PLANNING AND DESIGN DOCUMENT

OPSC7312 Task 1

BCGD3
Sasha Heyburgh
Edzard Jacobs
Dante Dercksen

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Introduction

To develop any app, it is necessary to research similar apps. With the intention of creating an app which showcases local landmarks on Android devices, it is important to apply the research done to make the app as accurate as possible without accidentally leaving out vital elements.

App Overview

This app allows users to create a personal account where they can login and view a variety of landmarks, which can be filtered. The app requests permission to access the user's current location to calculate the optimal route for traveling to a selected landmark. This allows the app to calculate and display the estimated time of arrival and how long the journey will be. Users can favourite certain landmarks, therefore saving them to visit at a later stage or to visit again. Additionally, users can change whether the traveling distance is displayed in kilometres or miles within the settings.

Name: OnlyLands

Innovative Features

- Links are provided for each landmark to separate web pages with more information about said landmark
- The levelling system allows users to level up with every landmark they visit
- Makes use of firebase for the database
- Provide clear contact details for the support team for users who need assistance
- There is a system to favourite/wish list landmarks for users to visit at a later stage
- User can search for specific landmarks using the search bar

- Allows access to Google Maps through the app

App Requirements

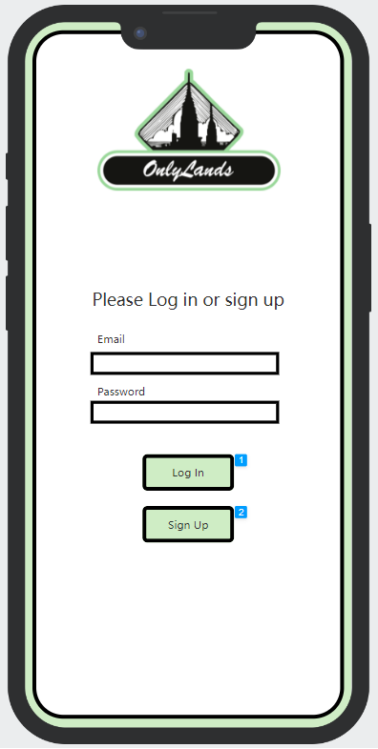
- User registration.
- Login using registration information pulled from an online database.
- Change Settings:
    - Toggle for Metric and Imperial systems.
    - Preferred type of landmark (historical, modern, popular).
- Using filters, users must be able to view preferred nearby landmarks on the map.
- Embedded map component inside of app.
- Select landmarks from the map component and view information related to the landmark.
- Users should be able to get directions between current location and selected landmark.
- Display distance and travel time between selected landmarks
- Distance should be displayed in preferred distance system i.e.: Imperial/Metric
- App should display the route to the landmark on the map inside the app
- Users should be able to set landmarks to favourite

Personal Requirements

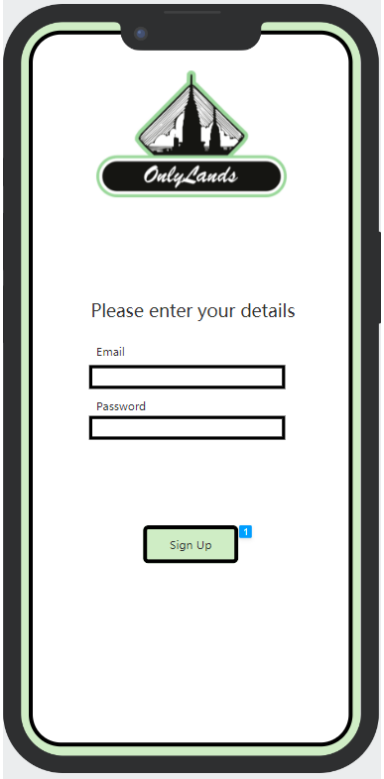
- User’s will have a level assigned to their profile which can gain experience as they visit landmarks.
- The app must ensure the user is within 50m of a landmark to set its property to ‘visited’.

User Interface Design

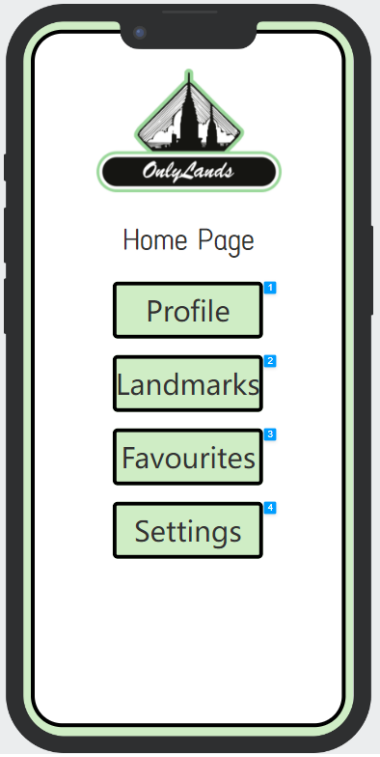
Screen Mock-ups and Descriptions



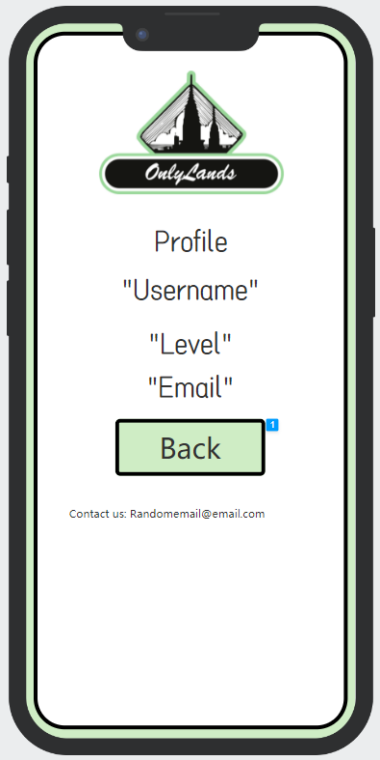
This is the Login page; users can log in or proceed to sign up (Mockplus, 2022).



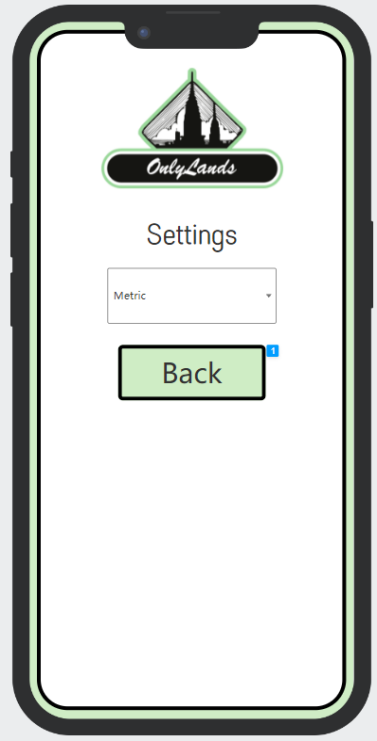
This is the sign-up page where new users can sign up (Mockplus, 2022).



This is the user's home page where they can navigate to different pages (Mockplus, 2022).

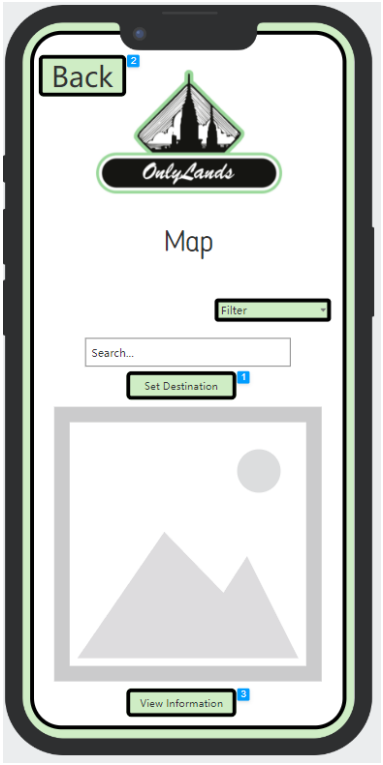


This is the user’s profile where they can view information about their account (Mockplus, 2022).



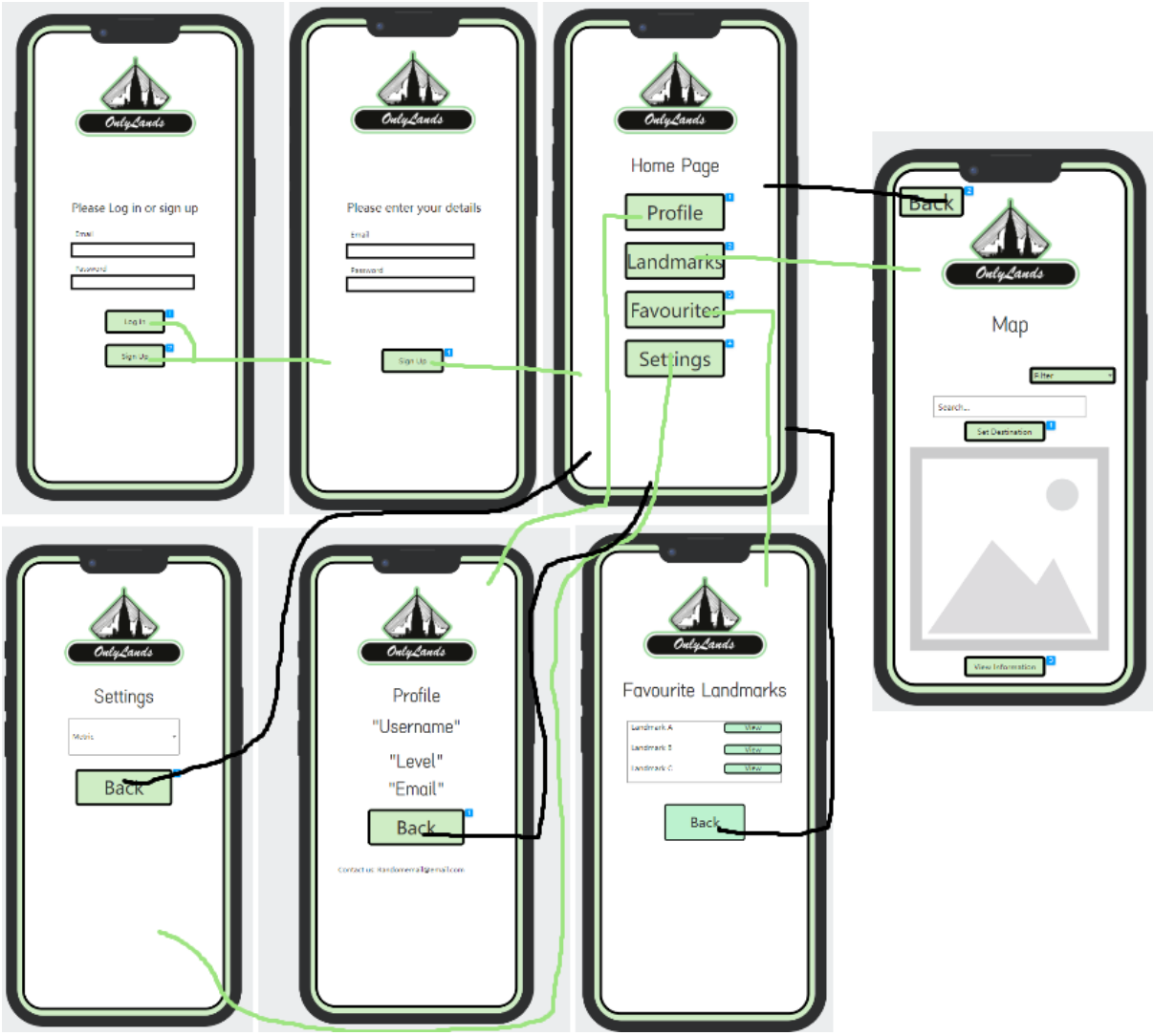
The settings page allows users to select metric or imperial systems (Mockplus, 2022).

Users can view and access landmarks they have favourited (Mockplus, 2022).



This is the navigation page where users can view the map with landmarks and set destinations (Mockplus, 2022).

Diagram



(Mockplus, 2022).

App Data

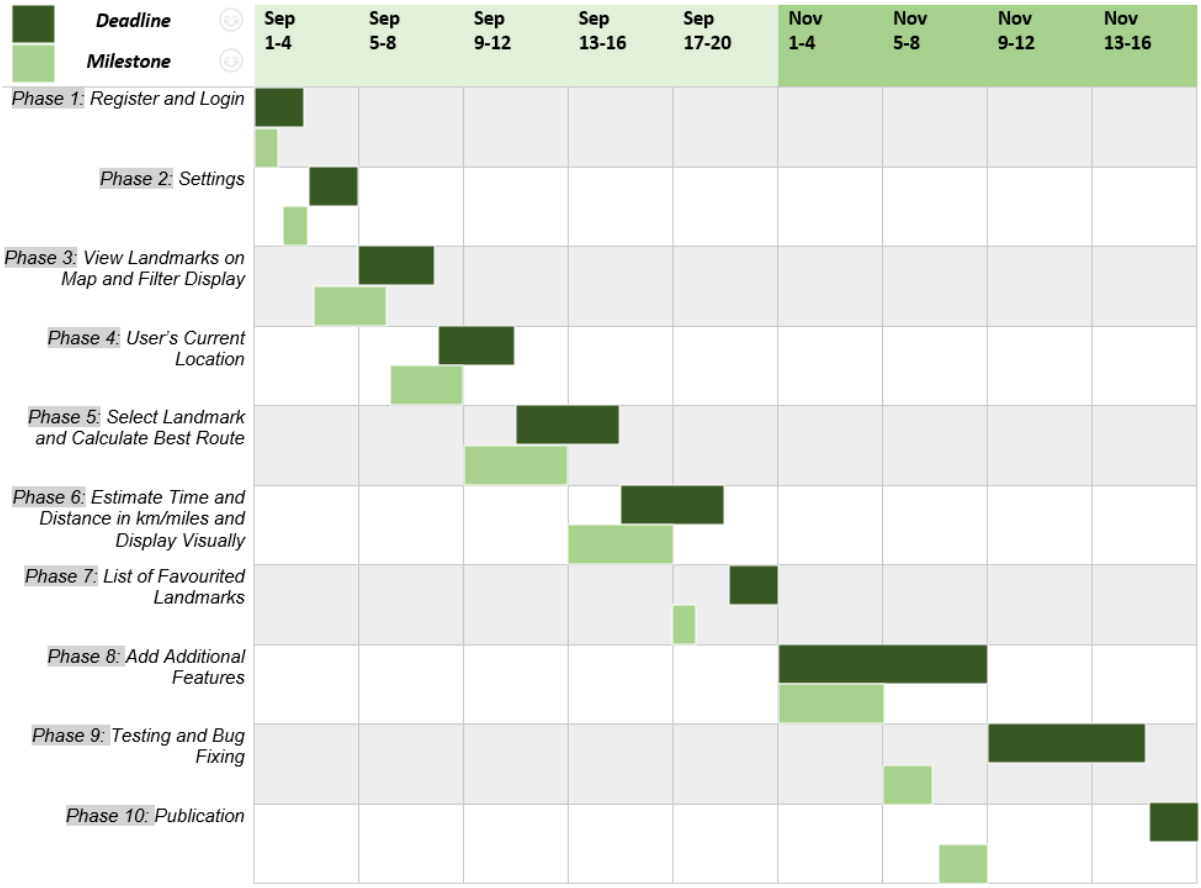
- Name - **String**
- Surname - **String**
- Email Address - **String**
- Username - **String**
- Password - **String**
- Personal Settings:
    - Metric/Imperial System - **Boolean**
    - Preferred Landmark - **Array of Integers**
    - Selected Landmark - **Object** (**Landmark**)

- User Current Level - **Integer**
- User Current Experience - **Float**
- List of Favourite Landmarks - **Array of Integers**
- Permission for Current Location Usage - **Boolean**
- Current Location - **API Property Accessed from Google API and Phone Location**
- Distance Between Location and User – **Integer**

- Travel Time – **Time**

Project Plan (Gantt Chart)

***OnlyLands* App Development Project Plan: Gantt Chart**



Conclusion

In conclusion, *OnlyLands* is an Android app, made with the help of research, used to make it easier for consumers to find specific landmarks. The app makes traveling simple and convenient by calculating the distance the user must travel and the best route to take.

REFERENCE LIST

Mockplus. 2022. New Project, 2022. [Online]. Available at: https://rp.mockplus.com/editor/8SkbTlLY5/r5nOgGZ1d [Accessed 20 August 2022].