

## Feature Plan

The website is designed to control and avoid the spread of coronavirus through the interaction and integration of information from three types of audience groups (users, managers and health officials) under the current COVID-19 environment. As a website for different groups with special functionalities, we need to ensure that the functions and permissions needed by them can be accurately and intuitively displayed on the webpages. To achieve this, the website differentiates the user identity by the type of account they have logged in or registered to provide the corresponding functionalities and permissions. Besides, each types of users can quickly understand the usage and get started by reading the specific introductions in the home page. In view of the situation that some of the elements needed to achieve the functions overlap, they will be integrated in the same interface, by pressing the button or hyperlink, the webpages will directly updated or jump to the destination page to reduce the unnecessary movement and cognitive load thus improve user experience.

### Home page

1. Header:
  - Left: logo and the name of website
  - Middle: introduction of the website
  - Right: login button for all types of the users
2. Text blocks:
  - Different usage introductions written in three text blocks corresponding to types of users
  - Three images representing the users' identity serve as the background panel for the introduction text, so the saturation setting is quite low
3. Footer:
  - contact email

### Check-in page

1. Left(40%):
  - Top: profile of the user and a log out button under the profile which will jump to home page after clicking
  - Centre: basic information of users(username, real name, phone, email)
  - Bottom: an edit button which allows users to update their personal information
2. Right(60%):
  - Top right corner: a link that allows users to check in using their browser's location
  - Centre: an empty block for users to type in check-in code with a check in button under to verify the code
  - Lower right corner: provides a link that jumps to the hotspot page

## Hotspot page

- User:
  1. Left(30%):
    - Top: button to view check-in history.(venue location, date)
    - Centre: button to view current hotspots.(hotspot locations)
    - Bottom: button to view the hotspots users' have been to.( hotspot location, visited date)
  2. Right(70%):
    - Visual map to display required hotspots information
    - Top right corner: provides buttons with capabilities to zoom in or zoom out the map
- Health officials:
  1. Left(30%)
    - Top: search bar that provides searching capability based on the location name and venue code that typed in
    - Centre: create and delete buttons that allows health officials to manage the hotspots information(location, start date, end date)
  2. Right(70%)
    - Same as user's

## Account management page (only available for health officials)

- User account
  1. Left(40%):
    - Centre: user profile and their basic information(username, phone, email)
    - Bottom: lock and delete buttons that allows health officials to freeze or remove user account if necessary
  2. Right(60%):
    - Top: detailed user information(given name, family name, status). Status includes healthy, suspected affected and affected, the change of the user status will affect the venue status and may create a new hotspot.
    - Bottom: a comment block that allows health officials to leave messages to a specific user if his status have been updated or account has bee locked.
- Manager account
  1. Left(40%):
    - Same as user's
  2. Right(60%):
    - Top: detailed manager information(venue name, venue type, status). Status includes active and lock down. When infected users appear in a venue area, it will become a hotspot and face the risk of being forced to shut down. Its status will change to lock down after it is confirmed to be closed.

- Bottom: same as user's

## **Features of the web application**

### **Sign up / Log in**

- When users left click the button which located on the top right of the webpage, the web will pop up with a login page for general users, managers and health officials.
- If users not have an account, they can left click the button located on the right bottom of the page, which allow they sign up as a general user or a manage.
- For health officials, new account can only sign up by another health official by left clicking button 'sign up for other health officials'.

### **Link social media**

- When user login to web application, under the login button there are few buttons of some social media like Facebook or google, which are able to link to account to make the login easier.

### **Manage information**

- When users successfully login, there is a 'edit' button on the left button of the page, they can edit their personal information by left clicking the button.

### **Search**

- For managers, they can view the check-in history in specific time by searching by year, month and day. After left click the 'Apply' button, only the check-in history that suit the conditions will be shown.
- For health officials, before searching by time, they can find a specific user/venue by their username or name of user/venue.

### **Official management**

- For Health officials, they can leave a comment to general users and managers by typing in the comment box
- For Health officials, they can manage the status of the general users and managers in order to identify if they are affected or become hotspots.
- For Health officials, they can look down the account of the general users and managers if they have any suspected behaviours.

## **Check-in**

- For general users, they can do the check-in by enter the check code and left click 'heck in'. Or they can do it by using their browser's position.

## **GPS map**

- For general users, they jump to map page by left click the 'on map' button. In map page, they can view the check-in history, current hotspots and hotspots they've been to by left clicking the corresponding buttons.
- For health officials, they can jump to map page by left clicking 'create & manage hotspots areas', 'create & manage timeframes' and 'check current hotspots. They can also do the corresponding operation on the map.