

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 (Based on Enactus Requirements):

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 Soup Kitchens 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 soup kitchens. 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

Launch Page for android and website

Login and Register Page for android and website

Facebook and Google Oauth Login for android and website

Increment II

Launch Page for Ionic Application

Login and Register Page for Ionic Application

Facebook and Google Oauth Login for Ionic Application

Google Maps for Soup Kitchens

Camera to upload images

Increment III

Implement Food API to get nutrition information

Dashboard for User

Dashboard for volunteer

Message Notification sent to volunteer on 'Confirm request'

Increment IV

Thank You page for contributors

Feedback for Volunteers

Deployment

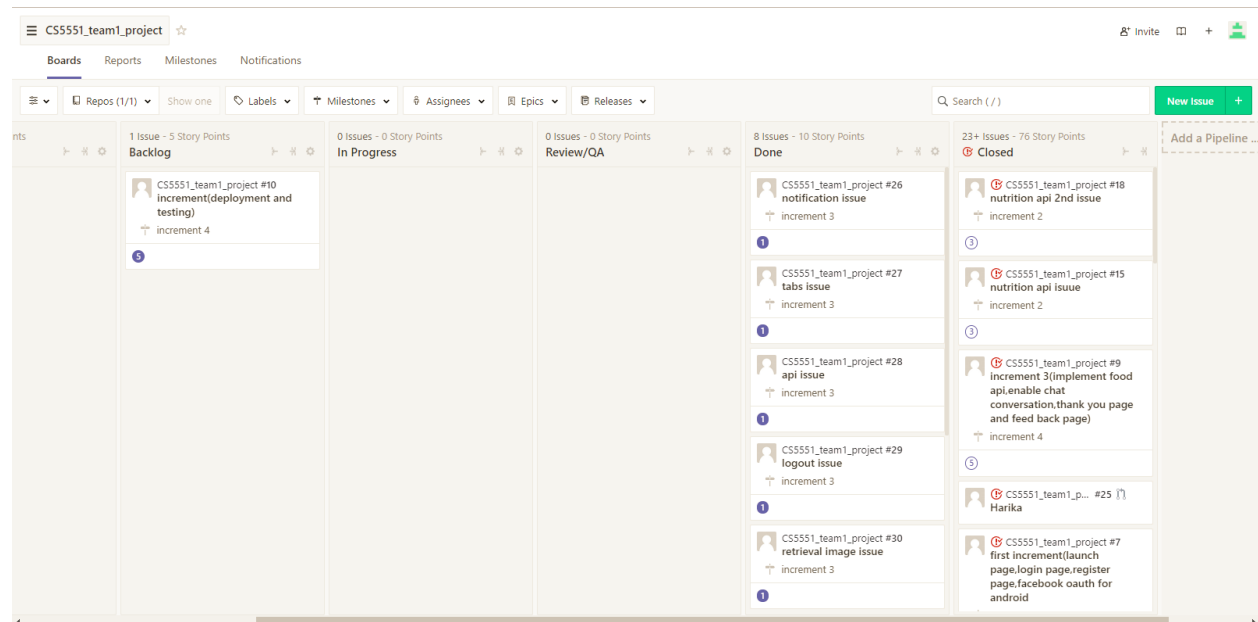
Testing

STORIES (ISSUES) :SCENARIO & USE CASE SPECIFICATION

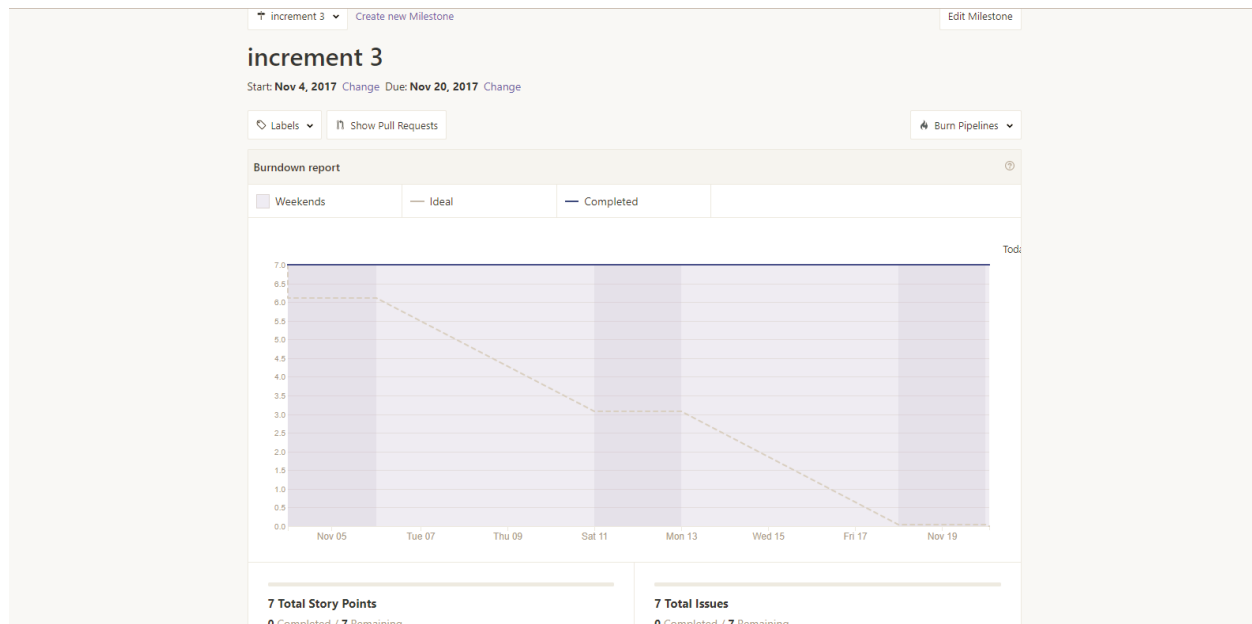
- User logs into the application or signs up if not registered.
- Also Volunteers are registered or can sign up if not registered.
- The User will then provide details such as Name of the food , Cuisine, preparation date, expiry date , spice levels and image of the food.
- A request is then sent to the volunteers nearby.
- After a volunteer accepts request he/she will be able to receive the user information and a volunteer details are sent to the user.
- After the volunteer picks up the food , they drop it in the nearby Soup Kitchens.
- Later on , the user can provide a feedback for the volunteer.
- User then logs out of the application.

PROJECT TIMELINES, MEMBERS, TASK RESPONSIBILITY

ISSUES:



BURNDOWN CHART



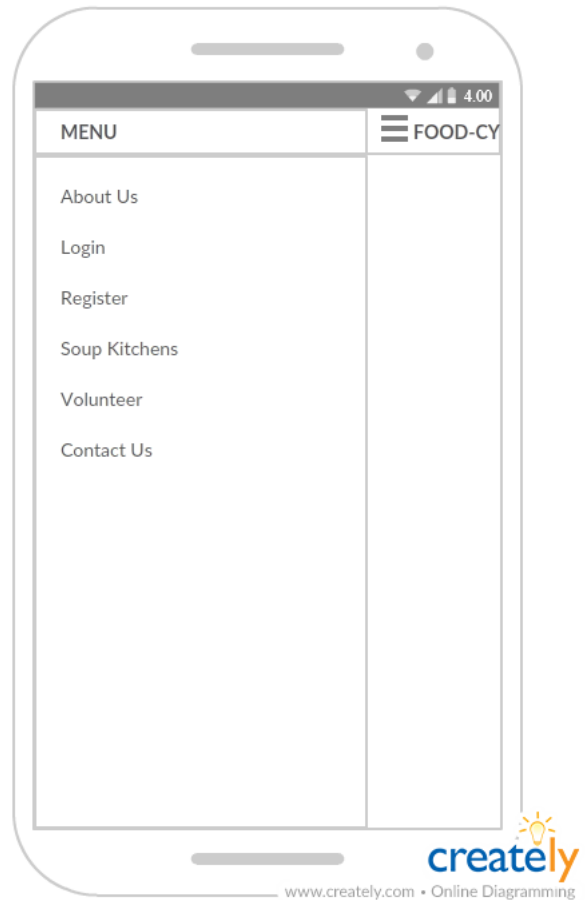
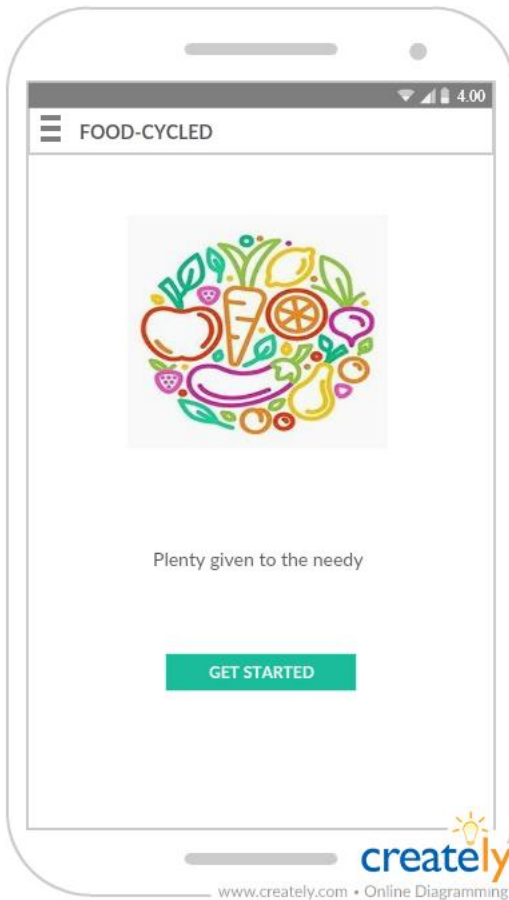
IV. THIRD INCREMENT REPORT

- i. **Existing Services/REST API**
Facebook OAuth API , Food API, Google Maps API ,Google OAuth API, Camera API
- ii. **Detailed Design of Features**

WIREFRAMES

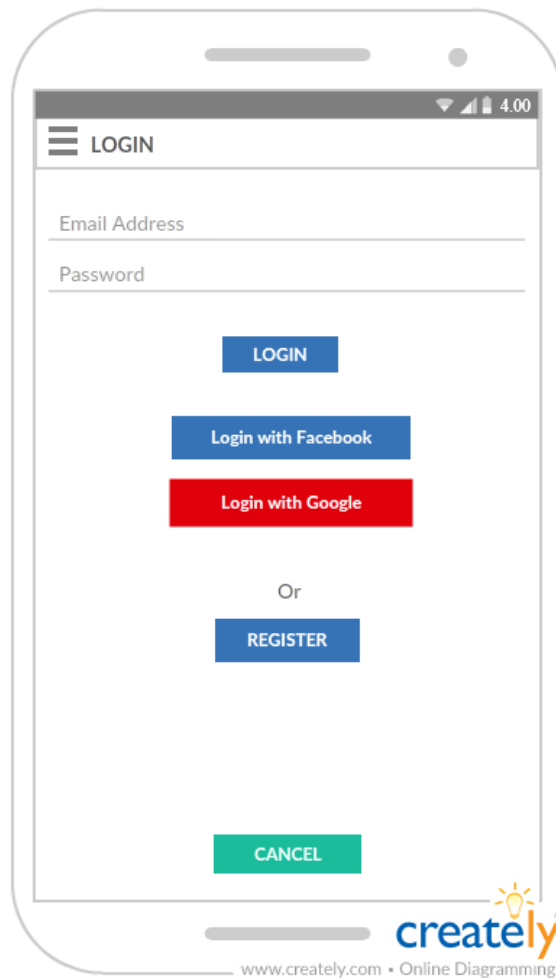
LAUNCH PAGE

The Launch Page of the **Food-cycled** application includes **GET STARTED** button which redirects to Login Page and a side menu bar which contains – **About Us , Login , Register , Soup Kitchens , Volunteer and Contact Us.**



LOGIN PAGE

The Login Page is common for both User and Volunteer. It redirects to their respective Dashboard. There are two Social Logins implemented – Facebook and Google.

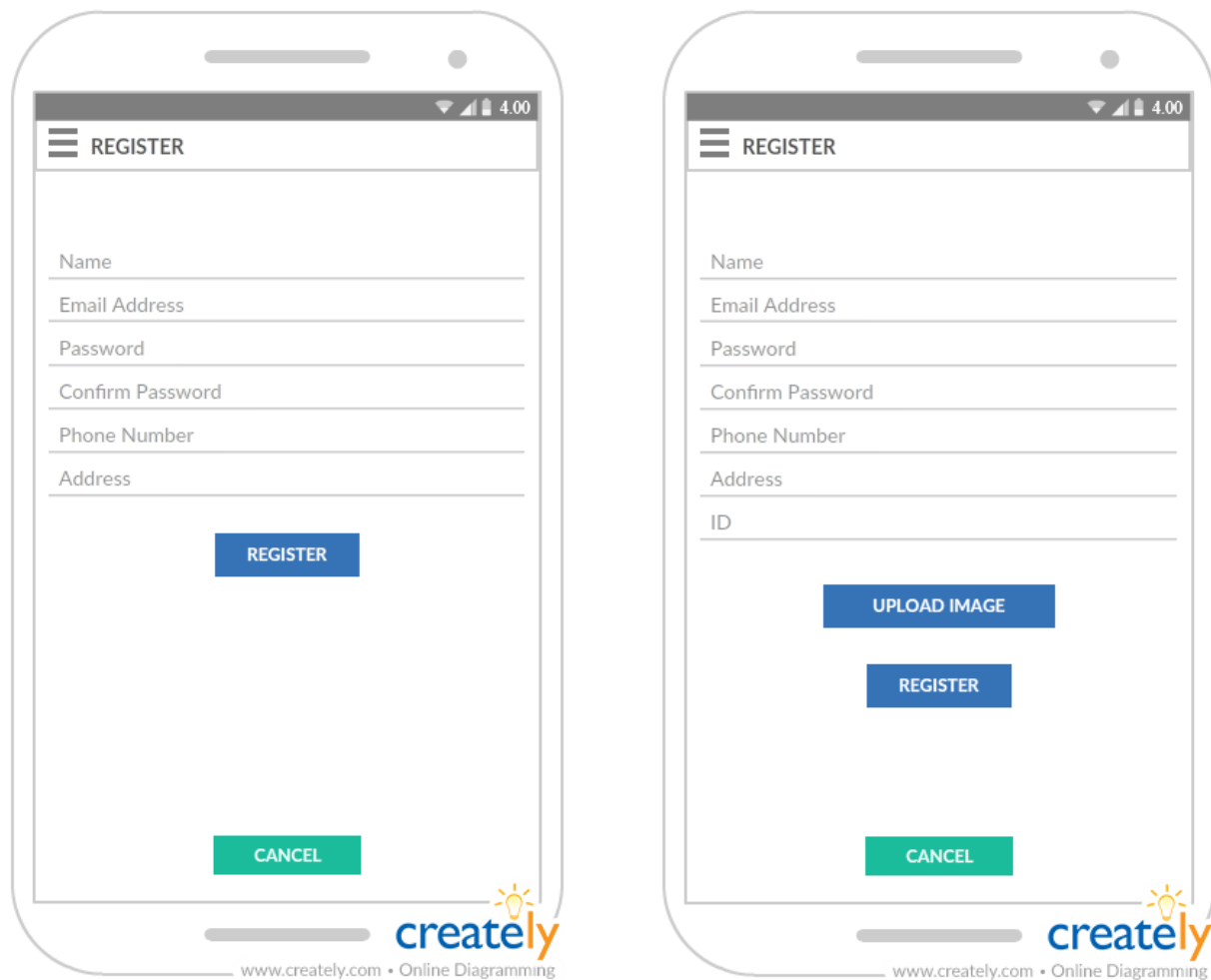


REGISTER PAGE

The User and Volunteer registers separately using their basic details. Volunteer has to also upload their Image to register successfully. Upon Successful registration, it redirects to the Login Page.

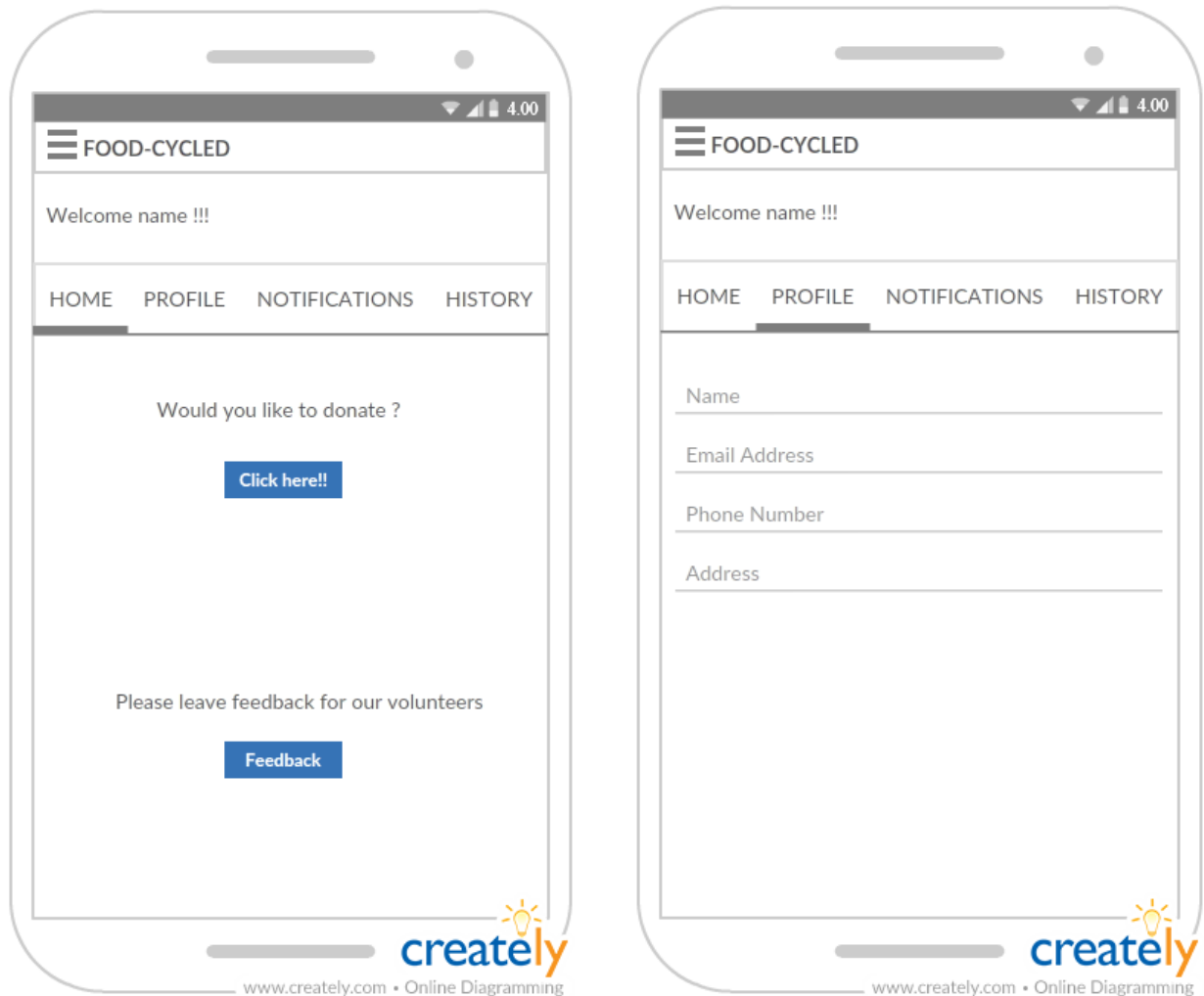
USER REGISTRATION

VOLUNTEER REGISTRATION



USER DASHBOARD

Upon successful login, User lands in this dashboard page. It displays User name and provides user with tabs – Home, Profile, Notification and History, where Home is the default Tab. In the Home tab, there are two buttons – Click here and Feedback. 'Click here' redirects to the Food Request Page and 'Feedback' redirects to the Feedback Page.



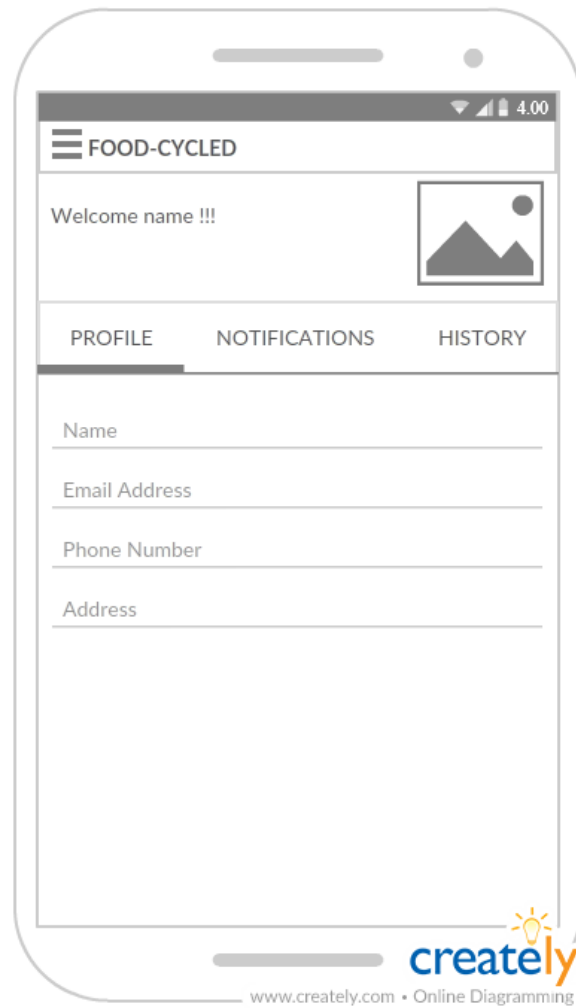
FOOD REQUEST PAGE

For each food the user would like to donate, he/she needs to fill details like – name of food, cuisine, preparation date, expiry date, spice level and also upload image. 'Get Info' provides the nutrition details of the food entered and 'Confirm Request' sends notification to all volunteers.

The image shows a mobile application interface for "FOOD-CYCLED". The interface is displayed on a smartphone screen. At the top, there is a status bar with signal strength, Wi-Fi, and battery icons, and the time 4:00. Below the status bar is a header with a hamburger menu icon and the text "FOOD-CYCLED". The main content area contains a form with the following fields: "Name of the food", "Cuisine", "Preparation Date", "Expiry Date", and "Spice Level" (which is a slider control). Below the form, there are four buttons: "UPLOAD IMAGE" (purple), "GET INFO" (purple), "CONFIRM REQUEST" (blue), and "CANCEL" (green). At the bottom of the screen, there is a footer with the "createely" logo and the text "www.createely.com • Online Diagramming".

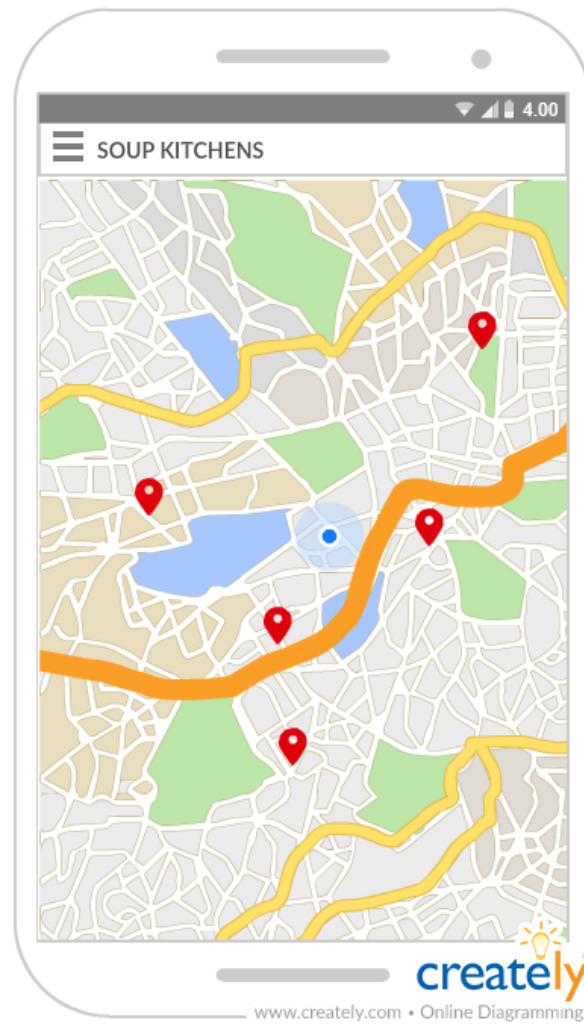
VOLUNTEER DASHBOARD

Upon successful Login, Volunteers land on their Dashboard page. Here the Volunteer Name and Image is displayed. There are three tabs – Profile, Notifications and History which displays the respective information. Notifications tab displays the new food requests.

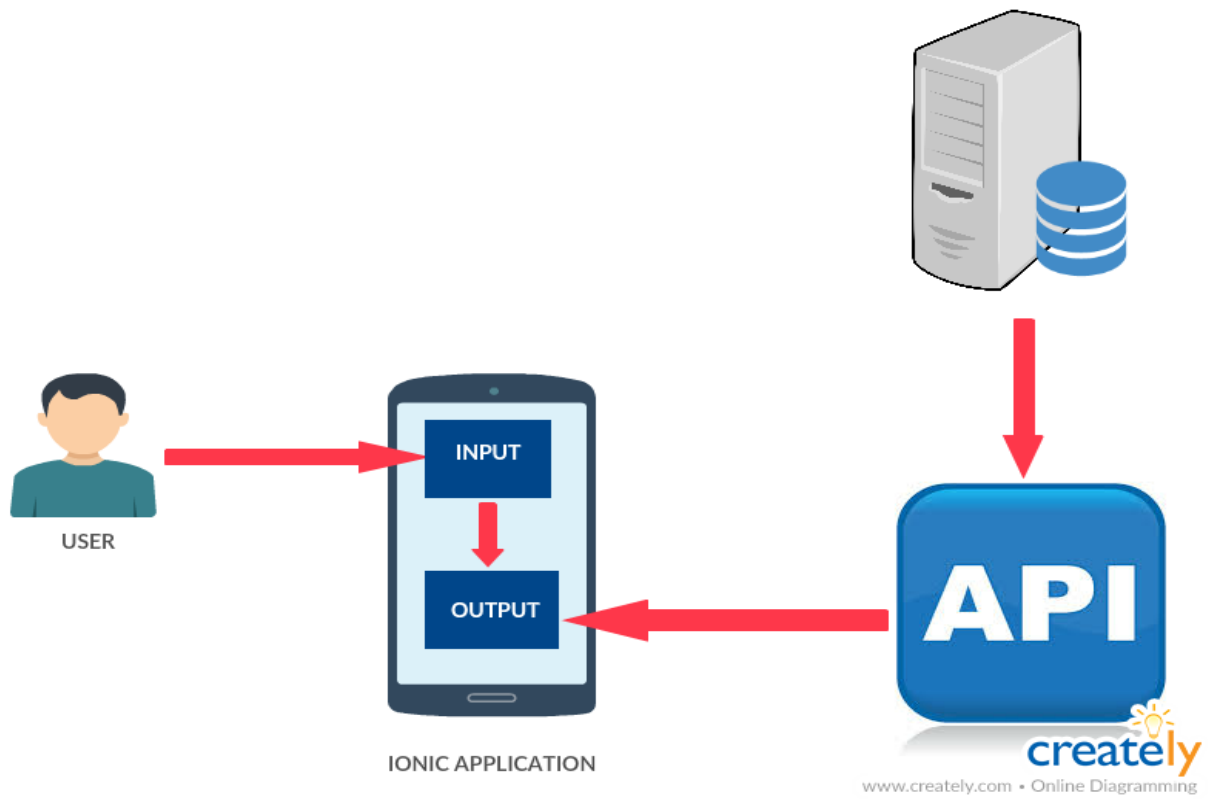


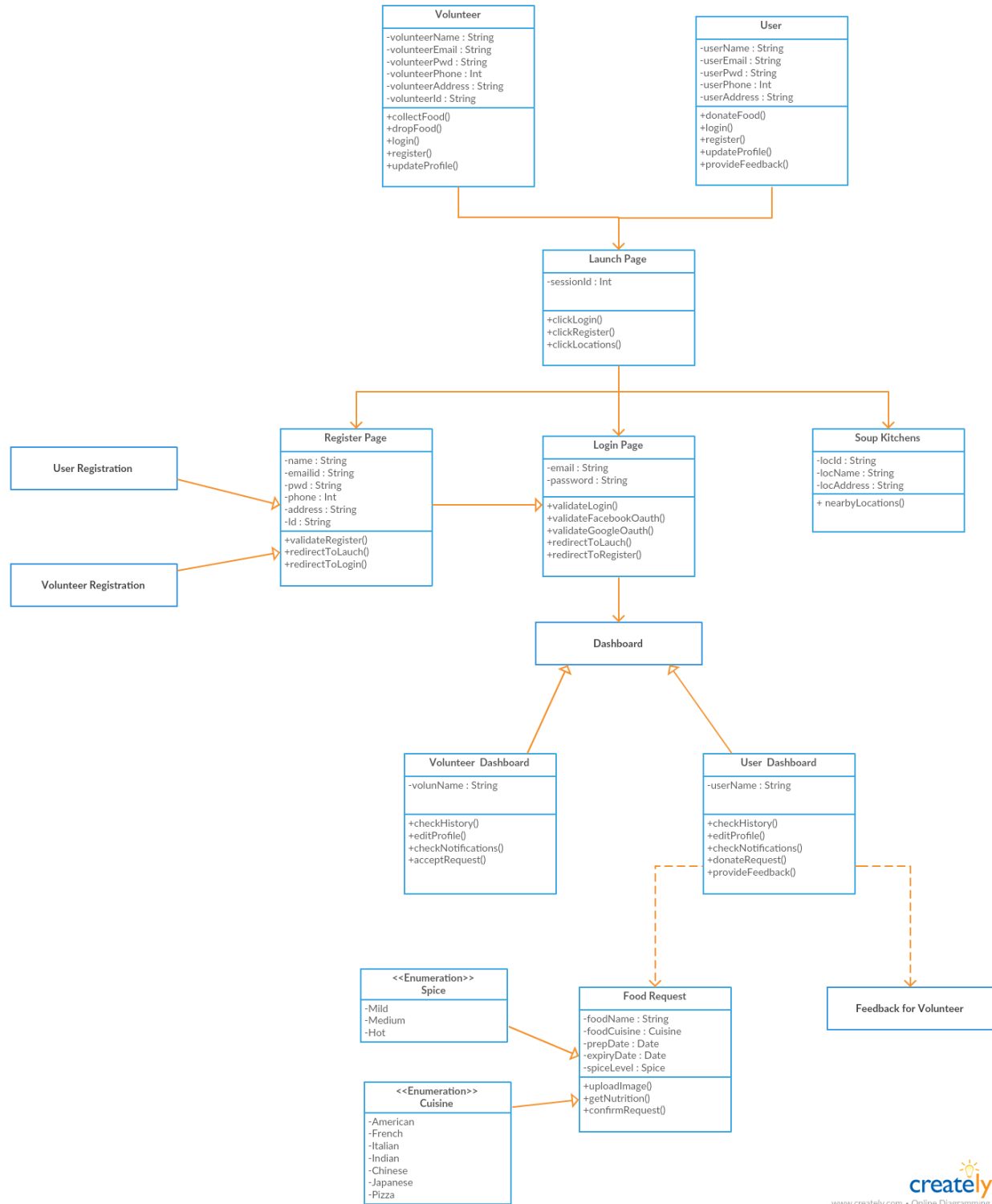
SOUP KITCHENS

In this Page, the nearby Soup Kitchen Locations are displayed to the person accessing this application.

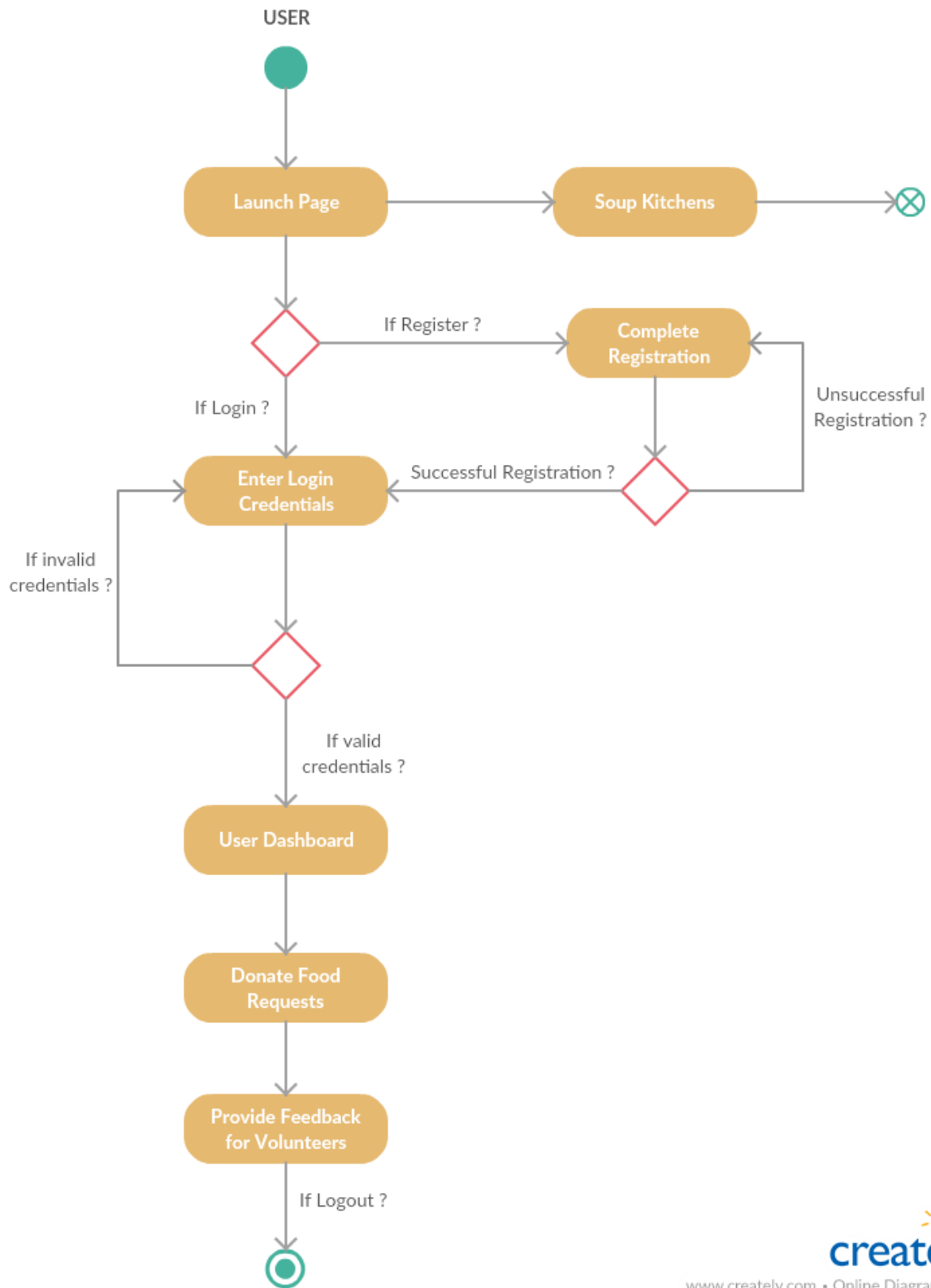


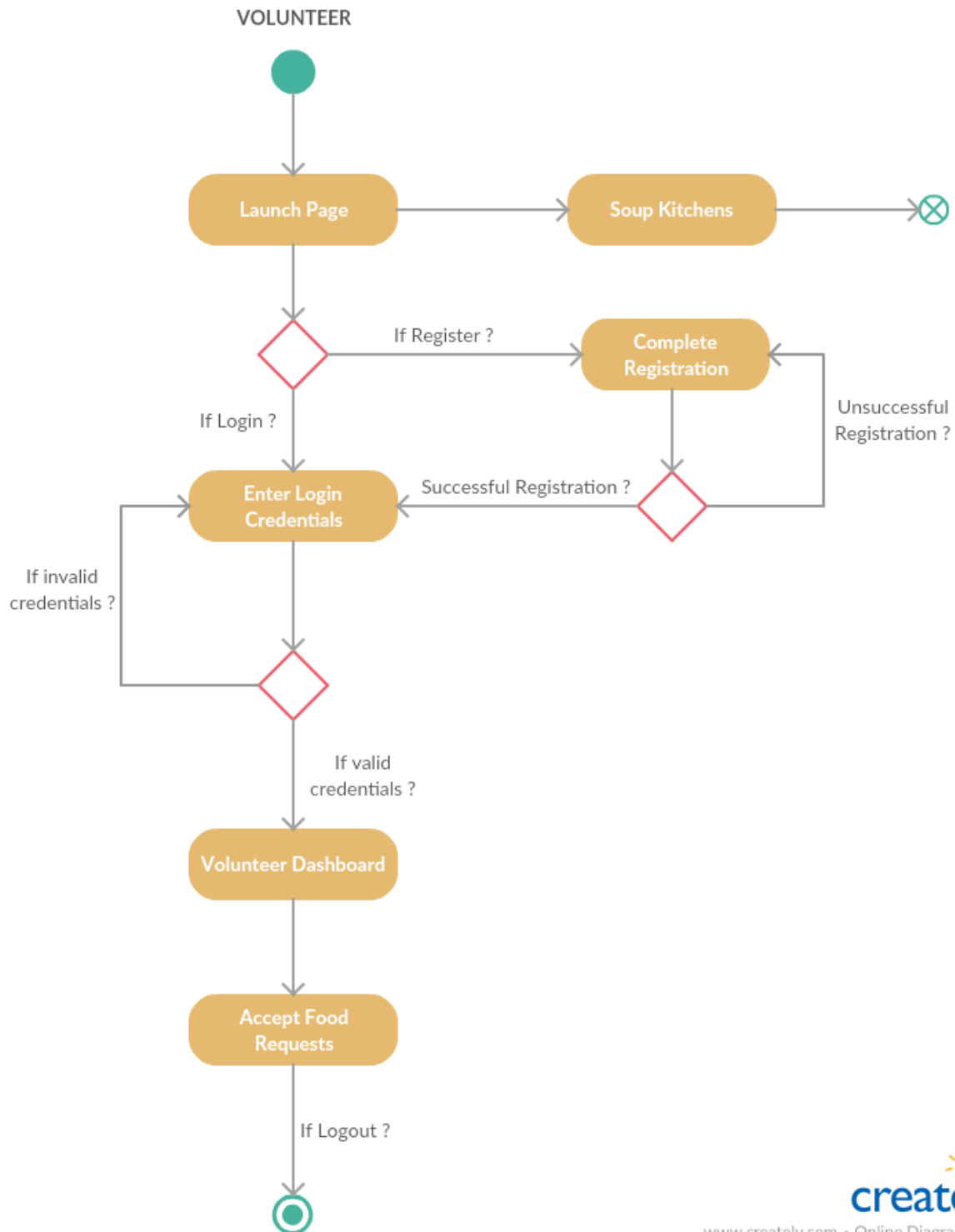
ARCHITECTURE DIAGRAM

**CLASS DIAGRAM**

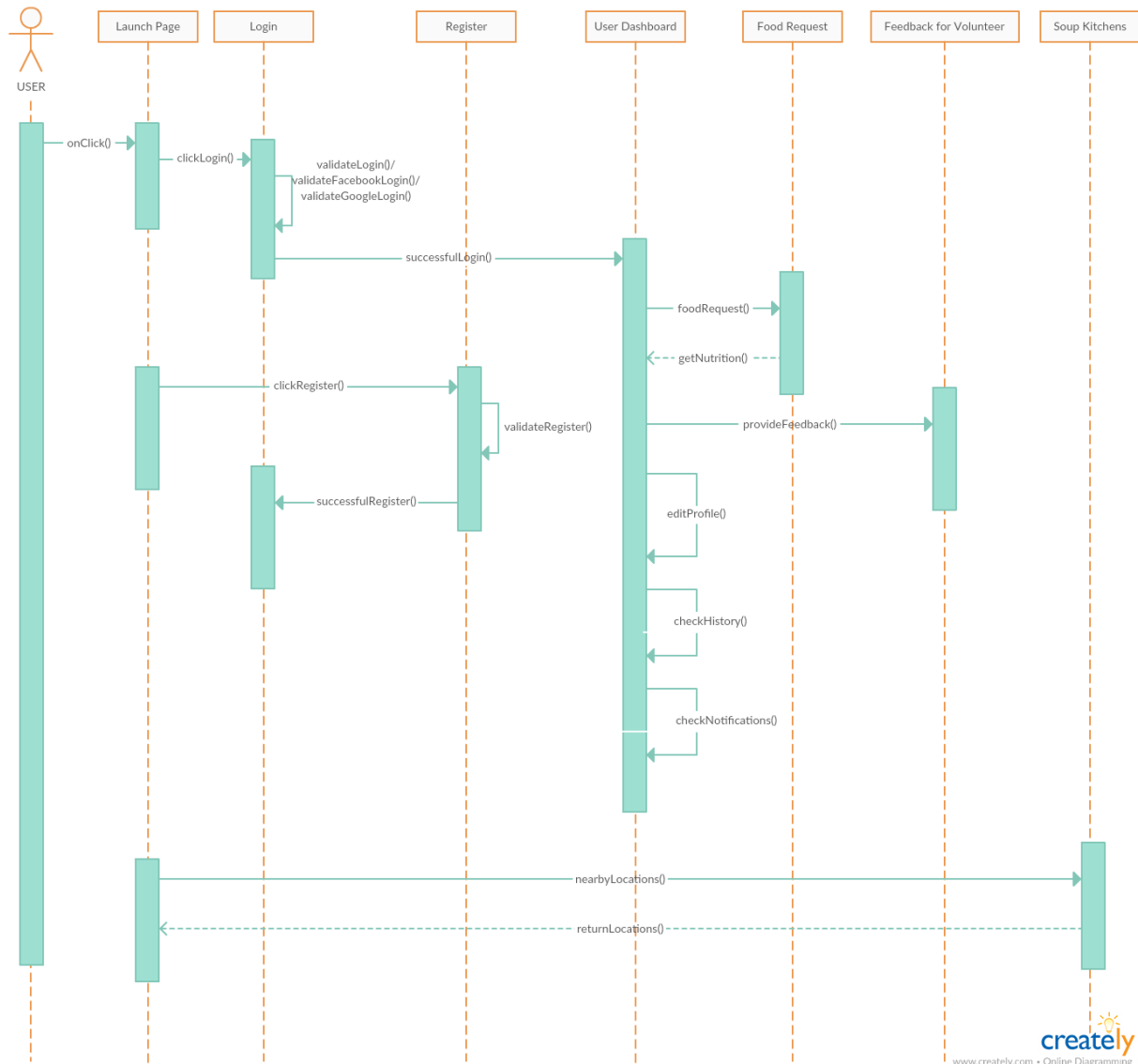


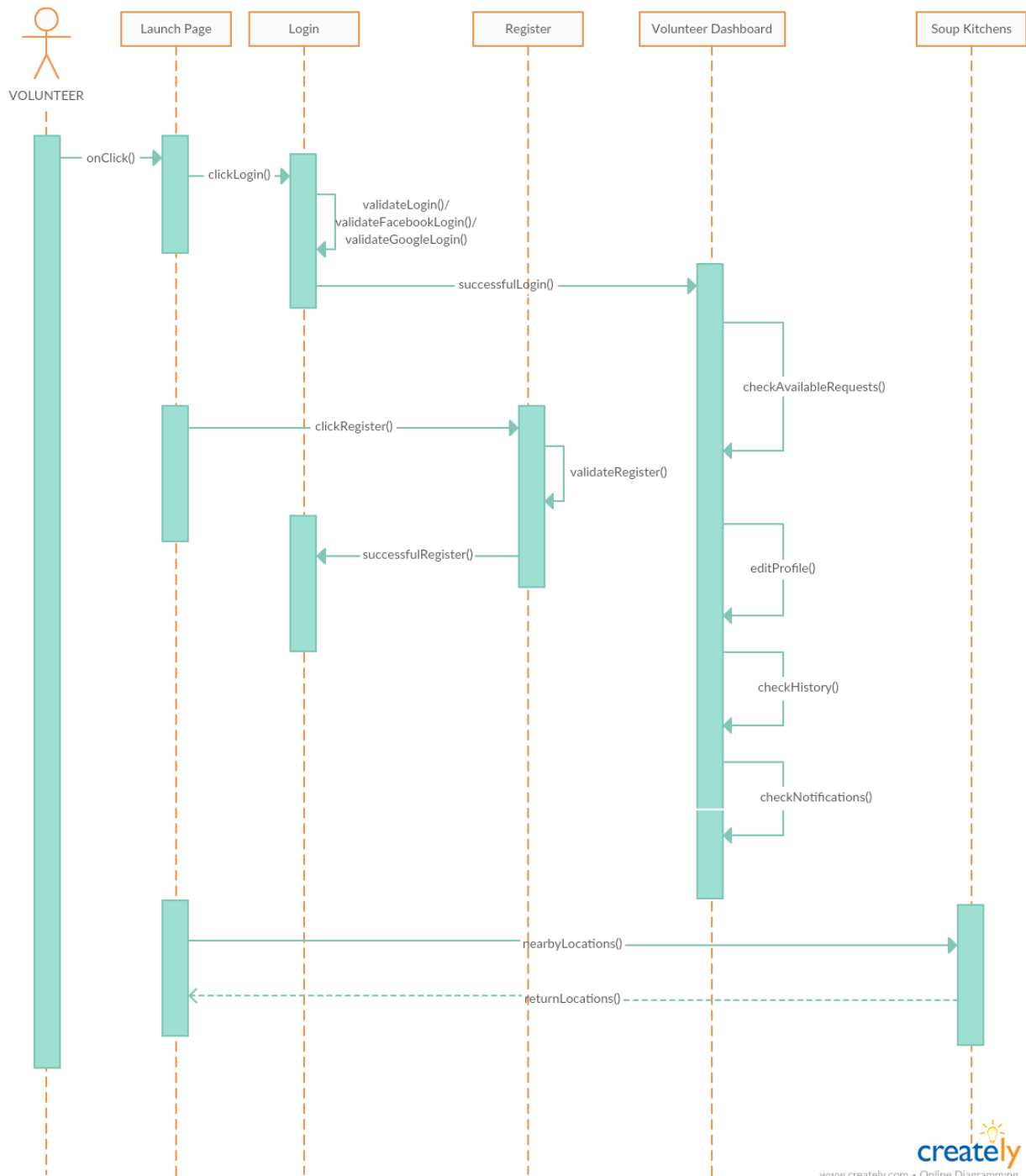
ACTIVITY DIAGRAM



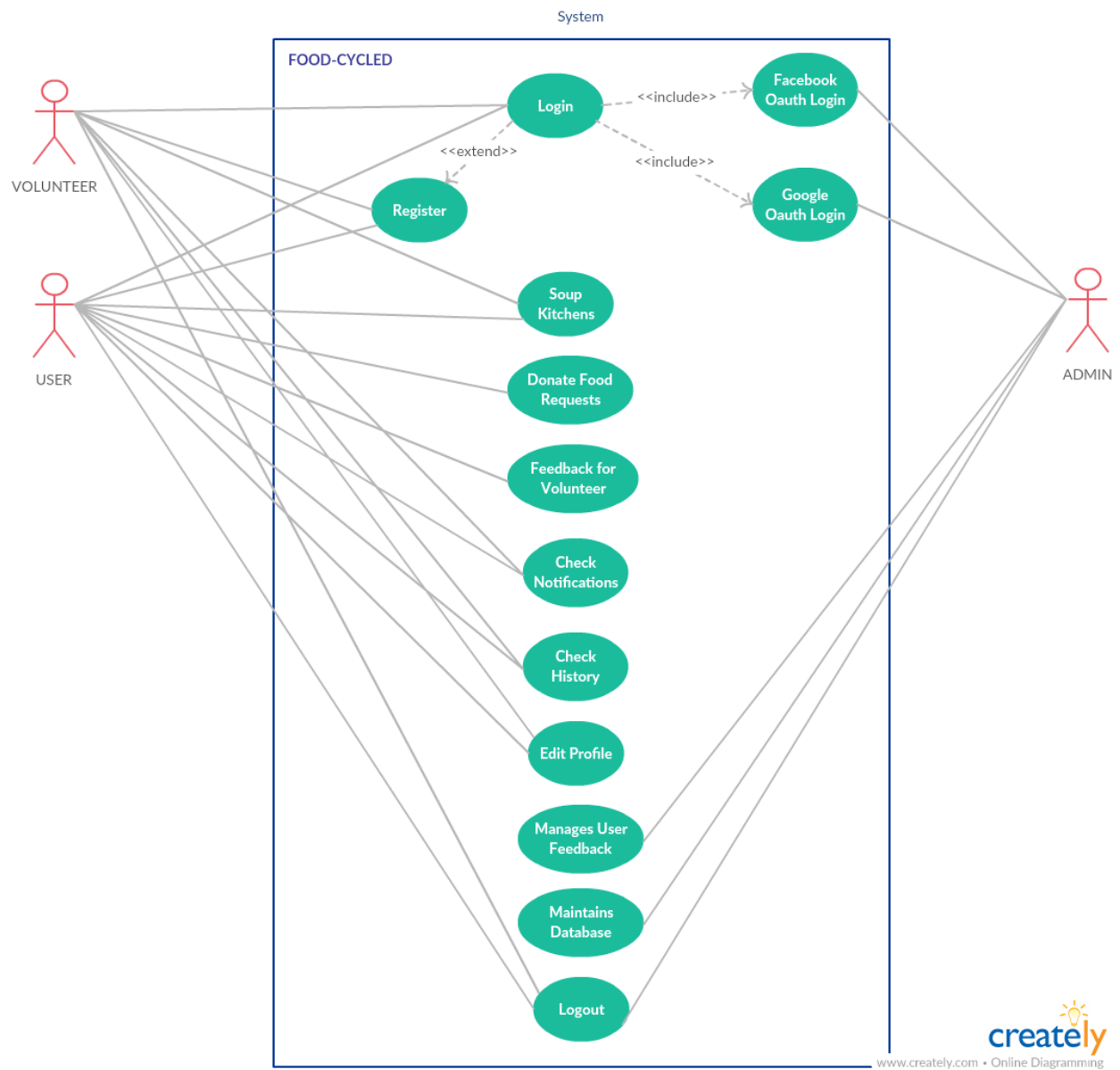


SEQUENCE DIAGRAM



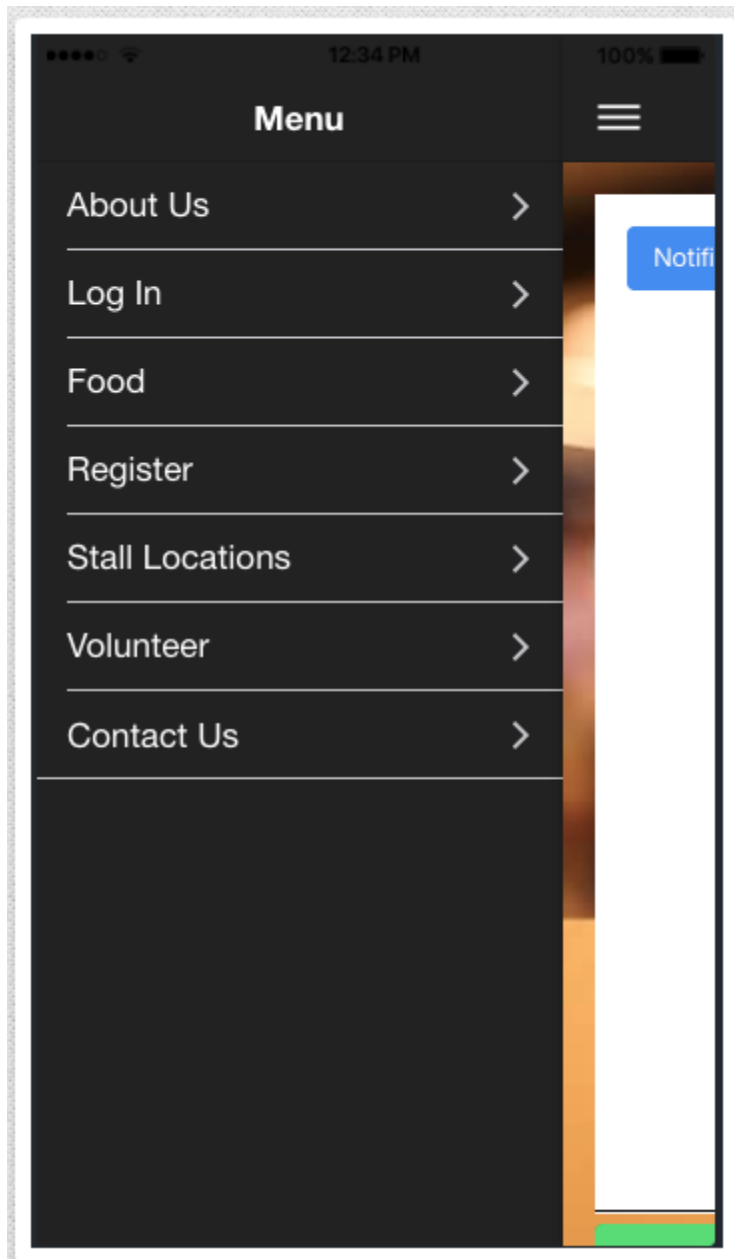


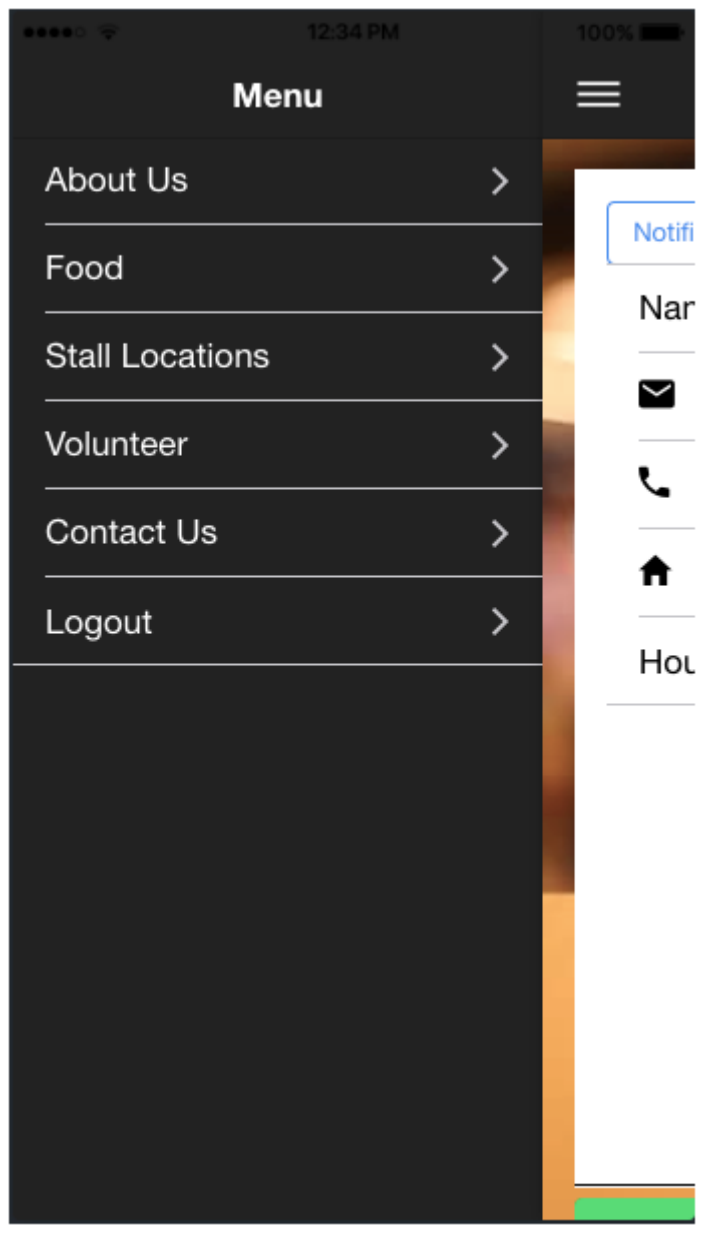
USECASE DIAGRAM



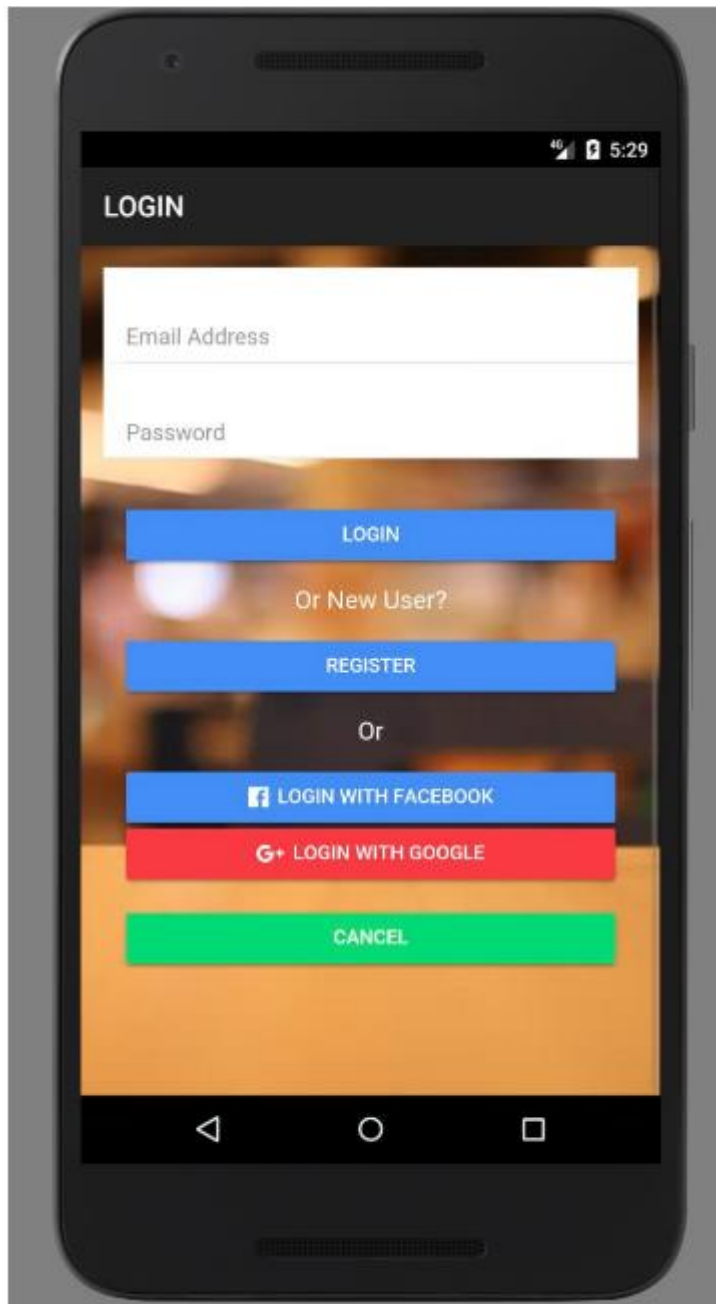
V. IMPLEMENTATION

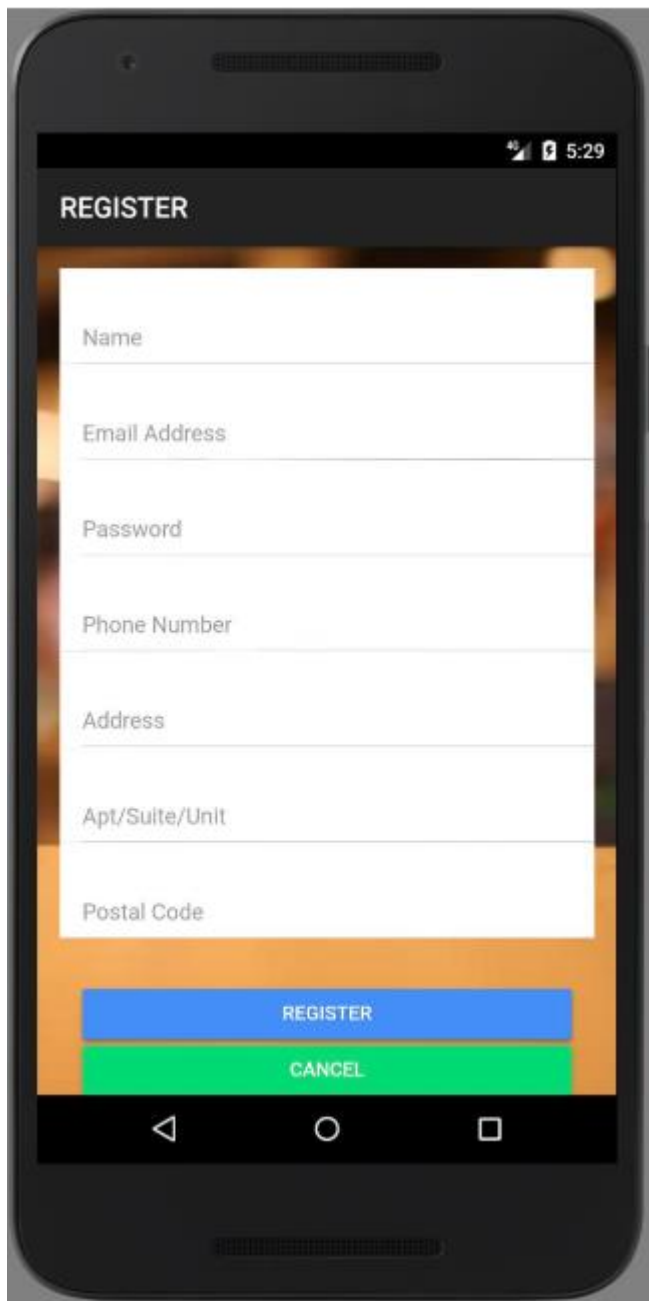
LAUNCH PAGE





LOGIN PAGE



REGISTER PAGE

REGISTER

Name

Email Address

Password

Phone Number

Address

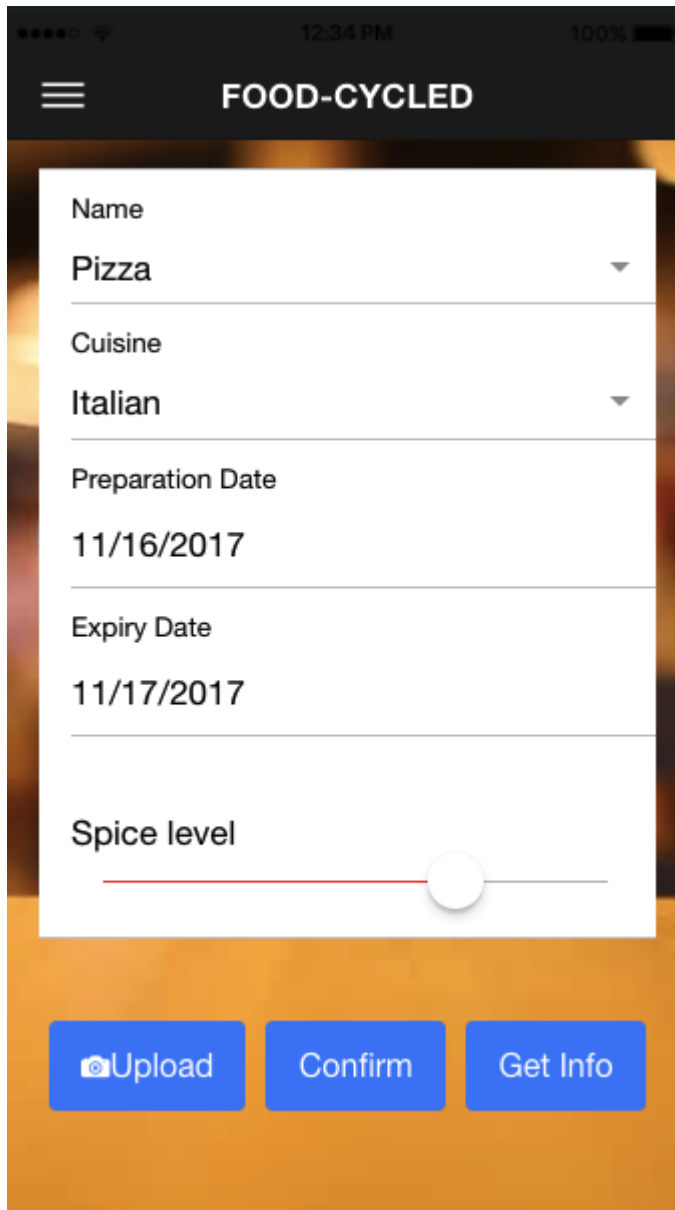
Apt/Suite/Unit

Postal Code

REGISTER

CANCEL

FOOD REQUEST PAGE



The screenshot shows a mobile application interface for 'FOOD-CYCLED'. At the top, there is a status bar with signal strength, time (12:34 PM), and battery (100%). Below the status bar is a dark header with a hamburger menu icon on the left and the app name 'FOOD-CYCLED' in the center. The main content area is a white form with a light orange background. The form contains the following fields:

- Name:** A dropdown menu with 'Pizza' selected.
- Cuisine:** A dropdown menu with 'Italian' selected.
- Preparation Date:** A text field with the value '11/16/2017'.
- Expiry Date:** A text field with the value '11/17/2017'.
- Spice level:** A slider control with a white knob positioned at approximately 60% of the range.


At the bottom of the form, there are three blue buttons: 'Upload' (with a camera icon), 'Confirm', and 'Get Info'.

12:34 PM

100%

Cancel

Details



Pizza

Breakfast Pizza

Fat

256.82959999999997 g

Carbs

144.8832 g

Protein

165.16960000000003 g

Cholesterol

1967.3600000000001 mg

Sodium

5839.4 mg

Calcium

1866.6400000000003 mg

Magnesium

224.12 mg

Potassium

2027.6 mg

Iron

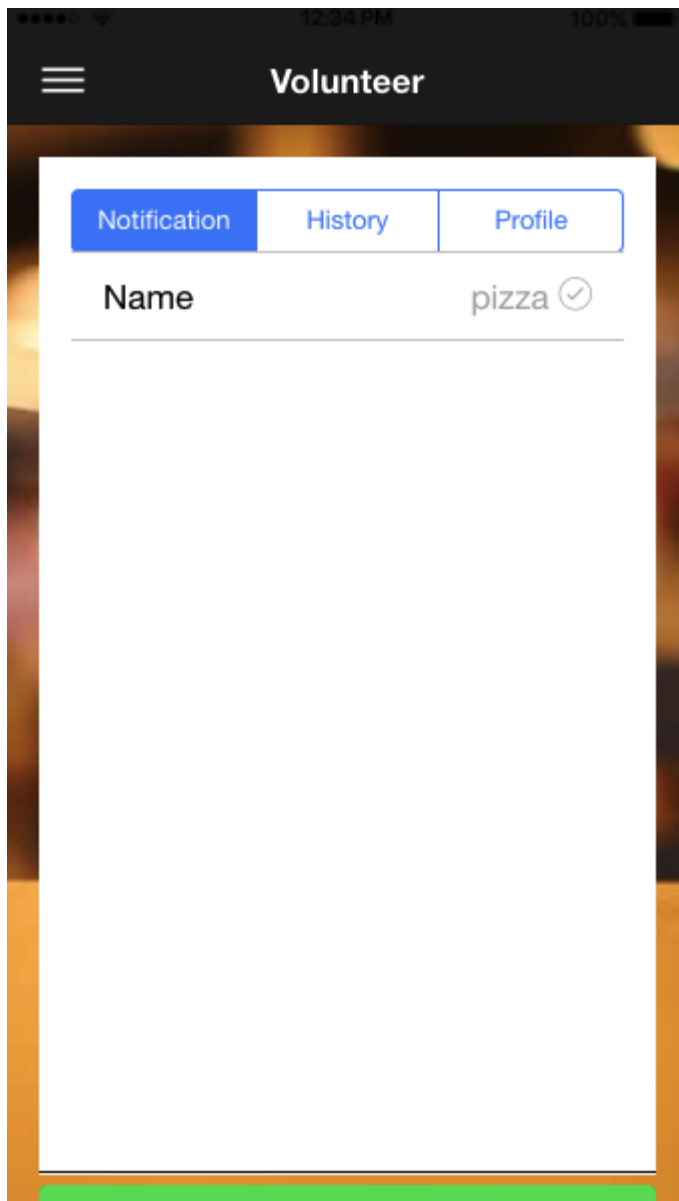
16.0552 mg

Zinc

17.2936 mg

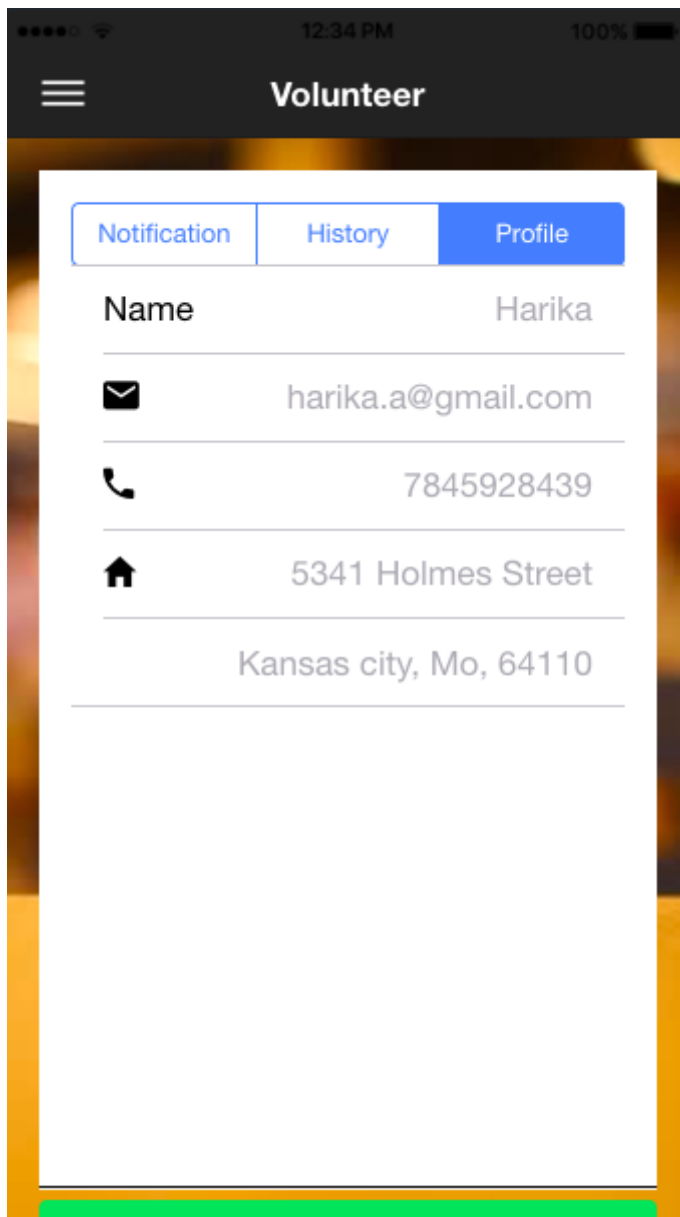
Phosphorus

2608.76 mg

VOLUNTEER DASHBOARD

The screenshot shows a mobile application interface for a volunteer dashboard. At the top, there is a dark header bar with a hamburger menu icon on the left, the title "Volunteer" in the center, and the time "12:34 PM" and battery status "100%" on the right. Below the header, there is a white container with three tabs: "Notification" (highlighted in blue), "History", and "Profile". Under the "Notification" tab, there is a form with a label "Name" and a text input field containing the word "pizza" followed by a checkmark icon. The background of the app is a blurred image of a pizza.

The image shows a mobile application interface for a 'Volunteer' profile. At the top, there is a dark header with a hamburger menu icon on the left and the title 'Volunteer' in the center. Below the header, there is a white container with three tabs: 'Notification', 'History' (which is highlighted in blue), and 'Profile'. Under the 'History' tab, there is a section titled 'Name' followed by the text 'pizza' and a checkmark icon. The rest of the container is empty, and there is a green bar at the very bottom of the screen.



VI. TESTING

i. UNIT TESTING

Sr No	Test Case	Description	Expected Outcomes	Result
1	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 (Social 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	Registration Page	User should be able to successfully register	Successful Registration	Pass
6	Food Request Page	User should be able to get nutrition information of the food	Nutrition details	Pass

ii. PERFORMANCE TESTING

The screenshot displays the YSlow (V2) performance tool interface. The browser address bar shows the URL: `chrome-extension://ninejjcohidippngpapiilnmkgllmakh/yslow.html#1`. The interface includes a navigation bar with tabs for Home, Grade, Components, and Statistics. The 'Grade' tab is active, showing an overall performance score of 98 and a ruleset of YSlow(V2). The URL being tested is `http://127.0.0.1:53777/pages/login/login.html`. Below the score, there are filters for ALL (23), CONTENT (6), COOKIE (2), CSS (6), IMAGES (2), JAVASCRIPT (4), and SERVER (6). A list of recommendations is shown on the left, with the first one, 'Make fewer HTTP requests', highlighted. The main content area provides a detailed explanation for this recommendation, stating that decreasing the number of components on a page reduces the number of HTTP requests required to render the page, resulting in faster page loads. It also provides some ways to reduce the number of components, such as combining files, combining multiple scripts into one script, combining multiple CSS files into one style sheet, and using CSS Sprites and image maps. A 'Read More' link is provided for further information.

chrome-extension://ninejjcohidippngpapiilnmkgllmakh/yslow.html#1

Home Grade Components Statistics Rulesets YSlow(V2) Edit Help

Grade **A** Overall performance score 98 Ruleset applied: YSlow(V2) URL: http://127.0.0.1:53777/pages/login/login.html

ALL (23) FILTER BY: CONTENT (6) | COOKIE (2) | CSS (6) | IMAGES (2) | JAVASCRIPT (4) | SERVER (6) Tweet Share

A Make fewer HTTP requests

A Use a Content Delivery Network (CDN)

A Avoid empty src or href

B Add Expires headers

B Compress components with gzip

A Put CSS at top

A Put JavaScript at bottom

A Avoid CSS expressions

Grade A on Make fewer HTTP requests

Decreasing the number of components on a page reduces the number of HTTP requests required to render the page, resulting in faster page loads. Some ways to reduce the number of components include: combine files, combine multiple scripts into one script, combine multiple CSS files into one style sheet, and use CSS Sprites and image maps.

[Read More](#)

VII. TECHNOLOGY USED

- Android SDK
- HTML
- CSS
- Ionic
- Firebase
- Postgres

VIII. PROJECT MANAGEMENT

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IX. BIBLIOGRAPHY

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<https://developers.google.com/>
<https://firebase.google.com/>