Internal Documentation.

AUCKLAND TRANSPORT

Gareth Barnett

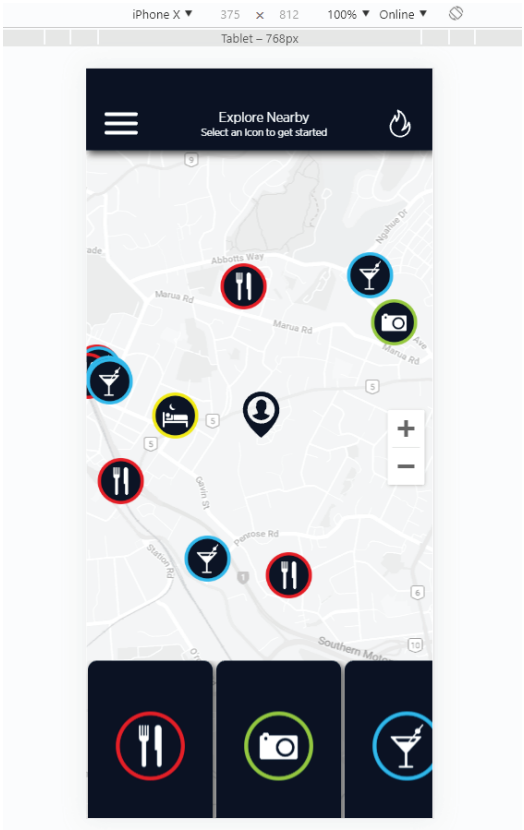
Demo Info.

Due to the type of application/user that would use this app it would only be used while they are out and about, so we decided to create this website as a prototype to show a user's run through as if it was made as a real Android or IOS application.

375px x 812px

The demo has been optimised for this browser size.

This demo has been designed for a the Iphone X browser size window in google chrome developer tools.



Links

Git Repository https://github.com/GarethBarnett/nearby

Trello Project Management https://trello.com/b/nF6o4BEW/summative-data-visualisation

Trello Scrum Recording https://trello.com/b/d0tx5NLF/scrum-meeting

Online Demo https://garethbarnett.github.io/nearby/

Group Working Style.

To get the project started we decided to create initial guidelines on how we are going to be approaching the project. We decided we are going to work as a group throughout the project rather than splitting off, as in the industry we would be working together on a project so it made sense for us to work this way. This method also shows potential employers we can work in a group, making decisions together, putting the client/project first and compromise.

Javascript Code Guide
We decided we would create a group javascript code guide for us all to follow.

Website Delivery
Deliver the project as a group, assign tasks to each group member to complete.

Working Method
We would each do individual components and merge them into a group version i.e each person does a lo-fi wireframe then we create a group one based of everyones individual versions.

For some parts we decided to do as a group where it made sense i.e How Might We, Gulp setup since we would all be using the same setup during the project.

Management Style
Rotating scrum master daily, we all wanted the opportunity to manage the project and lead the team so we would change the scrum master daily to achieve this.

Organisation/Management
Trello
Github
Google Docs
Google Sheets
Facebook
Milanote

Prototyping
Adobe XD

Development
Visual Studio Code / Sublime
HTML/ CSS / SASS / GULP / JavaScript / Handlebars.js

API's
Google Maps
AT API
Foursquare

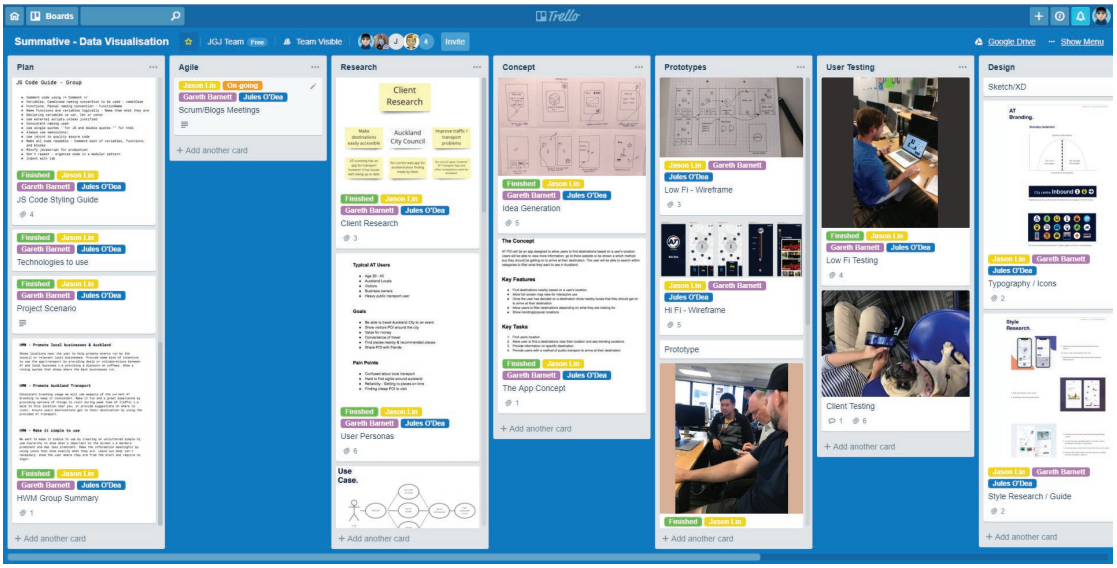
Project Planning.

Summative 3 - Timeline		Week One							Week Two							Week Three						
Stages	Duration	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
		29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Documentation																						
Documentation																						
Project Timeline	1 Days																					
Project Approach	1 Days																					
Brainstorm	2 Days																					
Research																						
Client Research	2 Days																					
UX Research	3 Days																					
Competitor Research	2 Days																					
Style Research	2 Days																					
Persona	1 Days																					
UML	1 Day																					
User Flow	1 Day																					
Prototypes																						
Wireframes	2 Days																					
Adobe XD	2 Days																					
Feedback	2 Days																					
Coding																						
Coding	14 Days																					
User Testing & Feedba	3 Days																					
Coding Changes	5 Days																					
Closure																						
Review/Testing	4 Days																					
Presentation	1 Days																					
Hand-in	1 Day																					

This project was to take place over 3 weeks beginning 29th March 2019 and ending 18th April 2019.

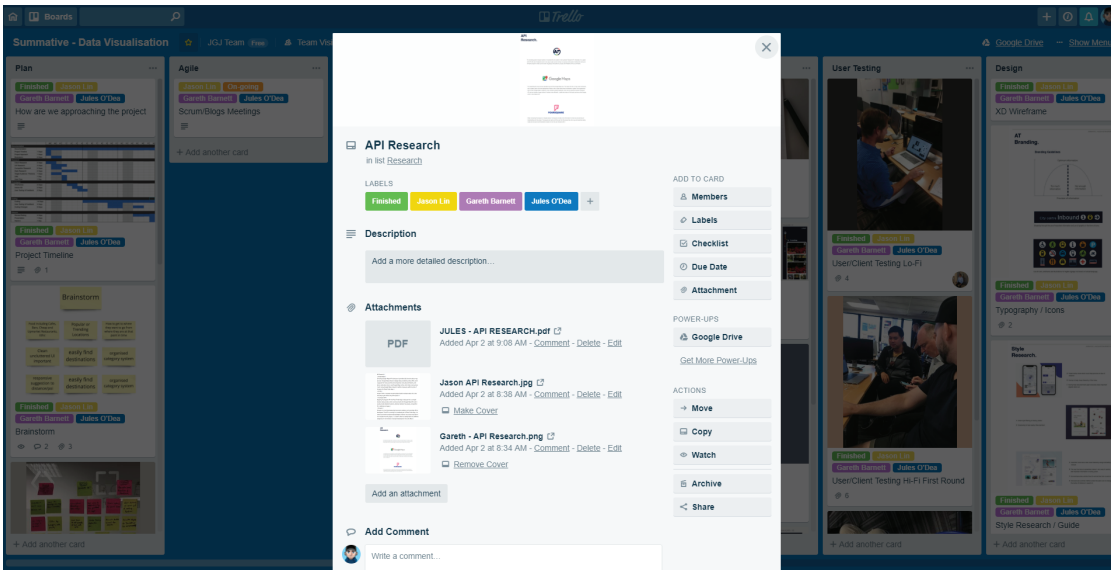
To make sure we were going to deliver the project on time, we created a timeline together with all members of the group setting deadlines to each section i.e research. We wanted to spend about 1 week on research and design and 2 weeks coding so it gave us plenty of time to get everything implenteled.

Project Management.



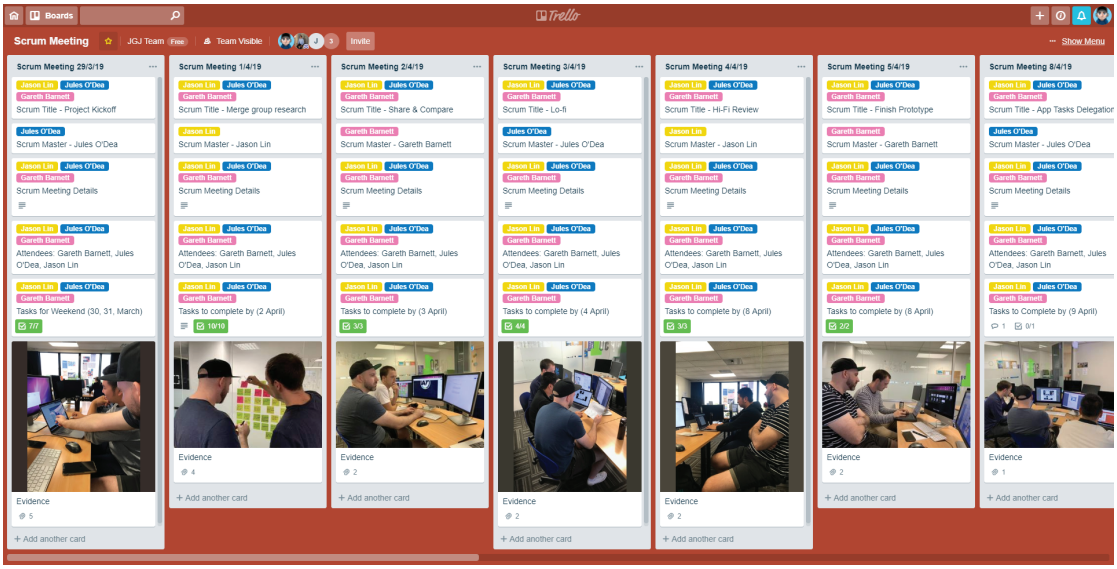
https://trello.com/b/nF6o4BEW/summative-data-visualisation

We used Trello to manage the project, we decided to separate the lists into sections of the product i.e research and adding a card for each part of the section i.e client research.



We would then upload our individual work for each section into that card so it would be easy to keep track and make sure everyone was getting the work done. We also assigned labels for each person to the cards since we were working as a group everyone contributed evenly to each card.

Scrum Meetings.



https://trello.com/b/d0tx5NLF/scrum-meeting

We decided at the beginning of the project that we should have a rotating scrum master everyday so we all had the opportunity to manage the project. To document this we used a Trello board and updated it daily which included, what the meeting was about, details of the meeting, tasks we had set for that day with deadlines, who attended and who was the scrum master for that day. Photo evidence of these meetings are also provided.

The Rotating Scrum Master

When appointed the scrum master for that day it was our job to lead the meeting and set the tasks that needed to be worked on that day and by the following morning. This also included making sure everyone was keeping up to date with their documentation and individual tasks.

Everyone in the group was highly active in meetings and contributed equally.

Client Overview.

The Auckland Council is the local government council for the Auckland Region in New Zealand.

Auckland Council makes most of its revenue from the ownership of other businesses. Below are a some key examples of what Auckland Council has ownership of.

- Auckland Transport
- Ports of Auckland
- Auckland Airport 22.15%
- Auckland Tourism, Events and Economic Development (ATEED)

Just like normal businesses Auckland Council charges people for these services. Being the local government grants them a unique position of being able to grant building consents for any projects they are interested in funding.

The Auckland Council receives around 1/3 of its revenue from Auckland ratepayers so it is in their best interest to keep Auckland residents happy.

Key Takeaways.

- Makes majority of its revenue from Auckland residents
- Is responsive for Auckland public transport and ATEED
- Have a monopoly on public transport

Group Summary

- Auckland council owns Auckland Transport
- Responsible for promoting tourism in Auckland (own ATEED)
- Have a monopoly on public transport
- It is in their best interest to promote Auckland & Auckland Businesses
- 1/3 of its revenue from rates payers
- Run city events
- Auckland Council owns 22.15% of the Auckland Airport

Project Overview.

Auckland council has contracted your team to build a single page application (SPA) that will allow visitors within the region to use a map-based interface to easily find destinations such as motels, restaurants and scenic spots.

The user should be able to:

- View destinations
- Learn more about a destination
- Have the option to go to that destination's website
- Search destinations by category
- Find the way to the destination from their current location on a mobile device
- Visualise destinations based on the number of social posts (this can be hard-coded into the JSON data)

The City Council don't yet have destination data available so you should provide placeholder data (for real destinations in your region) in the meantime. The council would like to make the code for this project available to the open source community but in doing so require the project to build without errors.

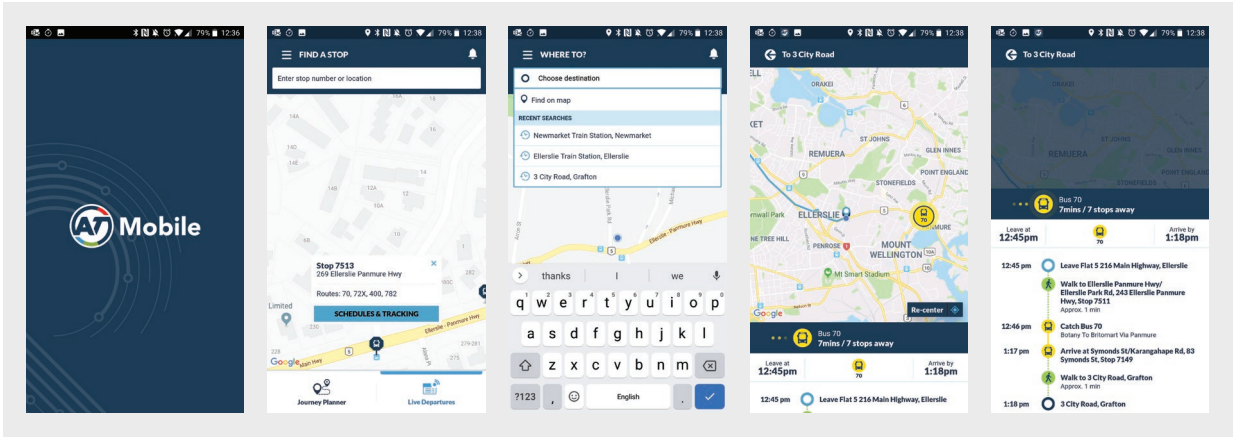
Project Constraints.

- Group project
- Single page application (SPA)
- The use of an API to bring in data

Project Scenario.

As a group we have decided to focus on the Auckland Transport division of the Auckland Council. We will be using this project to help promote using Auckland Transport.

AT Swot Group.



Auckland Transport is responsible for Auckland's transport services (excl. state highways). From roads and footpaths, to cycling, parking and public transport.

Strengths

- Shows your location
- Simple to use - Not alot of steps
- Shows how far away buses are in response to your location
- Simple / clean user interface
- Steps given to reach your transport option

Weakness

- Does not account for number of people on the bus
- Arrival timing is not very accurate
- Very limited in finding POI locations i,e Hyots or Yoobee
- If time goes over slightly does not allow users to go back into tracking that bus

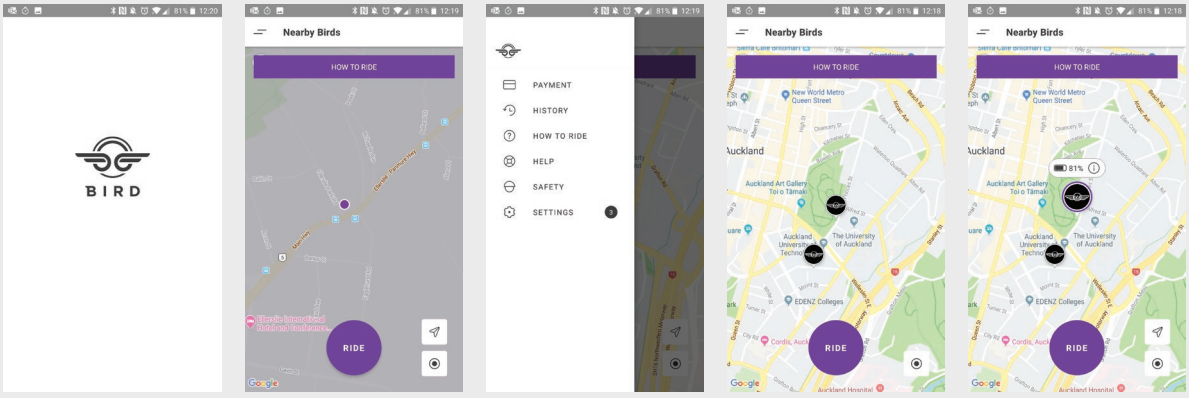
Opportunities

- Allow POI search function
- Improve the UI to more modern
- Very limited in finding POI locations i,e Hyots or Yoobee

Threats

- Losing users due to a bad user experience
- Missing out on promoting local business in Auckland

Competitor Swot.



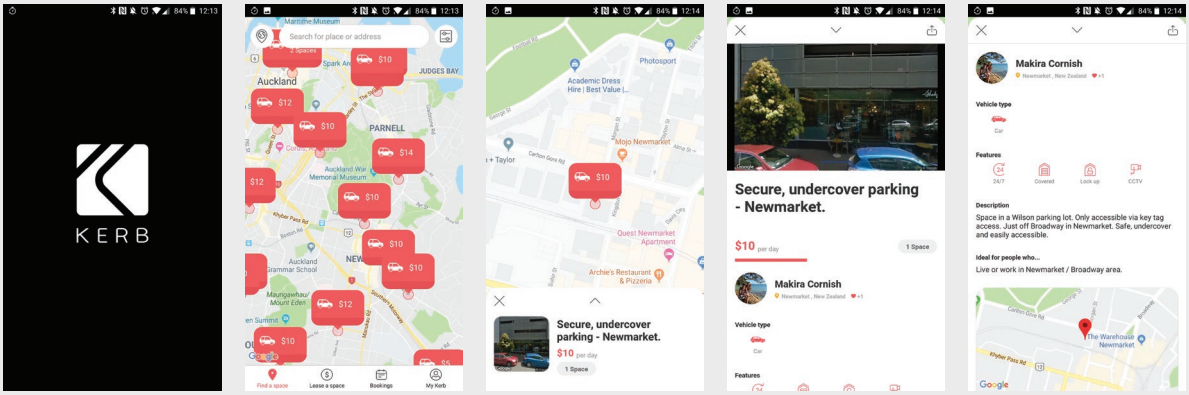
Bird is a reliable last mile electric scooter rental service. Our mission is to make cities more livable by reducing car usage, traffic, and congestion.

Pros

- Simple and clean user interface
- Clear indication of marks easy to see and stand out very well
- Side menu for more options shows prominent information first

Cons

- Very limited information about selected scooter
- Map being so prominent/bright is a distraction
- Does not suggest where the nearest scooter is, you have to manually look for it



The Kerb app lets you rent and lease private parking spaces for cars, motorbikes, boats.

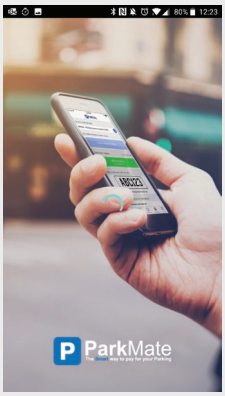
Pros

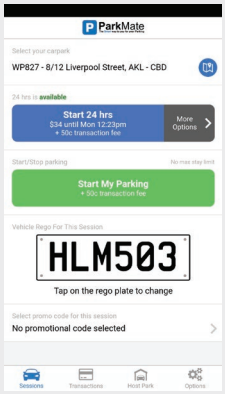
- When a marker is selected it zooms right in on that location and provides more informaiton.
- Clear indication of marks easy to see and stand out very well
- Shows the cost of each park clearly on the map
- Icon shows what the park is intented for i.e car, motorbike etc.

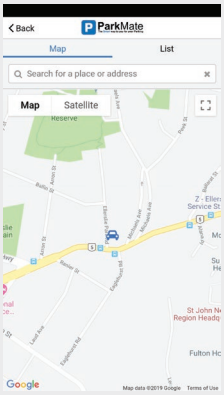
Cons

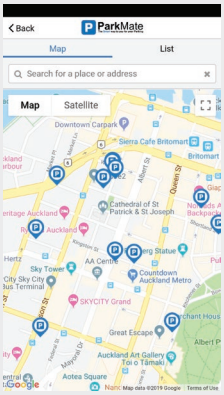
- The lower menu options does not have very good visual hierarchy
- Markers are not responsive, screen is very cluttered when zoomed out
- Does not show where you are on the map

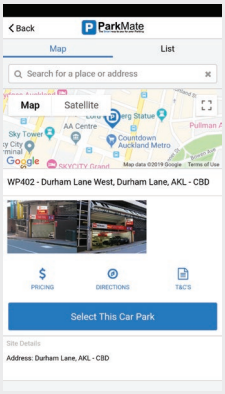
Competitor Swot.











ParkMate is the smartest and easiest way for you to pay for your parking. Using your phone's GPS and Google Maps, ParkMate allows you to easily find a car park.

Pros

- Shows your location
- Simple to use - Not alot of steps
- Allows for promotional codes

Cons

- Very cluttered map showing too much information
- Visual hierarchy needs alot of work i.e popup details need to be more clear
- The marker does not provide any details except for there is a park i.e no price, what the park is for

Survey Individual Q's.

What destinations would you like to be able to find near you easily?

Do you struggle to find the correct bus to get on? Please explain why you do or don't.

Do you currently use any apps to help you find POI nearby or anything else nearby?

What do you use it to find? And what are the pros/cons of that

What issues or highlights do you have with using public transport?

Survey Group Q's.

How do you think showing a place (Point of interest i.e cafe) would make it interesting enough for you to visit?

How do you normally plan a short trip? By using local council website, apps or local forum?

What is/are the most annoying points that you don't like about public transport information board display/not display?

Prefer a instant map view or search? Both? For place of interest finding?

Do you follow event finder websites/social media? If yes who/what?

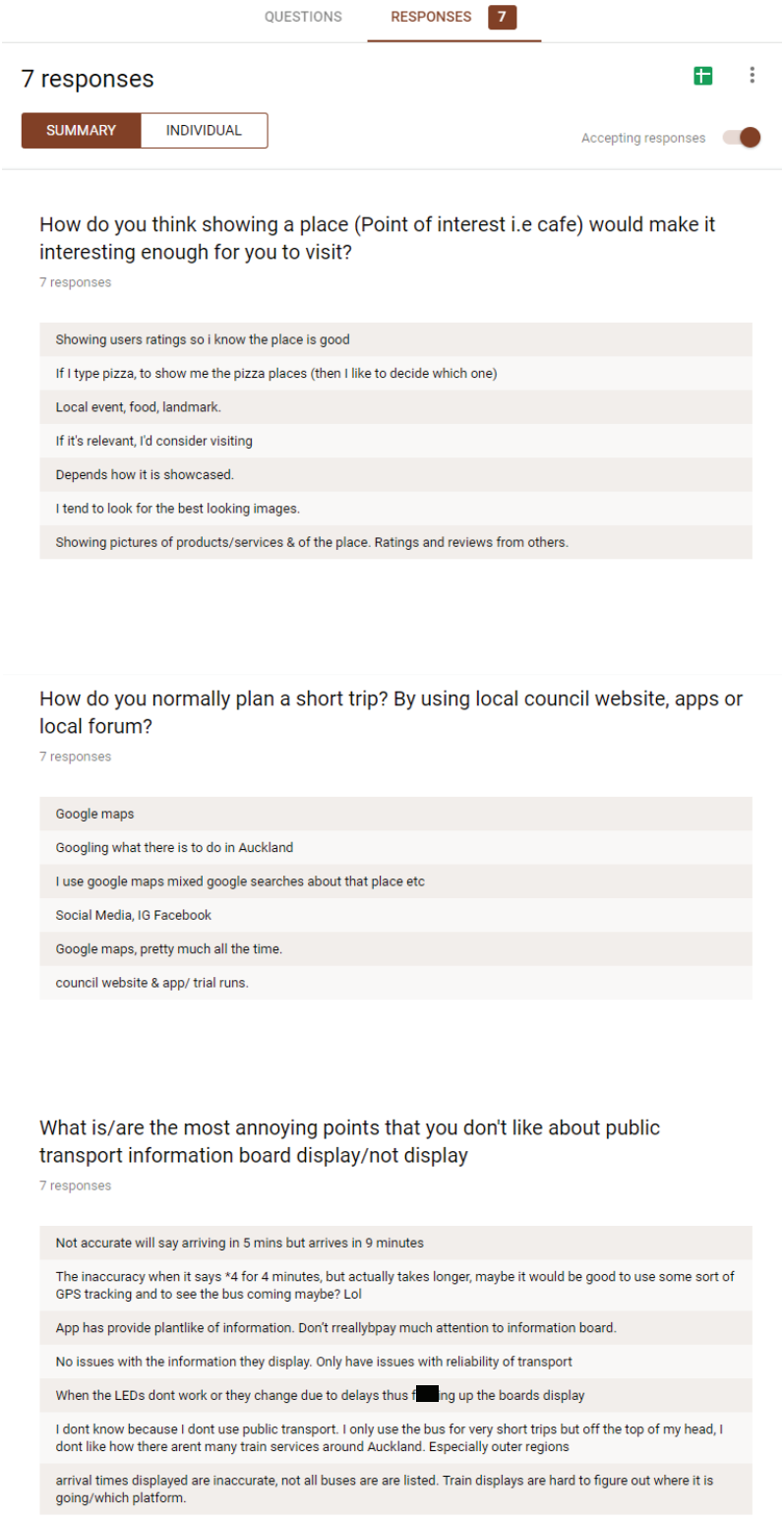
Would you use an application in a foreign city to find popular city features/food etc?

What destinations would you like to be able to find near you easily?

Do you currently use any apps to help you find points of interest nearby or anything else nearby?

What do you use? And what are the pros/cons of that?

Survey Individual.



QUESTIONS RESPONSES 7

7 responses

SUMMARY INDIVIDUAL

Accepting responses

How do you think showing a place (Point of interest i.e cafe) would make it interesting enough for you to visit?

7 responses

- Showing users ratings so i know the place is good
- If I type pizza, to show me the pizza places (then I like to decide which one)
- Local event, food, landmark.
- If it's relevant, I'd consider visiting
- Depends how it is showcased.
- I tend to look for the best looking images.
- Showing pictures of products/services & of the place. Ratings and reviews from others.

How do you normally plan a short trip? By using local council website, apps or local forum?

7 responses

- Google maps
- Googling what there is to do in Auckland
- I use google maps mixed google searches about that place etc
- Social Media, IG Facebook
- Google maps, pretty much all the time.
- council website & app/ trial runs.

What is/are the most annoying points that you don't like about public transport information board display/not display

7 responses

- Not accurate will say arriving in 5 mins but arrives in 9 minutes
- The inaccuracy when it says *4 for 4 minutes, but actually takes longer, maybe it would be good to use some sort of GPS tracking and to see the bus coming maybe? Lol
- App has provide plantlike of information. Don't rreallybpay much attention to information board.
- No issues with the information they display. Only have issues with reliability of transport
- When the LEDs dont work or they change due to delays thus f[redacted]ng up the boards display
- I dont know because I dont use public transport. I only use the bus for very short trips but off the top of my head, I dont like how there arent many train services around Auckland. Especially outer regions
- arrival times displayed are inaccurate, not all buses are are listed. Train displays are hard to figure out where it is going/which platform.

Survey Individual.

Prefer a instant map view or search? Both? For place of interest finding?

7 responses

instant map
Search
Anything with App are much better.
Both
Instant map
Search, otherwise the page looks way too busy and confusing.
Have the option for both, though a map shows relevance of location.

Do you follow event finder websites/social media? If yes who/what?

7 responses

no only look on google, sites like the urban list
I don't usually use them but when I do eventfinda.co.nz
Mainly Instagram and Facebook event page.
No
Yes event finder. Auckland city. Event group pages.
No I usually just use Google maps or zomato for food places
Facebook for Auckland Night Markets/Events

Would you use a application in a foreign city to find popular city features/food etc

7 responses

Yes
Only google and then from there what I can find (sorry maybe not helping a lot)
Yes, Trick adviser
Yes - most likely google
Yes 100% done it lots & talk to the locals
Yes, or I would use Google maps just because they seem to have all information from reviews, images, contact details, link to website etc

What destinations would you like to be able to find near you easily?

7 responses

restaurants, sights, accommodation
Supermarkets
Photography spot
Supermarkets and large chain stores
Toilet. Food. Fun activities. Free s[redacted]. Accommodation. Basically the necessities plus some fun things.
Restaurants, cafes, parks
Food places, Entertainment, Accommodation, Events, Shops

Survey Individual.

Do you currently use any apps to help you find points of interest nearby or anything else nearby?

7 responses

Yes
No
Google map
Google maps
Google maps. Google chrome. Facebook. Instagram
I use Google maps
Yes

What do you use? And what are the pros/cons of that?

6 responses

Uber eats to find food places nearby. Easy to use and straight to the point
Google map
Google maps
Cons data usage. Pros effective fast modirated and controlled.
Google maps has literally everything I need to find places I needs. It's so quick and easy to use
Google maps, Uber Eats, AT Transport, Groupon/Grabone

What issues or highlights do you have with using public transport?

7 responses

issues - arriving on time, buses always full. Highlights - cheaper than driving, more convenient when it works well
It's all good, works fine & I love the feature which shows me where to get the bus and where to stop, to catch another one etc.
Not much, I don't use them a lot
Reliability and no control over being late or not
Well for one the bus drivers can be complete ar[redacted]es. They dont have many top up booths easy to forget how much is on the card plus it delays unless at a top up booth. They are not on time. Weather effects them a lot. Public can be pushy.
Issues: Not enough trains, don't have a close enough bus stop to my house that goes straight to the city as it was changed last year. Highlights: The times of busses arriving are alot better now. They come around more oftern
- too many people, not enough space (buses too full & dont stop) - unreliability, not always on time or turn up at all. - takes longer to get places. - alot cheaper than driving. - avoid alot of peak traffic

Group Survey Summary.

21 Responsives Combined

How do you think showing a place (Point of interest i.e cafe) would make it interesting enough for you to visit?

Key insights were having photos, information and ratings.

How do you normally plan a short trip? By using local council website, apps or local forum?

Majority of people search for places to visit in google. This tells us that there is currently nothing better to use.

What is/are the most annoying points that you don't like about public transport information board display/not display?

People are unhappy with transport etiquette i.e rush of people.

Not having visible bus occupancy details.

Travel times are very inaccurate.

Sometimes information is unclear and too complicated.

Not knowing when to get off and needing a special card to use it.

So in summary no one is happy with Public Transport!

Prefer an instant map view or search? Both? For place of interest finding?

Most responsives were in favour of both with search options.

Do you follow event finder websites/social media? If yes who/what?

Most responsives were no with the exception of social media.

Would you use an application in a foreign city to find popular city features/food etc?

Everyone said Yes

What destinations would you like to be able to find near you easily?

Restaurants, Sights, Entertainment, Transport, Cafes.

Do you currently use any apps to help you find points of interest nearby or anything else nearby?

Most people do use an app to find things nearby.

What do you use? And what are the pros/cons of that?

Key apps were, Google, Facebook, Tripadvisor.

AT persona's.

Claire

HR Manager

ABOUT

Age 30 - 40

Income $70 - $80K

Location Auckland

KEY INSIGHTS

- Active social life - Single
- Likes meeting new people
- Daily Public transport user
- Heavy Social media
- Tech Savy

PAIN POINTS

Public transport

Getting to places on time

Martin

Bartender

ABOUT

Age 20 - 30

Income $38 - $42K

Location Auckland

KEY INSIGHTS

- Active social life - Never at home
- Public transport is his main means of travel
- Always looking for new places to explore
- Never eats at home

PAIN POINTS

Public transport

Finding new cheap places eat

Business Needs.

Specifically, the new website needs to fulfill the following business needs:

- Increase revenue for Auckland
- Promote Auckland businesses
- Increase customer experience
- Easy to use
- Have a professional presence
- Promote Auckland Transport

Target Audience.

Characteristics of Auckland Transport user

- Adults aged 20 - 45
- Auckland locals
- Visitors
- Business owners
- Heavy public transport users

Auckland Transport user goals

- Be able to travel within Auckland City to an event
- Show visitors POI around the city
- Value for money
- Convenience of travel
- Find places nearby & recommended places
- Share POI with friends

Auckland Transport are looking to attract

- People who use public transport
- People who are looking to explore Auckland
- People looking to do something near them
- People who are already out and about in Auckland

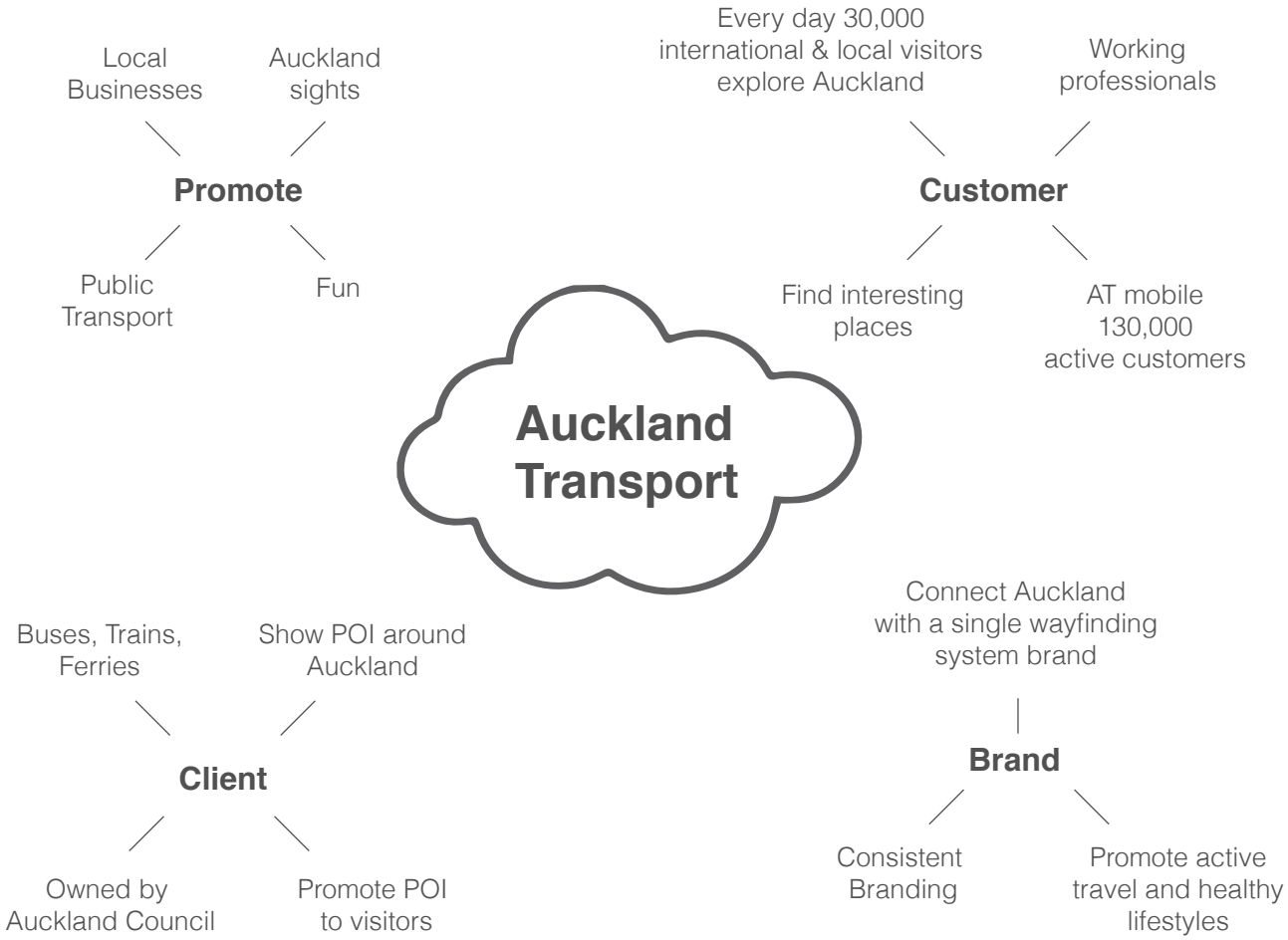
Auckland Transport user pain points

- Confused about local transport
- Hard to find sights around auckland
- Reliability - Getting to places on time
- Finding cheap POI to visit

User Stories.

User	**AT Customer / Visitor**		
User Stories	**As a user I want to discover new venues**	**As a user I want to find information on new venues**	**As a user I want to get to a venue**
User Tasks	As a user I want to be recommended venues near my location	As a user I want to see details on a venue	As a user I want to find transport to a venue
	As a user I want to be able to choose venue by categories	As a user I want to visit a venues website	As a user I want to get directions to a venue
	As a user I want to see venues based on recommendations		

Brain Storming.



Group Summary.

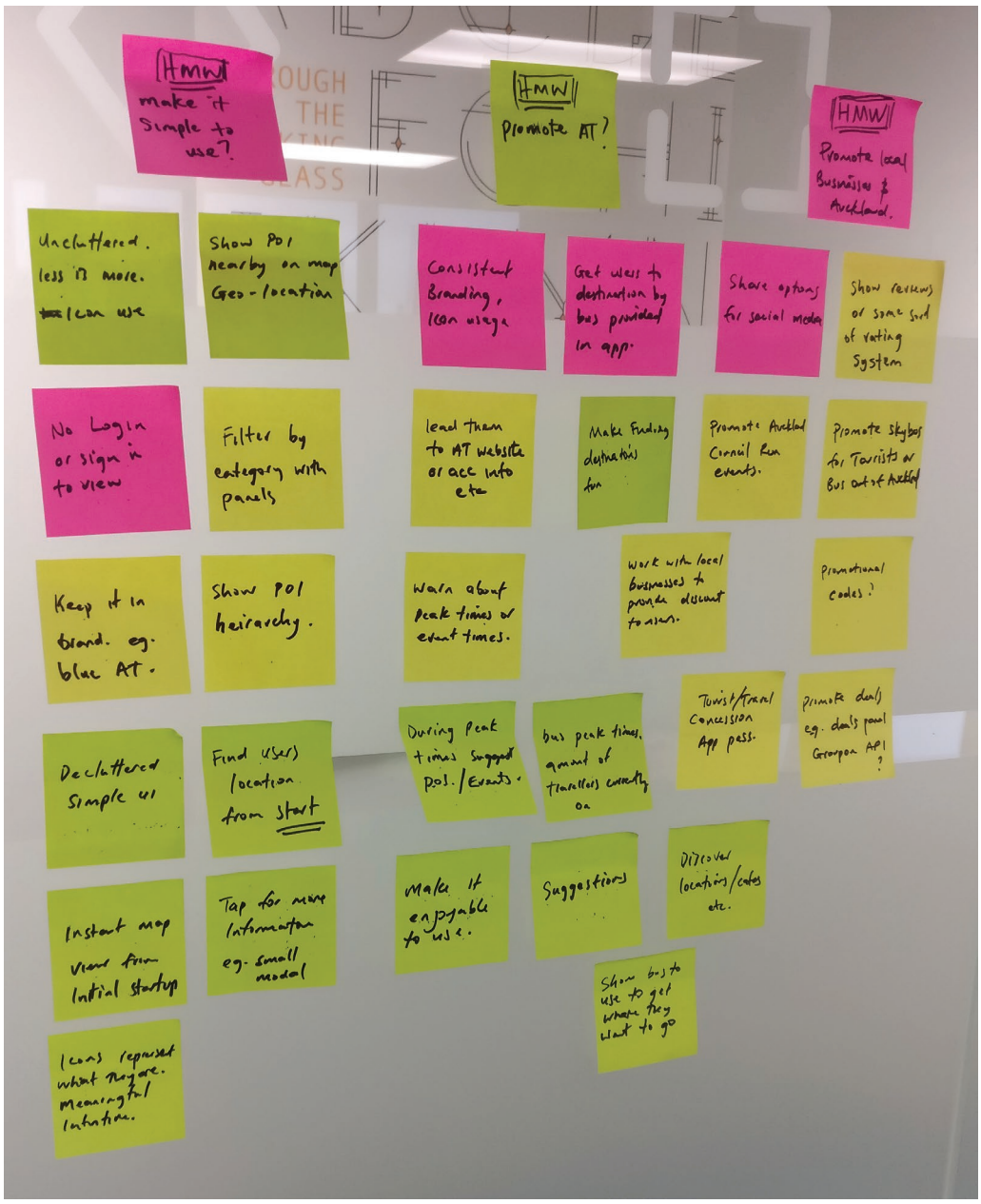
As a group we compared all our individual brainstorms and summarised them to these key results

- Easy category system, i.e Cafes, Bars, Restaurants, Sights
- Popular & trending locations - Social media
- Nearby user functionality
- Suggest POI near the user in real time
- Filter by category
- Simple to use
- Promote local businesses, sights etc
- Promote making public transport fun
- Consistent Branding

HMW Affinity Map.

After summarising our brainstorms we decided to do a group HMW affinity map. Below are the HMW scenarios we chose.

- How might we make it simple to use
- How might we promote Auckland Transport
- How might we promote local businesses & Auckland



HMW Summary.

HMW - Promote local businesses & Auckland

Shows locations near the user to help promote events run by the council or relevant local businesses. Provide some kind of incentive to use the app/transport by providing deals or collaborations between AT and local business i.e providing a discount on coffees. Show a rating system that shows where the best businesses run.

HMW - Promote Auckland Transport

Consistent branding usage will use aspects of the current AT branding to keep it consistent. Make it fun and a great experience by providing options of things to visit during peak time of traffic i.e walk to this location near you, or provide suggestions on where to visit. Ensure users get to their destination by using the provided AT transport.

HMW - Make it simple to use

We want to make it simple to use by creating an uncluttered simple UI, use hierarchy to show what's important on the screen i.e markers prominent and map less prominent. Make the information meaningful by using icons that show exactly what they are. Leave out what isn't necessary, show the user where they are from the start and require no login.

Project Description.

AT Explore Nearby will be an app designed to allow users to find destinations based on a user's location. Users will be able to view more information, go to their website or be shown which bus they should be getting on to arrive at their destination. The user will be able to search within categories to filter what they want to see in Auckland.

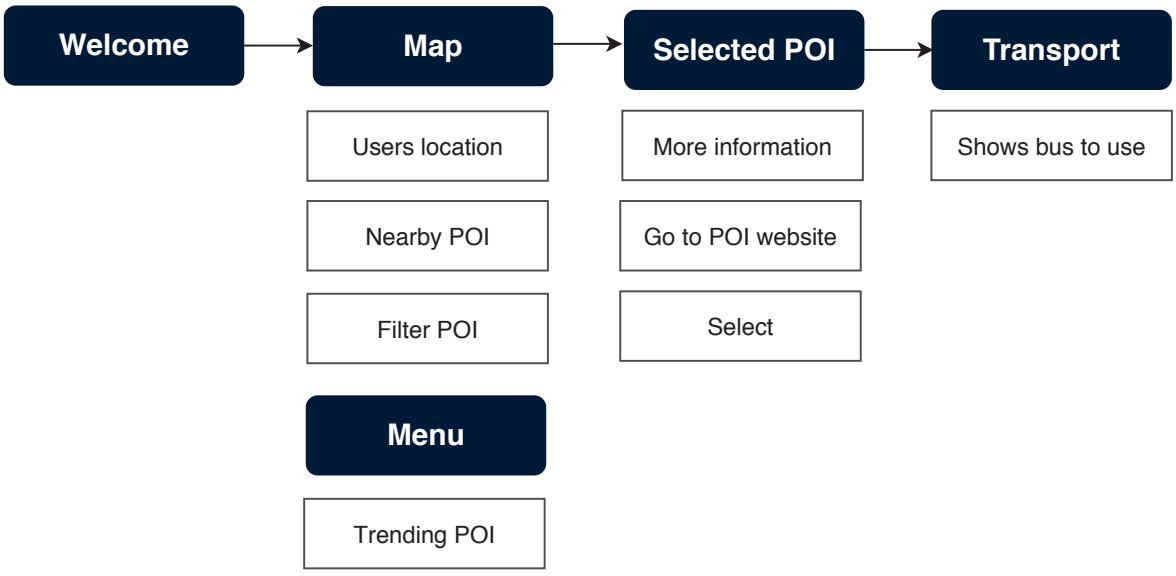
Key Features

Find destinations nearby based on a user's location.
Allow full screen map view for interactive use.
Once the user has decided on a destination, show nearby buses that they should get on to arrive at their destination.
Allow users to filter destinations depending on what they are looking for.
Show trending/popular locations.

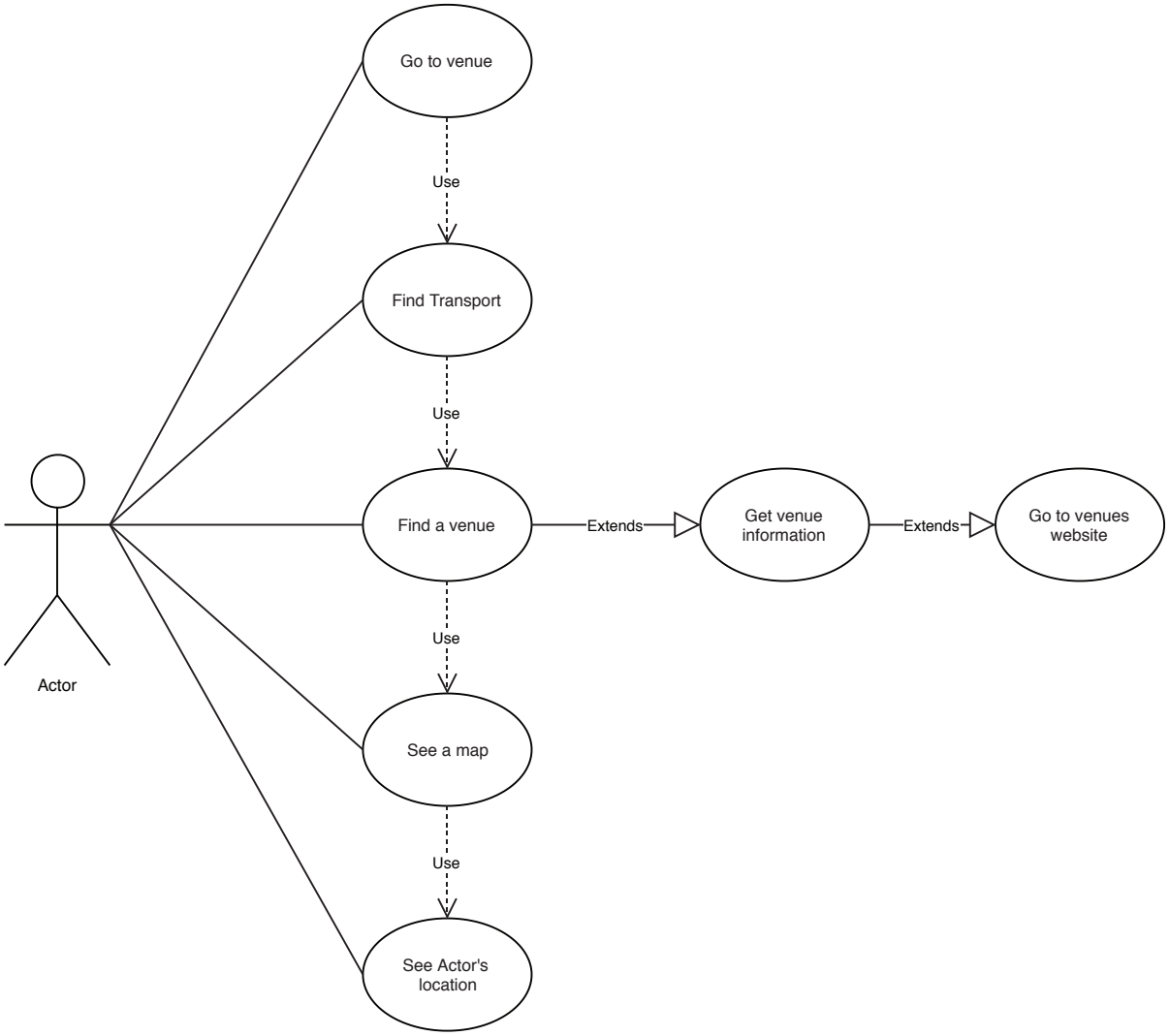
Key Tasks

1. Find users location
2. Allow users to find destinations near their location and see trending locations.
3. Provide information on specific destinations
4. Provide users with a method of public transport to arrive at their destination

User Flow.



Use Case UML.



User Needs to

- Users can view a map
- Users can see their location on the map
- Users can view a venue on a map
- Users can select venue nearby
- Users can select trending venue
- Users can find transport to venue
- Users can find directions to a venue
- Users can find venues website

Use Case Description.

Use Case Description - AT Explore Nearby

Use Case Name: Go to a venue
Use Case Purpose: The purpose is this use case is to help the user find a venue and get to it

Preconditions: User has app on mobile & users location

Basic Flow

1. Actor loads application
2. Actor can see their location on map
3. Actor can see venues nearby
4. Actor can choose a venue
5. Actor can find transport to that venue
6. Actor arrives at venue

Alternate Flow

2a1. Actor cannot see their location on the map
2a2. The application suggests checking their location is turned on in mobile.

Alternate Flow

3a1. Actor cannot see venues near their location
3a2. The application suggests moving somewhere else

Group Use Case UML

We initially did our use case uml individually but we found out later that they weren't quite correct these can be seen on our Trello board. We then decided to do it as a group since we were all working on the same project it made sense that we did it together.

API Research.

For providing public transport options in Auckland the only option is the Auckland Transport API, fortunately it is a great API with alot of endpoints and it is very easy to get up and running. As a group we focused on testing this during our formative project to make sure we were not going to encounter any issues and limitations with our summative.

For presenting the map, we have decided to go with the Google Maps API. The reason for this is that it has more functionality and is widely used in the web development industry with a huge market share compared to Leaflet. From researching both of them Google Maps is better for more complex projects especially since we are using the Auckland Transport API and can handle a huge number of markers more efficiently. Leaflet also relies on third party services unlike Google which is very feature rich.

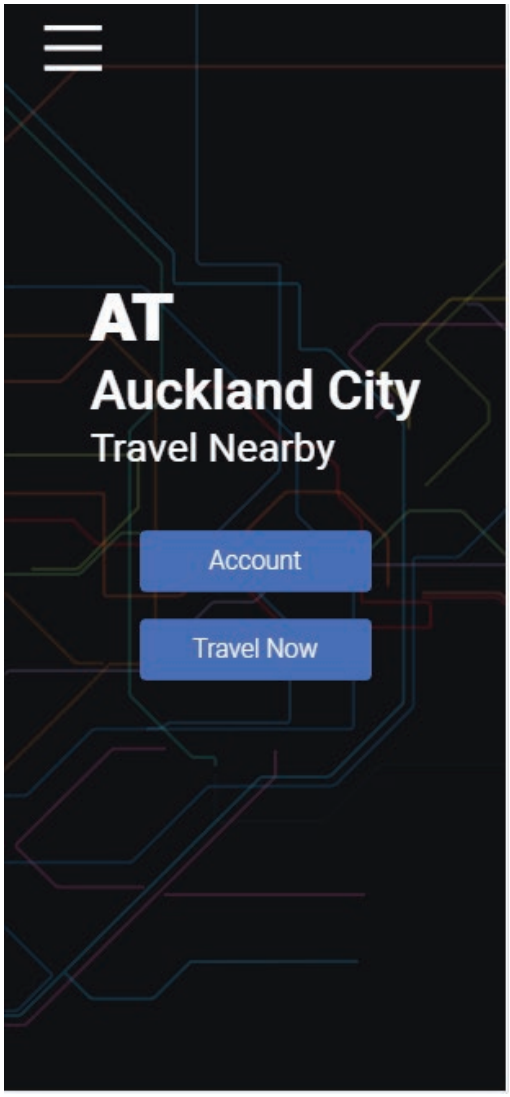
When comparing Foursquare vs Google places, Foursquare provides more information for what we are planning on implementing into the project. Foursquare also learns with the user from the places they like to go and searches being made, it will give recommendations based on how the user interacts with it.

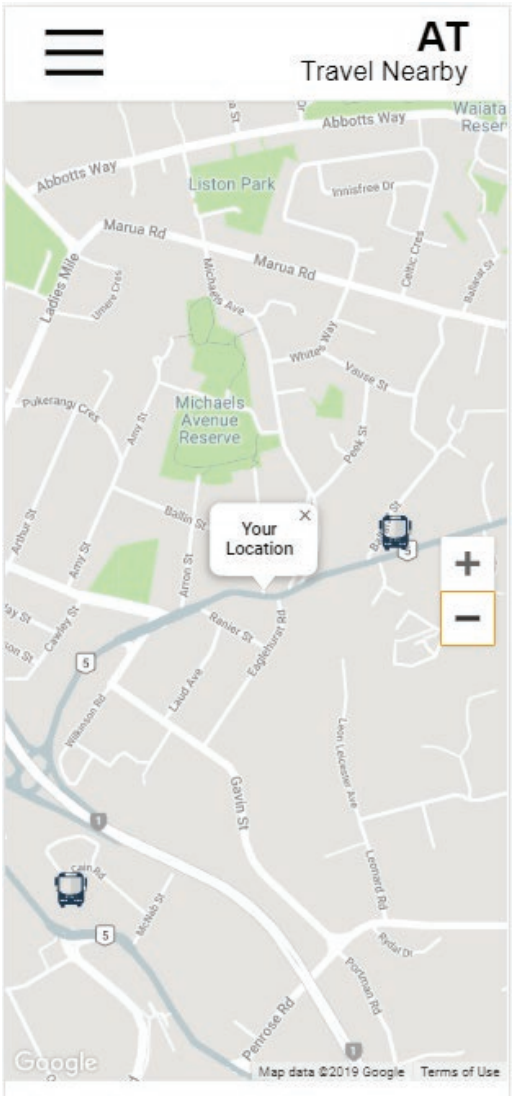
API Research.

The Meetup API allows developers to use topics, groups, and events hosted on the Meetup platform. We were considering using it over the Foursquare API to display local Meetups near a users location rather than general venues. We decided that showing foursquare venues near a users location made more sense with what we were trying to achieve in terms of promoting nearby businesses and public transport.

Groupon allows you to discover and save on 1000's of great deals at nearby restaurants, spas, things to do, shopping, travel and more. This was also another option we considered for the project to add another layer of promoting businesses nearby. Unfortunately it had limitations, you couldn't filter by category for New Zealand yet as it was not supported at the time of commencemtn of the project. This meant we would be displaying a lot of deals that did not relate to the project.

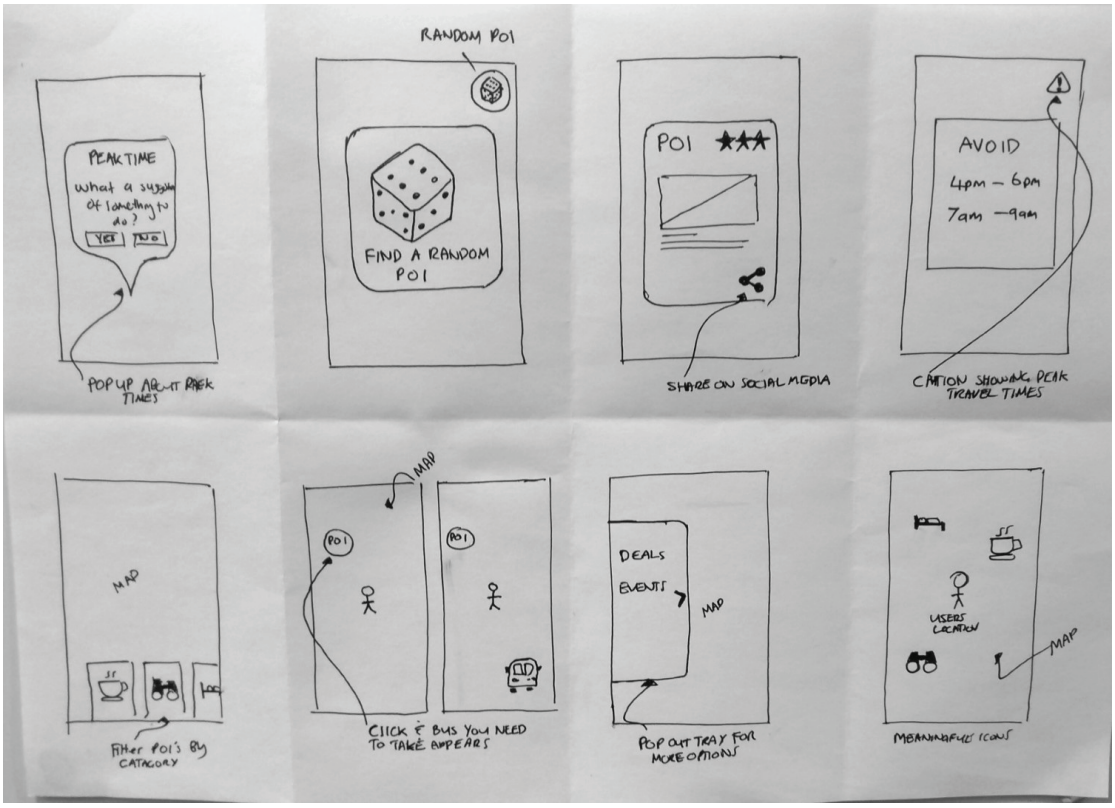
API Research.



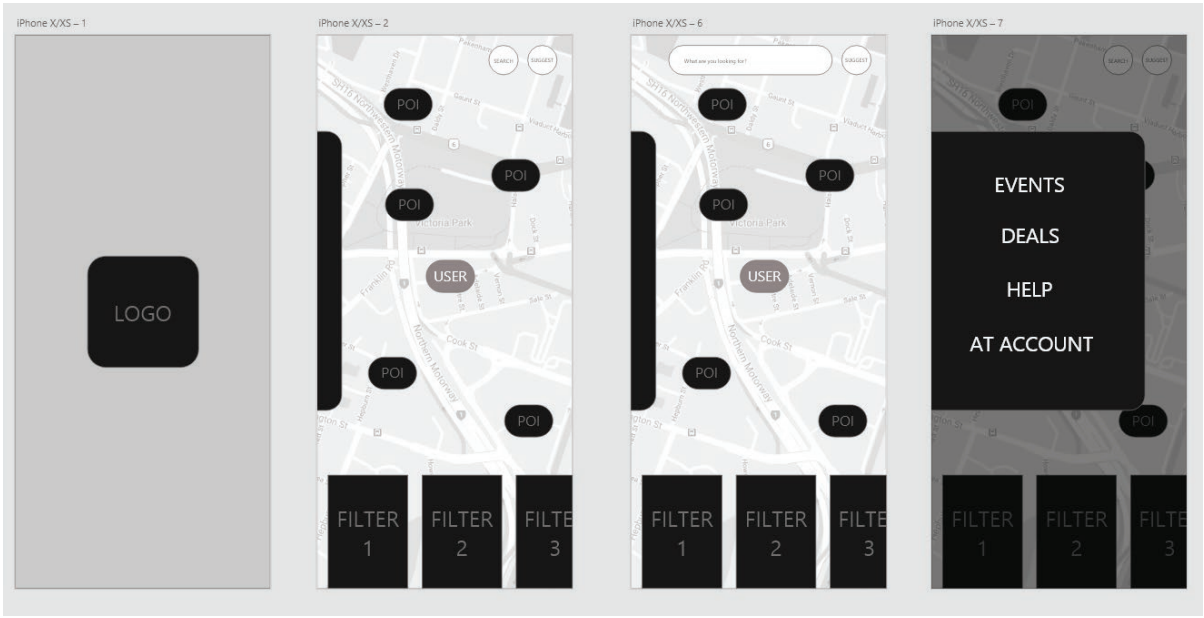


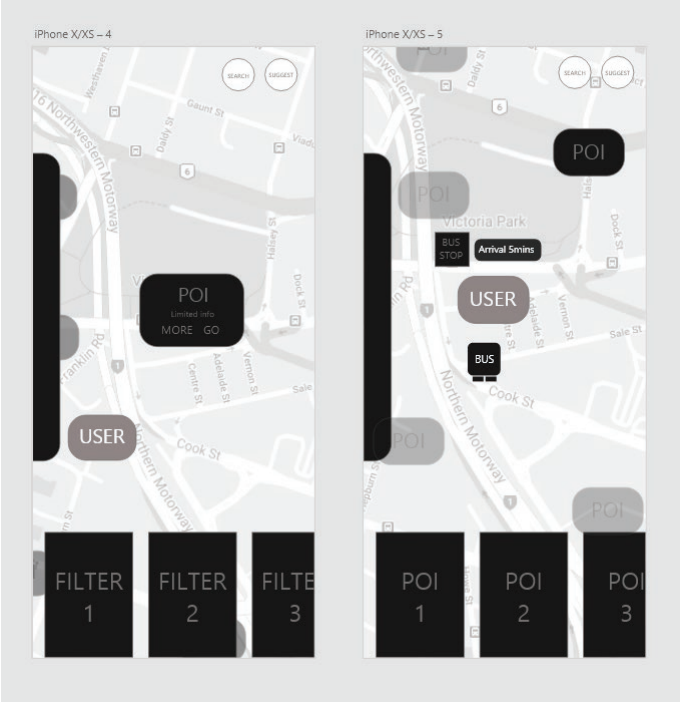
For our formative, so we could get ready for the summative we made a simple webapp for showing buses near a users location using Google Maps & Auckland Transport API. This allowed us to explore getting live buses locations from one of Auckland Transport API endpoints and displaying these on the map using custom Google markers using the latitude and longitude data form AT.

Idea Generation.

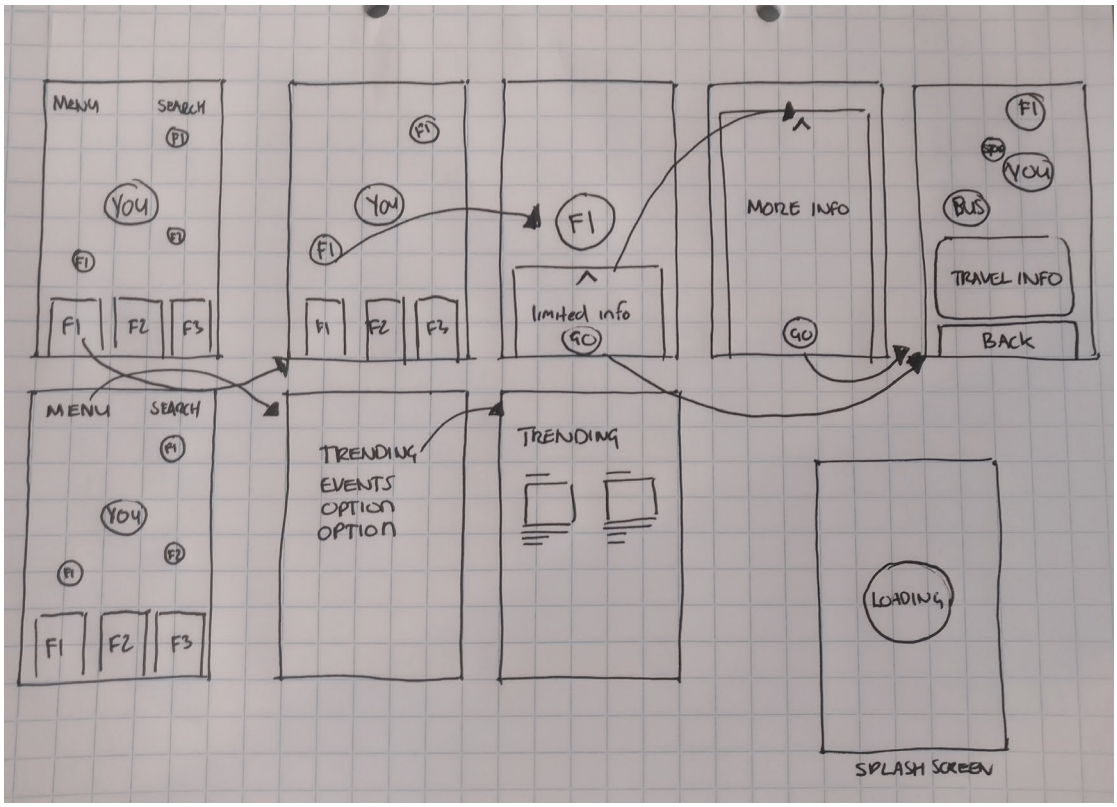


Lo-Fi Individual.





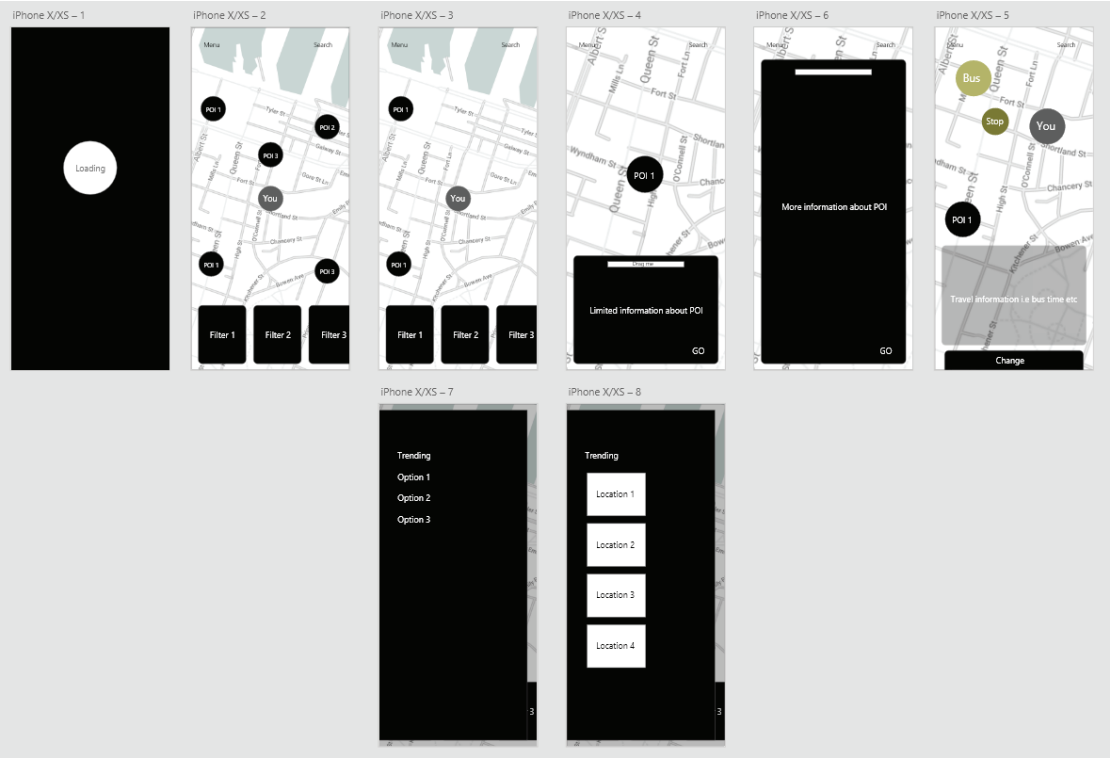
Lo-Fi Group.



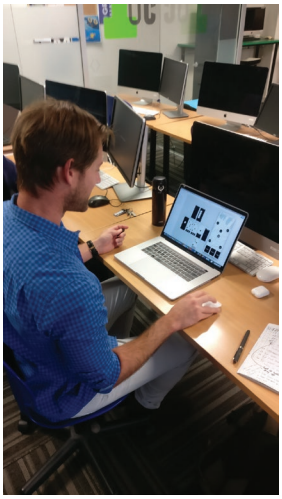
Merging Individual Wireframes

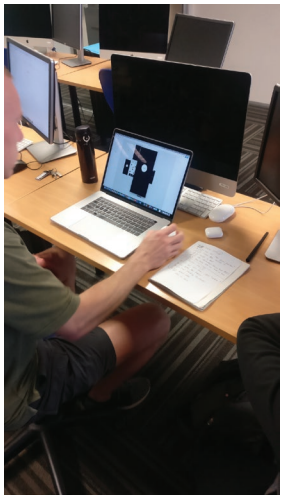
After comparing our wireframes we found we all had similar ideas of how the app should flow, so we created a group wireframe taking ideas that we liked from each. Once we had created the wireframe we user tested it to make sure it was going to meet our project goal and use cases.

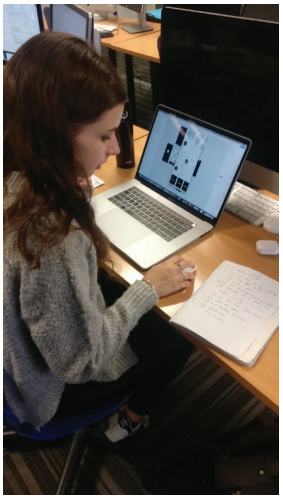
Lo-Fi Group.



Lo-Fi User Testing.







Lo-Fi
User Testing.

User testing as a group

1 Person gave tasks

1 Person recoreded

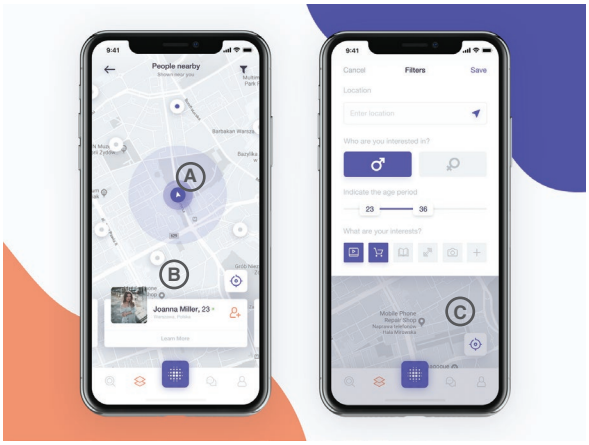
1 Person photographed and watched how they interacted with the prototype

James	Tasmin	Karl (Client)	Karen	Jay	Louella	Nikita	Tim	Katherine	Doug	Ann	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1. Do you see POI's near your location?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2. Can you filter POI's?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	3. Select an POI?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	4. See brief information about that POI?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5. Can you find more Information?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	6. Can you select your transport?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	7. Can you open the menu?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	8. Find trending locations?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9 .Selet a trending location & repeat 4-6?

For user testing our lo-fi wireframe we used Adobe XD which we learnt is not the best idea as it looked too finished even though we didnt spend alot of time on it, users looked at the design when we were more interested in if they could go through the task process easily. So in future we would just use the hand drawn wireframe we did first and test that rather than recreating it in XD.

Every user could complete all tasks, as above users were mentioning icons of filters like an icon of a drink would make more sense then the word 'Filter 1' but since we were doing the lo-fi we tried to keep it as simple as possible and icons would be used in the hi-fi.

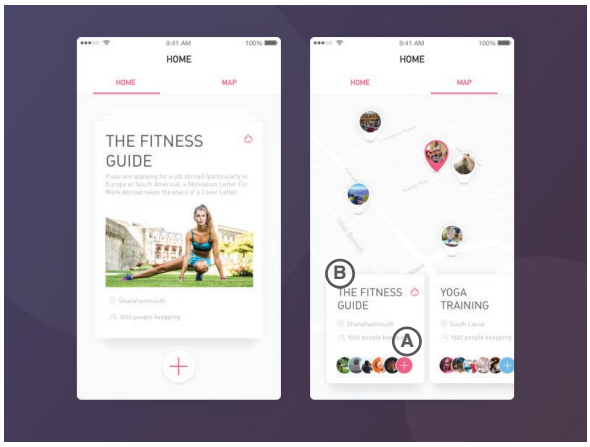
Style Research.



A Faded radius circle which could help provide an idea of distance

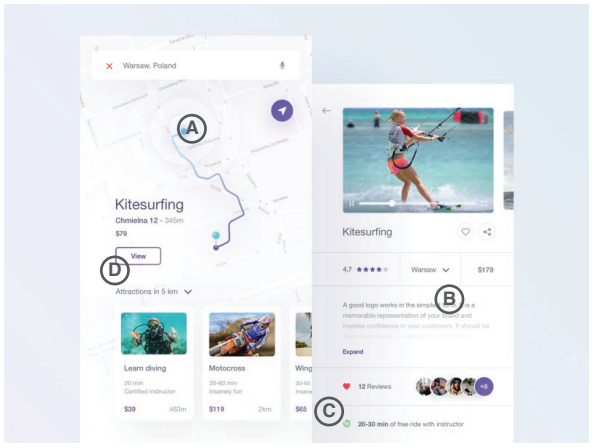
B Overlay to help visual hierarchy of the menu

C Having the map less prominent (light coloured) helps important objects stand out



A Slider style filtering of nearby places

B Shadowing to help nearby titles standout



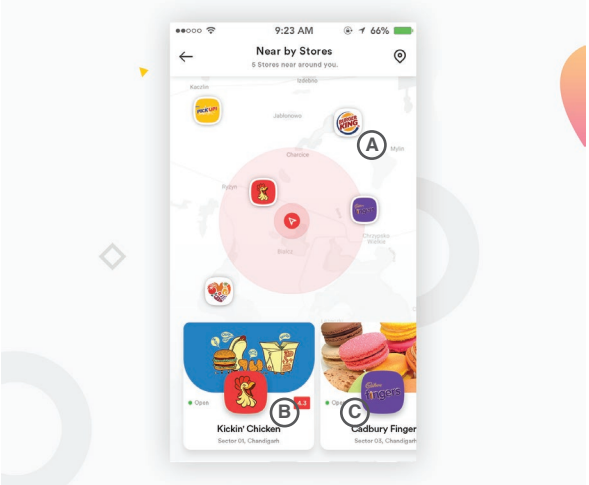
A Important icons have clear visual hierarchy using contrasting colours

B The way the menu is presented makes it very easy to quickly see important information i.e rating, price

C We could provide a similar timer for arrival time from a user's location

D We could use a similar method under the users icon to change the radius of distance to search in.

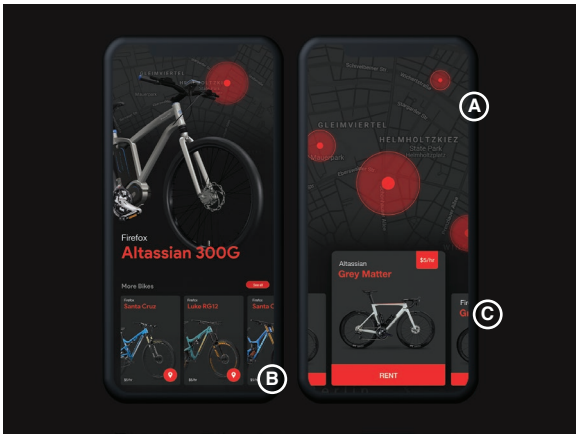
Style Research.



A Nice bright icons which are easy to see on the lighter map

B Simple and clear rating system

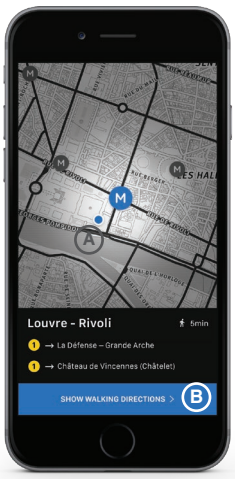
C Nice way of showing a venue is open or closed



A This kind of colour theme could work well for showing evening venues. The app could change tone depending on the time of day/night

B We could present our filtering options like this in a slider

C Selecting could provide more options on how to filter i.e distance

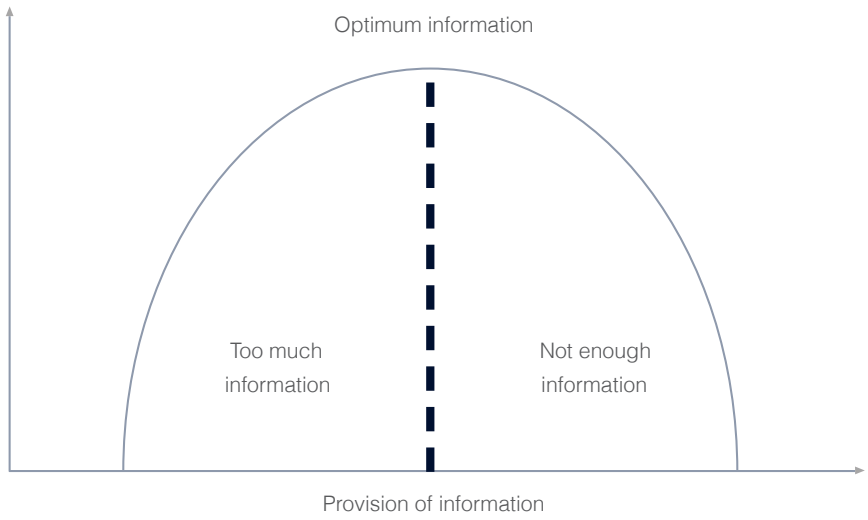


A This is another interesting way to show a radius by using a gradient

B Looks very similar to Auckland Transport signage

AT Branding.

Branding Guidelines



Simplicity thorugh the use of important information and use of graphics in the form of icons.

Use of icons, landmarks and illustrations for legible signage not based on textual language.

AT Branding.

Colour Palette

Legibility through the use of contrasting colours.

Signage Ocean Blue

White

Signage Active Green

Signage Parking Blue

Signage Safety Yellow

Signage Pohutukawa Flower Warnings

Signage Commercial Orange

Icons

Legibility through the use of contrasting colours.

Type Face

AT uses a core typeface of Gotham Narrow. Its dynamic, clear and has a clean, crisp feel. All lettering within the sign system is carried out using this contemporary sans-serif typeface

Gotham Narrow medium

Gotham Narrow light

Gotham Narrow book

Gotham Narrow bold

Hi-Fi Individual.

Individual Wireframe

This is the UI/Design I came up with for my hi-fi wireframe based on the research we did in the initial stages of the project. I also tried to incorporate the Auckland Transport branding guidelines/theme into the project so it kept consistent and would feel familiar to users.

We decided to go ahead with this version of the hi-fi wireframe and start user testing to make sure it was on the right track and received a good response form the client and potential users. We would then incorporate ideas from the other members in the group wireframes and any feedback we got from user testing before going to far into it.

Hi-Fi User Testing.

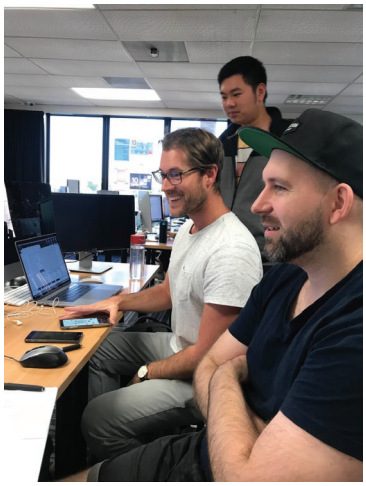
User testing as a group

1 Person Gave Tasks
1 Person Recoreded
1 Person Photographed and watched how they interacted with prototype

We decided to do using testing on early on with our Hi-fi to make sure we were on the right track with the UI and user flow. Results came back good and we received some great feedback on how we could improve certain tasks which failed and suggestions on how we could improve things with other aspects of the prototype.

Ella	Tasmin	Karl (Client)	Katherine	Ann	Kevin (Client)	
✓	✓	✓	✓	✓	✓	1. Can you see your location?
✓	✓	✓	✓	✓	✓	2. Do you see point of interests near your location?
✓	✓	✓	✓	✓	✓	3. Can you filter to find food points of interest?
✓	✓	✓	✓	✓	✓	4. Select a food point of interest?
✓	✓	✓	✓	✓	✓	5. See brief information about that point of interest?
✓	✓	✓	✓	✓	✗	6. Can you find more Information?
✓	✓	✓	✓	✓	✓	7. Can you select your transport?
✓	✗	✓	✓	✓	✓	8. Can find more information on your transport (bus)?
✓	✓	✓	✓	✓	✓	9. Can you change your point of interest?
✓	✓	✓	✓	✓	✓	10. Can you open the menu?
✓	✓	✓	✓	✓	✓	11. Find trending locations?
✓	✓	✓	✓	✓	✓	12 .Select a trending location?
✓	✓	✓	✓	✓	✓	13. Does it look on brand with Auckland transport?

Hi-Fi
User Testing.



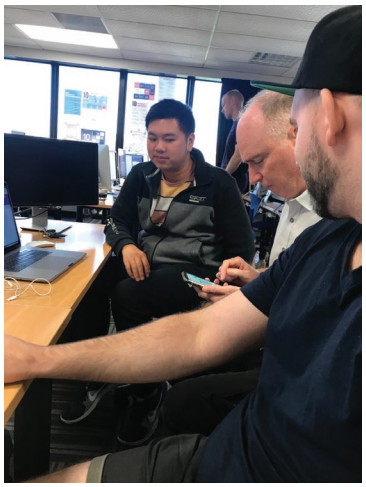
Karl (Client)

Likes - Descriptive icons - don't require text, Colour helps separate icons, On brand

Karl suggested some general feedback on making the prototype better such as making the hotspots larger on the prototype to make it more clear, one example was only using the text as the hotspot rather than the arrow which is what users were wanting to press.

During completing the tasks given he found an issue with finding more information on the selected transport, he suggested working on the bus stop icon as it looked very similar to the bus icon. Suggestions were making the bus stop icon look like a shelter and showing the bus from a top view rather than a front on icon.

General app feedback was, doing some research on onboarding screens to help first time users and spacing out icons at the top so accidental clicks wont happen.

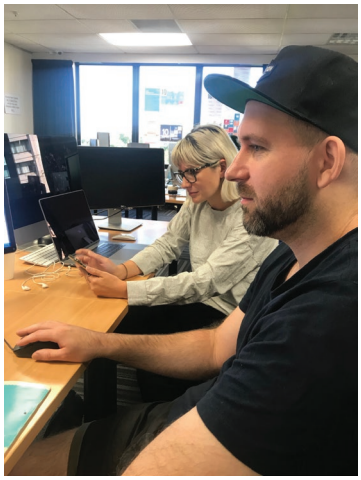


Kevin (Client)

During completing the tasks given he found an issue with knowing how to access more information it required being dragged up to see more, he really liked the UI but suggested we could look at ways of making it more intuitive.

General app feedback was having a look at how we could show the users location clearer, he suggested adding a delay in finding the users so it wasn't just static, we talked about how animations could improve this i,e the user icon dropping in and showing the user first then fading in the points of interest afterwards so it's clear what is going on. He also suggested showing zooming into the users location.

Hi-Fi User Testing.



Ella

Likes - Colour helps separate icons, On brand

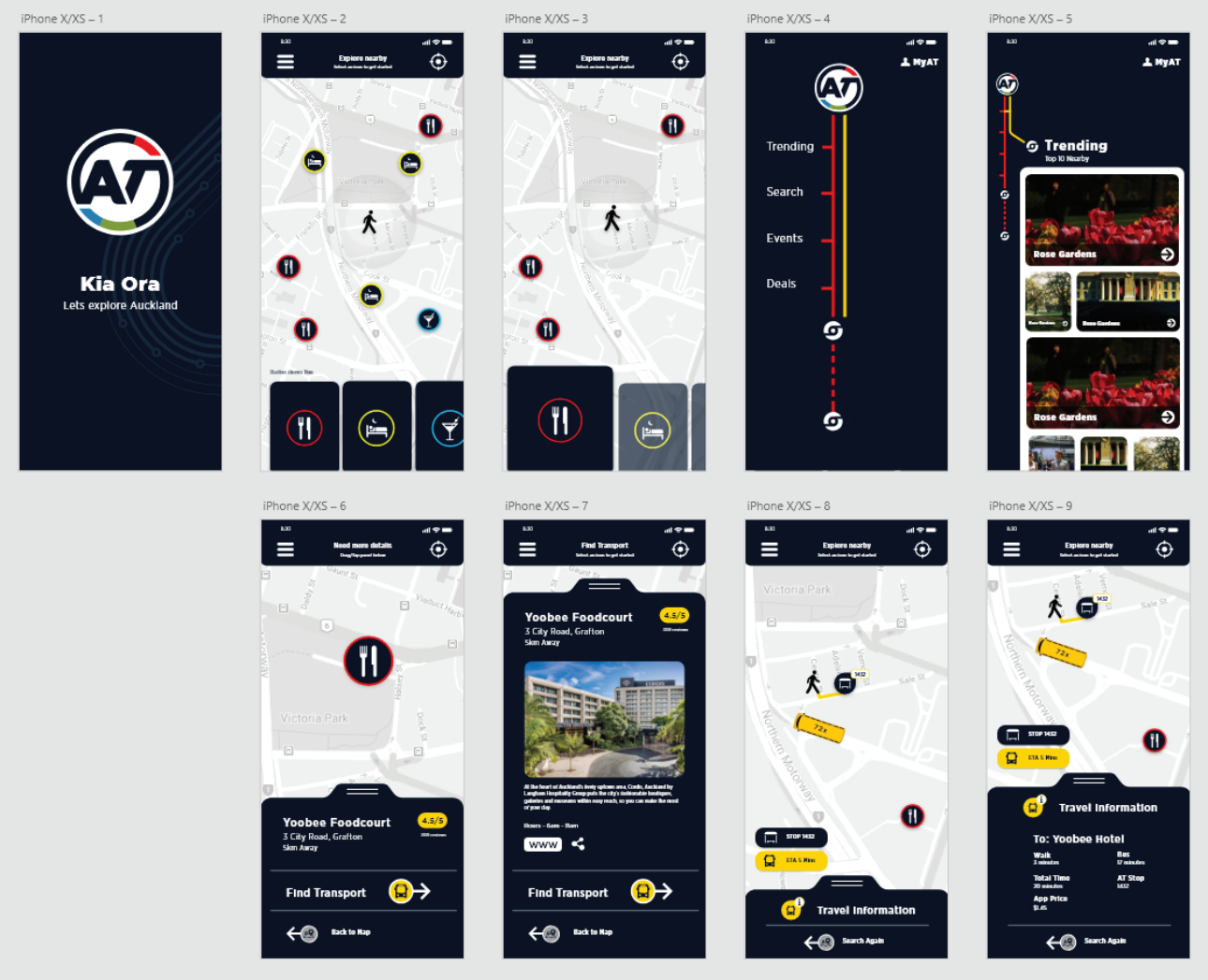
During completing the tasks given she had no issues completing the tasks set out for her.

General app feedback included

One of the suggestions was users will want to go for the search function normally, in this case we are wanting to promote places near the users so we could hide the search from the main screen.

- Changing 'POI' from the splash screen as some users may not know what it means
- Helpful messages for first time users to suggest what to do.
- Changing the menu so it's not full screen so it looks more like a menu
- Dragging icon look at how Samsung and Apple do it
- Oblong buttons for filter options when added

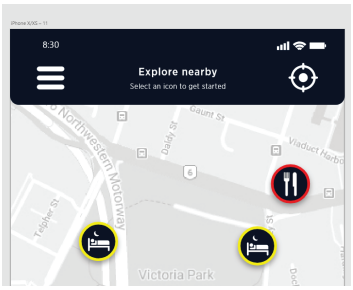
Hi-Fi Revisions.



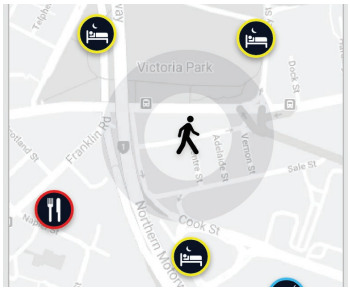
This is the revised hi-fi wireframe after user testing. We started to work on developing our wireframe to help users complete the tasks that failed during testing and making changes based on the feedback we received. We also incorporated ideas from the other members in the group and developed it further together which I feel brought the whole concept together and gave it the finishing touches it needed.

Hi-Fi Revisions.

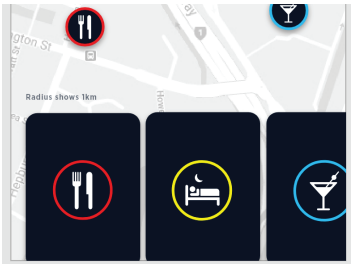
We decided to remove the POI name as it was confusing to some users.



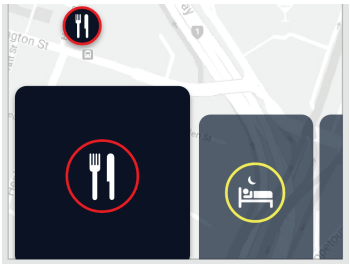
A background was added behind the top navigation to help make it stand out. This also allowed us to put helpful messages to guide the user.



We changed the users icon to the AT walking icon as some users didn't like the previous one.

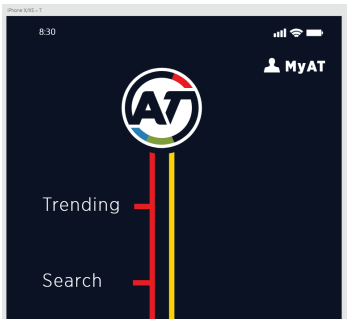


The icons were changed so they can be identified easier by making the ring coloured rather than the actual icon, they also have the appearance of a button which will help users intuitively press them.



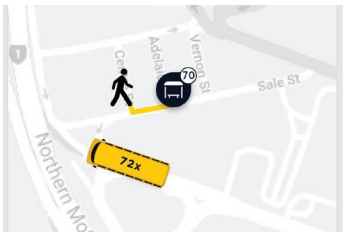
The selected filter gets larger and the unselected filters have opacity added to them.

The pull tab was changed so it was more intuitive to help show users it needed to be dragged up. The icons bus/map also changed combining the arrow in the icon as the previous version was overpowering and the users were trying to click the arrow



We removed the search from the main screen to help users look for locations near them on the main screen rather than just searching for somewhere.

Key information was added to the transport screen, stop information and bus eta.



The bus icon was changed so it was more identifiable to users, we also changed the bus stop icon to a shelter so it is clear what it is.

Hi-Fi User Testing Round 2.

User testing as a group

1 Person gave tasks

1 Person recoreded

1 Person photographed and watched how they interacted with the prototype

Karl (Client)	Nikita	Heath	Erind	Louella	Katherine	Tasmin	Ann	James	Thijmen	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1. Can you see your location?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	2. Do you see point of interests near your location?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	3. Can you filter to find food points of interest?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	4. Select a food point of interest?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	5. See brief information about that point of interest?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	6. Can you find more Information?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	7. Can you select your transport?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	8. Can you find more information on your transport (bus)?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9. Can you change your point of interest?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10. Can you open the hamburger menu?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	11. Can you see trending locations?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	12 . Can you select a trending location?
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13. Does it look on brand with Auckland Transport?

Hi-Fi User Testing Round 2.

Karl (Client)

During user testing Karl had no problems completing the set tasks.

Feedback

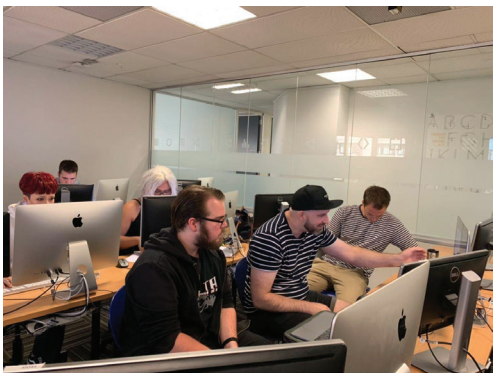
Very impressed with it, thought it looked on brand and better than the official application. He liked that we took the feedback from our last user testing round and implemented it into the project and was looking forward to seeing the final result.

Nikita

During user testing Nikita had no problems completing the set tasks.

Feedback

Nikita really liked the prototype, her first comment was “is this your guys one! it looks legit, thought it was real”.
She mentioned she also wanted to click the bus/shelter icon to see more information.



Heath

During user testing Heath had no problems completing the set tasks.

Feedback

Heath really liked the prototype and really wants to use it.

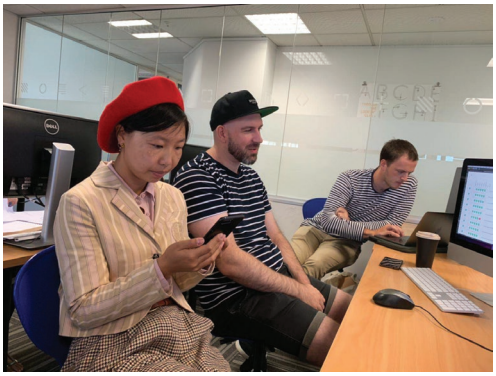
Hi-Fi User Testing Round 2.

Erind

During user testing Erind had no problems completing the set tasks.

Feedback

Erind was really impressed, his words “looks really professional, i’m jealous, YUM”. He also mentioned about wanting to click the bus/shelter icon to see more information.

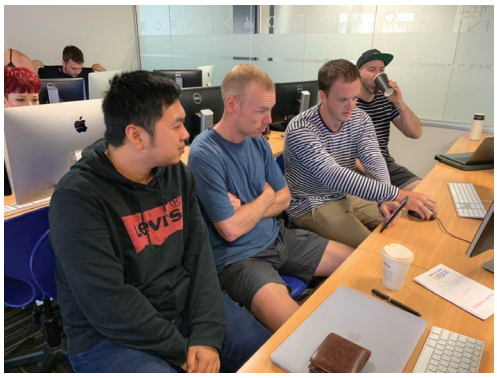


Louella

During user testing Louella had no problems completing the set tasks.

Feedback

Louella really liked the design, she suggested that ranking the trending would be cool, or maybe renaming it to top 10 trending so it becomes more meaningful. She also suggested adding a click option as well as dragging when looking for more information.



Thijmen

During user testing Thijmen had no problems completing the set tasks.

Feedback

Thijmen really liked the design, he mentioned about moving the map center icon off the navbar and replacing it with the AT logo. He also suggested that maybe rather than going back to the beginning it could just go back to the previous screen.

JS Code Resoruces.

Research Resources

Yoobee Javascript best practices

W3schools
https://www.w3schools.com/js/js_best_practices.asp

StandardJS
https://standardjs.com/

Google JS Style Guide
https://google.github.io/styleguide/jsguide.html

Free Code Camp
https://medium.freecodecamp.org/write-less-do-more-with-javascript-es6-5fd4a8e50ee2

JS Code Guide.

We decided to all do some research on JS style guides and choose options that we would like to practice in the group project. Below are the practices that I wanted to include in the group style guide. I researched the above resources and picked out the key rules that I was wanting the group to follow.

- Consistent naming used
- Use single quotes '' over double quotes
- Organize code in a modular pattern
- Declaring variables ie var, let or Const
- Acknowledge all third party scripts using comments
- Comment code using /* Comment */
- Camelcase naming convention to be used - camelCase
- Always use semicolons
- Use jshint to quality assure code

JS Code Guide.

Group JS Style Guide

As a group we compared all our individual JS code guides and combined them into a group JS Code guide for us all the follow. These are the key practices that we have decided to follow.

- Comment code using /* Comment */
- Variables, Camelcase naming convention to be used - camelCase
- Functions, Pascal naming convention - FunctionName
- Name functions and variables logically - Name them what they are
- Declaring variables ie var, let or const
- Use external scripts unless justified
- Consistent naming used
- Use single quotes ‘’ for JS and double quotes “” for html
- Always use semicolons;
- Use jshint to quality assure code
- Make all code readable - Comment each of variables, functions, and blocks
- Don’t repeat - organize code in a modular pattern
- Indent with tab

Website Code Planning.

We did some research on what we thought could be a good way to construct the prototype and what technologies we could potentially use e.g typeitJS plugin for the helpful message.

Coding Task Allocation.

Before starting to code we allocated tasks to each member of the group of what each of us were going to do so we could get the project delivered on time and so we didn't conflict with each other.

Jules O'Dea

Create slider for filter
Create Nav bar
Create Hamburger Menu
Foursquare - Trending data
Foursquare - Trending data into menu
Map - Users geolocation
Helpful messages

Gareth Barnett

Setup up project - Hardcode box in center of screen & Breakpoint remove
Create Splash Screen
Setup - initial google maps function
Create info menu
Foursquare setup - showing 4 venue types on map
Foursquare setup - get selected venue data into info menu (handlebars js) on selection

Jason Lin

Filter options on map using slider
Create Transport section UI
Setup AT API
Get data from Transport API - Fill Info Menu
Transport API - Key info panels
Get Bus id to display on bus icon
AT - Find bus near venue Location
AT - Create bus Stop near user

Coding Tasks Snapshot.

foursquare.js

```
/* Foursquare JS Files */

/* Foursquare settings */
const version = '?v=20170901';
const clientid = '&client_id=H2QZGKM3QVJB2PCW1JREIEJJMRBL1QXZOYIYWGRFDABW4E4Y';
const clientSecret = '&client_secret=GYCB1CW24L0HLFKGOFIHCKOLYZQPVI3ZKDLKE5O3QHCTWGI2';
const key = version + clientid + clientSecret;

/* Icons for Venues */
let icons = {
    food: './assets/images/restauranticon.svg',
    drink: './assets/images/baricon.svg',
    hotel: './assets/images/accommodationicon.svg',
    landmark: './assets/images/sightsicon.svg'
};

/* Foursquare venue categories */
let food = '4d4b7105d754a06374d81259';
let drink = '4bf58dd8d48988d11a941735';
let hotel = '4bf58dd8d48988d1fa931735';
let landmark = '4d4b7104d754a06370d81259';


/* User Location */
let latUser = -36.8569444;
let lngUser = 174.7641288;


/* Display Venues on Map */
let foodUrl = 'https://api.foursquare.com/v2/venues/explore' + key + '&ll='+latUser+','+lngUser+' '+'&categoryId='+ food+'&limit=5&radius=200';
let drinkUrl = 'https://api.foursquare.com/v2/venues/explore' + key + '&ll='+latUser+','+lngUser+' '+'&categoryId='+ drink+'&limit=5&radius=200';
let hotelUrl = 'https://api.foursquare.com/v2/venues/explore' + key + '&ll='+latUser+','+lngUser+' '+'&categoryId='+ hotel+'&limit=5&radius=200';
let landmarkUrl = 'https://api.foursquare.com/v2/venues/explore' + key + '&ll='+latUser+','+lngUser+' '+'&categoryId='+ landmark+'&limit=5&radius=200';



/* Map JS Files */

function initMap(){
    let map, marker;

    map = new google.maps.Map(document.getElementById('map'), {
        center: {lat: -36.8569444, lng: 174.7641288},
        zoom: 17,
        disableDefaultUI: true,
        zoomControl: true,
        zoomControlOptions: {
        position: google.maps.ControlPosition.RIGHT_CENTER,
        },
        styles: mapstyle,
});

```

```

    /* Ajax Request for Food */
    $.ajax({
        url: foodUrl,
        dataType:'jsonp',
        success:function(res){
            requestAllLocationByFilter(res, map, 'food');
        }
    });

    /* Ajax Request for Drinks */
    $.ajax({
        url: drinkUrl,
        dataType:'jsonp',
        success:function(res){
            requestAllLocationByFilter(res, map, 'drink');
        }
    });

    /* Ajax Request for Hotels */
    $.ajax({
        url: hotelUrl,
        dataType:'jsonp',
        success:function(res){
            requestAllLocationByFilter(res, map, 'hotel');
        }
    });


    /* Ajax Request for Landmarks */
    $.ajax({
        url: landmarkUrl,
        dataType:'jsonp',
        success:function(res){
            requestAllLocationByFilter(res, map, 'landmark');
        }
    });

}; // End Display Venues on Map


let placeLocationObj = {
    food: [],
    drink: [],
    hotel: [],
    landmark: [],
}

```

Coding Tasks Snapshot.

```
function requestAllLocationByFilter(obj, map, categoryVal){
    let data = obj.response.groups["0"].items;
    let venues = data.map(function(item){
        let lat = item.venue.location.lat;
        let lng = item.venue.location.lng;
        let venueName =  item.venue.name;
        placeLocationObj[categoryVal].push([true, Number(lat), Number(lng), venueName.toString(), icons[categoryVal].toString(), item.venue.id]);

        let marker = new google.maps.Marker({
            map: map,
            icon: {url: icons[categoryVal], scaledSize: new google.maps.Size(50, 50)},
            position: {lat: lat, lng: lng},
            title: venueName
        });

        marker.venueid = item.venue.id;

        /* Click function on Marker */
        marker.addListener('click',function(){
            var venueUrl = 'https://api.foursquare.com/v2/venues/' + this.venueid + key;
            $.ajax({
                url:venueUrl,
                dataType:'jsonp',
                success: function(res){

                /* Hide the Filter Panel */
                panel.classList.add('hide');

                /* Hide the Filter Panel */
                infoMenuContainer.classList.remove('hide');

                /* Fill info menu with data */
                createInfoMenu(res);

                }
            });
        });

    });

}
```

```

let source;

function createInfoMenu(res) {

    /* Handle Bars JS*/

    if (!source) {
        source = document.querySelector('#infoMenuData').innerHTML;
    }
    const template = Handlebars.compile(source);

    const compiledHtml = template(res);

    const infoMenuText = document.getElementsByClassName("infoMenuBody")[0];

    infoMenuText.innerHTML = compiledHtml;

    /* Handle Bars JS End */


}


console.log(placeLocationObj)

let foodFilter = document.getElementById('foodFilter');

foodFilter.addEventListener("click", function () {

alert("success")

});


```

Final version will vary as it has been restructured with other members of the group using certain functions etc.

Handlebars JS.

```
<div class="infoMenuBody container">

   <script id="infoMenuData" type="text/x-handlebars-template">

   {{#if response.venue.rating}}
   <div class="venueRating">
       {{response.venue.rating}}/10
   </div>
   {{else}}
   <div class="venueRating">
       N/A
   </div>
   {{/if}}


   {{#if response.venue.hours.status}}
       <div class="venueStatus"><img src="assets/images/open.svg"></div>
   {{/if}}


   <div class="venueName">
       {{response.venue.name}}
   </div>


   {{#if venue.location.address}}
   <div class="venueAddress">
       {{response.venue.location.address}}
       {{response.venue.location.city}}
   </div>
   {{else}}
   <div class="venueAddress">
       Auckland
   </div>
   {{/if}}


   <div class="venueDistance">
       4km Away
   </div>

   {{#if response.venue.bestPhoto.prefix}}
   <div class="venueImage">
       <img src={{response.venue.bestPhoto.prefix}}320x200{{response.venue.bestPhoto.suffix}}>
   </div>
   {{else}}
   <div class="venueImage">
       <img src="assets/images/default.jpg">
       </div>
   {{/if}}


   {{#if response.venue.description}}
   <div class="venueDescription">
       {{response.venue.description}}
   </div>
   {{else}}
   <div class="venueDescription">
       Check in at this venue and write a discription to share with others.
   </div>
   {{/if}}


   {{#if response.venue.url}}
   <div class="venueWebsite">
       <a href="{{response.venue.url}}">WWW</a>
   </div>
   {{/if}}

    <div class="venueShare">
```

Handlebars js script I wrote for displaying data in the information panels from the Foursquare API

We were shown a templating library in class called Template 7 which I found quite interesting. I thought this project could be a good place for me to learn a more popular and powerful one called handlebars js. So I pitched the idea of me using it for the project and the other members of the group thought it was a great idea and it gave them a chance to also learn it and see how it works and interacts with javascript.

Production Tools.

Project Management
Managing the project and making sure we are hitting milestones.

Prototyping
Adobe XD was used for creating mockups for and testing to make sure the use case and user requirements are being met before coding.

Creating & Editing Illustrations
Photoshop & Illustrator were heavily used in the project due to the style of the website for creating and modifying content

Text Editor
Sublime is the chosen text editor tool for the project which is used for coding html, css and js

Development
Html was used for the markup. CSS and Sass were used for styling.

Debugging JS
Chrome DevTools was used in the project to find bugs and issues while coding.

Foursquare API
The Foursquare API provides location based experiences with diverse information about venues. This was used to provide venue data for the project.

Ajax
Ajax was used to request data from the the API databases we were accessing.

Production Tools.

Automation
Gulp was used to automate certain tasks such as compiling sass and minifying JS for production. Gulp was also used for development using browser sync.

Javascript linting
JSHint was used to validate the js code to help find errors and correct them and test against industry standards.

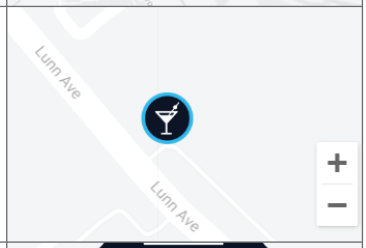
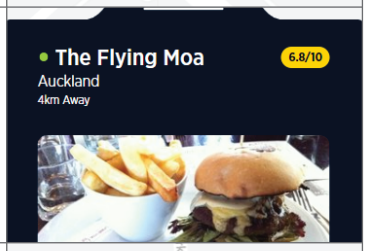
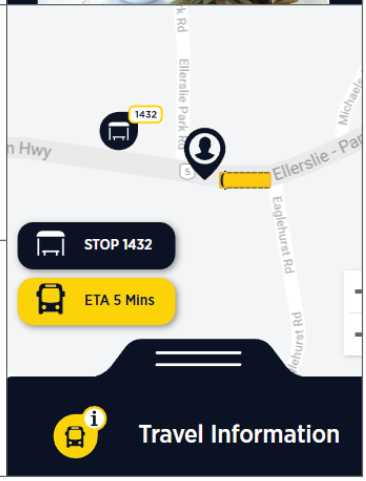
Handlebars JS
Handlebars was used to build a template for the data from the Foursquare API to be passed into the information menu.

Github
Github was used for working collaboratively with others in the group and is a great system which provides version control for the project

Logic & Dom Manipulation
Javascript and the JQuery library were used for Dom & logic manipulation as well as plugins such as Handlebars, Typeit, Swiper etc.

Google Maps Api
The Google Maps API was used for showing the users location and venue locations on a map.

Usecase Deliverables.

Use Cases Tasks	Technology How it can be used in this project	Implementation
See users location	**Google Geolocation Api** https://cloud.google.com/maps-platform/ Google Maps platform allowed us to get the users location with their Geolocation Api.	
See a Map	**Google Maps Api** https://cloud.google.com/maps-platform/ This technology allows us to show the user a map, and display venues using custom google map markers.	
Find a venue	**Foursquare Api** https://developer.foursquare.com/ We used the explore endpoint and category filter to find the venues we wanted to display to the user. https://api.foursquare.com/v2/venues/explore	
Get venue information	**Foursquare Api** Then using the venue ID from the users selected venue from the explore endpoint, we reference it aganist the venues endpoint to get information on that selected venue. https://api.foursquare.com/v2/venues/	
Find transport	**Auckland Transport Api** https://dev-portal.at.govt.nz/ The Realtime Transit Feed (GTFS) vehicle position endpoint allows us to get bus/vehicle positions in realtime to display on the map using their longitude and latitude positions	
Go to venue	**Auckland Transport Api** https://dev-portal.at.govt.nz/ Using the General Transit Feed (GTFS) route ID endpoint and cross referencing the bus route ID from the vehicle positions endpoint allowed us to get more information on each bus. i.e Bus number/ bus stop	

Task Automation.

gulpfile.js

```
/* Jules Gareth Jason */
let gulp = require("gulp");
let sass = require("gulp-sass");
let browserSync = require("browser-sync").create();
let autoprefixer = require('gulp-autoprefixer');
let scssPath = "./assets/styles/sass/**/*.scss"; //globbing
let cssPath = "./assets/styles/css";

/* Jules  */
gulp.task('prefix', () =>
    gulp.src('./assets/styles/css/main.css')
        .pipe(autoprefixer({
            browsers: ['last 2 versions'],
            cascade: false
        }))
        .pipe(gulp.dest('./assets/styles/css/'))
);
/* Jules  */
/* Gareth  */
function style() {
    return (
        gulp
            .src(scssPath)
            .pipe(sass())
            .on("error", sass.logError)
            .pipe(gulp.dest(cssPath))
            .pipe(browserSync.stream())
    );

}

function update(done) {
    browserSync.reload();
    done();
}
/* Gareth  */
/* Jason */
function mywatch() {

    browserSync.init({
        server: { baseDir: "./" }
    });

    gulp.watch("*.html", update);
    gulp.watch("./assets/scripts/*.js", update);
    gulp.watch(scssPath, style);
}
/* Jason */

exports.sass = style;

exports.mywatcher = mywatch;
/* Jules Gareth Jason */

```

gulpfile.js | package.json

```
{
  "name": "atnearby",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "repository": {
    "type": "git",
    "url": "git+https://github.com/GarethBarnett/nearby.git"
  },
  "author": "",
  "license": "ISC",
  "bugs": {
    "url": "https://github.com/GarethBarnett/nearby/issues"
  },
  "homepage": "https://github.com/GarethBarnett/nearby#readme",
  "devDependencies": {
    "browser-sync": "^2.26.3",
    "gulp": "^4.0.0",
    "gulp-sass": "^4.0.2",
    "node-sass": "^4.11.0"
  },
  "dependencies": {
    "gulp-autoprefixer": "^6.0.0"
  }
}

```

Gulp is a open source toolkit for automating painful or time-consuming tasks in a development workflow. Gulp is great because we only had to set it up once as a group then we could all use it while working on the project.

The following dependencies were used for our project

Gulp Sass - For compiling our scss files into css for production.

Gulp Autoprefixer - This will prefix css to help browser support in the majority of browsers on the market.

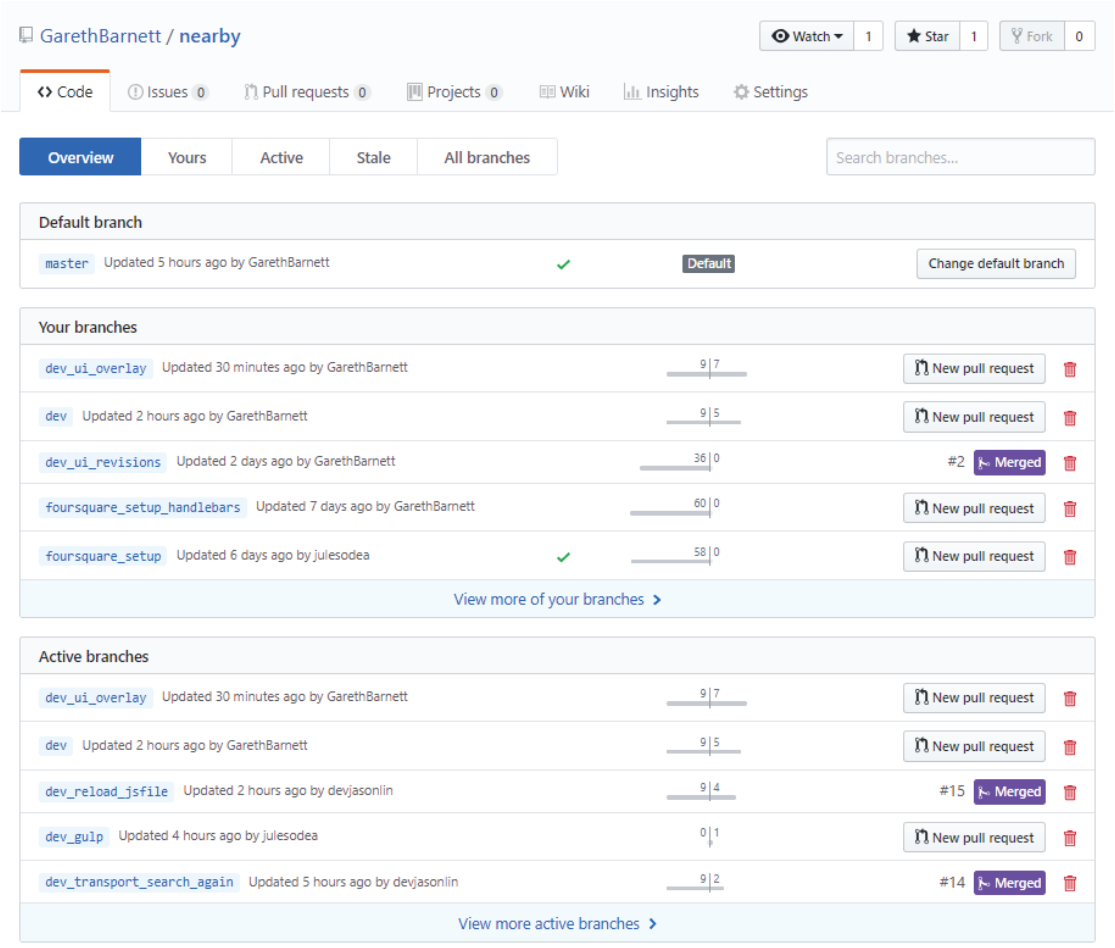
Browser Sync - Is a great development tool which displays the prototype in real time and updates when changes are made which saves needing to refresh manually.

.

Version Control.

GitHub

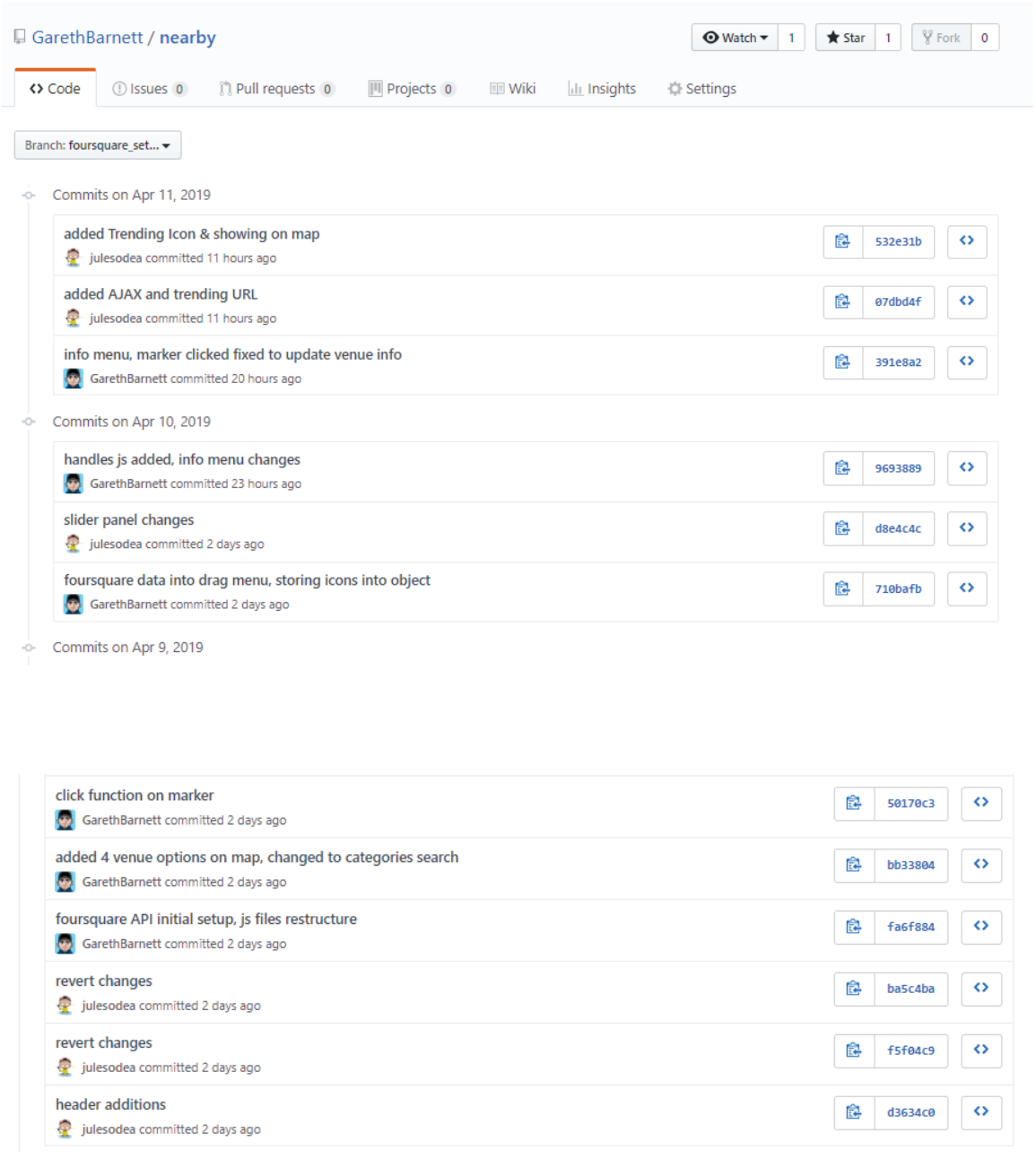
We learnt alot using Github for this project. The first thing we learnt was the importance of planning a project properly for a group so we didn't encounter issues or end up working on the same thing and overlapping. We also learnt how to merge and work with branches properly as we previously had only used it very briefly before this project so it gave us a good opportunity to upskill. We tried to use it as if we were in the industry, so rather than naming branches with our names, we opted for giving branches meaningful titles of what we were working on following the Yoobee version control best practices. The second thing we learnt was merging in Terminal vs on Github, for the first half of the project we merged branches in Terminal then realised we could do it through pull requests on Github so we switched to this method which gives a merged icon.



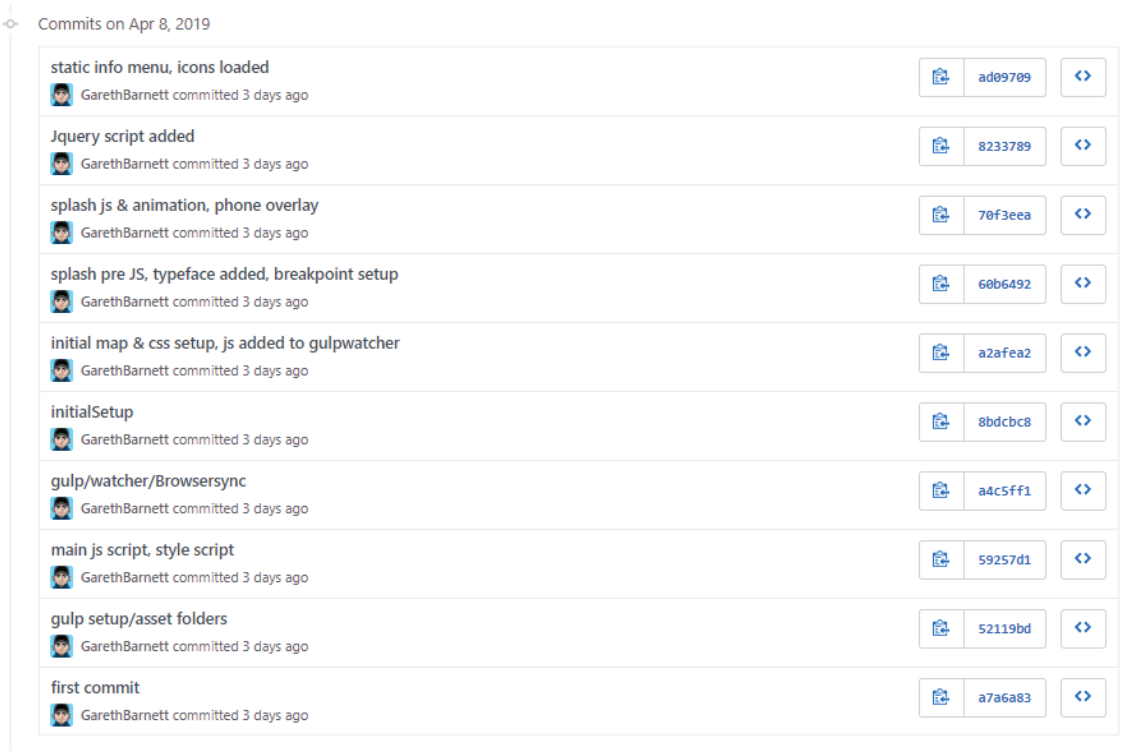
Snap shot showing Github usage of creating and using branches.

Version Control.

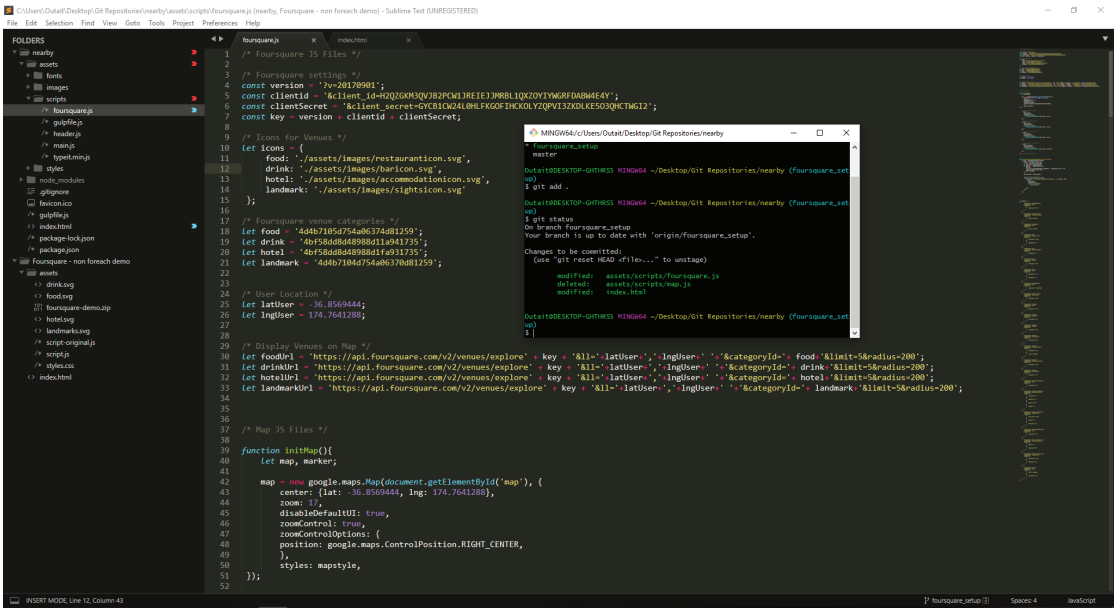
Snap shot showing Github usage of committing work while using meaningful messages of what each commitment was for and highly active in contributing to the project.

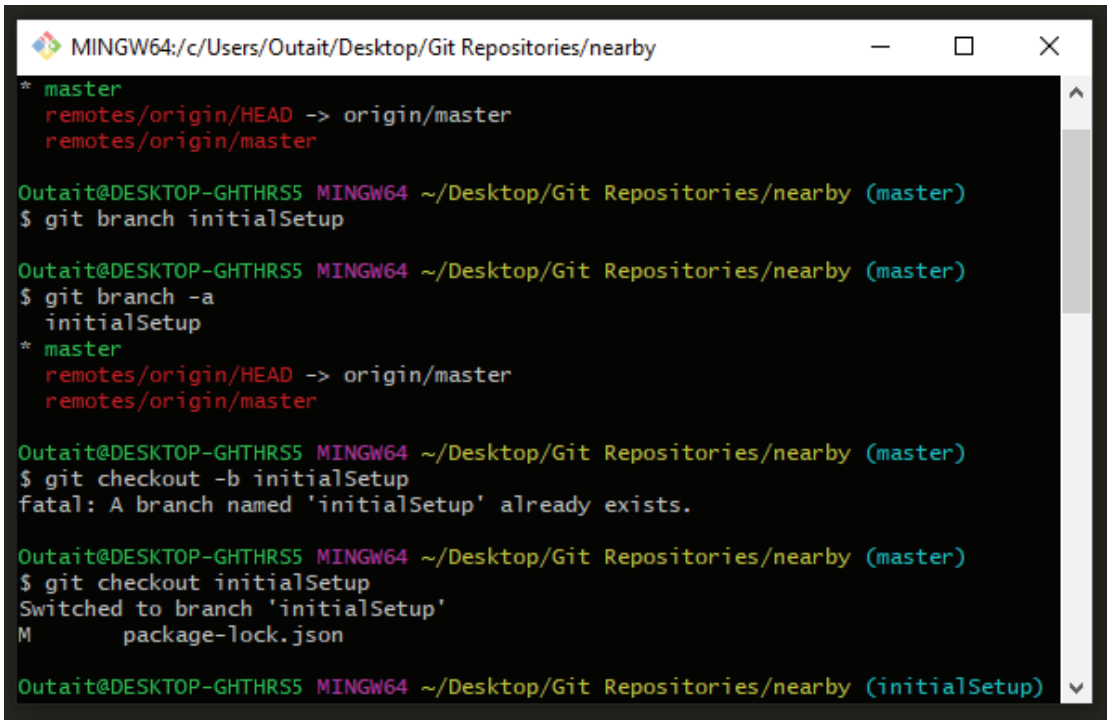


Version Control.



Terminal Usage.





JS Linting.

https://jshint.com

```
130       hotel: [],
131       landmark: [],
132       /* Jules */
133       trending: []
134       /* Jules */
135   };
136   /* Gareth */
137
138   let allMarkers = [];
139   /* Jason */
140   let placeToGo;
141   let placeToGoDetails;
142   let userLocation = { lat: latUser1, lng: lngUser1 };
143   /* Jason */
144
145
146   /* Gareth */
147   function requestAllLocationByFilter(obj, map, categoryVal) {
148       let data = obj.response.groups["0"].items;
149       let venues = data.map(function (item) {
150           let lat = item.venue.location.lat;
151           let lng = item.venue.location.lng;
152           let venueName = item.venue.name;
153           let placeDetails = [true, Number(lat), Number(lng), venueName.toString(), icons[ca
154           placeLocationObj[categoryVal].push(placeDetails);
155           let marker = new google.maps.Marker({
156               map: map,
157               icon: { url: icons[categoryVal], scaledSize: new google.maps.Size(50, 50) },
158               position: { lat: lat, lng: lng },
159               title: venueName
160           });
161           marker.venueid = item.venue.id;
162           /* Click function on Marker */
163           marker.addListener('click', function () {
164               var venueUrl = 'https://api.foursquare.com/v2/venues/' + this.venueid + key;
165               $.ajax({
166                   url: venueUrl,
167                   dataType: 'jsonp',
168                   success: function (res) {
169                       /* Hide the Filter Panel */
170                       panel.classList.add('hide');
171                       /* Hide the Filter Panel */
172                       infoMenuContainer.classList.remove('hide');
173                       /* Fill info menu with data */
174                       createInfoMenu(res);
175
176                       /* Jules */
177                       map.setZoom(18);
178                       map.setCenter(marker.getPosition());
179                       placeToGo = placeDetails[5];
180                       placeToGoDetails = placeDetails;
181                       /* Jules */
182                   }
183               });
184           });
185           allMarkers.push(marker);
186       });
187
188   }
189   /* Gareth */
190
191   /* Gareth */
192   let source;
193
194   function createInfoMenu(res) {
195
196       /* Handle Bars JS*/
197
198       if (!source) {
199           source = document.querySelector('#infoMenuData').innerHTML;
200       }
201       const template = Handlebars.compile(source);
202
203       const compiledHtml = template(res);
```

CONFIGURE

Metrics

There are 16 functions in this file.

Function with the largest signature take 3 arguments, while the median is 1.

Largest function has 9 statements in it, while the median is 2.

The most complex function has a cyclomatic complexity value of 2 while the median is 1.

Javascript files passed with no errors or warnings

JS Best Practices.

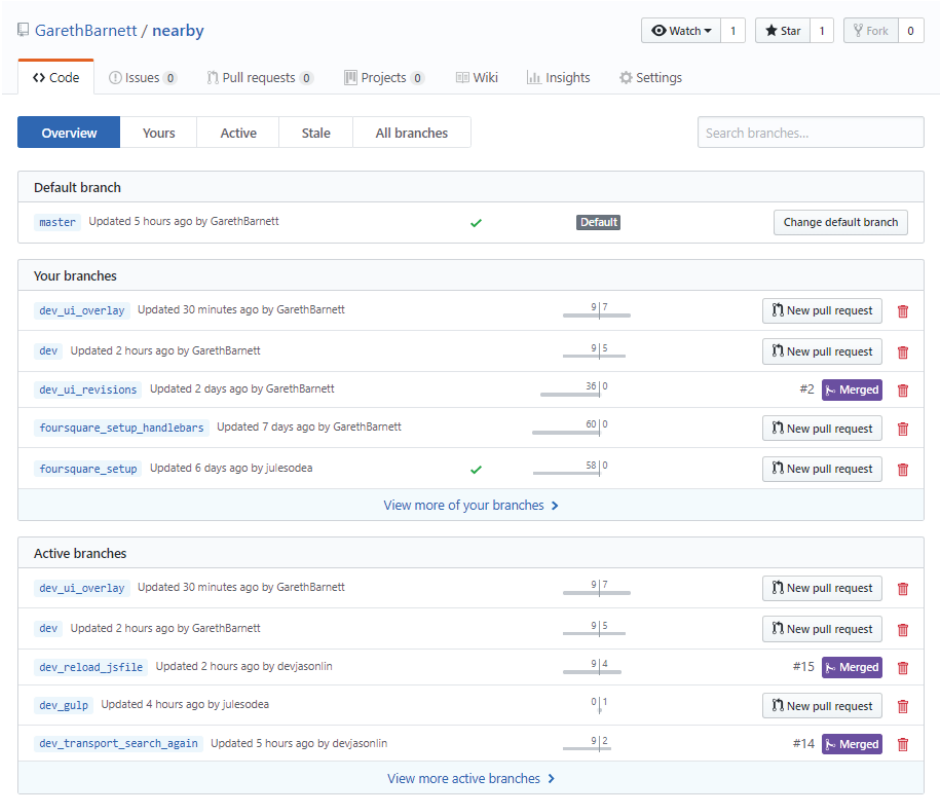
```
    <!-- Jquery -->
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/
    <!-- Google Maps -->
    <script async defer
    src="https://maps.googleapis.com/maps/api/js?key=AIzaSyADM
    <!-- Map & Foursquare -->
    <script src="assets/scripts/foursquare.js"></script>
    <!-- Handlebars -->
    <script src="https://cdnjs.cloudflare.com/ajax/libs/handle
    <!-- TypeIt -->
    <script src="assets/scripts/typeit.min.js"></script>
    <!-- Swiper -->
    <script src="https://cdnjs.cloudflare.com/ajax/libs/Swiper
    <!-- Header -->
    <script src="assets/scripts/header.js"></script>
    <!-- Main script -->
    <script src="assets/scripts/main.js"></script>
    <!-- Transport script -->
    <script src="assets/scripts/transport.js"></script>
    <!-- Filter script -->
    <script src="assets/scripts/filter.js"></script>
</body>
```

- External scripts used ✓
- Minimise the number of scripts ✓
- Third party scripts acknowledged ✓

```
    /* Ajax Request for Hotels */
    $.ajax({
        url: hotelUrl,
        dataType: 'jsonp',
        success: function (res) {
            requestAllLocationByFilter(res, map, 'hotel');
        }
    });


    /* Ajax Request for Landmarks */
    $.ajax({
        url: landmarkUrl,
        dataType: 'jsonp',
        success: function (res) {
            requestAllLocationByFilter(res, map, 'landmark');
        }
    });
    /* Gareth */




    /* Jules */

    /* Ajax Request for Trending */
    $.ajax({
        url: trendingUrl,
        dataType: 'jsonp',
        success: function (res) {
            requestAllLocationByFilter(res, null, 'trending');
        }
    });
    /* Jules */


    /* Gareth */
} /* End Display Venues on Map */

let placeLocationObj = {
    food: [],
    drink: [],
    hotel: [],
    landmark: [],
    /* Jules */
    trending: []
    /* Jules */
};

/* Gareth */


let allMarkers = [];

/* Jason */
let placeToGo;
let placeToGoDetails;
let userLocation = { lat: latUser1, lng: lngUser1 };
/* Jason */


/* Gareth */
function requestAllLocationByFilter(obj, map, categoryVal) {
    let data = obj.response.groups["0"].items;
    let venues = data.map(function (item) {
        let lat = item.venue.location.lat;
        let lng = item.venue.location.lng;
        let venueName = item.venue.name;
        let placeDetails = [true, Number(lat), Number(lng), venueName.toString(), icons[categoryVal].toSt
        placeLocationObj[categoryVal].push(placeDetails);

        let marker = new google.maps.Marker({
```

- Comment code using /* Comment */ ✓
- Variables, Camelcase naming convention to be used - camelCase ✓
- Functions, Pascal naming convention - FunctionName ✓
- Name functions and variables logically - Name them what they are ✓
- Declaring variables ie var, let or const ✓
- Consistent naming used ✓
- Use single quotes '' for JS and double quotes "" for html ✓
- Always use semicolons; ✓
- Use jshint to quality assure code ✓
- Make all code readable - Comment each of variables, functions, and blocks ✓
- Don't repeat - organize code in a modular pattern ✓
- Indent with tab ✓

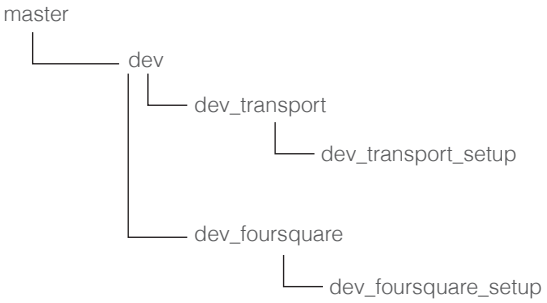
VC Best Practices



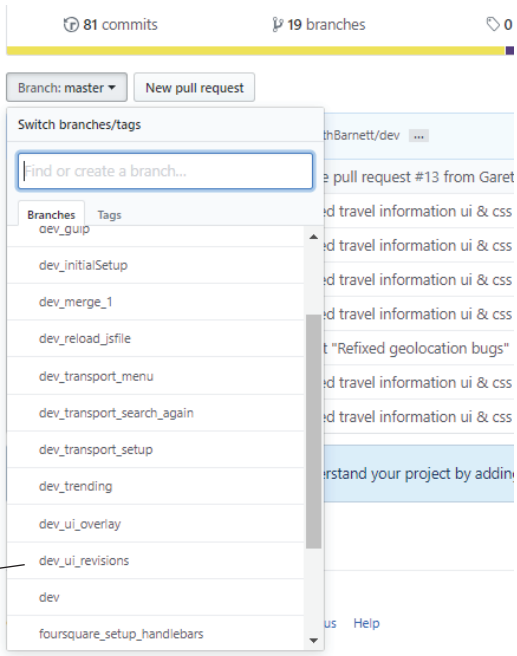
As a group we decided the master branch will be only be used for commiting complete chunks of code. We will be using dev branches for development, each branch that gets worked on should be created from the dev branch for each feature/section we are working on i.e dev_transport_menu.

Once work is completed on that branch a pull request will be created on Github. The team will then have a scrum meeting whether that be in person or online making sure everyone is happy with the request then it will be approved and merged back to dev.

VC Best Practices.

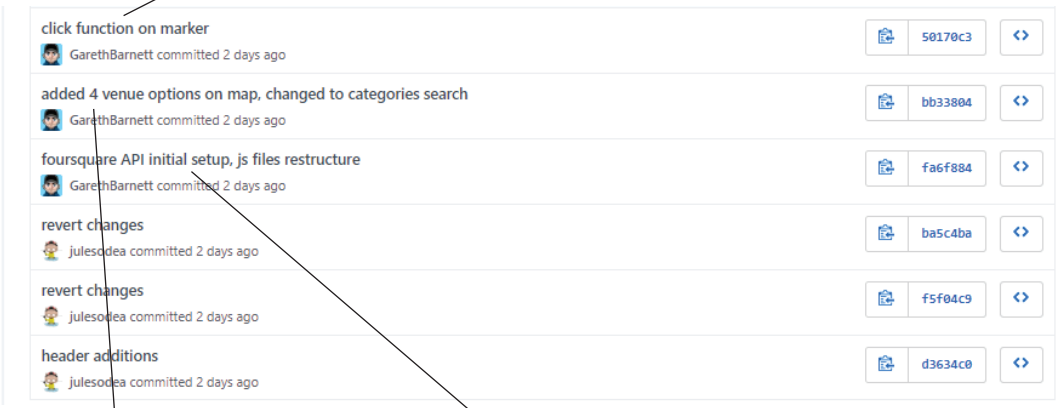


Agreed group workflow and naming conventions



Not working on master branch dev for merging

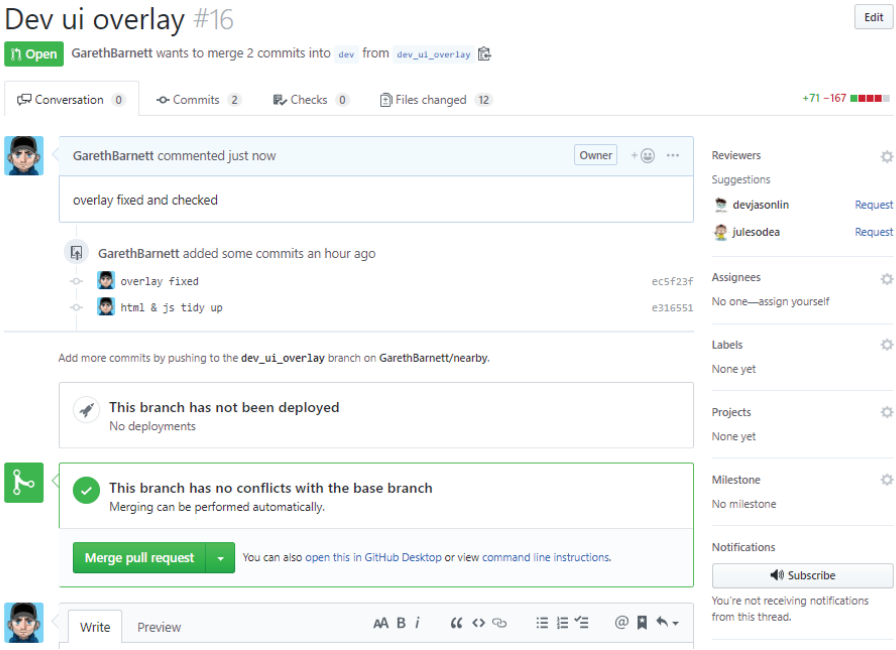
Meaningful commit messages



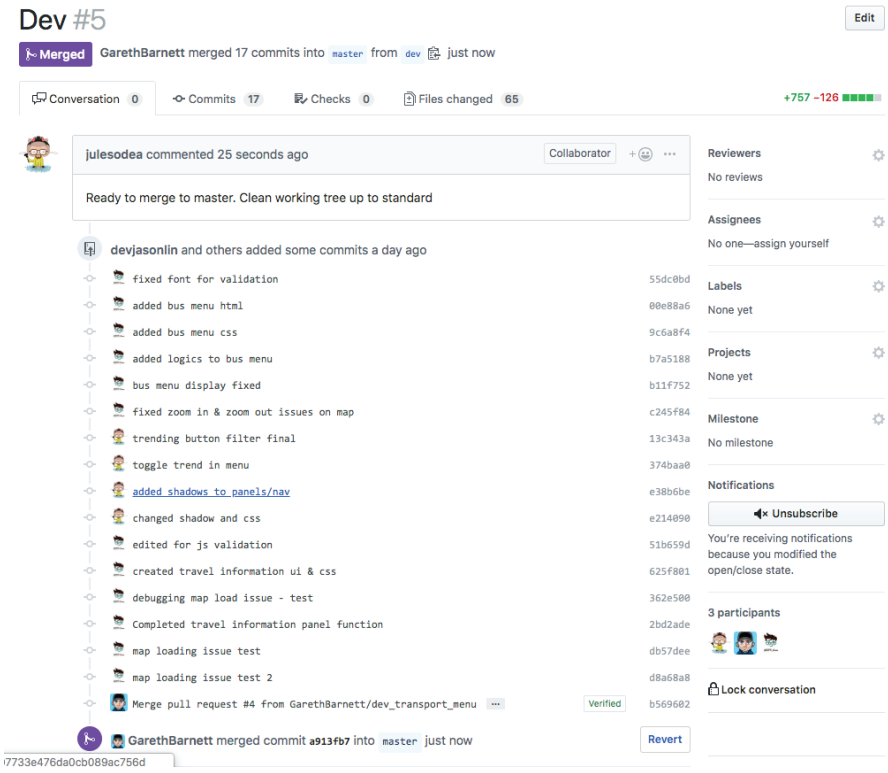
Small and logical commits

Committing early and often

Version Control.



Creating a pull request for merging



Approving a merge request

Html & CSS Validation.

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for contents of text-input area

Checker Input

Show source outline image report Options...

Check by text input css

```
<!DOCTYPE html>
<html lang="en">
        <head>
                <meta charset="UTF-8">
                <meta name="viewport" content="width=device-width,height=device-height,initial-scale=1.0" />
                <link rel="shortcut icon" href="favicon.ico" type="image/x-icon">
                <link rel="icon" href="favicon.ico" type="image/x-icon">
                <link rel="stylesheet" type="text/css" href="assets/styles/css/reset.css">
                <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/Swiper/4.5.0/css/swiper.css">
                <link rel="stylesheet" type="text/css" href="assets/styles/css/main.css">
                <link rel="stylesheet" type="text/css" href="assets/styles/css/animate.css">
                <link rel="stylesheet" type="text/css" href="assets/styles/css/map.css">
                <link href="assets/styles/css/hamburgers.css" rel="stylesheet">
                <title>AT Explore Nearby</title>
        </head>
```

Check

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

Document checking completed. No errors or warnings to show.

HTML passed with no errors or warnings

Jump to: Warnings (46) Validated CSS

W3C CSS Validator results for TextArea (CSS level 3 + SVG)

Congratulations! No Error Found.

This document validates as CSS level 3 + SVG !

To show your readers that you've taken the care to create an interoperable Web page, you may display this icon on any
add this icon to your Web page:

```
<p>
    <a href="http://jigsaw.w3.org/css-validator/check/referer">
        <img style="border:0;width:88px;height:31px"
            src="http://jigsaw.w3.org/css-validator/images/vcss"
            alt="Valid CSS!" />
    </a>
</p>
```

```
<p>
<a href="http://jigsaw.w3.org/css-validator/check/referer">
    <img style="border:0;width:88px;height:31px"
        src="http://jigsaw.w3.org/css-validator/images/vcss-blue"
        alt="Valid CSS!" />
    </a>
</p>
```

Warnings (46)

URI : TextArea

78	-webkit-transform is an unknown vendor extension
133	-webkit-transform is an unknown vendor extension
140	-webkit-transition is an unknown vendor extension
142	-webkit-transform is an unknown vendor extension
216	-webkit-transform is an unknown vendor extension
227	-webkit-transform is an unknown vendor extension
233	-webkit-box-shadow is an unknown vendor extension
243	-webkit-box is an unknown vendor extension
244	-ms-flexbox is an unknown vendor extension
246	-webkit-box-orient is an unknown vendor extension
247	-webkit-box-direction is an unknown vendor extension
248	-ms-flex-direction is an unknown vendor extension
250	-webkit-box-pack is an unknown vendor extension
251	-ms-flex-pack is an unknown vendor extension
253	-webkit-box-align is an unknown vendor extension

CSS Has passed with no errors, but does show warnings these warnings will help support browser compatibility efforts. The validator only validates against valid code. The vendor extensions are proprietary code. As such it will always be invalid.

Frameworks & Library.

Google Maps API

https://cloud.google.com/maps-platform/

Foursquare API

https://developer.foursquare.com/

Auckland Transport API

https://dev-portal.at.govt.nz/

Swiper JS

https://idangero.us/swiper/

The MIT License (MIT)

Copyright (c) 2014 Vladimir Kharlampidi

Jquery

https://jquery.com/

MIT License - Free

Animate.css

https://daneden.github.io/animate.css/

MIT License - Free

Copyright (c) 2016 Daniel Eden

Typeit JS

https://typeitjs.com/

GNU General Public License

Ajax Jquery

http://api.jquery.com/category/ajax/

MIT License - Free

Handlebars JS

https://handlebarsjs.com/

MIT License - Free

AT Explore Nearby.

AT Explore Nearby will be an app designed to allow users to find destinations based on their location. The app is designed for Auckland Transport to help promote businesses around Auckland and also promote public transport by helping the user get to those locations. The app doesn't have a search function as we want users to discover and find new destinations rather than search for them.

Key Features

- Find destinations nearby based on a user's location.
- Once the user has decided on a destination, show nearby buses that they should get on to arrive at their destination.
- Allow users to filter destinations depending on what they are looking for.
- Show trending/popular locations.

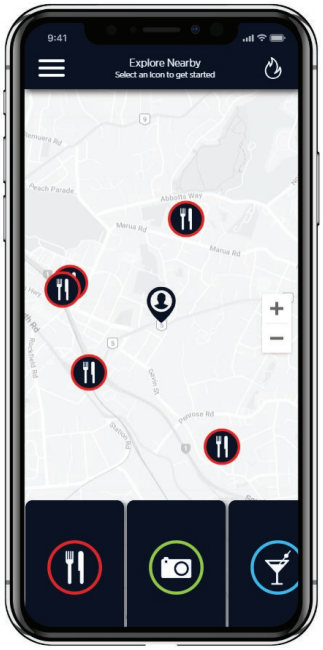
Splash Welcome Screen

Main screen shows the users location and destinations nearby.

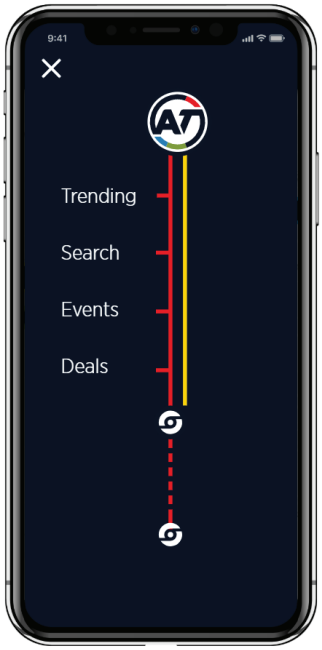
The user can also filter by catagory

Helpful messages help the user navigate the app

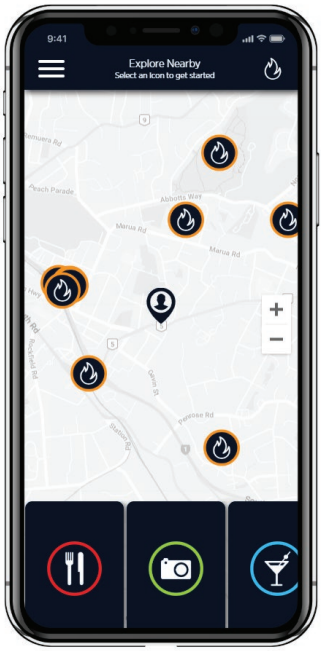
AT Explore Nearby.



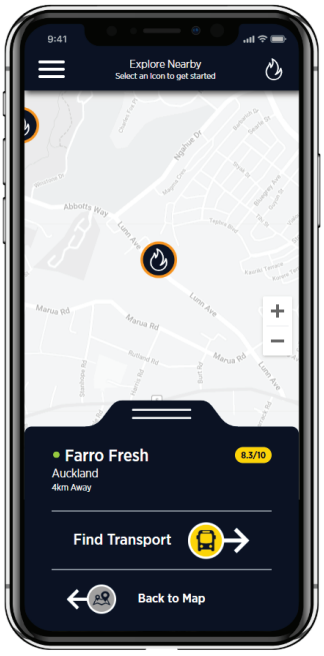
When a filter is selected it only shows venues in that catagory.



Hamburger menu with different selection options, only trending is currently avliable. (next design sprint would in include these other options)



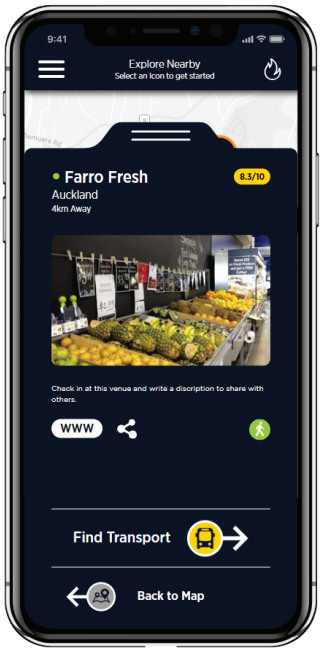
This screen shows trending options on the map, they can also use the trending icon in the nav bar, (in the top right) to see these venues.



When selecting a venue it hides the other venues on the map and gives some brief information which include rating, distance, address and name.

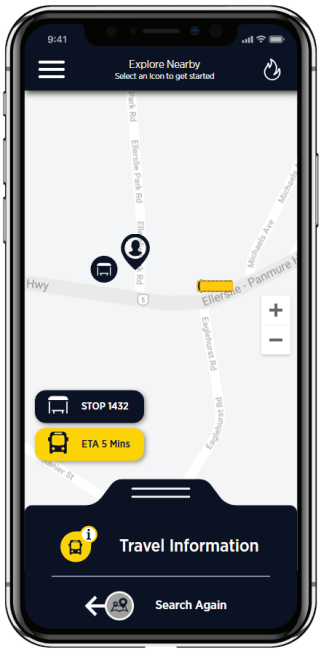
From here they have the option to find more information via the pull tab or find transport.

AT Explore Nearby.



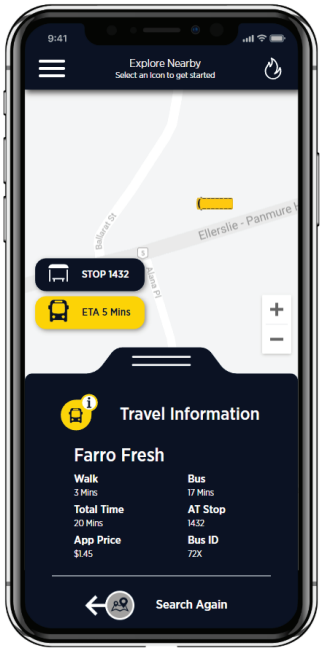
When the pull tab is opened it displays more information and an image.

There is the option to view the venue's website, share on social media, get walking directions via google maps or find transport.



When selecting public transport the app finds the nearest bus stop and bus that the user needs to catch to get to the venue.

This screen also gives key information to the user, which includes bus ETA and the bus stop they need to get to.



When opening the pull tab, more information is displayed such as, travel time, price, bus and stop ID's.

Meeting The Brief.

Map-based interface

The app is displayed using Google Maps

Build a single page application (SPA)

The app prototype has been made as a single page

View destinations

Users can view restaurants, bars, sights and accommodation destinations on the app interface

Learn more about a destination

Users can select a venue and see more information about the destination in the information panel

Have the option to go to that destination's website

There is a button to allow users to visit a venue's website inside the information panel

Search destinations by category

We didn't want to promote searching in this concept as it is designed for discovering venues nearby and promoting businesses, so we created a filter in its place to filter by catagory as we found during ux research most people would just go straight to search rather than discovering, which would be counter productive for the project.

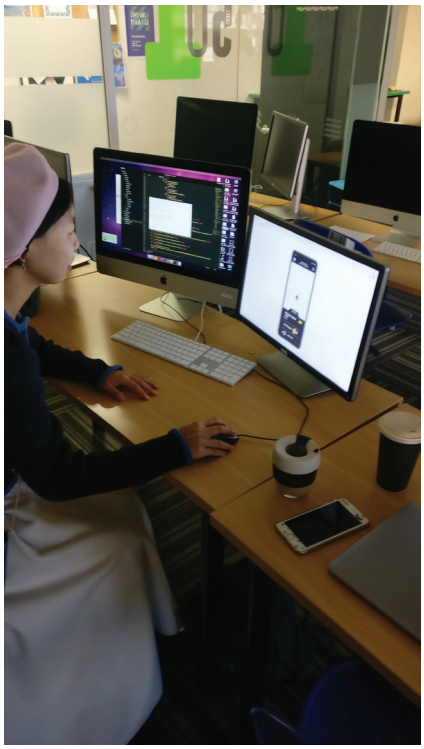
Find the way to the destination from their current location on a mobile device

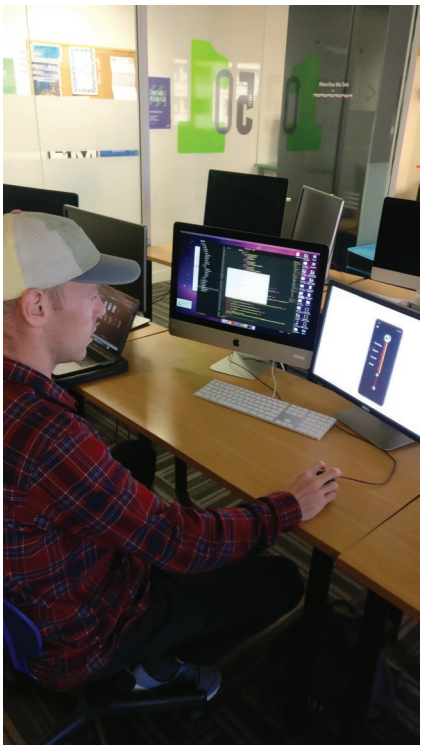
We have offered two methods in the app, the main method is the use of public transport. Finding a bus for the user to catch to get to their destination. The second method is directions via external Google Maps, taking their current location and venue location to find directions.

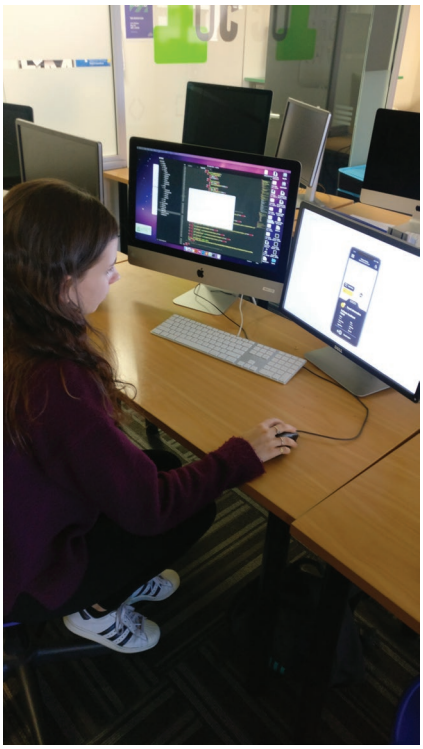
Visualise destinations based on the number of social posts (this can be hard-coded into the JSON data)

Since both Twitter and Instagram are not viable options, Instagram only allows you to use your own account now and Twitter requires approval we decided to go with the trending locations from the foursquare API rather than hardcoding it.

Useability Testing.







Summary

To test the concept worked well and that we had achieved the use case's identified. We did user testing by getting them to complete the tasks below. All users could complete this easily and enjoyed the experience and were smiling through it.

Task's Given

Users were asked to go to a venue

Primary

- Users can view a map ✓
- Users can see their location on the map ✓
- Users can view a venue on a map ✓
- Users can select venue nearby ✓
- Users can find transport to venue ✓

Secondary

- Users can select trending venue ✓
- Users can find directions to a venue ✓
- Users can find venues website ✓

Testers

8 - Louella, Tim, Nakita, Katherine, Tasmin, Ann, Jason, Doug

100%
Completion

Deadline Analysis.

Summative 3 - Timeline		Week One							Week Two							Week Three						
Stages	Duration	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
		29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Documentation																						
Documentation																						
Project Timeline	1 Days																					
Project Approach	1 Days																					
Brainstorm	2 Days																					
Research																						
Client Research	2 Days																					
UX Research	3 Days																					
Competitor Research	2 Days																					
Style Research	2 Days																					
Persona	1 Days																					
UML	1 Day																					
User Flow	1 Day																					
Prototypes																						
Wireframes	2 Days																					
Adobe XD	2 Days																					
Feedback	2 Days																					
Coding																						
Coding	14 Days																					
User Testing & Feedba	3 Days																					
Coding Changes	5 Days																					
Closure																						
Review/Testing	4 Days																					
Presentation	1 Days																					
Hand-in	1 Day																					

Variation 1

Variation Highlighted Above

Summary

We managed to achieve all the milestones we had set out with only small variations as below

Variation 1

We decided to hold off on beginning coding as we felt we were in a good place in terms of time, and we decided we should used the 3 days variation getting our document up to do with all the research & design work so we wouldn't have to backtrack in the end leaving us more time for any issues that may arise.

Reflection

I encountered an issue with trying to make the menu draggable, I spent about a day trying to get it work correctly starting with a plugin which ended not being suitable for our requirements. We decided to abandon it as the group didn't want me to get behind on my tasks. Since this was a prototype demo of the app to show the client we felt that creating a click and transition was adequate for this stage of the project.

Next Sprint.

Things I would like to do in the next design sprint

- Look further into how to make a dragged menu
- Adding an animation the bus marker.
- Dive deeper into the Auckland Transport Api to show bus routes on the map.
- Working out real Eta times and getting the correct bus rather than using the closet bus as we did in this prototype to show off the concept.
- Add interactions when using the app, e.g changing the opacity of the filter panels, smooth transitions between information menus etc