Software Engineering Group 11
SE_11_PP_04
Project Plan – User Interface Design

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Table of Contents

1. Introduction

1.1. Purpose of Document

The purpose of this document is to be an individual part of the final project plan, this is being kept as a separate document to allow for version control and drafting of this particular section.

1.2. Scope

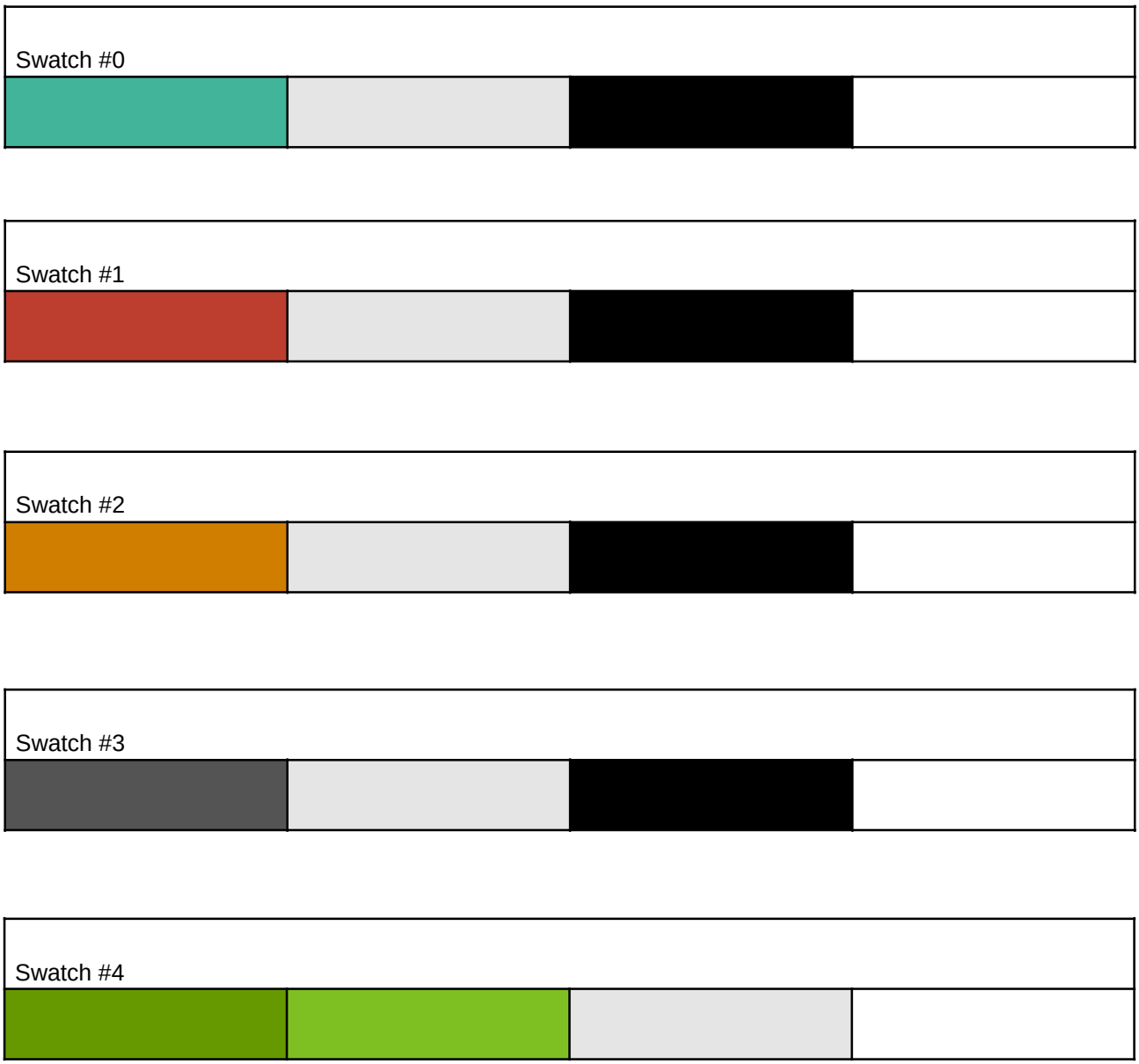
This document aims to be an overview of the User Interface Designs for the Website, Database and Android Application

1.3. Objectives

This document covers:

- Colour (Theme) choices
- Website User Interface Designs
- Database Schema and Explanation
- Android Application User Interface Designs

2. Colour Swatches



Hex References

References in order as to how the swatch is organised (left to right)

Swatch #0

#42B49A #E5E5E5 #000000 #FFFFFF

Swatch #1

#BD4030 #E5E5E5 #000000 #FFFFFF

Swatch #2

#D17F00 #E5E5E5 #000000 #FFFFFF

Swatch #3

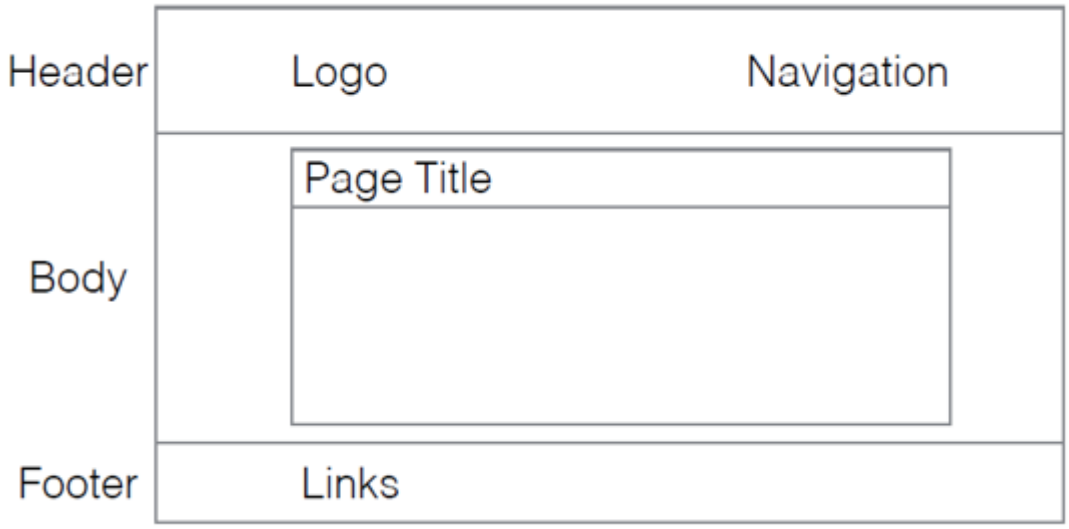
#545454 #E5E5E5 #000000 #FFFFFF

Swatch #4

#669900 #7FC123 #E5E5E5 #FFFFFF

3. Website Basic Concepts

3.1. Page Structure



3.2. Link Styles

- a:link (white)
- a:visited (white)
- a:hover (white)
- a:active (grey)
- Standard link (white)
- When on Page (grey)

3.3. Footer Links

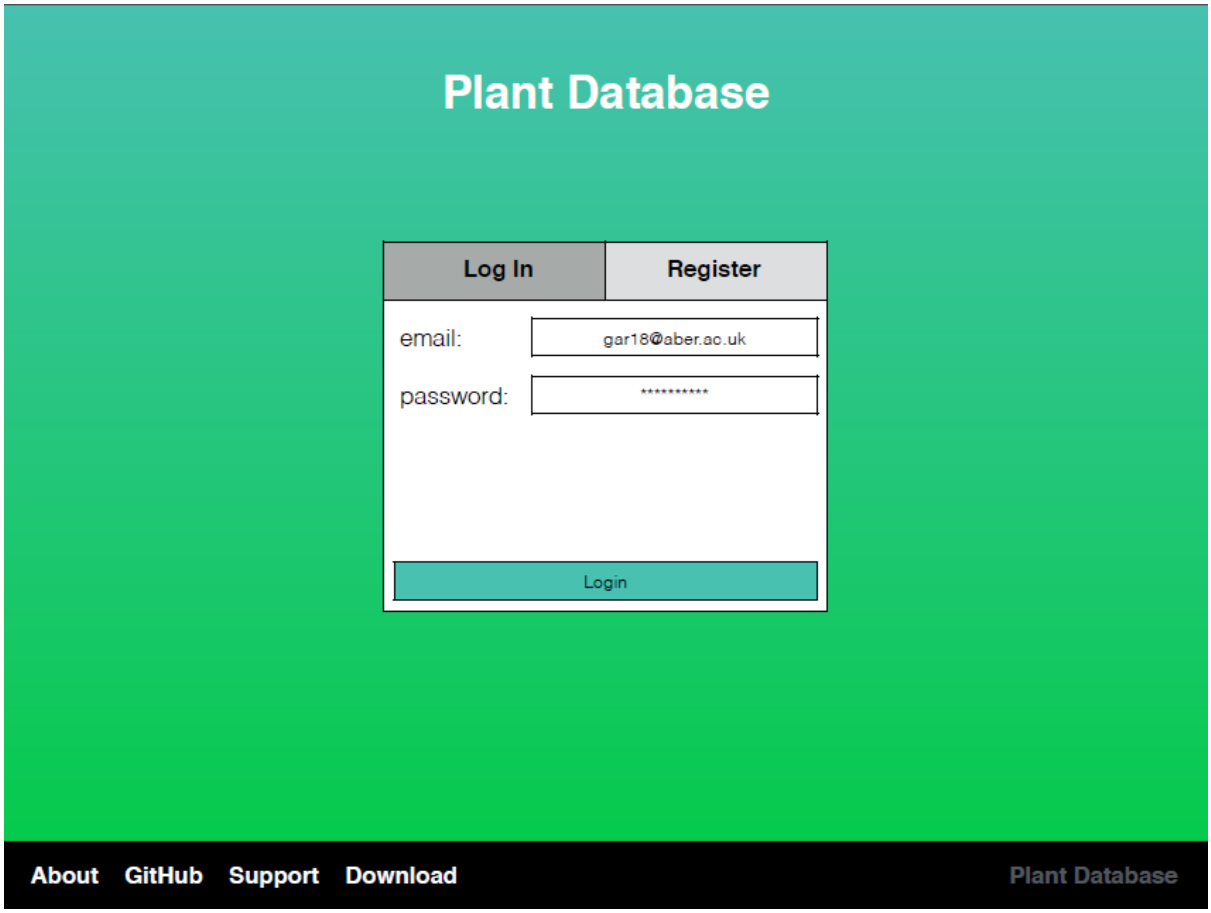
- About links to the About page
- GitHub links to the GitHub Repository
- Support will link direct to an email address

3.4. Navigation Links

- You
- View
- New

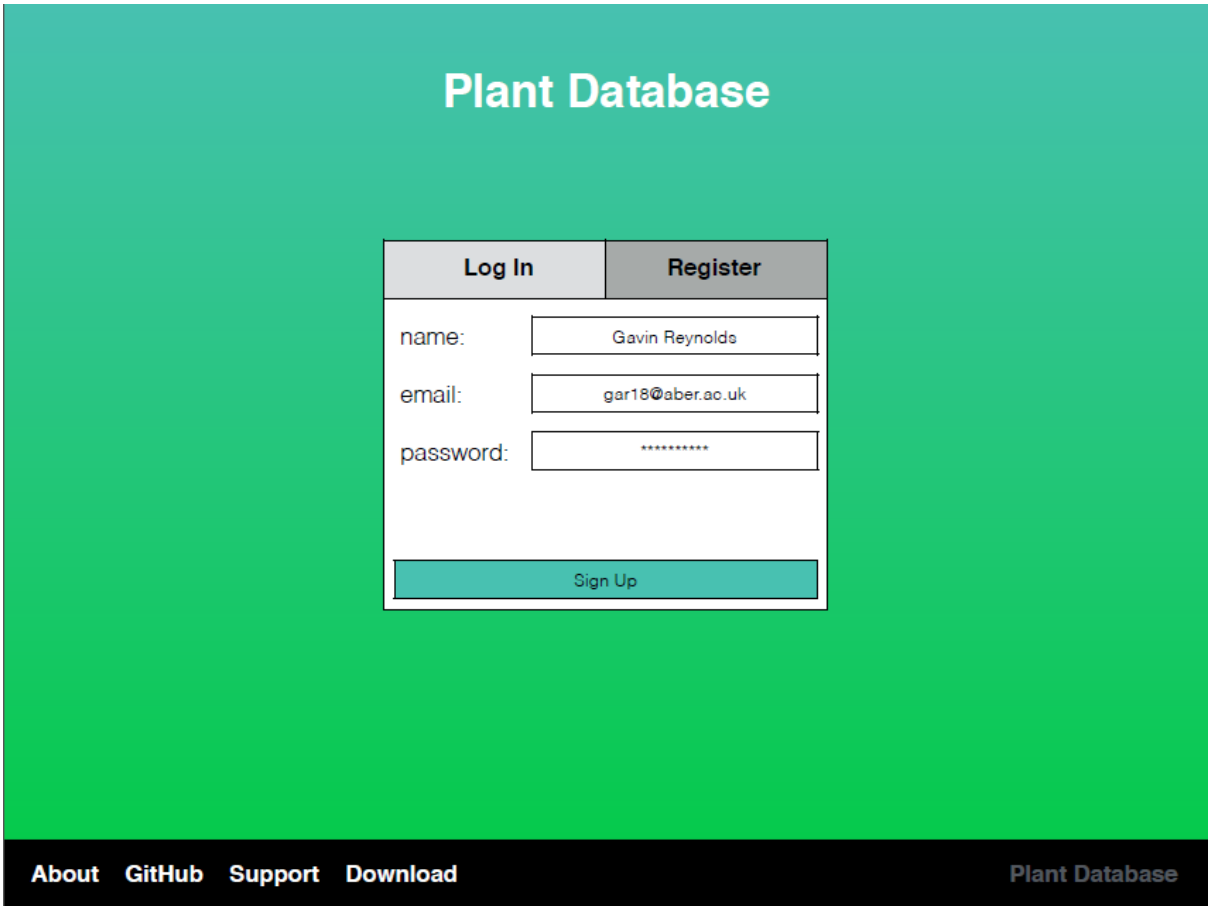
4. Web User Interface Designs

4.1.1. Index Login Page



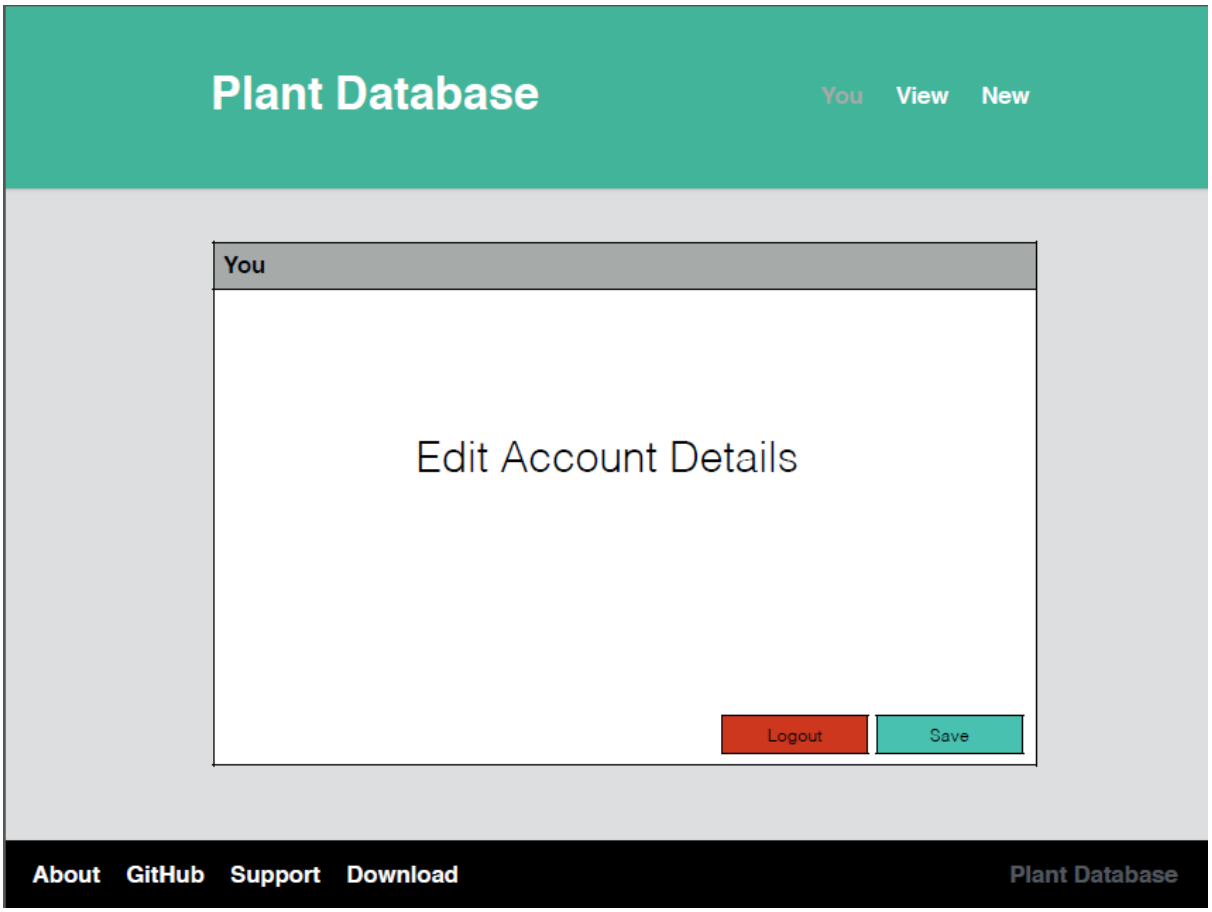
This Is the Main Login page where the user has entered their email address and password they would now click Login to proceed to the main website.

4.1.2. Registration Page



If the User does not have an account they will click the Register tab and then need to enter their Name, email and password and click Sign Up to register an account. After this their data will be sent to a database which then can be used to allow the user to Login.

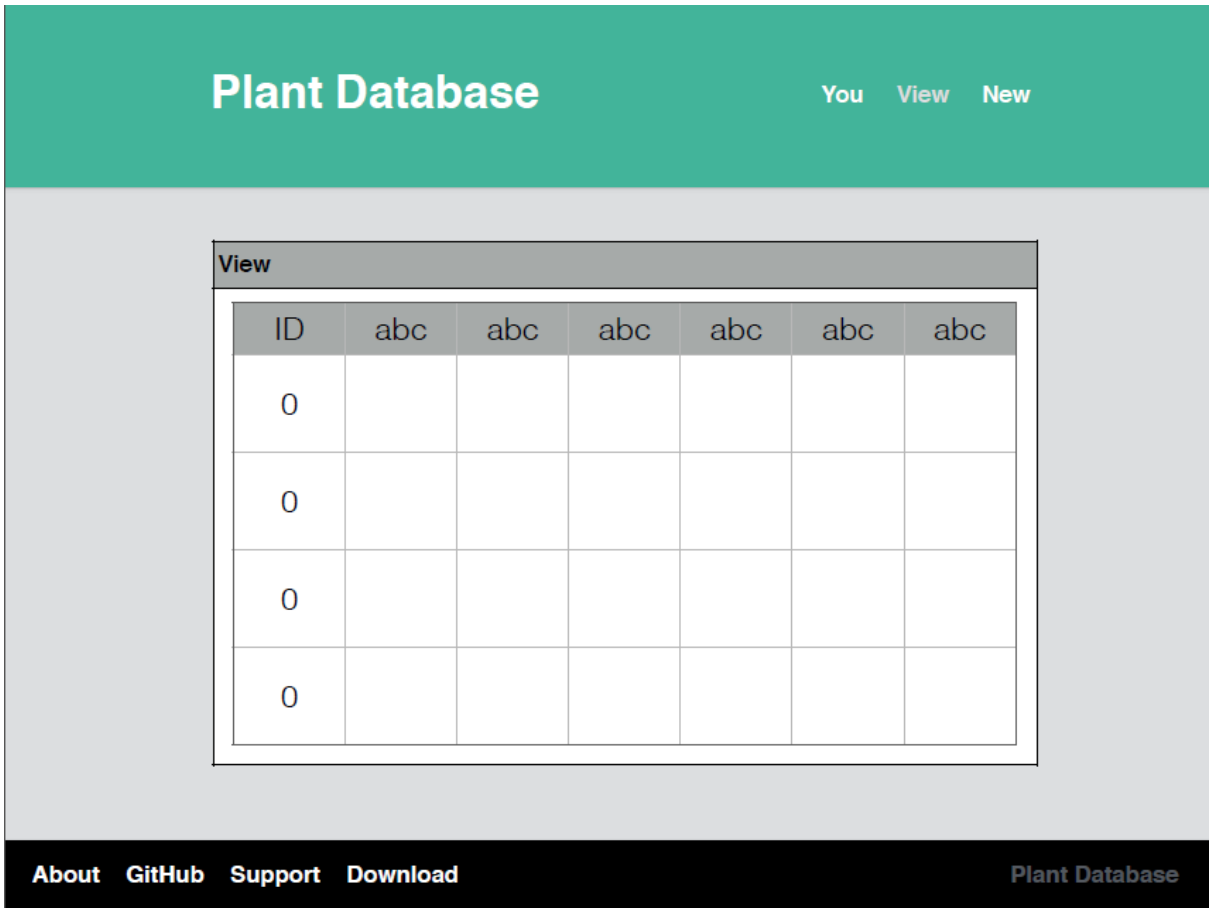
4.1.3. You Page – Account



The user is brought to the You page by default. The user can edit their name, email and password here.

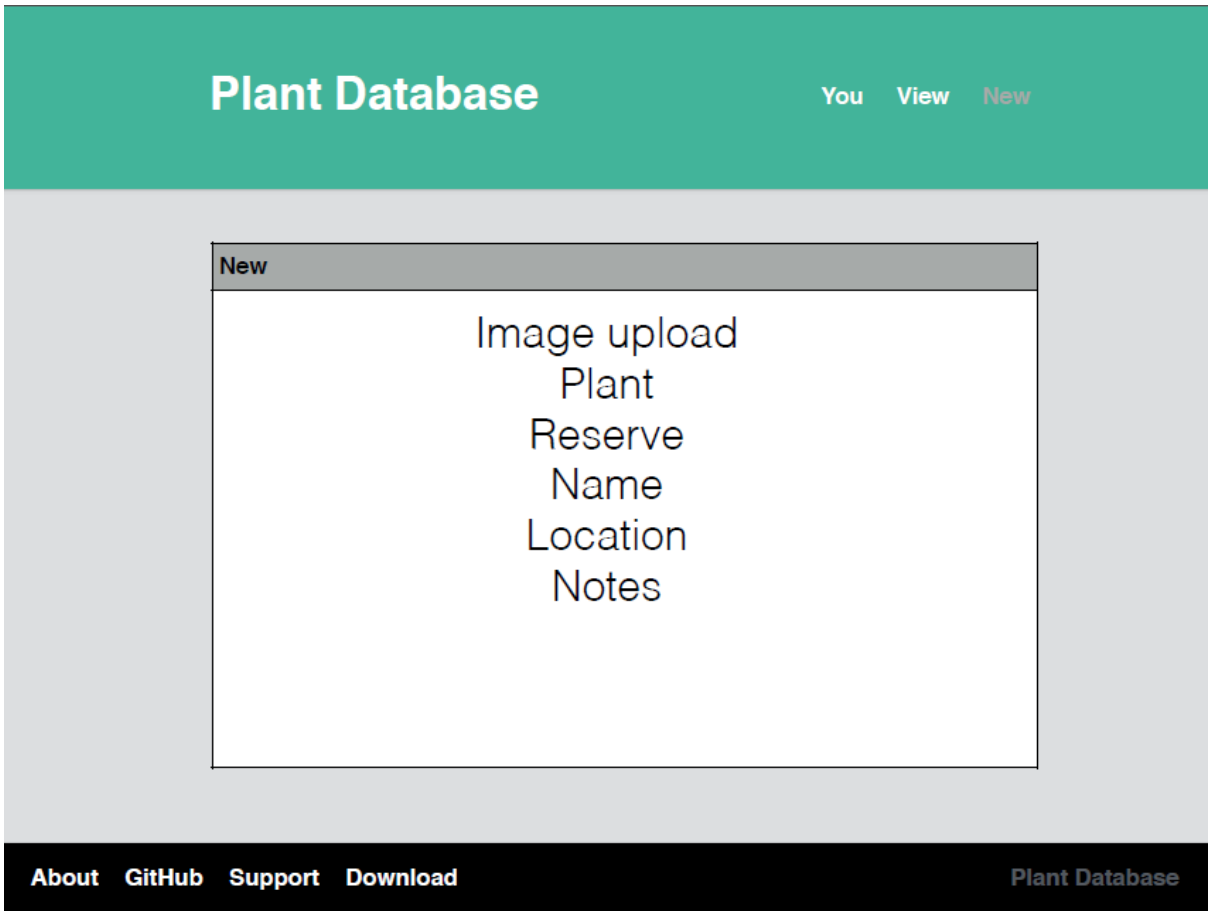
They can save their details here once edits have been made.

4.1.4. View Page - Database



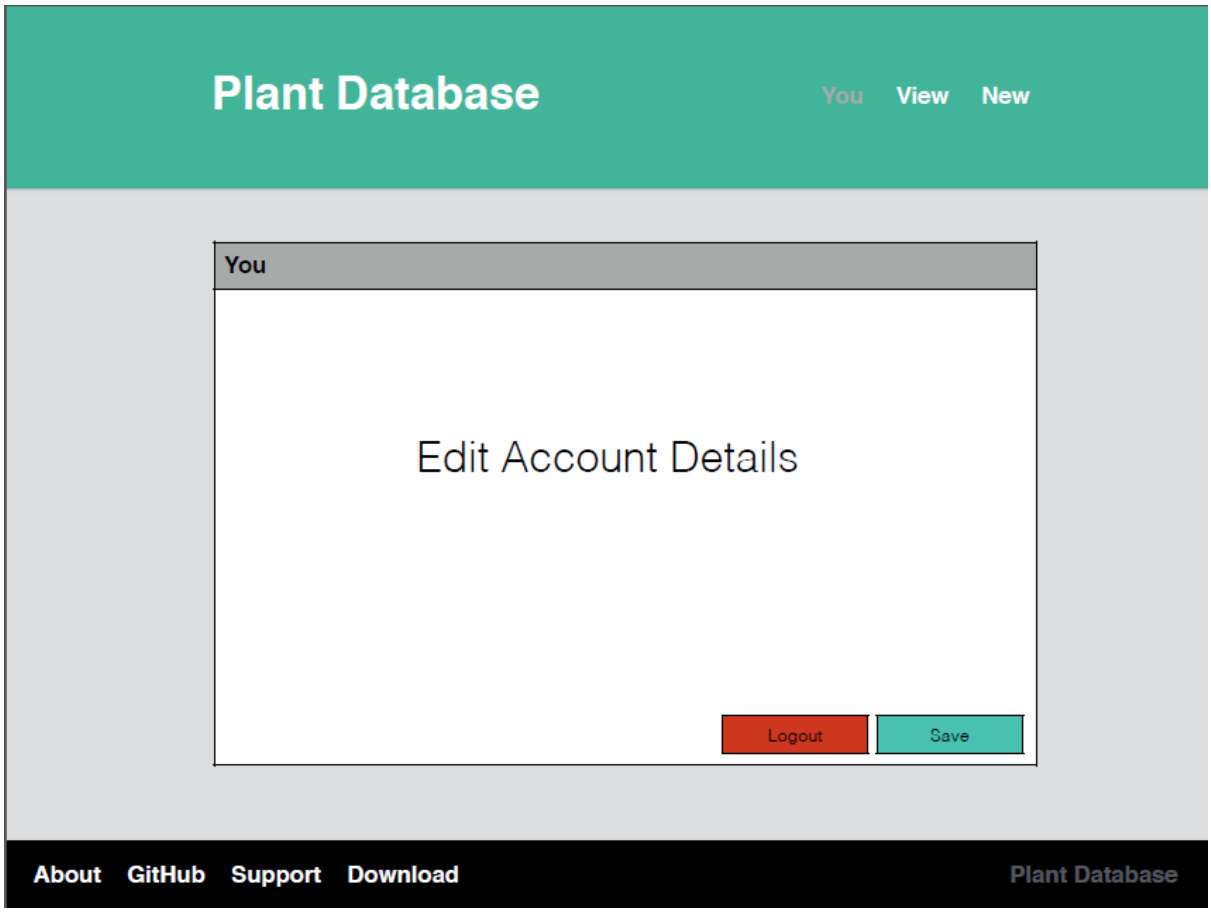
The View page allows the user to view the database records.

4.1.5. New Page – Database Entry



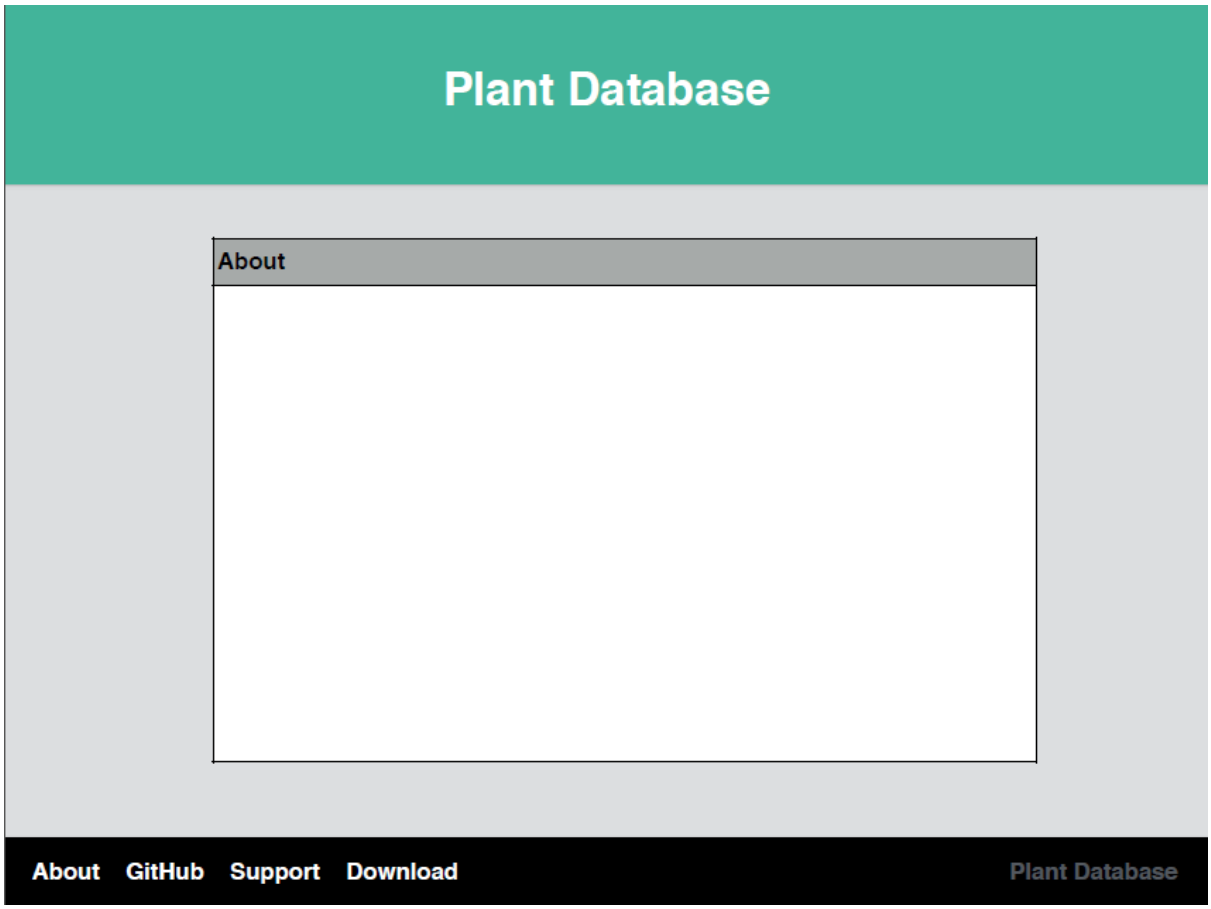
The New page allows the user to create a new record. This includes an image, the plant name, which reserve it was found on, its common name, its location and any extra notes.

4.1.6. Logout – You Page



Back to the You page now and the user can click Logout to logout when they are ready.

4.1.7. About Page

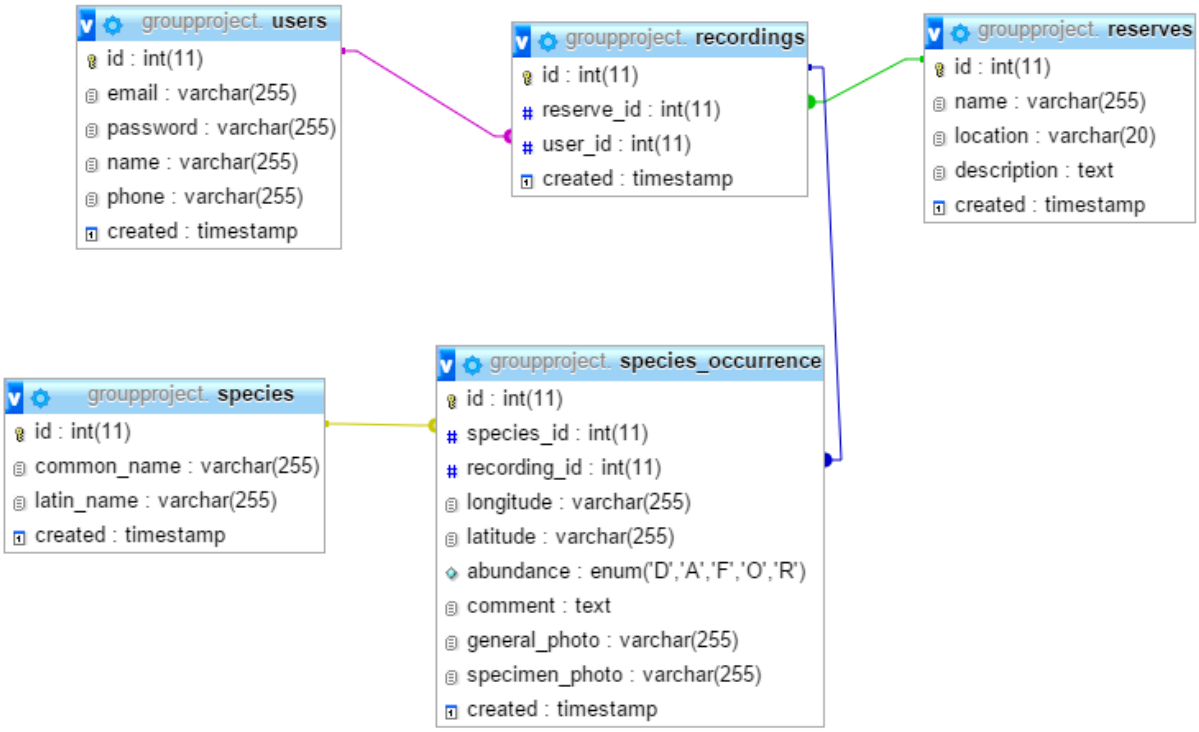


The footer has links on it too. They are present both when logged in and logged out. This is shown as if the user is logged out and wanting to read about the Plant Database application. There is also a download link to download the App.

5. Database Schema

5.1. Schema Diagram

Below is a graphical view the DB schema along with any relations. This was created using a MySQL database.



5.2. Description

5.2.1. Species Tables

So this table would contain both the common and Latin names for the species, which we can obtain from the BSBI list. These would be stored as varchars. It also contains the ID as a primary key and a created timestamp.

5.2.2. Reserves Table

The reserves table would contain the name, location (OS grid ref as per spec) and description of the reserve. The name and location would be stored as varchar and the description would be stored as text. As before it would contain the ID as the primary key and a created timestamp.

5.2.3. Recordings Table

The recordings table would contain a reserve ID which would be related to the primary key of the reserves table. It also contains the user's ID which would be related to the primary key of the users table. As before it also contains its own ID as the primary key and a created timestamp.

5.2.4. Species Occurrence Table

The species_occurrence table contains both the species ID and the recording ID which are both related to the relevant tables. This would contain each individual occurrence of a species on a per recording basis. This way we would be able to get all the different species recorded on a particular recording and/or on a particular reserve. This table also contains the longitude and latitude of where the species was found, the abundance, a comment, and URLs (?) to both the general and specimen photos. The longitude, latitude and photos will be stored as varchars whereas the comment will be stored as text. In the case of abundance I have used enum as we're choosing from a specific range of options. As before it also contains ID as its primary key and a created timestamp.

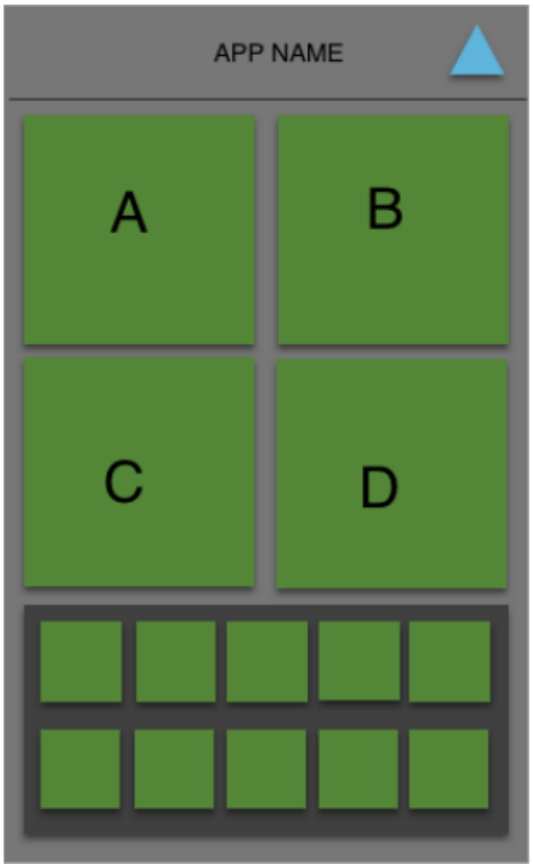
5.2.5. Users Table

The users table contains the email, phone number and name of the user along with his/her encrypted password. All of these fields are stored as varchar (including phone number due to the fact that it starts with a 0). As before this table also contains ID as its primary key and a created timestamp.

6. Android User Interface Design

6.2. Main Screen

This is the main title screen it holds the various control buttons for the outline, this allows the users to see all the options available to them. It can also be used for the management of data and a visual representation of currently stored local data. There's a login button at the top to allow a user to quickly load their application data.



6.2.1. Section A/B

Upload button/create new plant recording. Section b is used to manage previous records

6.2.2. Section C

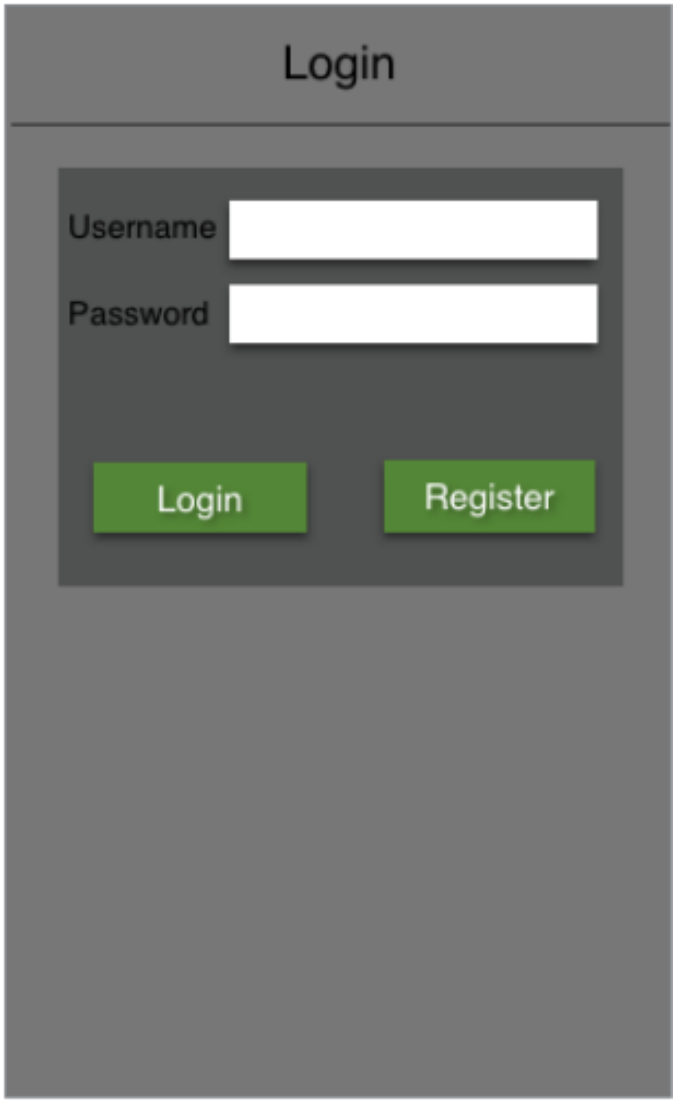
Used for Plant Creation

6.2.3. Section D

Plant Data Management

6.3. Login Screen

Standard login screen allows for the registration or login of accounts.



6.4. Recording Screen

This allows for the recording and submission of plant data. The image moves left and right in order to switch between close up images and area images, for multiple images you can wipe down on the category.

The plant and reserve boxes allow you to search the relevant databases for the best result, the search screens should be a standard list menu with a search box at the top.

The name box allows the user to enter a name for the record they are adding.

The location box has two options a GPS location pulled from the phones sensors or a manual location entering, this is needed for recordings added offsite and for devices that do not have a GPS sensor.

The notes box allows the botanist to add any extra details that they feel is relevant to the location

7. REFERENCES

N/A

8. DOCUMENT HISTORY

Version	CCF No.	Date	Changes made to document	Changed by
1.0	N/A	21/10/14	Document Created and Structured	Add20
1.2	N/A	28/10/14	Touched up on QA sections to fit specification on QA requirements. Restructured Into new Template Supplied by als48. Database Schema and Descriptions Added. Document put into 'In Review' Status	Tcg2
1.3	#3,#4,#5	30/10/14	Document Reviewed and Issues assigned to Author. Changes Made and Document placed into Release Status	Tcg2