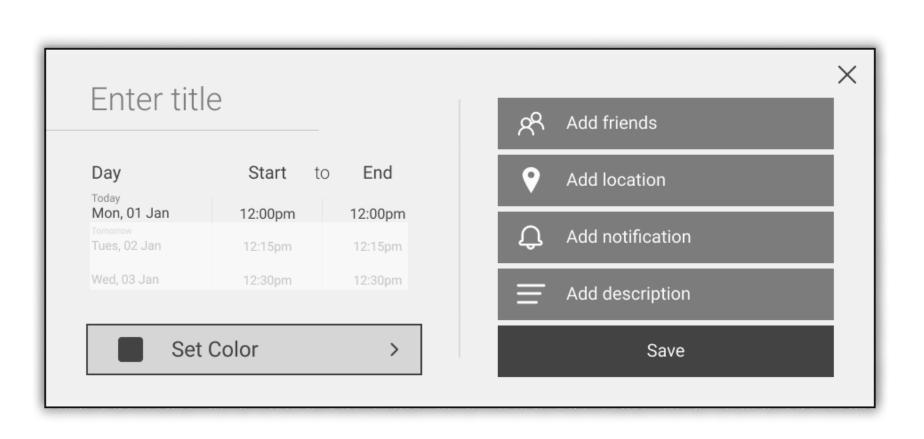


- Connecting with guides and friends could all be done by redirection to the main map
- Guides should be easily identified, using iconography
- Personal info of guides should be hidden, rather include options to wave or connect



• Include 'last commented', so users know how active the threads are





- Enter title

 Add description...

 Day Start to End

 Today
 Mon, 01 Jan
 Tomorrow
 Tues, 02 Jan
 12:15pm
 12:15pm
 12:30pm

 Save
- Descriptions could be added similarly to the title
- Iconography could be implemented for adding friends, location & Notifications to create a cleaner UI

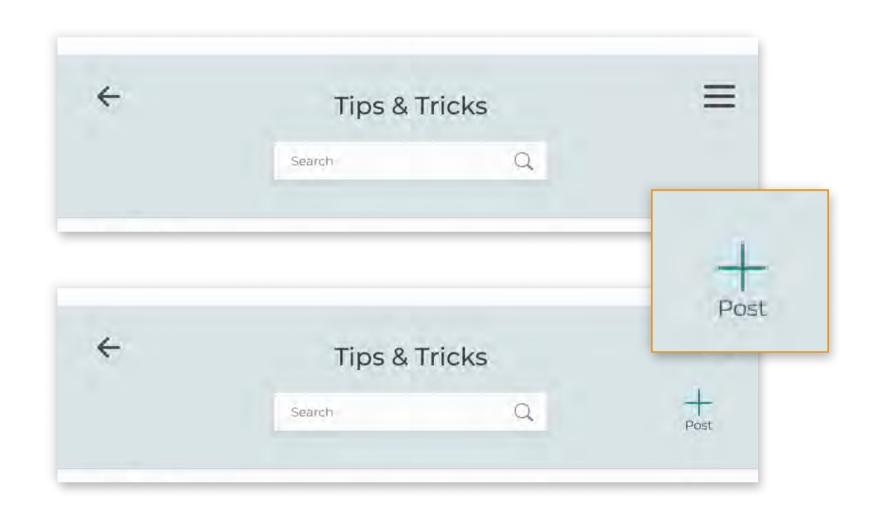
High-fidelity User Testing

After refining our prototype and creating our high-fidelity designs, we organised some more user testing sessions.

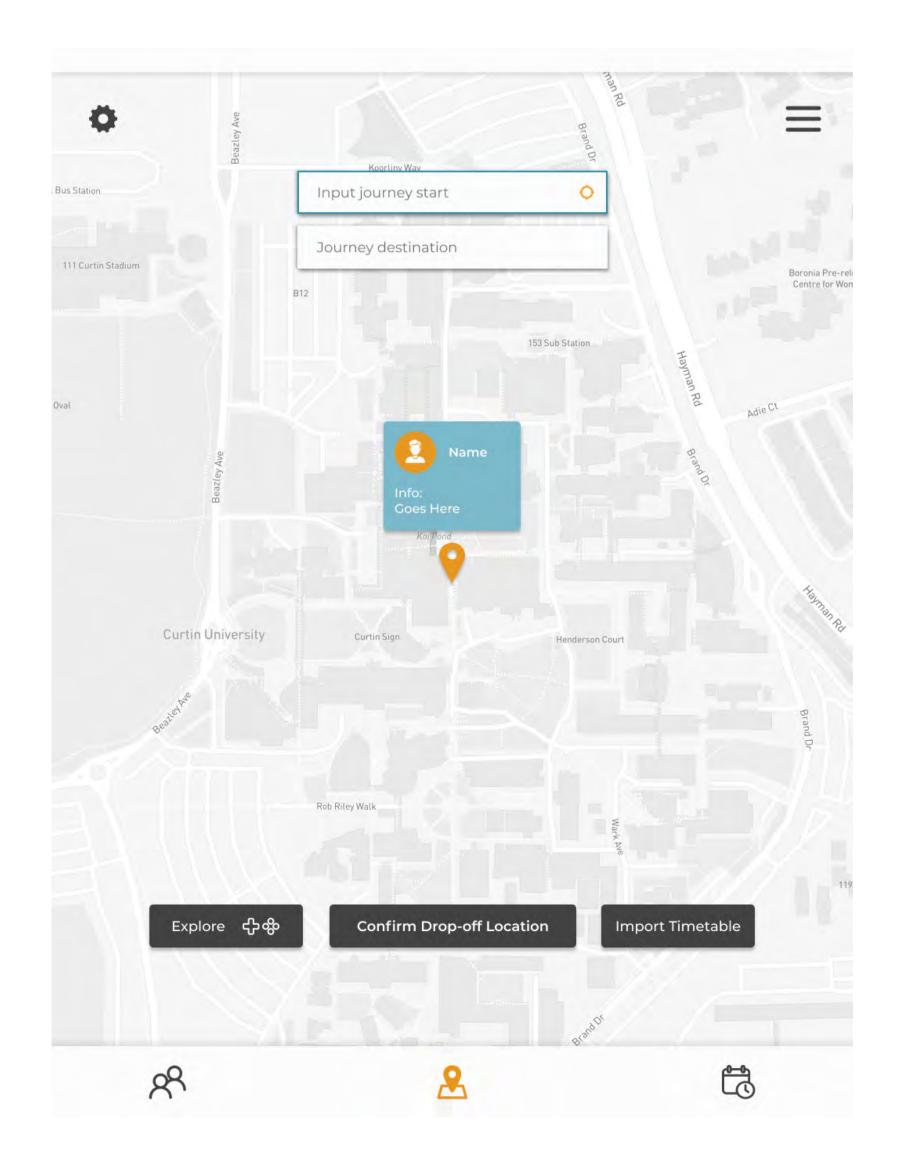
User Testing Conclusions

- All users were able to complete the tasks provided.
- · All students stated that they would use a finalised version of this application, it it were developed.
- Multiple users would have benefitted from being presented with a brief tutorial at the start of using the application.
- Importing timetable was the most confusing part of the experience.
- One user discovered a flaw in our design, ie. there is no place to post in the Tips & Tricks Forum, within our current UI.
- User group did not vastly affect the experience or success of the users we tested.

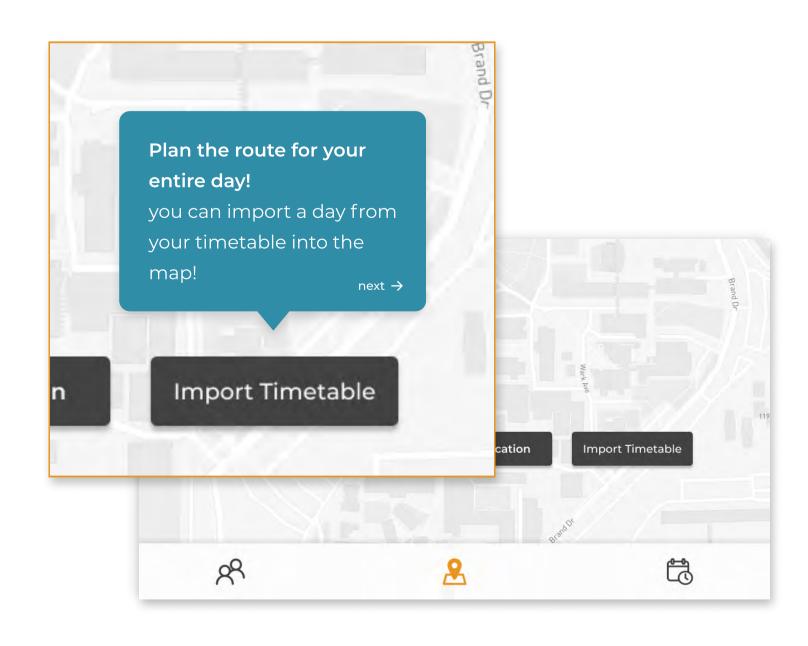
Potential Improvements



Option to add a post in the Tips & Tricks forum



- Tutorialisation was mentioned by one user and many users would have benefitted with a tutorial explaining the more complicated features of the application
- This strengthens our previous conclusions during low-res user testing



Part 3: Initial Prototype Design Testing

Contents

| Project Overview | | 1. |
|-------------------------|--------|----|
| Problem Statement | | |
| Prototype Concept | | |
| Information Archite | ecture | 3. |
| System map | | |
| Task-flow Diagrams | | |
| Prototypes | | 7. |
| Low-fidelity Prototype | | |
| High-fidelity Prototype | | |
| Low-fidelity User Testi | ng | |

Project Overview: Problem Statement

First year students at Curtin University face many problems. Two of the main problems include; trouble with campus navigation and difficulty with time management. These problems impact students by increasing stress, causing them to be late for class and making it harder to successfully submit work on time/to a high standard. The well-being & success of first year students is one of Curtin University's chief priorities and therefore they believe a solution must be found.

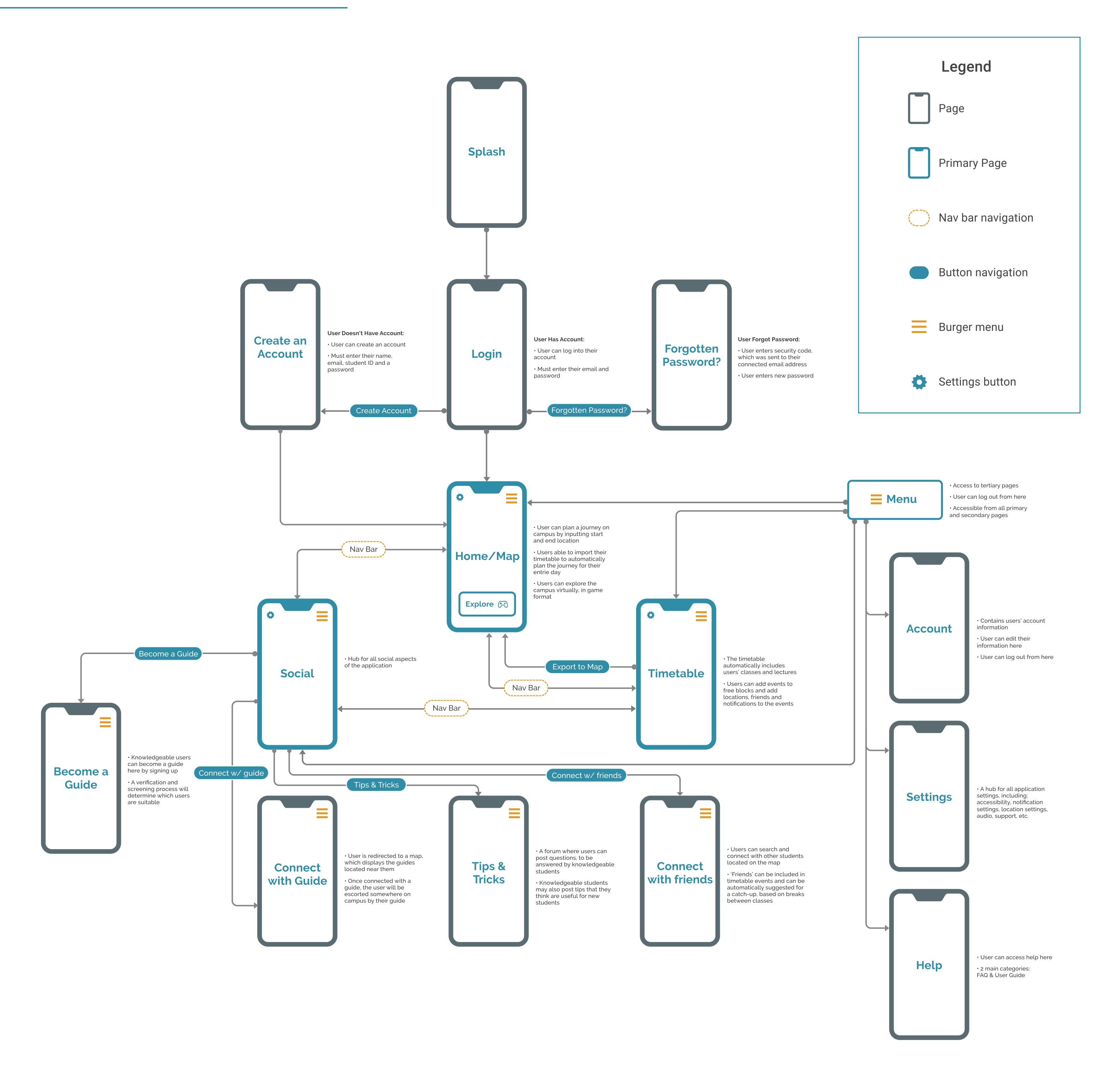
A successful solution to this problem, shared by first year students and Curtin University, would help students to more easily manage their time and navigate around campus in an intuitive and convenient way.

Project Overview: Prototype Concept

Our solution to this problem is a tablet appliction, which allows first year students to easily navigate around campus, using our campus map. The map includes key features, such as; real time campus journey plotting, using GPS services, options for students to import their timetable, allowing them to plan the navigation for their entire day, easily and intuitively, the ability to explore the campus virtually as a student avatar, and services for the connection with verified student guides, who can escort unfamiliar students around the campus.

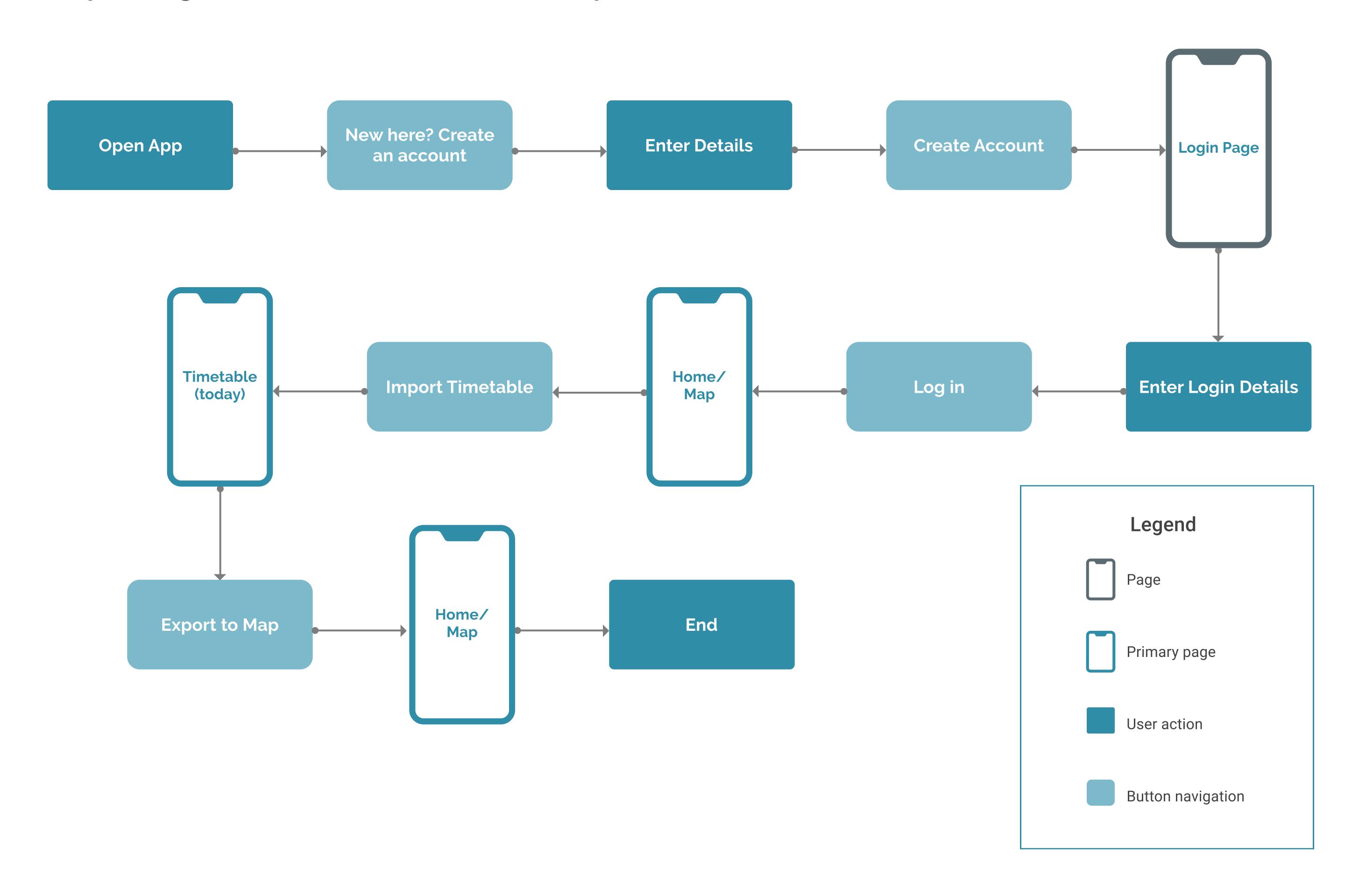
We believe that these carefully developed ideas and features will assist in making University-life easier for first year students and reduce the struggles associated with starting a new course.

Information Architecture: System Map



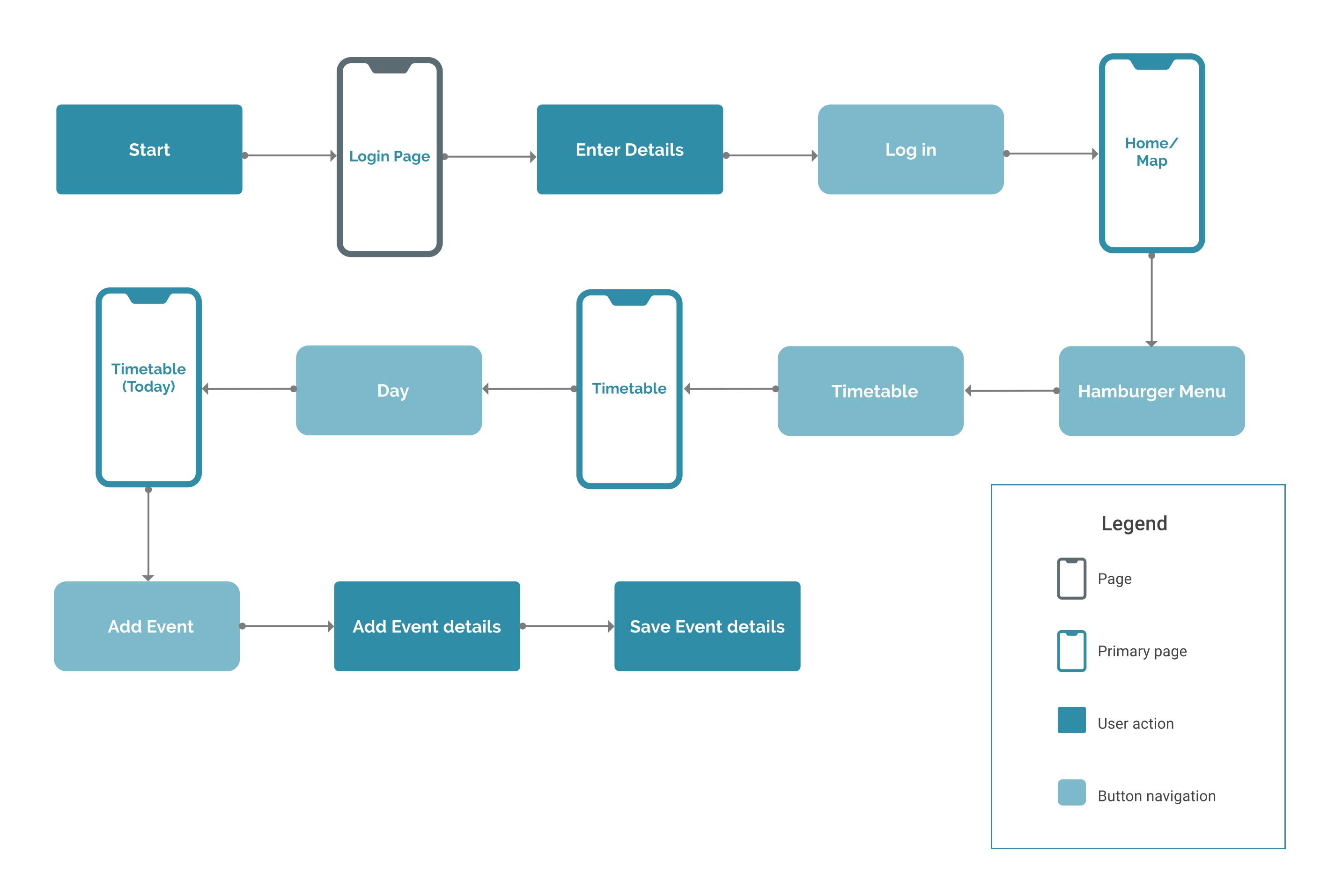
Information Architecture: Taskflow 1

Importing timetable schedule to map



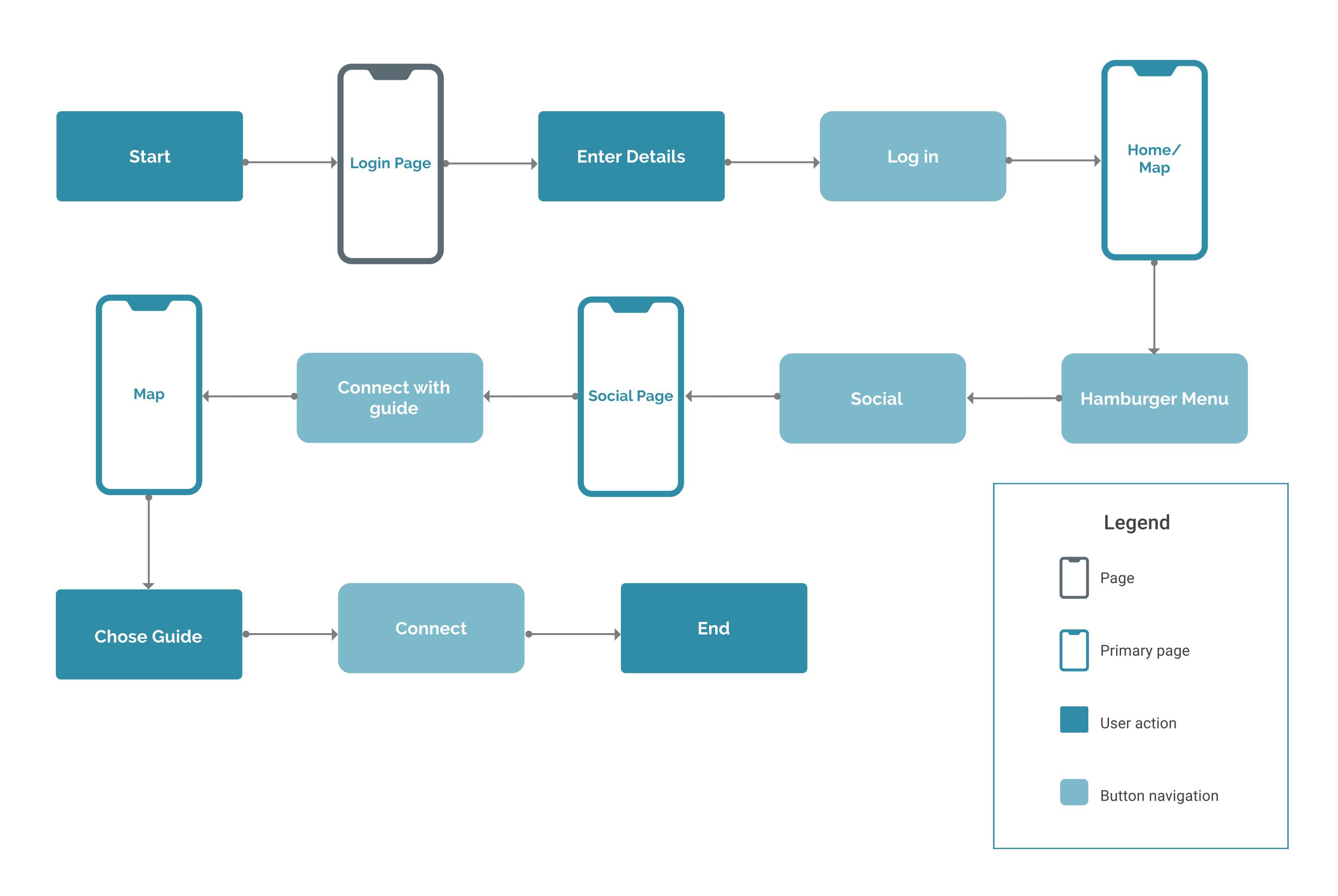
Information Architecture: Taskflow 2

Adding an event to timetable

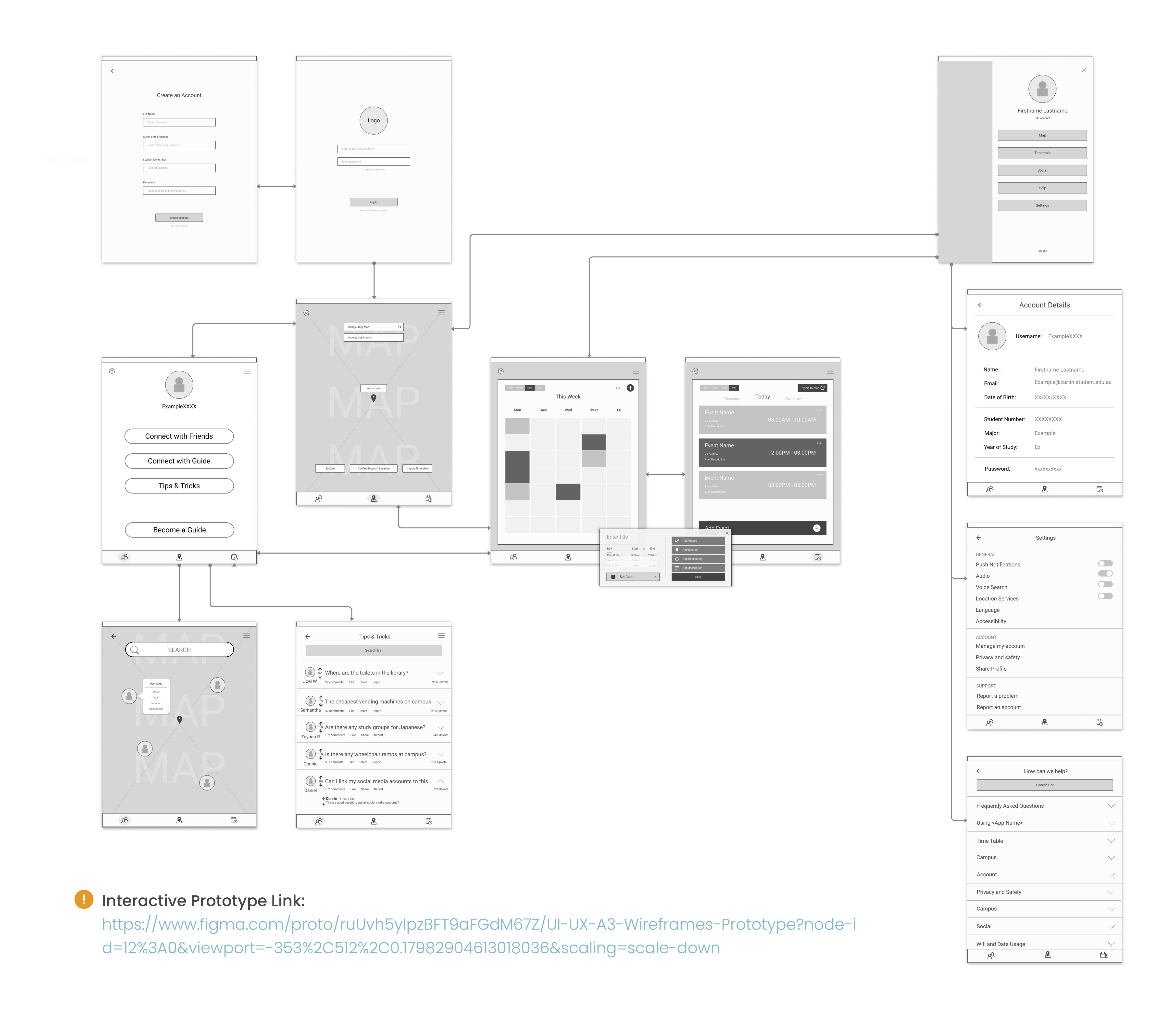


Information Architecture: Taskflow 3

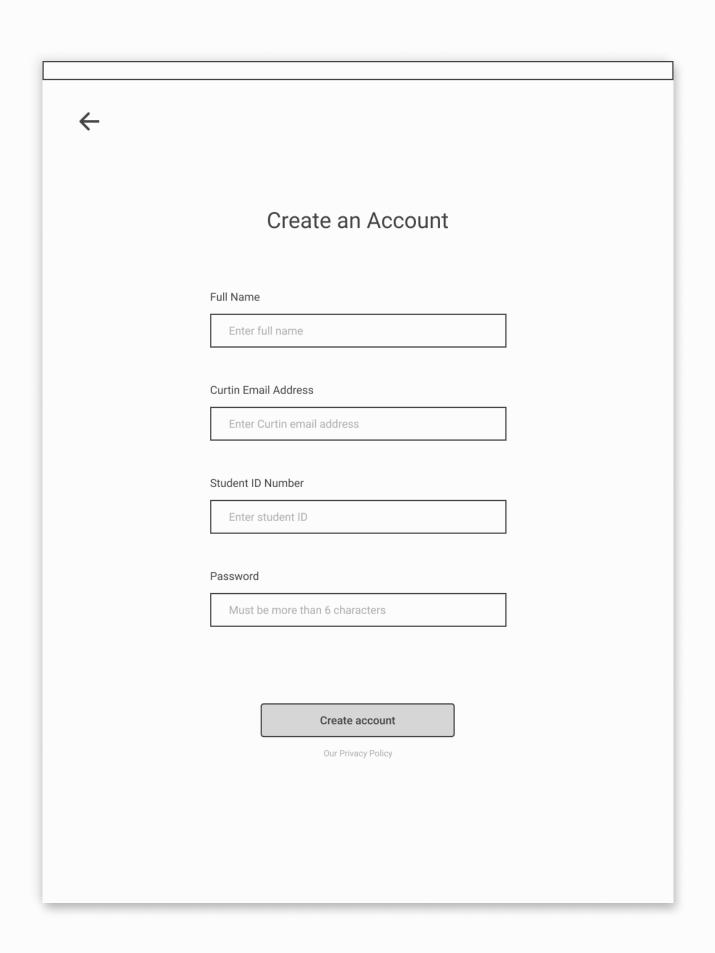
Connecting with a campus guide



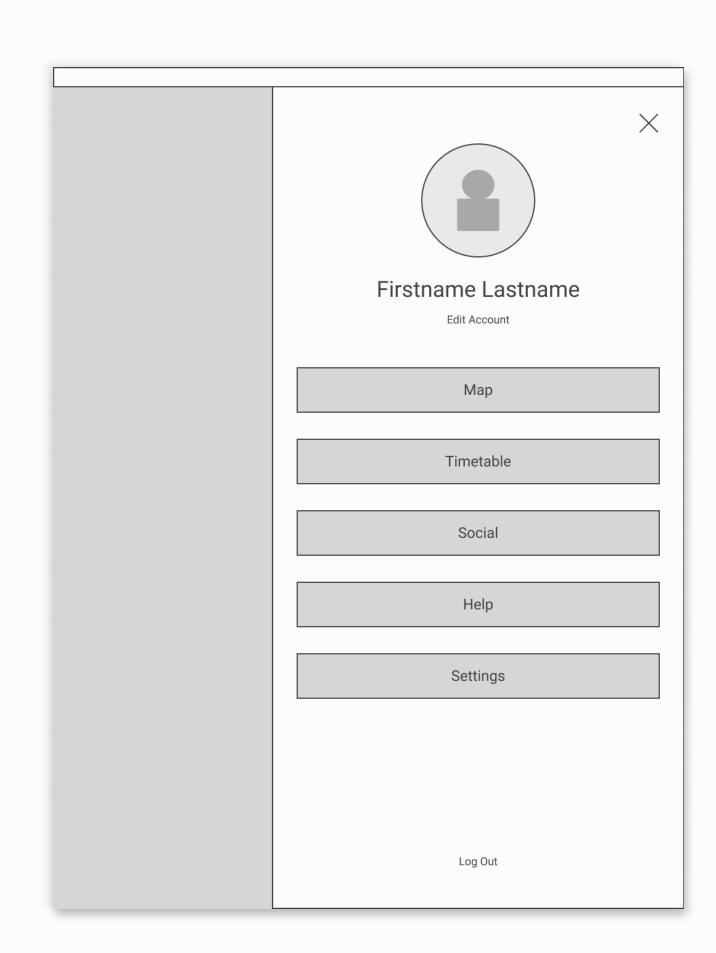
Digital Wireframes



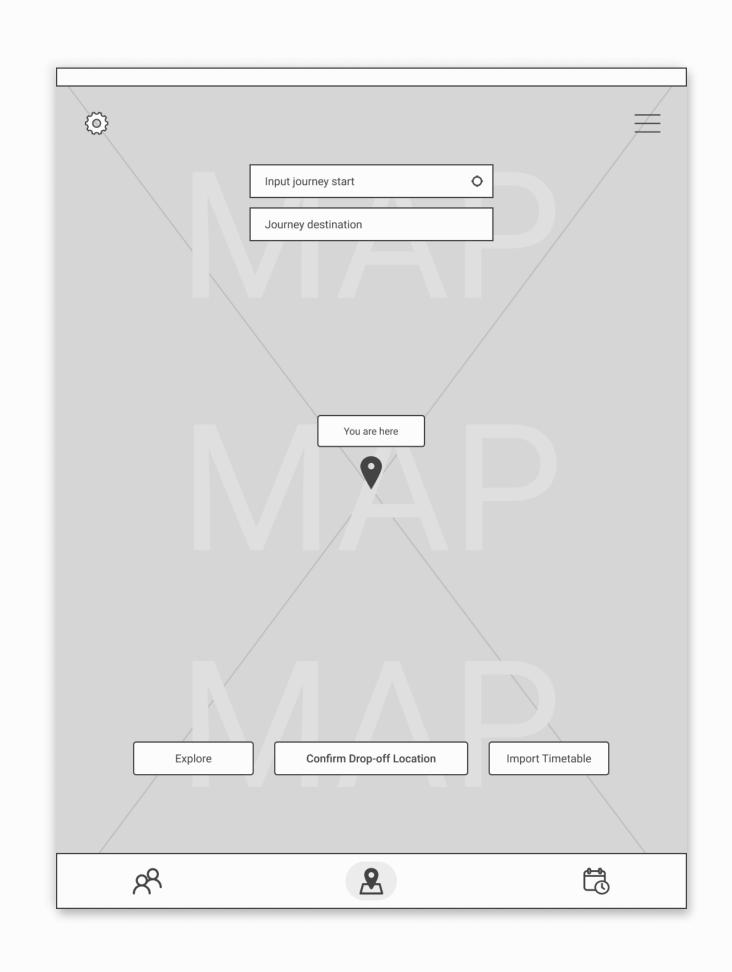
Prototype: Low-fidelity

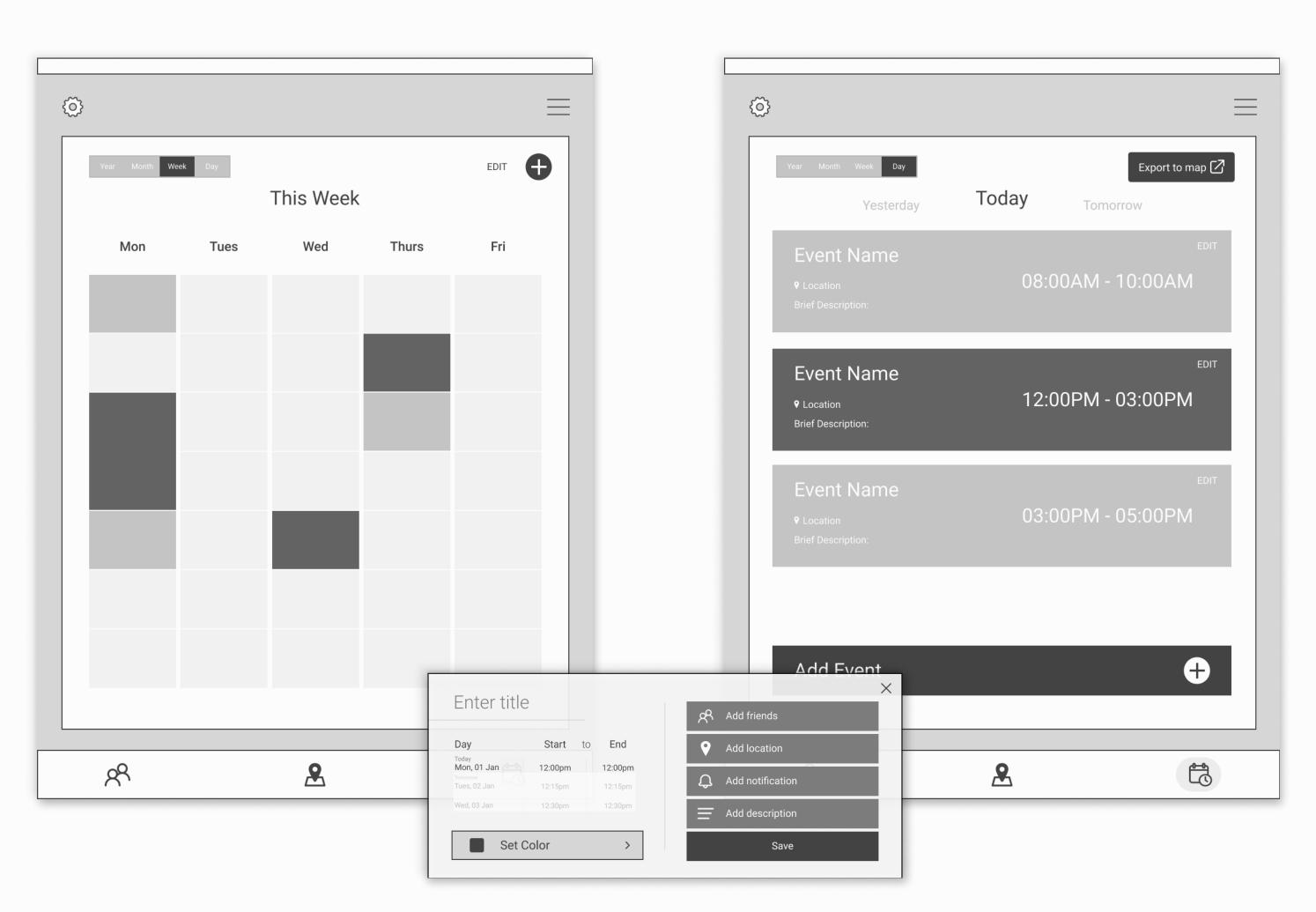




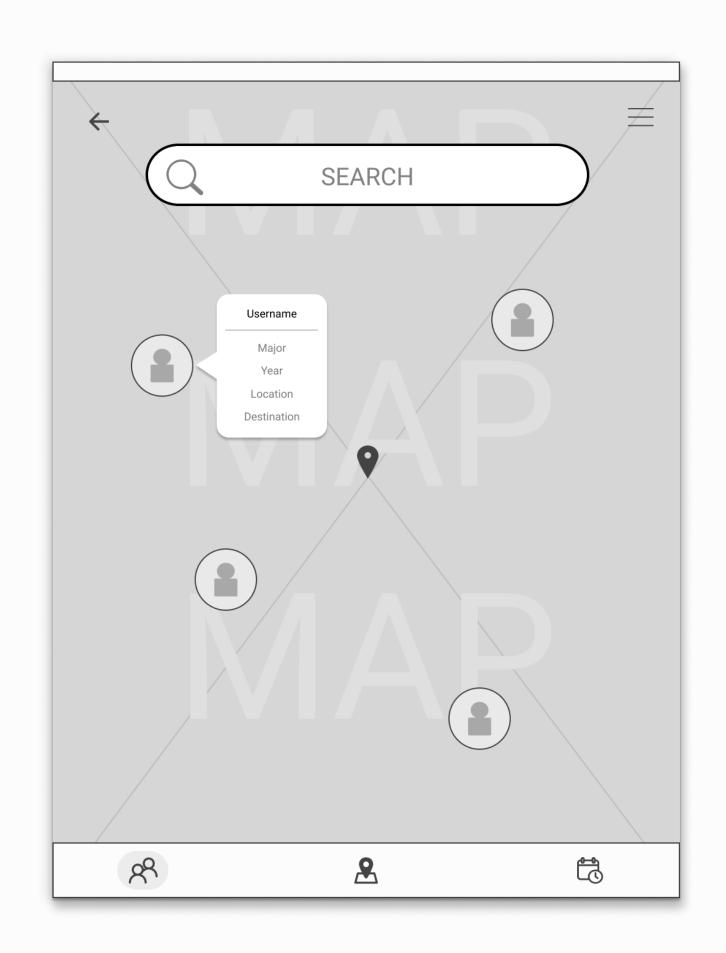


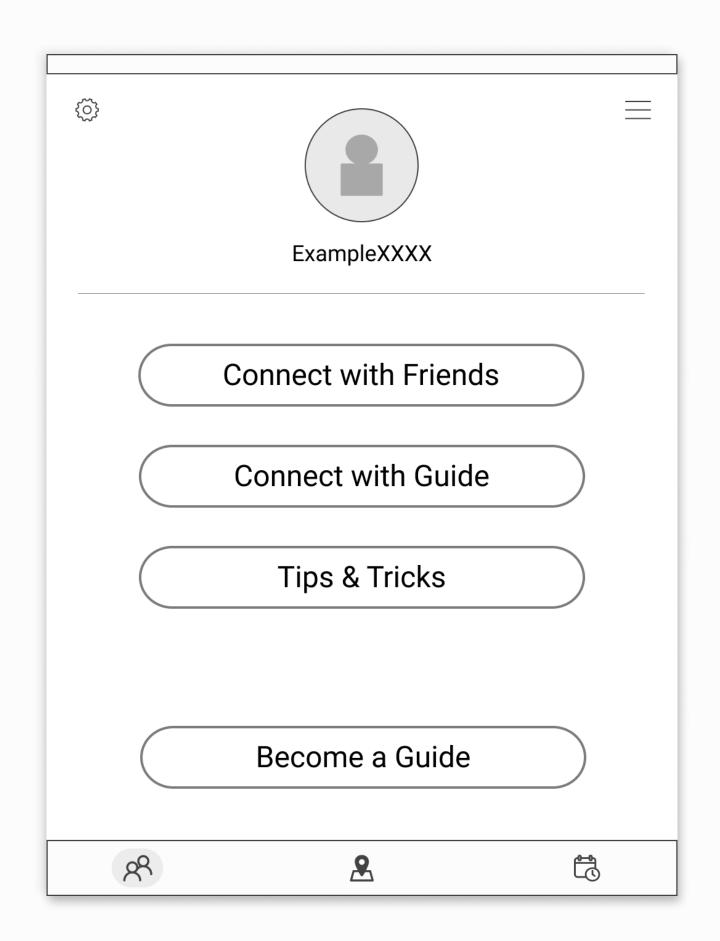
Prototype: Low-fidelity

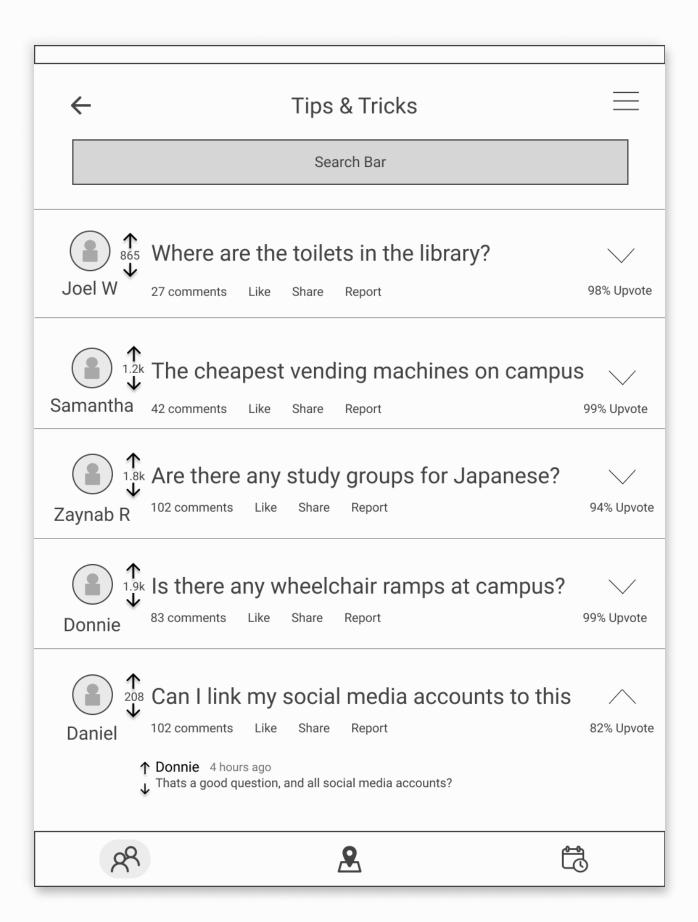




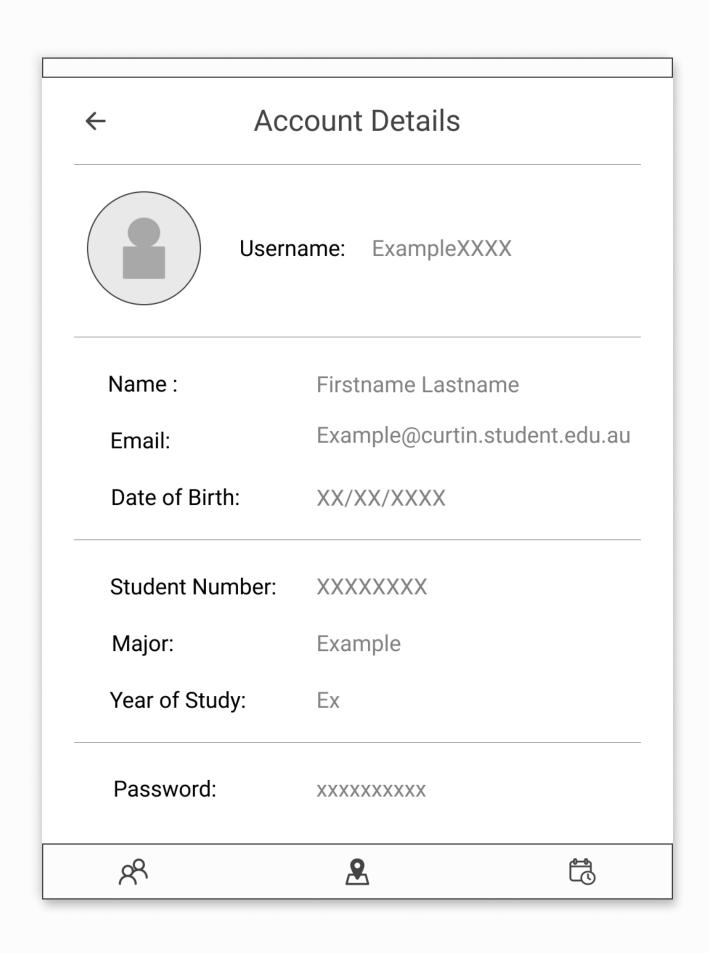
Prototype: Low-fidelity

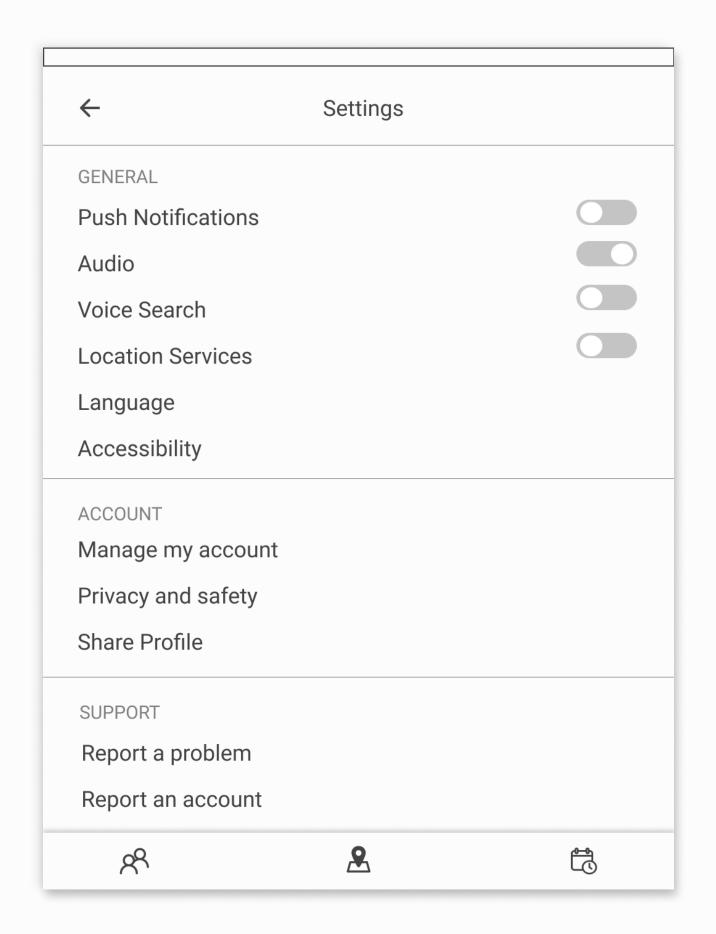


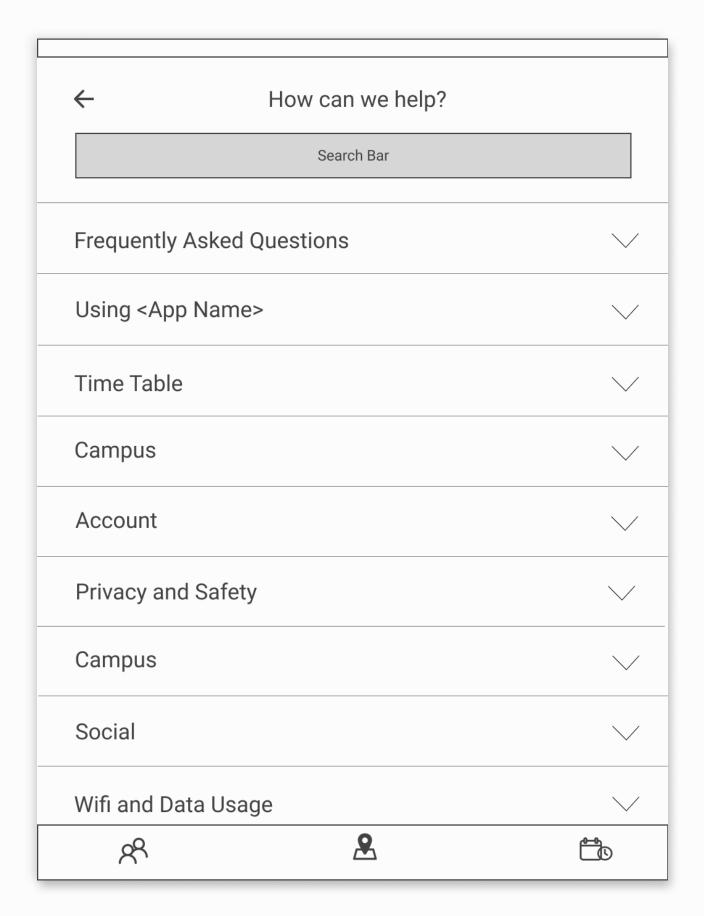




Prototype: Low-fidelity







User Testing: Low-fidelity



Blake Fordham

User group: Fresh first year student

Previously used university applications:

Blackboard

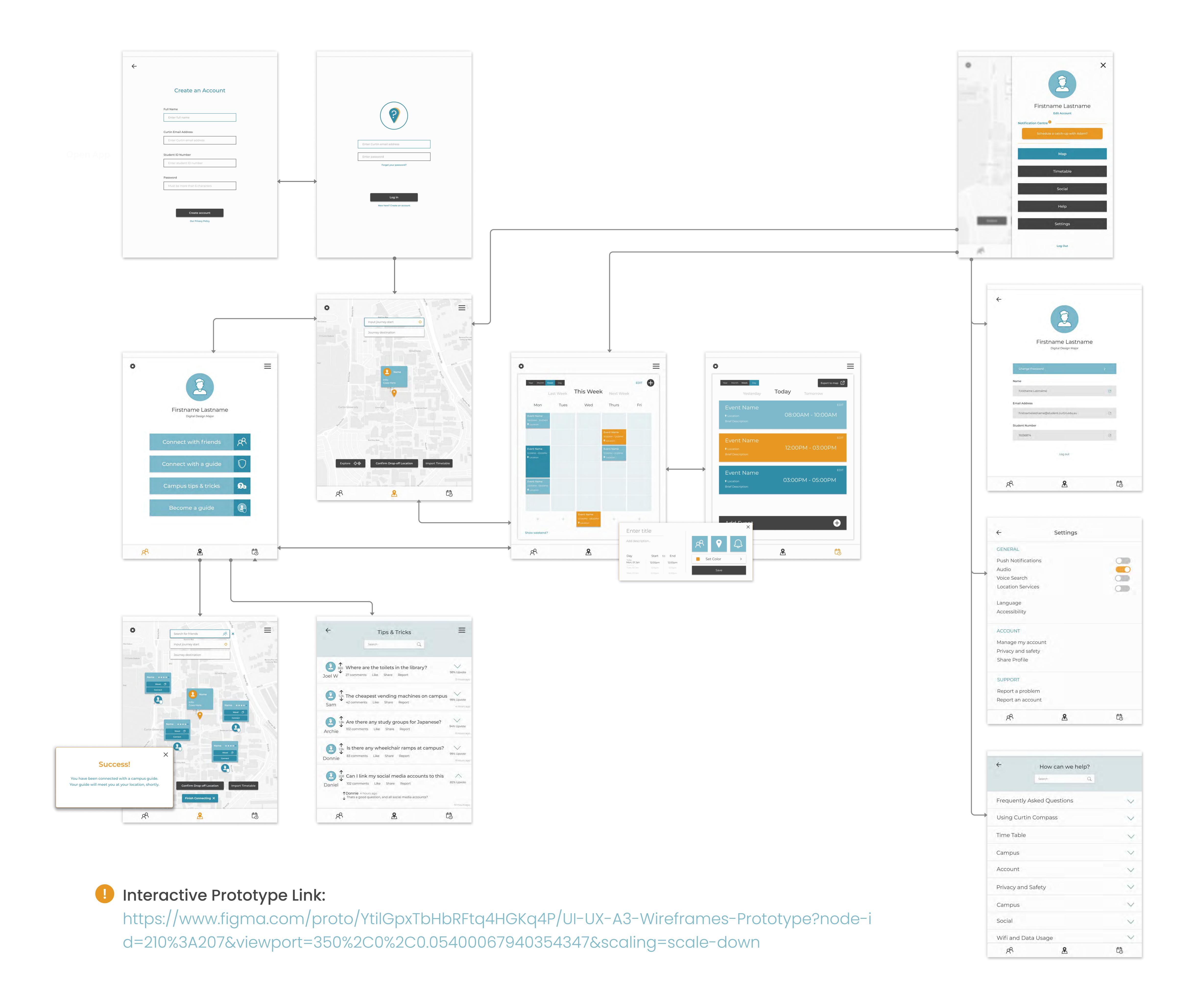
User Observations

- User struggled to navigate to the account details page
- Unsure about the functionality of 'import timetable' button

User Feedback

- All tasks were very easy to complete.
- Could make the 'edit account' button more obvious
- More information needed about importing timetable into map.

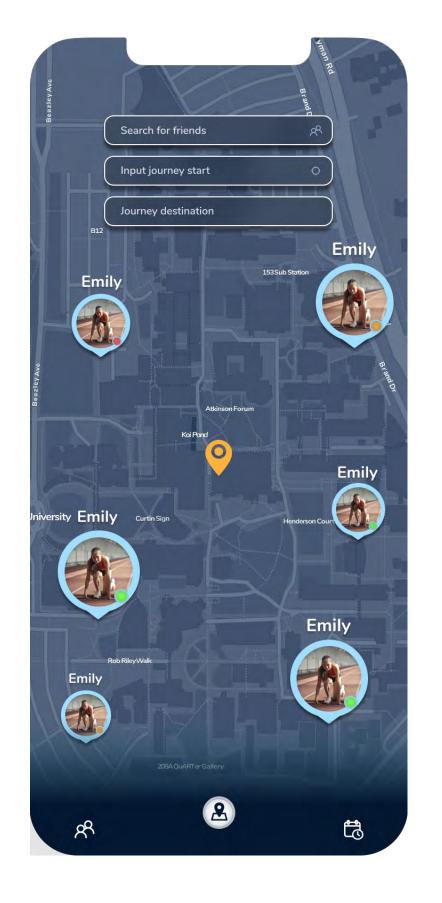
Final Screen Designs

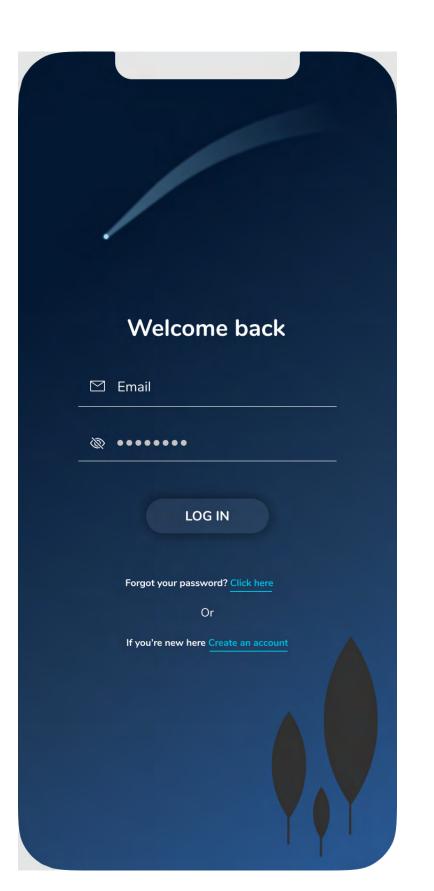




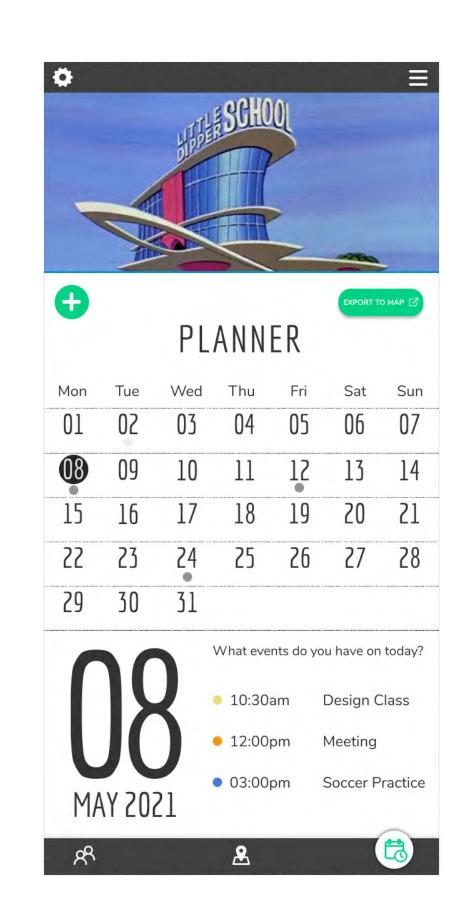
Final Mock Ups:

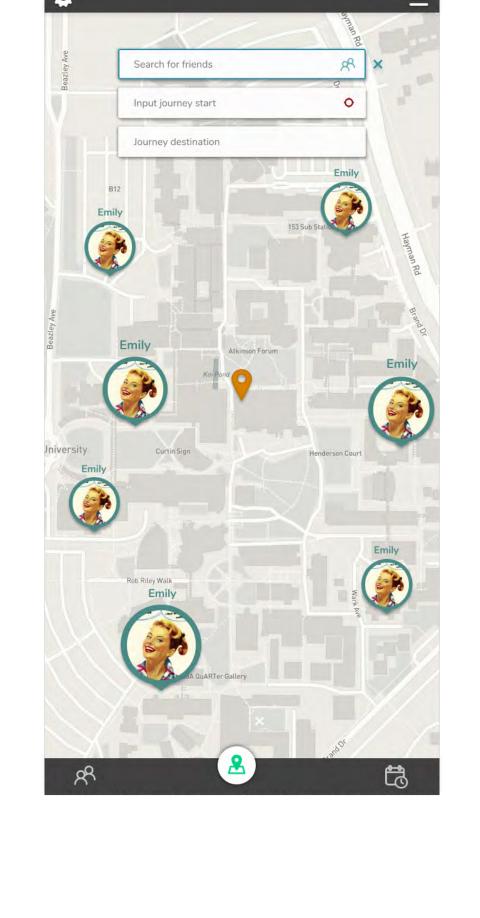




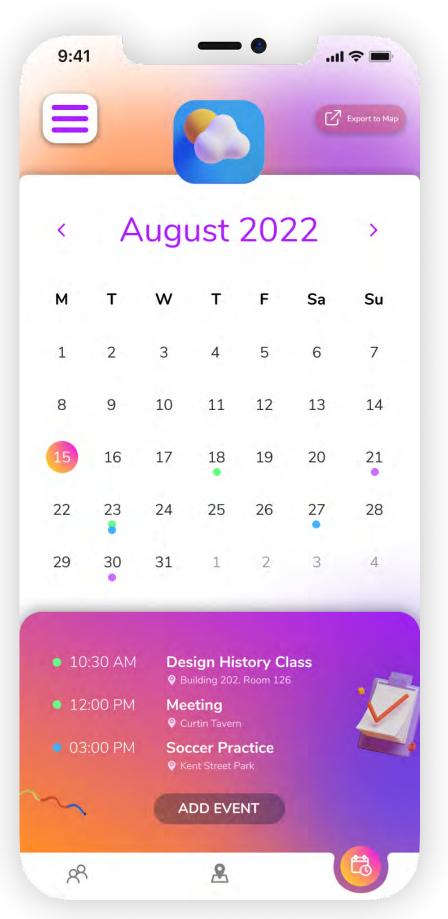


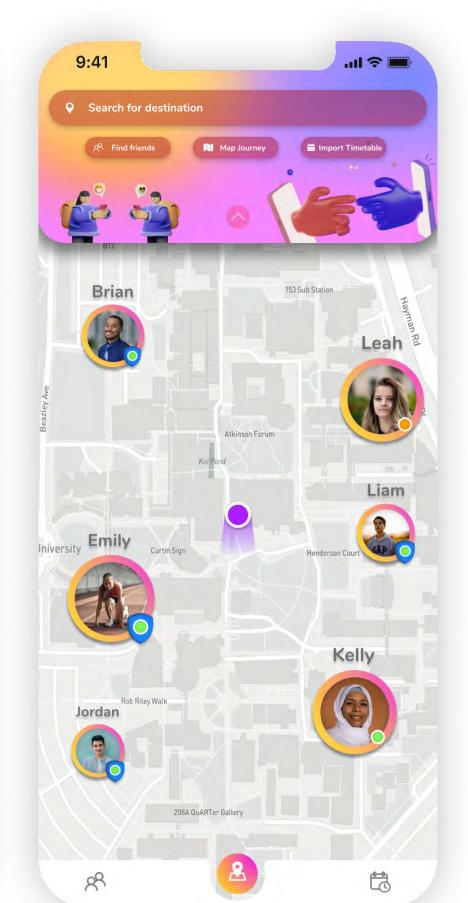


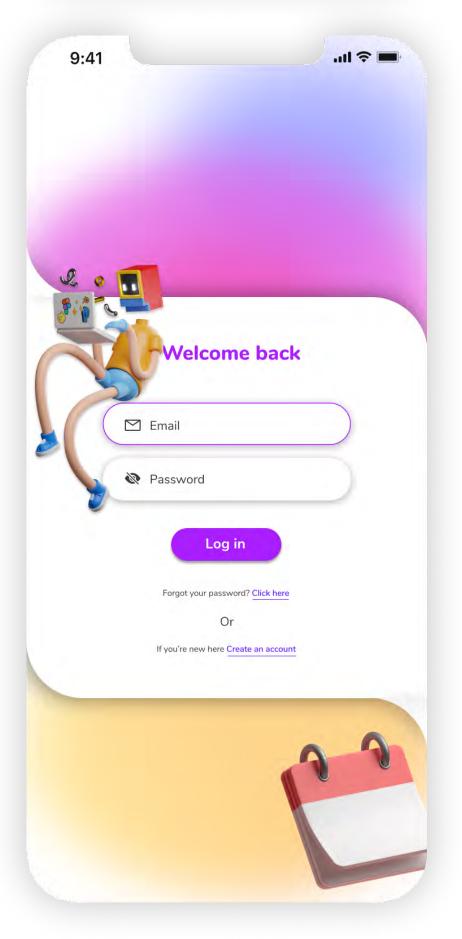












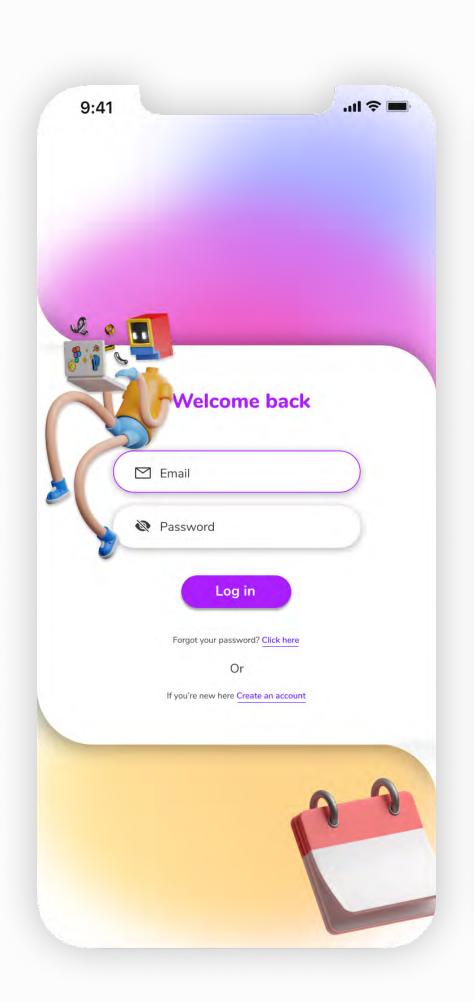


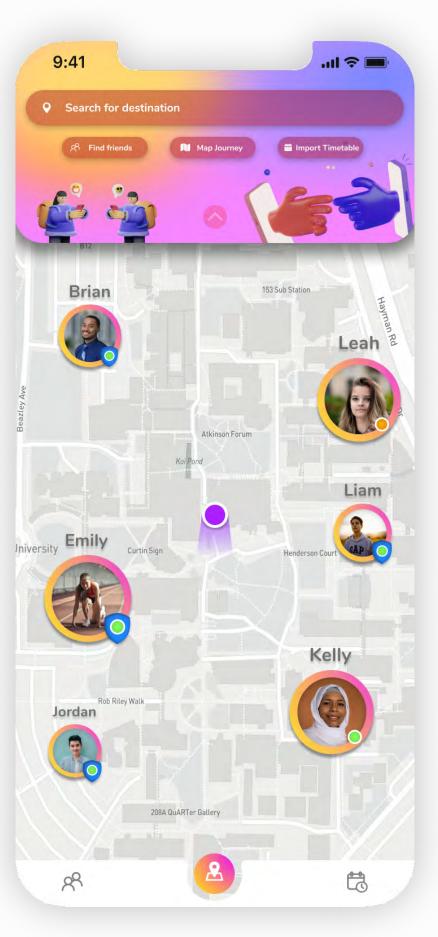




Chosen Mock Up

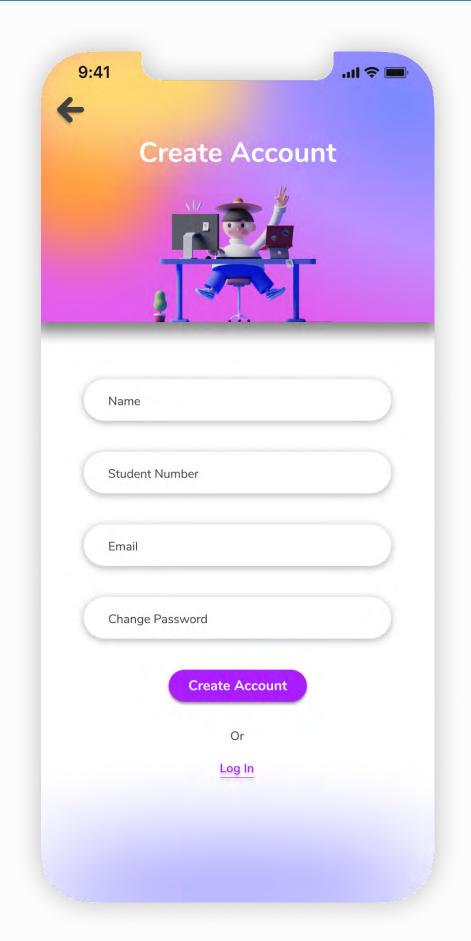




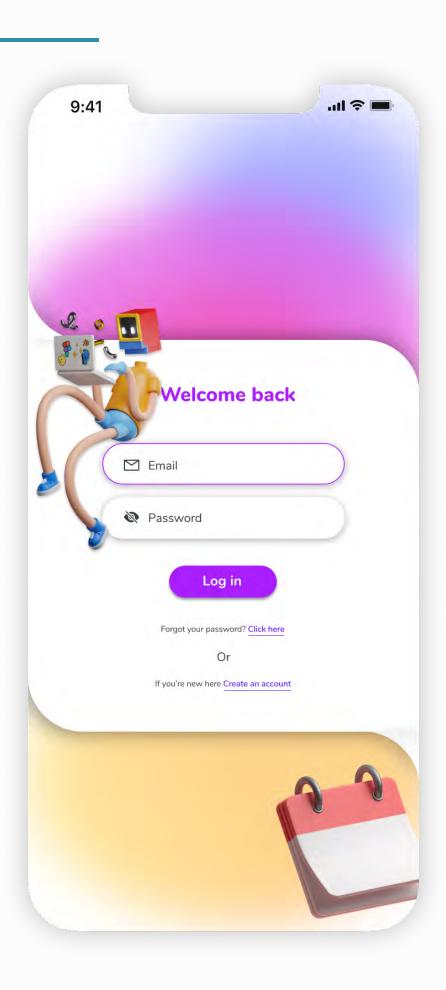


Based off student feedback and tutors feedback, the chosen mock up to finalise the prototypes design will be the 3rd mockup. The use of colours are welcoming and fun, encouraging students to use the application and the use of 3D objects and characters are new design trends that are being utilised.

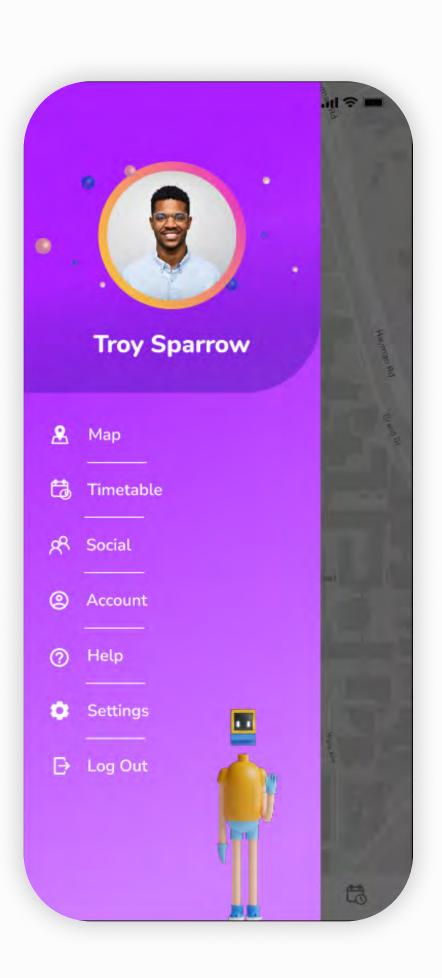
Prototype: High-fidelity Mobile Optimisation



• The users' Curtin ID is linked to their account, automatically importing their class timetable

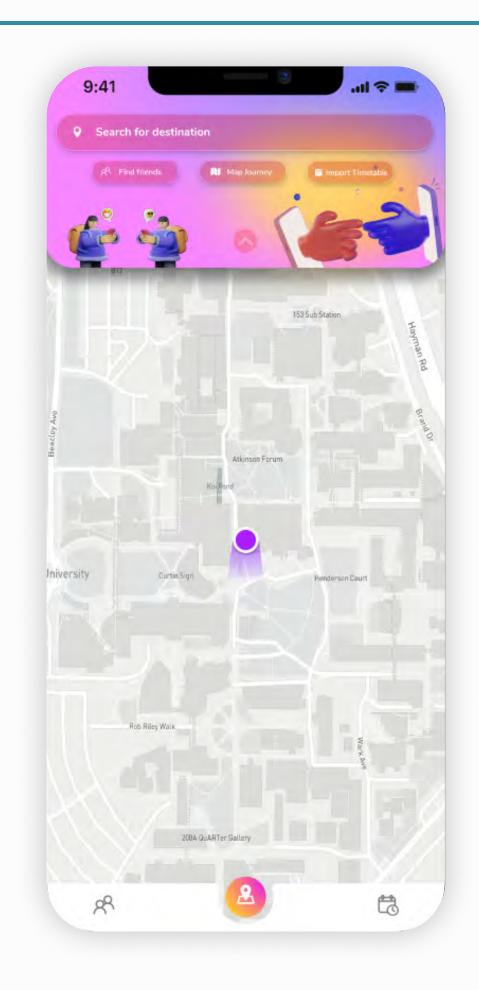


• Input fields are highlighted when selected, to provide feedback to the user

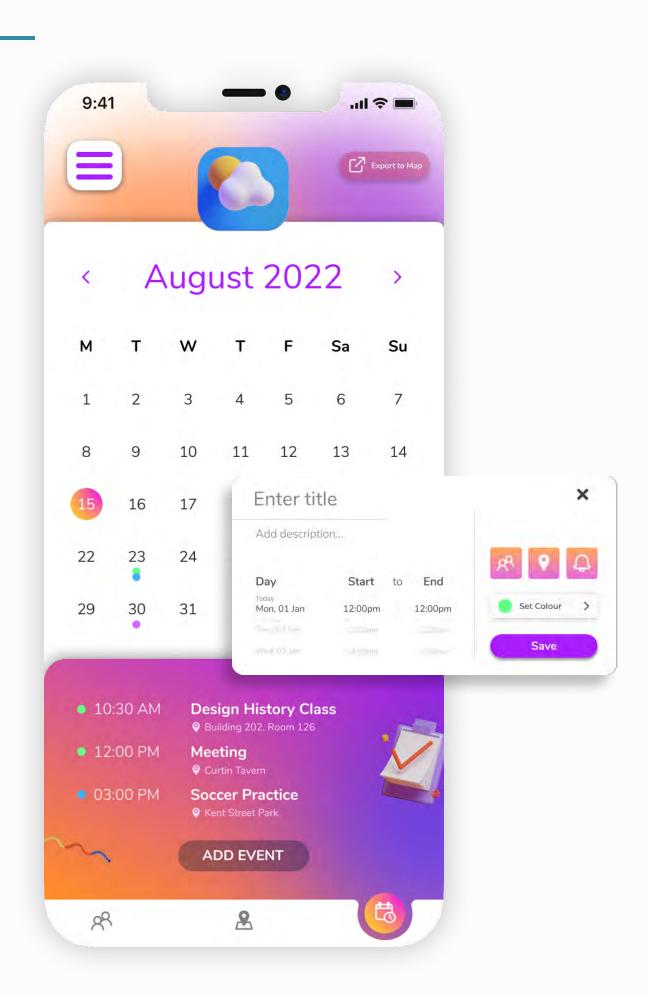


• Menu shows off all pages which can be quicly accessed.

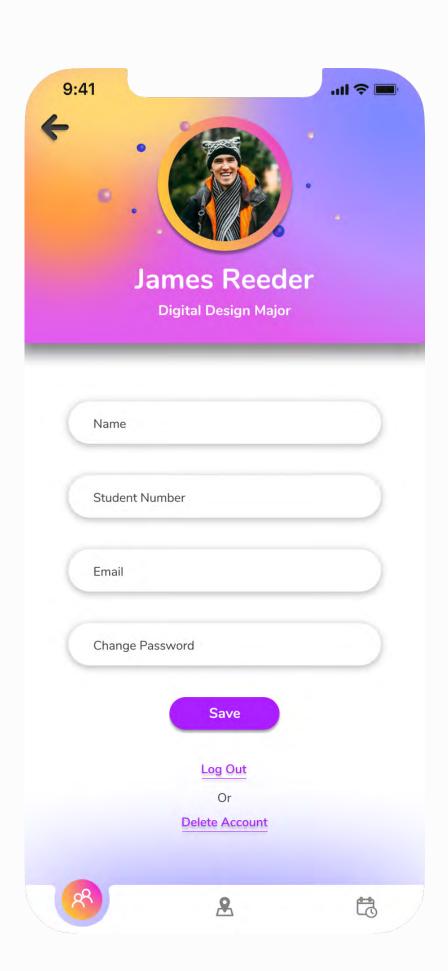
Prototype: High-fidelity



Users can explore the campus virtually

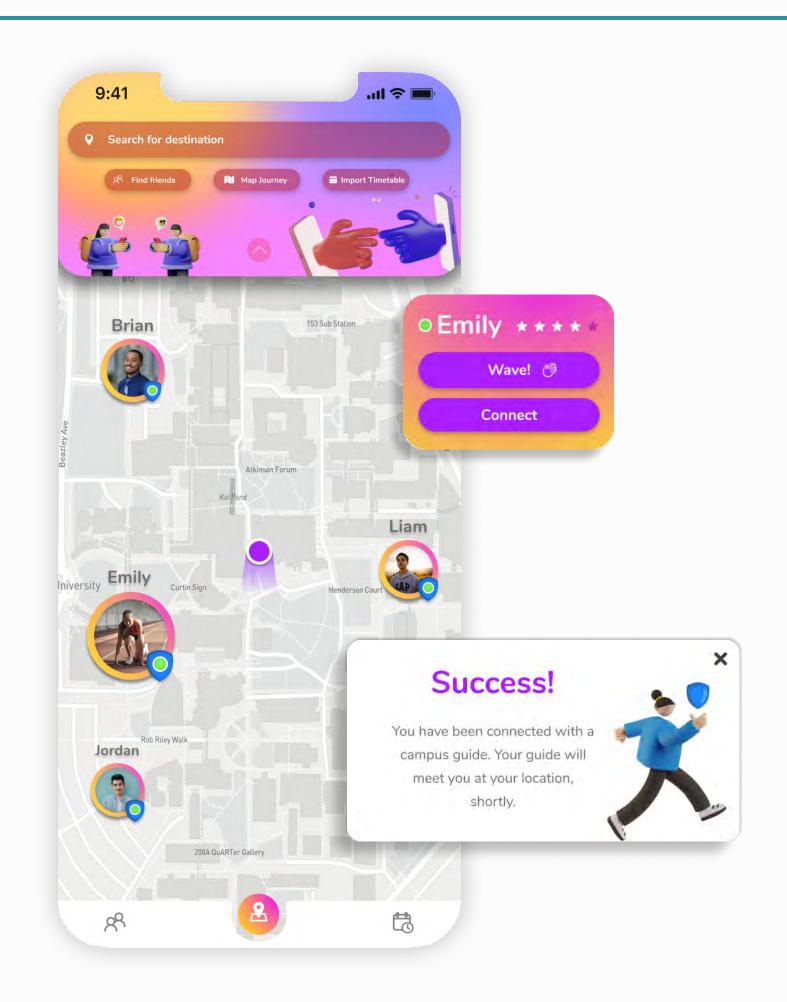


• Users can add their own events to their timetable. This includes adding friends, locations and notifications to their events.

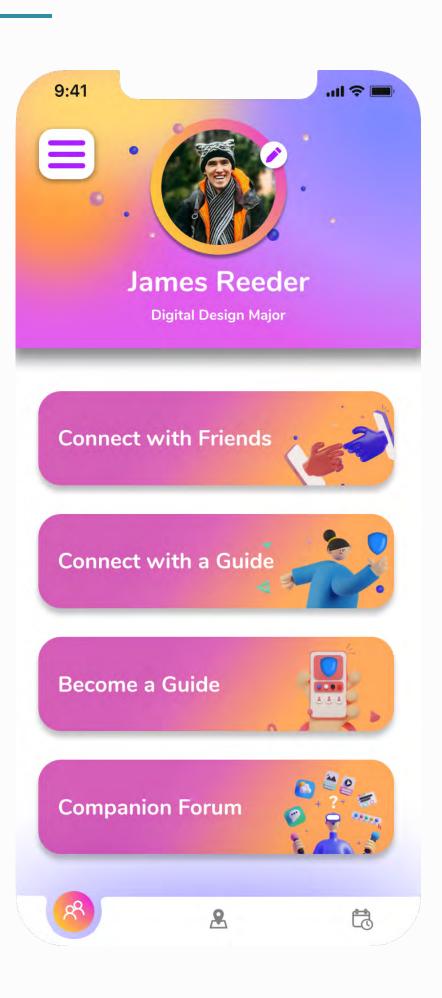


• Users can view and edit their account details within their account page

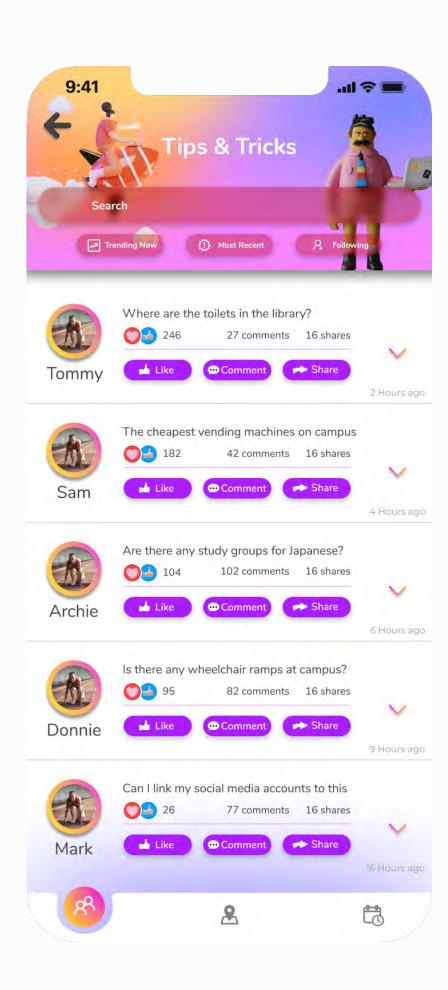
Prototype: High-fidelity





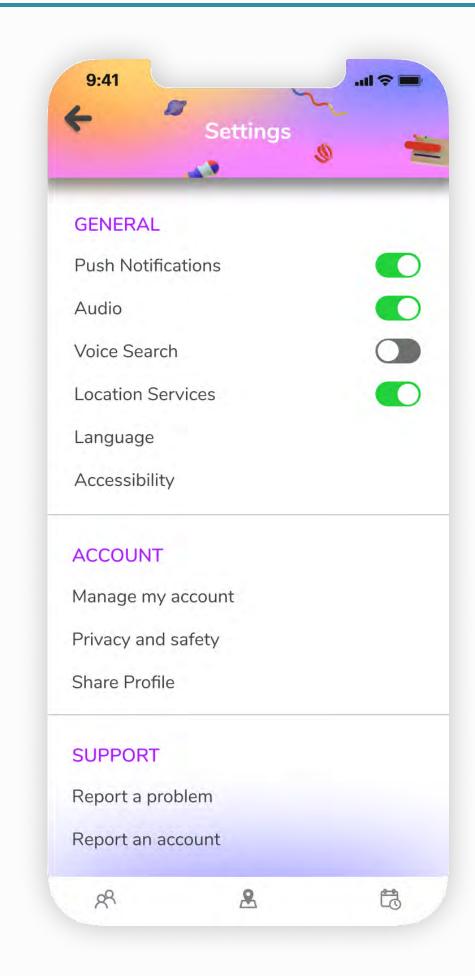


• The social hub provides access to all social aspects of the app, in one convenient screen

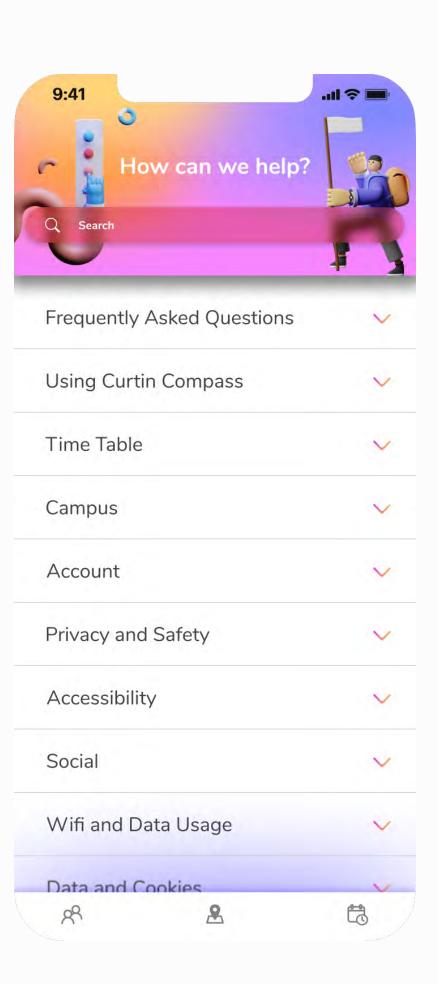


• Users can both ask and answer questions, related to the campus, within the Tips & Tricks Forum

Prototype: High-fidelity



 Here, users can toggle their application settings, such as location services or push notifications



[•] The help section contains an FAQ, a guide on how to use the application and all other relevant information.

USABILITY TESTING REPORT

Michael D'Costa 19162229



EXECUTIVE SUMMARY

Purpose of User Testing

Usability testing helps the UX Designer (myself) learn about quantitive and qualitative data insights. The insights and testing allows for the designer to empathise and understand what the users thinks and wants. This can then allow for further development of the application as pain points can be addressed and fixed.

Methodology

Usability Testing for the Campus Companion application was conducted by face-to-face at different location in Perth, August 2021, by Michael D'Costa.

This testing was conducted for the purpose of understanding deep insights into the testers thoughts. Interviews were done by face-to-face as it allowed the moderator to understand the experience better and identify pain points better. Even though the user wasn't alone, the testing allows to see what the user might do if they were first experiencing this application by themselves.

There were 5 users testing the application. The criteria for testers were that they had to be over the age of 18 and be studying.

Conducting the Usability Testing

- 1. Users were asked questions to determine if they were of the correct demographic.
- 2. The users were given an introduction of the application and were given an explanation of the testing and how they would help.
- 3. The application were simulated on an Iphone 11 Iphone 12 Pro Max
- 4. The users were asked to read instructions and answer the questions provided.
- 5. The moderator recorded the session (with users conscent) and took notes during the testing
- 6. The recorded session was then translated into a transcript

General Results

The usability testing gave valuable insights into the positive and negative responses of the application. From this, further developments were made based of the critical feedback of users. Below is a general overview of the insights gained from user testing.

4/5

Users found the app's usability being logical. But some aspects such as too small icons and text size was an issue. 80%

80% of users mentioned they would of liked the log in buttons bigger along with larger text

5/5

Users found they really enjoyed using the app. They found it fun and an easy transition towards university.

5/5

Users enjoyed the aesthetics, they commented the colours were fun and the 3D illustrations made it enjoyable.

The Report

The testing report includes details of how the usability testing was conducted, the results that were discovered and the changes that were made.

GOALS

Collate suggestions from the target audience on how to make the app better

· I want to see if the target audience have any suggestions that I may adapt to make them enjoy and retain their interest within the application. I want the application to be user-centric and design for the users.

Discover any issues or bugs that might be in the app

· I want to see an outside perspective if any testers may find some problems that I may have missed when designing and prototyping the app. I also want to ensure that the designs, functionality and purpose correlate with the user, making sure the different elements in the application are justified.

To find out if the target audience sees this as an app they would use

• I want to conduct tests for them to try out the application and see if they would actually use the application if launched. I want to see if they would use it and if not, how can I improve the application to make them more incline to use it.

Specifically, I want to determine whether:

- Students can connect with a guide
- · Students can add an event to their timetable
- Students can access the companion forum for tips and tricks
- · Encourage students to use a university application to help them be introduced to university life

METHODOLOGY

OUTREACH & SCREENING

• In the outreach and screening of testers, we ensured to get the relevant target audience and attempt to get a variety of people. From the user testing research, the demographic of testers will be students at university. Specifically, first year students who have come straight out of highschool, mature age students who are returning to study after a period of time and course changed students who might have come from a different university or have changed courses through the year. Focusing on this student demographic doesn't restrict me to test people from different races and cultural backgrounds so having a variety of people can help ensure the success of this testing.

Channels Used:

- · Social Media
- · Word of mouth through friends and communities

Screening Criteria:

- · Must be aged 18 and above
- · Must be studying
- · Must be familiar with app knowledge at least reasonable technology proficiency
- · Must have access to a smart phone
- · Must not have prior knowledge about the app or have tested before

PARTICIPANT PROFILES

| PARTICIPANT | AGE | GENDER | STUDY |
|---------------|-----|--------|---------------------------|
| Participant 1 | 18 | Female | First Year |
| Participant 2 | 19 | Male | First Year |
| Participant 3 | 21 | Male | First Year: |
| Participant 4 | 26 | Female | First Year: Mature Age |
| Participant 5 | 28 | Male | First Year: Mature Age |

100%

of participants were first year students

60%

of participants were Male 40%

of participants were Female

60%

of participants were 21 or younger 40%

of participants were 26 or older

Testing Setup & Questions

Introduction

The first step was to ask the users questions to ensure they were the correct demographic for the testing. They were then given an introduction that explained what the app was about and that they were there to try and achieve several tasks.



Tasks

- 1. Create an account, log in and log out.
- 2. Check your timetable and add an event.
- 3. Connect with a Campus Guide.
- 4. Connect with friends around you.
- 5. Access the companion forum and find a question.

Task: Post-Test Questions

- 1. Was there any main issues you faced when completing the task.
- 2. Can any of the app designs be improved to make the tasks easier in anyway?

App: Post-Test Questions

- 1. On a scale 1-5, how easy was the app to use?
- 2. On a scale 1-5, how enjoyable was the app to use?
- 3. On a scale 1-5, how effective was the apps icons at demonstrating the function?
- 4. If you could change 1 thing about the app, what would it be and why?
- 5. What is your favourite aspect about the app?

RESULTS

Overall App & Usability

USABILITY

ENJOYABILITY

ICONS

AESTHETIC

4/5

Users found the app's usability being logical. But some aspects such as too small icons and text size was an issue.

5/5

Users found they really enjoyed using the app. They found it fun and an easy transition towards university.

5/5

All users found the apps icons were straight forward and exactly what they expected them to be

5/5

Users enjoyed the aesthetics, they commented the colours were fun and the 3D illustrations made it enjoyable.

The GOOD

- All the participants enjoyed the aesthetic of the application, they thought it was a way to make university more fun.
- · All the participants enjoyed the functionality of the app.
- All the scoring was rated a 4 or higher out of 5.
- All users had a favourite feature of the application

The BAD

- Most users thought the icons were too small and thus struggled to press/interact sometimes.
- Some users thought the drop shadow on some of the pages were too dark and large, which they then thought it was interactable.
- Struggled to know what a 'Guide' was when first asked the question and therefore not too sure what to look for.

"simple, aesthetically pleasing and engaging"

"Easy and accessible for the transition into university for new students"

"make it easier to click, make the buttons bigger at the bottom"

"...so connecting with a guide, I would only know what that was once I have used the app a few times"

Creating Account, Signing in & Logging out

CREATE ACCOUNT

SIGN IN

LOG OUT

BUTTONS

100%

All users were able to create an account within the first 10 seconds.

100%

All users were able to sign in within the first 10 seconds

100%

All users were able to sign out within the first 10 seconds

80%

80% of users mentioned they would of liked the log in buttons bigger along with larger text

The GOOD

- All users could easily create an account, sign in and log out without any issues.
- All users were able to navigate to the log out button very easily and quickly.
- Most users commented that the illustrations at the start was very welcoming.

The BAD

 Majority of the users mentioned they would of like larger buttons and larger text as it was hard to read.

"it was easy, very straight forward"

"Make the buttons larger, was hard to click sometimes"

Timetable & Events

TIMETABLE ICON

ADD EVENT BUTTON

ADD EVENT

READIBILITY

100%

All users were able to access their timetable straight away

100%

All users were able to find the 'add event' button straight away All users tried to change the details in the event section and didn't realise this part wasn't interactable and eventually used their imagination

100%

100% of users mentioned they would like the text and buttons bigger as they struggled to read

The GOOD

- $\boldsymbol{\cdot}$ All users completed this task with ease
- All users were able to access the timetable, add an event and save the event with ease.

The BAD

- · Users struggled to press the navigation bar as it was too small
- Majority of the users mentioned they would of like larger text as it was hard to read.
- Users were confused that some of the buttons weren't interactable
 (They weren't able to change the dates but this was already considered)

"I like how you can have different colours for different events"

"Kind of thought the text could be bigger, just a bit small yeah"

Connecting with a Campus Guide & Friends

SOCIAL ICON

CONNECTING

BUTTONS

HELPFUL

100%

Were able to get access the connecting with guide/friends via social icon

100%

All users were able to instantly press the person and connect with them as soon as they went into the connect screen.

80%

80% of users said the wave and connect buttons should be bigger.

100%

All users really enjoyed the idea of connecting with people and thought it would be a great utility to have at university.

The GOOD

- · All users completed this task with ease
- All users were able to access the social part, click the correct category and connect with the guide.
- Users thought this was a great idea to have for a university app as it helps with the stress of not knowing what to do.

The BAD

· Majority of the users mentioned they would of like larger buttons.

"you can meet some good friends on there I reckon, and meet new people, its not just uni stuff"

"I thought the connect button was way too small"

Access the Companion Forum

SOCIAL

BUTTONS

ARROWS

INTERACTION

100%

All users were familiar with this social media/forum layout.

40%

40% of users said the colours of the like, comment and share were very vibrant and 'in your face'.

Users thought the arrow was interactable... I can further prototype to make this interactable as it should be but for the task, users just used their imagination.

Users were trying to interact with the different posts but these posts weren't made to be interactable, users would then use their imagination.

The GOOD

• All users were familiar with this forum layout, this showed consistency as all users instantly tried to press the drop down arrow.

The BAD

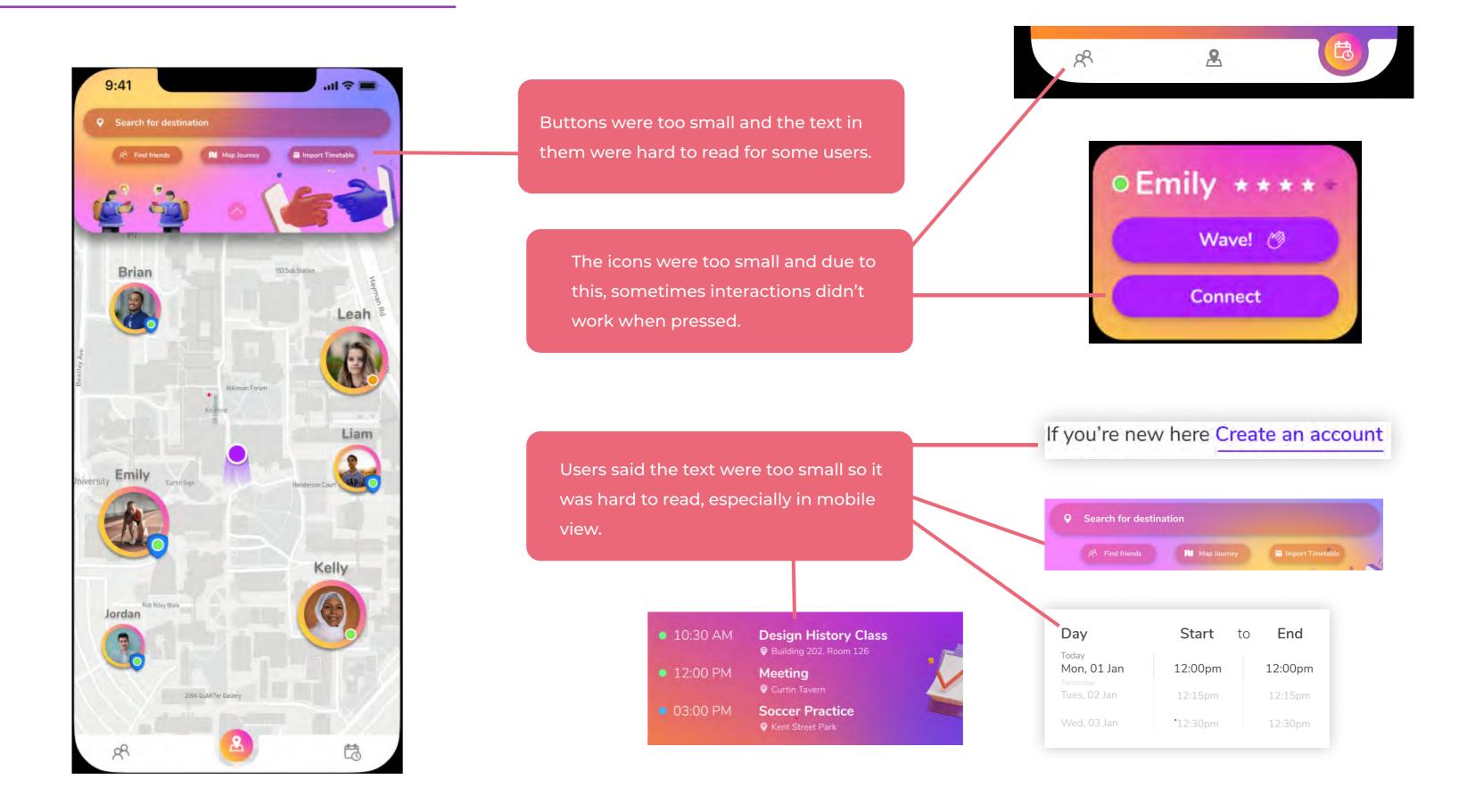
- · All users thought there was more steps and more interactivity.
- Could be further prototyped to show the interaction.
- Some users thought the like, comment and share buttons were too 'in your face'

"Definitely useful to have"

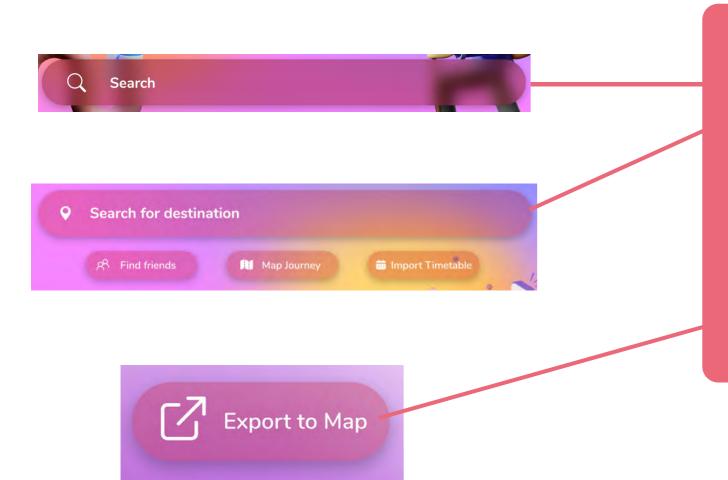
"Would of liked it to expand when I pressed on that arrow"

BUGS AND ISSUES

BUTTON & TEXT SIZE ISSUES

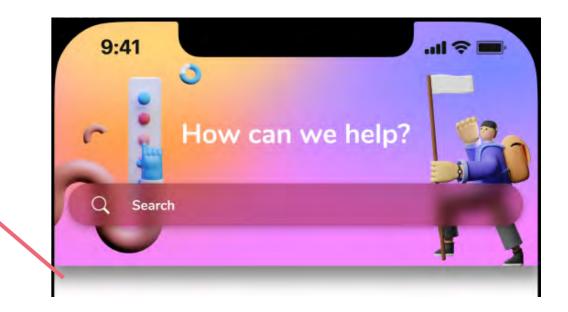


AESTHETIC ISSUES



There were some aesthetic issues through the app that most users mentioned. The main one was the colour of the buttons and search bar. This appeared too 'light' and made it harder to stand out to users, a better improvement was to go for a darker approach.

The drop down shadow appeared too heavy in these sections. Drop down shadows are good to show interactivity so some users automatically thought this part was interactable and tried to 'swipe'. To seperate this better, the shadow needs to be less.



FIX ICONS AND BUTTONS

Make all icons larger and more prominent, especially the main navigation bar at the bottom.

FIX SIZE

Fix sizing of the text to make it more eligible.

SEARCH BAR COLOURING

Fix the search bar and button colours as they are appearing too light. A darker approach will make these stand out better.

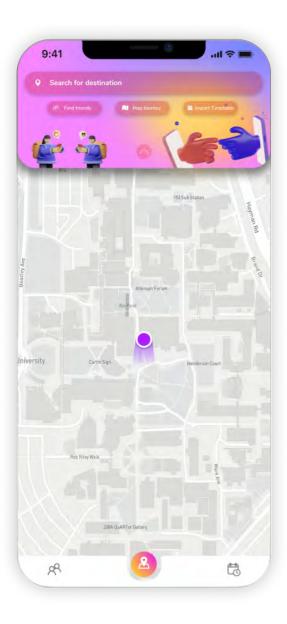
FIX DROP SHADOW EFFECT

Fix the drop shadow effect to make it appear more static and not confuse users with interactivity.

TUTORIAL

Create a quick tutorial at the start going over the app and the definitions, such as what a guide is.

Before

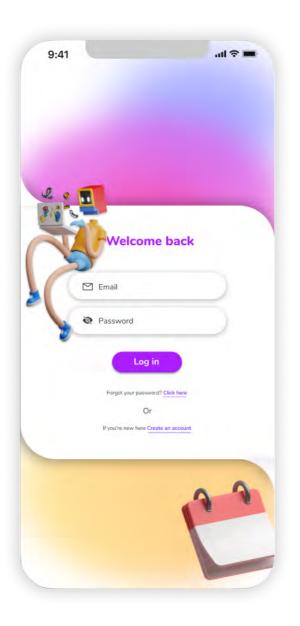


After

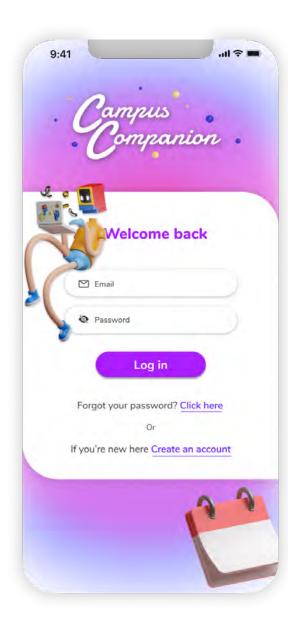


- Larger Icons displayed in the navigation bar to make for easier interaction and legibility
- Improved colouring of the search bar and buttons to establisha a more prominant interaction

Before

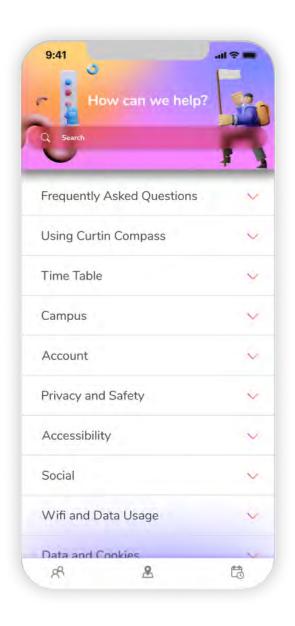


After

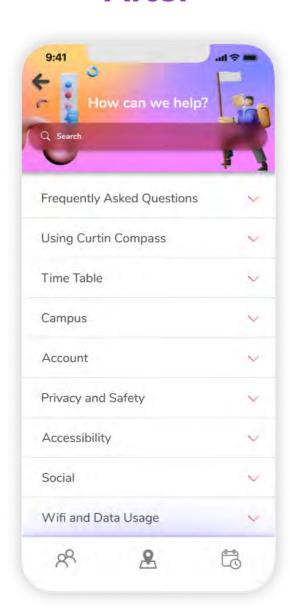


- Larger buttons and increased text size for legibility
- · Change in aesthetics
- Added Logo

Before

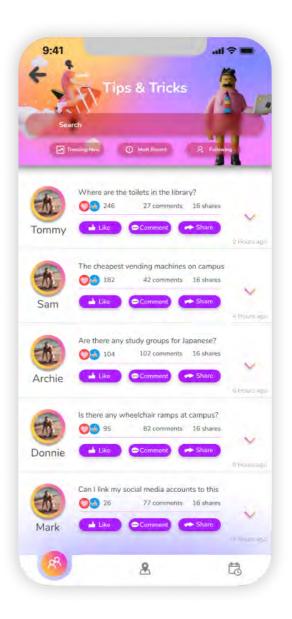


After

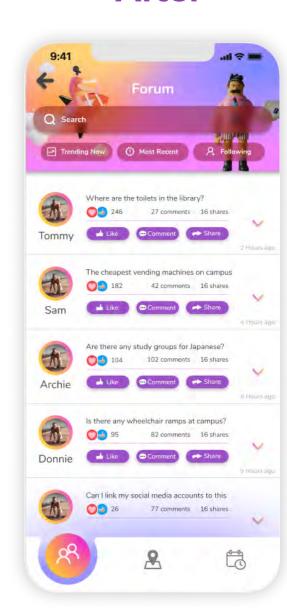


 Reduced drop shadow at the top so the user doesn't think they can drag the section down and that it is interactable.

Before

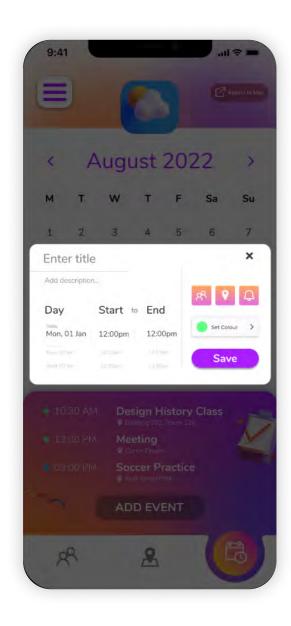


After

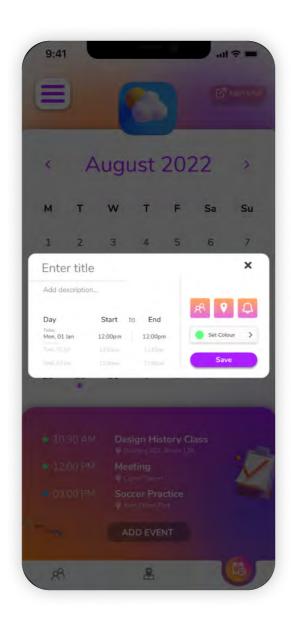


 Like, share and comment buttons are less vibrant so there is more focus on the content and text that is displayed.

Before

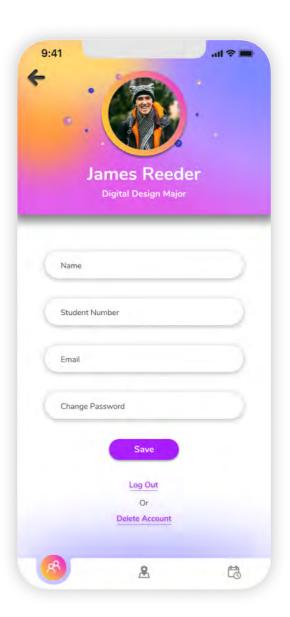


After

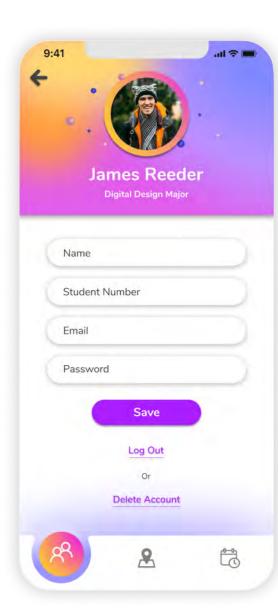


- Larger event overlay
- Increased font size and buttons size for better legibility

Before



After



- Text box fields have been arranged closer together for better ease of use.
- Larger button and increased spaced out secondary buttons - Log Out & Delete Account

Participant 1 Transcript

Test Task 1

Create an account, log in and log out

Question 1: Was there any issues you faced when completing the task?

Answer 1: I couldn't type when logging in but besides that it was pretty straight forward.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: I couldn't read the text at the start with the links, it was just too small and I felt the text and buttons could be bigger.

Test Task 2

Check your timetable and add an event

Question 1: Was there any issues you faced when completing the task?

Answer 1: The text was really small as well and I struggled with the buttons doing stuff. So kind of thought the text could be bigger, just a bit small yeah

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: I think the design looks really cool, like the colours are nice together. I would just make everything bigger like the text and stuff.

Test Task 3

Connect with a Campus Guide

Question 1: Was there any issues you faced when completing the task?

Answer 1: No, I had no issues.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: The buttons could be bigger.

Test Task 4

Connect with Friends

Question 1: Was there any issues you faced when completing the task?

Answer 1: No issues

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No

Participant 1 Transcript

Test Task 5

Access the companion forum and find a question.

Question 1: Was there any issues you faced when completing the task?

Answer 1: No, I just thought there was more to the task like I couldn't click anything

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No

Post-Test Questions

Question 1: On a scale 1-5, how easy was the app to use??

Answer: 4

Question 2:On a scale 1-5, how enjoyable was the app to use?

Answer: 5

Question 3 On a scale 1-5, how effective was the apps icons at demonstrating the function?

Answer: 5

Question 4: If you could change I thing about the app, what would it be and why?

Answer: Larger Icons and text so its just a bit easier to see

Question 5: What is your favourite aspect about the app?

Answer: The design is really fun, I like the colours

Participant 2 Transcript

Test Task 1

Create an account, log in and log out

Question 1: Was there any issues you faced when completing the task?

Answer 1: No issues

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No

Test Task 2

Check your timetable and add an event

Question 1: Was there any issues you faced when completing the task?

Answer 1: The text was pretty small

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: I liked the calender but the text for the event bit can just be bigger.

Test Task 3

Connect with a Campus Guide

Question 1: Was there any issues you faced when completing the task?

Answer 1: No, I had no issues but I didn't really know what a guide was.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: The wave and connect buttons could be bigger, like that whole bit.

Test Task 4

Connect with Friends

Question 1: Was there any issues you faced when completing the task?

Answer 1: No

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No

Participant 2 Transcript

Test Task 5

Access the companion forum and find a question.

Question 1: Was there any issues you faced when completing the task?

Answer 1: No, I asume its like other forums like reddit.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No I like it.

Post-Test Questions

Question 1: On a scale 1-5, how easy was the app to use??

Answer: 4

Question 2: On a scale 1-5, how enjoyable was the app to use?

Answer: 5

Question 3 On a scale 1-5, how effective was the apps icons at demonstrating the function?

Answer: 5

Question 4: If you could change I thing about the app, what would it be and why?

Answer: Just bigger icons and buttons and text.

Question 5: What is your favourite aspect about the app?

Answer: The designs, the 3D characters were cool.

Participant 3 Transcript

Test Task 1

Create an account, log in and log out

Question 1: Was there any issues you faced when completing the task? **Answer 1:** I would of liked the text and buttons to be bigger but I knew exactly where the log out was, like I instantly when to the menu and it was there.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Yeah just larger buttons in my opinion, I think just compared to other apps the buttons a bit small and the text.

Test Task 2

Check your timetable and add an event

Question 1: Was there any issues you faced when completing the task?

Answer 1: Same as before, the buttons are really small and the event pop up had really small writing in it. I also struggled to get to the timetable section cos the navbar is pretty small.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2:

Test Task 3

Connect with a Campus Guide

Question 1: Was there any issues you faced when completing the task? **Answer 1:** No, I really like this idea of having a campus guide the only thing I would change would be the buttons again. The connect is really small in a small box so.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2:

Test Task 4

Connect with Friends

Question 1: Was there any issues you faced when completing the task?

Answer 1: I would of liked to see more to this like the guide section but I like how you can see the shields for the guides and the friends don't have that.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: I would just further prototype it.

Participant 3 Transcript

Test Task 5

Access the companion forum and find a question.

Question 1: Was there any issues you faced when completing the task?

Answer 1: No not really, definitely useful to have

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No I think it was fine

Post-Test Questions

Question 1: On a scale 1-5, how easy was the app to use??

Answer: 4

Question 2: On a scale 1-5, how enjoyable was the app to use?

Answer: 5

Question 3 On a scale 1-5, how effective was the apps icons at demonstrating the function?

Answer: 5

Question 4: If you could change I thing about the app, what would it be and why?

Answer: I would change the icon and button sizes, they weren't big enough so it was hard to press sometimes

Question 5: What is your favourite aspect about the app?

Answer: I really like the overall aesthetic of the app, it works well being a uni app too.

Participant 4 Transcript

Test Task 1

Create an account, log in and log out

Question 1: Was there any issues you faced when completing the task?

Answer 1: No issues

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Probably add bigger buttons and text, its really small.

Test Task 2

Check your timetable and add an event

Question 1: Was there any issues you faced when completing the task?

Answer 1: No issues, just tried to swipe through the stuff

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Just needs larger text and buttons, especially if you need glasses and stuff.

Test Task 3

Connect with a Campus Guide

Question 1: Was there any issues you faced when completing the task?

Answer 1: I thought the connect button was way too small.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Just making it bigger again

Test Task 4

Connect with Friends

Question 1: Was there any issues you faced when completing the task?

Answer 1: Not really

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2:

Participant 4 Transcript

Test Task 5

Access the companion forum and find a question.

Question 1: Was there any issues you faced when completing the task?

Answer 1: Having that colour for the likes and comments is really wow and yeah just colourful. I also would of liked it to expand when I pressed on that arrow and I thought the top bit would come down, like it seemed like it would move and go over everything.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Maybe go for a subtle purple in that bit.

Post-Test Questions

Question 1: On a scale 1-5, how easy was the app to use??

Answer: 4

Question 2: On a scale 1-5, how enjoyable was the app to use?

Answer: 5

Question 3 On a scale 1-5, how effective was the apps icons at demonstrating the function?

Answer: 5

Question 4: If you could change I thing about the app, what would it be and why?

Answer: Just what I said before, make those things bigger

Question 5: What is your favourite aspect about the app?

Answer: I like the design, Its refreshing.

Participant 5 Transcript

Test Task 1

Create an account, log in and log out

Question 1: Was there any issues you faced when completing the task?

Answer 1: it was easy, very straight forward

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Make the buttons larger, was hard to click sometimes

Test Task 2

Check your timetable and add an event

Question 1: Was there any issues you faced when completing the task?

Answer 1: No not really but I thought the text could be bigger, just a bit small yeah

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No, I like how you can have different colours for different events

Test Task 3

Connect with a Campus Guide

Question 1: Was there any issues you faced when completing the task?

Answer 1: Yeah the connect and wave should be bigger cos you can press the wrong one being that small.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No just what I said

Test Task 4

Connect with Friends

Question 1: Was there any issues you faced when completing the task?

Answer 1: No not really

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: No this is cool, you can meet some good friends on there I reckon, and meet new people, its not just uni stuff

Participant 5 Transcript

Test Task 5

Access the companion forum and find a question.

Question 1: Was there any issues you faced when completing the task?

Answer 1: The purple was kinda in your face, was just a bit too vibrant.

Question 2: Can any of the app designs be improved to make the tasks easier in anyway?

Answer 2: Change the purple I reckon - Could just make it darker or faded a bit

Post-Test Questions

Question 1: On a scale 1-5, how easy was the app to use??

Answer: 4

Question 2: On a scale 1-5, how enjoyable was the app to use?

Answer: 5

Question 3 On a scale 1-5, how effective was the apps icons at demonstrating the function?

Answer: 5

Question 4: If you could change I thing about the app, what would it be and why?

Answer: Probably just fixing the things I said, If I had to pick one, it would be bigger buttons

Question 5: What is your favourite aspect about the app?

Answer: The colours, I like it