

# FOOD-CYCLED



**Team number - 1**

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## I. INTRODUCTION

Food is one of the basic necessity of life and fuel for the human body and yet, many people still do not have access to a good meal. Many don't realize how much they throw away every day from uneaten leftovers which could otherwise be made available to people in need. In today's world, recycling is a major topic and the idea of reusing would aid in reducing waste. This motivated us to look for a project that combines these two ideas.

*'Natural Resources Defense Council estimates that about 40 percent of food in the U.S is never eaten and at the same time one in eight americans struggle to get proper food.'*

The above brief description outlines the core idea of our project, which helps reduce wastage of food and make it available to people in need. This inspired us to take a step forward to initiate this project with the help of an user friendly application and website which will attract more people to be involved in this process and make it a success. Individuals and restaurants can support in this cause and make a difference in their community by providing excess food to those who are in need.

## II. PROJECT GOAL AND OBJECTIVES

### Overall Goal :

The main objective of this project is to develop user friendly application and website that could be used by individuals and restaurants to give away this excess food to those who don't have access to it. Through this project, food is provided for homeless or less privileged people and also to reduce the wastage of food.

### Specific Objectives :

There has not been an easy process outlined to help in repurpose excess food that are otherwise going to be thrown. The project proposes a streamlined simple approach to resolve this with the help of smart technology.

### Specific Features :

- User friendly application and website to help ease donation and collection of excess food.
- Identifying Stall Locations using Maps.
- Chat feature between user and volunteer to smoothen food pick up process.
- Check for nutritional value, ingredients and validity of the food by a simple scan.
- Login can also be done using social websites such as Facebook, google+, etc.
- Feedback on volunteers by users.

### Significance :

We are developing an application and a website to effectively collect and make food available to homeless and less privileged people. People who wish to be part of this program are grouped into two types –

1. User(s) – people who wish to contribute food
2. Volunteer(s) – people who wish to collect food from users and drop off at the nearby stall location.

Initially volunteers are registered with their details including photo and valid ID. The user also needs to register and then mention the food they wish to donate. After that, a request will be sent to the nearby volunteer to pick up the food. Nearby volunteer who is available accepts the request from the user to pick up food. Also the volunteers details will be sent to the user and chat conversation is enabled between them. After the volunteer picks up the food, he/she drops off in the nearby stall location. After accepting the food from the user, volunteer scans the food in the application to find out the nutritional value and expiry of the food. If deemed acceptable then the food is then dropped off by the volunteer in a nearby stall location. Different type of foods available in every stall location is displayed in the application and website for information.

### **III. PROJECT PLAN**

#### **Schedule for the four different increments**

##### **Increment I (Android application and Website)**

Launch Page

Login Page

Registration Page

Facebook OAuth for Android

##### **Increment II**

Facebook OAuth for website

Photo Upload for Android

Implement Food API

##### **Increment III**

Implement Google Maps API for Stall Locations

Enable Chat conversation

Thank You page for contributors

Feedback for Volunteers

##### **Increment IV**

Deployment

Testing

## Stories ( Issues ) : Scenario & Use Case Specifications

The screenshot shows a GitHub project board for a project named "CS5551\_team1". The board is organized into columns representing different stages of the workflow: Backlog, In Progress, Review/QA, Done, and Closed. Each column contains a list of issues represented as cards. The "Backlog" column has three issues, "In Progress" has one, "Review/QA" has one, "Done" has one, and "Closed" has four. Each issue card includes a title, a description, and a status indicator (e.g., "New Issues").

Column	Issue Title	Description	Status
Backlog	CS5551_team1_project #8	increment 2(facebook oauth for website,photo upload for android,implement food api)	New Issues
Backlog	CS5551_team1_project #9	increment 3(implement google maps api,enable chat conversation,thank you page and feed back page)	New Issues
Backlog	CS5551_team1_project #10	increment(deployment and testing)	New Issues
In Progress	CS5551_team1_project #7	first increment(launch page,login page,register page,facebook oauth for android)	New Issues
Review/QA	CS5551_team1_project #4	uml issue	New Issues
Done	CS5551_team1_project #6	system architecture issue	New Issues
Closed	CS5551_team1_project #5	android issue	New Issues
Closed	CS5551_team1_project #1	login issue	New Issues
Closed	CS5551_team1_project #2	Register page issue	New Issues

The screenshot shows the GitHub Issues list view for the same project. The "Issues" tab is selected, and the filter "is:open" is applied. The list shows four open issues, each with a title, description, and status. The issues are sorted by "New Issues".

Issue Title	Description	Status
increment(deployment and testing)	#10 opened an hour from now by harikaadivanne	New Issues
increment 3(implement google maps api,enable chat conversation,thank you page and feed back page)	#9 opened an hour from now by harikaadivanne	New Issues
increment 2(facebook oauth for website,photo upload for android,implement food api)	#8 opened an hour from now by harikaadivanne	New Issues
first increment(launch page,login page,register page,facebook oauth for android)	#7 opened an hour from now by harikaadivanne	New Issues

ProTip! Mix and match filters to narrow down what you're looking for.



## IV. FIRST INCREMENT REPORT

### i. Existing Services/REST API

Facebook API , Food API, Google Maps API

### ii. Detailed Design of Features

#### Wireframes for Android Application

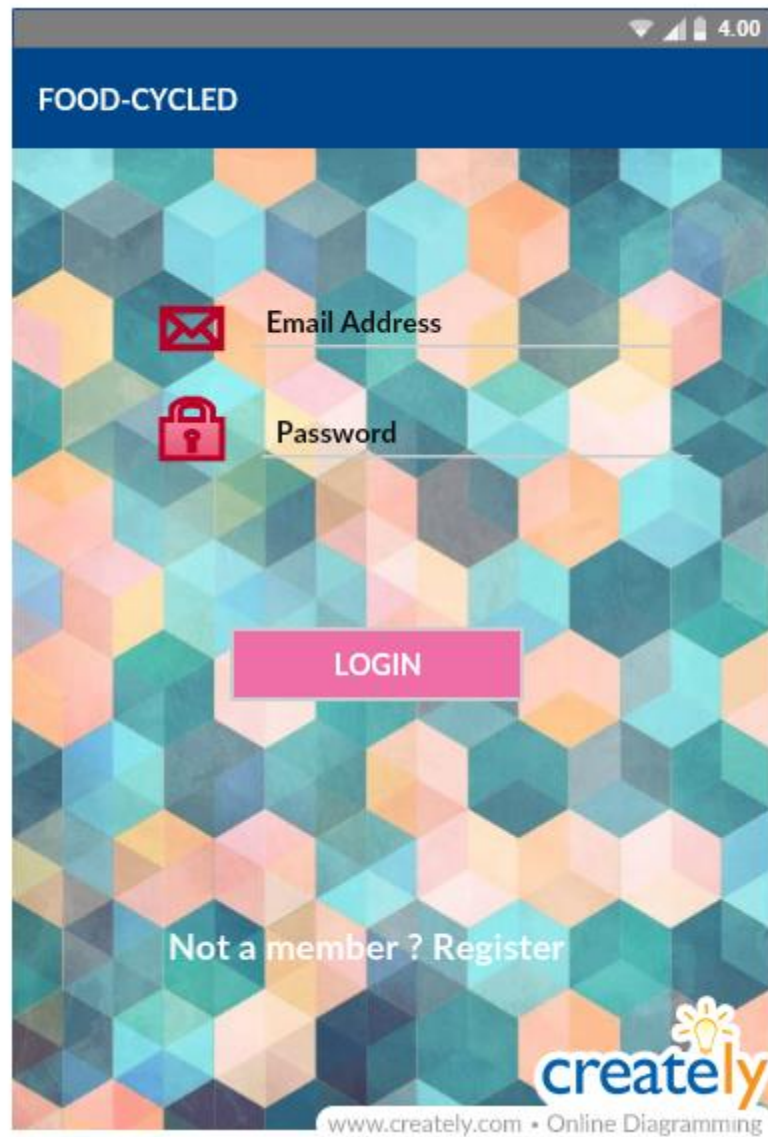
##### LAUNCH PAGE

The Launch Page is the initial page which loads on opening the Application. It contains 3 buttons - Login, Register and Continue with Facebook .



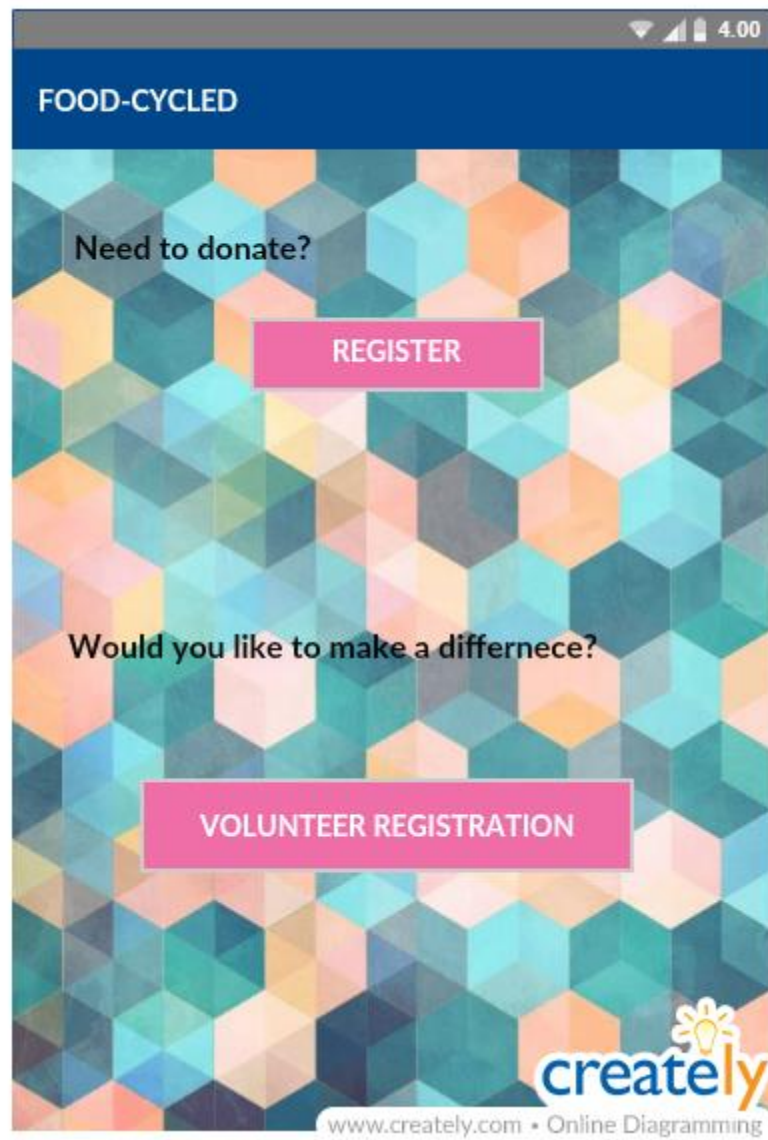
**LOGIN PAGE**

The Login Page does Authentication of previously registered users. Here there are 2 buttons-Login and

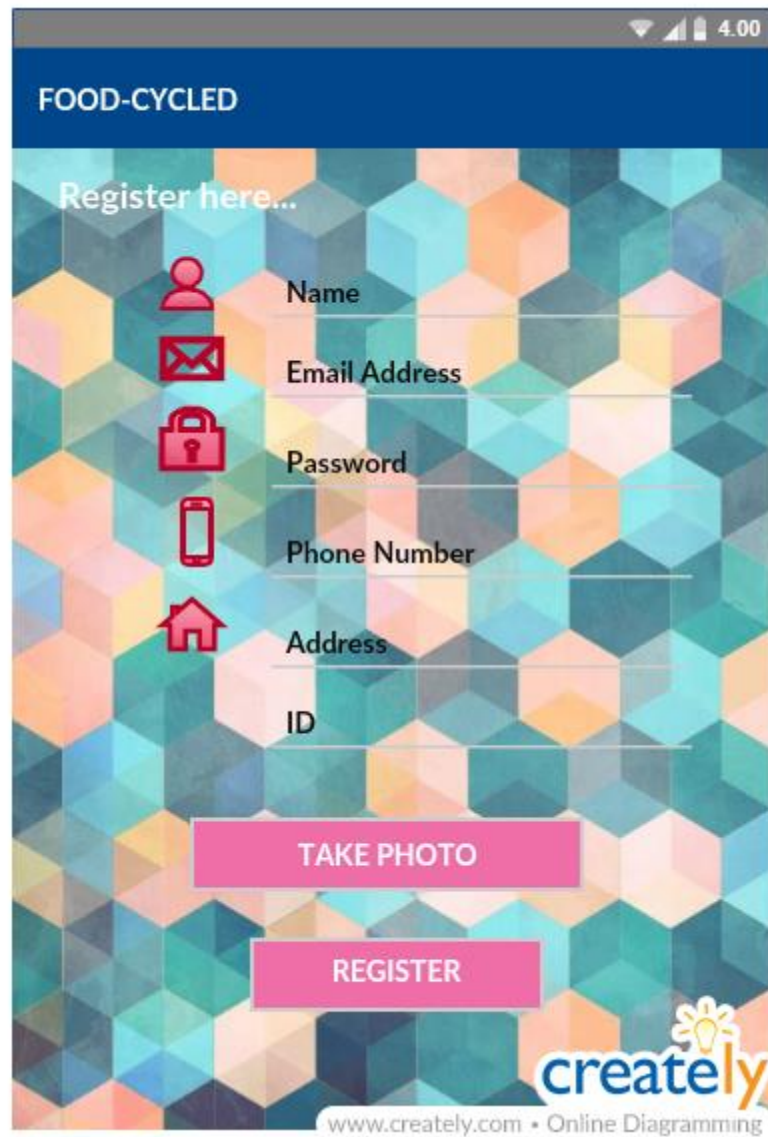




REGISTER PAGE



## VOULNTEER REGISTER PAGE



The screenshot shows a mobile application interface for a volunteer registration page. The header is a dark blue bar with the text "FOOD-CYCLED" in white. Below the header, the text "Register here..." is displayed. The registration form consists of several input fields, each preceded by a red icon: a person icon for "Name", an envelope icon for "Email Address", a padlock icon for "Password", a mobile phone icon for "Phone Number", a house icon for "Address", and a simple "ID" label for the final field. Below the input fields are two prominent pink buttons: "TAKE PHOTO" and "REGISTER". The background of the form area is a colorful geometric pattern of hexagons. In the bottom right corner, the "creately" logo is visible, along with the text "www.creately.com • Online Diagramming". The top status bar of the phone shows a Wi-Fi signal, cellular signal, and the time "4.00".

FOOD-CYCLED

Register here...

Name

Email Address

Password

Phone Number

Address

ID

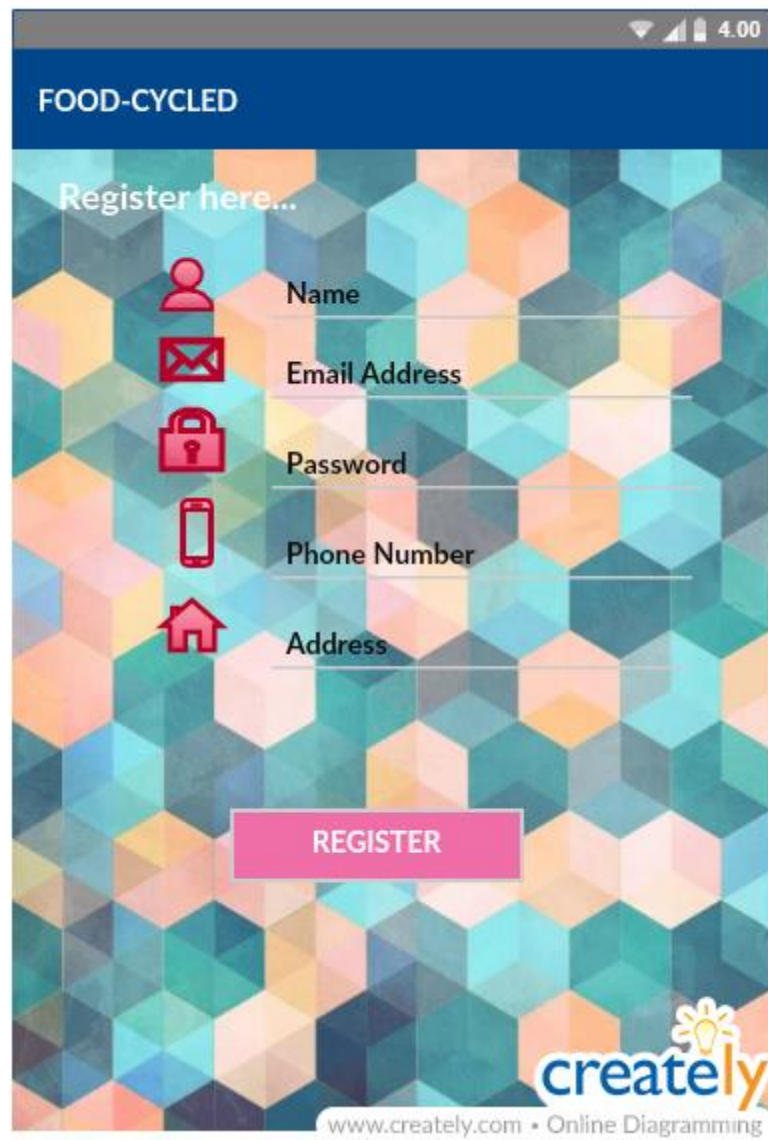
TAKE PHOTO

REGISTER

creately

www.creately.com • Online Diagramming

## USER REGISTER PAGE



FOOD-CYCLED

Register here...

Name

Email Address

Password

Phone Number

Address

REGISTER

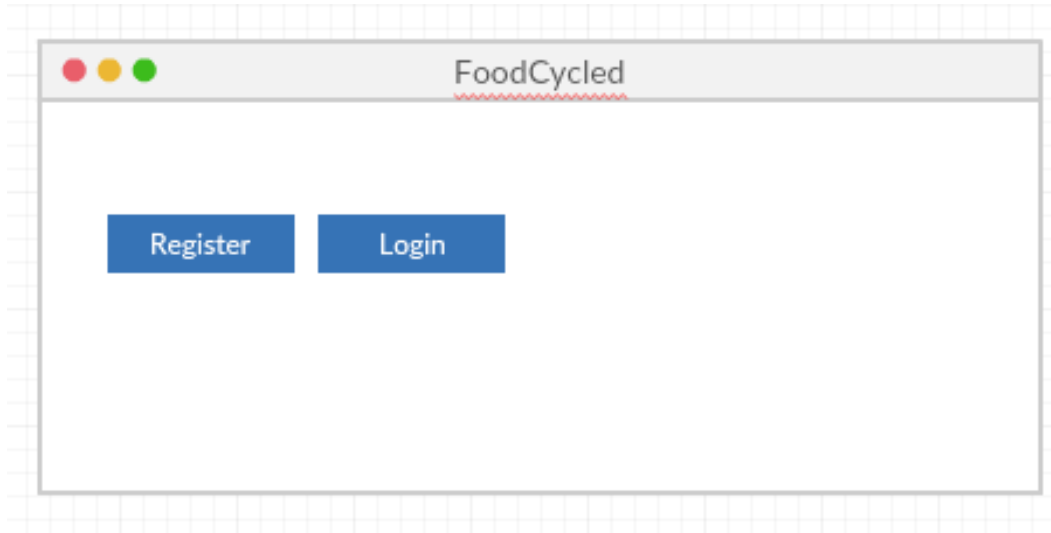
creately

www.creately.com • Online Diagramming

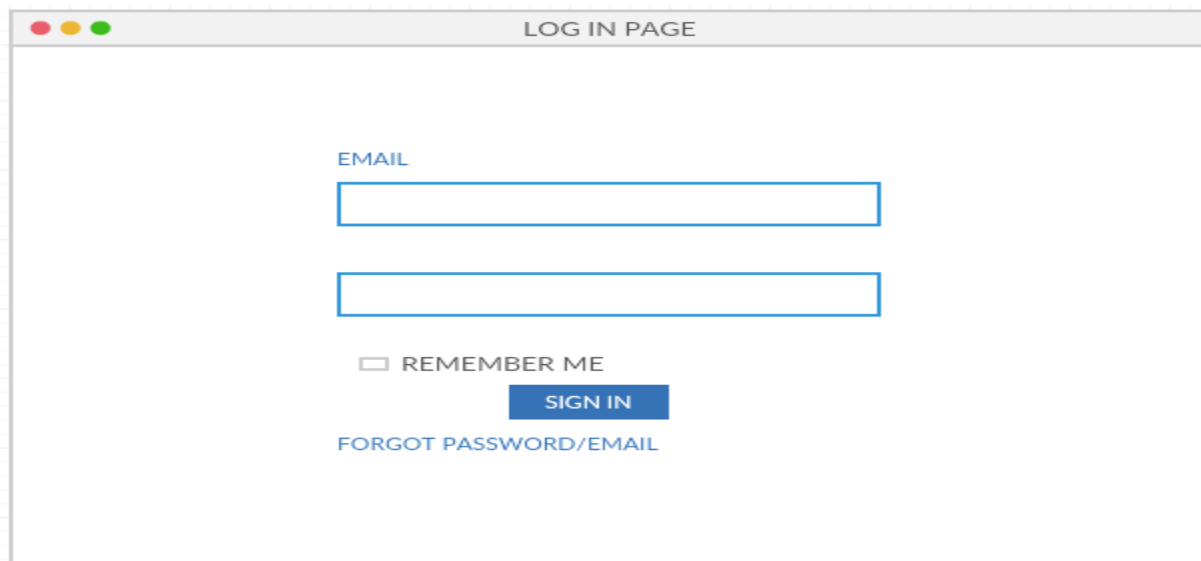
The image shows a mobile application registration screen. At the top, a dark blue header contains the text 'FOOD-CYCLED'. Below this, the text 'Register here...' is displayed. The registration form consists of five input fields, each preceded by a red icon: a person icon for 'Name', an envelope icon for 'Email Address', a padlock icon for 'Password', a mobile phone icon for 'Phone Number', and a house icon for 'Address'. A prominent pink button with the text 'REGISTER' is located below the form fields. The background of the screen is a vibrant, multi-colored geometric pattern of hexagons and triangles. In the bottom right corner, the 'creately' logo is visible, along with the text 'www.creately.com • Online Diagramming'. The top status bar of the mobile device shows signal strength, Wi-Fi, and the time '4.00'.

Wireframes for Website**LAUNCH PAGE**

Wireframe for Home page where user/Volunteer can redirect to Register or Login Page.

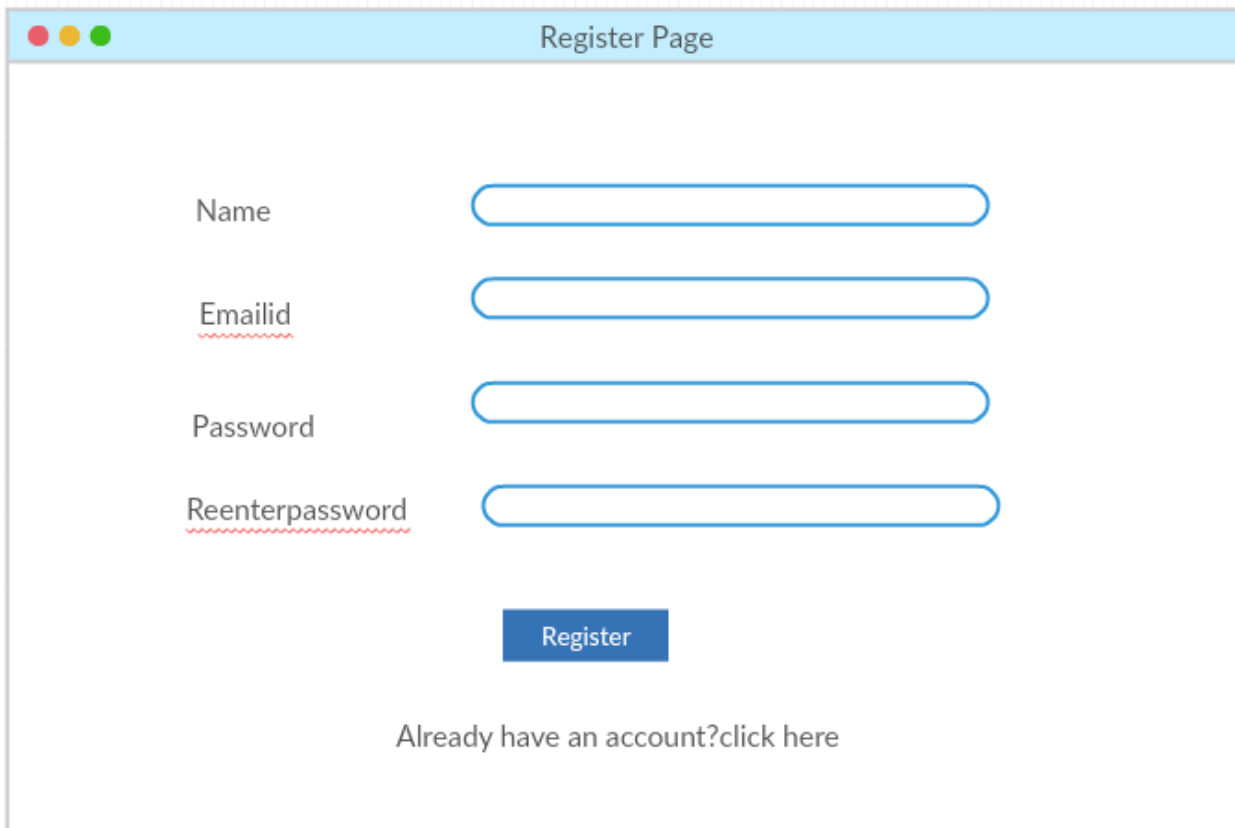
**LOGIN PAGE**

This wireframe is for login page where user/volunteer can sign in and navigates to home page.



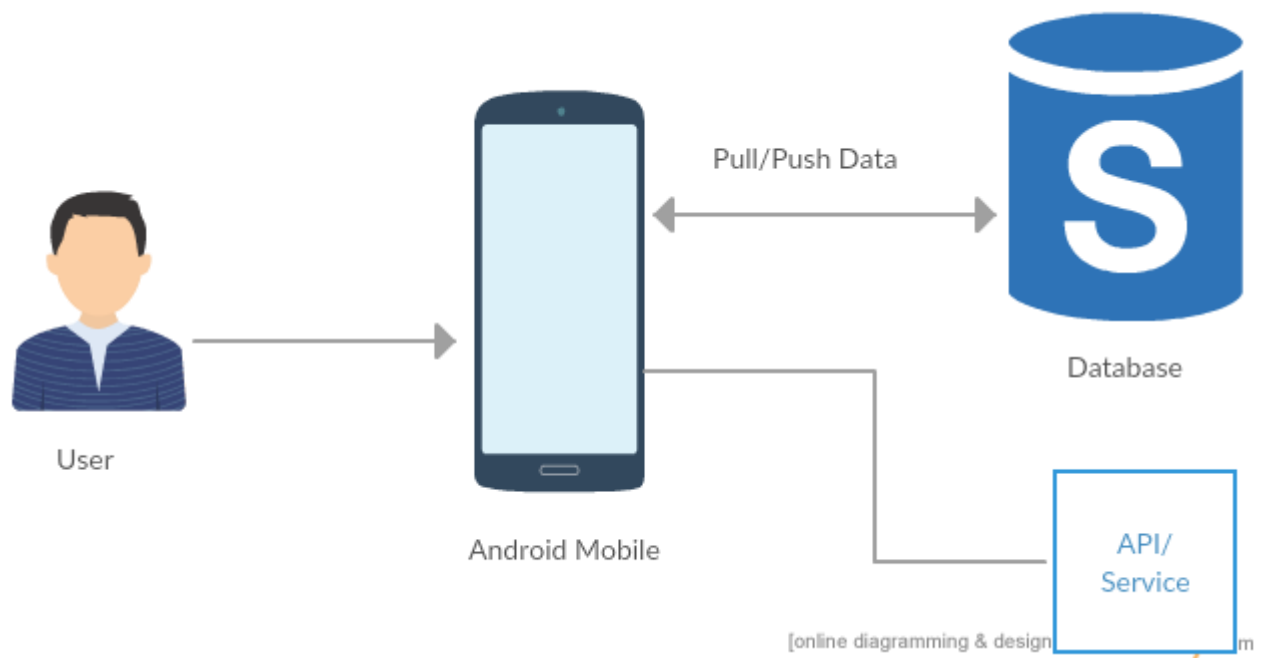
**REGISTER PAGE**

The register page wireframe consists of Name where user will be given username ,email id where user will be given his mail id, and password and reenter password. If user already have account he can directly log into his account.



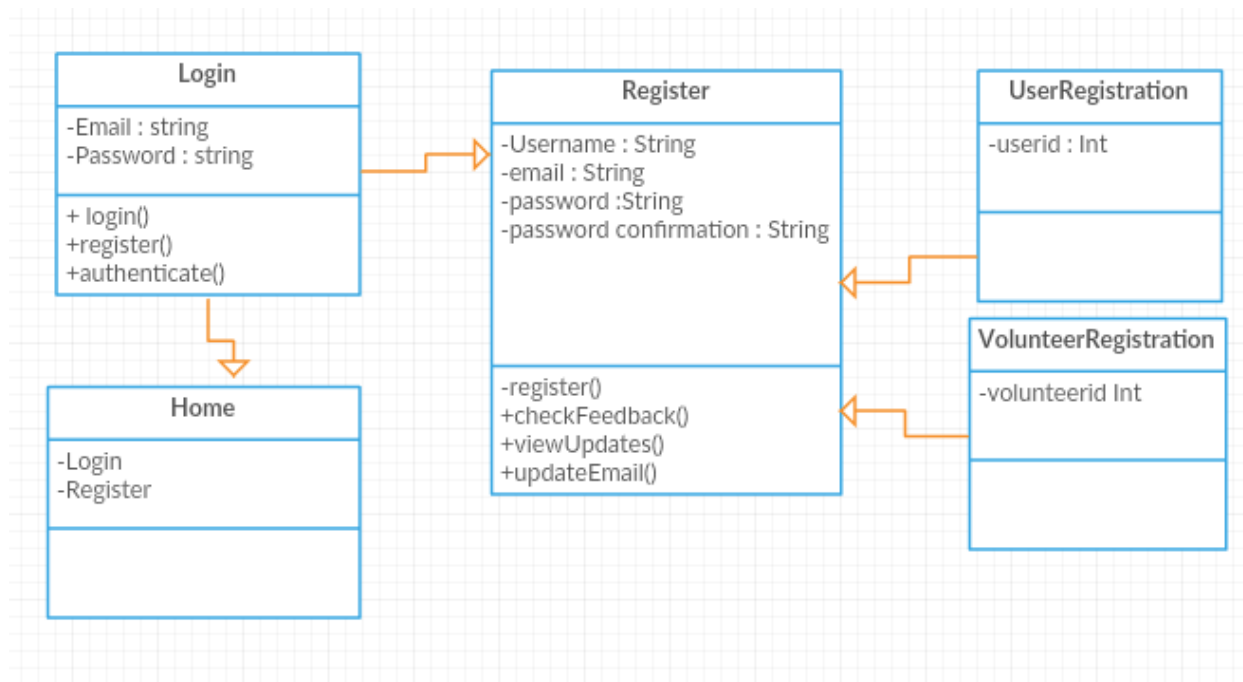
The wireframe shows a window titled "Register Page" with a light blue header bar containing three colored circles (red, yellow, green) on the left. The main content area is white and contains four labels on the left, each followed by a rounded rectangular input field: "Name", "Emailid" (underlined with a red wavy line), "Password", and "Reenterpassword" (underlined with a red wavy line). Below these fields is a blue rectangular button with the text "Register". At the bottom of the form is the text "Already have an account?click here".

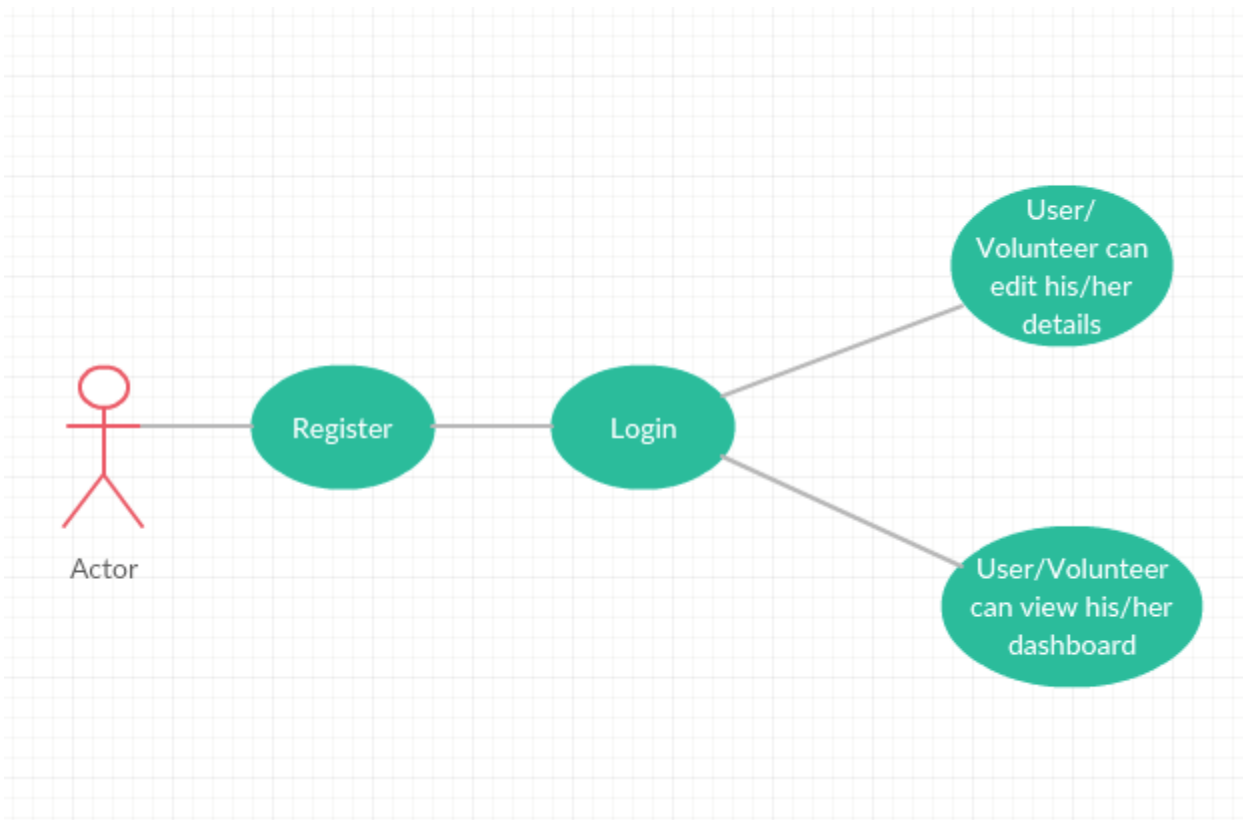
## ARCHITECTURE DIAGRAM



**CLASS DIAGRAM**

This is the class diagram which represents the Login ,Home and Register page . User and Volunteer are inherited from Register as they have to register with same details. After entering credentials once authentication is successful it will redirect to Home page.

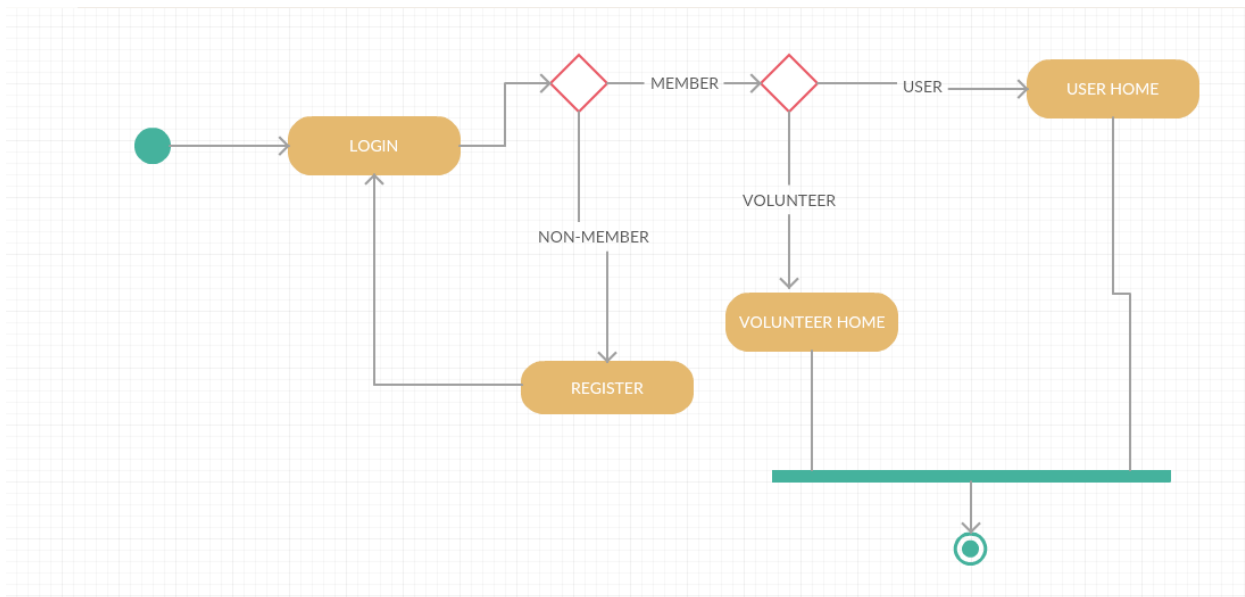


**USE CASE DIAGRAM**



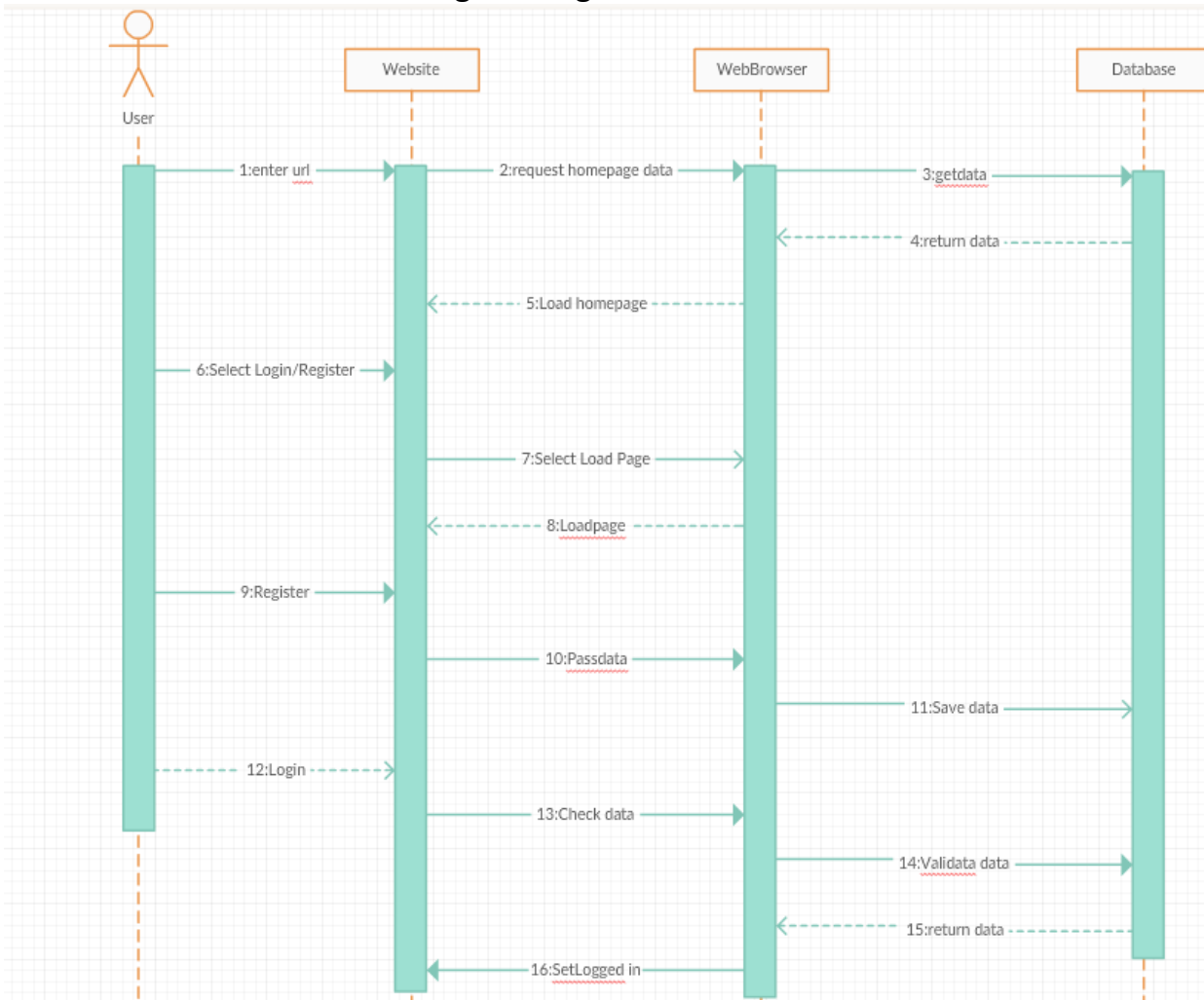
**ACTIVITY DIAGRAM**

Activity diagram describes the flow of activities involved for user and volunteers to login and to register to enter the home page.

**SEQUENCE DIAGRAM**

The following sequence diagram shows that first user will enter the url of the website, then web browser will request for homepage data from the data base data will be retrieved, User will select register button.

Then he will be entering details, then that details will be stored in database. if any field is null an error message will be shown up.



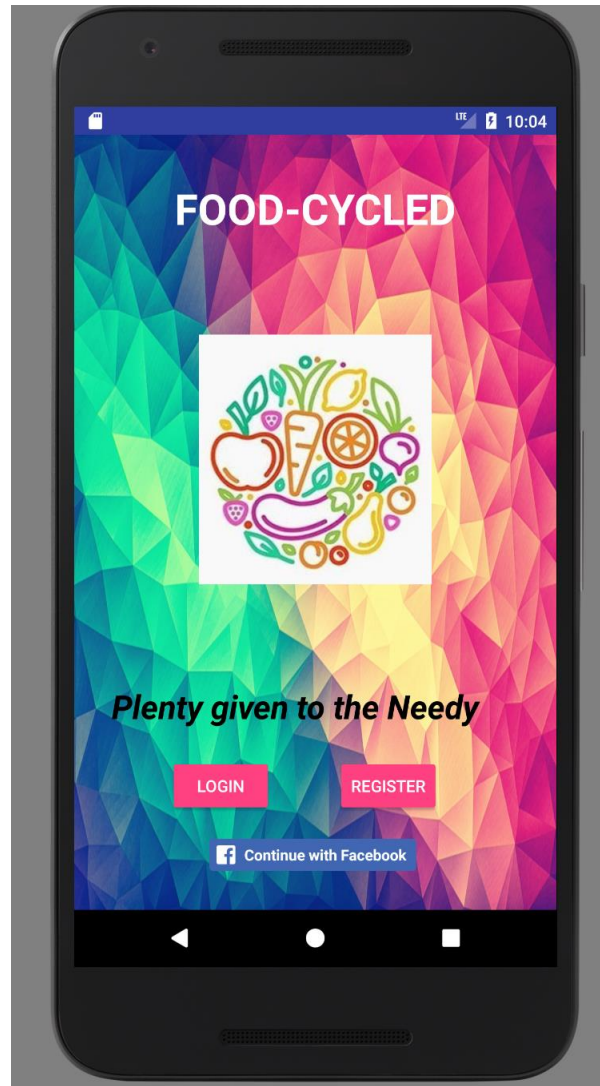
## V. IMPLEMENTATION

### Implementation of Android Application

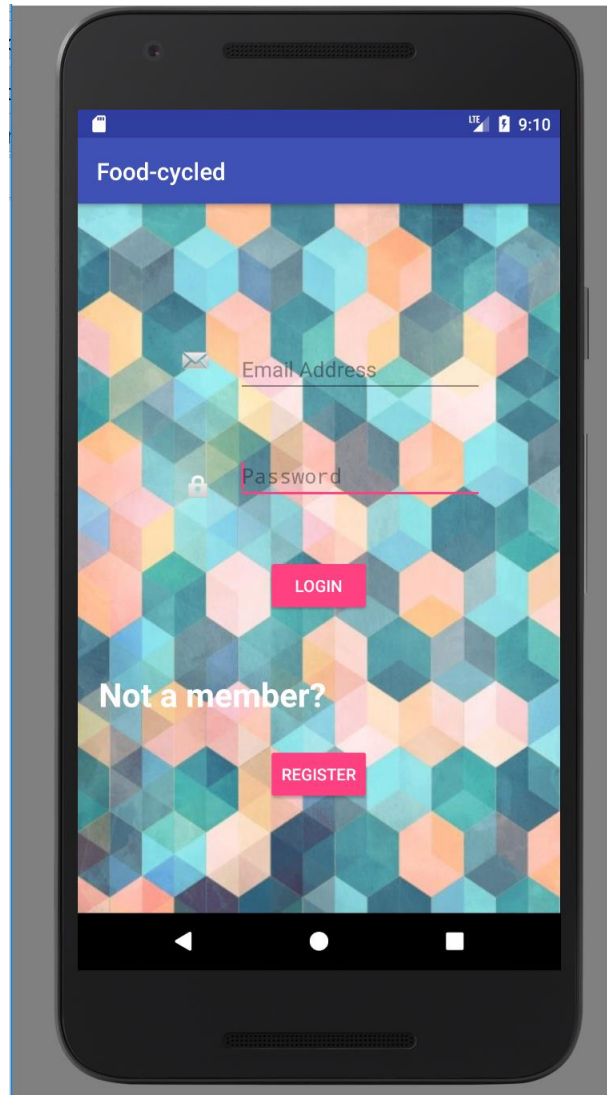
#### APP ICON



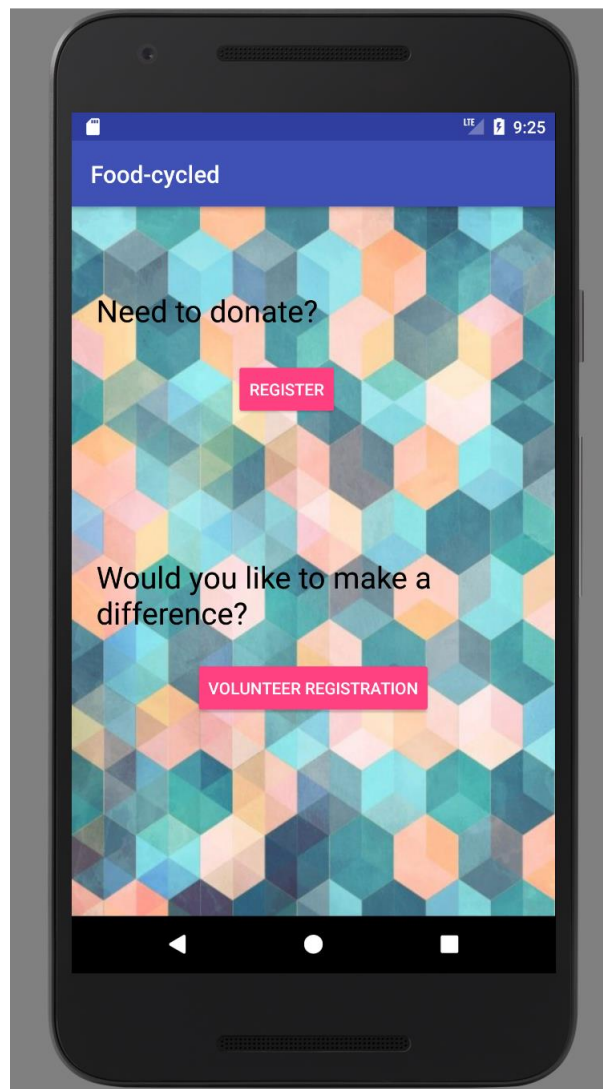
LAUNCH PAGE



### LOGIN PAGE



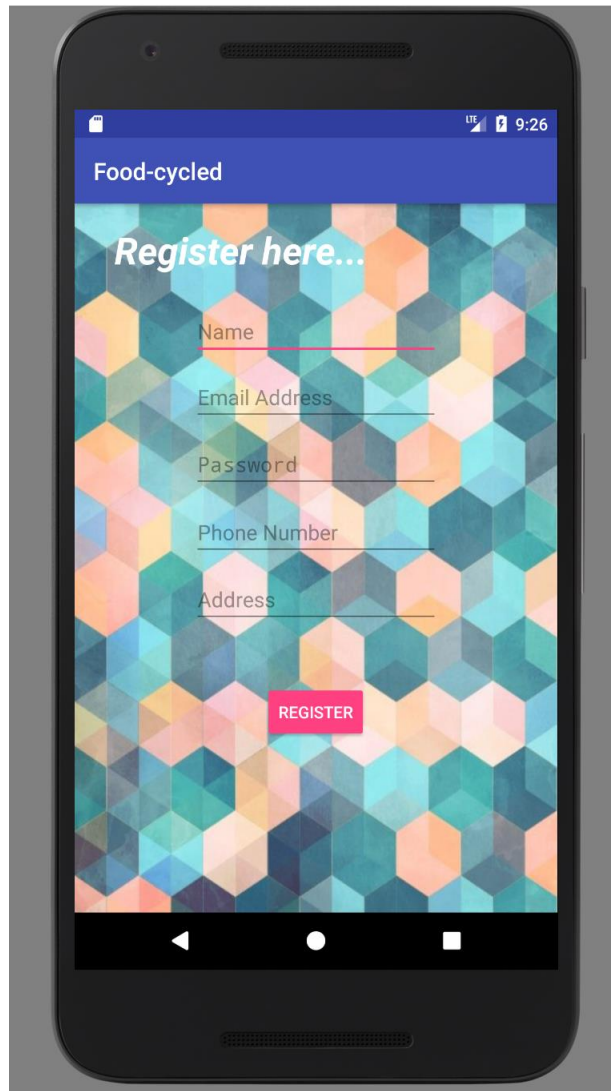
## REGISTER PAGE



### VOLUNTEER REGISTER PAGE

The image shows a smartphone screen with the 'Food-cycled' app interface. The status bar at the top indicates 'LTE' and the time '9:29'. The app's header is 'Food-cycled'. The main content area has a colorful geometric pattern and the text 'Register here...'. Below this, there are six input fields: 'Name', 'Email Address', 'Password', 'Phone Number', 'Address', and 'ID'. At the bottom of the form, there are two buttons: 'TAKE PHOTO' and 'REGISTER'. The phone's navigation bar at the very bottom shows the standard Android icons (back, home, recent apps).

### USER REGISTER PAGE



The image shows a smartphone screen with a registration form. The app's name 'Food-cycled' is in the top blue header. The background of the form is a colorful hexagonal pattern. The form includes five text input fields: 'Name', 'Email Address', 'Password', 'Phone Number', and 'Address'. Below these fields is a red 'REGISTER' button. The status bar at the top shows 'LTE', signal strength, and the time '9:26'. The Android navigation bar is visible at the bottom.

Food-cycled

*Register here...*

Name

Email Address

Password

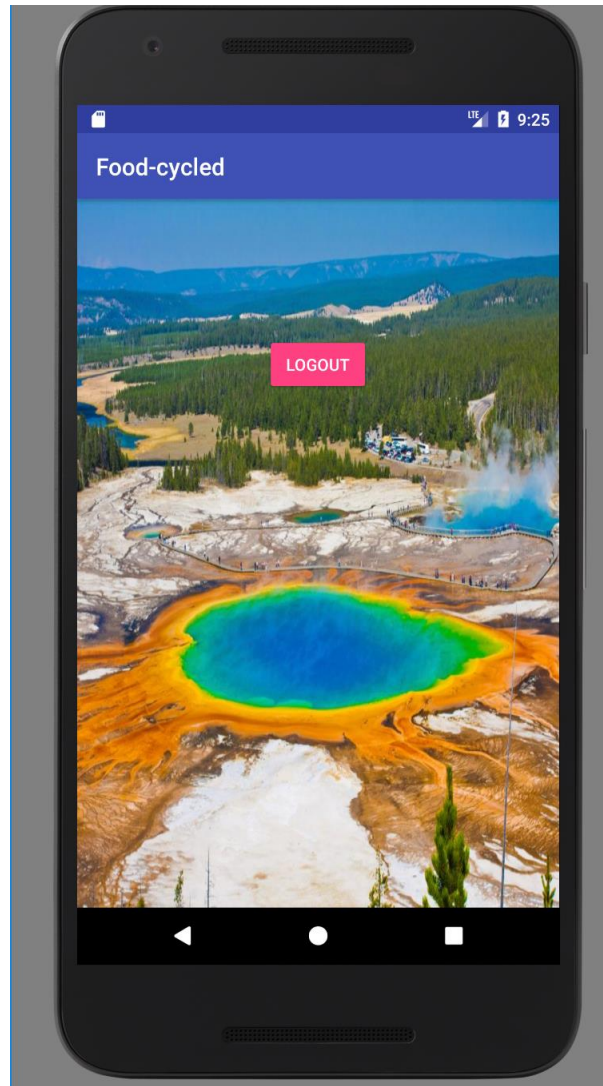
Phone Number

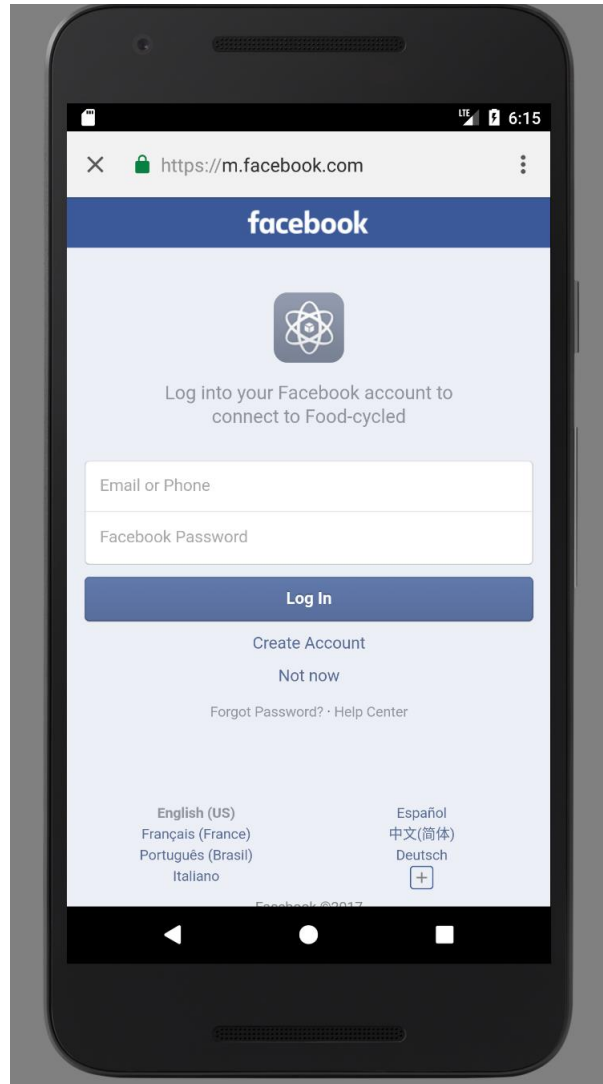
Address

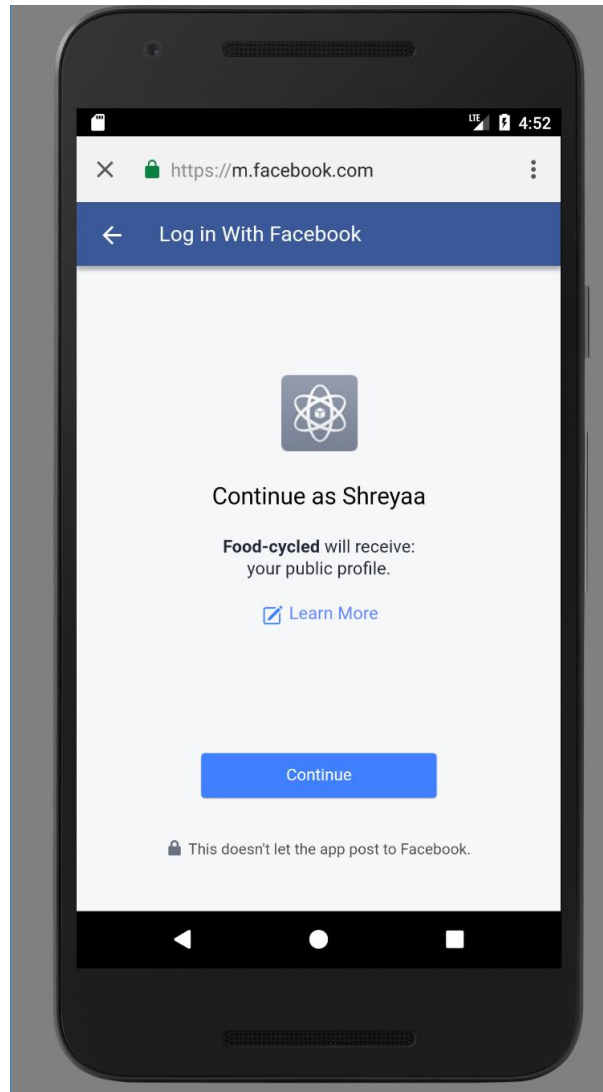
REGISTER



## HOME PAGE

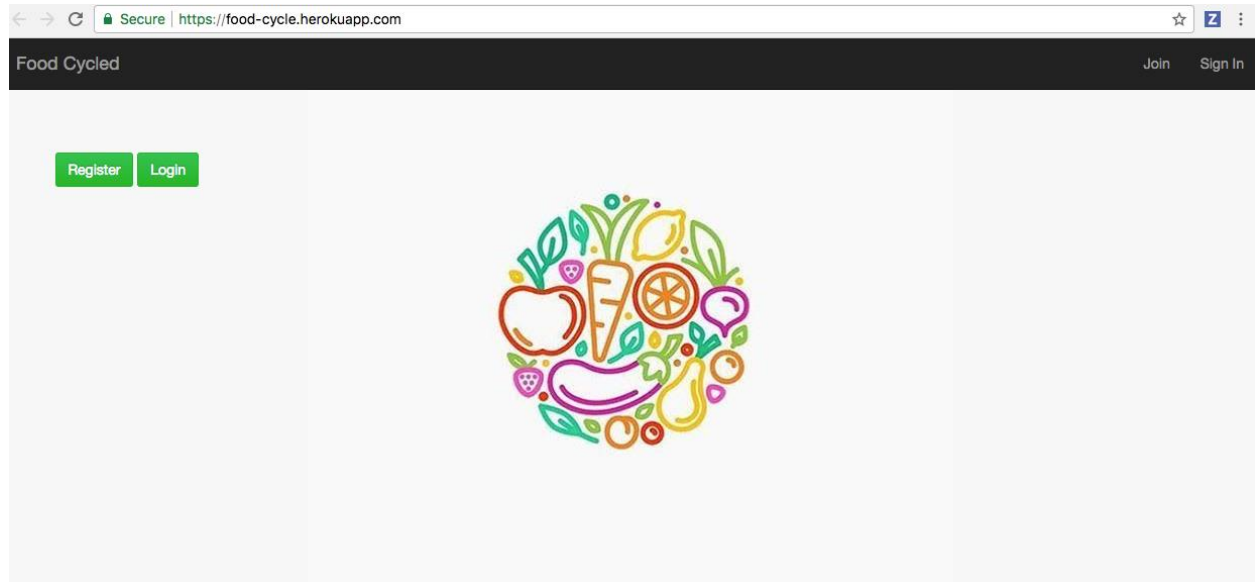


**FACEBOOK OAUTH**

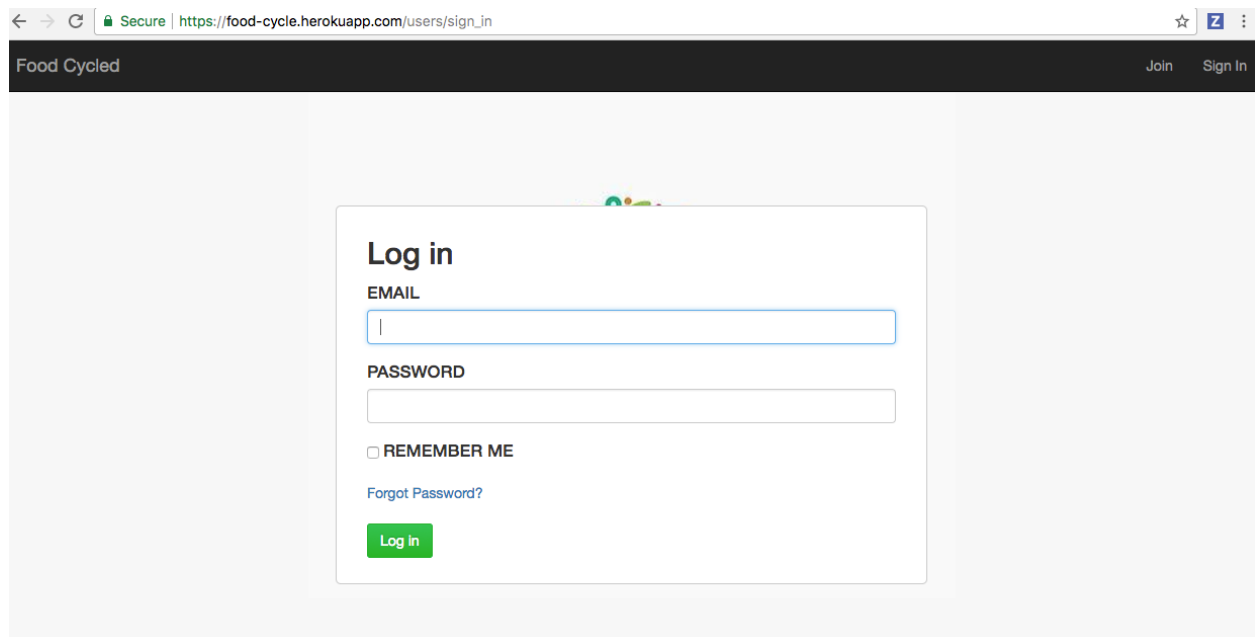


## Implementation of Website

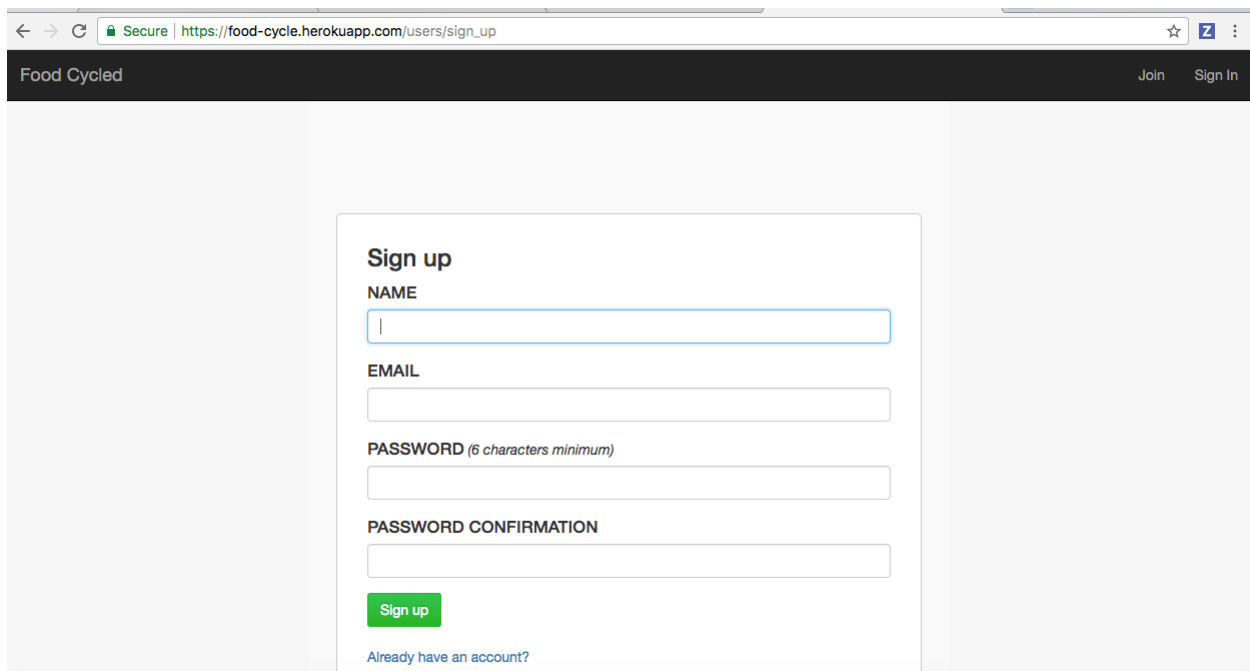
### LAUNCH PAGE



### LOGIN PAGE



## REGISTER PAGE



The screenshot shows a web browser window with the URL [https://food-cycle.herokuapp.com/users/sign\\_up](https://food-cycle.herokuapp.com/users/sign_up). The page title is "REGISTER PAGE". The browser's address bar shows "Secure" and the URL. The page has a dark header with "Food Cycled" on the left and "Join Sign In" on the right. The main content area is light gray. In the center, there is a white box titled "Sign up". Inside this box, there are four input fields: "NAME", "EMAIL", "PASSWORD (6 characters minimum)", and "PASSWORD CONFIRMATION". Below these fields is a green "Sign up" button. At the bottom of the box, there is a link "Already have an account?".

Sign up

NAME

EMAIL

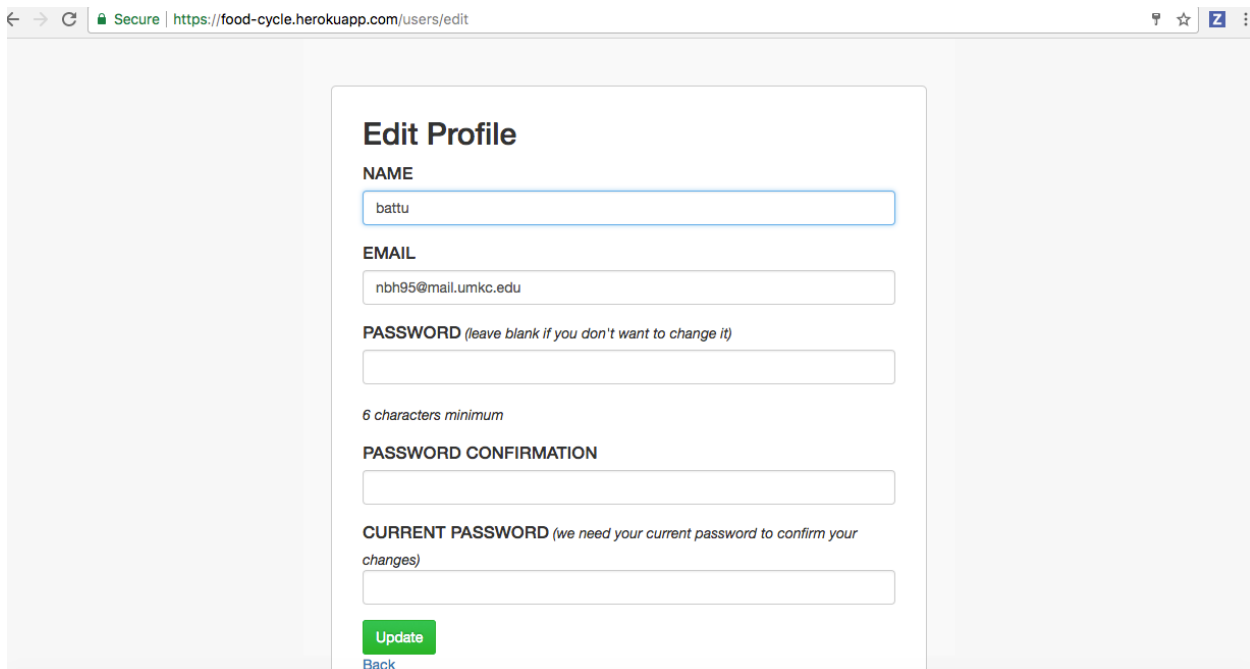
PASSWORD (6 characters minimum)

PASSWORD CONFIRMATION

Sign up

[Already have an account?](#)

## EDIT PROFILE PAGE



The screenshot shows a web browser window with the URL <https://food-cycle.herokuapp.com/users/edit>. The page title is "EDIT PROFILE PAGE". The browser's address bar shows "Secure" and the URL. The page has a dark header with "Food Cycled" on the left and "Join Sign In" on the right. The main content area is light gray. In the center, there is a white box titled "Edit Profile". Inside this box, there are five input fields: "NAME" (containing "battu"), "EMAIL" (containing "nbh95@mail.umkc.edu"), "PASSWORD (leave blank if you don't want to change it)", "PASSWORD CONFIRMATION", and "CURRENT PASSWORD (we need your current password to confirm your changes)". Below these fields is a green "Update" button. At the bottom of the box, there is a link "Back".

Edit Profile

NAME

battu

EMAIL

nbh95@mail.umkc.edu

PASSWORD (leave blank if you don't want to change it)

6 characters minimum

PASSWORD CONFIRMATION

CURRENT PASSWORD (we need your current password to confirm your changes)

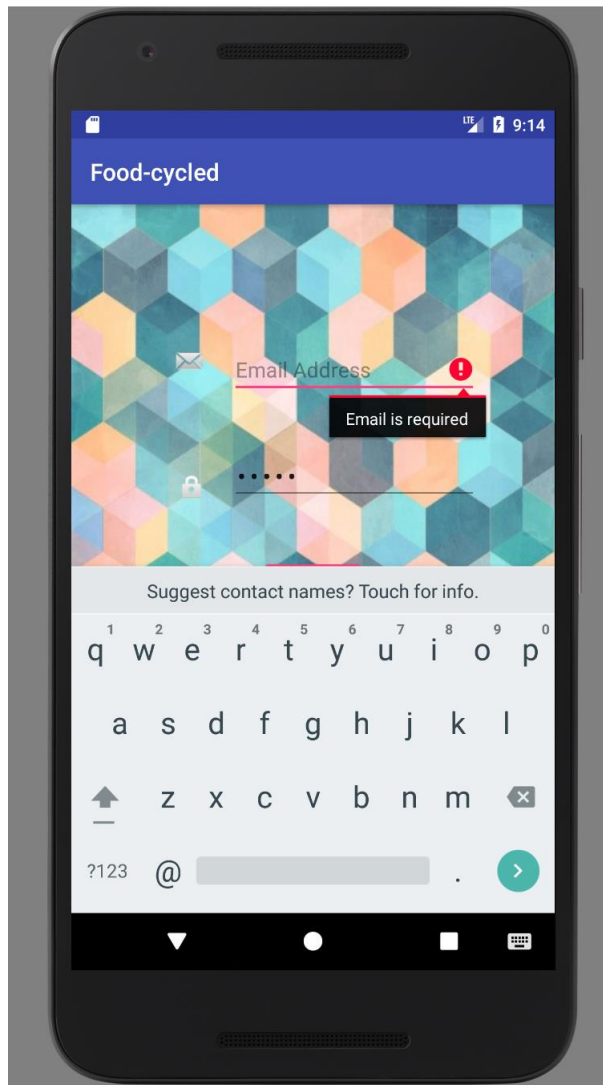
Update

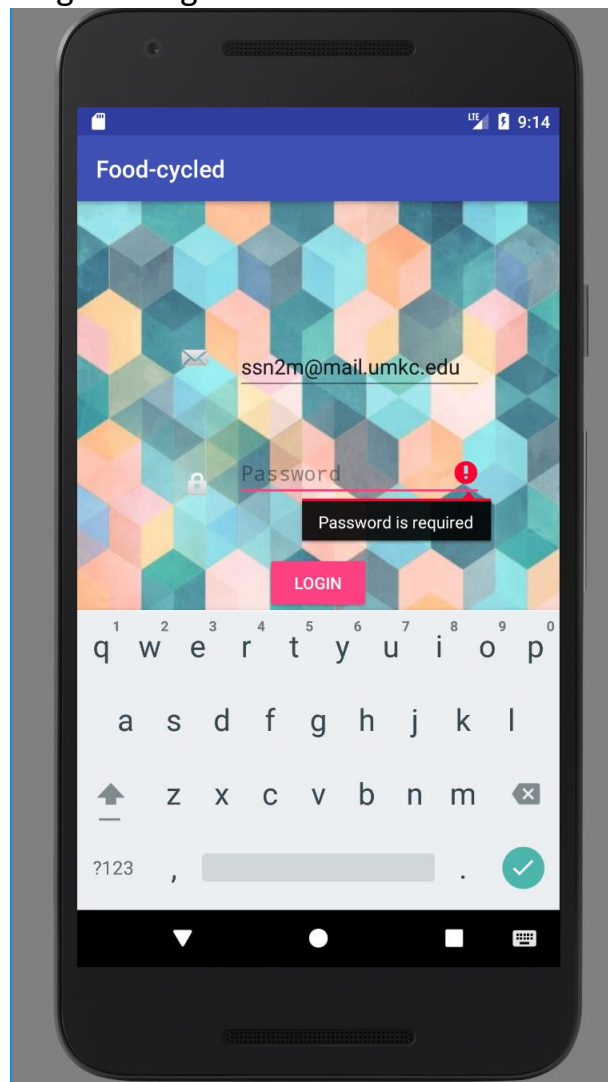
[Back](#)

## VI. TESTING

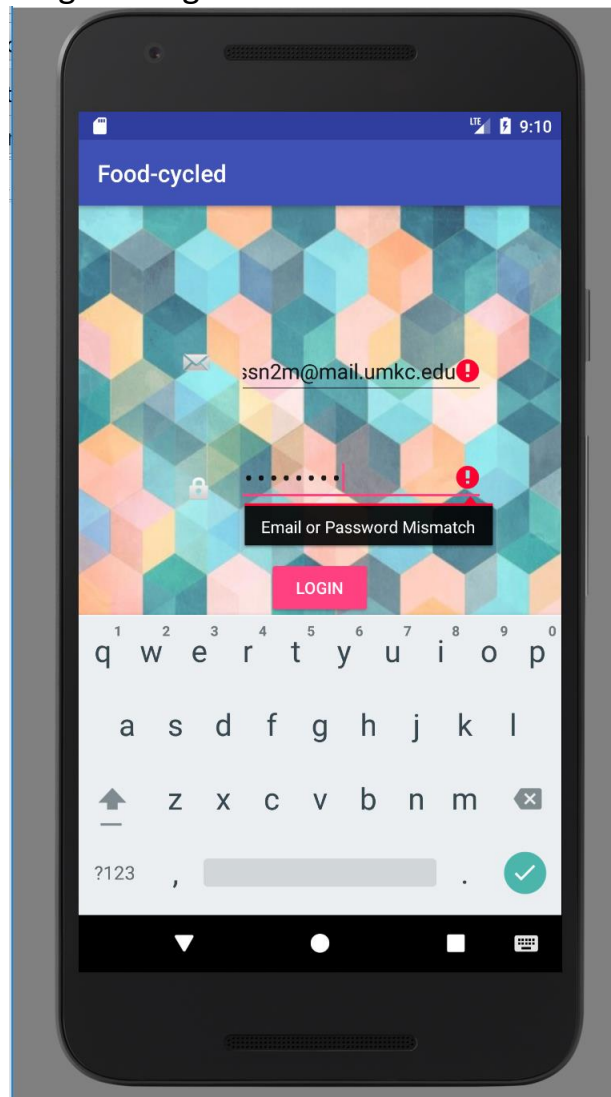
### Unit Testing

Sr No.	Application	Test Case	Description	Expected Outcomes	Result
1.	Android	Successful User Authentication	User should be able to Login with the Email and password	Successful Login	Pass
2.		Unsuccessful User Authentication	User provides wrong credentials	Login Unsuccessful with error prompts	Pass
3.		Successful User OAuth Login ( Facebook login )	The User provides correct credentials	Successful login	Pass
4.		Registration by User and Volunteer	Any User should be able to successfully register	Successful Registration	Pass
5.	Website	Successful User Authentication	User should be able to Login with the Email and password	Successful Login	Pass
6.		Unsuccessful User Authentication	User provides wrong credentials	Login Unsuccessful with error prompts	Pass
7.		Registration Page	User should be able to successfully register	Successful Registration	Pass

**UNIT TESTING FOR ANDROID**

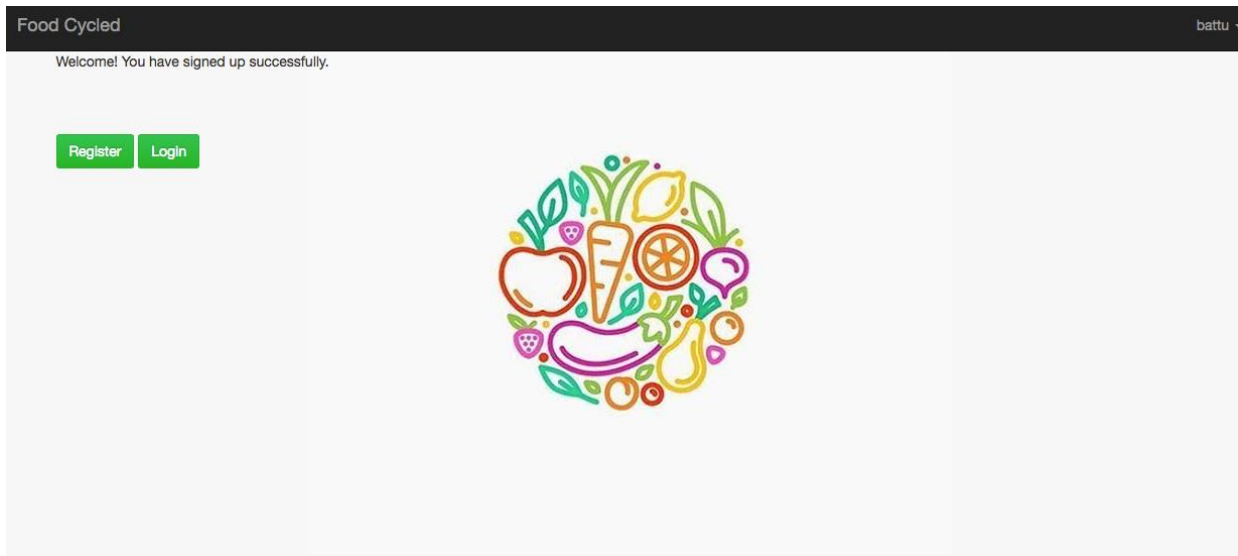




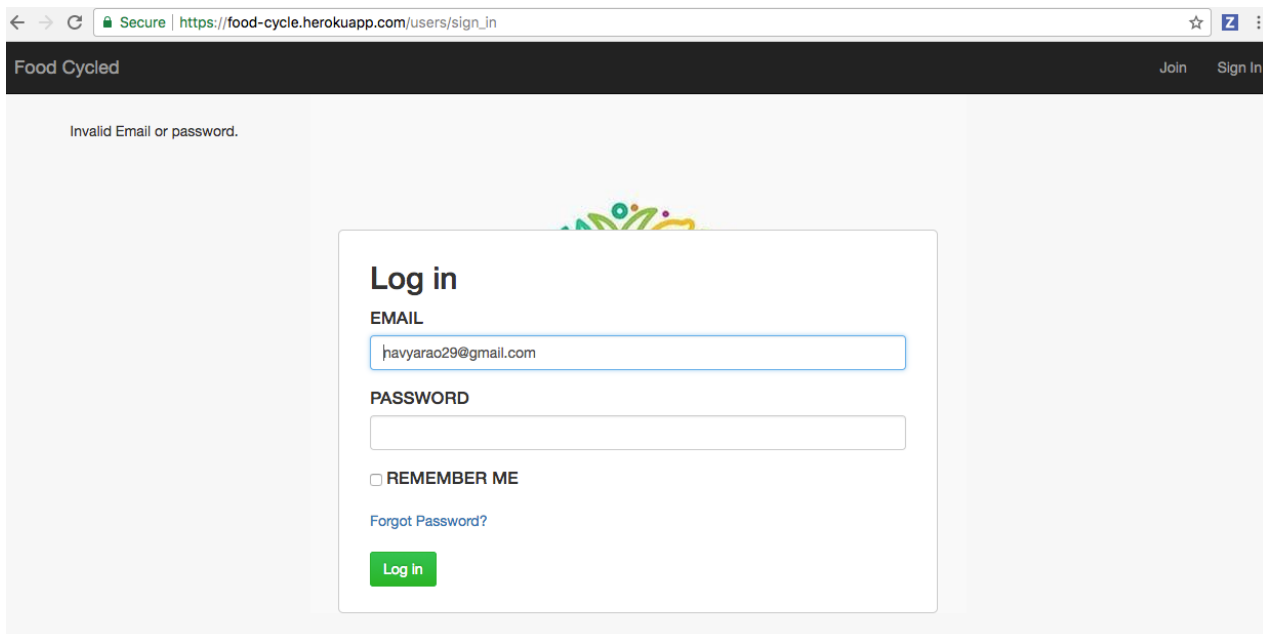


**UNIT TESTING FOR WEBSITE**

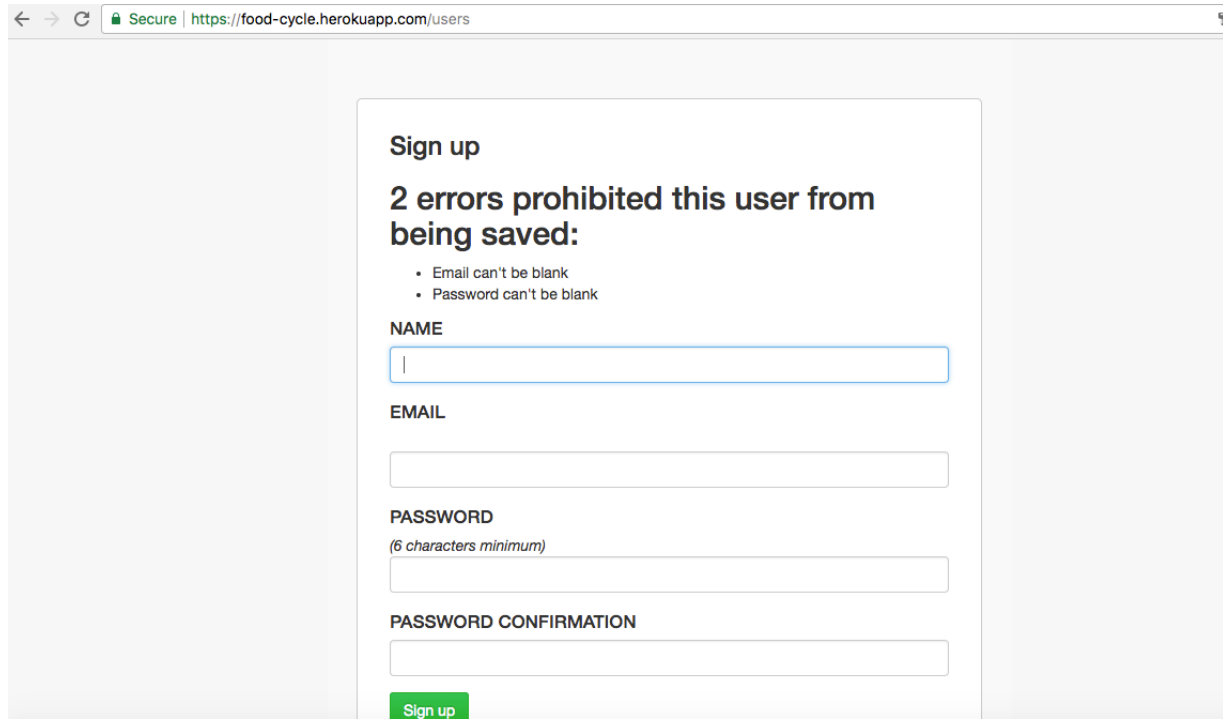
When user Signed In after successful validation it redirects to home page below :



When User tries to sign in with Invalid email id or password we get a message as below :



**When User tries to Register without giving proper details :**



A screenshot of a web browser window showing a 'Sign up' form. The browser's address bar displays 'Secure | https://food-cycle.herokuapp.com/users'. The form is titled 'Sign up' and contains the following elements:

- 2 errors prohibited this user from being saved:**
  - Email can't be blank
  - Password can't be blank
- NAME**: A text input field with a blue border and a cursor.
- EMAIL**: A text input field.
- PASSWORD**: A text input field with the note '(6 characters minimum)' below it.
- PASSWORD CONFIRMATION**: A text input field.
- Sign up**: A green button at the bottom of the form.

## **VII. TECHNOLOGY USED**

- **Android Studio with Android SDK**

## VIII.PROJECT MANAGEMENT

### Open Issues

The screenshot displays the GitHub Issues interface for a repository. At the top, navigation tabs include Code, Issues (6), Pull requests (0), Boards, Reports, Projects (0), Wiki, and Insights. Below the tabs, a search bar contains the text 'is:issue is:open', and buttons for 'Filters', 'Labels', 'Milestones', and a green 'New issue' button are visible. The main content area shows a list of 6 open issues, each with a title, a number in a blue circle, and a brief description. The issues are: 'system architecture issue' (#6), 'android issue' (#5), 'uml issue' (#4), 'navigation problem' (#3), 'Register page issue' (#2), and 'login issue' (#1). Each issue entry includes a status bar with 'first increment' and 'Done' indicators. At the bottom of the page, a footer contains copyright information for GitHub, Inc. (© 2017), links to Terms, Privacy, Security, Status, and Help, a GitHub logo, and links to Contact GitHub, API, Training, Shop, Blog, and About.

<> Code ① Issues 6 Pull requests 0 Boards Reports Projects 0 Wiki Insights

Filters is:issue is:open Labels Milestones New issue

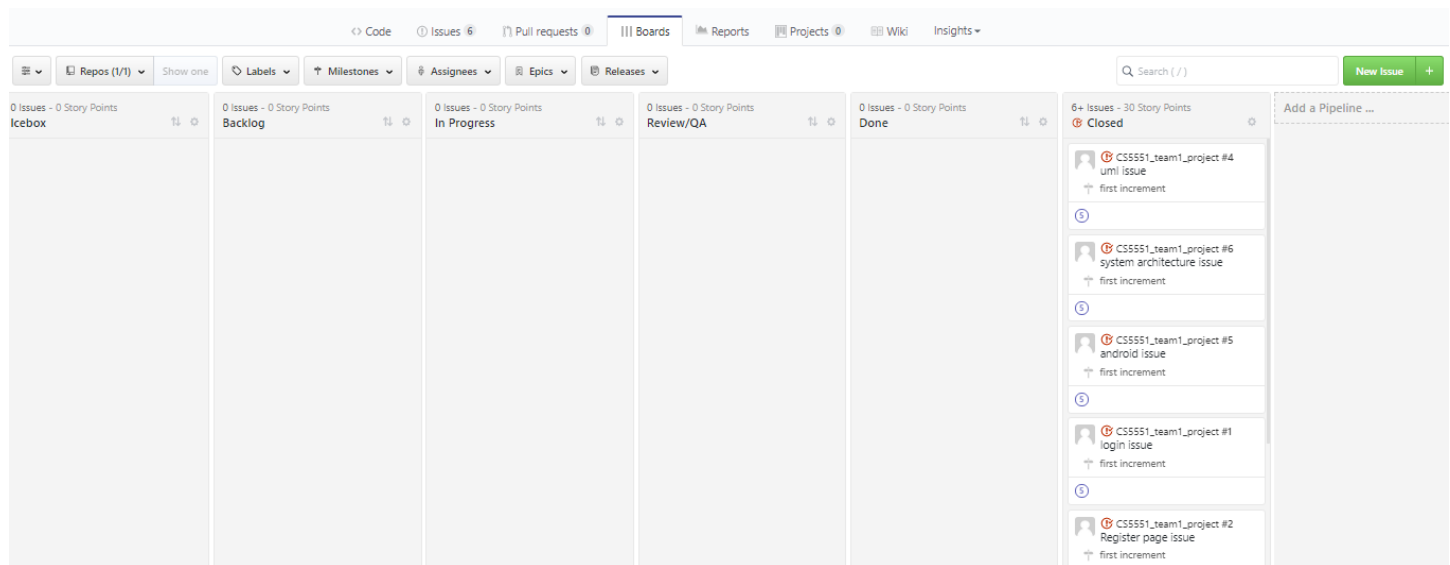
① 6 Open ✓ 0 Closed Author Labels Projects Milestones Assignee Sort

- ① system architecture issue 5  
#6 opened an hour from now by harikaadivanne first increment Done
- ① android issue 5  
#5 opened an hour from now by harikaadivanne first increment Done
- ① uml issue 5  
#4 opened an hour from now by harikaadivanne first increment Done
- ① navigation problem 5  
#3 opened 7 hours ago by harikaadivanne first increment Done
- ① Register page issue 5  
#2 opened 7 hours ago by harikaadivanne first increment Done
- ① login issue 5  
#1 opened 7 hours ago by harikaadivanne first increment Done

ProTip! Adding `no:label` will show everything without a label.

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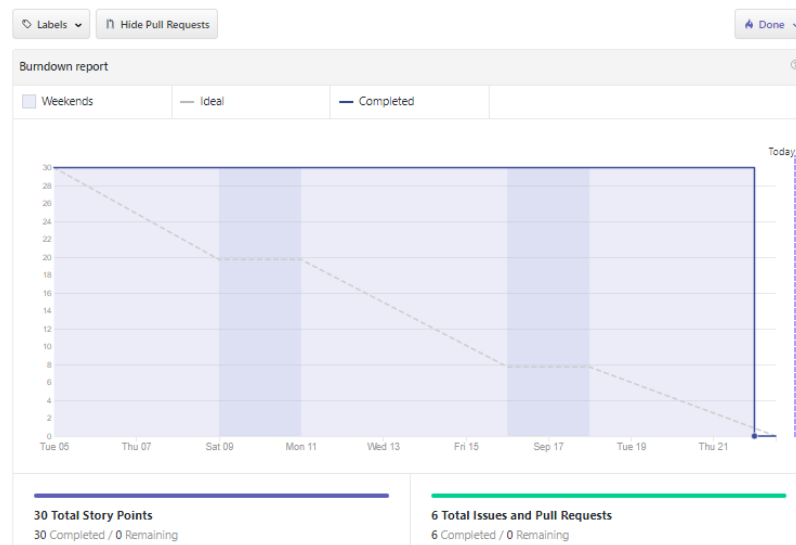
## Closed Issues



## Burndown chart for Increment 1

## first increment

Created home page, login, register and edit profile pages in both android and web applications and performed unit testing. Done with validation for login, register and edit profile pages. Designed wire frames and uml diagrams like 1.class diagram 2. sequence diagram 3. Activity diagram.  
Start: Sep 5, 2017 Change Due: Sep 22, 2017 Change



**WORK COMPLETED**

**Shreyaa Sridhar**

Android development and respective wireframes

Project increment 1 document preparation.

**Harika Adivanne**

Login Page and Home Page for website and respective wireframe  
architecture diagram

Class Diagram

**Navya Bhattu**

Edit form Page for website and respective wireframes

Activity Diagram

Use Case Diagram

**Sulochana Rani Mulpuri**

Registration page for Website and its respective wireframes

zenhub tool

sequence diagram

## IX. BIBLIOGRAPHY

<https://developers.facebook.com/docs/facebook-login/android/>

<https://www.tutorialspoint.com/android/>

<https://www.w3schools.com/angular/>

[\*https://www.nrdc.org/issues/food-waste\*](https://www.nrdc.org/issues/food-waste)