**Project SunnyWalk – Web Application**

**Project Specifications**

* **Introduction**

To develop a web app that can advise users on what the best times are for them to take their daily walks which would maximise their intake of sunshine.

* **Functional Requirements**

1. **As a walker, users want to know during what times they can get the most sunshine based on their location, current time and the weather forecast so that they can plan their walk into the day and optimize their sunshine intake.** 
   1. Users shall be able to access the system from the web browser.
      1. The system shall allow all users to access the page and know more about the Web App
      2. The system shall allow registered users to log into the Web App using their Login ID and Password.
         1. The registered users shall be able to view current day’s best times for taking a walk
            1. Registered users shall be able to get a notification for their walk
            2. Registered users shall be able to log in their feedback about a particular walk
         2. Registered users shall be able to view their profile
         3. Registered users shall be able to modify their profile details
            1. Registered users shall be able to modify their Address
            2. Registered users shall be able to modify their telephone number
            3. Registered users shall be able to modify their address
            4. Registered users shall be able to modify their email id
      3. The system shall allow new users to create an account
         1. Users shall be able to create/enter a username
         2. Users shall provide a password
            1. The password needs to be at least 8 characters long
         3. Registered users shall be able to view their profile
         4. Registered users shall be able to modify their profile details
2. **As a walker, users would want to receive a notification some time before their walk so that they don’t miss it.** 
   1. The system shall allow registered users to log into the Web App using their login ID and Password
      1. The Web App shall allow the user to choose to be notified about the suitable time to have their walk
3. **As a walker, users want to log if a walk was good or bad so that they can track their satisfaction with walks over time.** 
   1. Registered users shall be able to log their feedback about a particular walk
4. **Additional Features:**
   1. As a walker, users want to log the area walked so that they can track walks on the map.
   2. As a walker, users want to set up their preferred locations so that they can plan to enjoy sunshine in places that they usually frequent or they are about to travel to.
   3. As a walker, users want to set up their preferred weather conditions so that they can enjoy their favourite weather during their walks. (e.g., I prefer cloudy weather; I prefer taking walks in the rain)
   4. As a walker, users want to customize their user profile so that they can receive relevant advice about/during their walks (e.g. I don’t like rain, so I would like to be advised if I should take an umbrella with me)
   5. As a wheelchair user, users want to know about the walks that are accessible (wheelchair friendly) so that they can enjoy the sunshine without worries or assistance.
   6. As a dog walker, users want to know routes with dog-friendly areas nearby so that their dog can socialise with other dogs.
   7. As a parent, users want to know about routes that have parks with playgrounds nearby so that they can enjoy a walk without their children getting bored.
   8. As roller skaters, users want to know where the safest routes for roller skating are so that they can enjoy their hobby without needing replacement wheels after every outing or injury.
   9. As a walker, users want to leave comments about the area where they had a walk so that it can make other users aware about different area features. (e.g., water fountains, dog waste bins, etc.)

* **Architectural Design**

User 2

(Tablet)

User 3

(Laptop)

User 4

(Desktop)

User 1

(Mobile)

Internet (Interface Layer)

Backend

Server

* **Context Diagram**

<<system>>

Users

<<system>>

Registered Users

Login Home Page

<<system>>

SunnyWalk Web App

* **Activity Diagram**

View Profile

Login

Edit Profile

<<system>>

SunnyWalk Web App

Home Page

Logout

View walk times

Register New User

Log feedback

* **Class Diagrams (Backend tables/classes)**

|  |
| --- |
| **: User** |
| firstName (String)  lastName  address (String)  phone (Integer)  DOB(Date) |
| register ()  edit () |

|  |
| --- |
| **: Walk** |
| userName (String)  location (String)  address (String) |
|  |