FOOD-CYCLED

Team number - 1

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Harika Adivanne ,

Navya Battu

TABLE OF CONTENTS

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 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 hybrid application to help ease donation and collection of excess food.
- Single login and register for Users and Volunteers.
- Login can also be done using social websites such as Facebook and Google+.
- Identifying nearby Soup Kitchens using Google Maps.
- Check for nutritional value, ingredients and validity of the food.
- Feedback on volunteers by users.

Significance :

We are developing an application 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 soup kitchens.

Initially volunteers are registered with their details. 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. After the volunteer picks up the food, he/she drops off in the nearby soup kitchens. After the volunteer picks up the food, he/she drops off in the nearby soup kitchens. After accepting the food from the user, they drop off the food at a nearby Soup Kitchen.

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'

Thank You page for contributors

Increment IV

Feedback for Volunteers

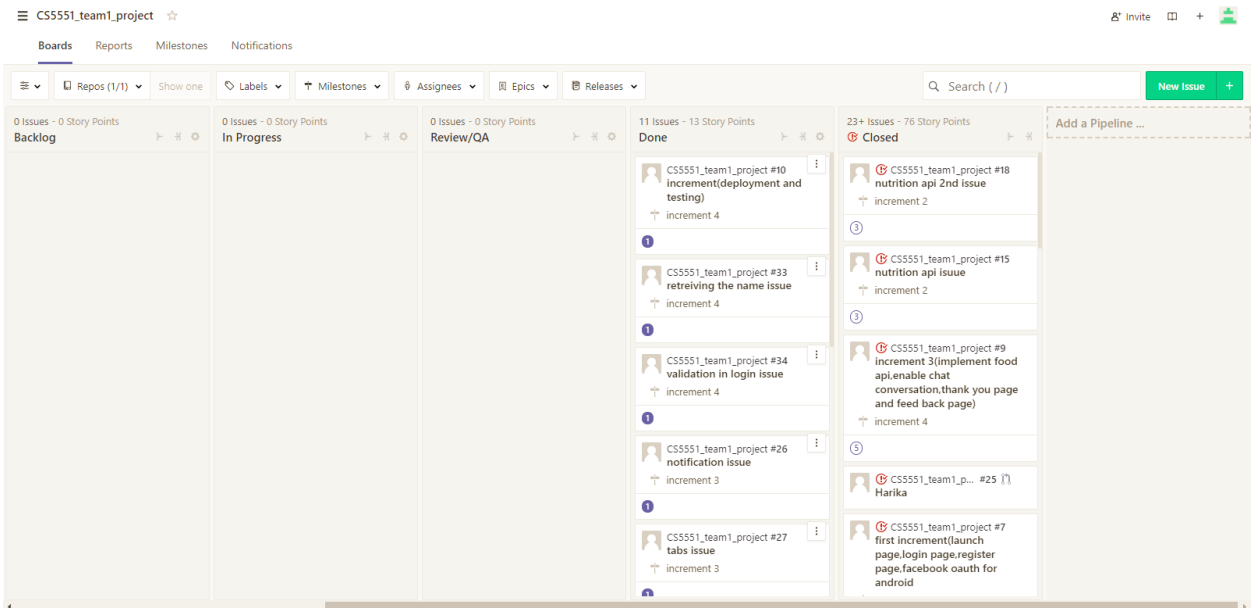
Deployment

Testing

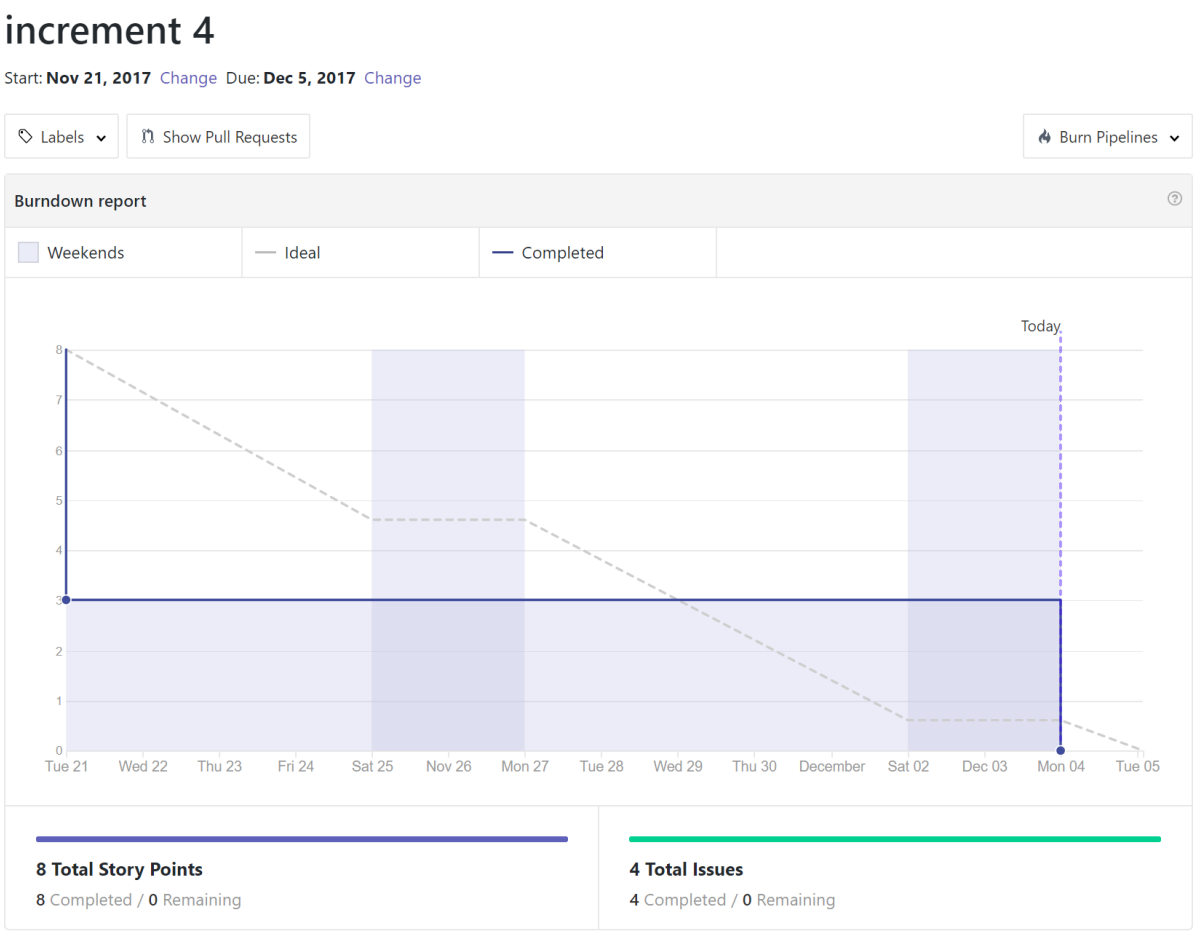
STORIES (ISSUES) :SCENARIO & USE CASE SPECIFICATION

- 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 the food history in the User's Dashboard will show a Tick mark indicating that the request was accepted.
- 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



BURNDOWN CHART



IV. FOURTH INCREMENT REPORT

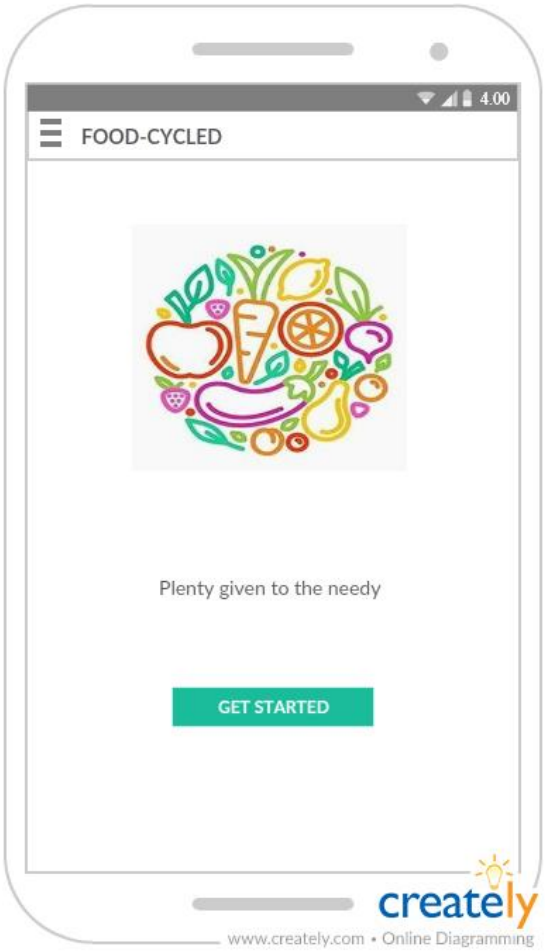
i. **Existing Services/REST API**
Facebook OAuth API , Google OAuth API, Edamam API, Google Maps API , Camera API

ii. **Detailed Design of Features**

WIREFRAMES

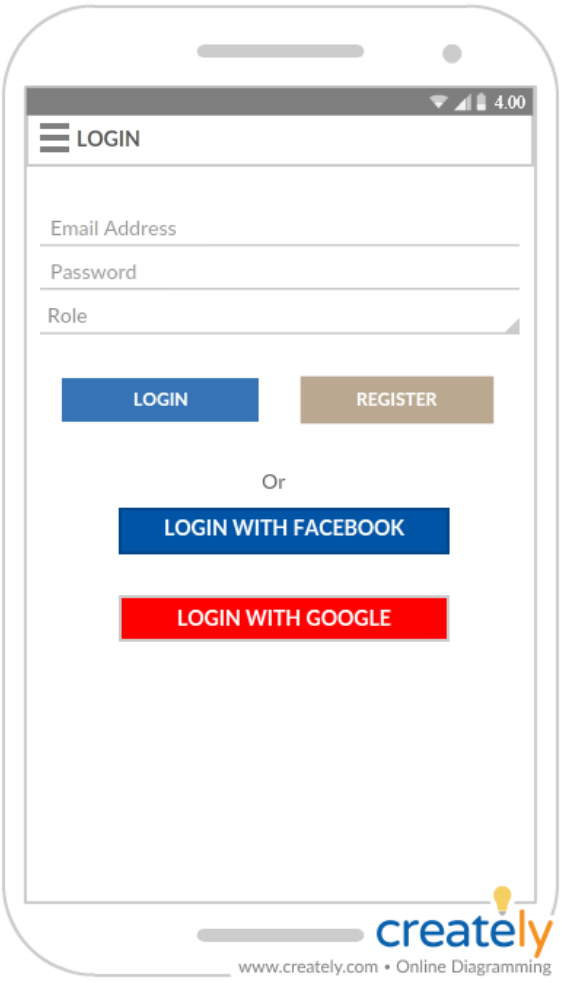
LAUNCH PAGE

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 and Contact Us.**



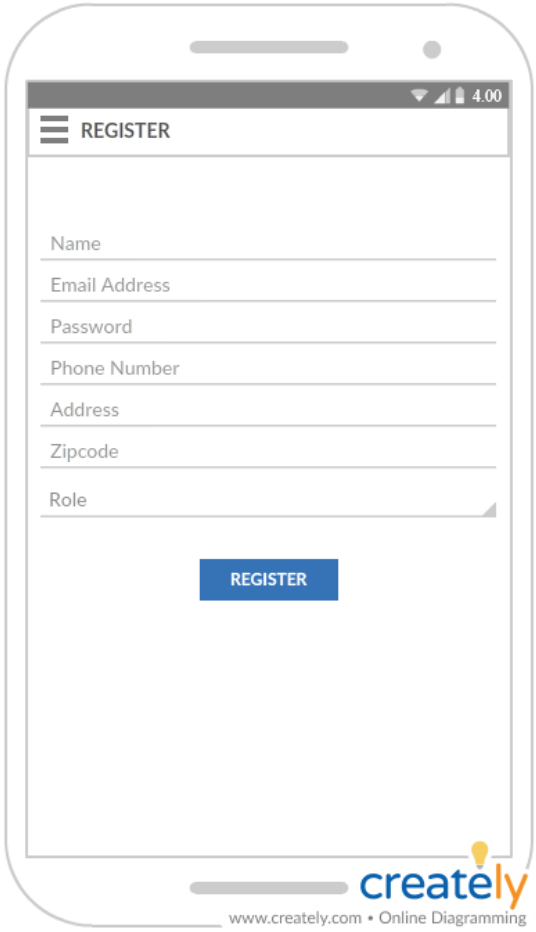
LOGIN PAGE

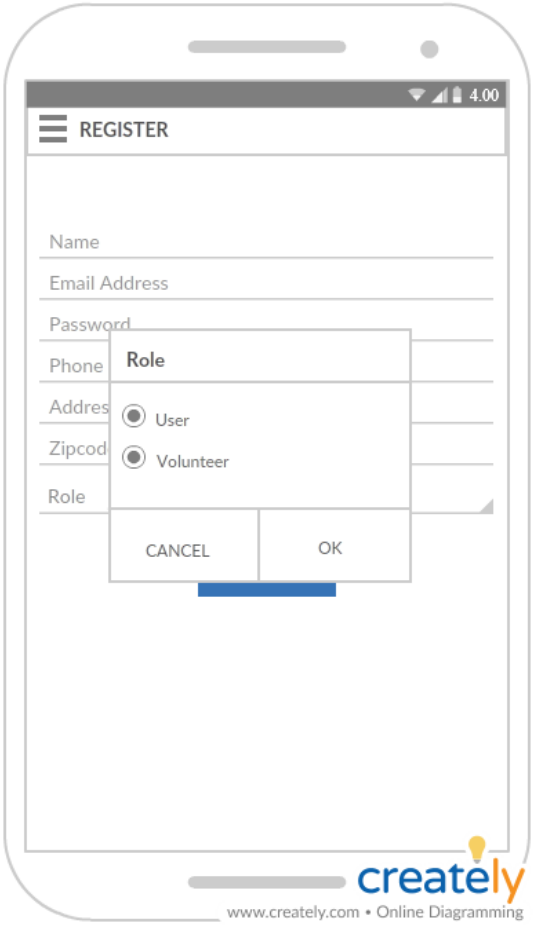
Single Login Page for both User and Volunteer. It redirects to their respective Dashboard upon successful login. There are two Social Logins implemented – Facebook and Google+, if successful then it is redirected to their respective dashboard based on the role.



REGISTER PAGE

The User and Volunteer registers separately using their basic details. Upon Successful registration, it redirects to the Login Page. Here the User or Volunteer is mentioned using the Role field.



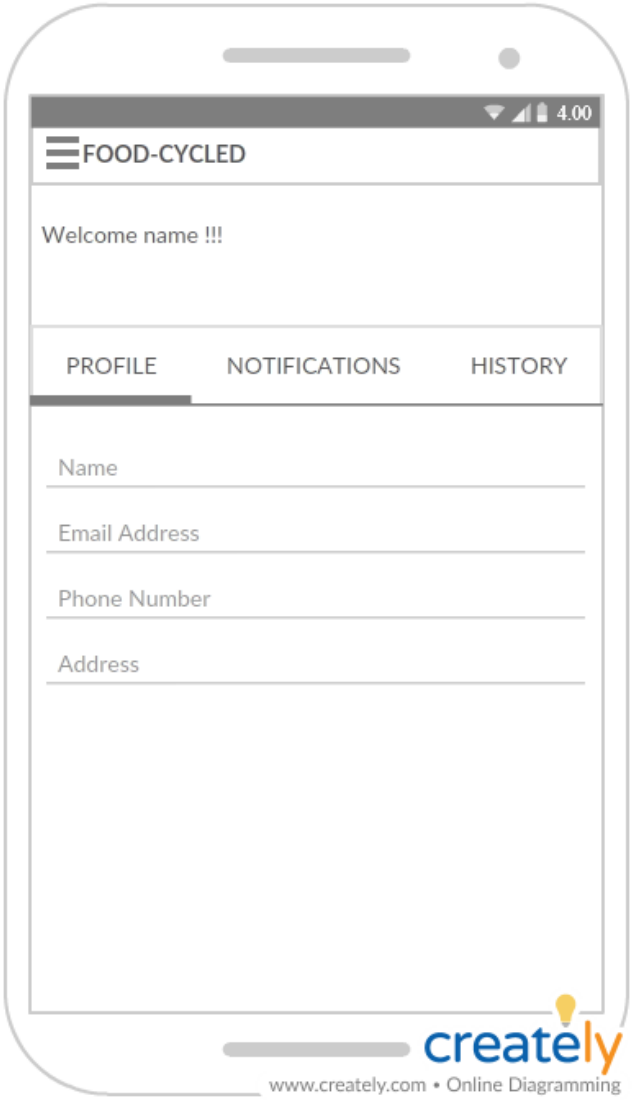


DASHBOARD

Upon successful login, User or Volunteer lands in their respective dashboard page. In Volunteer's Dashboard, it displays their name and provides with tabs – Profile,Notifications and History, where History is the default Tab. In User's Dashboard, it displays their name and provides with tabs – Profile and History, where History is the default Tab. User can upload food or leave feedback using the Menu bar.

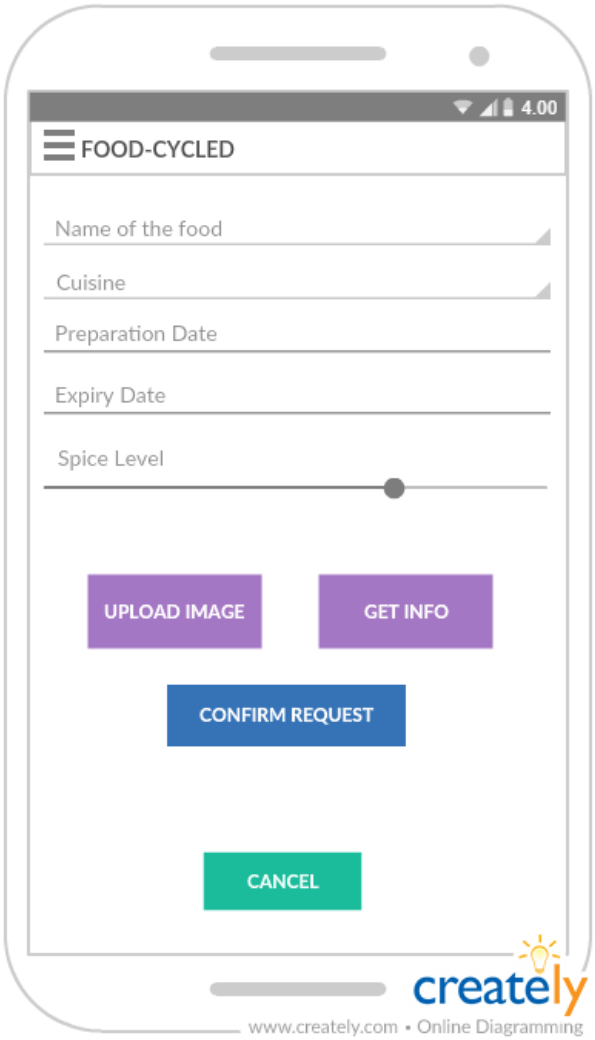
USER DASHBOARD

VOLUNTEER DASHBOARD



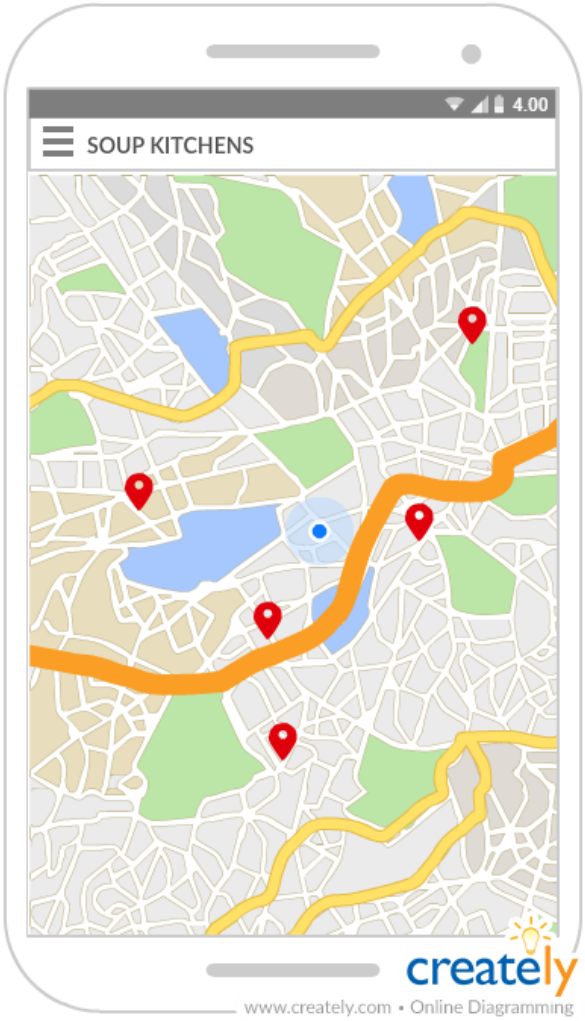
UPLOAD FOOD PAGE

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.

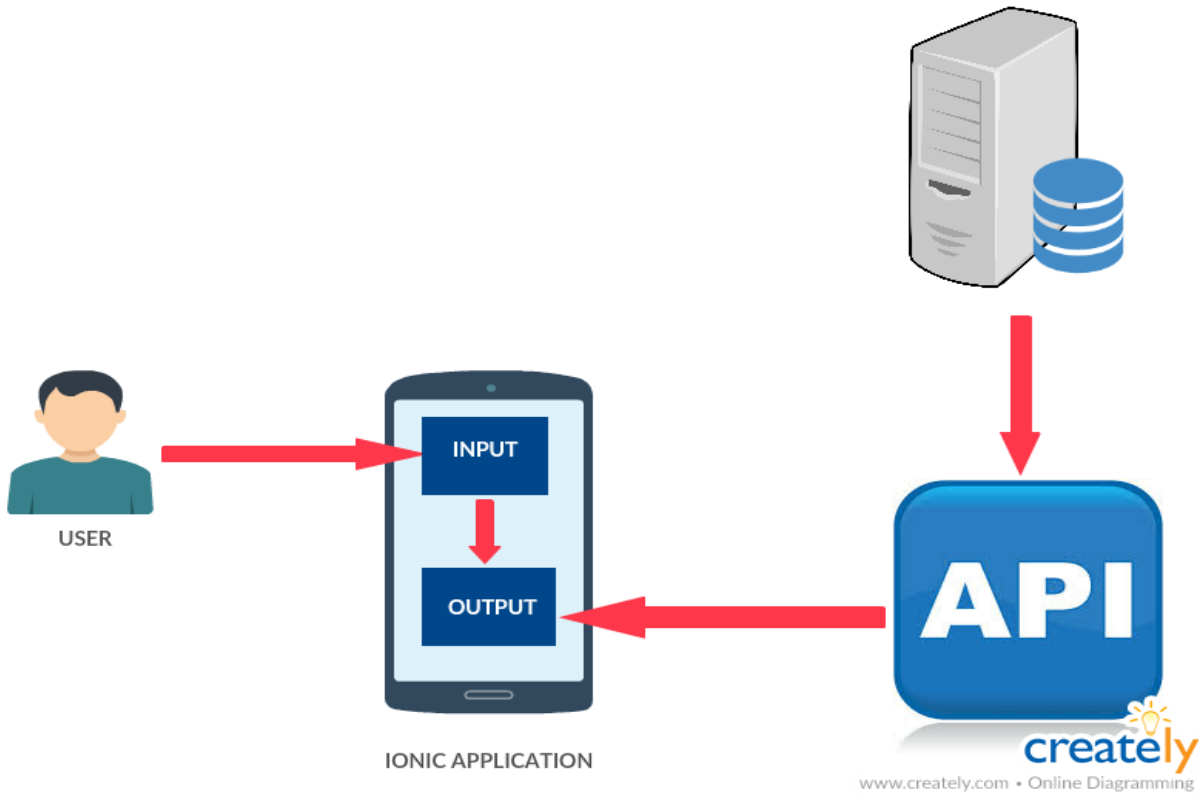


SOUP KITCHENS

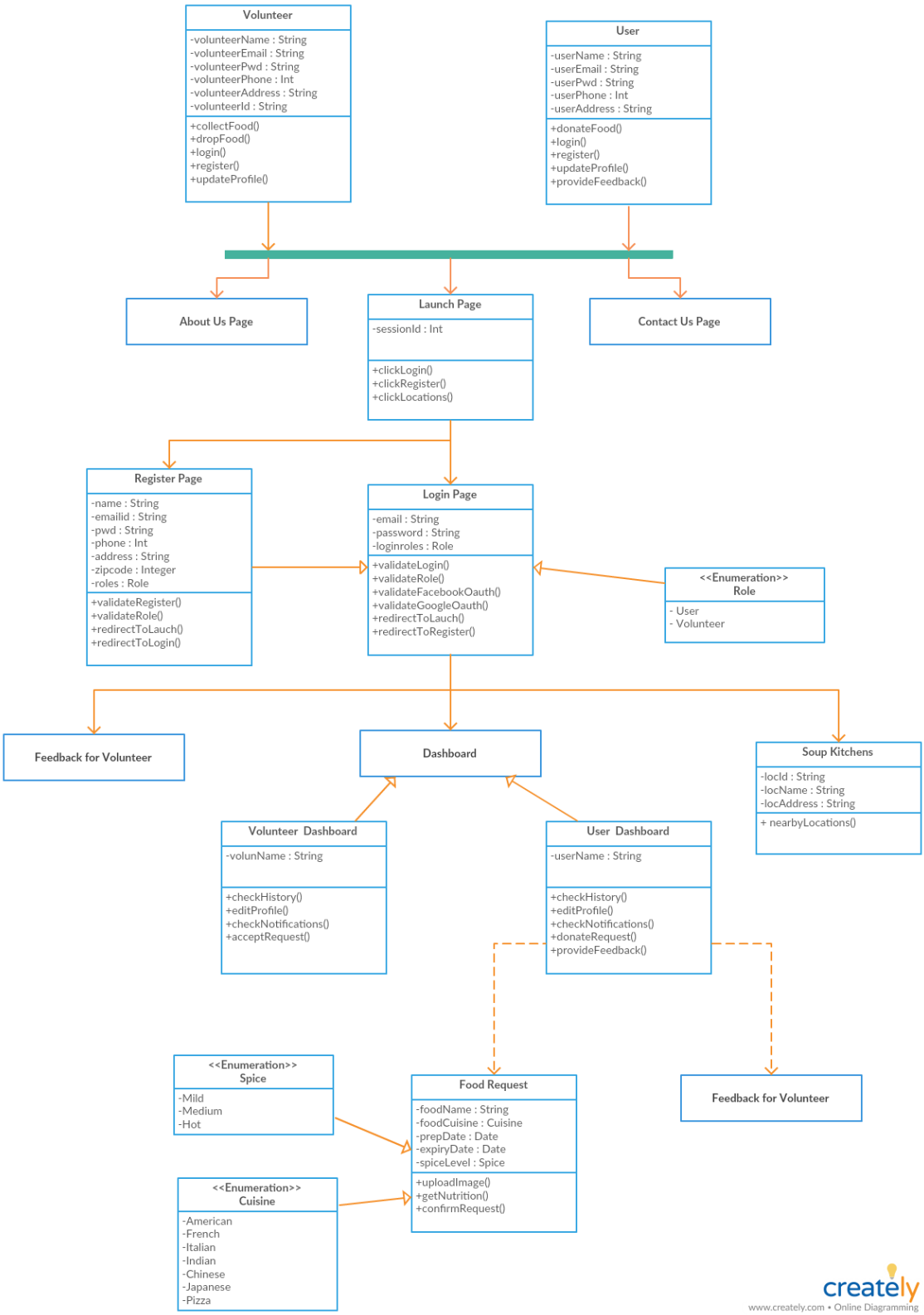
In this Page, the nearby Soup Kitchen Locations are displayed to the person accessing this application.



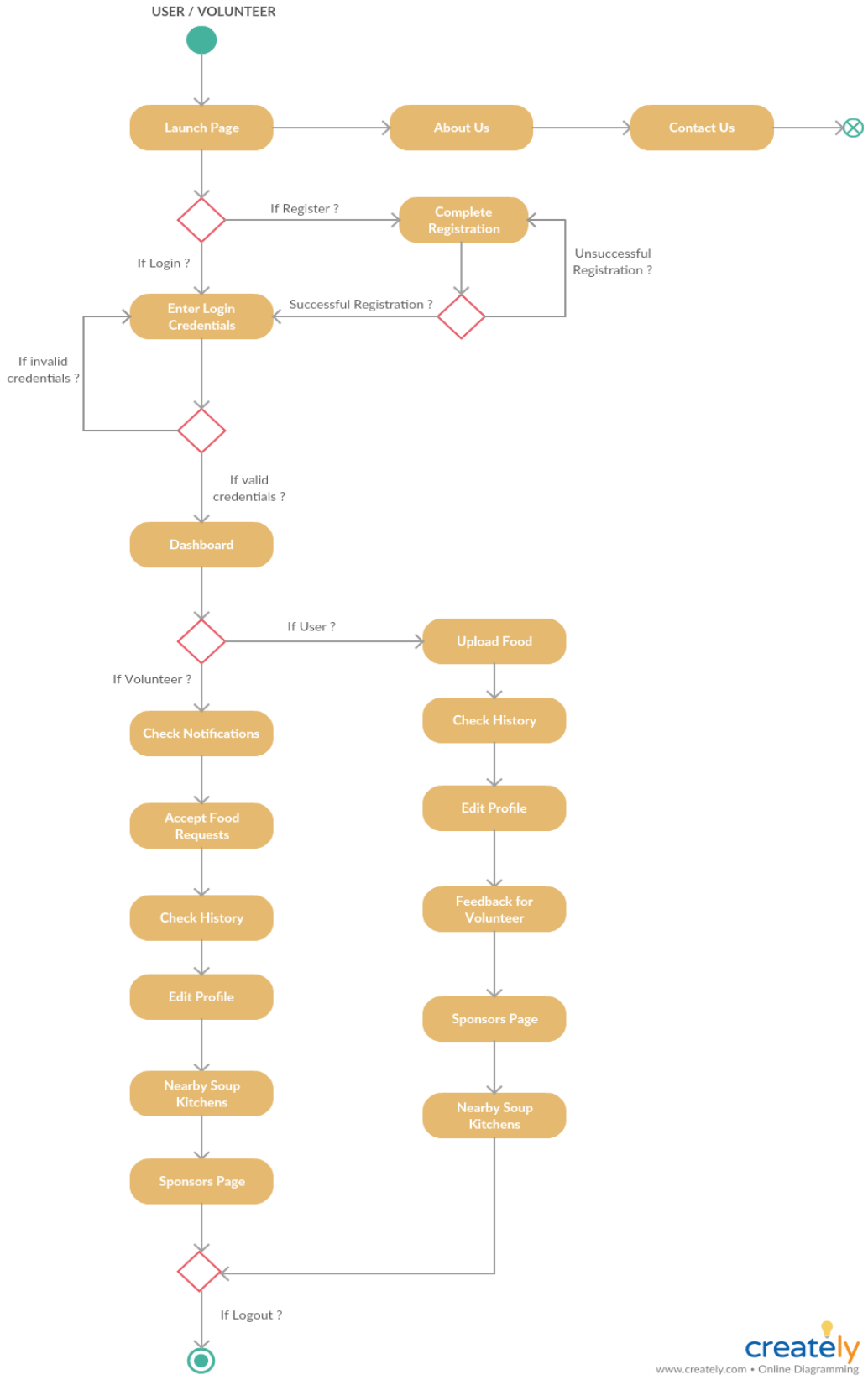
ARCHITECTURE DIAGRAM



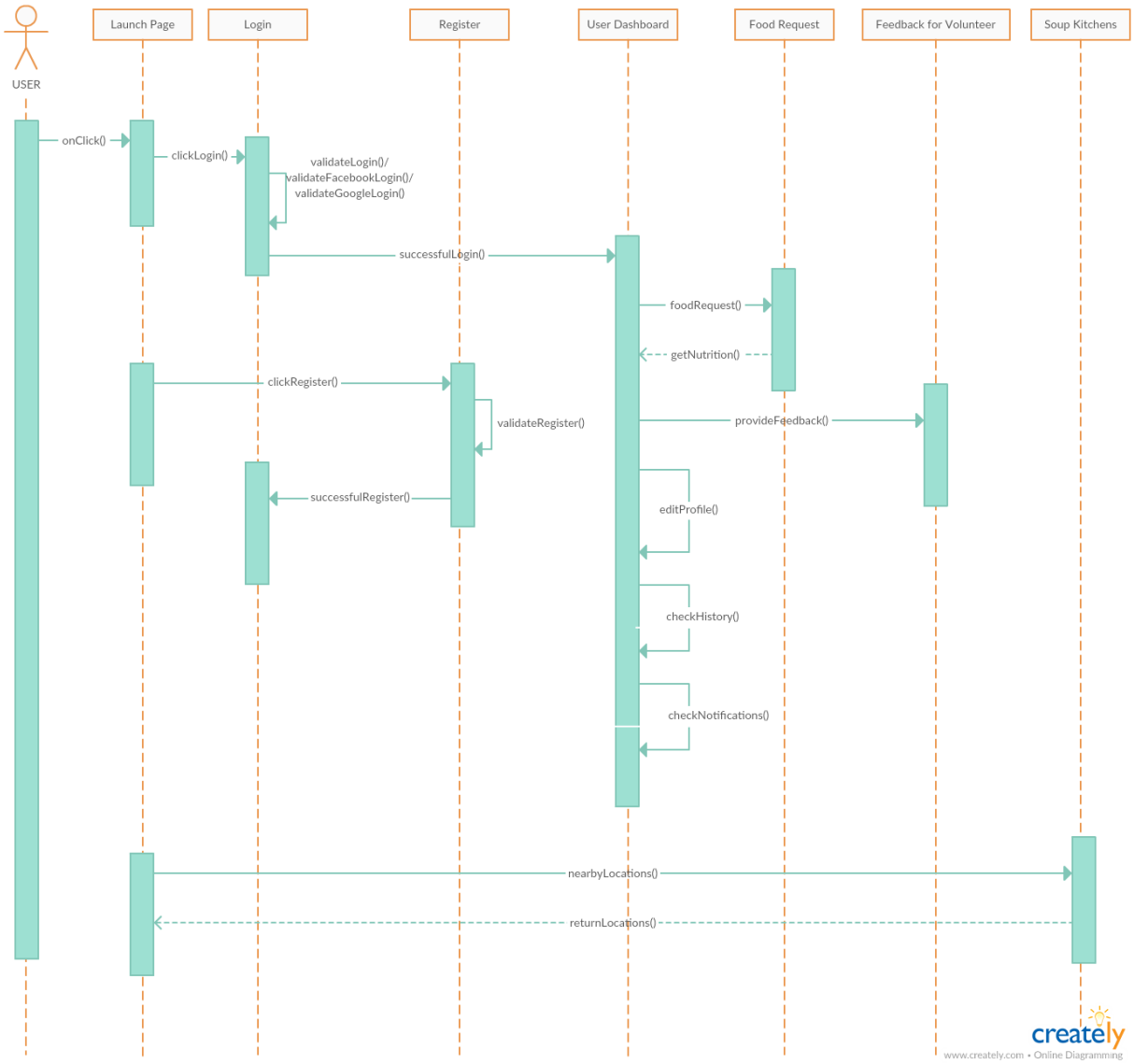
CLASS DIAGRAM

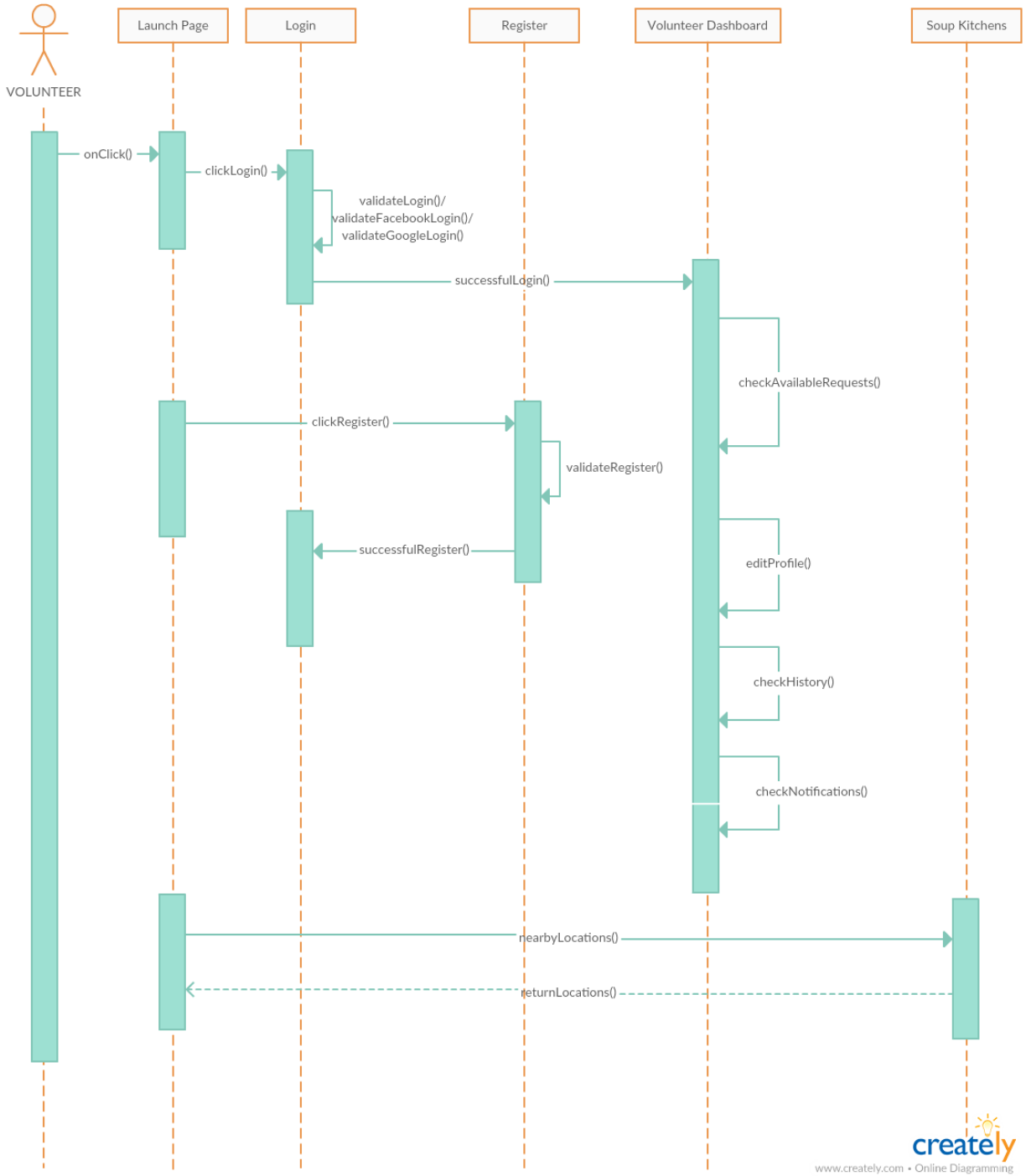


ACTIVITY DIAGRAM



SEQUENCE DIAGRAM




VOLUNTEER
Launch Page
Login
Register
Volunteer Dashboard
Soup Kitchens
onClick()
clickLogin()
validateLogin()/
validateFacebookLogin()/
validateGoogleLogin()
successfulLogin()
checkAvailableRequests()
clickRegister()
validateRegister()
successfulRegister()
editProfile()
checkHistory()
checkNotifications()
nearbyLocations()
returnLocations()
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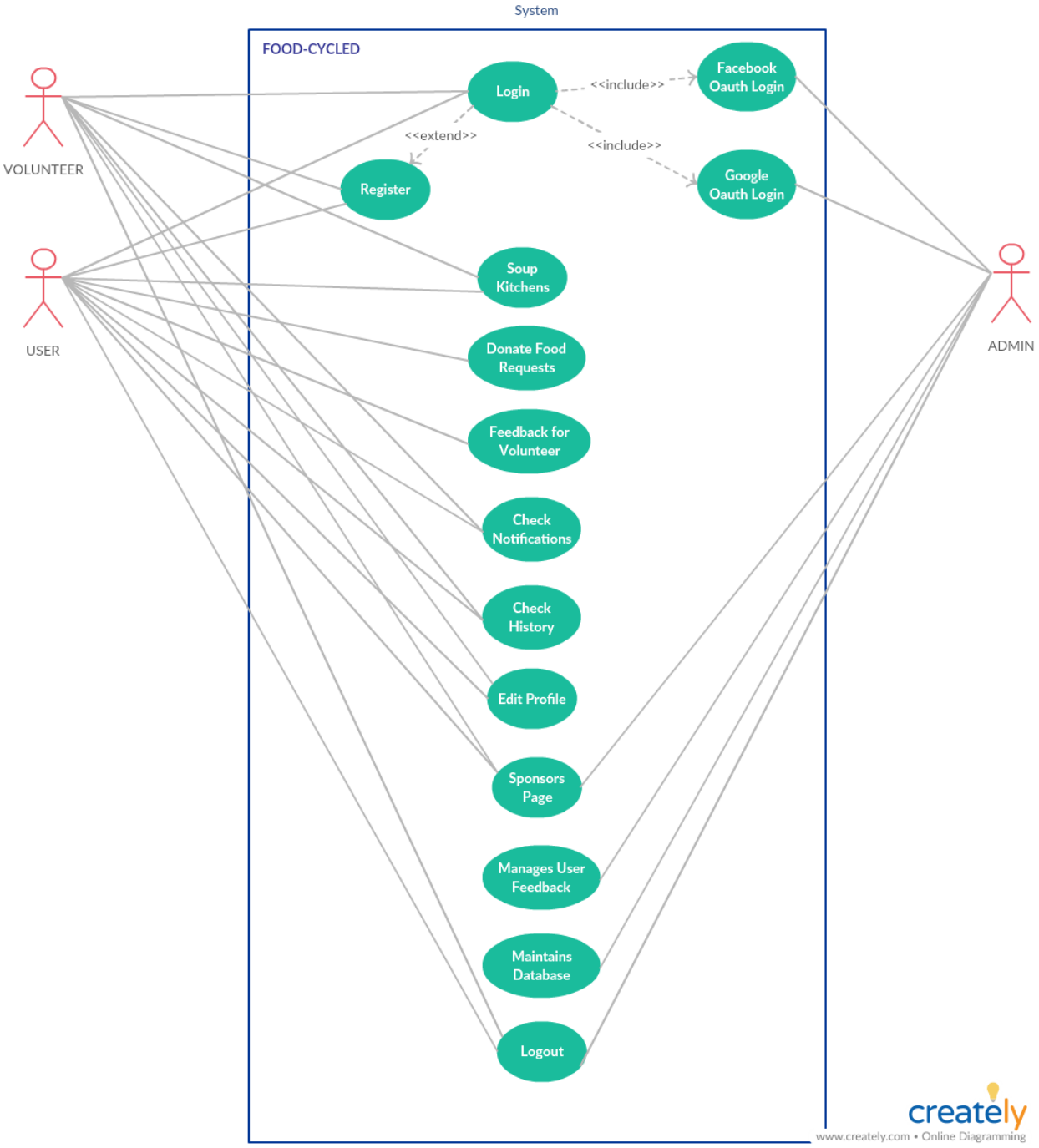
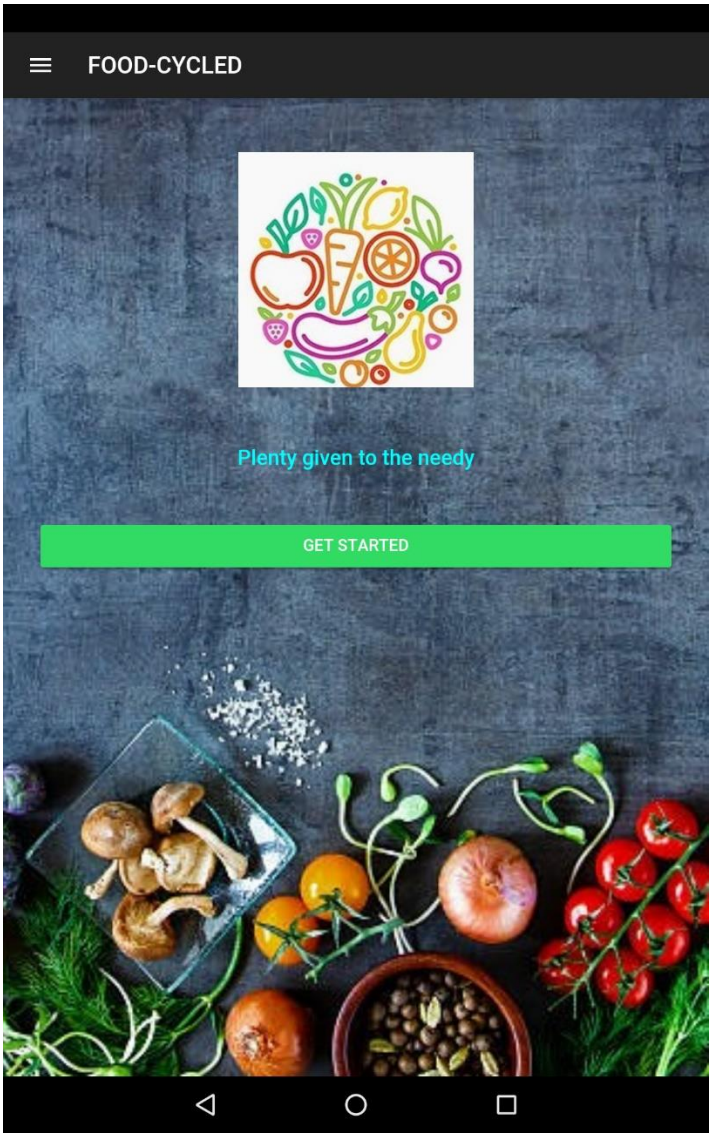
USECASE DIAGRAM

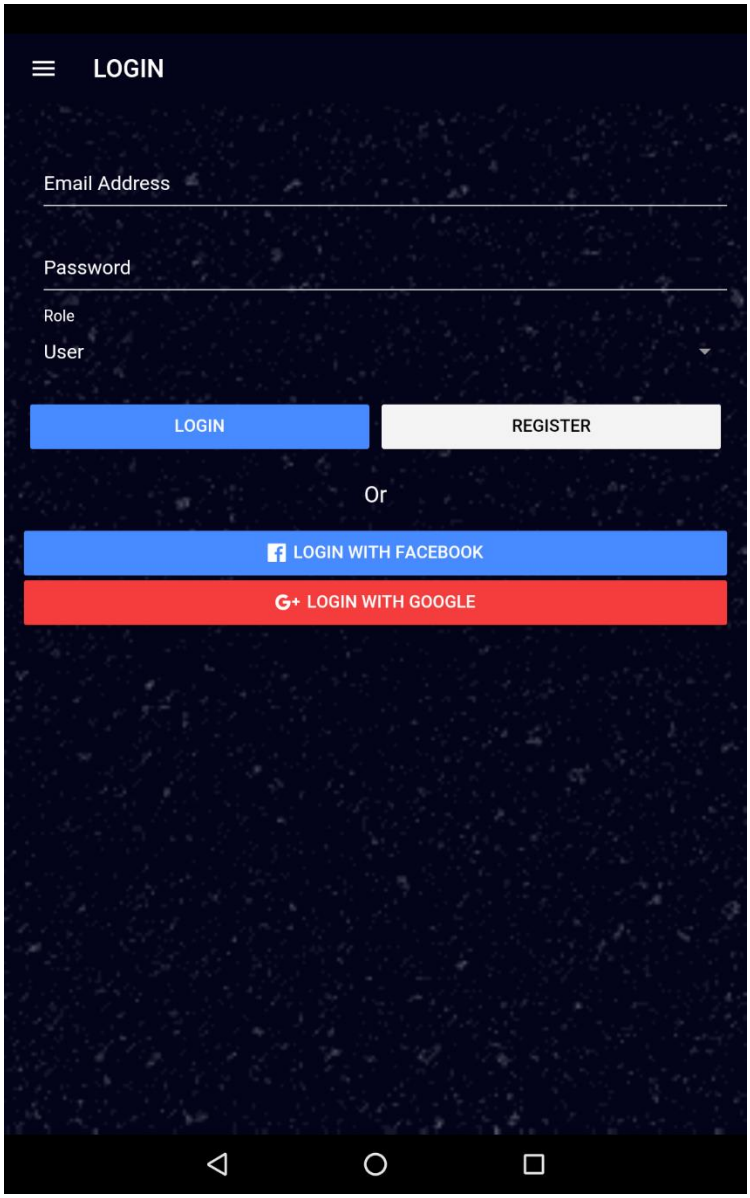


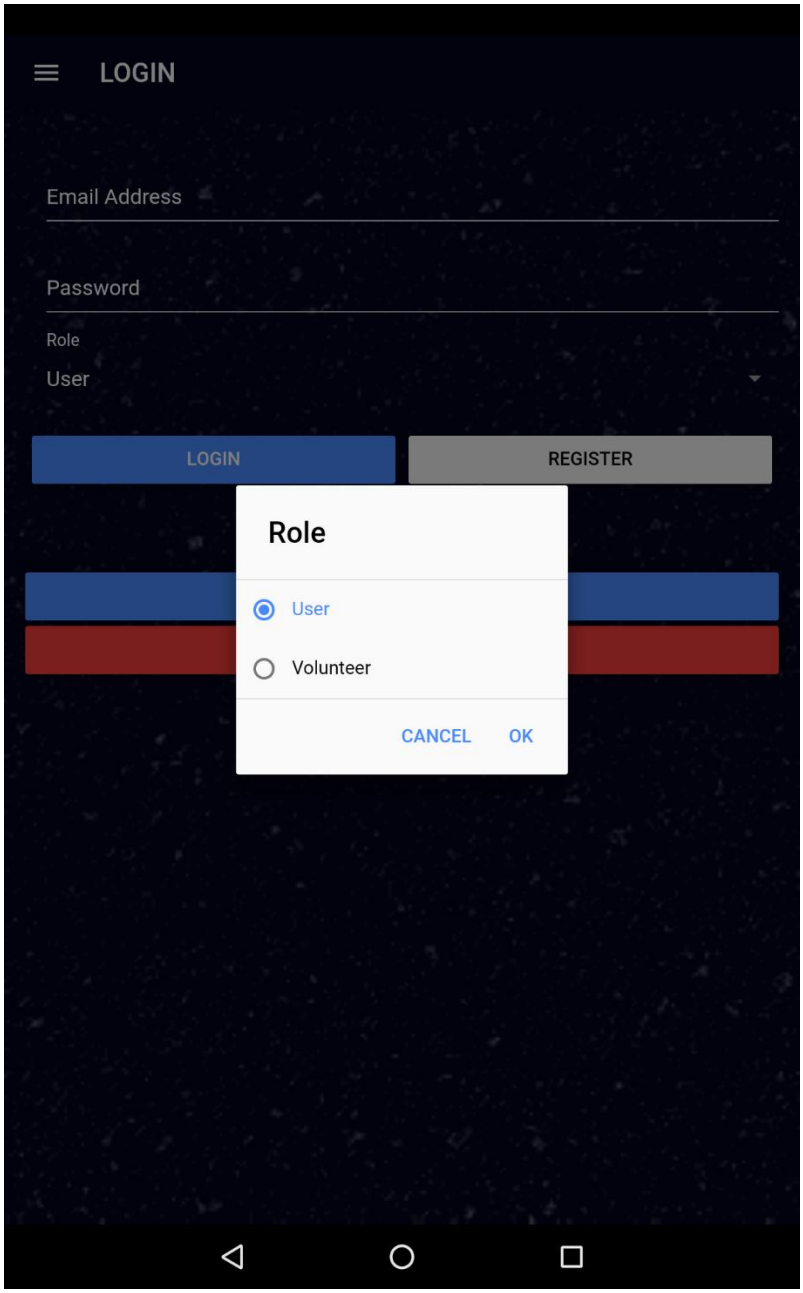
V. IMPLEMENTATION

LAUNCH PAGE

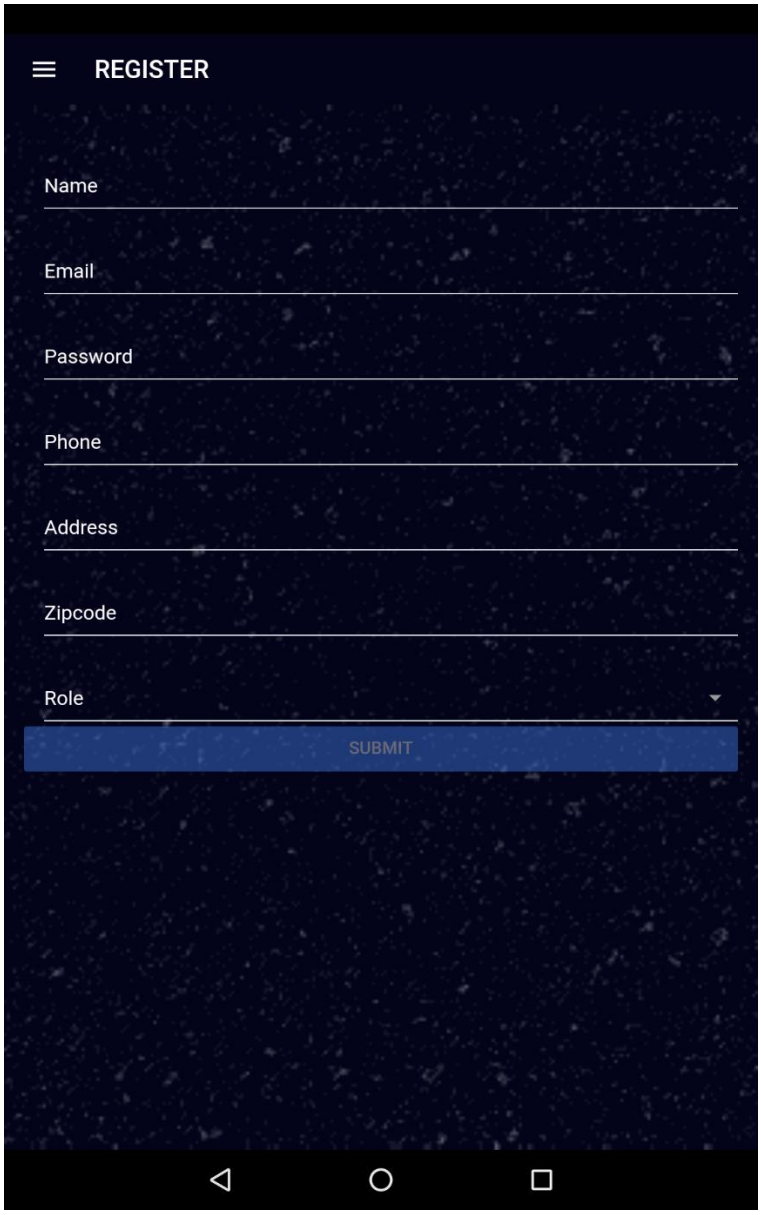


LOGIN PAGE

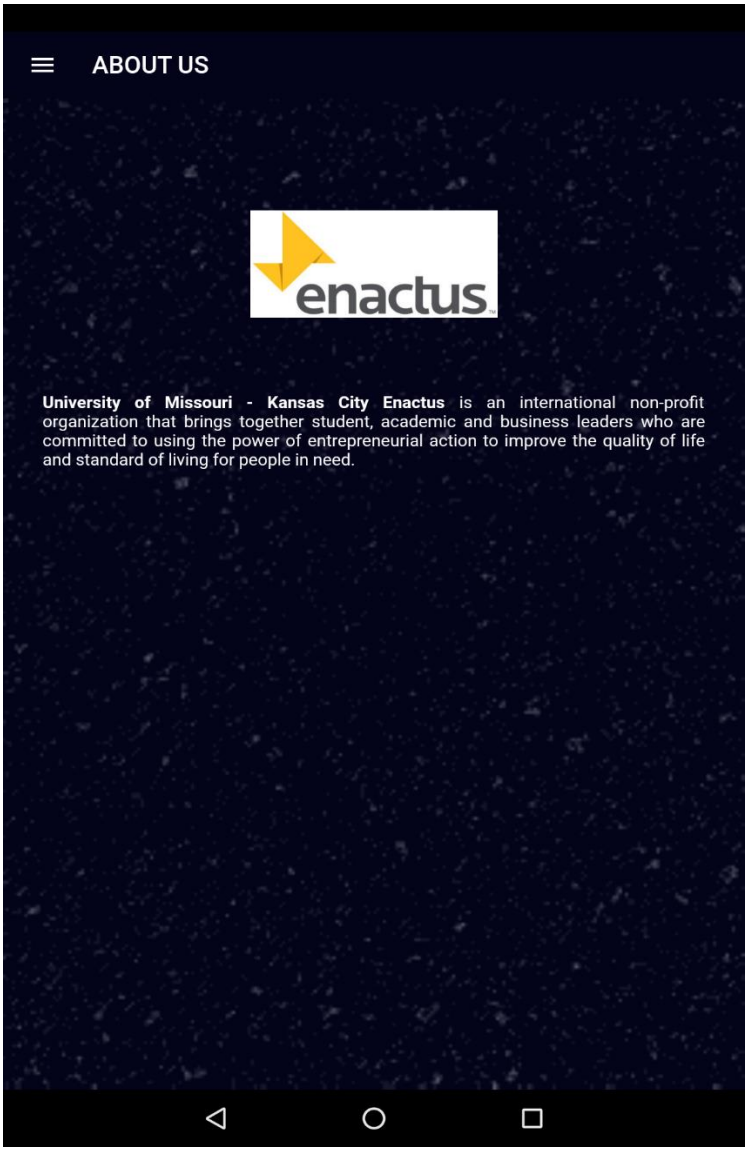

LOGIN
Email Address
Password
Role
User
LOGIN
REGISTER
Or
LOGIN WITH FACEBOOK
LOGIN WITH GOOGLE


LOGIN
Email Address
Password
Role
User
LOGIN
REGISTER
Role
User
Volunteer
CANCEL
OK

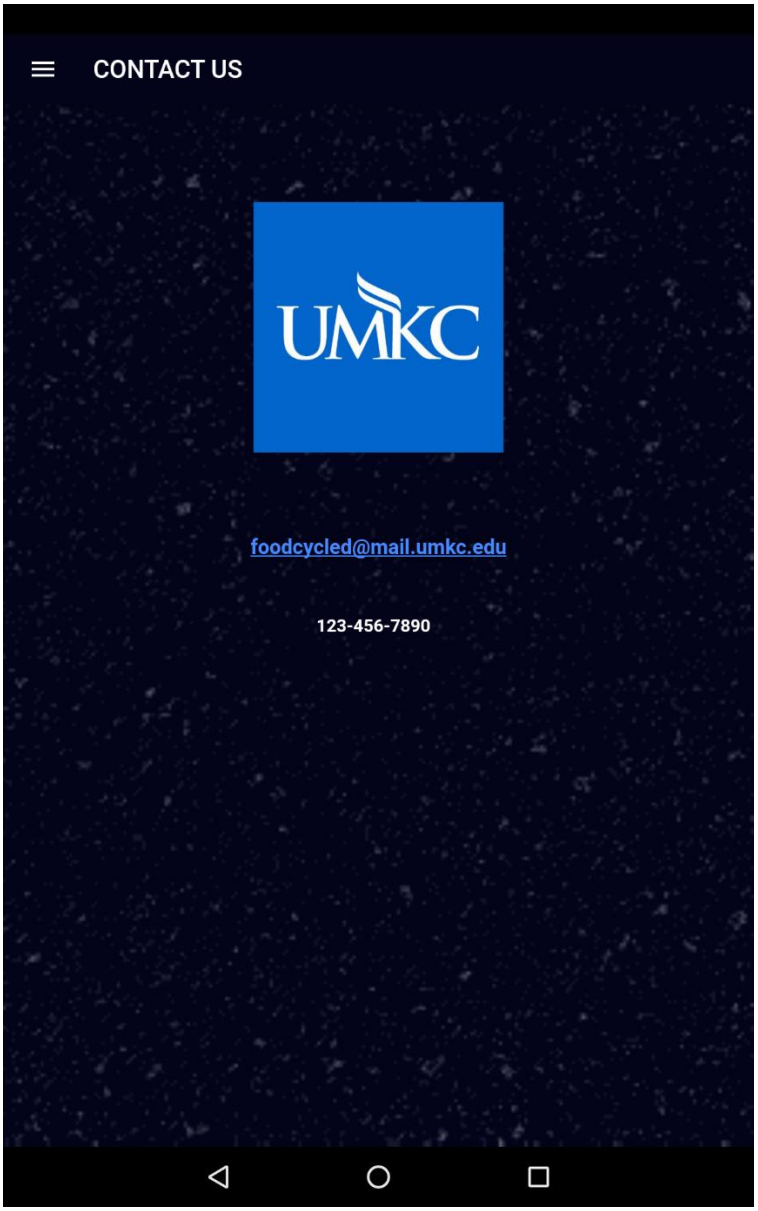
REGISTER PAGE



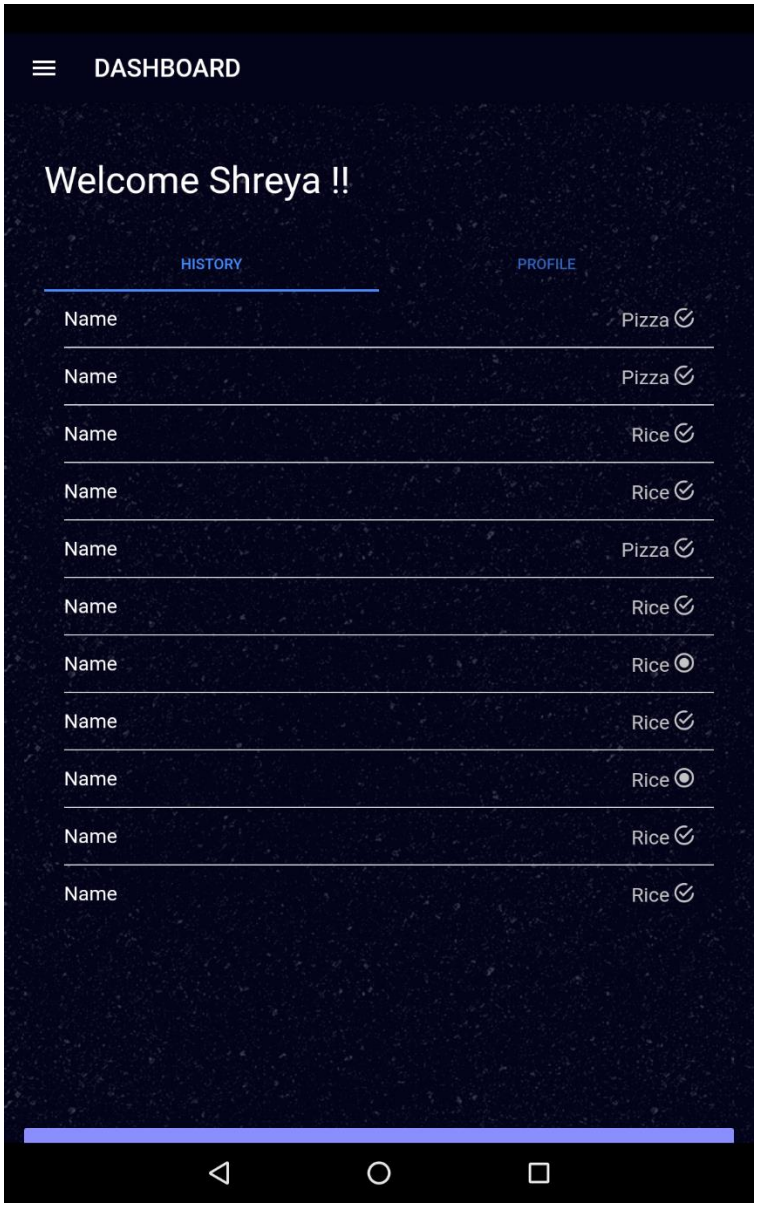
ABOUT US PAGE

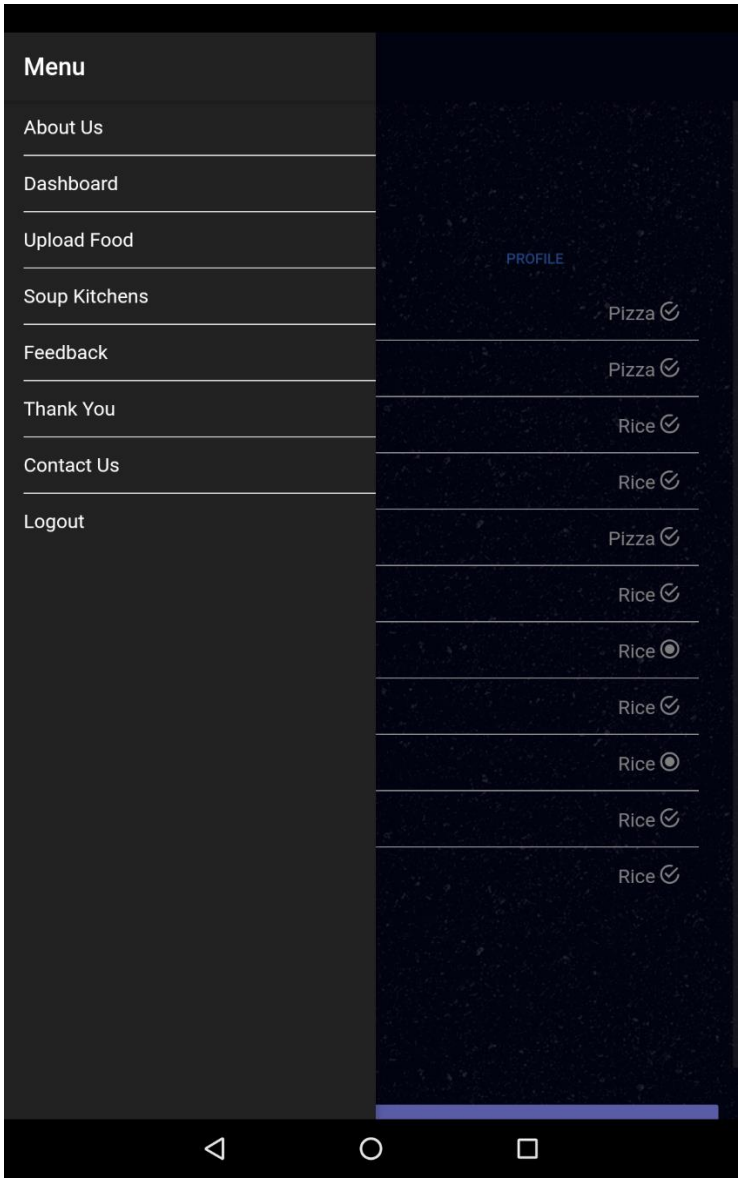


CONTACT US PAGE

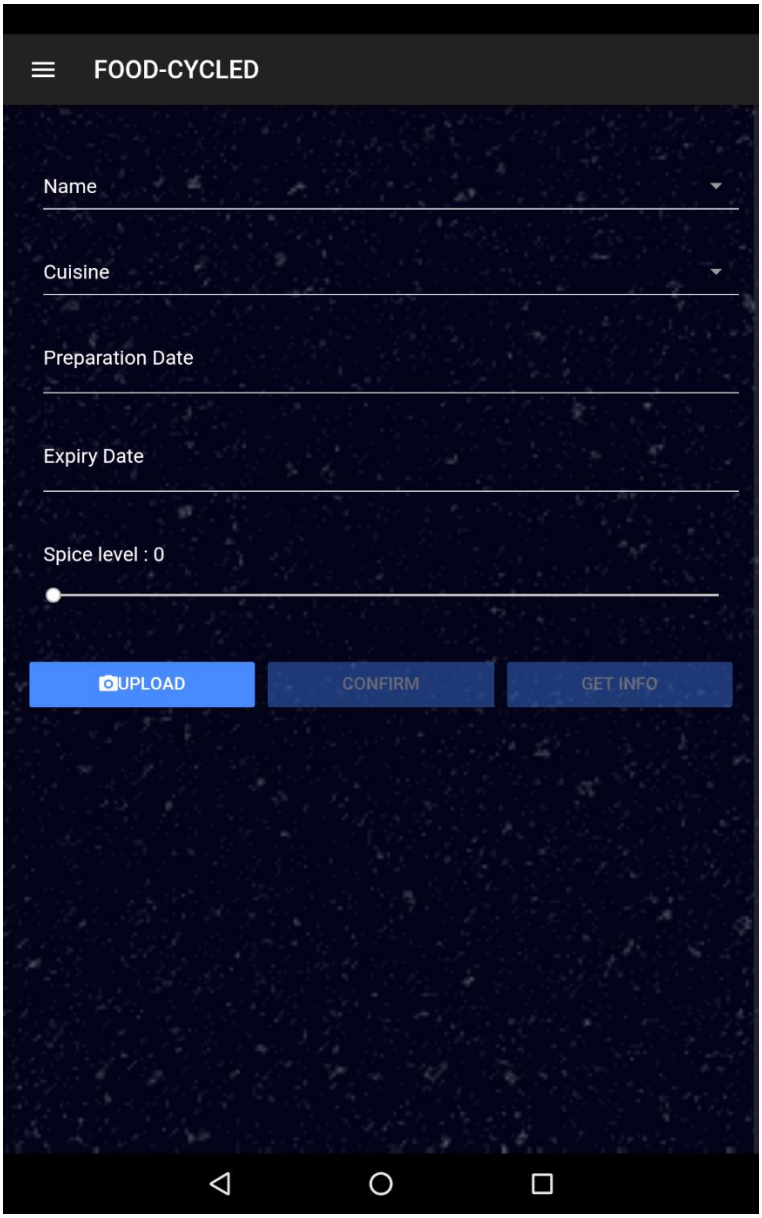


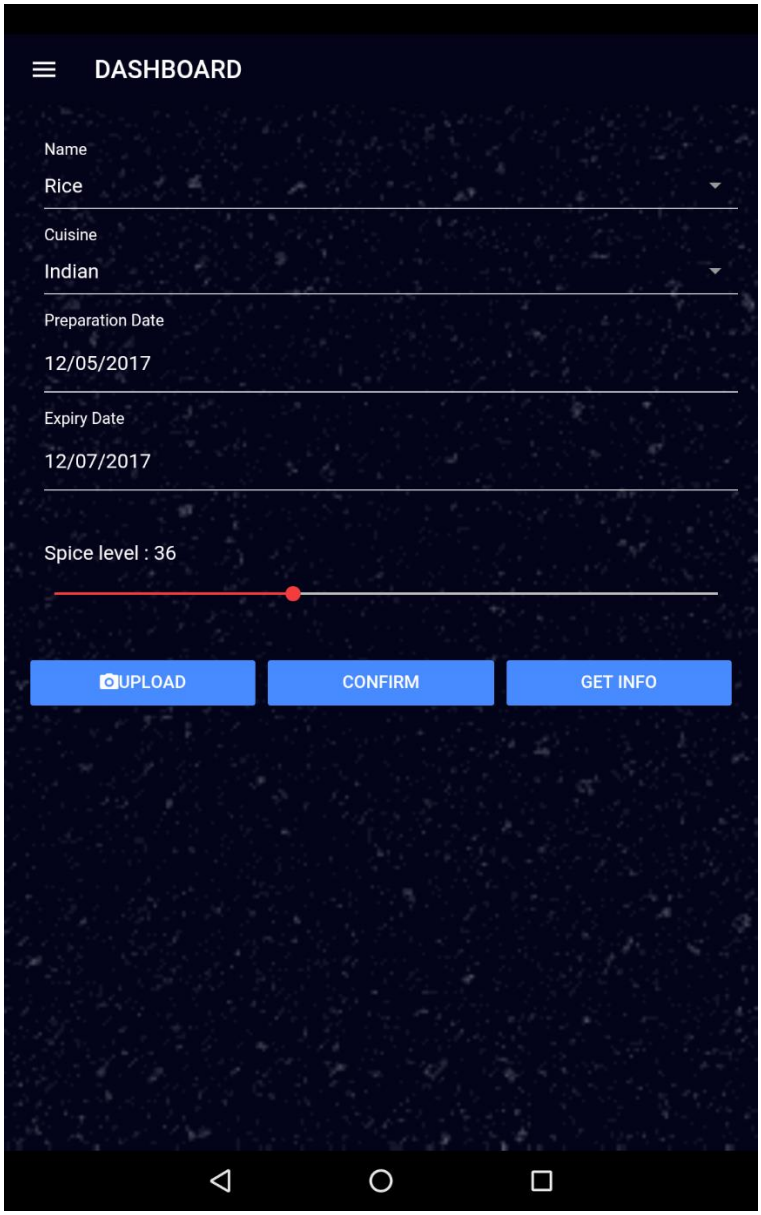
USER DASHBOARD PAGE

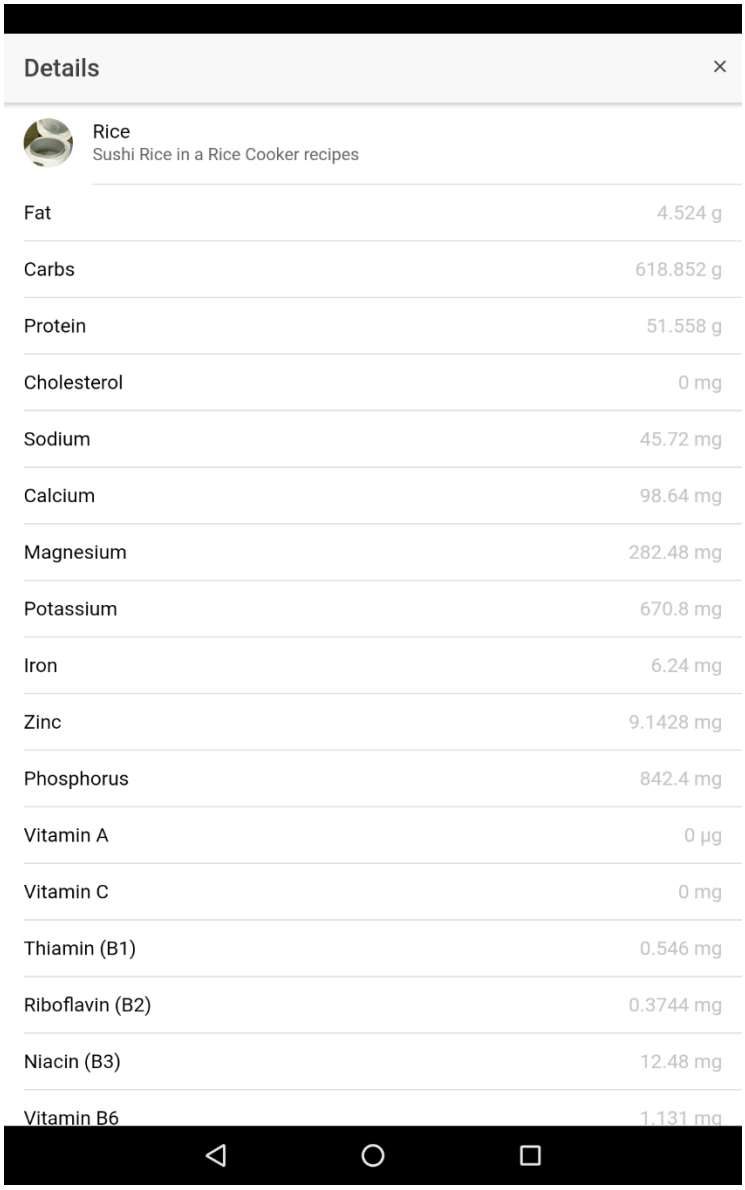



Menu
About Us
Dashboard
Upload Food
Soup Kitchens
Feedback
Thank You
Contact Us
Logout
PROFILE
Pizza
Pizza
Rice
Rice
Pizza
Rice
Rice
Rice
Rice
Rice
Rice

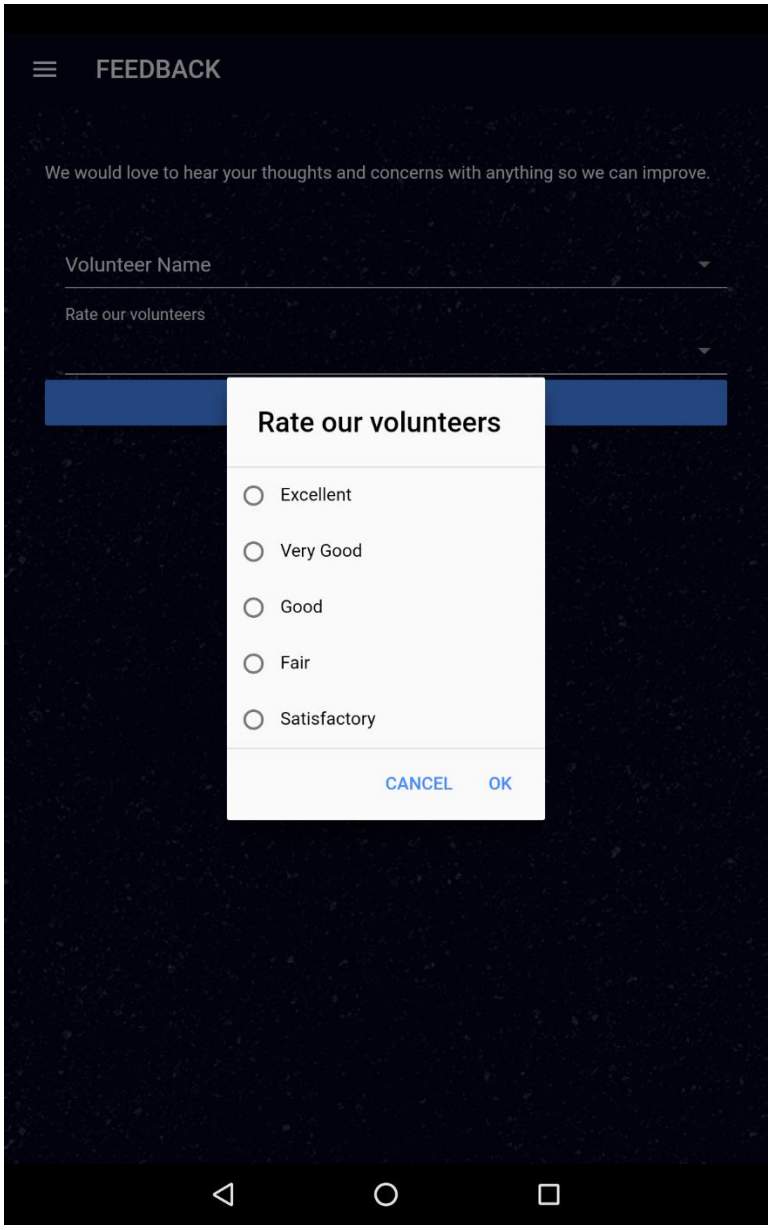
UPLOAD FOOD PAGE



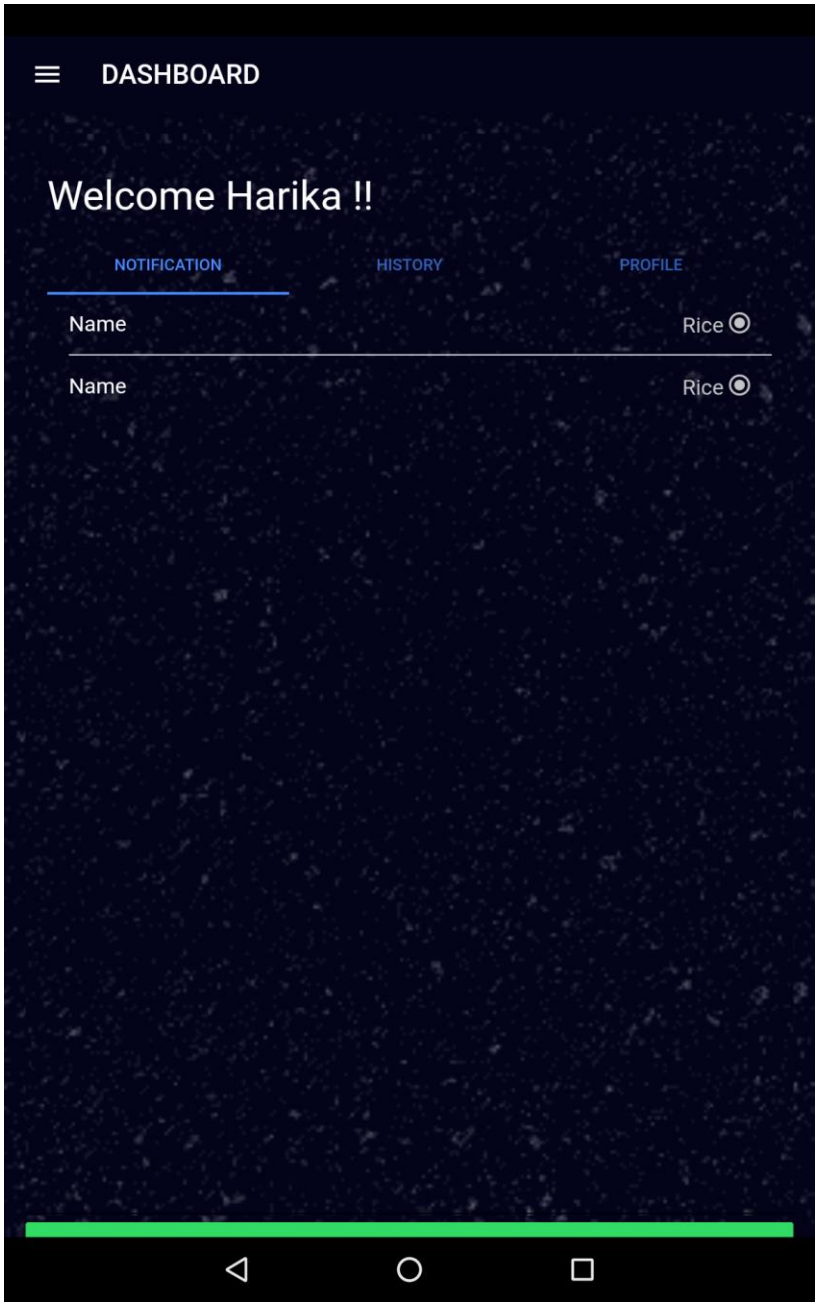

DASHBOARD
Name
Rice
Cuisine
Indian
Preparation Date
12/05/2017
Expiry Date
12/07/2017
Spice level : 36
UPLOAD
CONFIRM
GET INFO

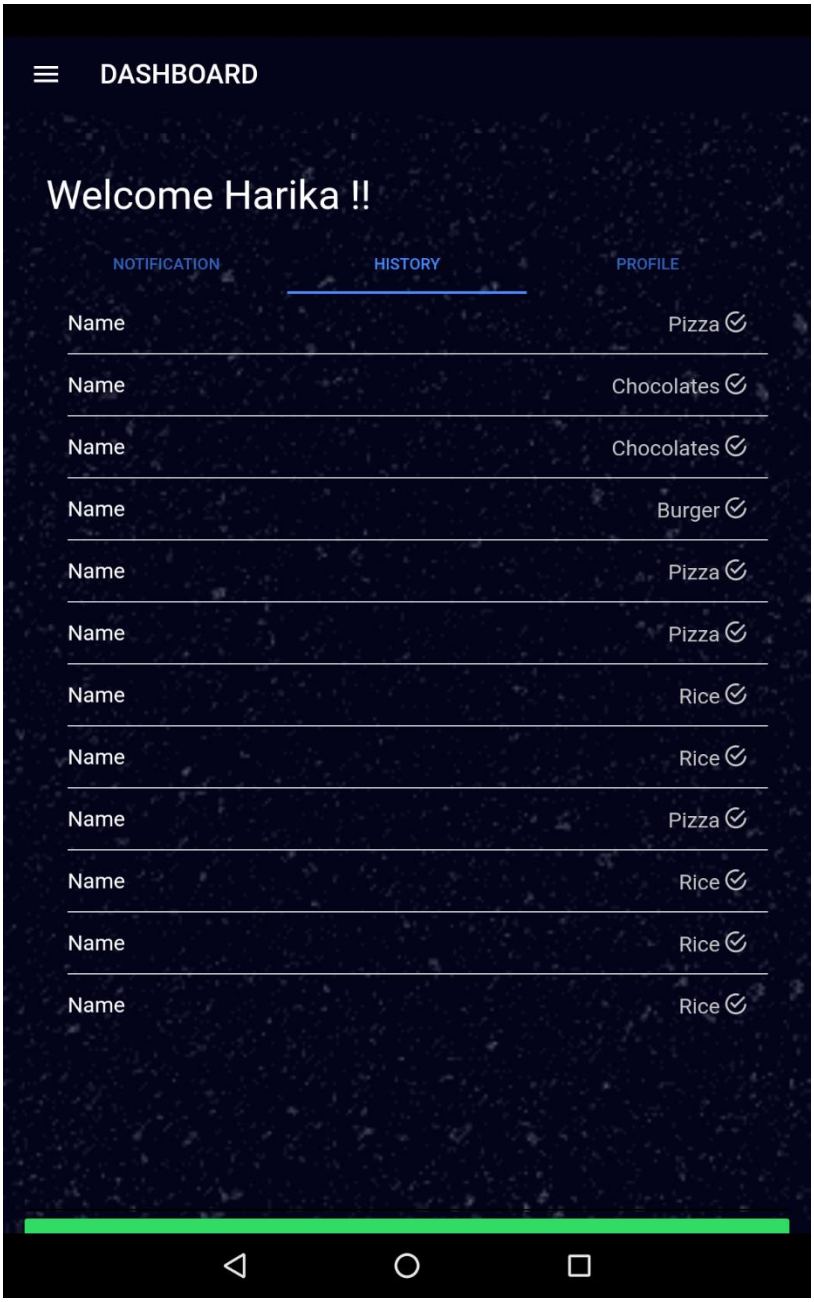

Details
Rice
Sushi Rice in a Rice Cooker recipes
Fat 4.524 g
Carbs 618.852 g
Protein 51.558 g
Cholesterol 0 mg
Sodium 45.72 mg
Calcium 98.64 mg
Magnesium 282.48 mg
Potassium 670.8 mg
Iron 6.24 mg
Zinc 9.1428 mg
Phosphorus 842.4 mg
Vitamin A 0 µg
Vitamin C 0 mg
Thiamin (B1) 0.546 mg
Riboflavin (B2) 0.3744 mg
Niacin (B3) 12.48 mg
Vitamin B6 1.131 mg

FEEDBACK PAGE

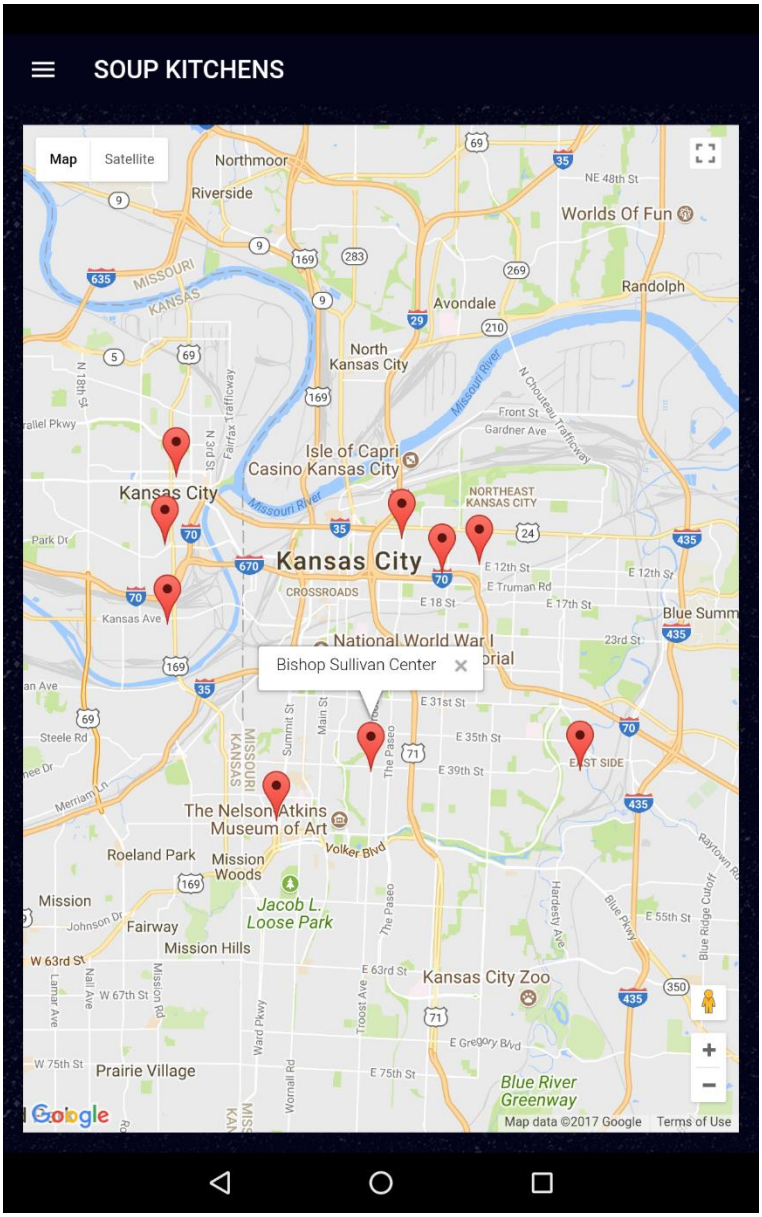


VOLUNTEER DASHBOARD

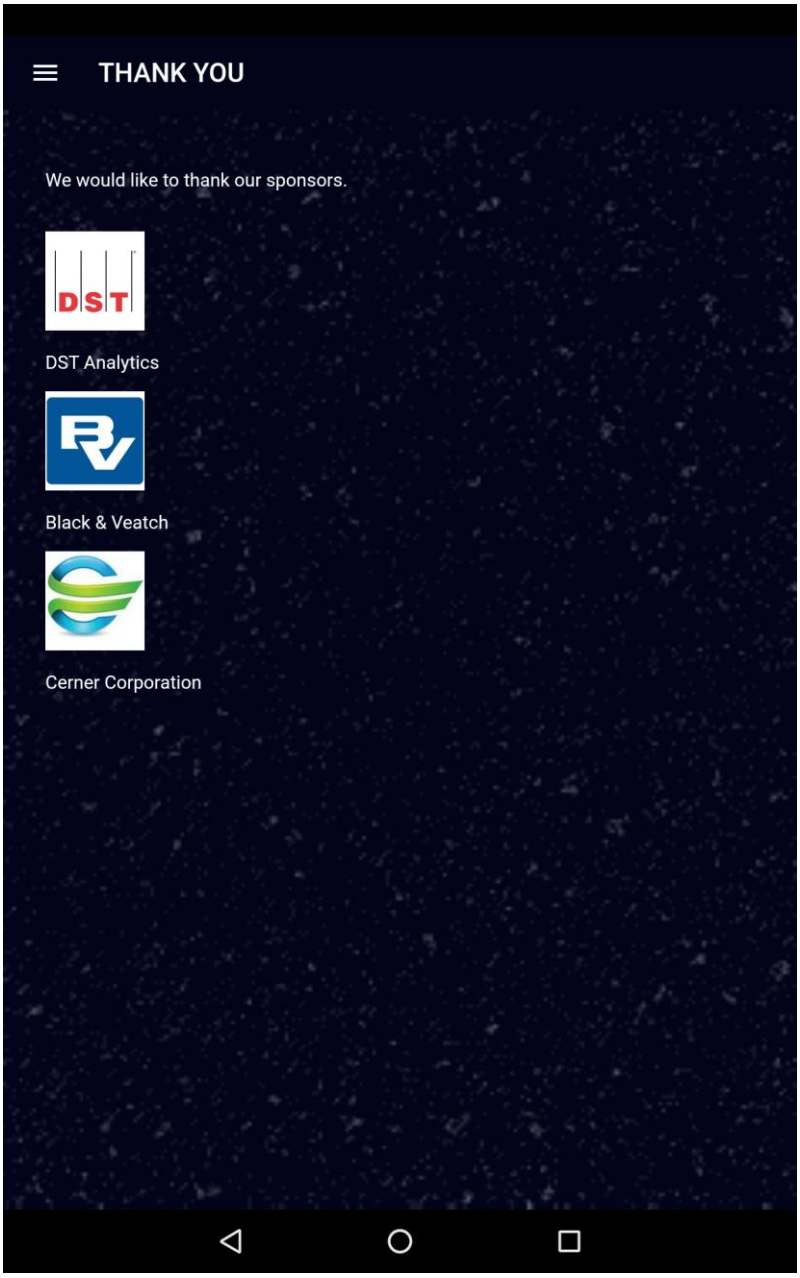



DASHBOARD
Welcome Harika !!
NOTIFICATION
HISTORY
PROFILE
Name Pizza
Name Chocolates
Name Chocolates
Name Burger
Name Pizza
Name Pizza
Name Rice
Name Rice
Name Pizza
Name Rice
Name Rice
Name Rice

SOUP KITCHENS



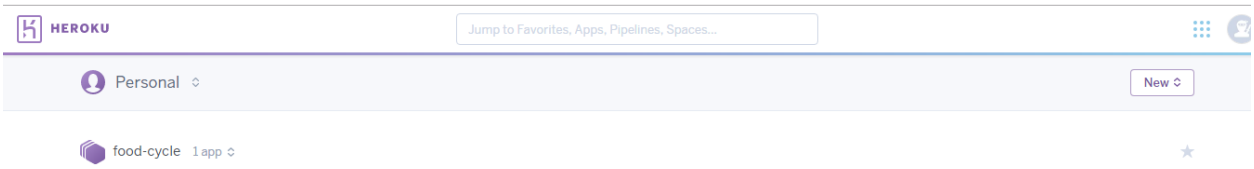
THANK YOU PAGE



VI. DEPLOYMENT

Heroku :

We have deployed the application in Heroku .



Youtube Link to our Application Demo : https://youtu.be/Lxj-A1iWmPI

Source Code Github Link : https://github.com/shreyaabadri/CS5551_team1_project/tree/harika/code

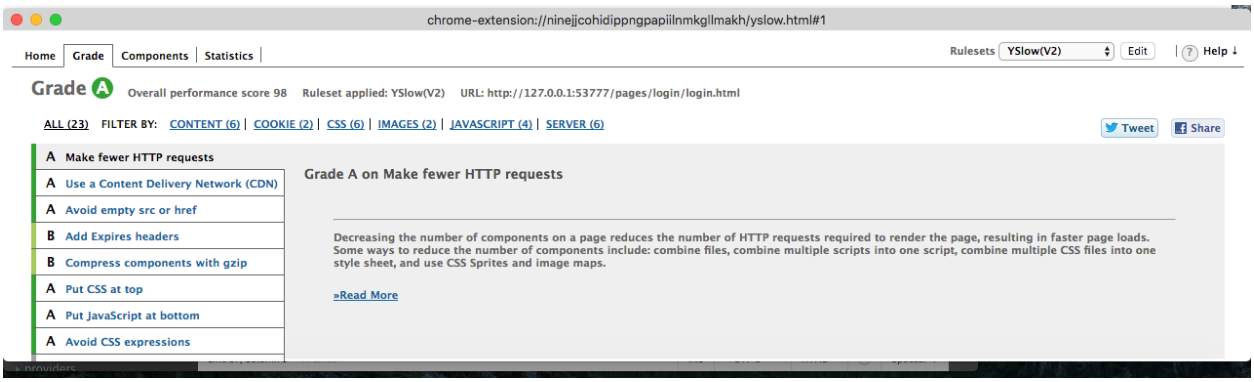
DropBox link for Complete Project : https://www.dropbox.com/s/72j75wbdkq3grqk/food.rar?dl=0

VII. TESTING

i. UNIT TESTING

Sr No	Test Case	Description	Expected Outcomes	Result
1	**Successful Authentication (Single Login for User and Volunteer)**	User and Volunteer should be able to Login with the Email and password they provided while registering	Successful Login	Pass
2	**Unsuccessful Authentication**	Provides wrong credentials	Login Unsuccessful with error prompts	Pass
3	**Successful OAuth Login (Facebook and Google+ login)**	User or Volunteer provides correct credentials	Successful login	Pass
5	**Registration Page**	User and Volunteer should be able to successfully register by providing their role.	Successful Registration	Pass
6	**Upload Food Page**	User should be able to get nutrition information of the food	Nutrition details	Pass

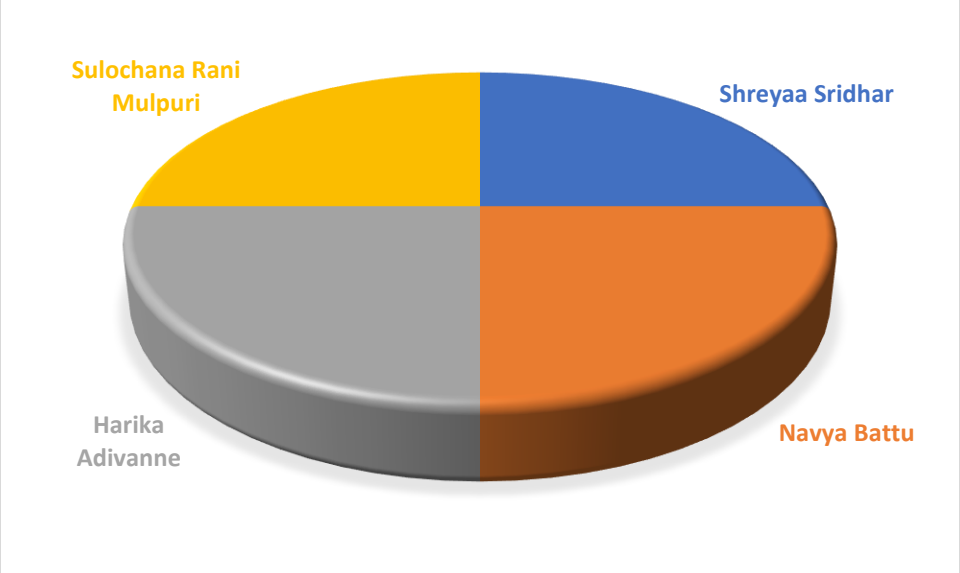
ii. PERFORMANCE TESTING



VIII. TECHNOLOGY USED

- Android SDK
- HTML
- CSS
- Ionic
- Firebase
- PostgreSQL
- Heroku

IX. PROJECT MANAGEMENT



X. BIBLIOGRAPHY

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http://ionicframework.com/

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https://developers.facebook.com/

https://developers.google.com/

https://firebase.google.com/

https://www.postgresql.org/docs/