

YourNextMeal.com

A step closer to food equity



**A Project Report
Presented to
CMPE-272
Fall, 2022**

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ABSTRACT

YOURNEXTMEAL.COM

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At present, the world is facing a hunger crisis of unprecedented proportions. Pre-pandemic, food insecurity affected 135 million people in 53 nations; today, it affects 345 million people in 82 countries (Source: World Food Programme). Climate change and the current conflict in Ukraine are all contributing to the crisis's escalation by raising the price of food, fuel, and fertilizer. In addition, the bulk of extra food is wasted, which is sent directly to landfills and incinerators. A staggering 35% of the 229 million tons of food that were available in 2019 in the U.S. alone went unsold or uneaten. As technology students, our goal is to help people fulfill their urgent food needs by establishing an ecosystem of food donors and recipients so that businesses and individuals who have extra food can donate it to those in need, hence decreasing food waste and lessening the number of people sleeping hungry.

Currently, there appears to be a lack of a network of organizations and volunteers engaged in this activity, and neither donors nor recipients seem particularly motivated to do so. Food wastage as a result of ineffective or delayed distribution is a serious concern as well. “**YourNextMeal**” is a platform that will bridge the gap between food donors (restaurants and individuals) and those in need of food via the charity organizations advancing this worthwhile cause. In order for the excess food to reach those in need, the donors can use the network of drivers (non-profit organizations) by either giving it to volunteers or by dropping it off in person at food collection sites. The communication between donors and receivers would be facilitated by establishing a system of requests and acknowledgements on “**YourNextMeal**”. Individuals who can drive and are keen to assist with distribution operations can also join as volunteers and help with transportation concerns. By communicating with the distributor through photographs, the donors can further confirm that their food has reached the appropriate people.

Acknowledgements

We'd like to express our gratitude and appreciation to everyone who helped us complete this project. Mr. Andrew Bond, our professor, deserves special mention for his aid, stimulating suggestions, and encouragement throughout the fabrication process and report writing. We are grateful to every one of our classmates, especially our friends, who volunteered their time to help and support us in the development of our project.

Table of Contents

Chapter 1 Introduction

- 1.1 Project goals and objectives
- 1.2 Problem and motivation
- 1.3 Project application and impact
- 1.4 Project results and deliverables
- 1.5 Project report structure

Chapter 2 Project Background and Related Work

- 2.1 Project background
- 2.2 Project concept
- 2.3 Technology used

Chapter 3 System Requirements and Analysis

- 3.1 Domain and business requirements
- 3.2 Customer-oriented requirements
- 3.3 System function requirements
- 3.4 System performance and non-functional requirements
- 3.5 System behavior requirements

Chapter 4 System Design

- 4.1. System architecture design
- 4.2. System data and database design
- 4.3. System interface and connectivity design
- 4.4. System user interface design
- 4.5. System component API and logic design

Chapter 5 System Implementation

- 5.1. System implementation summary
- 5.2. System implementation issues and resolutions
- 5.3. Used technologies and tools

Chapter 6 System Testing and Experiment

- 6.1 Testing and experiment scope
- 6.2 Testing and experiment approaches
- 6.3. Testing and experiment results

Chapter 7 Conclusion and Future Work

- 7.1 Project summary
- 7.2 Future work

List of Figures

Figure 1. US households by food security status 2021	Page No. 3
Figure 2. UML activity diagram	Page No. 6
Figure 3. State decomposition diagram	Page No. 7
Figure 4. State diagram	Page No. 8
Figure 5. System behavior requirements	Page No. 10
Figure 6. System architecture design	Page No. 11
Figure 7. System data and database design	Page No. 12
Figure 8. System interface and connectivity diagram	Page No. 12
Figure 9. System user interface design	Page No. 13
Figure 10. System component and API logic design	Page No. 18
Figure 11. Testing and experiment scope	Page No. 24

List of Tables

Table 1. System function requirements

Page No. 9

Table 2. Testing and experiment results

Page No. 32

Chapter 1. Introduction

1.1 Project goals and objectives

The main goal of “YourNextMeal.com” is to help people fulfill their urgent food needs by establishing an ecosystem of food donors and recipients so that food wastage is reduced and fewer people sleep hungry.

“YourNextMeal.com” is a platform that will bridge the gap between food donors and recipients so that excess food reaches those in need via the network of drivers or through drop-off at food collection centers.

1.2 Problem and motivation

The world is currently experiencing an extreme hunger crisis. Food insecurity afflicted 135 million people in 53 countries prior to the pandemic; it now impacts 345 million people in 82 countries (Source: World Food Programme). Climate change, as well as the present conflict in Ukraine, are all contributing to the crisis's aggravation by rising food, gasoline, and fertilizer prices. Furthermore, the majority of additional food is wasted and is shipped directly to landfills and incinerators. In the United States alone, 35% of the 229 million tons of food available in 2019 went unsold or uneaten. There appears to be a lack of a network of organizations and volunteers involved in this activity at the moment, and neither donors nor recipients appear particularly motivated to do so. Food waste as a result of poor or delayed distribution is also a major concern.

1.3 Project application and impact

"YourNextMeal.com" is a platform that will connect food donors (restaurants and individuals) with those in need of food through the charity organizations who are furthering this good cause. Donors can use the network of drivers (non-profit organizations) to get excess food to those in need by donating it to volunteers or dropping it off in person at food collection sites. Establishing a system of requests and acknowledgements on "YourNextMeal.com" would ease communication between contributors and recipients. Individuals who are able to drive and want to help with distribution operations can also join as volunteers and aid with transportation issues. Donors can confirm that their food has reached the right people by interacting with the distributor through images.

We are confident that this technology can be improved and monetized by charging restaurants and supermarket chains a monthly fee. Subscribers to this service will gain insight into food waste, itemized tax deductions, and the ability to advertise their brand to individuals.

1.4 Project results and expected deliverables

- Components:
 1. Donors:
 - Registration
 - Profile
 - Create Donation Request
 - Cancel/Update Created Donation Request
 - View Drop Off Centers
 2. Recipients:
 - Registration
 - Profile
 - Search Nearest Pickup
 - View Active Donation Request
 - Accept/Cancel Pickup Request
 - View Pick up Centers
- Project Deliverables:
 1. Source Code URL - https://github.com/kotharisanjana/Code_Our_Souls/tree/main/Project-YourNextMeal.com
 2. Report
 3. Presentation
 4. Demo Video URL - https://youtu.be/IF_JdTrCyO0

1.5 Project report Structure

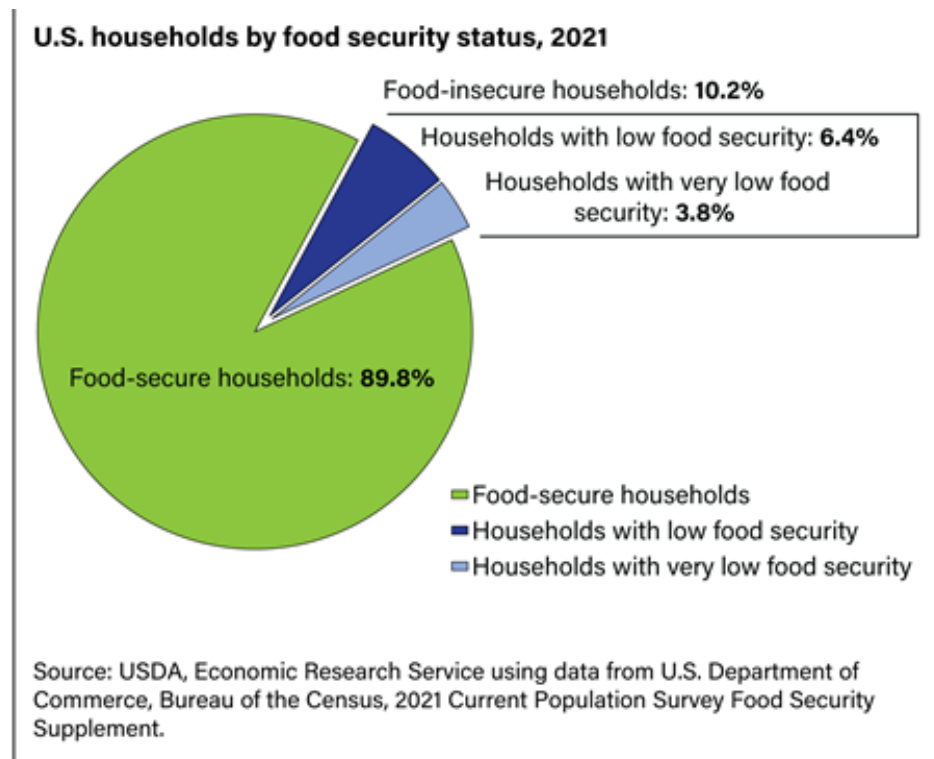
The structure of this project report is followed as per the Table of Contents.

- Introduction
- Project Background and Related Work
- System Requirements and Analysis
- System Design
- System Implementation
- System Testing and Experiment
- Conclusion and Future Work

Chapter 2. Background and Related Work

2.1 Project Background

This idea came up after seeing the data regarding the food wastage and the people suffering from food insecurity.



108 billion pounds of food wasted in the United States each year

\$408 billion in food thrown away each year

Nearly **40% of all food** in the United States

13.5 million of U.S. households suffered from food insecurity

Source:
[Feeding America](#)
[U.S. Department of Agriculture](#)

2.2 Project Concept

“YourNextMeal.com” is a platform that will bridge the gap between food donors and recipients so that excess food reaches those in need via the network of drivers or through drop-off at food collection centers. By donating it to volunteers or dropping it off in person at food collecting locations, donors can use the network of drivers (non-profit organizations) to get extra food to those in need. It would be simpler for contributors and recipients to communicate if "YourNextMeal.com" established a system of requests and acknowledgements. Drivers who want to assist with distribution operations can also sign up as volunteers and provide assistance with transportation concerns. Donors can communicate with the distributor through photos to verify that their food has reached the intended recipients.

2.3 Technology Used

Backend

- Django , Rest API Framework
- AWS, Lambda functions, S3
- Send Mail python package for notifications
- JWT based authentication

Frontend

- ReactJS
- BootStrap (Styling)
- Local Storage

Cloud

- AWS
- IGW, ELB, EC2

Database

- MongoDB

Architecture

- RestAPI Architecture
- Github, Jenkins

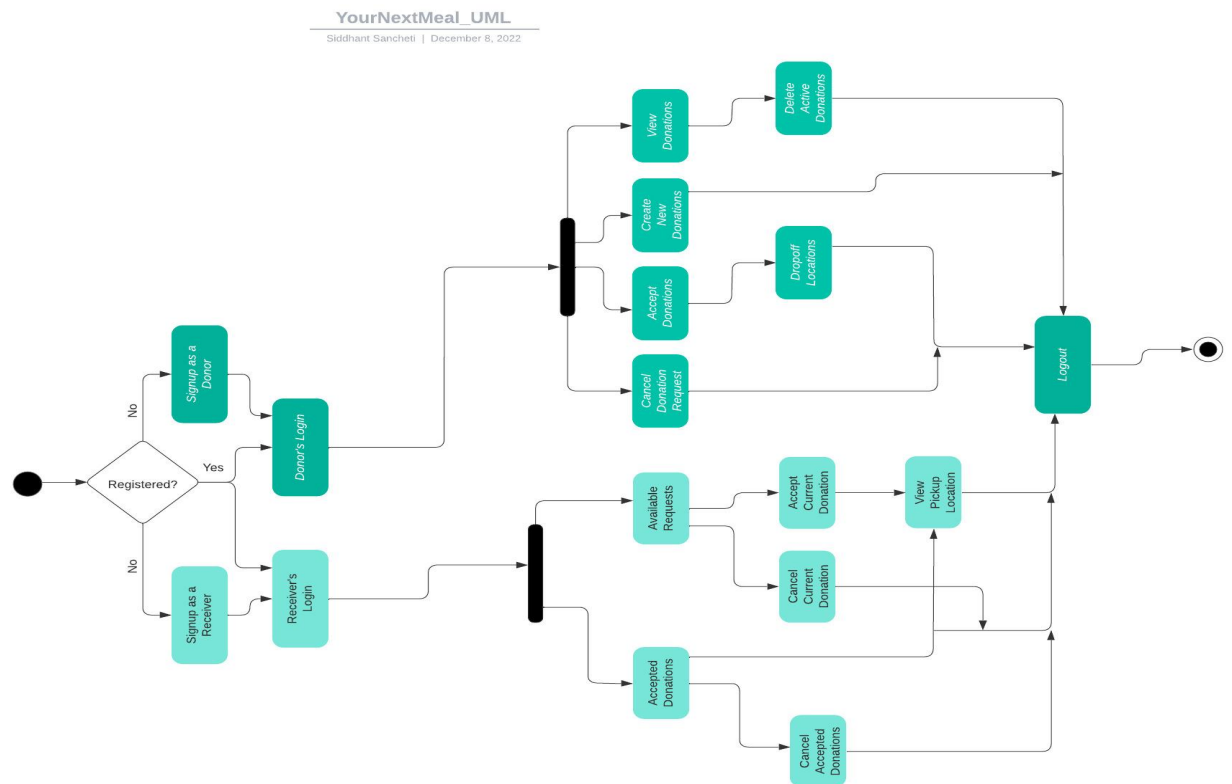
Chapter 3. System Requirements and Analysis

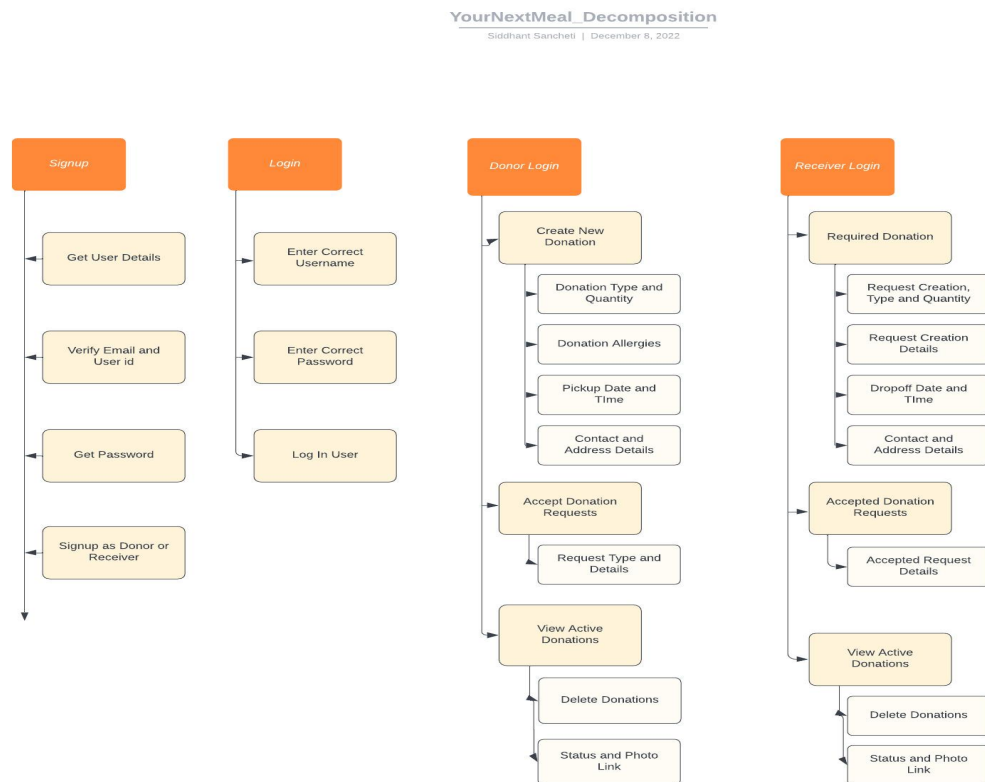
3.1. Domain and business Requirements

“YourNextMeal” is a food-aid web application that serves as a dual platform for F&Bs, charities, and needy individuals to connect with one another. For the excess food to reach those in need, the donors can use the network of drivers (non-profit organizations) by either giving it to volunteers or dropping it off in person at food collection sites. As a registered donor, he/she should be able to create new donations with details like type and quantity, view active and previous donations, accept/cancel the receiver, and provide pickup and drop off of donated goods.

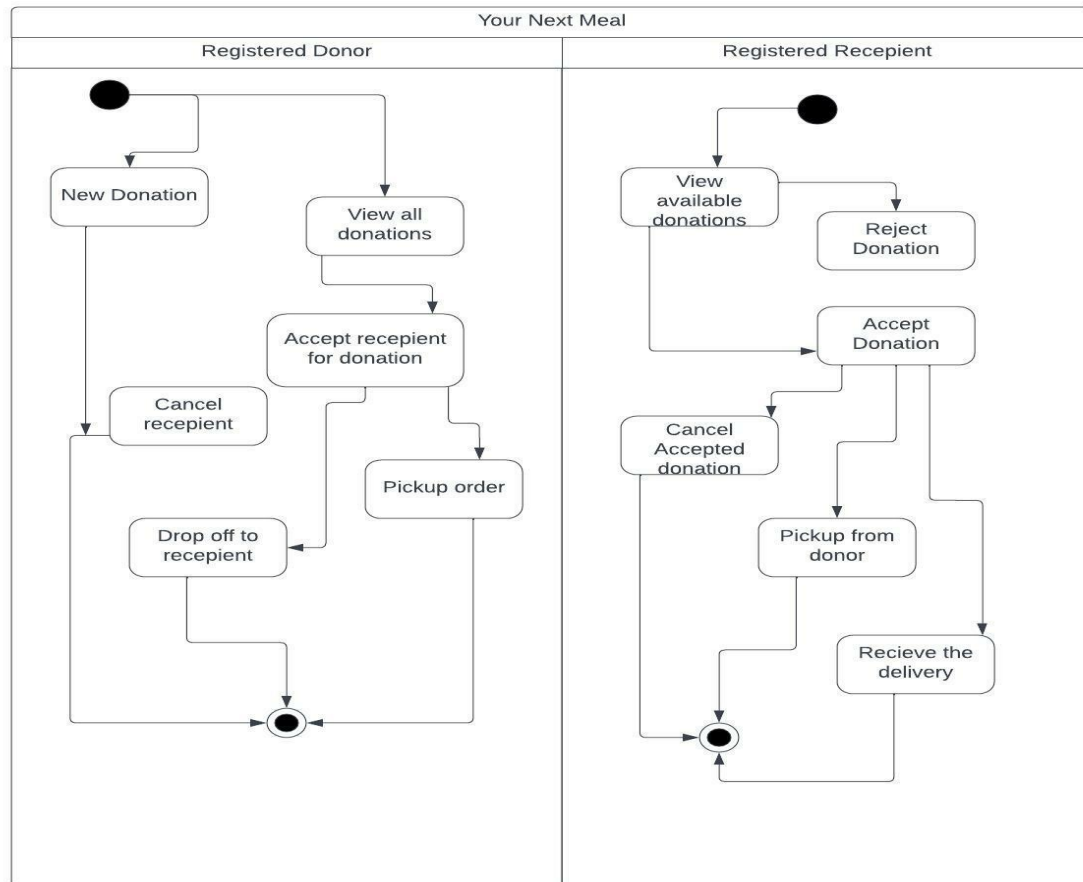
We, herewith, took a stance for those benevolent humans of non-profit charitable organizations, or even individuals in need, and developed a seamless platform to look for live donations. As a registered receiver, an individual should be able to view donations nearby, search for the required donations, and accept and reject the donations. An option to pick up the goods or have them dropped off at the provided location. The communication between donors and receivers would be facilitated by establishing a system of requests and acknowledgments on **“YourNextMeal”**.

This intention was brought keenly to execution and live with the following basic design workflows.

A. UML Activity Diagram:

B. State Decomposition Diagram:

C. State Diagram:



3.2. Customer-oriented requirements

User groups:

- Donors - Individuals, Restaurants, Grocery stores

The donors include those entities that have excess food and wish to donate to those in need. The food is expected to be fresh and can be consumed safely by the recipient. Donors include individuals, restaurants and grocery stores. On "YourNextMeal.com", donors can create donation requests by specifying the food quantity, description of food, the type of donation (meals/grocery, etc.). The donor has to also provide the pickup address and pickup date and time for the recipient.

- **Recipients - Individuals, Shelter homes, Social service workers**
Recipients on the other hand are those who suffer from food insecurity for any reason and are willing to accept food donated by others. As a recipient, you can accept a donation request, therefore notifying the donor of the recipient coming to pick up their food. Recipients can also cancel a request that they have already accepted. Food center details are also available so that recipients can pick up food from there as well.

3.3. System (or component) function requirements

Functional Requirement	Inputs	Output
User signup/registration	Details like name, address, contact, as inputted by the user	Success/Failure message. If registration is unsuccessful, the user is not added.
Login	Username and password	Login successful/failure message. User session created on successful login.
Donation Request	Form inputting donation details	If a request is created successfully, the donation request will be visible to all recipients on the portal.
Cancel Existing Request	RequestID of the request to be canceled	For the request identified by the ID, the status is changed to 'canceled' and is not available to recipients anymore.
View Active Requests		Displays all active requests to the recipients.
Accept Donation Request	RequestID of the donation accepted by the user	The accepted request is tagged to the recipient who accepted it. This request is removed from the available active requests.
Cancel Accepted Request	RequestID of the donation request that has to be canceled	Request is canceled and removed from the recipient's view who accepted it. The canceled request is now available for other recipients to accept.

Dropoff/ Pickup centers		Displays the food dropoff/ pickup centers along with address and contact details.
Logout		User logged out and session is deleted.

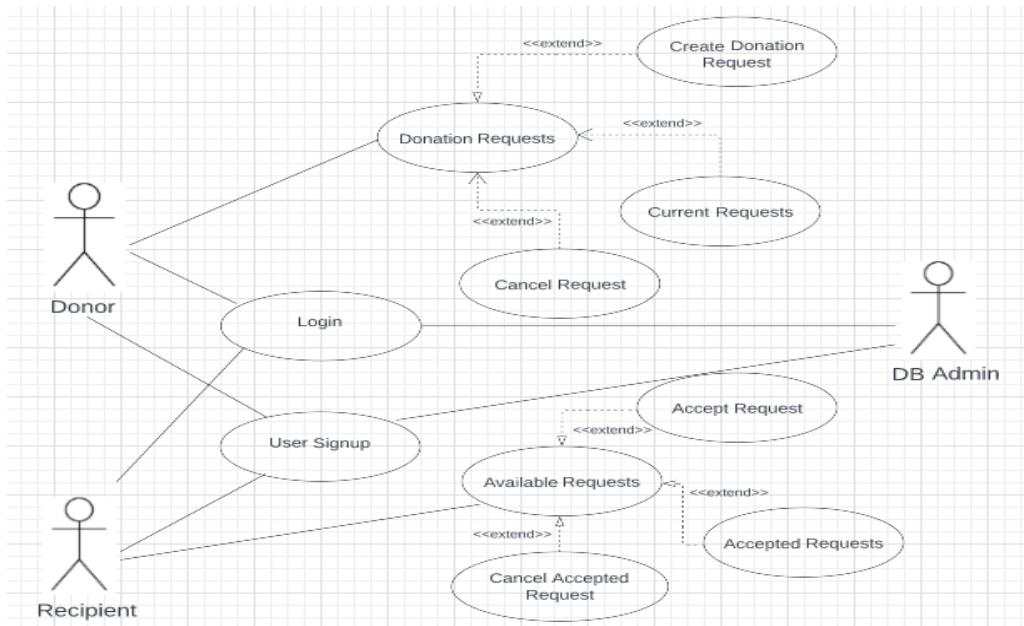
3.4. System performance and non-functional requirements

Performance and Scalability : Should be able to handle 100 Donors and 1000 Recipients for the initial rollout. Concurrent 5 donors and 20 recipients

Security : Should use https and SSL certificates (self signed) for the website to keep secure communication.

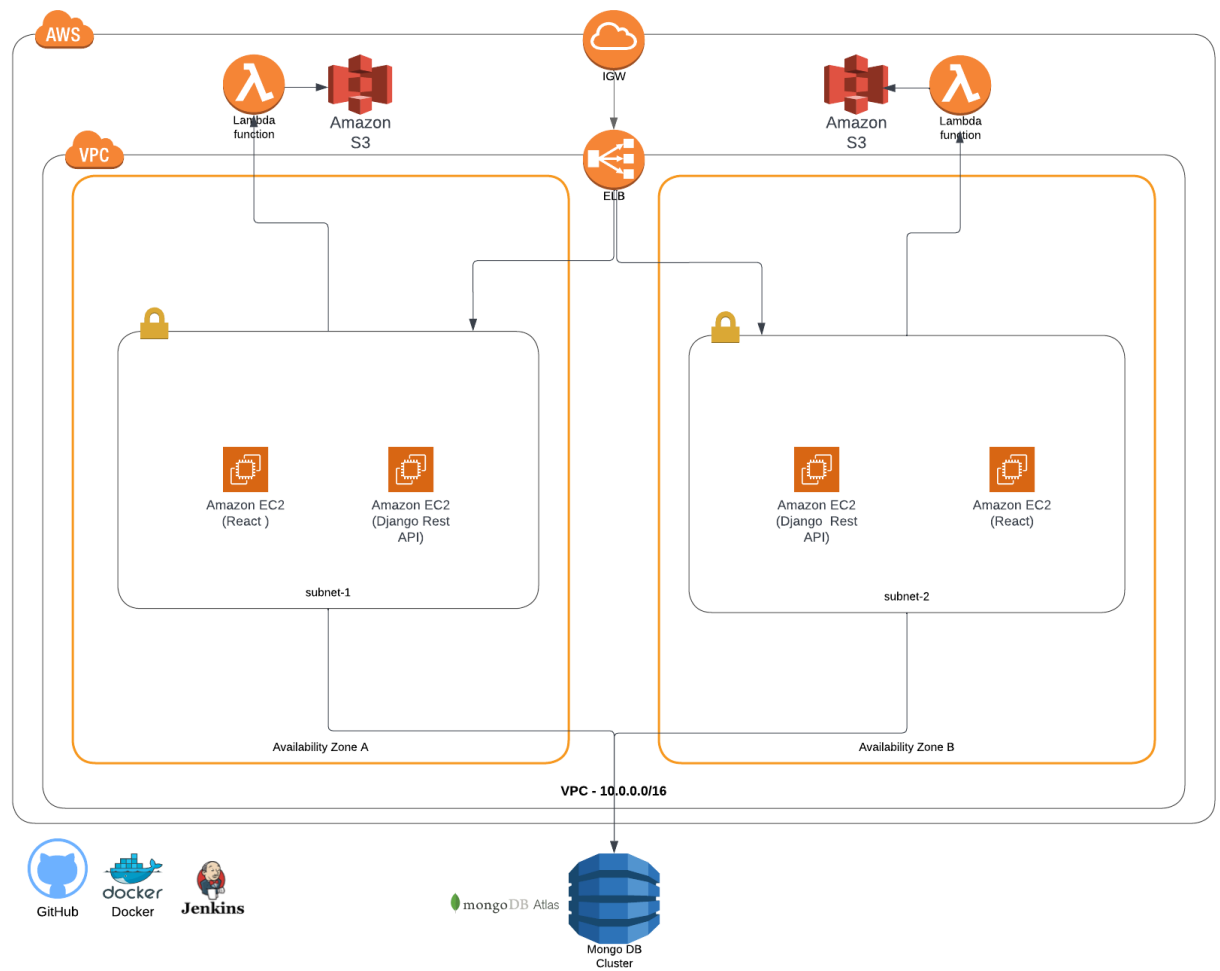
Token Based Authentication : Once a user is authenticated, a token is generated and used for all future transactions during the user session.

3.5. System behavior requirements

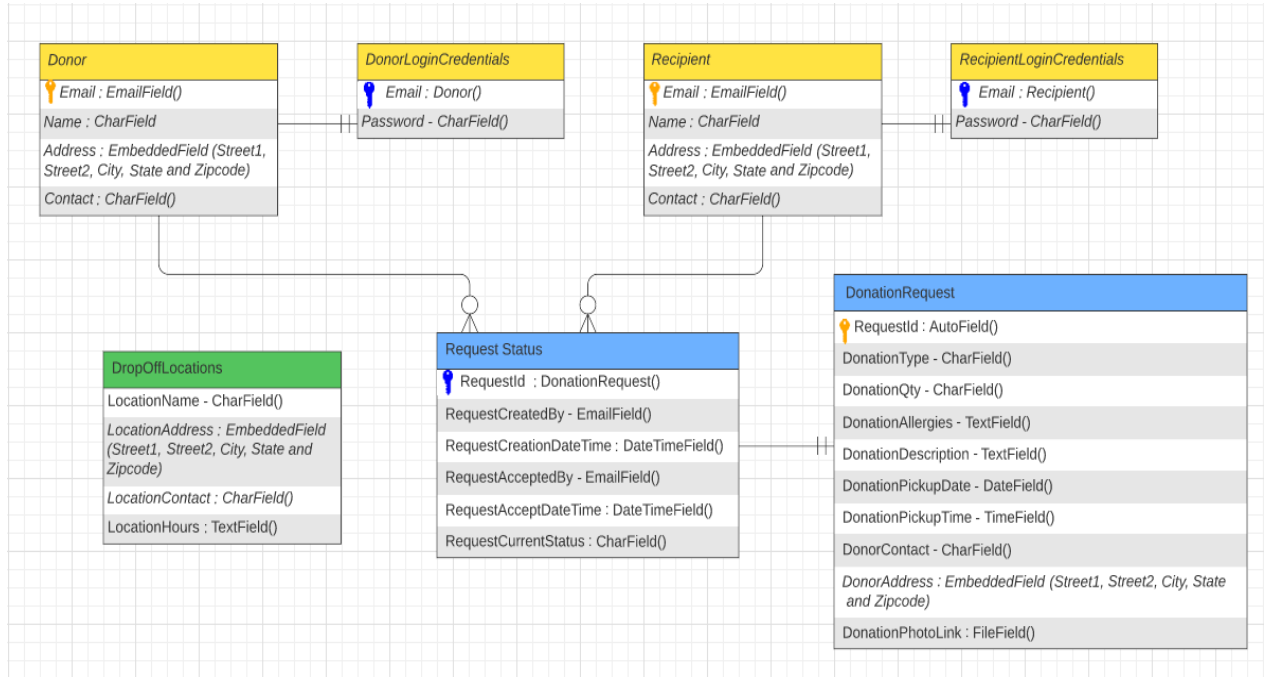


Chapter 4. System Design

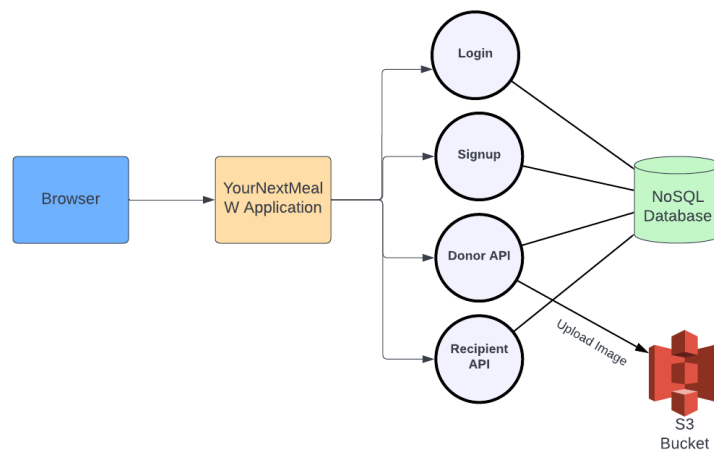
4.1 System architecture design



4.2 System data and database design

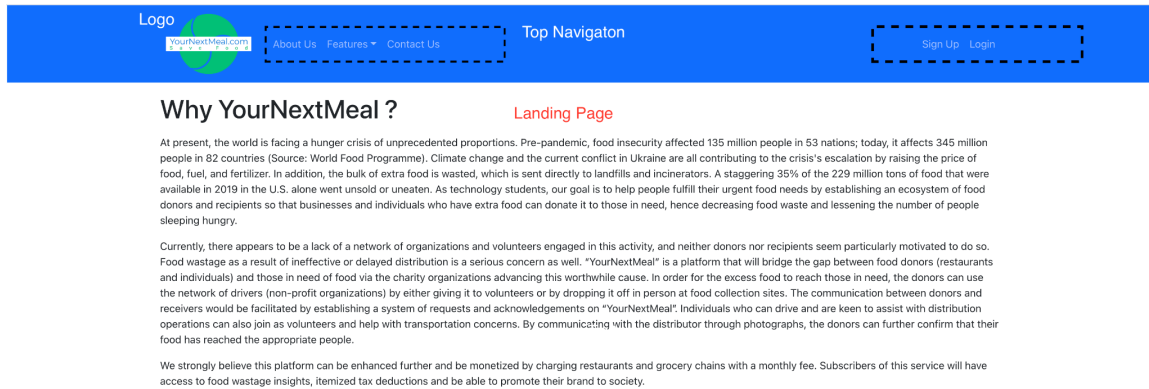


4.3 System interface and connectivity design



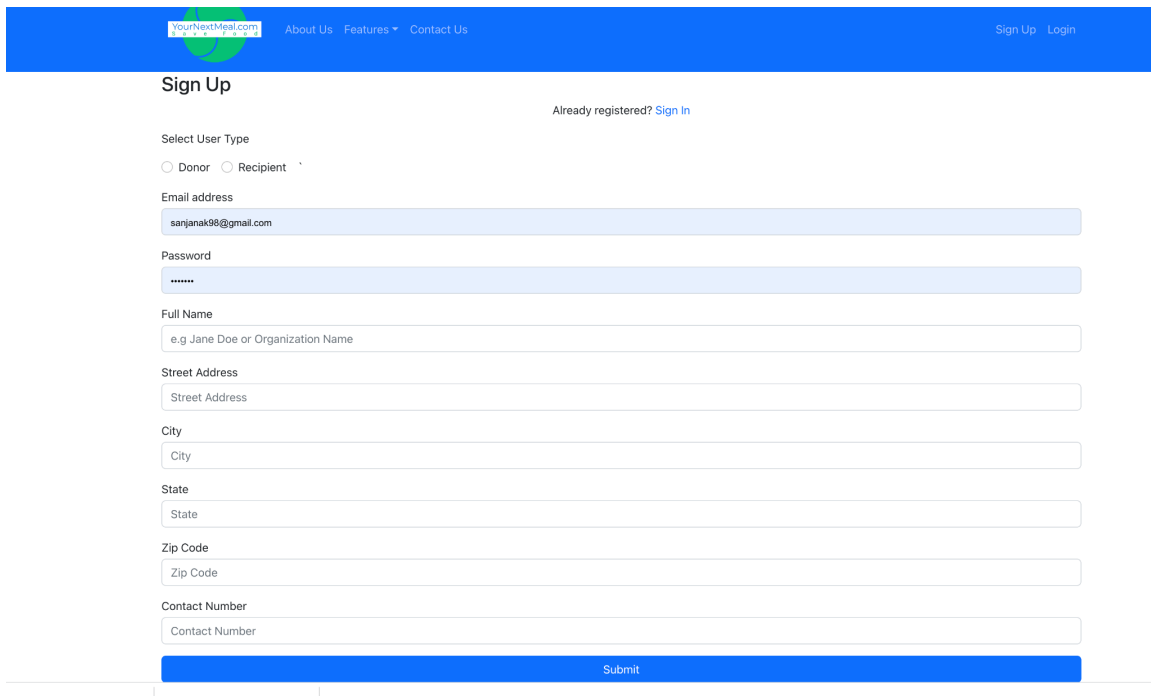
4.4 System user interface design

Landing Page




The screenshot shows the landing page of the YourNextMeal website. The header is blue with the logo on the left, navigation links (About Us, Features, Contact Us) in the center, and Sign Up / Login links on the right. The main content area has a title "Why YourNextMeal?" and a sub-header "Landing Page". The text describes the global hunger crisis and the platform's mission to bridge the gap between food donors and recipients. It mentions that the platform is currently in development and aims to help people fulfill their urgent food needs by establishing an ecosystem of food donors and recipients. The text also mentions that the platform will be monetized by charging restaurants and grocery chains with a monthly fee.

Signup Page:



The screenshot shows the signup page of the YourNextMeal website. The header is blue with the logo on the left, navigation links (About Us, Features, Contact Us) in the center, and Sign Up / Login links on the right. The main content area has a title "Sign Up" and a sub-header "Already registered? Sign In". The form includes fields for Select User Type (Donor or Recipient), Email address (sanjanak98@gmail.com), Password (*****), Full Name (e.g. Jane Doe or Organization Name), Street Address, City, State, Zip Code, and Contact Number. A blue Submit button is at the bottom.

Login Page :



About Us Features Contact Us

Sign Up Login

Sign In

Not registered yet? [Sign Up](#)

Select User Type

☐ Donor ☐ Recipient

Email address

sanjanak98@gmail.com


Password

Submit

Forgot [password?](#)

Donor Logged in pages

1. My Profile :



My Profile

Create Donation

My Donations

Dropoff Centers

Log Out

Email address

sanjanak98@gmail.com

Full Name

Sam

Street Address

4548 First St

City

San Jose

State

California

Zip Code

95668

Contact Number

6693505737

Edit Profile

2. Donation Request :

[My Profile](#)
[Create Donation](#)
[My Donations](#)
[Dropoff Centers](#)
[Log Out](#)

Create Donation Request

Select User Type

Open this select menu

Donation Qty

Enter Quantity

Allergies

Allergies

Donation Description

Enter Description

Pickup Date & Time (YYYY-MM-DD HH:MM)

Pickup Date

Pickup Time

Pickup Street Address

Street Address

City

City

State

State

Zip Code

Zip Code

Donor Contact Number

3. My Donations Page :

Actions	Donation Type	Description	Pickup Date & Time	Address	Pickup Accepted By	Status
Delete	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Accepted
Delete	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668		Active
Delete	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668		Active
Update	Others	5 boxes of sweets	2022-12-25 18:30:00	4548 First St, San Jose 95668		Cancelled
Delete	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	naga.bathula@gmail.com	Accepted
Delete	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Accepted

4. Dropoff locations :

YourNextMeal.com S · E · R · V · I · C · E · S			
Location Name	Location Address	Location Contact	Location Hours
San Jose Acorn - Food Distribution Center	1187 E Santa Clara St, San Jose 95116	(408) 293-1520	Mon - Fri 9am to 6pm, Sat - Sun 9am to 12pm

5. Left Navigation :

My Profile
Create Donation
My Donations
Dropoff Centers
Log Out

Recipient Logged in Pages :

1. Available Donation Requests

YourNextMeal.com S · E · R · V · I · C · E · S							
Actions	DonationType	DonationDescription	DonationQuantity	DonationPickupDate & Time	DonationAddress	Donor Contact Number	
Accept	Grocery	3lb wheat	1	2022-12-03 20:00:00	1187 E San Salvador St, San Jose 95668	(669) 350-5737	
Accept	Meals	Mexican	25	2022-12-12 09:30:00	4548 First St, San Jose 95668	(669) 350-5737	
Accept	Grocery	5 lb carrots, potatoes and onion	1	2022-12-03 07:30:00	4548 First St, San Jose 95668	(669) 350-5737	
Accept	Meals	10 burritos and taco plates	10	2022-12-05 09:00:00	627 South St, Fremont 56911	(669) 358-9556	

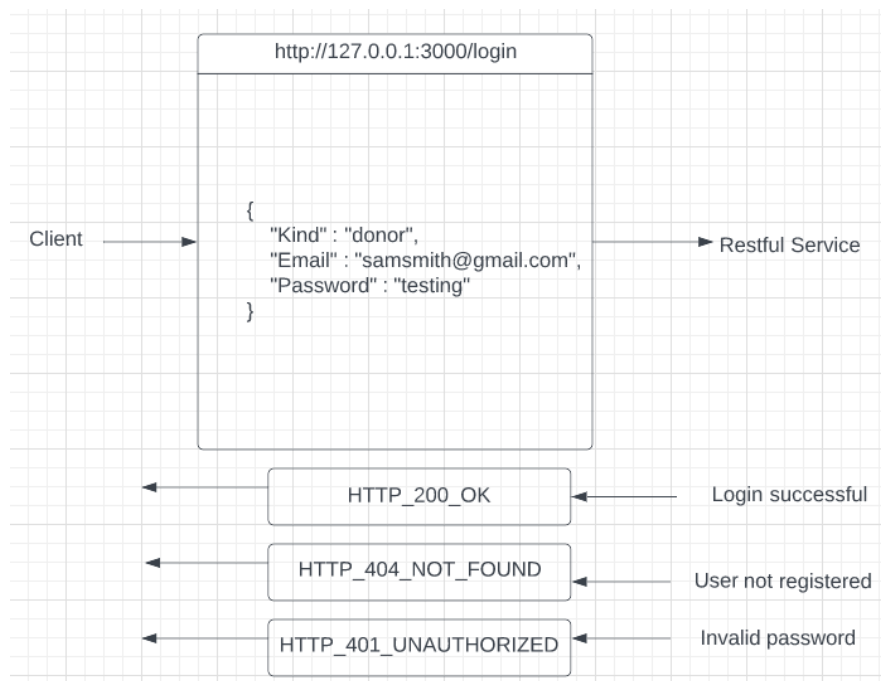
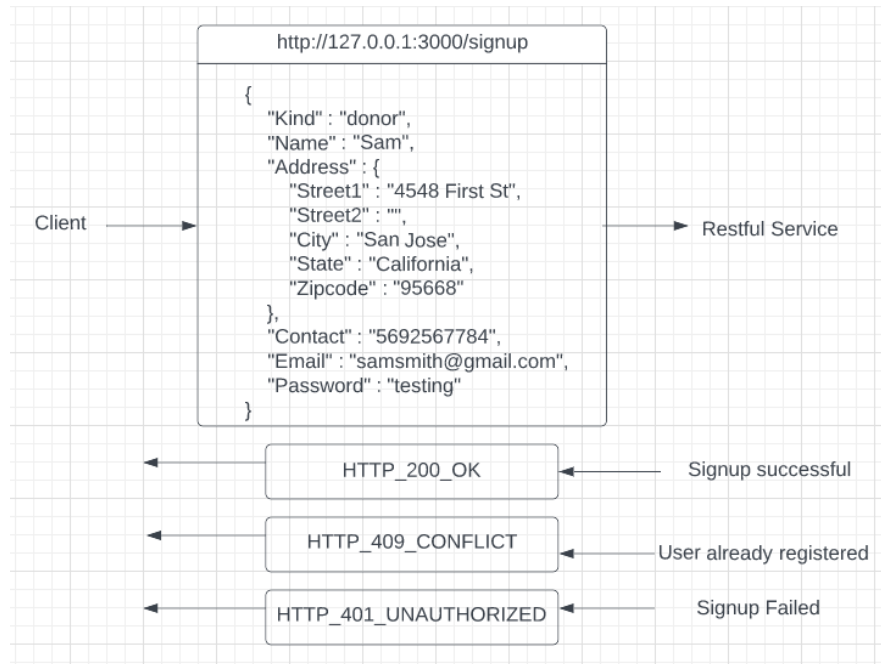
2. View my Accepted Donations

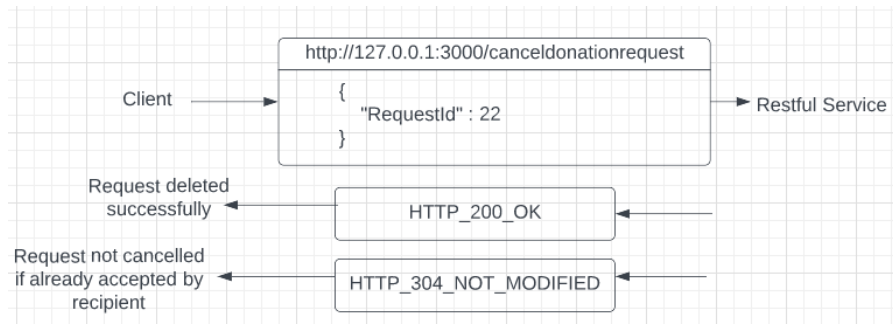
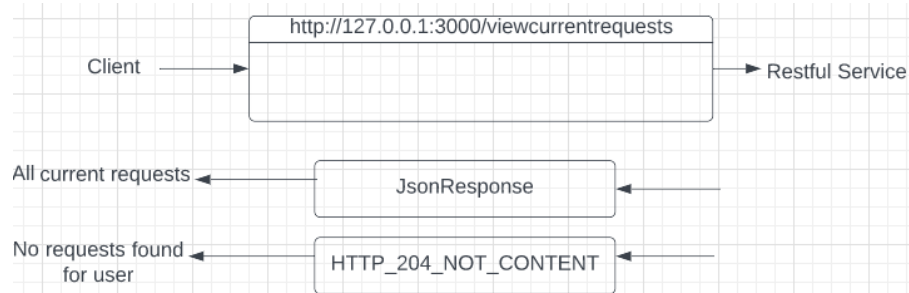
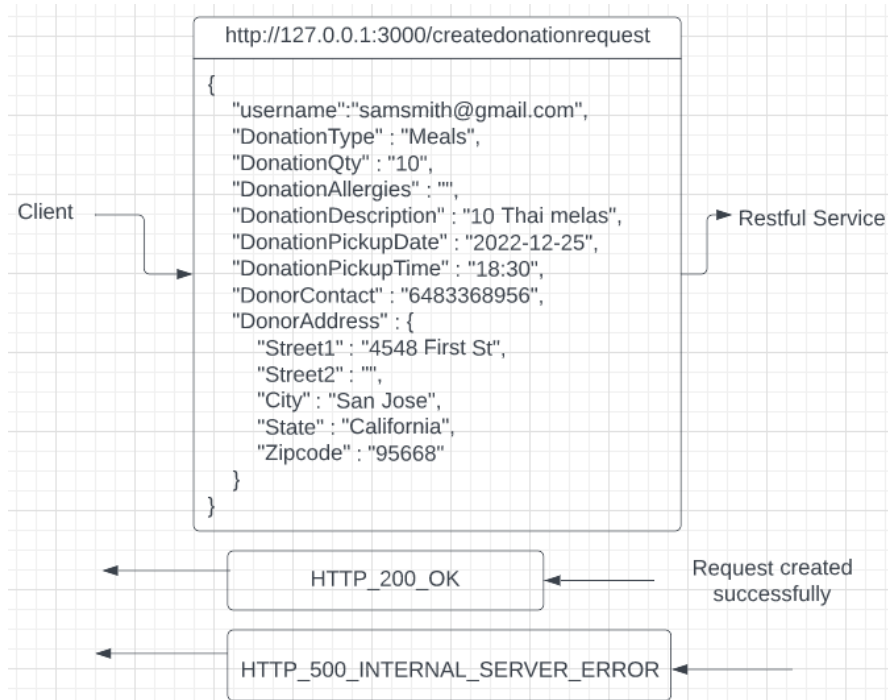
YourNextMeal.com								
My Profile Available Donations My Accepted Donations Dropoff Centers Log Out	Actions	DonationType	DonationDescription	DonationQuantity	DonationPickupDate & Time	Pickup Address	Donor Contact Number	Status
	Cancel	Others	Festival cookies	1	2022-12-10 10:30:00	1187 E San Salvador St, San Jose 95068	(669) 350-5737	Accepted
	Cancel	Meals	India Veg Meals	10	2022-12-02 20:30:00	4548 First St, San Jose 95068	(669) 350-5737	Accepted
	Cancel	Meals	10 Thai meals	10	2022-12-02 19:30:00	6379 Firefly Dr, San Jose 95120	(669) 350-5737	Accepted
	Cancel	Meals	2lb - potatoes, 5lb - rice	2	2022-12-05 09:00:00	2319 First St, Fremont 48546	(669) 556-7485	Accepted
	Cancel	Meals	3lb rice, 1 packet grains, 2 packets break	3	2022-12-09 08:00:00	4548 First St, San Jose 95068	(669) 784-2589	Accepted

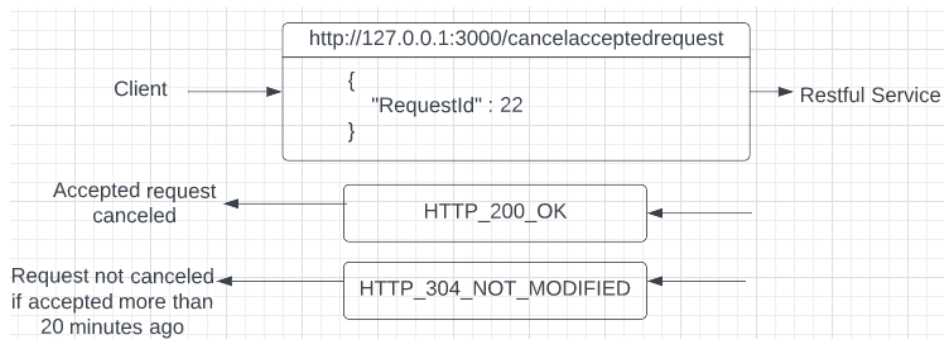
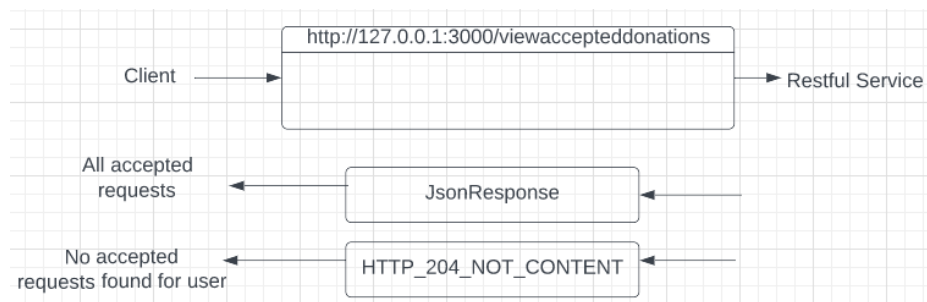
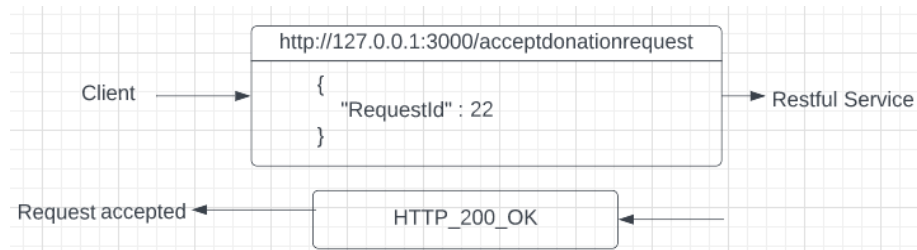
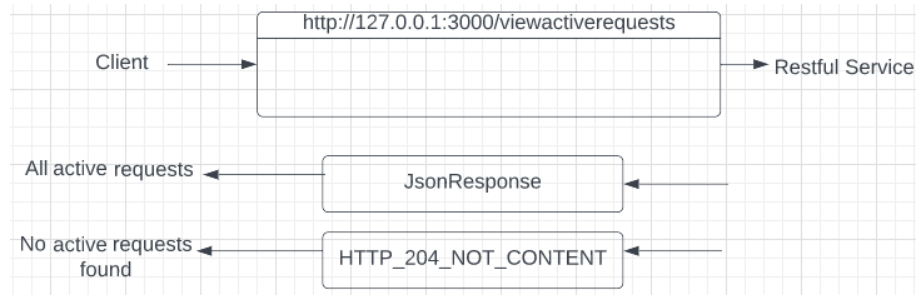
3. Left Navigation

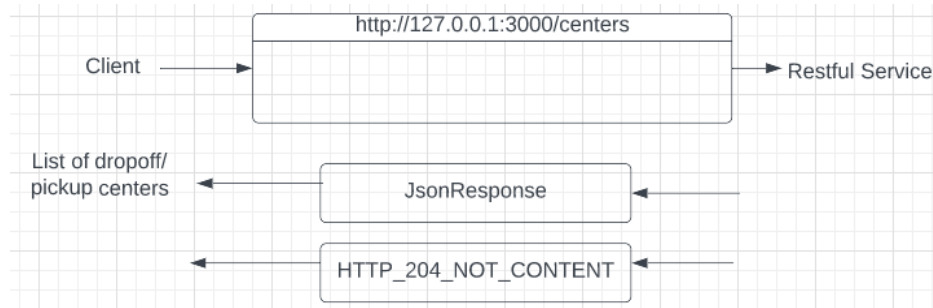
My Profile	
Available Donations	
My Accepted Donations	
Dropoff Centers	
Log Out	

4.5 System component and API logic design









Chapter 5. System Implementation

5.1. System implementation summary

The technologies and tools listed in Section 5.3 are used in the system's implementation. The project planning report's milestones were followed as the system was implemented based on the diagram mentioned in the preceding section. The system is set up to make it simple to administer the necessary “YourNextMeal.com” procedures through the corporate site. The system's implementation employs an iterative process. To accomplish the desired results and successfully complete the application, the system passes through a number of stages. It entails creating websites with user interfaces that are simple to use, a clean backend with the necessary APIs, and a properly maintained database for data storage. The website is always accessible through the system.

5.2. System implementation issues and resolutions

a) Session Management :

Needed userprofile to be stored across various requests once the user logins. Initially opted to store the session on the server side. But this was not straightforward as we were using fetch api for all the requests.

Resolution: Implemented JWT token and as part of the token we are sending user profile information back and forth with all the requests.

b) Cross Origin Resource Sharing (CORS)

React (frontend) and Django(Rest API) applications run on different ports.

Resolution : Excluded CORS for all the methods and whitelisted the frontend app in django app. There is another option available to deploy a react app inside django and run on the same port. We did not implement this.

5.3. Used technologies and tools

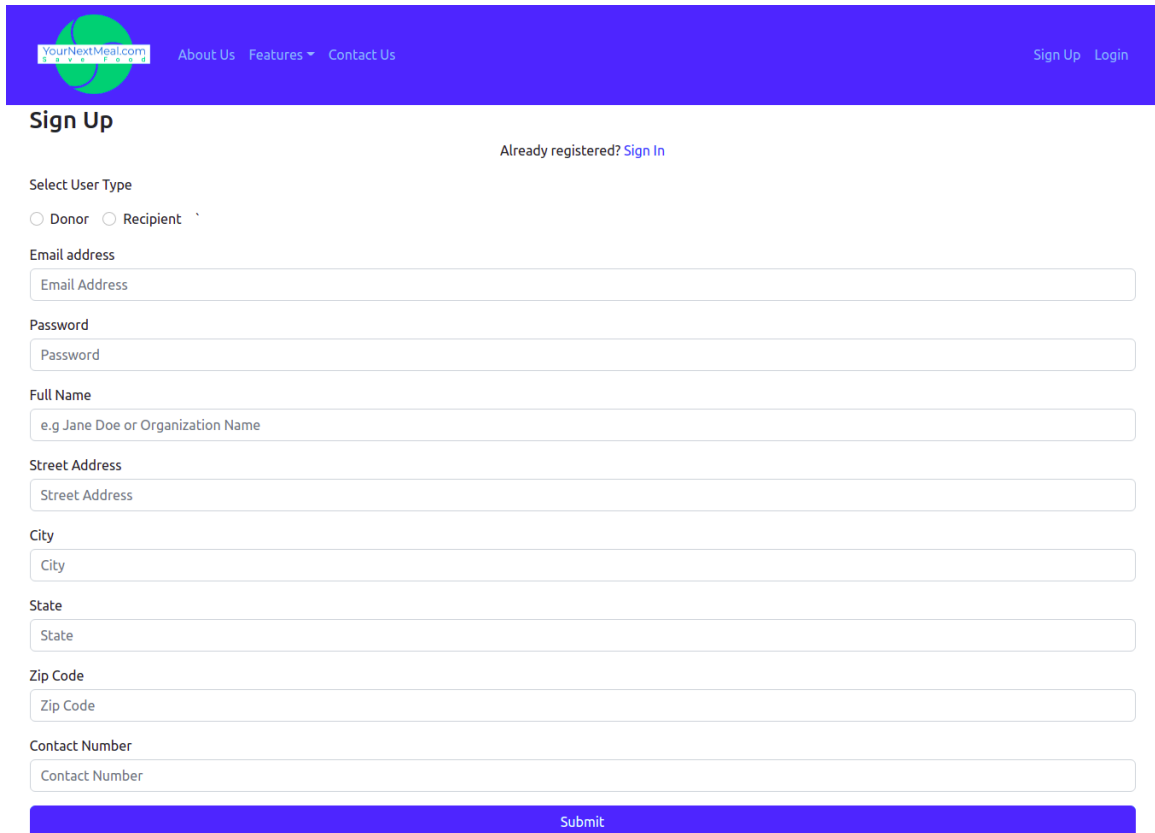
1. Backend
 - Django , Rest API Framework
 - AWS, Lambda functions, S3
 - Send Mail python package for notifications
 - JWT based authentication
2. Frontend
 - ReactJS
 - BootStrap (Styling)
 - Local Storage
3. Cloud
 - AWS
 - IGW, ELB, EC2
4. Database
 - MongoDB
5. Architecture
 - RestAPI Architecture
6. Github, Jenkins

Chapter 6. System Testing and Experiment

6.1 Testing and experiment scope

Step 1: Registering and authenticating user for yournextmeal.com:

- Localhost displays the signup screen of yournextmeal.com application.



Sign Up

Already registered? [Sign In](#)

Select User Type

☐ Donor ☐ Recipient

Email address

Email Address

Password

Password

Full Name

e.g Jane Doe or Organization Name

Street Address

Street Address

City

City

State

State

Zip Code

Zip Code

Contact Number

Contact Number

Submit

- After successfully registering, login to the application by providing email and password.



Sign In

Not registered yet? [Sign Up](#)

Select User Type

☐ Donor ☐ Recipient

Email address

Enter email

Password

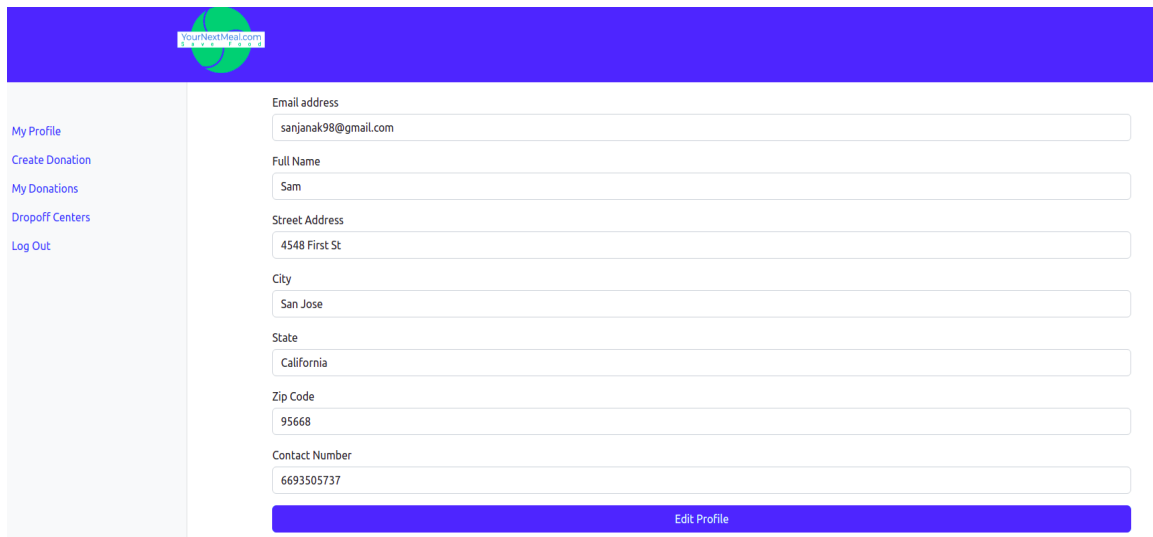
Enter password

[Submit](#)

Forgot [password?](#)

Step 2: User views the profile information:

- Details like name, address, contact information will be displayed here.



My Profile

[Create Donation](#)

[My Donations](#)

[Dropoff Centers](#)

[Log Out](#)

Email address

sanjanak98@gmail.com

Full Name

Sam

Street Address

4548 First St

City

San Jose

State

California

Zip Code

95668

Contact Number

6693505737

[Edit Profile](#)

Step 3: Donor creates Donation request and can view the current requests:

- On clicking the 'Create Donation' button in the left navigation pane, the Donor will be navigated to the Donation form.

Create Donation Request

Select User Type
Open this select menu

Donation Qty
Enter Quantity

Allergies
Allergies

Donation Description
Enter Description

Pickup Date & Time (YYYY-MM-DD HH:MM)
Pickup Date
Pickup Time

Pickup Street Address
Street Address

City
City

State
State

Zip Code
Zip Code

Donor Contact Number
Contact Number

Submit

- Provide all the information related to donation such as contact information, donation description and click create.

Create Donation Request

Donation Created Successfully

Select User Type
Grocery

Donation Qty
3

Allergies
Allergies

Donation Description
3lb rice, 1 packet grains, 2 packets break

Pickup Date & Time (YYYY-MM-DD HH:MM)
2022-12-09
08:00

Pickup Street Address
4548 First St

City
San Jose

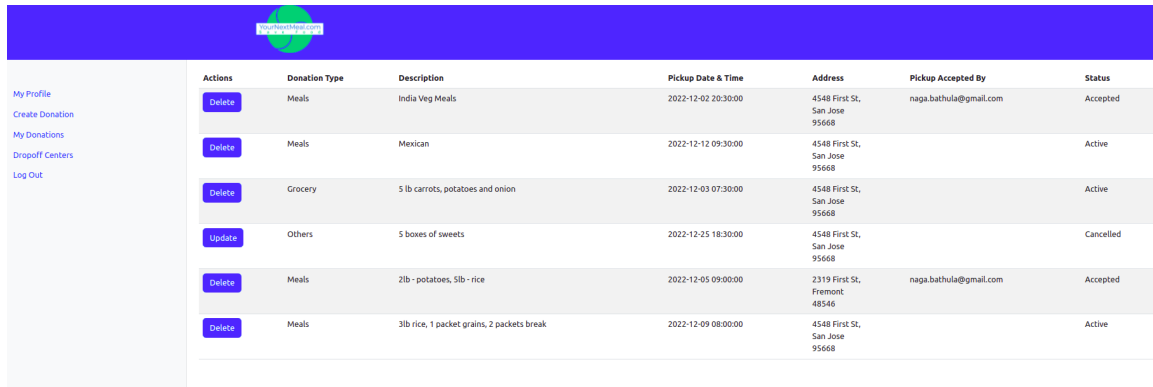
State
CA

Zip Code
95668

Donor Contact Number
6697842589

Submit

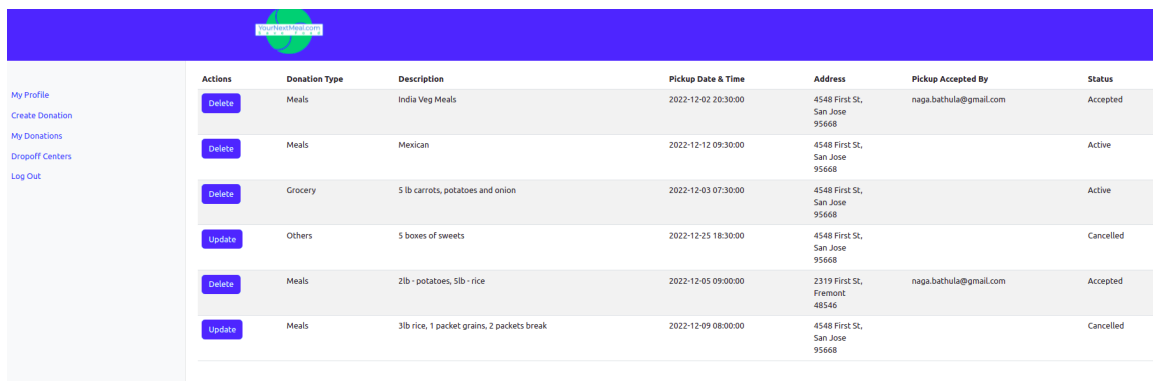
- Once the request is created, it will be reflected in the 'My Donations' page. The status is 'Active' for the created request.



Actions	Donation Type	Description	Pickup Date & Time	Address	Pickup Accepted By	Status
Delete	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Accepted
Delete	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668		Active
Delete	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668		Active
Update	Others	5 boxes of sweets	2022-12-25 18:30:00	4548 First St, San Jose 95668		Cancelled
Delete	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	naga.bathula@gmail.com	Accepted
Delete	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668		Active

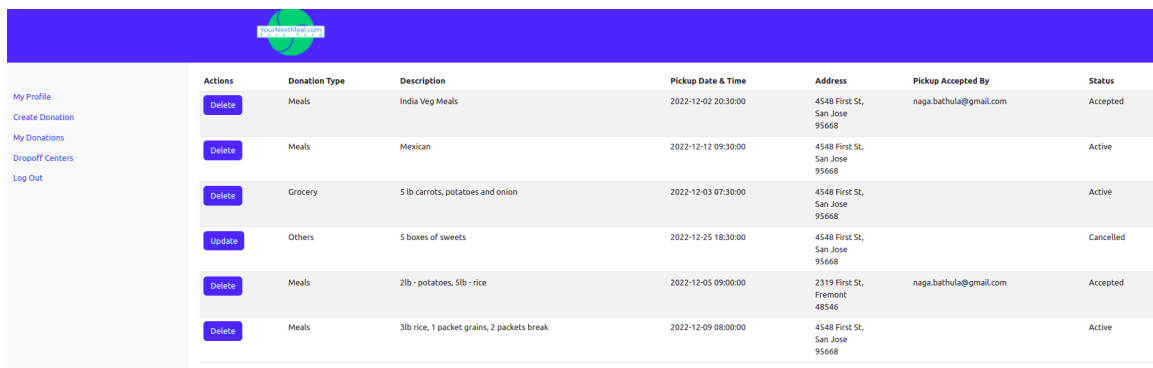
Step 4: Verify Donor is able to cancel and update already created requests:

- Once the donor clicks the Delete button, the request status will change to canceled.



Actions	Donation Type	Description	Pickup Date & Time	Address	Pickup Accepted By	Status
Delete	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Cancelled
Delete	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668		Active
Delete	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668		Active
Update	Others	5 boxes of sweets	2022-12-25 18:30:00	4548 First St, San Jose 95668		Cancelled
Delete	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	naga.bathula@gmail.com	Accepted
Update	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668		Cancelled

- Click on the Update button to make the request active again.



Actions	Donation Type	Description	Pickup Date & Time	Address	Pickup Accepted By	Status
Delete	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Accepted
Delete	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668		Active
Delete	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668		Active
Update	Others	5 boxes of sweets	2022-12-25 18:30:00	4548 First St, San Jose 95668		Cancelled
Delete	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	naga.bathula@gmail.com	Accepted
Delete	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668		Active

Step 5 : Recipient Views the profile information:

- User registration and login (similar to shown above). After logging in, details like name, address, contact information will be displayed here.

My Profile

Available Donations

My Accepted Donations

Dropoff Centers

Log Out

Email address
naga.bathula@gmail.com

Full Name
John

Street Address
4548 First St

City
San Jose

State
California

Zip Code
95668

Contact Number
6693505737

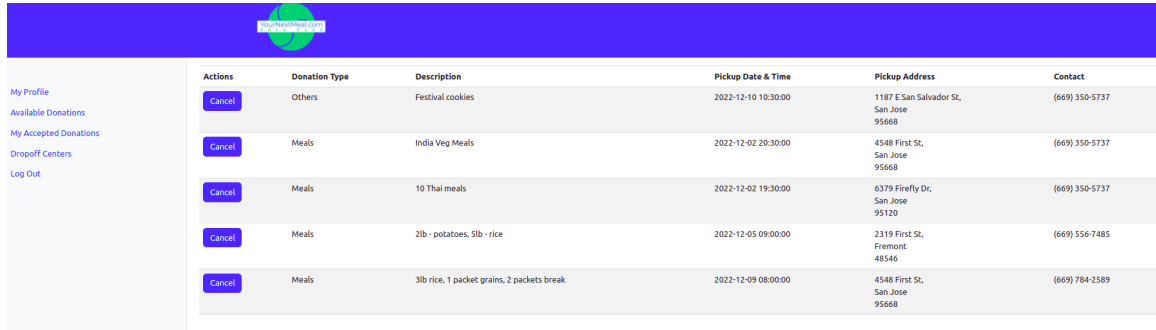
Edit Profile

Step 6 : Verify if Recipient is able to view Active Requests and able to accept:

- Click on the 'Available Donations' button and be able to view all the active Donation Requests that are made by the Donor (Step 3)

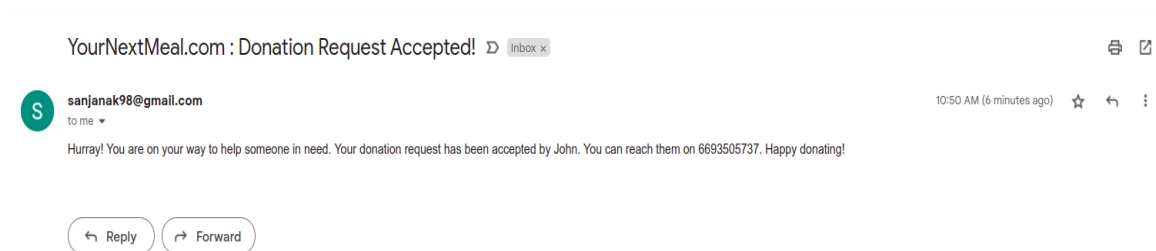
Actions	Donation Type	Description	Pickup Date & Time	Pickup Address	Contact
Accept	Grocery	3lb wheat	2022-12-03 20:00:00	1187 E San Salvador St, San Jose 95668	(669) 350-5737
Accept	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668	(669) 350-5737
Accept	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668	(669) 350-5737
Accept	Meals	10 burritos and taco plates	2022-12-05 09:00:00	627 South St, Fremont 94556	(669) 358-9556
Accept	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668	(669) 784-2589

- On clicking the 'Accept' button, the request is visible in the 'My Accepted Donations' page.

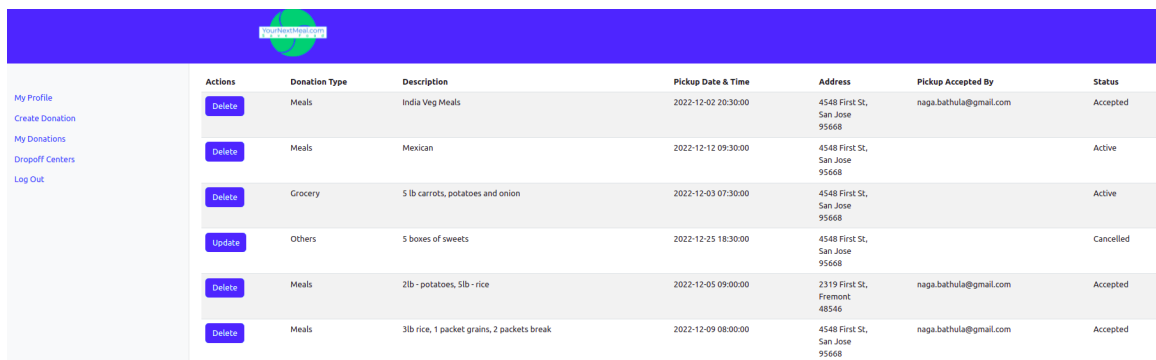


Actions	Donation Type	Description	Pickup Date & Time	Pickup Address	Contact
Cancel	Others	Festival cookies	2022-12-10 10:30:00	1187 E San Salvador St, San Jose 95668	(669) 350-5737
Cancel	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	(669) 350-5737
Cancel	Meals	10 Thai meals	2022-12-02 19:30:00	6379 Firefly Dr, San Jose 95120	(669) 350-5737
Cancel	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	(669) 556-7485
Cancel	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668	(669) 784-2589

- An email is sent to the 'Donor' confirming that the request has been accepted along with name and contact information of the recipient.



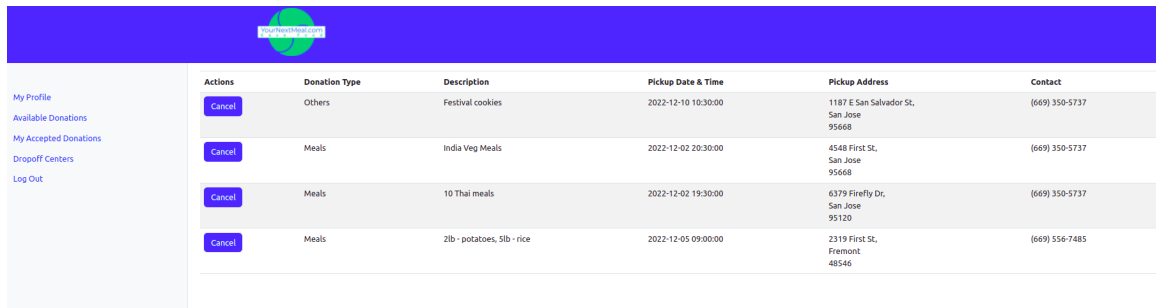
- The donor can see in the 'My Donations' page the recipient and the status of the request as accepted.



Actions	Donation Type	Description	Pickup Date & Time	Address	Pickup Accepted By	Status
Delete	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Accepted
Delete	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668		Active
Delete	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668		Active
Update	Others	5 boxes of sweets	2022-12-25 18:30:00	4548 First St, San Jose 95668		Cancelled
Delete	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	naga.bathula@gmail.com	Accepted
Delete	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668	naga.bathula@gmail.com	Accepted

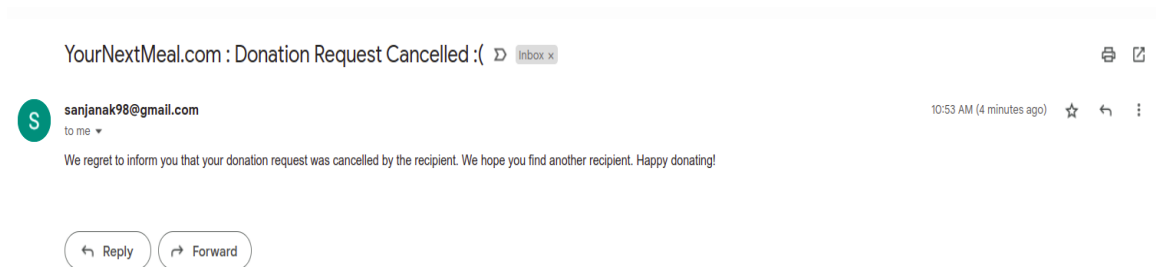
Step 7 : Verify if Recipient is able to Cancel accepted Requests:

- Go to 'My Accepted Donations' and click on the 'Cancel' button. Once canceled, it is no longer available in the 'My Accepted Donations' page.



Actions	Donation Type	Description	Pickup Date & Time	Pickup Address	Contact
Cancel	Others	Festival cookies	2022-12-10 10:30:00	1187 E San Salvador St, San Jose 95668	(669) 350-5737
Cancel	Meals	India Veg Meals	2022-12-02 20:30:00	4548 First St, San Jose 95668	(669) 350-5737
Cancel	Meals	10 Thai meals	2022-12-02 19:30:00	6379 Firefly Dr, San Jose 95120	(669) 350-5737
Cancel	Meals	2lb - potatoes, 5lb - rice	2022-12-05 09:00:00	2319 First St, Fremont 48546	(669) 556-7485

- An email is sent to the 'Donor' informing them that the request that was accepted by the recipient has been canceled by them.



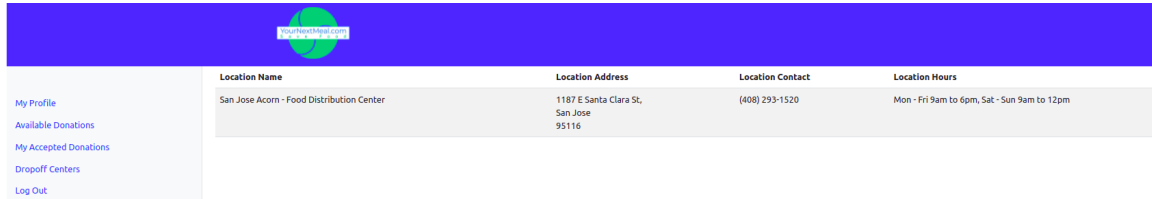
- The accepted request is canceled and is available to other recipients in the 'Available Donations' tab.



Actions	Donation Type	Description	Pickup Date & Time	Pickup Address	Contact
Accept	Grocery	3lb wheat	2022-12-03 20:00:00	1187 E San Salvador St, San Jose 95668	(669) 350-5737
Accept	Meals	Mexican	2022-12-12 09:30:00	4548 First St, San Jose 95668	(669) 350-5737
Accept	Grocery	5 lb carrots, potatoes and onion	2022-12-03 07:30:00	4548 First St, San Jose 95668	(669) 350-5737
Accept	Meals	10 burritos and taco plates	2022-12-05 09:00:00	627 South St, Fremont 56911	(669) 358-9556
Accept	Meals	3lb rice, 1 packet grains, 2 packets break	2022-12-09 08:00:00	4548 First St, San Jose 95668	(669) 784-2589

Step 8 : Both donors and recipients can view Dropoff/Pickup Centers.

- Click on the ‘Dropoff Centers’ button and be able to view available locations.



Location Name	Location Address	Location Contact	Location Hours
San Jose Acom - Food Distribution Center	1187 E Santa Clara St, San Jose 95116	(408) 293-1520	Mon - Fri 9am to 6pm, Sat - Sun 9am to 12pm

6.2 Testing and experiment approaches

Test Plan:

- User Signup:** It must register all the basic contact information and authenticate from the first time users.
- Donor Login:** It must direct to the Donor login page after authentication.
- Recipient login:** It must redirect to the recipient login page after authentication.
- Create Donation request:** It must create a donation request and it must reflect on the donor page.
- Current Requests:** It must reflect all the current requests.
- Cancel Requests:** Donors must be able to deny the requests.
- Accept Request:** Recipients must be able to accept the requests.
- Available Requests:** It must reflect all the available requests.
- Cancel Accepted Requests:** Recipients must be able to cancel the accepted requests and requests must reflect on other recipients available requests.

6.3 Testing and experiment results

Functionality	Description	Test Step	Expected Result	Pass or Fail
User Signup	Register all the basic contact information and authenticate from the first time users.	Click on Sign Up button, give all the required details and submit.	User must be registered successfully.	Pass
Donor Login	Login with credentials.	Give email address and password and click on the Login button.	Redirect to the Donor login page after authentication	Pass
Recipient login	Login with credentials.	Give email address and password and click on the Login button.	Redirect to the recipient login page after authentication	Pass
Create Donation request	Be able to create donation requests.	Click on create donation requests, give the contact information like address and phone number and description of the donation.	Create a donation request and it must reflect on the donors page.	Pass

Current Requests	Be able to view current requests.	Click on the current requests button and view the active requests.	Reflect all the current requests.	Pass
Cancel Requests	It must be able to cancel the accepted requests if they no longer want to donate the food.	Clicking on the Delete button cancels the donation request.	Donors must be able to cancel the requests and it should be reflected.	Pass
Accept Requests	Be able to accept the available requests made by donors.	Click on Available requests button then click on accept button.	Donors must be able to accept the requests	Pass
Available Requests	Must be able to view the available requests created by donors.	Click on the Available requests button and recipients must be able to accept any active request.	It must reflect all the available requests created by Donors.	Pass
Cancel Accepted Requests	Requests must reflect on other recipients' available requests and recipients must be able to cancel accepted requests.	Click on the active requests button and click on cancel the accepted requests.	Recipients must be able to cancel the accepted requests and requests must reflect on other recipients available requests.	Pass

Chapter 7. Conclusion and Future Work

7.1 Project summary

“YourNextMeal.com” is an excess and leftover food management website that is very user friendly and can widely be used by restaurants, people who are willing to help people by donating food, people suffering from food scarcity, and even common people who are in need of food. This way the food wastage will be reduced as much as possible and people would not be facing food insecurity.

For the perspective of implementation all the modules we intended to complete have been implemented and are functional. It was a good learning experience on the way to achieving the milestones we set. We are exploring the latest technology frameworks and their features. Working with AWS, Django, Terraform, React was all an insightful experience.

7.2 Future work

- Build IOS/Android app
- Track the pickup request realtime
- Build a driver network with Volunteers
- Donor Incentives & Analytics
- Admin Feature