

Planning and Design

Michael Pansegrauw 19013147

Tayla Roach 18022560

Introduction

Overview of LandMark

Our app will be called “Landmark” and will focus on immortalising user’s memories at these landmarks. The user will be able to make new memories as well as relive previous visits to these landmarks. The user can add landmarks to their favourites list so they can quickly access them at a later stage. The app will create value by allowing the user to reminisce in their memories as well as allow them to create new memorable moments.

App requirements

Primary core features

- The user will be able to register using the app. - the information will then be stored online in an authentication service. The user will be required to create a username and password when they sign up.
- The user will be able to change their settings:
 - Change between using the metric and imperial system - This allows for the inclusion of people from all places and makes things feel more convenient for the user.
 - Change preferred type of landmark (for example historical, modern, popular) - This allows the user to easily find landmarks that apply to them.
- Display nearest landmarks on a map. - Allows the information that is presented to the user to be at least slightly relevant to them.
- The app will be able to filter landmarks by preferred landmark type chosen.
- Display the user's current location using the device GPS.
- The user will be able to view information about a landmark and get directions to the landmark.
- When the user is following directions to a landmark the estimated time of arrival will be given to the user
- The user will be able to add landmarks to their favourites so they can access them later.
- When a user visits a location the time and date of their visit will be recorded and added to their recently visited locations.

Secondary features

- Switch between light and dark mode - allows for users to feel more comfortable using the app

Data features

- Sensitive user data will be encrypted - protects the user in cases of data breaches.

Design

In order to be a competitive app that rivals current mapping apps the design of the app needs to keep the user in mind when developing all design aspects of the app. This means making a smooth experience and flow for the app so it is easy to use. Apps that have a minimal amount of screens seem to have higher ratings compared to those that offer too much.

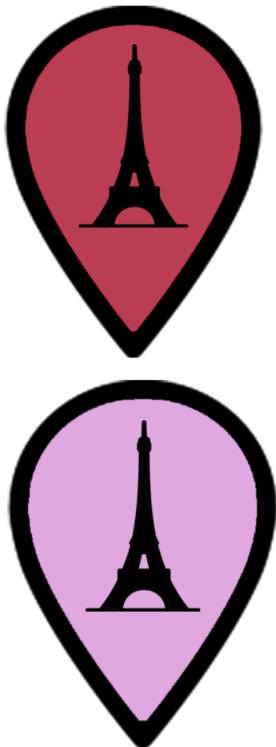
Colour Scheme

In order to stick out from the generic mapping apps a unique but comfortable colour scheme is needed. The colour scheme needs to work in both a light and dark theme as that will be an option offered to the player. This colour scheme is unique for mapping apps and would look desirable in both a light and dark app theme.



Available at: <https://colorhunt.co/palette/2a09443b185fa12568fec260>

Initial Icon



Innovative Features

Gamification

Making features in the app feel more like a game will increase the user satisfaction and enjoyment when using the app. It will also entice users to use the app more as well.

A search function

The search function will allow users to be able to find exactly what they are looking for by typing it into a search bar instead of just scrolling through various landmarks and locations. This improves the user experience as it allows for smoother and less frustrating usage of our app. This will decrease the chances of distraction happening for the user as they will not lose track of where they saved their places.

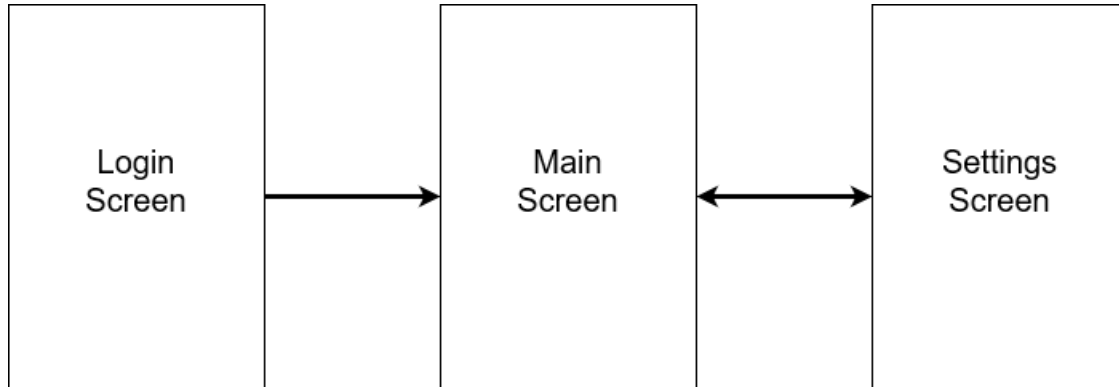
Grouping of places into lists

This allows the user to group places into categories so they can quickly view multiple places without the places cluttering their favourites list. This will also decrease the chances of distraction happening for the user as they will not lose track of where they saved their places.

UI Design

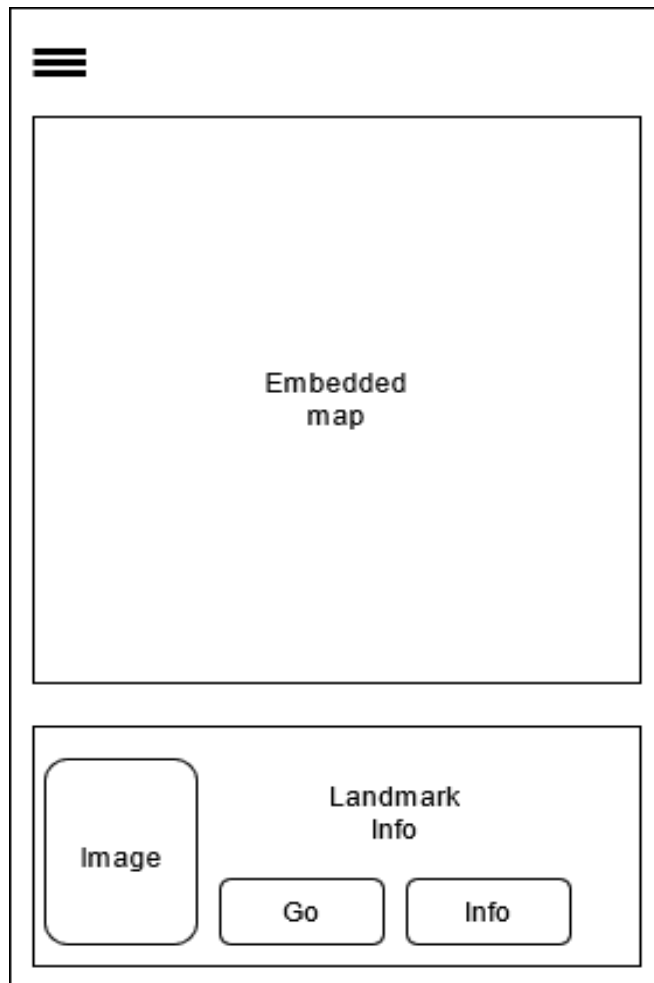
UI flow

The UI flow will be simple so as to eliminate any user frustration. The simple design also helps the app fulfill its use easier by eliminating any clunky feelings while using the app.



Main Screen

The Main screen for the app is where the user will spend most of their time. For this reason, the main screen is made to be simple and easy to understand.

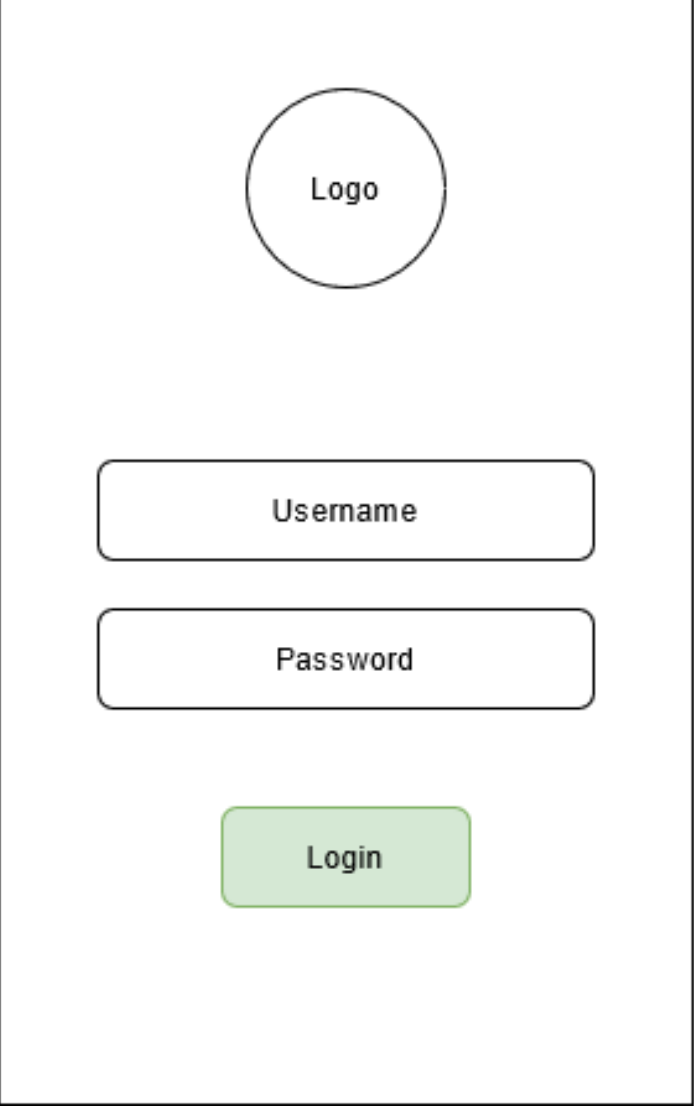


Main Screen

This screen contains the embedded map. When a landmark is clicked on, its info is displayed at the bottom of the screen.

Login Screen

The login screen will only be displayed to the user if the user is not logged into the app. The app will keep the user logged in once the user has logged in the first time. The user will be able to logout of their account to allow for other users to login.



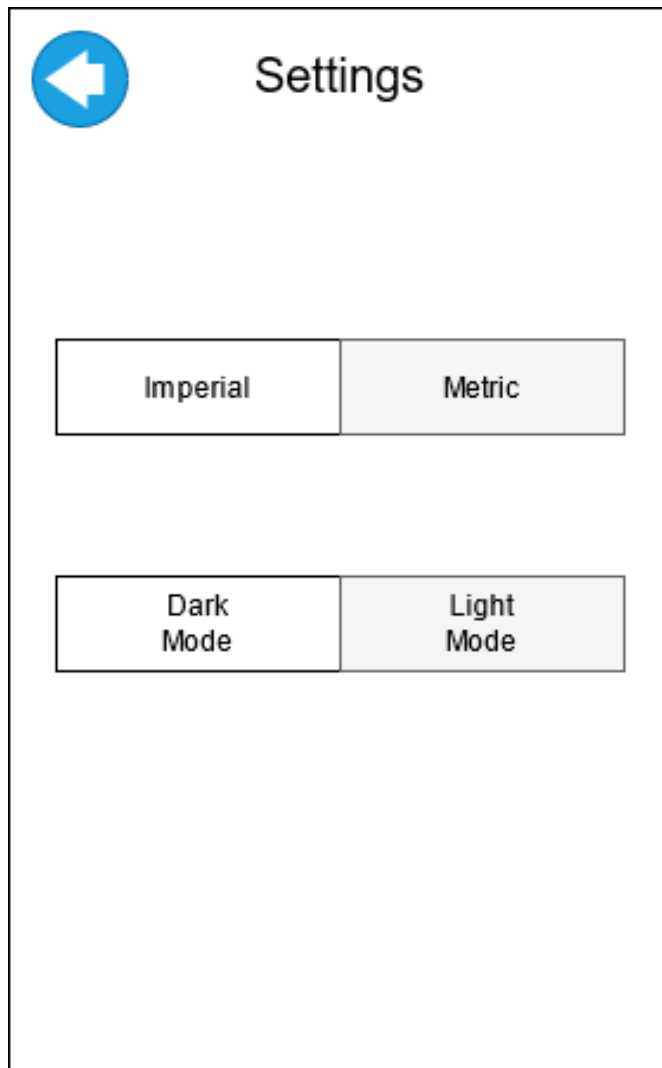
A wireframe of a login screen. It features a circular logo placeholder at the top with the text "Logo" inside. Below the logo are two rounded rectangular input fields, the first labeled "Username" and the second labeled "Password". At the bottom is a green rounded rectangular button labeled "Login".

Login Screen

The user must enter their username and password to access the app.

Settings Screen

The settings screen will be where the player will be allowed to customise their app experience and access less used settings for the app.

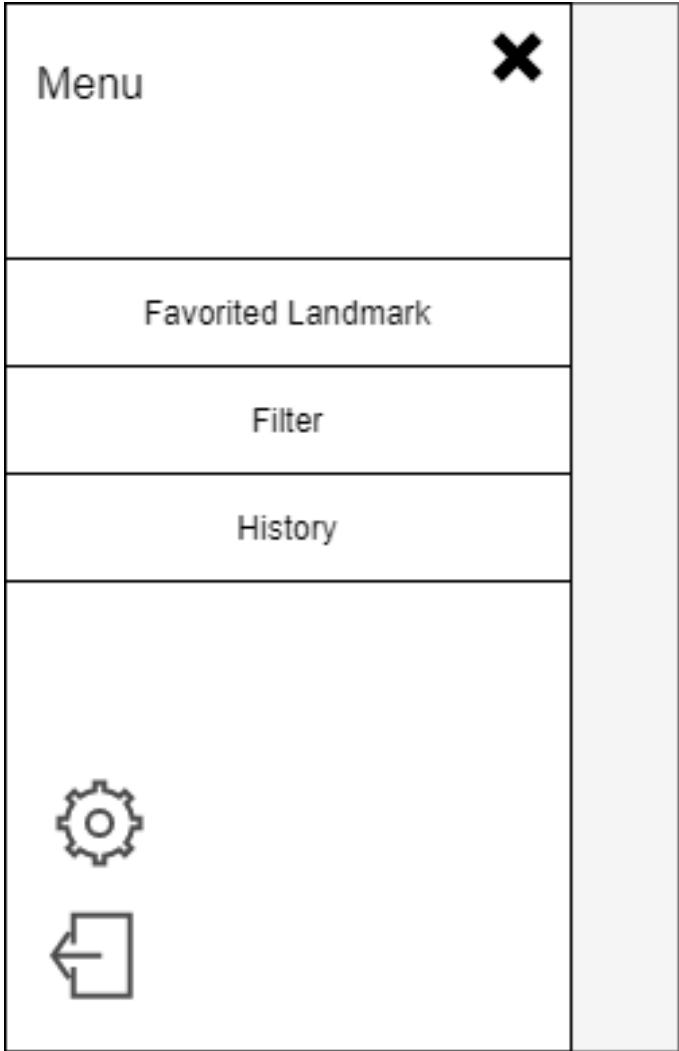


Settings Screen

The settings screen is where the user can change between the imperial and metric system as well as other settings.

Menu Bar

This is the meny that will be displayed on the main screen when the user opens it.



Menu Bar

This menu bar will allow users to navigate between the different screens and features.

Data Capture

Username and Password

The username and password will be stored as string types and will be encrypted so as to protect the users in the case of a data breach. The username and password is necessary for keeping track of users and keeping user data safe.

Choice data system

This will be stored as a boolean value where 'true' will represent the metric system and 'false' will represent the imperial system. This saves space and is only logical as there will be only a choice between these two options. This feature is necessary as it will improve the user experience as users will not need to convert units themselves to understand what is displayed.

Light and Dark Mode

This will be stored as a boolean value with 'true' representing darkmode and 'false' representing light mode. This is necessary so as to deliver a consistent user experience across devices the user logs into. This will give the user a better overall user experience.

Favourite landmarks

Favourite landmarks will be stored as a json string. This allows for easy loading and saving of data and eliminates the need for complex code to read the file. The user can also then use their data as they like should they choose to export their data. This data is necessary to make our app user friendly as it will be much easier to navigate to their favourite landmarks.

Visited landmarks

Visited landmarks will be stored as a separate json string from the Favourite landmarks. This allows for easy loading and saving of data and eliminates the need for complex code to read the file and eliminates the possibility of any bugs that may result in the landmarks being confused. The user can also then use their data as they like should they choose to export their data. Storing this data will aid users in remembering their past visits and allow them to reminisce in their memories.

```
graph TD
    A[User Login] --> B[Make Data encryptor]
    B --> C[Display Map on screen]
    C --> D[Get the users current location]
    D --> E[Display landmarks]
    E --> F[Filter landmarks]
    F --> G[Add landmarks to favourites list]
    G --> H[Add location to visited list]
    H --> I[Display information about landmark]
    I --> J[Get directions to landmark]
    J --> K[Display estimated time of arrival]
    K --> L[Change metrics between impiriclie and metric]
    L --> M[Change between light and dark mode]
    M --> N[Bug testing and finalising]
```