

# Preliminary Report for Geographically

UNSW Sydney 2019T1 SENG2021 - TeamA

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# Project Information:

## **Project synopsis:**

Geographically is a term long project which focuses upon the use of APIs, libraries, teamwork and full stack engineering. Utilising a MEAN stack to implement many product features such as trip planning, Spotify integration & generation, blog posting, exploration and discovery or new points of interest.

## **Team members:**

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## **Mentor:**

Oliver Dolk	z5115375
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## **Information links:**

[WebCMS for SENG2021 T1](#)

[GitHub for TeamA](#)

[Deliverable 1 \(initial report\)](#)

[Team Google Drive Link](#)

## **Software stack:**

The MEAN software stack focuses primarily on an innovative set of libraries built upon Javascript. Such a stack allows easy integration from frontend to backend. The MEAN stack notably has great documentation, support and community to further assist whilst programming in this environment.

The MEAN web development stack: [GitHub Repo](#), [Website](#)

<b>MongoDB</b>	for database
<b>Express.js</b>	for backend web dev (linking Node.js to front end)
<b>Angular.js</b>	for frontend framework/implementation
<b>Node.js</b>	for backend

## Project ideas:

Key

[1] - Primary feature

[2] - Secondary feature (will be implemented)

[3] - Tertiary feature (some of these will be implemented)

[4] - Unlikely to be implemented

- History of a location [1]
  - Show only tourist attractions on a map [1]
  - Click on a location to view its detailed history [1]
  - Rate the correctness of the information [4]
- Trip planner [1]
  - Recommend road trip playlist [2]
  - Recommend shorter road route [4]
  - Search nearby restaurants [2]
  - Weather check API [2]
  - Crowdedness/popularity check of a specific location at current time [3]
  - Nearby hotels, possibility of campsites [2]
  - Recommend other nearby attractions [2]
- User account [1]
  - Create, log in and out [1]
  - Save trip [1]
  - Rate and review trip [2]
  - Share trip via blog [1]
  - Share trip over social media, such as Facebook, Instagram [4]
  - Friend other accounts [3]

## Problem Statement

- 1) Rarely, there is a online resource that allows users to easily and quickly learn about the history of a location, only websites that require one to sift through lengthy paragraphs of text.
- 2) Tourist locations such as hotels and famous attractions cannot be filtered when searching for location on map applications.
- 3) Maps do not tell users information such as the weather on a chosen location in real time.
- 4) There is no application that combines a map application with a blog that allows people to share their trips and experiences.

- 5) There is no trip planning application that combines a specialised music system according to your mood.

## User Stories

**Feature:** View history and information of a location

**As a user**

**So that** I can learn more about a tourist location I want to visit

**I want to** check the history of the location

**Scenario: View history and information of a location**

**Given** I am on 'Map Mode'

**When** I click on the location

**Then** I can view the history of the location

**Feature:** Plan a trip

**As a user**

**So that** I can pay a visit to a location

**I want to** find a route to get to the location

**Scenario: Plan a trip by searching location in the search bar**

**Given** I have chosen a particular location on the 'Plan' page

**When** I have type in the chosen locations I want to go to

**Then** I am given the shortest route to get to the location on a map

**Scenario: Plan a trip by being given a recommendation**

**Given** I have chosen a particular location on the 'Plan' page

**When** I have clicked on 'Add a stop' then click on a location recommended

**Then** I am given the shortest route to get to the location on a map

**Feature:** Get recommended tourist attractions

**As a user**

**So that** I can easily pick a tourist attraction I would like to go to

**I want to** be able to find tourist attractions I can go to

**Scenario: Receive recommendations via 'Add a stop'**

**Given** I am currently on the 'Plan Page'

**When** I click 'Add a stop'

**Then** I am able to see tourist attractions and their ratings

**Scenario: Receive recommendations on 'Home'**

**Given** I click on the Geographically logo where 'Home' is labelled

**When** I am on the 'home' page

**Then** I am able to see recommendation of tourist attractions under the 'Discover' section or the 'Plan a trip' section along with how it would take to get to that location from home

**Scenario: Receive recommendations under 'Go on a road trip'**

**Given** I have not picked a location yet on the 'Plan' page

**When** I look under the 'Go on a road trip' section

**Then** I am able to see a recommendation for a tourist attraction and a description about it from Wikipedia.

**Feature:** Check weather of chosen location

**As a user**

**So that** I can decide when to go to a certain location

**I want to** check the weather of a location on various days

**Scenario: Check weather of chosen location**

**Given** I am on 'Map Mode'

**When** I have clicked a location then clicked on the weather

**Then** I can view the weather for the location at any time

**Feature:** Find nearby restaurants

**As a user**

**So that** I can find something to eat nearby the chosen attraction

**I want to** be able to find nearby restaurants

**Scenario: Find nearby restaurants**

**Given** that I am on the 'Plan' page

**When** I click 'Add stops'

**Then** I click on 'Advanced Search'

**And** I click on 'Restaurants'

**Then** I can see the top-rated and nearby restaurants to the attraction

**Feature:** Find nearby hotels/campsites

**As a user**

**So that** I can have somewhere to sleep if I take a trip over multiple days

**I want to** be able to find nearby hotels and campsites

**Scenario: Find nearby hotels/campsites**

**Given** I am currently on the 'Plan Page'

**When** I click 'Add stops'

**Then** I click 'Advanced Search'

**And** I click on 'Accommodation'

**Then** I am able to see nearby hotels and campsites and their ratings

**Feature:** Save a trip

**As a user**

**So that** I can possibly revisit the details of the trip plan

**I want to** be able to save the details of a trip I have planned

**Scenario: Save a trip**

**Given** that I am on the 'Plan' page

**When** I click on save trip

**Then** I am able to to save various details of a trip I have taken, including the route, location weather

and playlist

**Feature:** View a saved trip plan

**As a user**

**So that** I can read my trip plan and/or make changes to the plan if needed

**I want to** be able to view the details of a trip I have planned

**Scenario: View a saved trip plan**

**Given** that I am on the 'My Profile' page

**When** I click on the 'view trip details' button

**Then** I am able to see the various details of a trip I have taken, including the route, location weather and playlist on the 'Plan' page

**Feature:** Review and share a trip (Make a blog post)

**As a user**

**So that** I can let other users know whether or not the trip was enjoyable

**I want to** be able to share the details of my trip with other users

**Scenario: Make a quick blog post**

**Given** I am on my profile page

**When** I click on 'Share your trip'

**Then** I am able to write up a blog post about my saved trip

**When** I have finished writing my review and click 'Share trip', I can share the post with other users on my blog

**Scenario: Make a long blog post**

**Given** I am on my 'Your Blog'

**When** I have written a blog post under 'Make a new post'

**And** I click 'save'

**Then** I can share the post with other users on my blog

**Feature:** Delete a blog post

**As a user**

**So that** the blog post is no longer shared with other users online

**I want to** be able to delete a blog post

**Scenario: Delete a blog post from the profile page**

**Given** I am on my profile page

**When** I click on trash can icon

**Then** I can delete a chosen blog post

**Scenario: Delete a blog post from the 'Your Blog' page**

**Given** I am on my 'Your Blog'

**When** I click on the trash can icon

**Then** I can delete the chosen blog post

**Feature:** Edit a blog post

**As a user**

**So that** I can make amendments to what the blog post will share with other users online

**I want to** be able to edit a blog post

**Scenario: Edit a blog post from the 'Your Blog' page**

**Given** I am on my 'Your Blog'

**When** I click on the pencil icon

**Then** I can edit the chosen blog post

**Feature:** View my blog post

**As a user**

**So that** I can read what I published on my blog post.

**I want to** be able to view my blog post

**Scenario: View a blog post from the 'Your Blog' page**

**Given** I am on my 'Your Blog' page

**When** I click on the 'view blog post' button of a particular blog post I have published

**Then** I can view the chosen blog post

**Scenario: View a blog post from the 'My Profile' page**

**Given** I am on my 'My Profile' page

**When** I click on the 'view blog post' button of a particular blog post I have published

**Then** I can view the chosen blog post

**Feature:** Rate a location

**As a user**

**So that** I can let other users know the quality of those attractions/restaurants

**I want to** be able to rate the attractions and restaurants from on my travel plan

**Scenario: Rate a location**

**Given** I am on my profile page

**When** I click on 'Share your trip'

**Then** I am able to add a 5 star rating to the chosen location

**Feature:** Check the popularity/crowdedness of an attraction (in real time)

**As a user**

**So that** I can plan my trips at more optimal times

**I want to** be able to check the popularity/crowdedness of an attraction at my current time

**Scenario: Check the popularity/crowdedness of an attraction**

**Given** I am currently on 'Map Mode'

**When** I click on a location

**Then** I am able to view the trends of a place's popularity in real time.

**Feature:** Automatically generate road-trip playlist

**As a user**

**So that** I can get in the mood to enjoy the location by listening to the playlist

**I want to** be able to generate a recommended playlist based on the attraction

**Scenario: Make a playlist**

**Given** I am the 'Plan' page



**When** I click under 'My Trip Playlist' where the music icon is found

**Then** I am linked to a page where I can link a playlist for that trip

**When** I click on "Generate a Geographically planned playlist"

**Then** I should see a playlist generated automatically for my trip

**Feature:** Remove a road-trip playlist from my trip plan

**As a user**

**So that** I don't listen to a playlist of music while on my trip

**I want to** be able to remove a playlist from my trip plan

**Scenario: Remove a playlist**

**Given** I am the 'Plan' page

**When** I click under 'My Trip Playlist' where the music icon is found

**Then** I am linked to a page where I can remove a playlist for that trip

**When** I click on the 'Remove playlist' button

**Then** the playlist is removed from my trip plan

**Feature:** Login

**As a user**

**So that** I can access the features of the website, such as my saved trips and trip playlist

**I want to** be able to login to my account

**Scenario: Login via the 'Sign up/Login' Link**

**Given** I am on the Home Page

**When** I click on 'Sign up / Login' at the header

**Then** I click on the 'Login' hyperlink from the 'Sign up' pop up

**And** I filled in my login details in the give white spaces (email and password) and I click on 'Login'

**Then** I am able to login to my account and access the features of the website

**Scenario: Login via the 'Try Geographically today' button**

**Given** I am on the Home Page

**When** I click on 'Try Geographically today' button

**Then** I click on the 'Login' hyperlink from the 'Sign up' pop up

**And** I filled in my login details in the give white spaces (email and password) and I click on 'Login'

**Then** I am able to login to my account and access the features of the website

**Feature:** Log out

**As a user**

**So that** I can leave my website

**I want to** be able to log out of my account

**Scenario: Log out**

**Given** I am logged in on any page (except for the Home Page where the 'Try Geographically today' button is found)

**When** I click the door icon where 'logout' is read on my toolbar

**Then** I am able to log out of my account

**Feature:** Sign up

**As a user**

**So that** I can login and access the features of the website, such as my saved trips and trip playlist  
**I want to** be able to sign up for a new account

**Scenario: Sign up via the 'Sign up/Login' Link**

**Given** I am on the Home Page

**When** I click on 'Sign up / Login' at the header

**Then** I fill in my detail in the given white spaces

**And** I click the 'Sign up' button

**Then** I am able to create an account and be read as logged in such that I am able to access features of the website

**Feature:** Change personal details in 'My Profile' page

**As a user**

**So that** I can change my author name for my blog and/or home location which is used when I plan for my trips

**I want to** be able to change my name and/or home location

**Scenario: Change personal details in 'My Profile' page**

**Given** I am on 'My Profile' Page

**When** I click on the pencil icon near the heading 'My Profile'

**Then** I edit my name and/or my location in the given white spaces

**And** I click the save button

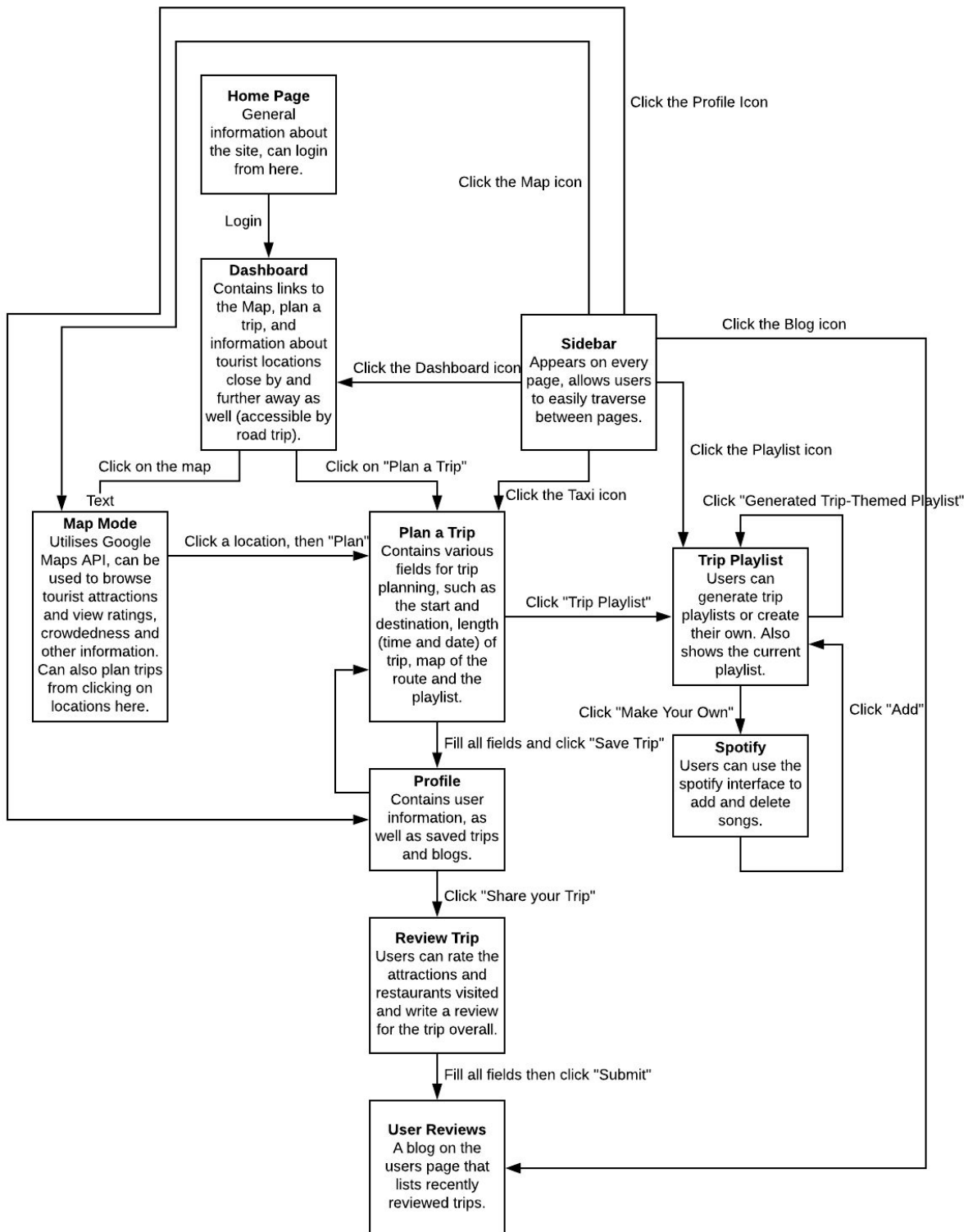
**Then** I have changed my personal details on my account

# Low Fidelity Prototypes

## **Storyboard interaction graph**

The storyboard interaction sketches were a great first step to lay down the foundation of the UI of the site, providing a succinct description of each page and its functions, as well as how each page connects to each other. The storyboard sketches were the first to be discussed in group meetings, with each member providing their own input and ideas in order to create the final graph.

The final storyboard interaction graph was then devised on paper and edited by all members before being finalised on Lucidchart.



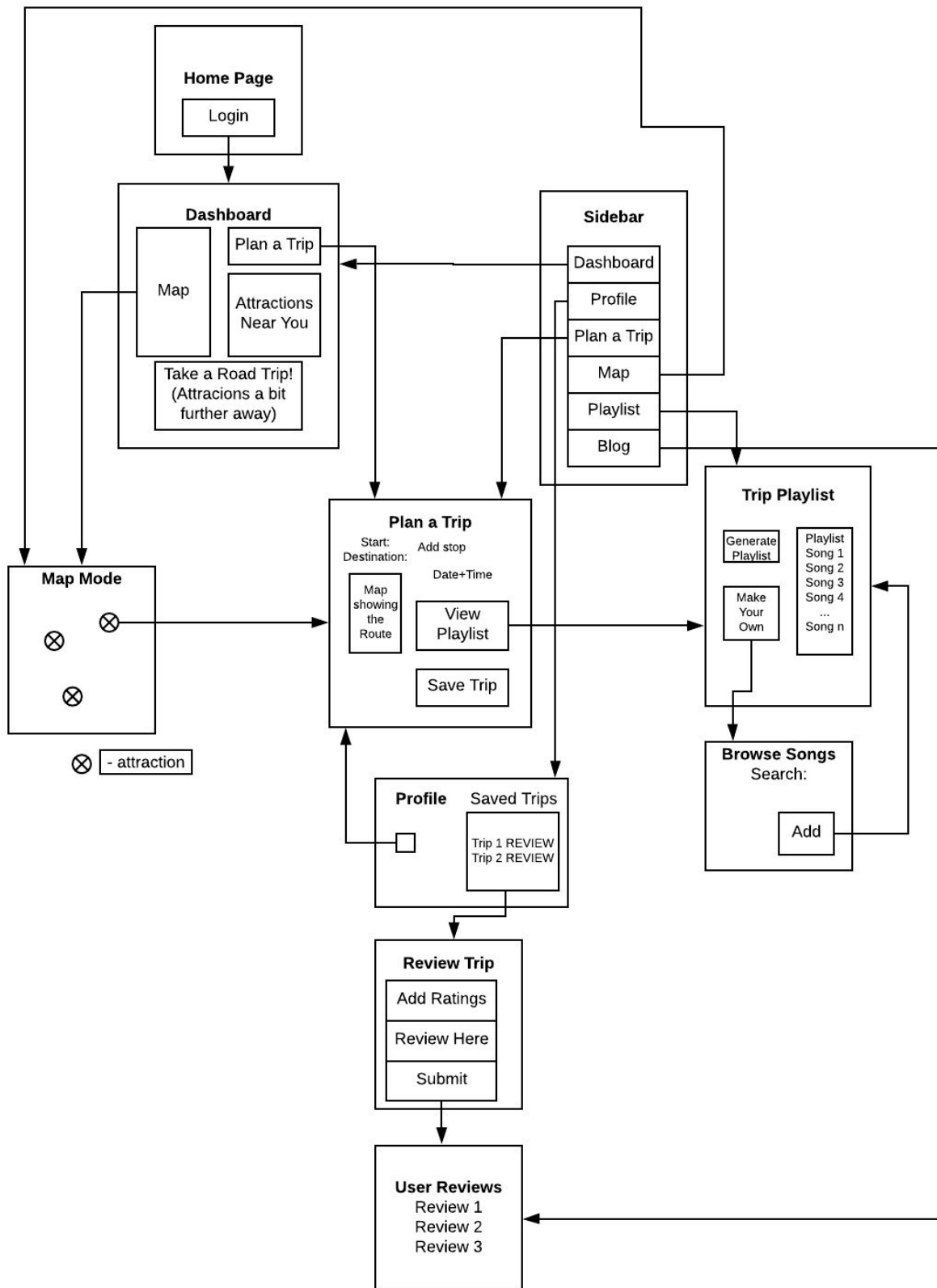
## UI Component Sketches

The UI component sketches were a great way to understand each other's thoughts and opinions on the UI design. We all had several sketches we drew in group meetings and collaborated, then after agreeing on a rough design it was prototyped.

Prototyping or UI was done in Lucid Charts whilst discussion & collaboration was happening in order to help everyone understand each other's points. It was then rendered more realistically in Figma to show the UI style. Feel free to check this out [directly through Figma](#)

**Note:** The UI Component Sketches & Combined (Storyboard interaction + UI Component Sketches) are combined into one Figma document.

**Note:** Due to limitations with the PDF format & report, some text is incredibly small. Please feel free to inspect [directly through Figma](#)

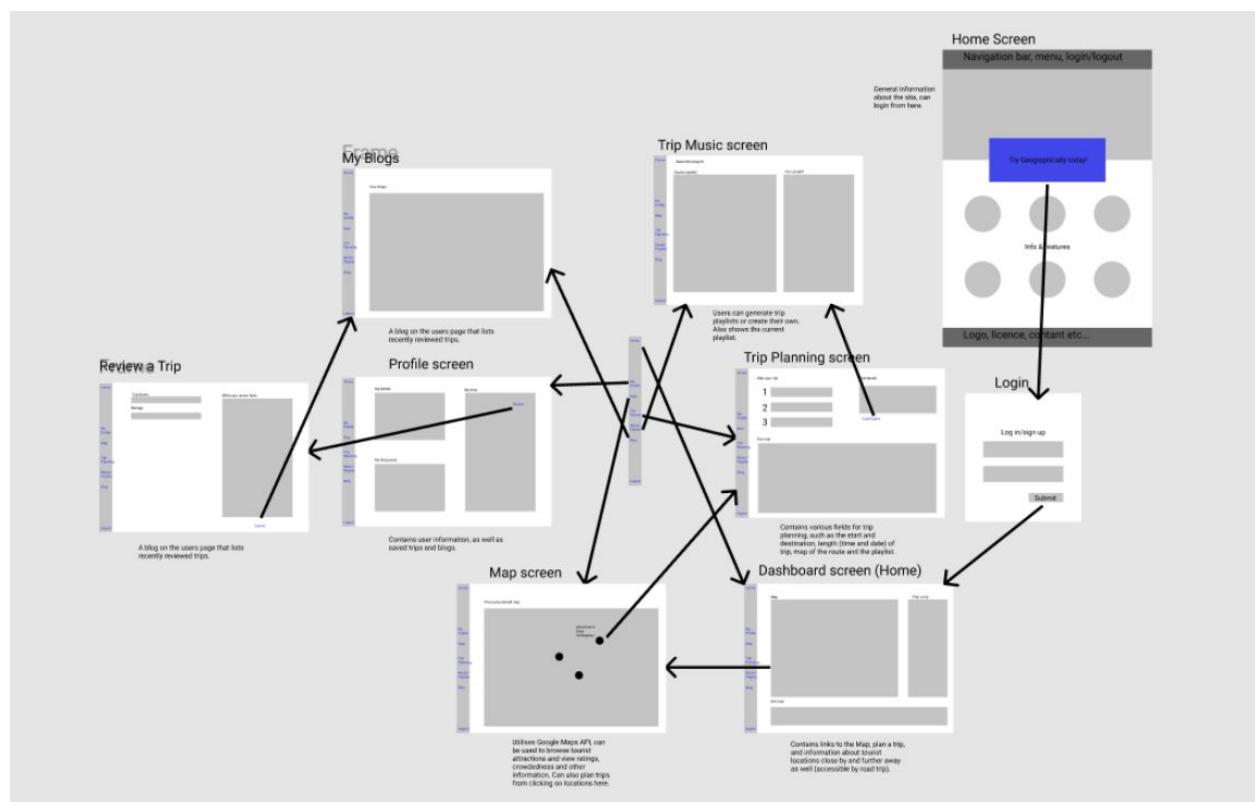


## Storyboard interactions + UI Component Sketches

The storyboard interactions + UI component sketches further aided in the development of this system. As we step higher up in fidelity and abstraction we have refined our thoughts, aim and design for this project. Feel free to check this out [directly through Figma](#)

**Note:** The UI Component Sketches & Combined (Storyboard interaction + UI Component Sketches) are combined into one Figma document.

**Note:** Due to limitations with the PDF format & report, some text is incredibly small. Please feel free to inspect [directly through Figma](#).

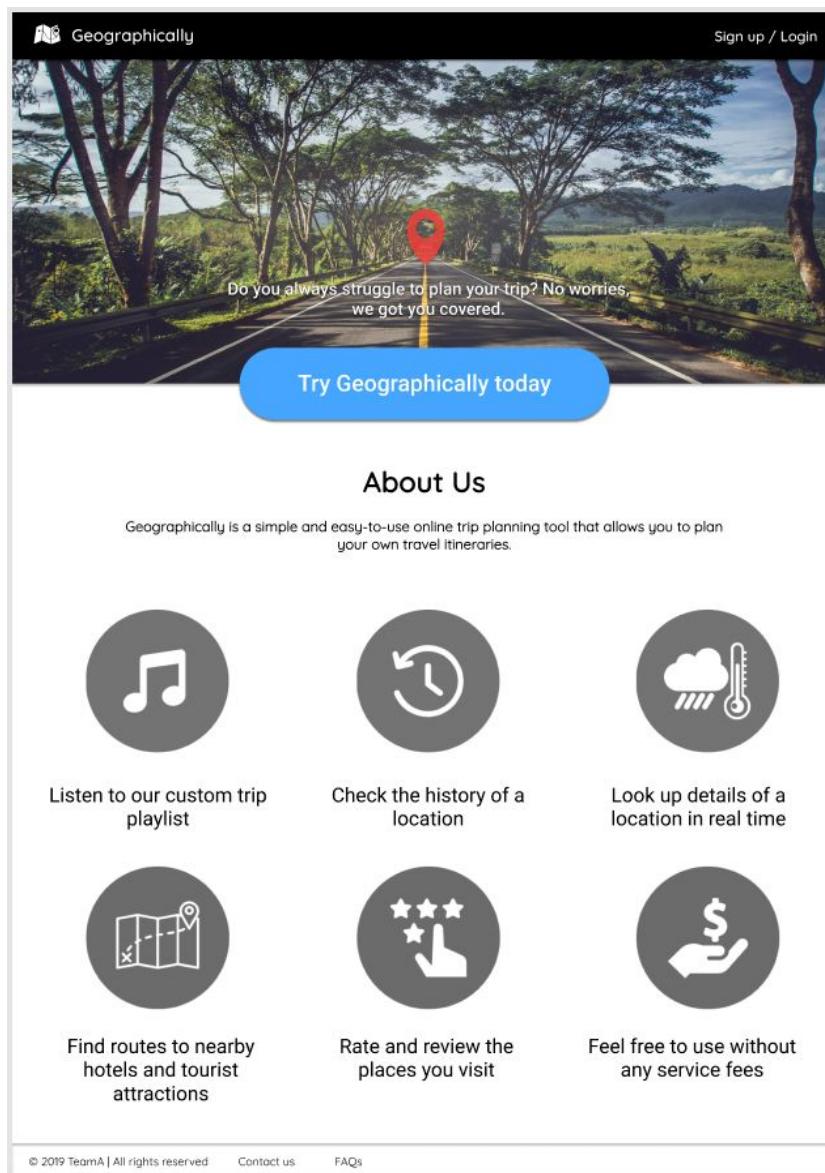


# High Fidelity Prototypes

The high fidelity mockup of Geographically was done through Figma, an online UI builder that has many high quality features. Some features of Figma allow the use of links and buttons within a presentation mode, which has been implemented to further aid in the user experience and design of the application.

While we do have screenshots posted below which will cover most of the prototype, please feel free to assess and inspect through this link: [Figma High Fidelity Prototype](#)

## Home Page:





## Login

No account? [Create an account](#)



## Sign up

Already have an account? [Log in](#)



## Dashboard:

Home

My Profile

Map

Trip planning

Playlists

Blog

Log out

Map Mode

Discover

Go on a road trip

Coffs Harbour

Orange

Blue Mountains

Plan a trip

Logged in as John Doe

Locations near you

Royal Botanical Gardens

3 mins walk

Anzac Memorial

5 mins walk

State Library of New South Wales

5 mins walk

## Map Mode:

Home

My Profile

Map

Trip planning

Playlists

Blog

Log out

# Map Mode

Search a location

**Sydney Observatory** ★★★★★  
busy 20°C  
-33.859657, 151.204527

**HISTORICAL FACT**  
An early observatory was established in 1788 on Dawes Point, at the foot of Observatory Hill, in an ultimately unsuccessful attempt to observe in 1790 the return of a comet suggested by Edmond Halley of Halley's Comet fame

## Trip Planner:

Home

My Profile

Map

Trip planning

Playlists

Blog

Log out

# Plan

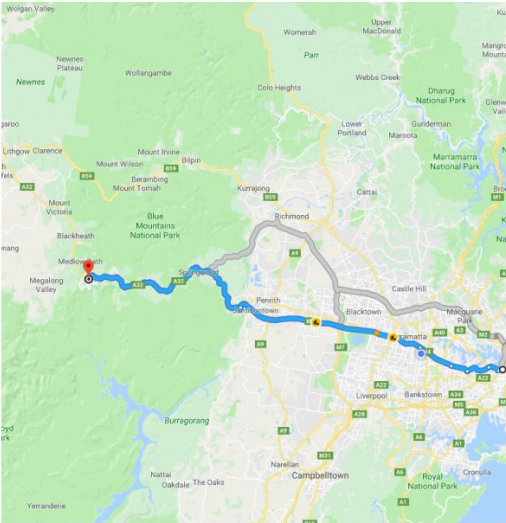
1 Home

2 Katoomba

30/05/201913:00

+ Add a stop

Save trip



LENGTH OF TRIP

1HR 31MINS


WEATHER AT ARRIVAL

11°C

MY TRIP PLAYLIST

Make a Geographically planned playlist for your trip

ABOUT YOUR DESTINATION



KATOOMBA, NSW – For thousands of years, the Blue Mountains have been home to Aboriginal peoples, particularly the Gundungurra and Darug tribes. Even today, there are still plenty of traditional Aboriginal peoples living in the Blue Mountains, where there are now a number of cultural sites that walk visitors through the region's rich past and share the customs and heritage of the local tribes.

Add a stop



[Advanced Search](#)

### DON'T KNOW WHERE TO GO?



24 min into the trip | 5 min detour

Sydney Olympic Park is a large sports and entertainment complex in the West of Sydney.

Sydney Olympic Park ★★★★★



52 min into the trip | 5 min detour

Cables Wake Park is located at Penrith within the Panthers Complex, 1 hour west of Sydney, at the foot of the Blue Mountains and encompasses a huge range of activities for the whole family to enjoy

Cables Wake Park ★★★★★

Add a stop



### I WANT TO SEARCH FOR



Accommodation

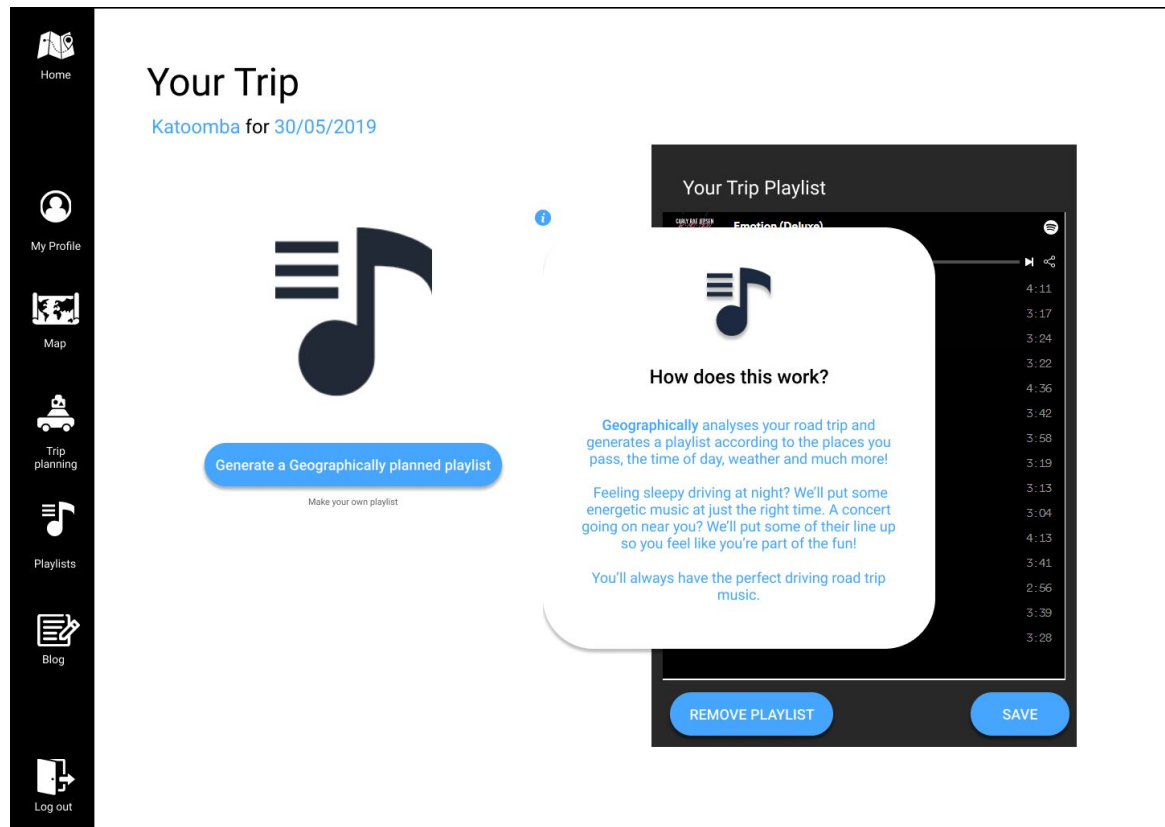


Restaurants

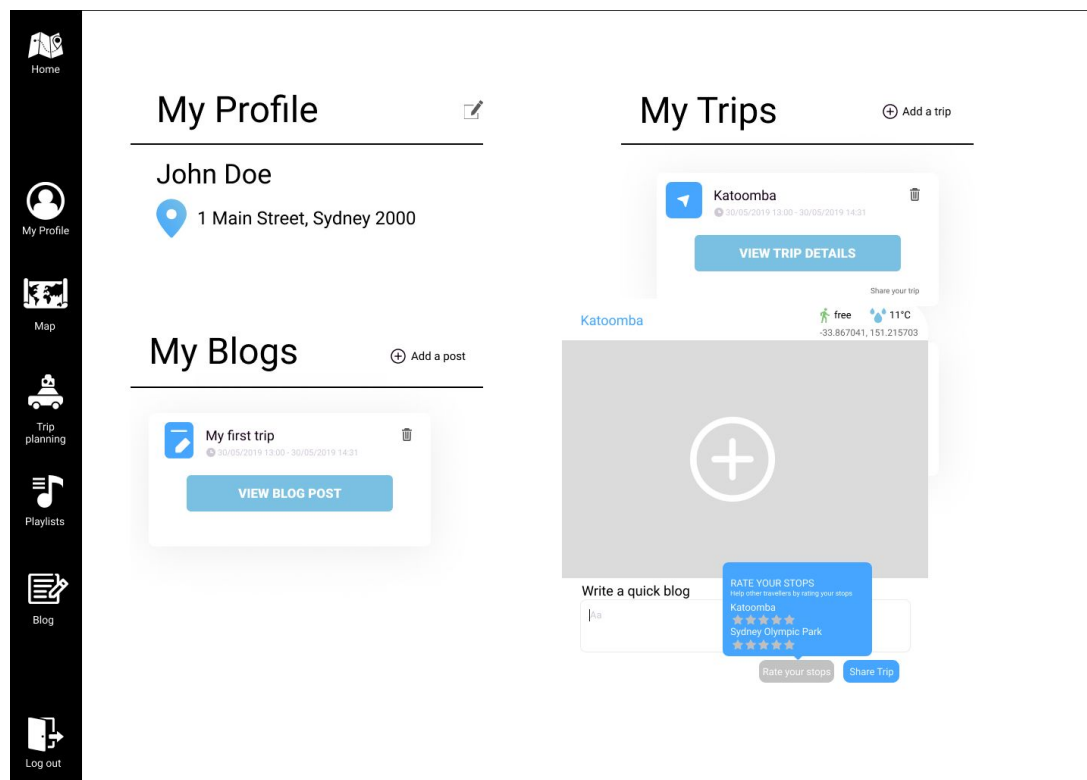


Tourist Attractions

## Playlist Generator:



## Profile + Saved Trips:



## Blog Posts:

Home

My Profile

Map

Trip planning


Playlists

Blog

Log out



### Your Blog

#### Posts












**My first trip**
















30/05/2019 13:00 - 30/05/2019 14:31




[VIEW BLOG POST](#)

### Make a new post

**B** *I* U         



Write a blog post...

[SAVE](#)

Home

My Profile

Map

Trip planning


Playlists

Blog

Log out



### Your Blog

#### Posts




**My first trip**

30/05/2019 13:00 - 30/05/2019 14:31




[VIEW BLOG POST](#)

 Add a post

### My first trip

30/05/2019 13:00 - 30/05/2019 14:31

By John Doe



Going to Katoomba was great. Fun times.

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