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Vellore Institute of Technology

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DINE AND DONATE

FINAL REPORT

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Under the guidance of

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PROBLEM STATEMENT

One of the attention seeking global problems is hunger. On the other hand, studies say that the world population switches to online food delivery where the gateway for the ordering lacks the feature of donation. Also recent research shows the increase of hunger around the world as the world is moving across a tough situation facing wars, drastic climate changes which causes less productivity of crops and food based production, lack of physical interaction between humans from the advent of COVID-19 and we can even add up the upcoming recession. These things give a clarifying call for the entire global population to possess a basic humanity towards their fellow mates. In conventional terms of food donation people used to donate in-person but recently due to the emergence of the digital era, donation seems difficult as each aspiring person to donate has to confront many barriers including social distancing and outlay for donation. Moreover we live in an isolated space leaving our taste and choice influenced by medulla unconsciously without thinking on our body needs. Our project model implements the idea of “DINE AND DONATE” by five modules including each one for food search and display, food ordering, payment , food donation for collaborating with NGOs, tracking and food recommendation based on weather and personal activities and so on.

ABSTRACT

In this report , we establish our project idea “DINE AND DONATE” by taking into account all the necessary requirements, scheduling , system models and references. Also , to carry out the demonstration using APIS like google cloud api , yelp api , redux framework is used and is built with the help of REACTJS.

MOTIVATION

- **Economical**: From recent statistics, The leaders in the online food delivery market making more than 1 to 1.5 million deliveries daily made a disclosure recently. The company receives 3,85,278 cancellations every month and as per their estimates, it translates to approx. 7,00,000 kgs of food wastage, enough to feed 3,000 people for a year.
- **Technical**: The advent of apps integrating different domains, seeking win-win situation for both the domains. For example, UBER integrating mobile computing with transport services.
- **Political**: This doesn't need a political framework but can be customised.
- **Social**: Many non-perishable and unspoiled perishable foods can be donated to local food banks, soup kitchens, pantries which could be beneficial for the society thereby helping the needy living in dark reality.
- **Environmenta**l: The efficient usage of food by humankind makes it needless to travel far in order to donate.
- **Demographic feasibility**: The success rate and growth of the startup depends heavily on the demographic dividend of the location. For example, as Americans, the best wasters of food all around the world could more probably cherish the app whereas the Somalians, one of the striving communities of the human race, would never use the donating feature as they strive for their daily food.

PROJECT OUTCOME

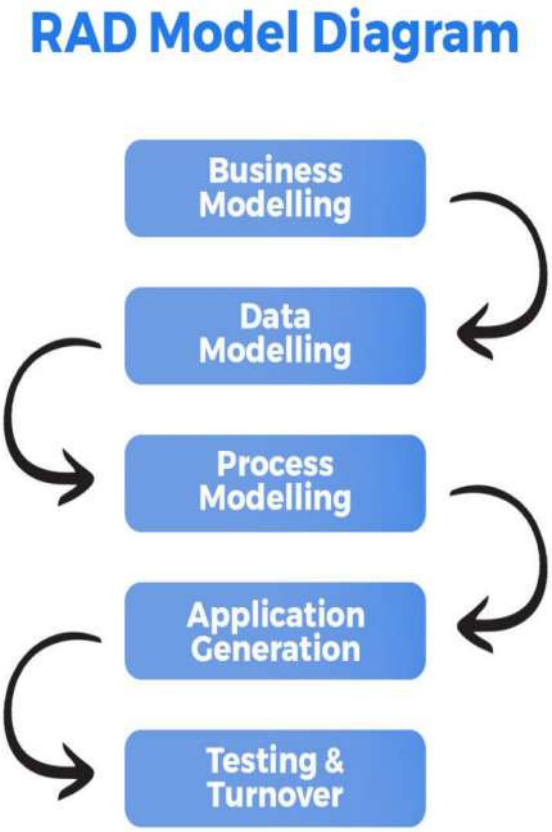
- **PRODUCT**

We are going to develop a FOOD APP named 'DINATE AND DONATE " that allows our users to login/signup and view the available food products, product details, search for the food items they wish to eat , get recommendations based on the weather and time and also donate the food to the NGO that can save lives.

PROCESS MODEL

- **RAD (Rapid Application Development)**

RAD Model or Rapid Application Development model is a software development process based on prototyping without any specific planning. RAD also prioritizes development tasks instead of planning. Thus , developing the product in a short span .



MODEL JUSTIFICATION

We opted RAD for our product development as RAD supports us to complete our product in a given short span of time . As also the functional requirements are well-known and the technical risks are minimal we selected RAD . In addition , with the idea of implementing our product version wise RAD will be the most suitable model compared to other process models like agile,waterfall etc ;

Also some of the advantages of the process model taken are ,

- Flexible for changes.
- Changes are adoptable.
- Higher priority functionality.
- Reduced development time.
- Increased reusability of features.

REQUIREMENTS GATHERING

1. Functional Requirements:

A functional requirement defines a system or its components.

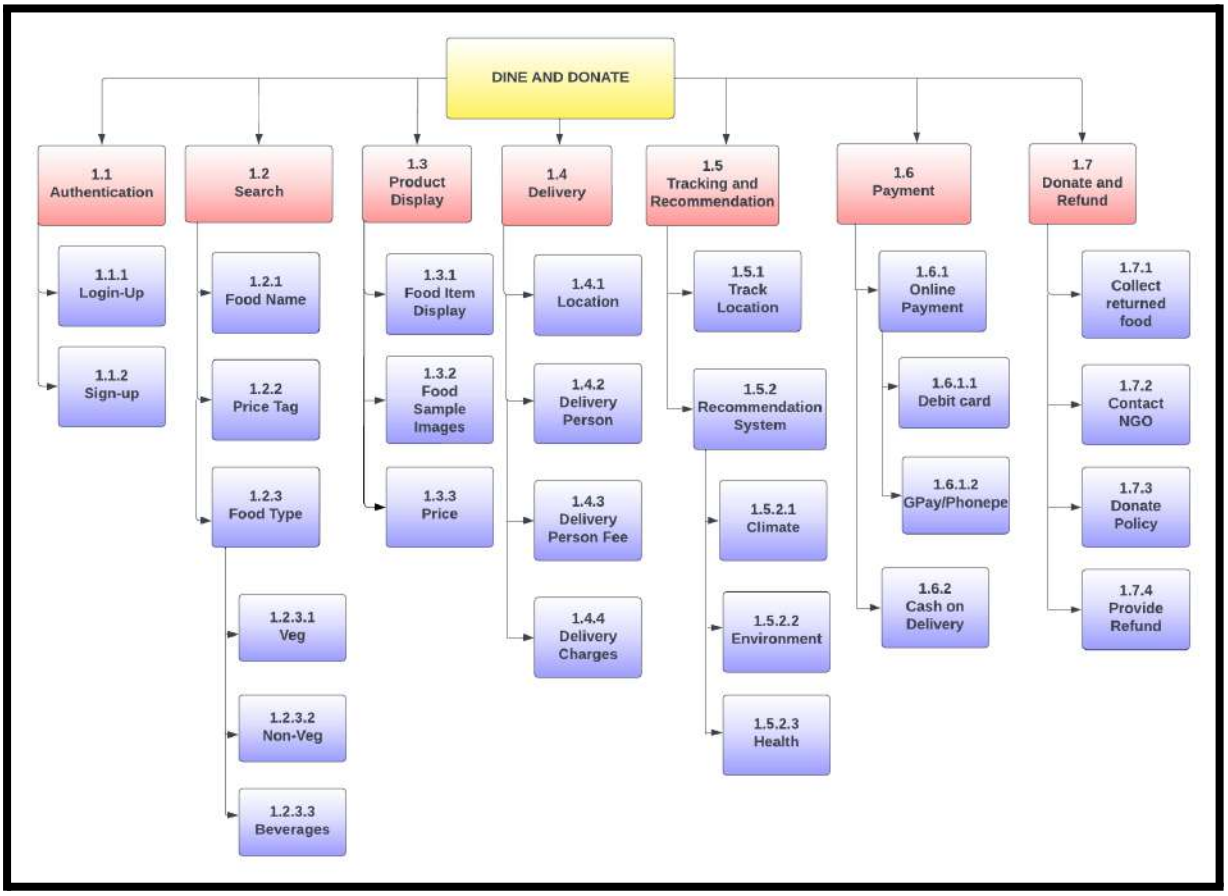
- Authentication module - allow users access the app and products
- Search and product display module - allow users search and view products available
- Recommendation module - recommend users food items based on the time and weather of their location
- Payment module - enable users make transactions
- Donate and refund modules - allow users to register for NGOs and make donations and getting refunded back
- Delivery tracking - tracking the users location for delivering the food

2. Non-functional requirements

A non-functional requirement defines the product functionalities.

- Reliability - every module is designed with all necessary details that users can understand the flow of processing.
- Performance - the app is build in a flexible layout and performs effectively
- Scalability - if any new products or NGO logins the system affords for making changes to the required
- Maintainability - every module is maintained separately and following sessions
- Usability - enable users have a friendly and easy-on-go experience

WBS



STAKEHOLDERS

1. **Direct Stakeholders**

    - Investors
    - Customers (App users)
    - Food suppliers and manufacturers(hotels)
    - NGOs

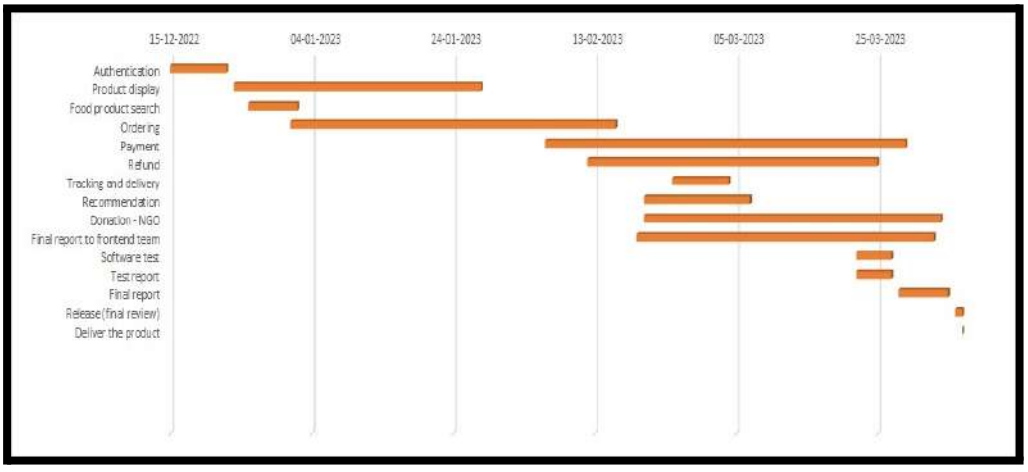
2. **Indirect Stakeholders**

- People in poverty
- Delivery Partners
- Government and Environmental agencies

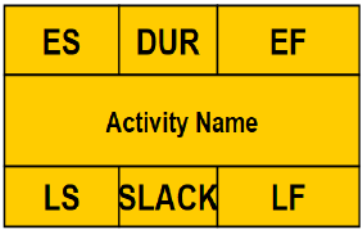
PROJECT SCHEDULING

- **Gantt chart**

Module	Start Date	End Date	Duration
Authentication	15-12-2022	23-12-2022	8
Product display	24-12-2022	28-01-2023	35
Food product search	26-12-2022	02-12-2022	7
Ordering	01-01-2023	11-02-2023	46
Payment	06-02-2023	28-03-2023	51
Refund	12-02-2023	24-03-2023	41
Tracking and delivery	24-02-2023	04-03-2023	8
Recommendation	20-02-2023	07-03-2023	15
Donation - NGO	20-02-2023	03-04-2023	42
Final report to frontend team	19-02-2023	02-04-2023	42
Software test	22-03-2023	27-03-2023	5
Test report	22-03-2023	27-03-2023	5
Final report	28-03-2023	04-04-2023	7
Release (final review)	05-04-2023	06-04-2023	1
Deliver the product	06-04-2023	06-04-2023	0

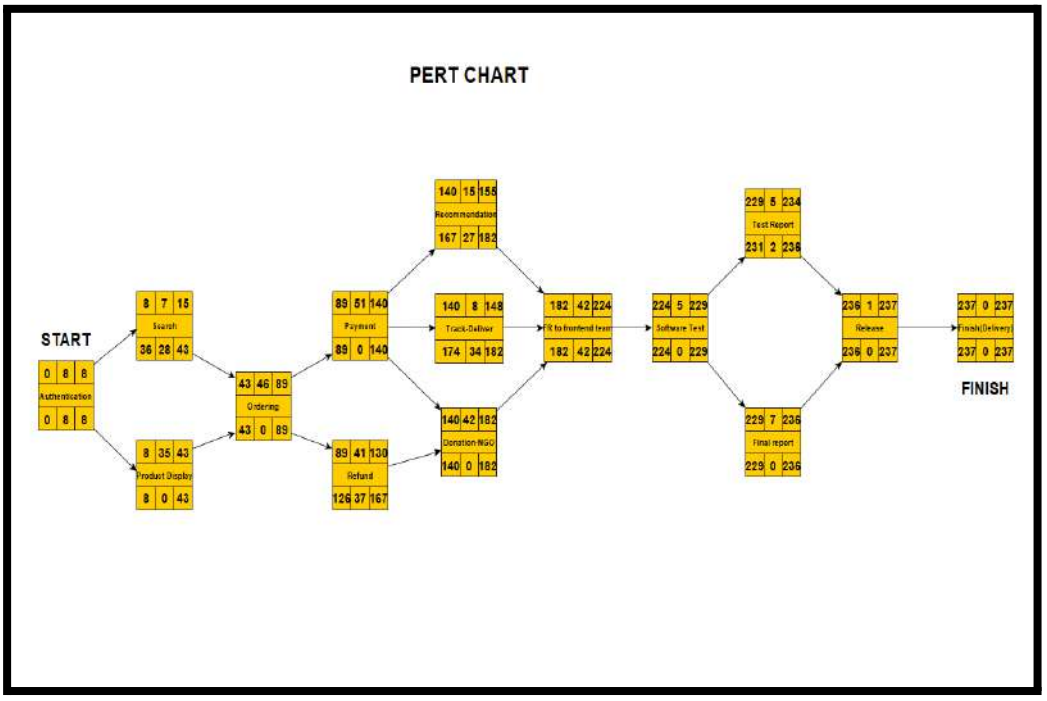


- **Pert chart**

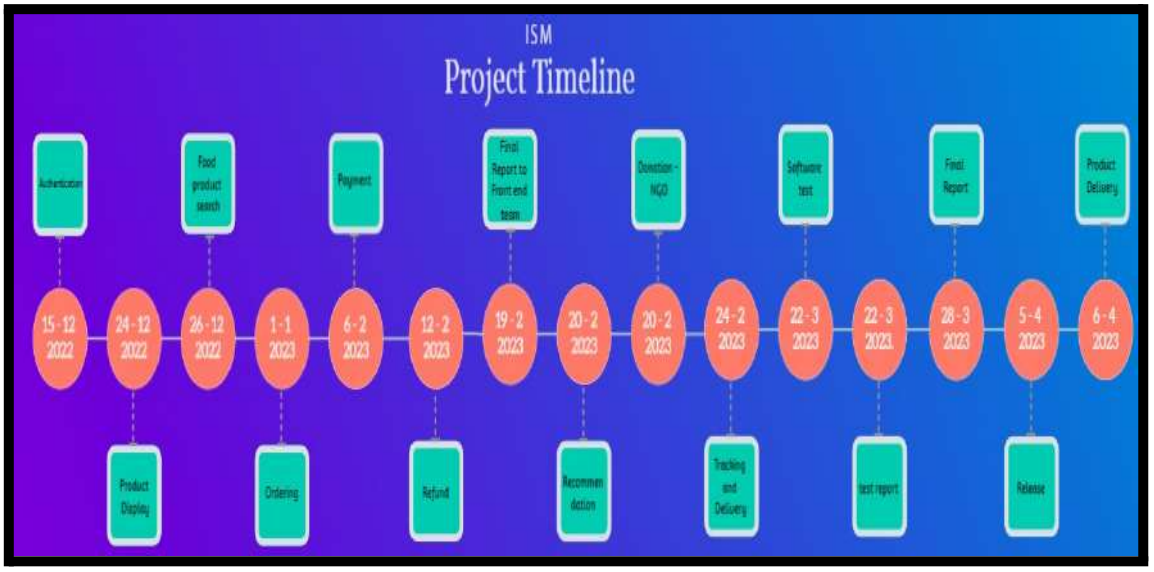


ES - Early Start , **DUR** - Time taken , **EF** - Early Finish

LS - Late Start , **SLACK** - Time lag **(LS-ES/LF-EF)** , **LF** - Late Finish



- **Timeline chart**

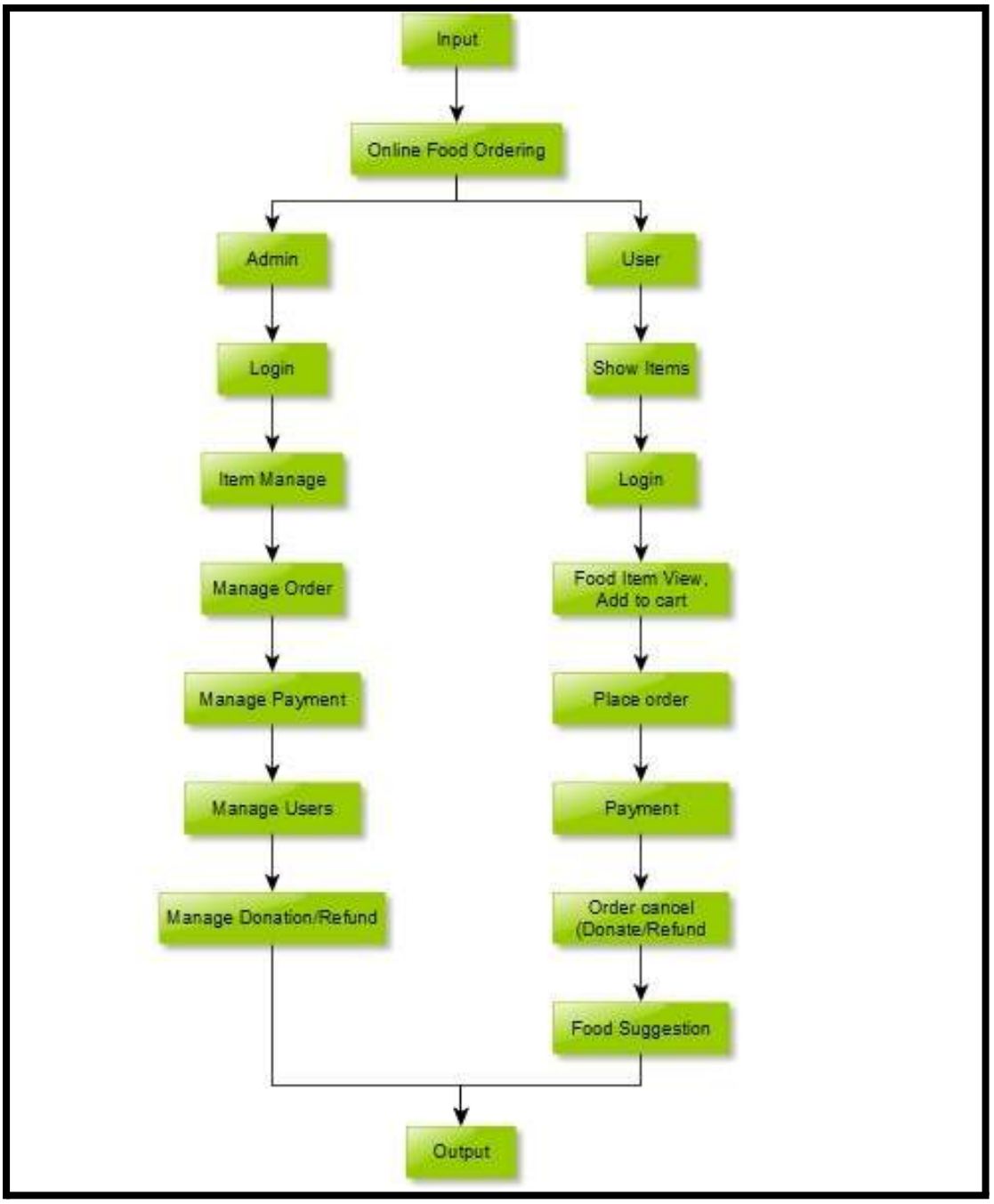


LITERATURE SURVEY

Name and Author	Technique/ Algorithm Used	Key findings	Conclusion	Recommendations for future research and actions
Modern Methodology Approach for Food Donation: YWaste App **Mihir Jadeja1, Parth Sadhu2, Vraj Patel3**	Design and implementation of YWaste app	YWaste is effective in reducing food waste and increasing food access	YWaste is a promising solution for reducing food waste and increasing food access in simpler for anybody to give anything they need in a straightforward manner.	Optimize and improve YWaste app. Explore potential for scale-up and replication in other locations Assess the impact of YWaste on food security and hunger. Study the effectiveness of YWaste in reducing food waste over time and in different environments.
Food Donation Application: Software Development Life Cycle Case Study **Sangita Jaybhaye, Rohit Jadhav, Sushil Kandhare, Ganesh Karode, Omkar Karpe**	This paper focuses on creating an android app for food delivery model, Software Development Life Cycle (SDLC) and doesn't focusses on any particular algorithm	The authors developed a food donation application using the SDLC methodology and conducted usability testing to evaluate its effectiveness. They found that the application was user-friendly and effective in connecting food donors with food banks and other organizations.	The proposed food donation platform aims to connect food donors with NGOs, reducing food waste and improving the quality of life for people in food poverty. The study highlights the potential for technology-based solutions to improve the efficiency and effectiveness of food rescue efforts.	Future research could focus on developing and implementing more advanced features for food donation applications, such as real-time food tracking and optimization algorithms to minimize food waste. Actions include promoting the use of food donation applications among food donors and organizations, and continuously updating and improving the technology to meet the evolving needs of the food rescue industry. Some old components are used over here. Like newer tools to develop has come. For example React native which can be used for both android and ios apps and relatively with simpler application.

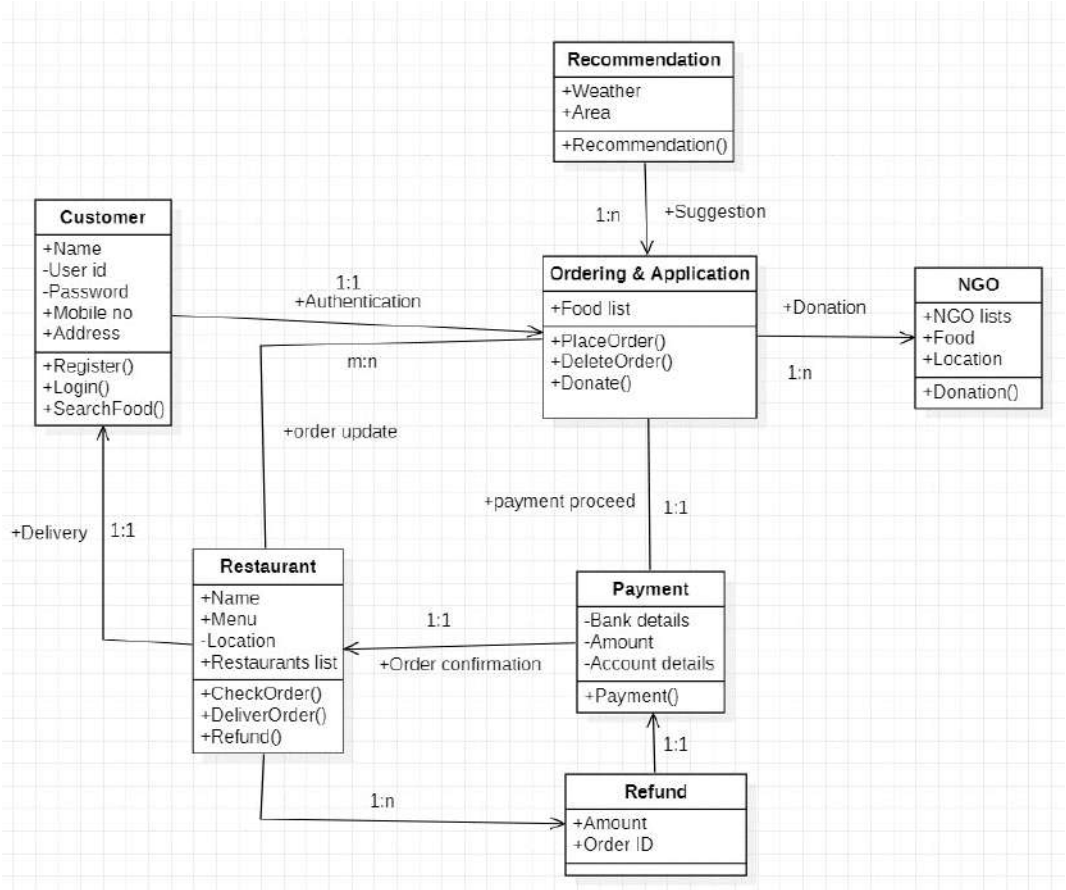
Yelp Food Recommendation System Sumedh Sawant Stanford University **sumedh and Gina Pai**	Using yelp dataset they have collaborative and content based features to identify customer and restaurant profiles. In Particular, they have implemented the KNN algorithm for clustering in association with single value decomposition, weighted bipartite graph projection and several other learning algorithms.	Yelp is a common website for restaurants which provides the data about the restaurants as well. A food recommendation system for yelp would use algorithms and data analysis to suggest restaurants and dishes as the user wishes as their preferences as well as their past experiences.	The results showed that the algorithm with least MAE is cascaded clustered multi step weighted bipartite projection whereas the algorithm with least RMSE is the same one mentioned earlier. The results attributes that the cascaded clustered multi step weighted bipartite graph projection can be considered for good accuracy and precision.	The user rating the review text of each data set can be used for better calculation and precise prediction. It has been even advised in the paper that the use of hybrid models for improved performance. Where as the person's location can be considered as an attribute in the case of having accessibility to the user's location.
Location -based recommendation system using bayesian user's preference model in mobile devices. **Moon-Hee Park, Jin-Hyuk Hong, and Sung-Bae Cho**	A map based personalized recommendation system which reflects user's preference modelled by bayesian network	User-preference restaurant class, price and mood were inferred by the BN-model. Attribute probability distributions of nodes of time, user profiles, system information and weather reflects the probability distributions about restaurant class, price and mood, respectively.	The proposed BN-based recommendation system reflecting user's preference using user profile and context information which can be obtained from mobile devices.	Novel networks other than Bayesian networks can be implemented. Robustness and optimality of process can be ensured by integrating the processing phase with hadoop and cloud computing. Since the data acquired from the users are valuable personal data, more security features has to be implemented.
Estimating surplus food supply for food rescue and delivery operations **Divya J. Nair, Taha Hossein Rashidi, Vinayak V. Dixit**	Statistical Analysis, Surveys like Multiple Linear Regression (MLR) and Artificial Neural Networks (ANNs) are used. In the ANNs models, two types of networks were used: Feedforward Neural Network (FFNN) and Generalized Regression Neural Network (GRNN).	The statistical analysis of food waste data from 126 food service establishments in the United States and surveyed food rescue organizations to estimate the surplus food supply available for rescue and delivery. They found that there is a significant amount of surplus food available for rescue, with an estimated 8.5 billion meals per year going to waste in the US.	The study highlights the need for more effective coordination and communication between food service establishments and food rescue. The use of machine learning algorithms in these inputs provides a more efficient and automated way of processing data, identify patterns and relationships in data, enabling more accurate predictions and insights to be made.	Future research could explore the potential for technology-based solutions to improve communication and coordination between food service establishments and food rescue organizations. Actions include establishing partnerships between food service establishments and food rescue organizations, developing effective communication channels, and increasing public awareness of food waste and the importance of food rescue efforts.

PROJECT BLOCK DIAGRAM

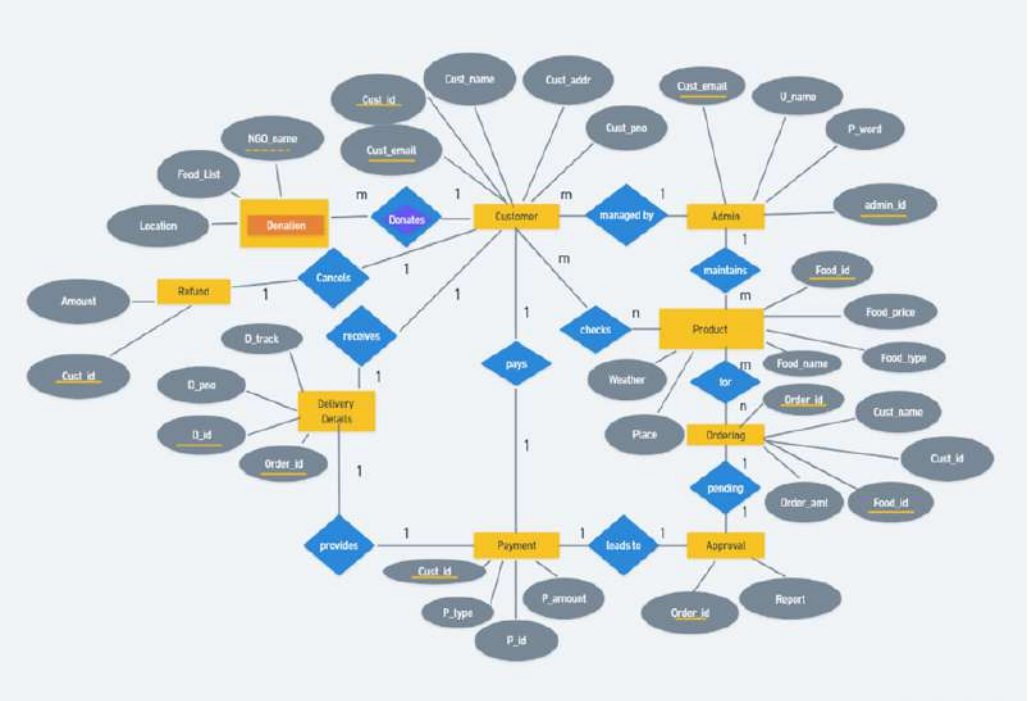


SYSTEM MODELS

- **Class Diagram**

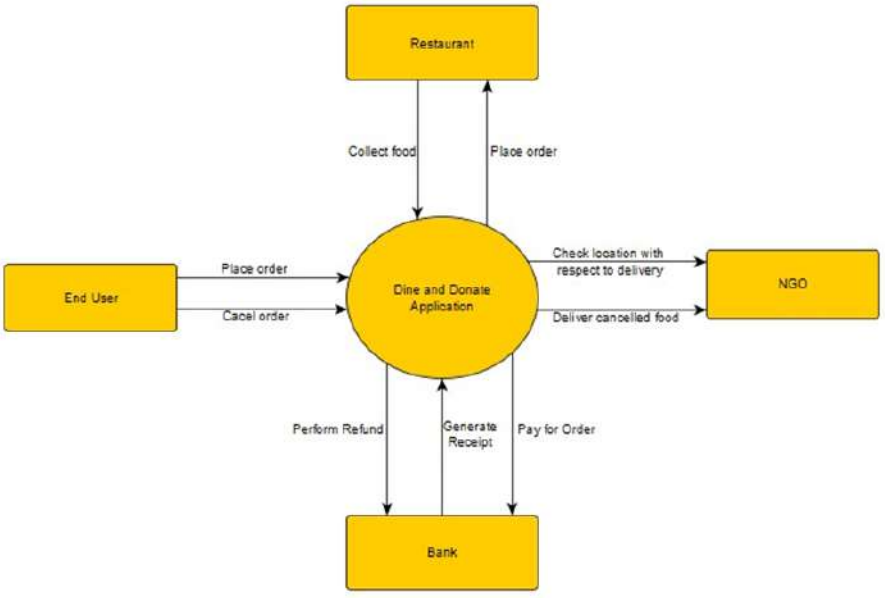


- **ER Diagram**

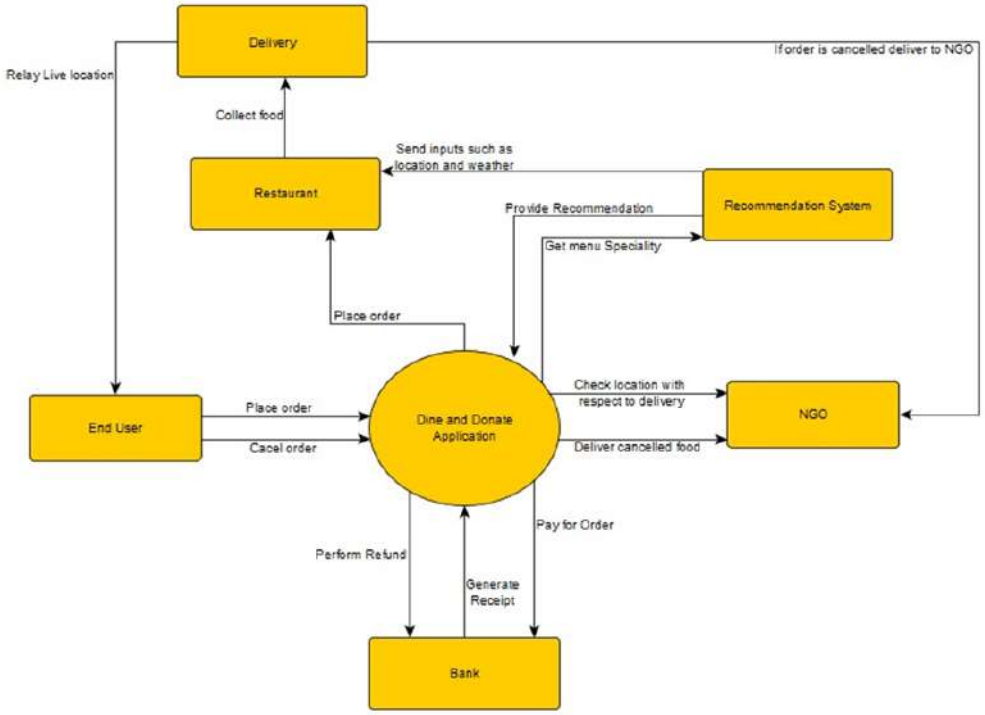


- **Data-flow Diagram**

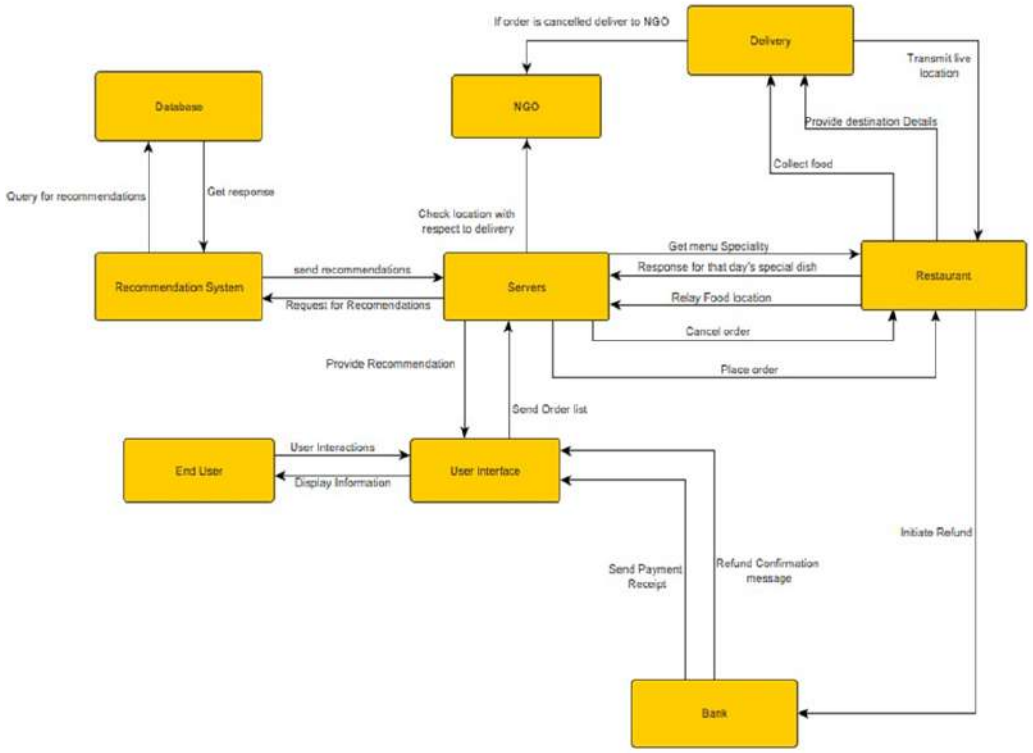
❖ **Level-0**



❖ Level-1



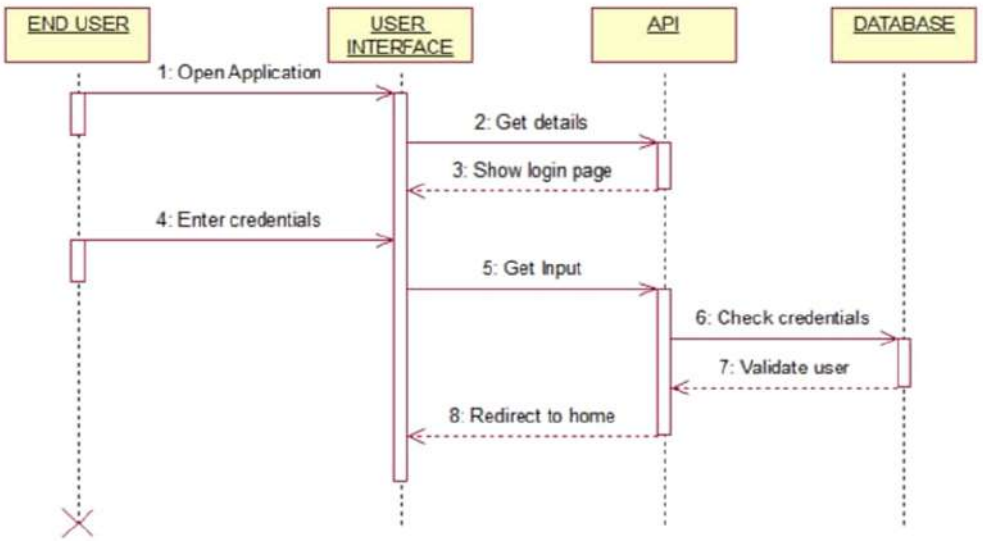
❖ Level-2



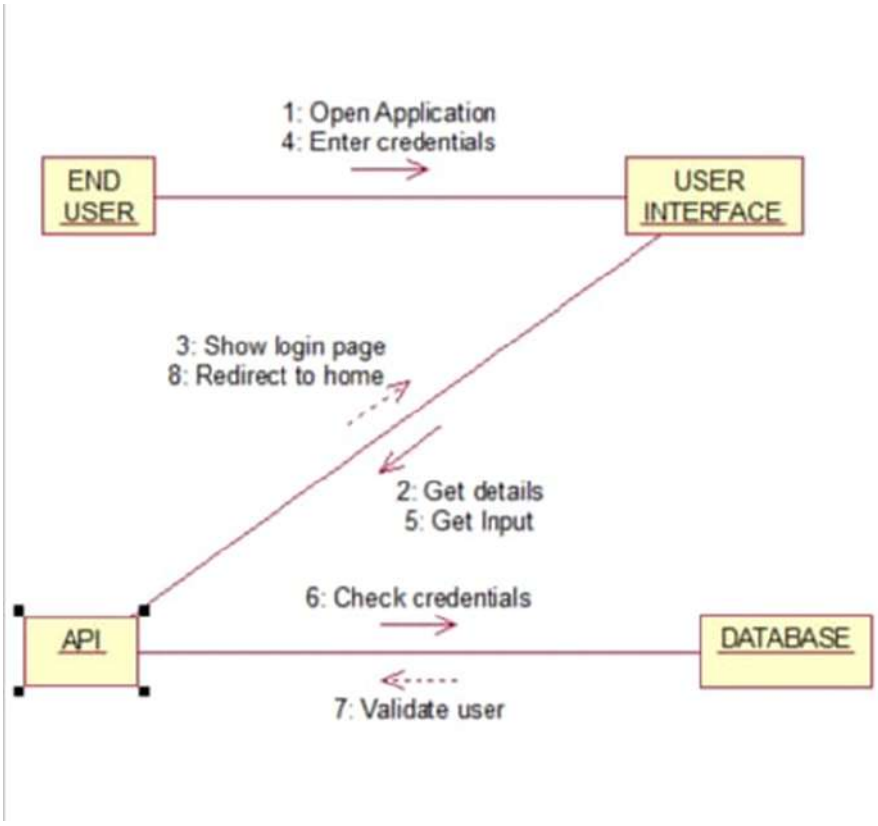
- **Sequence and collaboration Diagrams**

  - ❖ **For Authentication**

S1:

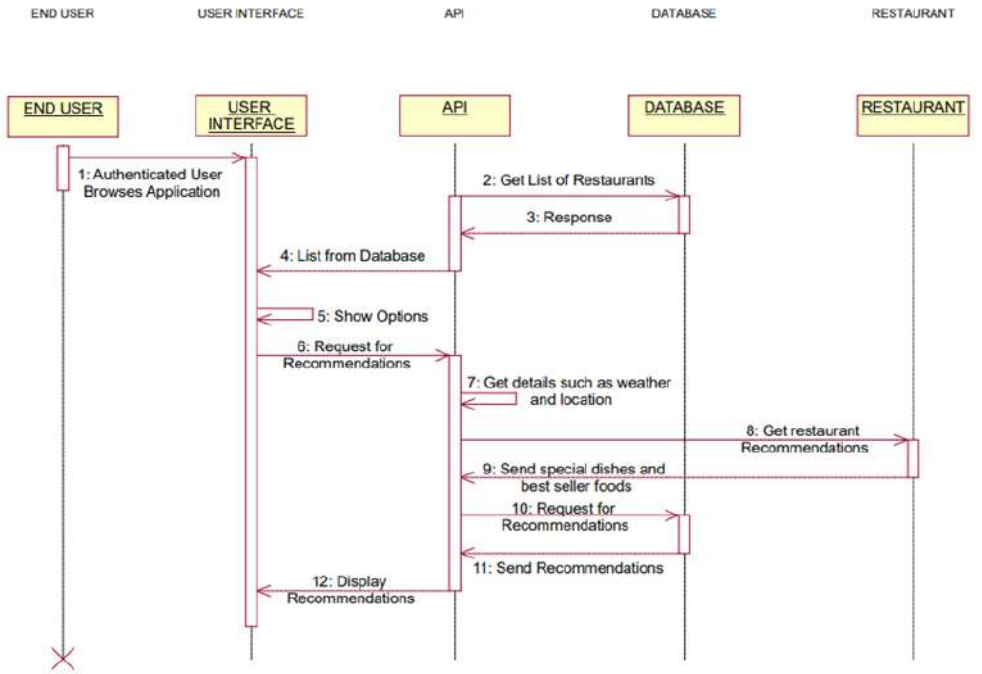


C1:

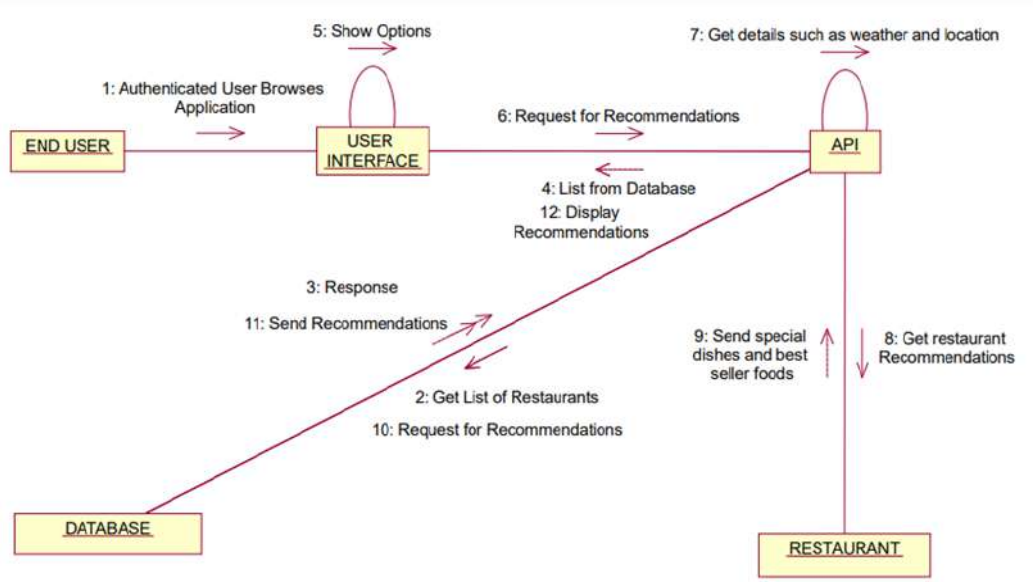


❖ For Recommendation

S2:

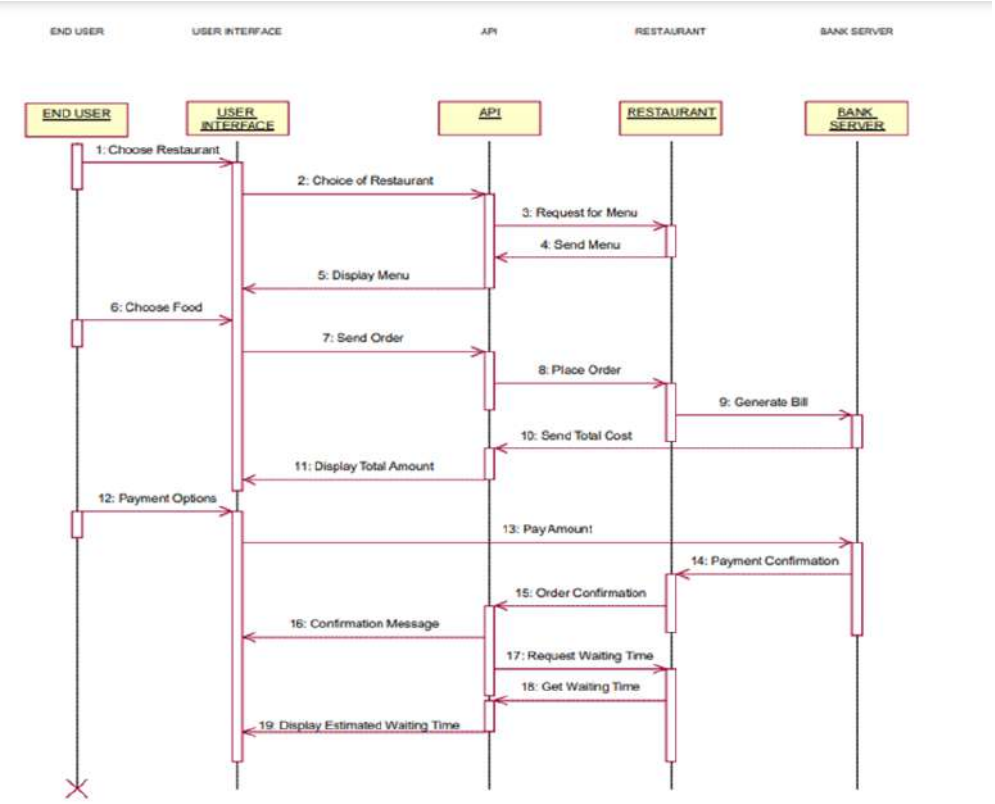


C2:

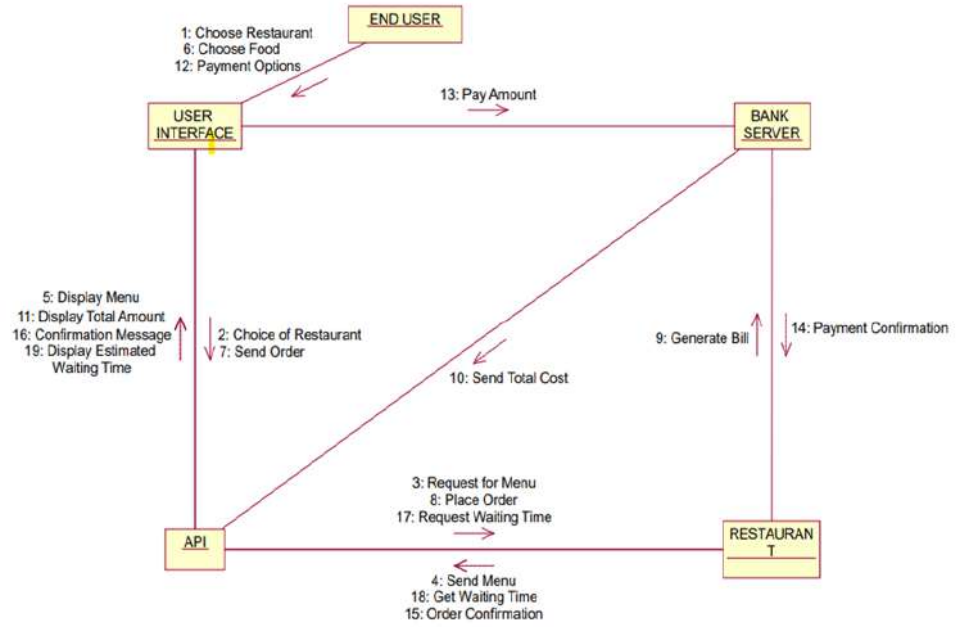


❖ **For placing orders**

S3:

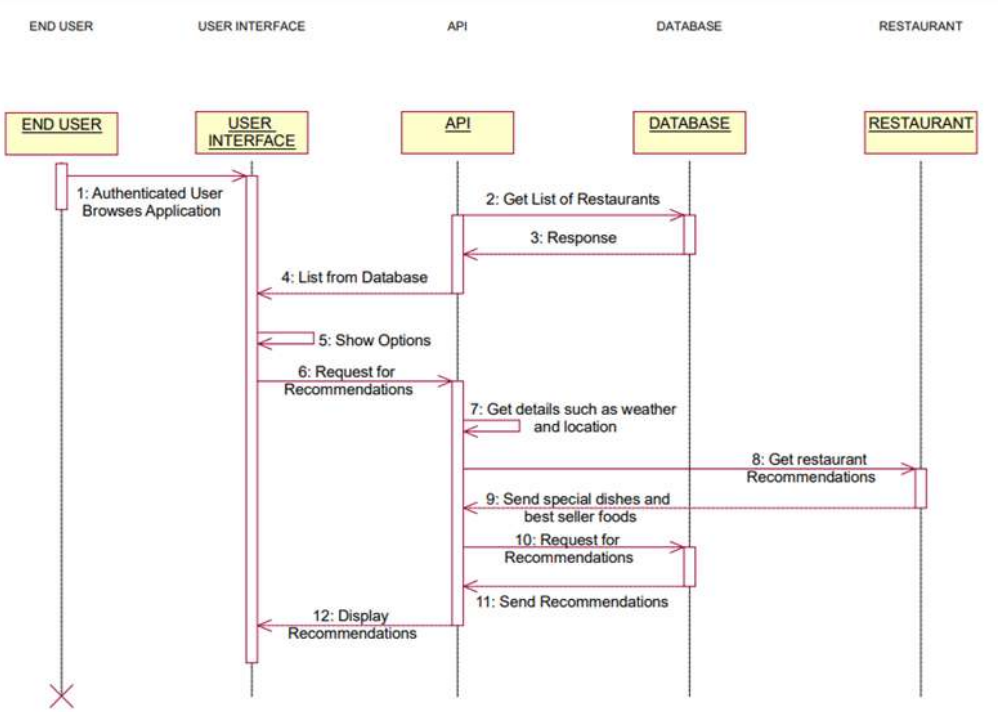


C3:

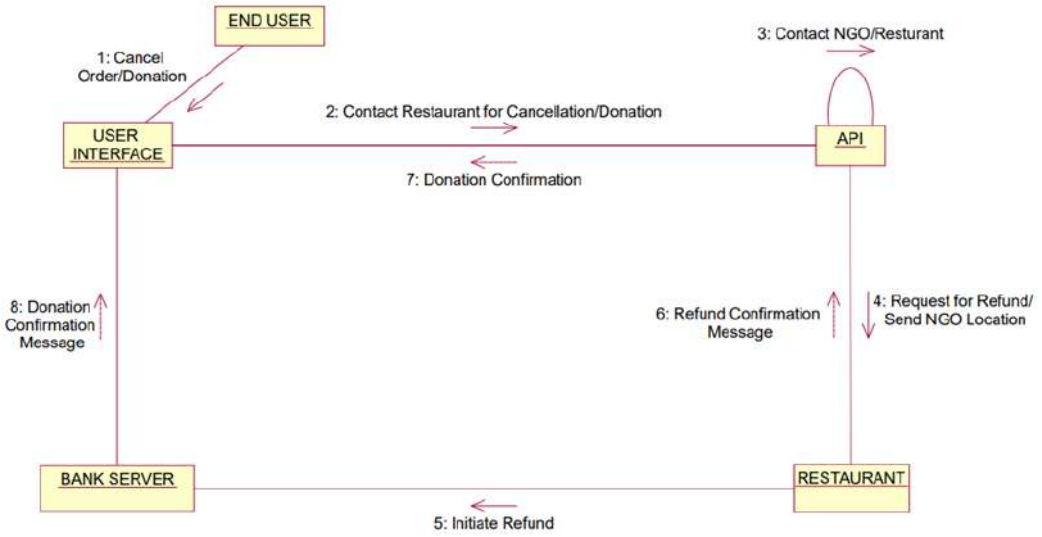


❖ **For Donation/Cancellation**

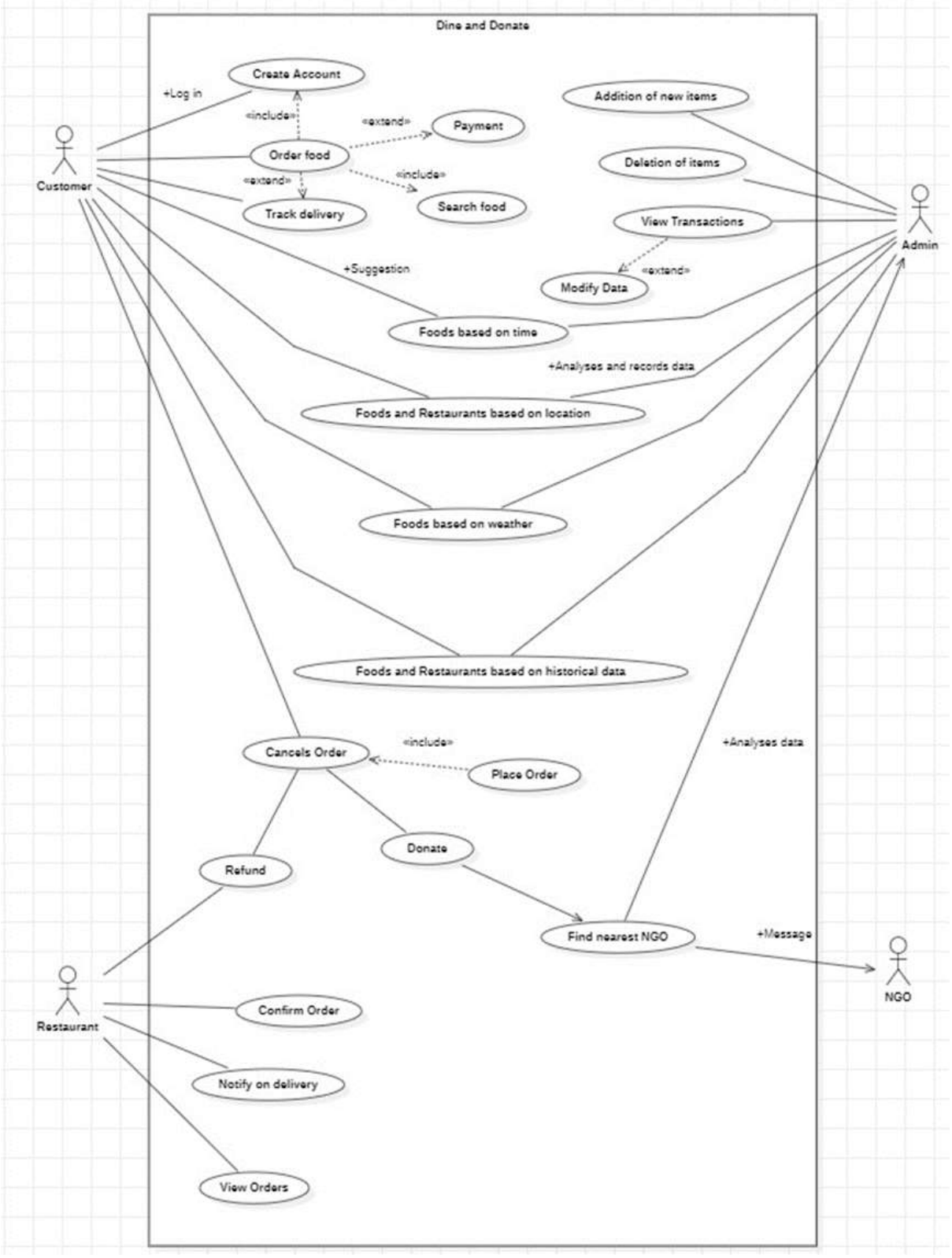
S4:



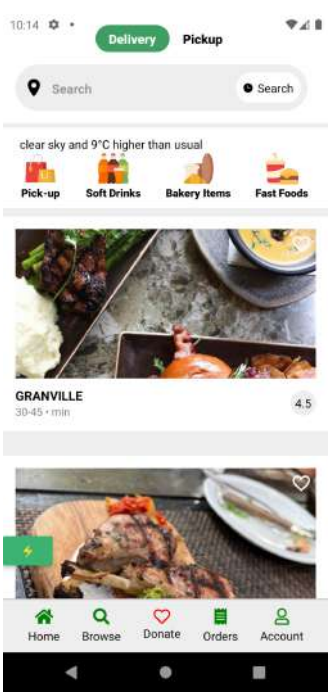
C4:

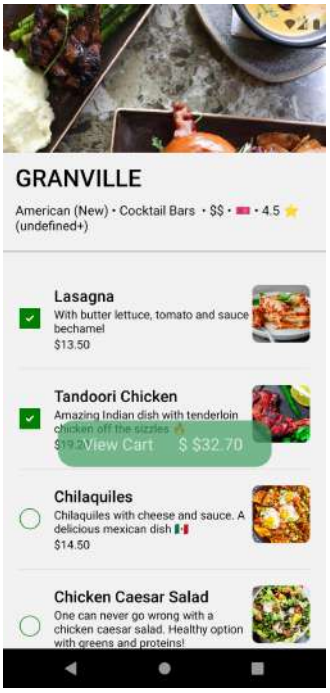


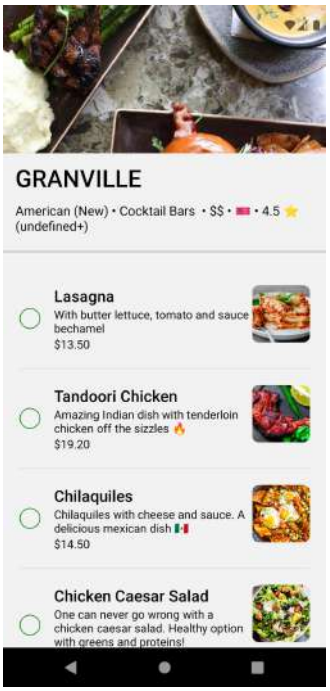
- **Use-Case Diagram**

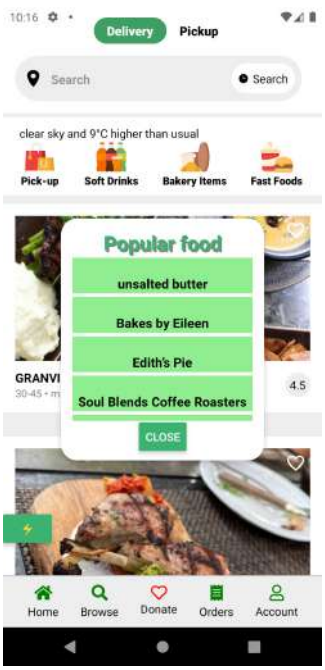


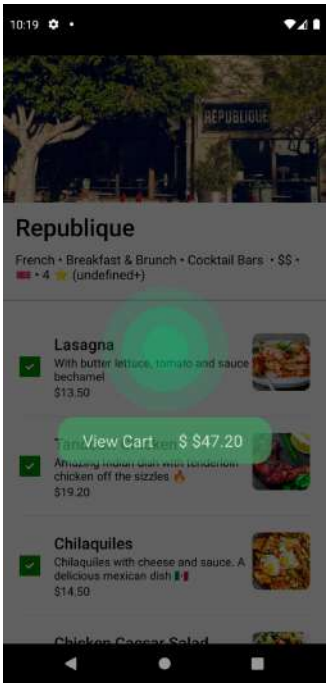
UI - USER INTERFACE DESIGN

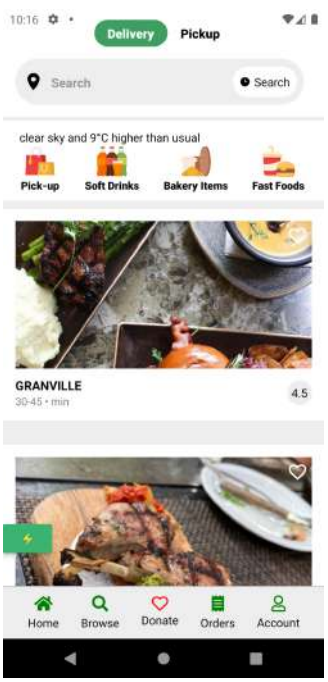


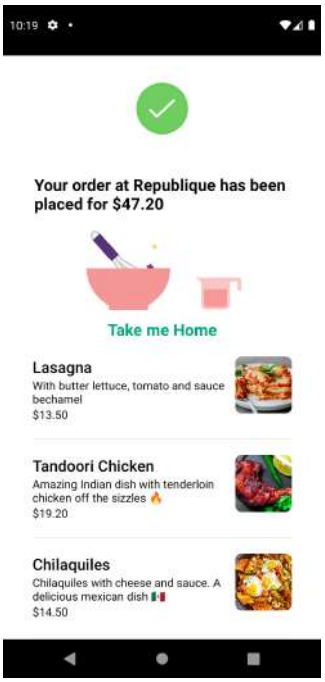


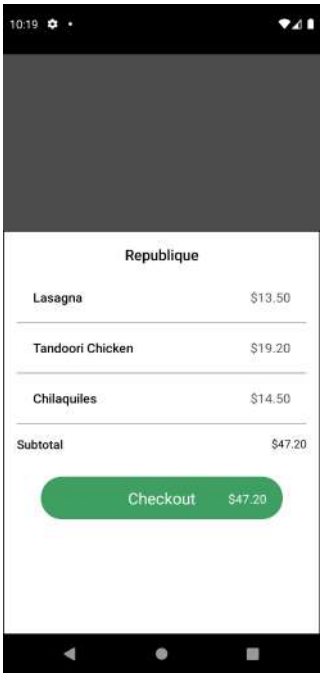


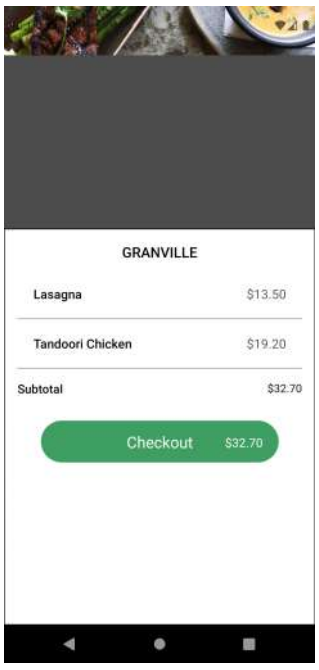


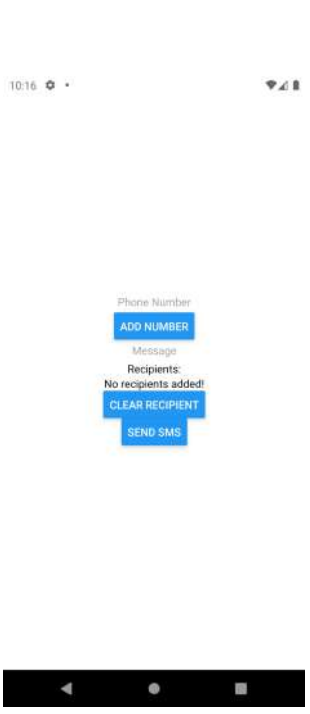



10:16
Delivery
Pickup
Search
Search
clear sky and 9°C higher than usual
Pick-up
Soft Drinks
Bakery Items
Fast Foods
GRANVILLE
30-45 • min
4.5
Home
Browse
Donate
Orders
Account


10:19
Your order at Republique has been placed for $47.20
Take me Home
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
Tandoori Chicken
Amazing Indian dish with tenderloin chicken off the sizzles
$19.20
Chilaquiles
Chilaquiles with cheese and sauce. A delicious mexican dish
$14.50


10:19
Republique
Lasagna $13.50
Tandoori Chicken $19.20
Chilaquiles $14.50
Subtotal $47.20
Checkout $47.20


GRANVILLE
Lasagna $13.50
Tandoori Chicken $19.20
Subtotal $32.70
Checkout $32.70


10:16
Phone Number
ADD NUMBER
Message
Recipients:
No recipients added!
CLEAR RECIPIENT
SEND SMS

10:16
Phone Number
ADD NUMBER
DONATION
Recipients:
78678
CLEAR RECIPIENT
SEND SMS

PROPOSED METHODOLOGY

The main aim of the project is to develop a online food ordering app that has an admin who maintains and modifies the food items and manages the activities related to the application and the users who can login/signup and view the food items available , search for their favourite food items and also add items to cart proceeding with their orders and payments . Also , when the user feels like cancelling the order he/she can go for donation under NGO registration and gets a refund of 50% for the same. Additionally , the user can also get the suggestions i.e, the type of food that is suitable to have based on the user's location , time and weather. The system is built as five different modules as follows ,

- **Product Search**

API and frameworks used

- **Google cloud API**
- **Yelp API**

Product Search module is built in a way that it allows the users to search the food they would like to order and buy after going through the food specifications and details such as the delivery time, food type, preferences, location, distance, and ratings of customers . For this module we have used two APIs – Google Cloud API and Yelp API.

i. Google cloud API

When it comes to a product search module it needs to be flexible and satisfying the customers search and requirements. In this regard , Google cloud API is used where a search bar option is built that integrates and fetches data of product availability , the locations of nearby hotels

along with the the food product details. For this , the google cloud API takes in the input of location image coordinates and displays the output for the given search input.

ii. Yelp API

It is as important as search when comes to bringing out the best output search results to the customers. Whereas for this ,yelp API plays the role of filtering the searches by the customers based on the food products, food details , categories and the hostels that are located nearby. Thus , offering the best search output for the given product search input.

- **Product Display**

API and frameworks used

- **Yelp API**
- **Redux Framework**

Product Display module is built for the customers to see the available food products along with the necessary features such as the price details , related categories ,stock , ingredients used to make the food and the add to cart option. For this module we have used an API and framework – Yelp API and Redux framework

i. Yelp API

As the customer goes in with the search , it is necessary to display the products based on his/her search. Thus , Yelp API is used to get the data in the form of input and displays the list of products that is found at its best based on the customers input after filtering them based on the features likes the food details , nearby locations , price ,nearby hotels and the best food products under the category.

ii. Redux Framework

And once the customer visits and gets satisfied with the product he/she might it to a cart probably . Here comes the role of the Redux Framework that it saves the product that the customer has selected and proceeds with the future searches and follows the same thereby keeping track of the customers sessions and tracks just like a state to state transition .

- **Donate and Refund**

For the donation and refund module, we have used the messaging functionality to the NGO, all the details about the NGO will be acquired from the database where a specific NGO admin can register themselves for this application. Once the details have been stored in the database and when a user tries to donate the food, the details of the nearest NGO will be taken from the database and fed into the application, so a message will be sent to the registered mobile number of the NGO saying that there is a donation from a donor along with his details. To achieve this functionality, we have used the SMS package of the react, this package basically provides access to the system's UI/app for sending SMS messages, along with this we are also installing useEffect package to check the availability/applicability of the SMS package, also we are using useState package to store some state variables that is used to send messages to some specific numbers. Here by default, we assume that there is no SMS available, then we create a variable inside useEffect function to asynchronously check if SMS is available. And if the state variable of sms availability becomes true then the button to send sms will be enabled otherwise some text saying that there is no sms available will be displayed, then we are creating a asynchronous function to send sms, for this function the parameters are mobile numbers and the message to be sent, to get these parameters we again use the useState package, we initially set them undefined and then we let the user to give inputs to these parameters and be sent to the message sending function, along with it we are

adding a button to add a set of mobile numbers to the send function, so the first parameter in the send function will be having multiple values.And aa the donation is done the refund wof 50% will be offered back.

- **Payment**

Razorpay is a popular payment gateway that allows businesses to accept online payments in their mobile applications. It provides a simple and secure way to integrate various payment methods, such as credit/debit cards, net banking, UPI, wallets, and more, into a React Native app. Here's a high-level overview of how Razorpay payment gateway works in a React Native app:

Setting up Razorpay Account: First, we need to create a Razorpay account and obtain the necessary API keys and credentials. These keys will be used to authenticate your app and enable communication with the Razorpay servers.

Installing Razorpay SDK: Next, we need to install the Razorpay SDK in our React Native app.

Importing Razorpay Module: Once the SDK is installed, we need to import the Razorpay module into your React Native app. we can do this by adding an import statement at the top of your component file, like this: import RazorpayCheckout from 'react-native-razorpay';.

Creating Payment Order: To initiate a payment, we need to create a payment order on the Razorpay server. This order contains details such as the amount to be charged, currency, payment methods, etc. We can use the Razorpay API to create the payment order from your backend server and receive an order ID in response.

Opening Razorpay Checkout: Once we have the order ID, we can use the Razorpay module in your React Native app to open the Razorpay Checkout page. This page allows the user to enter their payment details and complete the transaction. We can configure the Checkout page with various options, such as the order amount, order ID, payment methods, etc.

Handling Callbacks: After the user completes the payment or cancels the transaction, Razorpay sends a callback to our app with the payment status and other details. Verifying Payment: To ensure the security of our app and prevent fraud, it's important to verify the payment status on our backend server as well.

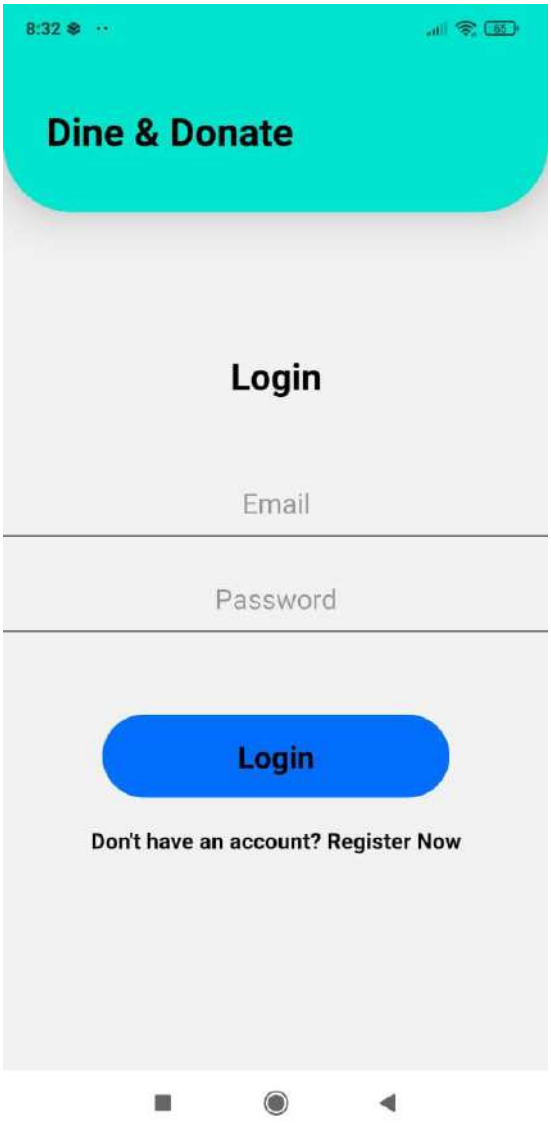
- **Recommendation**

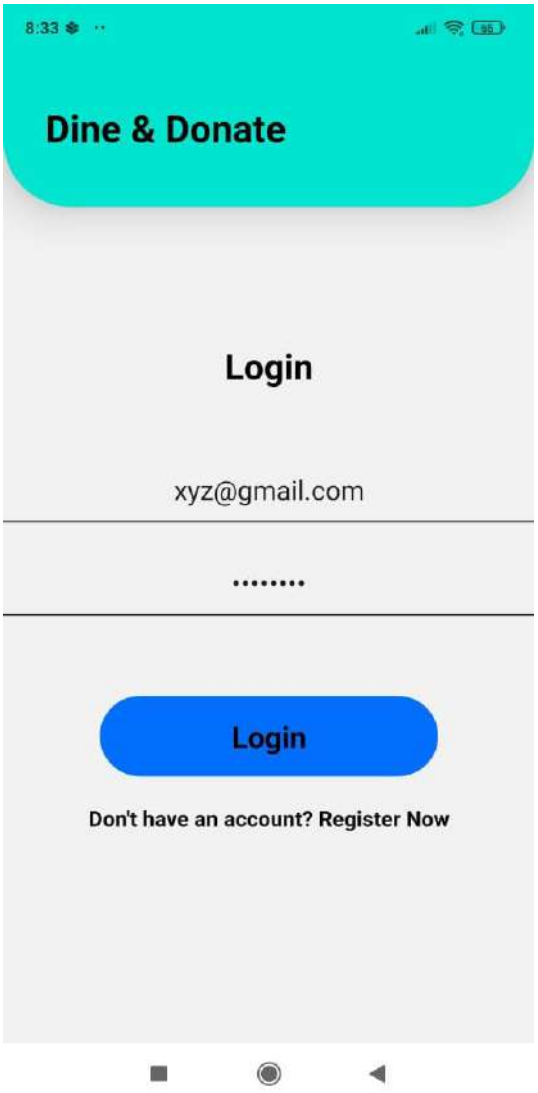
For the recommendation module, we will be basically displaying foods based on the weather and some other factors, to get the weather, we have used the openWeatherMap api, which is an online service that provides the global weather data including current weather data, forecasts, nowcasts, and historical weather data for any geographical location, so to get the location of the user, we used the yelp api to get the coordinates of the user, and this data will be sent to the openWeatherMap api to get the weather data and then this data will be sent to the firebase to get the pre-defined foods to be suggested to the user based on the weather, these foods will be extracted from the firebase and this will be shared to the user application either as a notification or as a pop-up page. This is the overview of the recommendation module working, yet this is a simple implementation in this project. Also to suggest some popular foods in the place(coordinates) gathered by yelp api, we again use the same yelp api to suggest some popular foods from the same place, this will fetch the data and it will display the foods respectively.

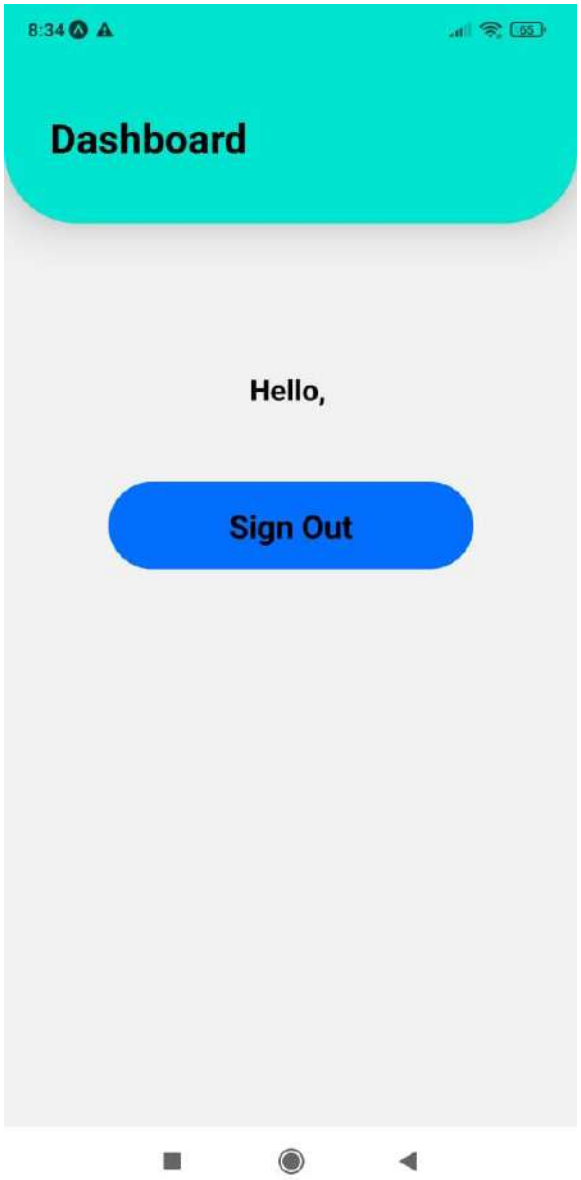
MODULES DEMONSTRATION

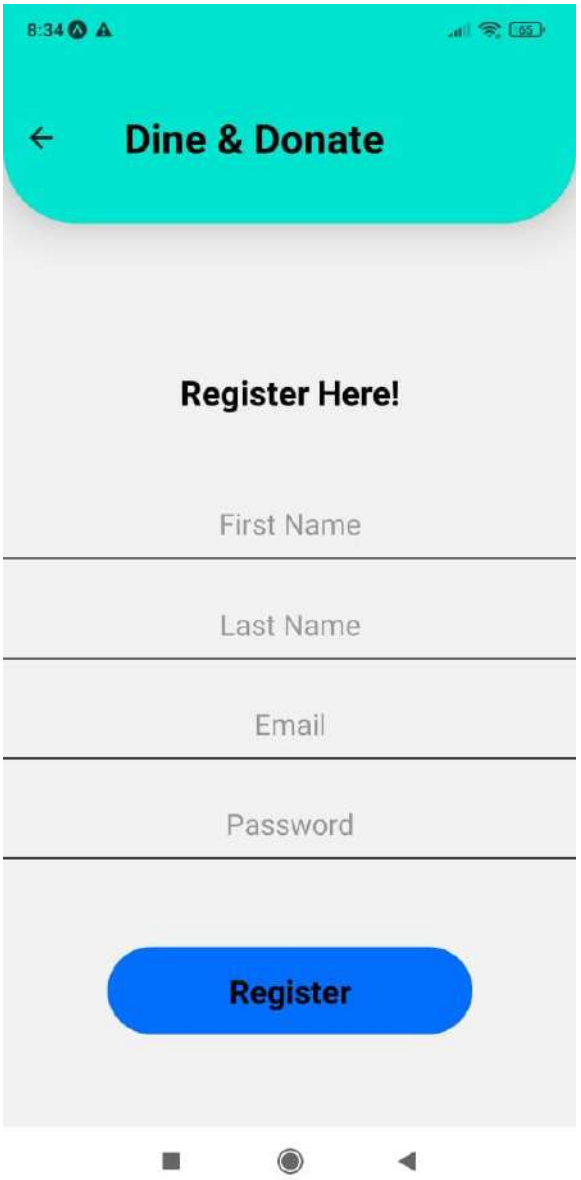
- ❖ **SEARCH MODULE**
- ❖ **DISPLAY MODULE**
- ❖ **DONATE AND REFUND MODULE**
- ❖ **RECOMMENDATION MODULE**
- ❖ **PAYMENT MODULE**

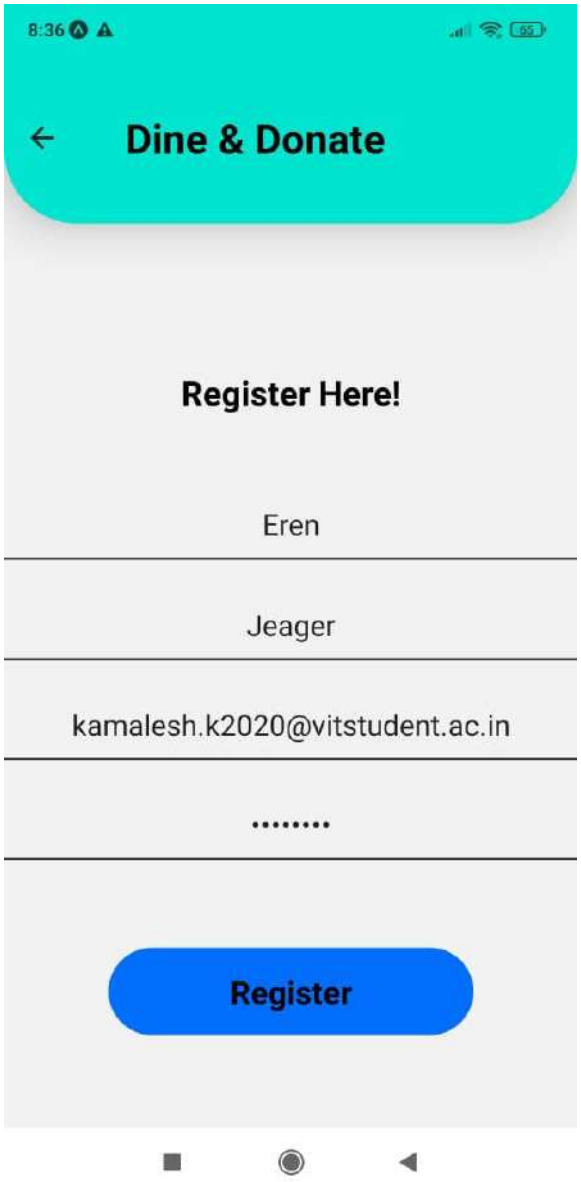
Authentication Module:

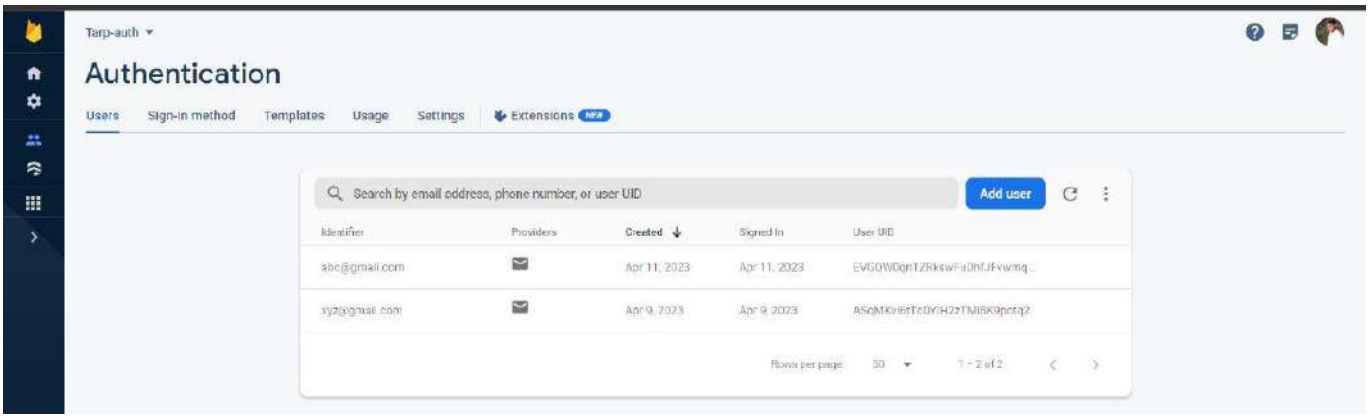




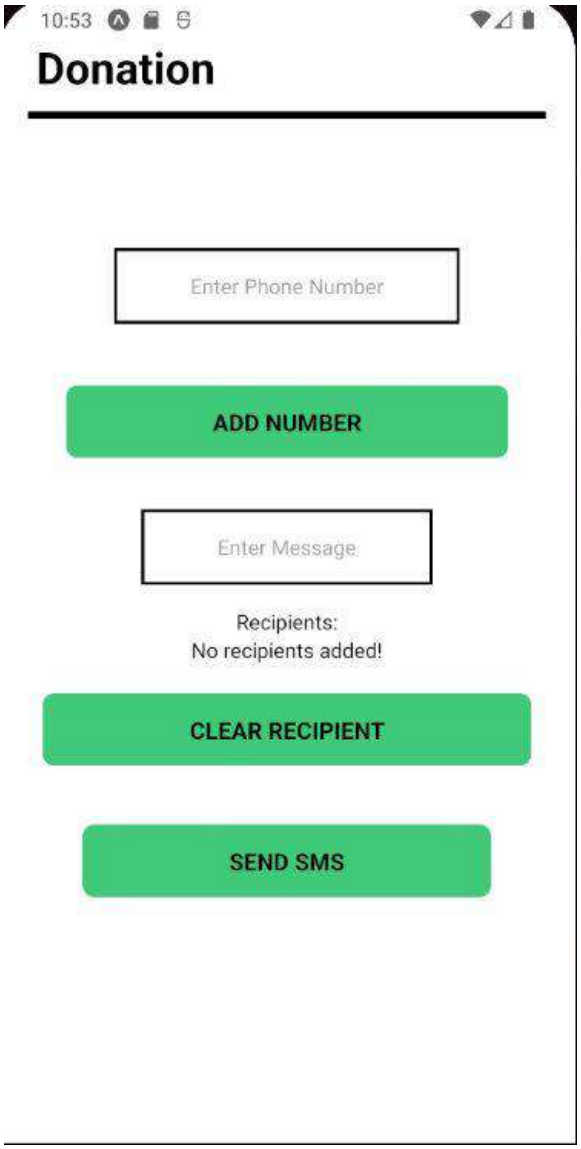

8:34
Dashboard
Hello,
Sign Out

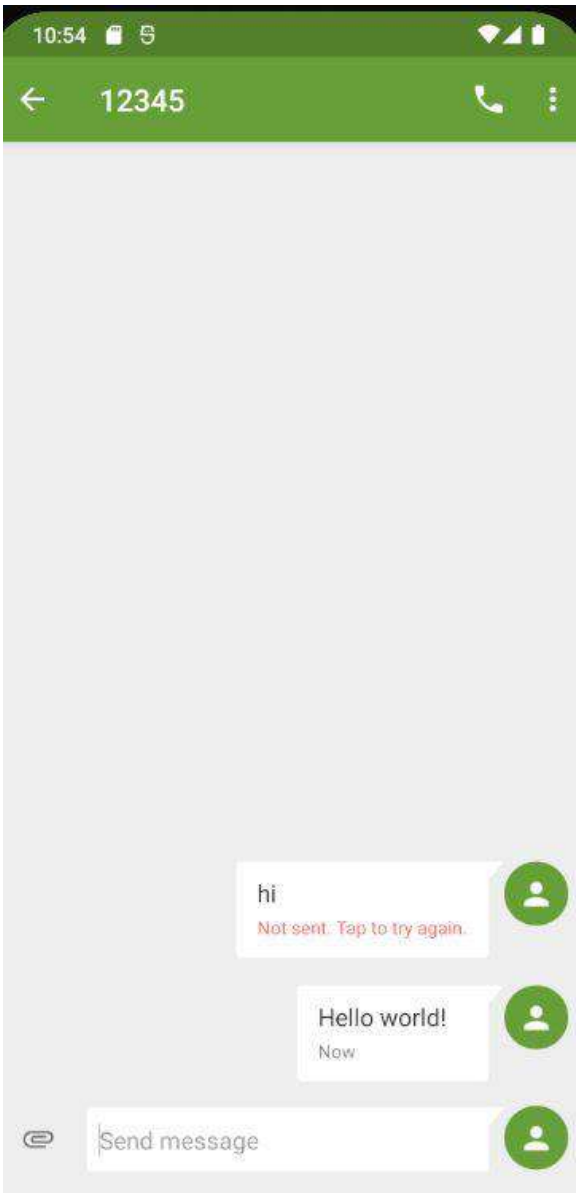

8:34
Dine & Donate
Register Here!
First Name
Last Name
Email
Password
Register

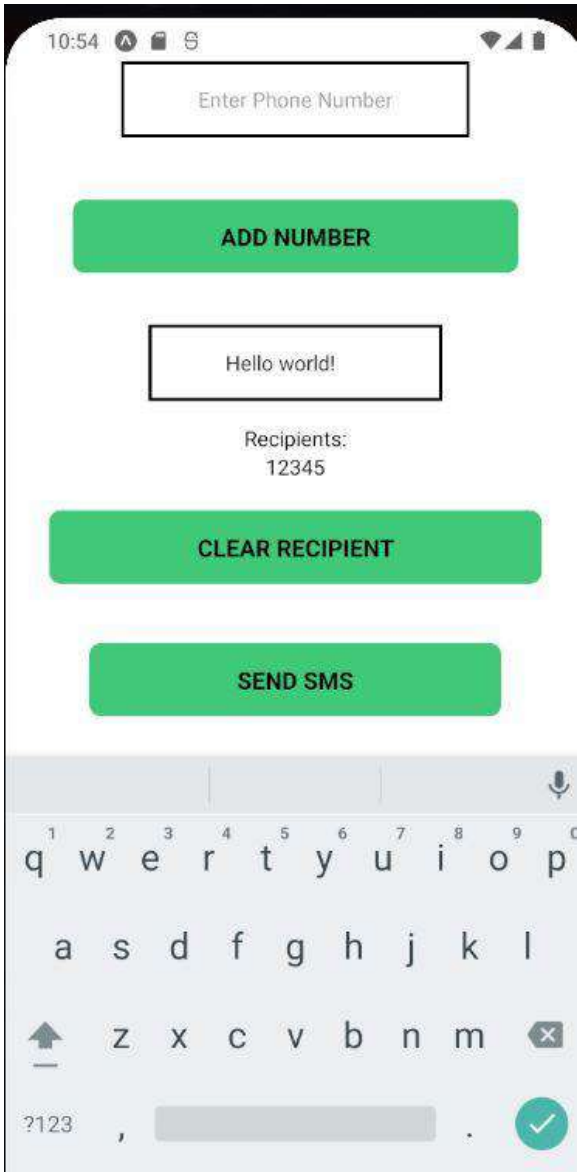

8:36
Dine & Donate
Register Here!
Eren
Jeager
kamalesh.k2020@vitstudent.ac.in
Register


Tarp-auth
Authentication
Users
Sign-in method
Templates
Usage
Settings
Extensions
Search by email address, phone number, or user UID
Add user
Identifier
Providers
Created
Signed In
User UID
abc@gmail.com
Apr 11, 2023
Apr 11, 2023
xyz@gmail.com
Apr 9, 2023
Apr 9, 2023
Rows per page:
50
1 - 2 of 2

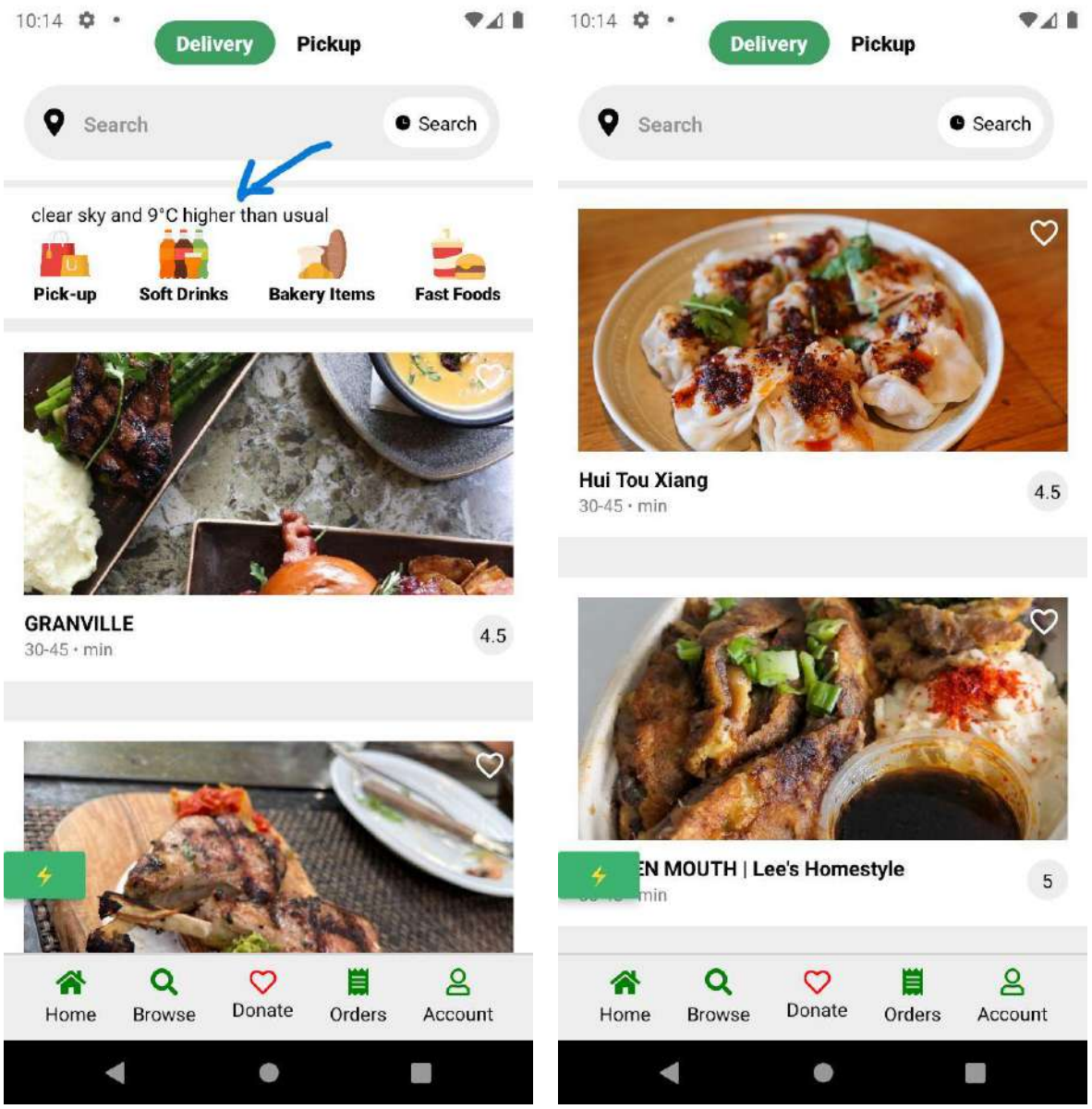
Donation Module:

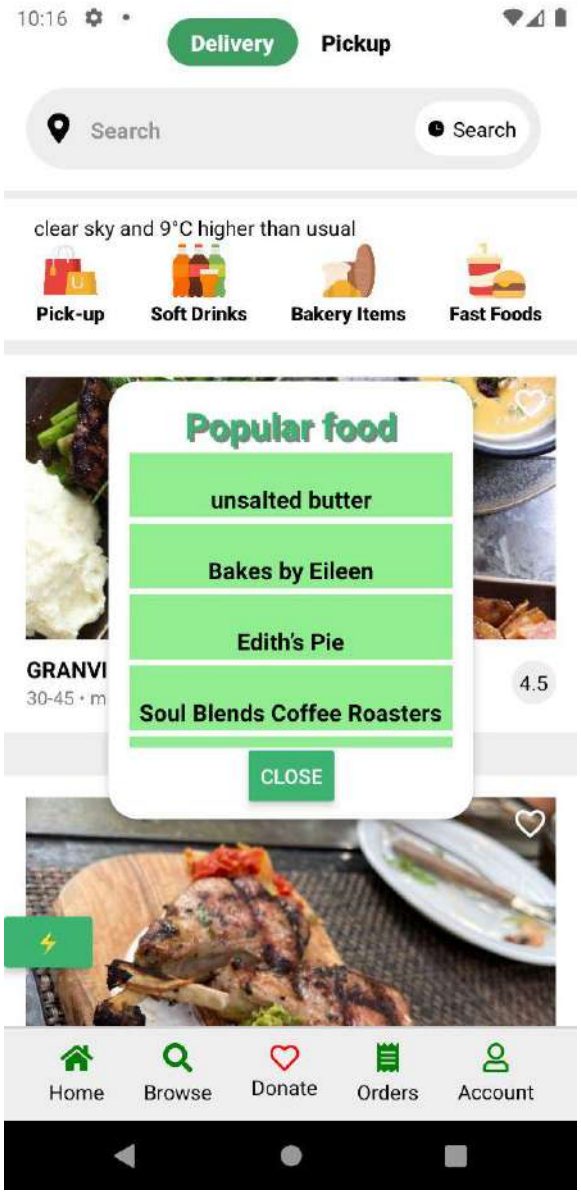




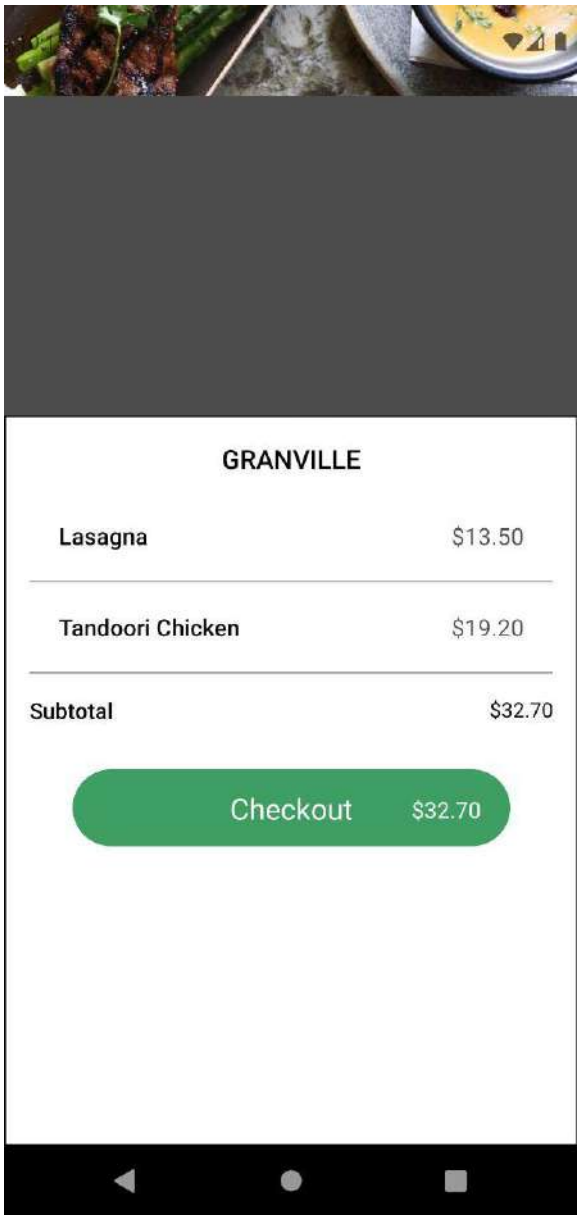

10:54
Enter Phone Number
ADD NUMBER
Hello world!
Recipients:
12345
CLEAR RECIPIENT
SEND SMS
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
?123

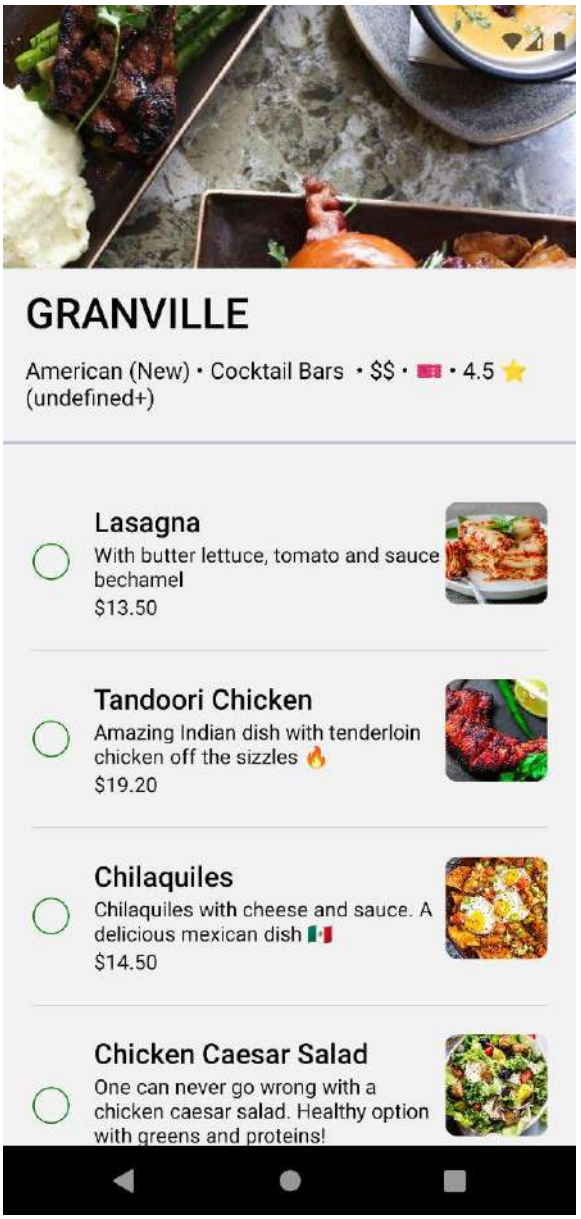
Recommendation Module:

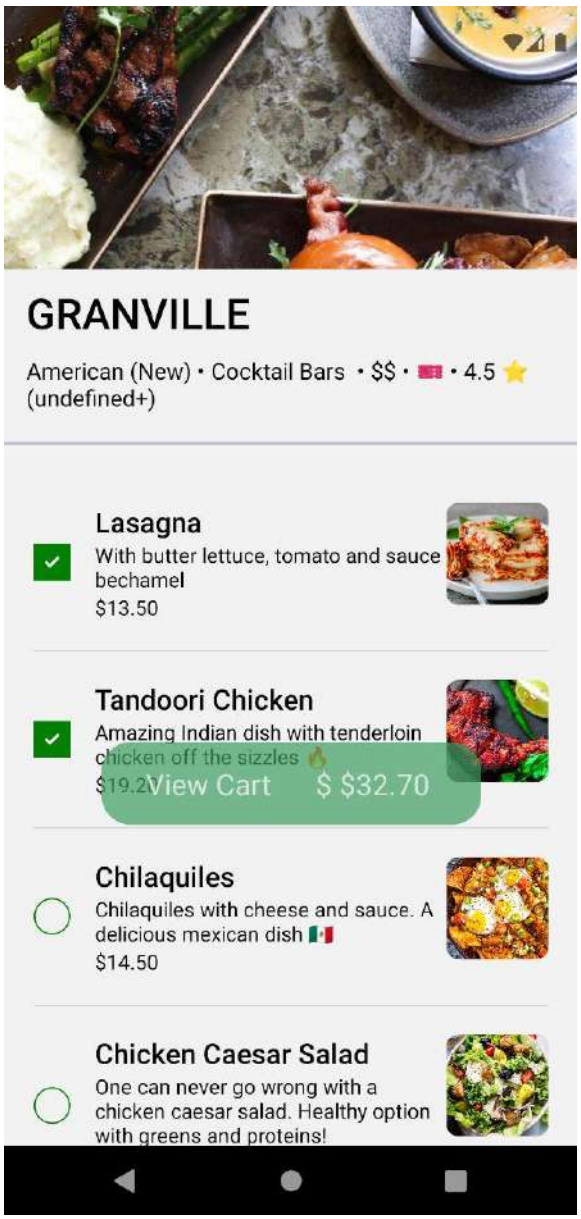


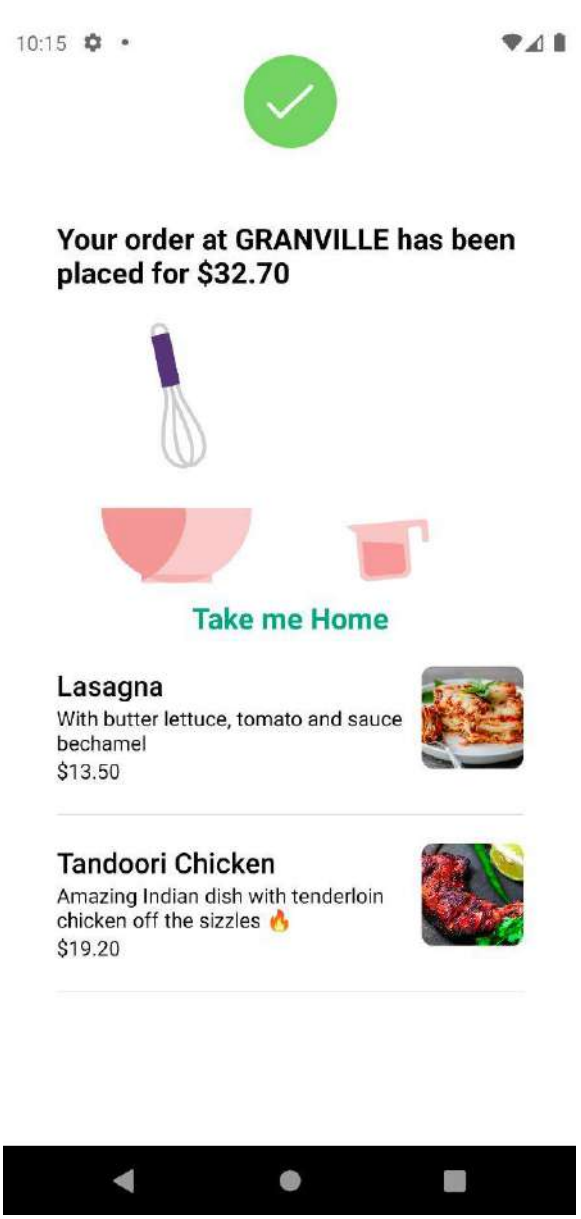

10:16
Delivery
Pickup
Search
Search
clear sky and 9°C higher than usual
Pick-up
Soft Drinks
Bakery Items
Fast Foods
Popular food
unsalted butter
Bakes by Eileen
Edith's Pie
Soul Blends Coffee Roasters
CLOSE
GRANVI
30-45 • m
4.5
Home
Browse
Donate
Orders
Account

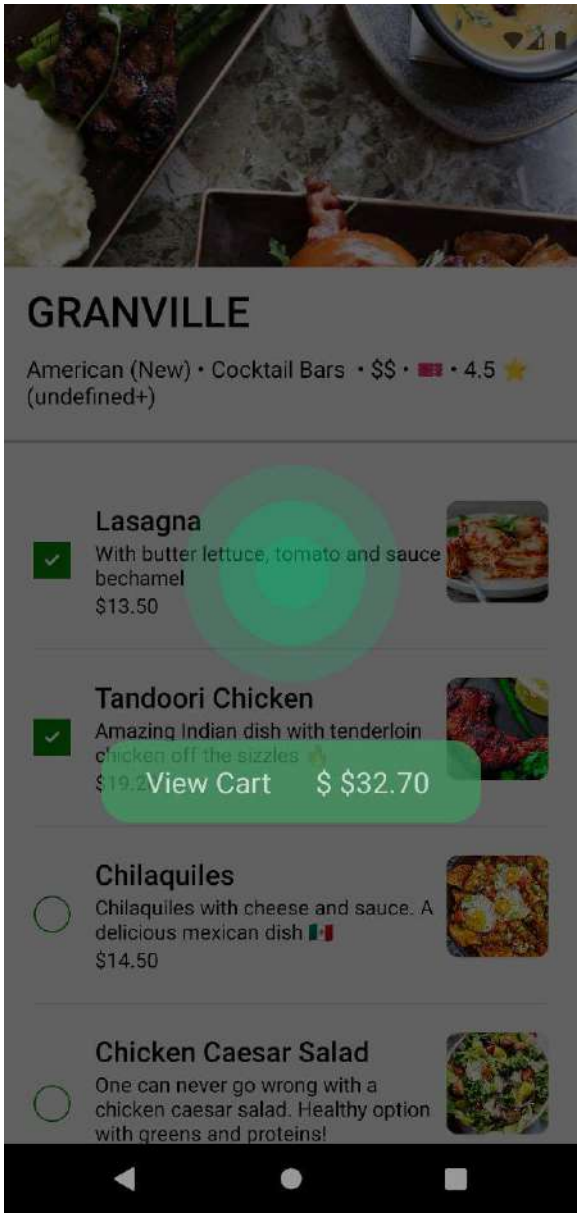
Order Placing:






GRANVILLE
American (New) • Cocktail Bars • $$ • • 4.5 ⭐ (undefined+)
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
Tandoori Chicken
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
$19.20
View Cart $ $32.70
Chilaquiles
Chilaquiles with cheese and sauce. A delicious mexican dish 🇲🇽
$14.50
Chicken Caesar Salad
One can never go wrong with a chicken caesar salad. Healthy option with greens and proteins!


10:15
Your order at GRANVILLE has been placed for $32.70
Take me Home
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
Tandoori Chicken
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
$19.20


GRANVILLE
American (New) • Cocktail Bars • $$ • • 4.5 ⭐ (undefined+)
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
Tandoori Chicken
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
View Cart $ $32.70
Chilaquiles
Chilaquiles with cheese and sauce. A delicious mexican dish 🇲🇽
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Chicken Caesar Salad
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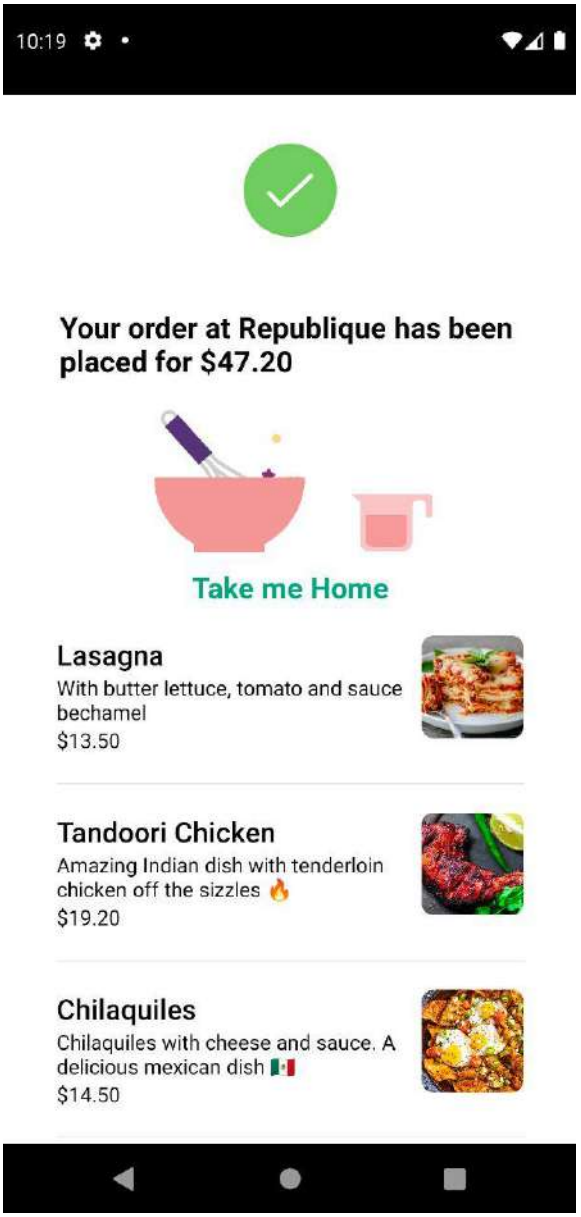
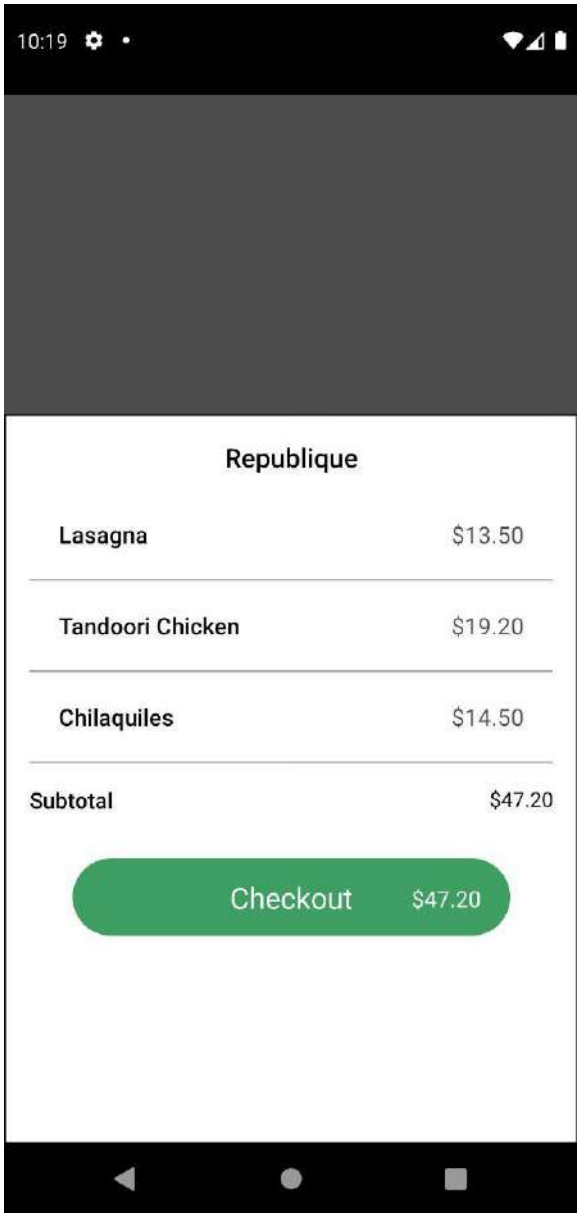
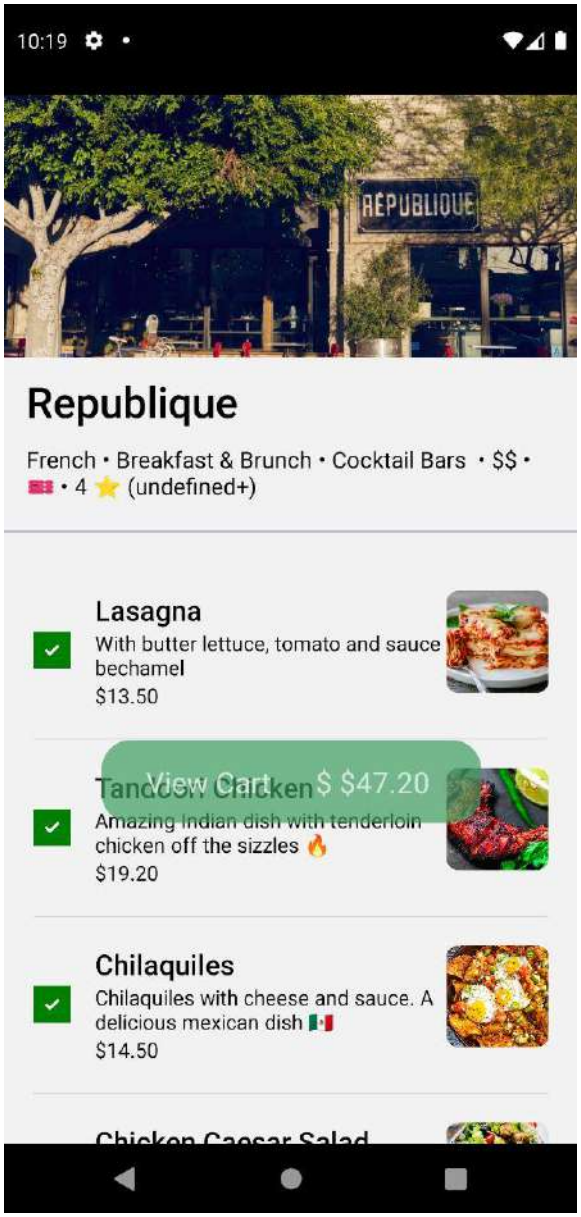
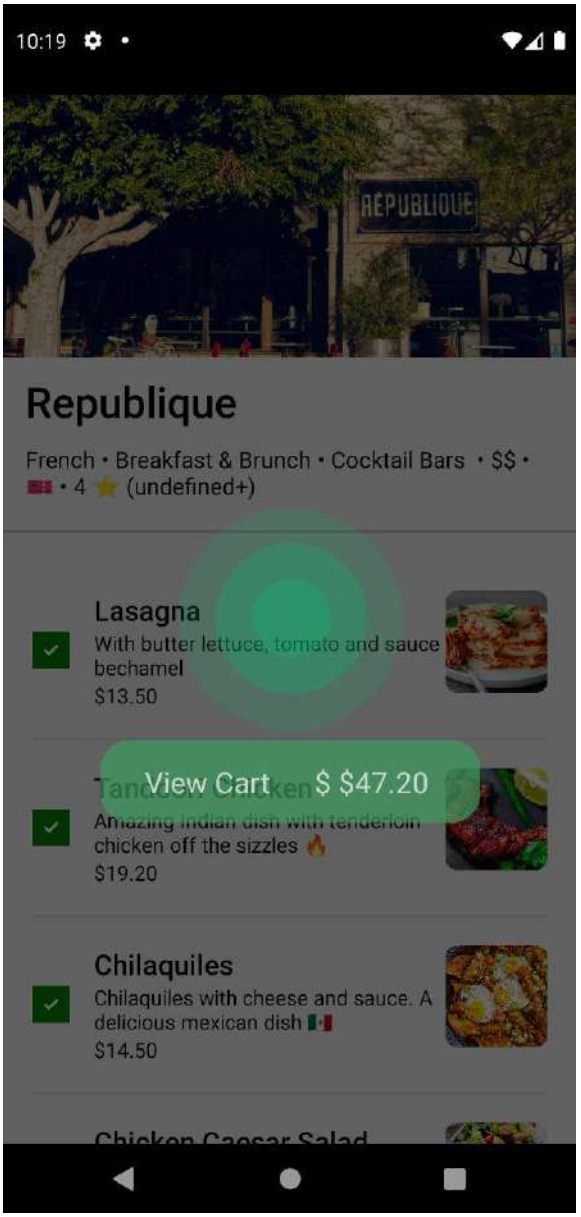

10:19
Your order at Republique has been placed for $47.20
Take me Home
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
Tandoori Chicken
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
$19.20
Chilaquiles
Chilaquiles with cheese and sauce. A delicious mexican dish 🇲🇽
$14.50

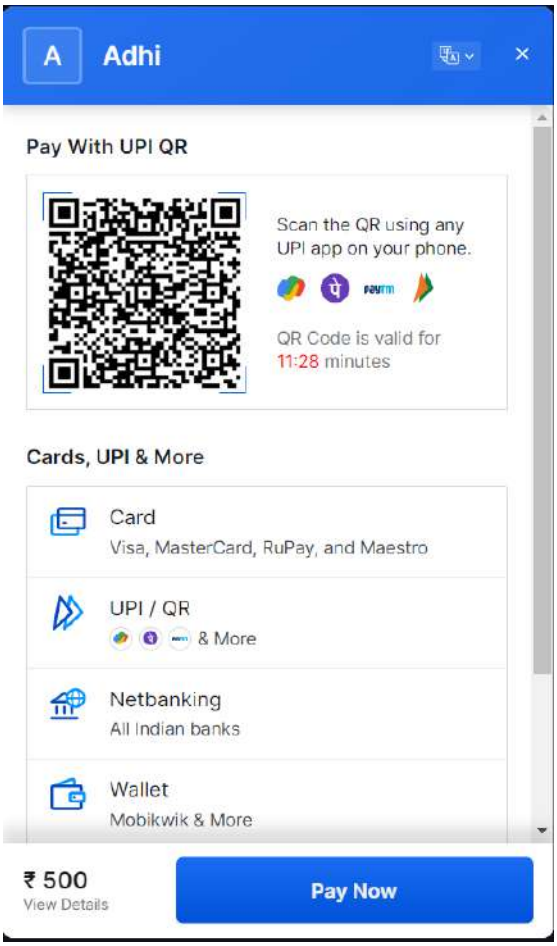

10:19
Republique
Lasagna $13.50
Tandoori Chicken $19.20
Chilaquiles $14.50
Subtotal $47.20
Checkout $47.20

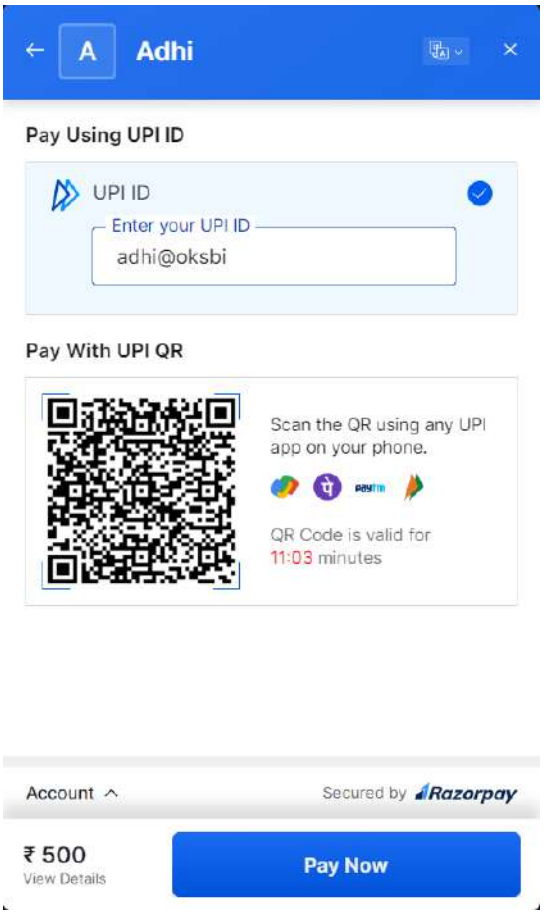
10:19
Your order at Republique has been placed for $47.20
Take me Home
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
Tandoori Chicken
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
$19.20
Chilaquiles

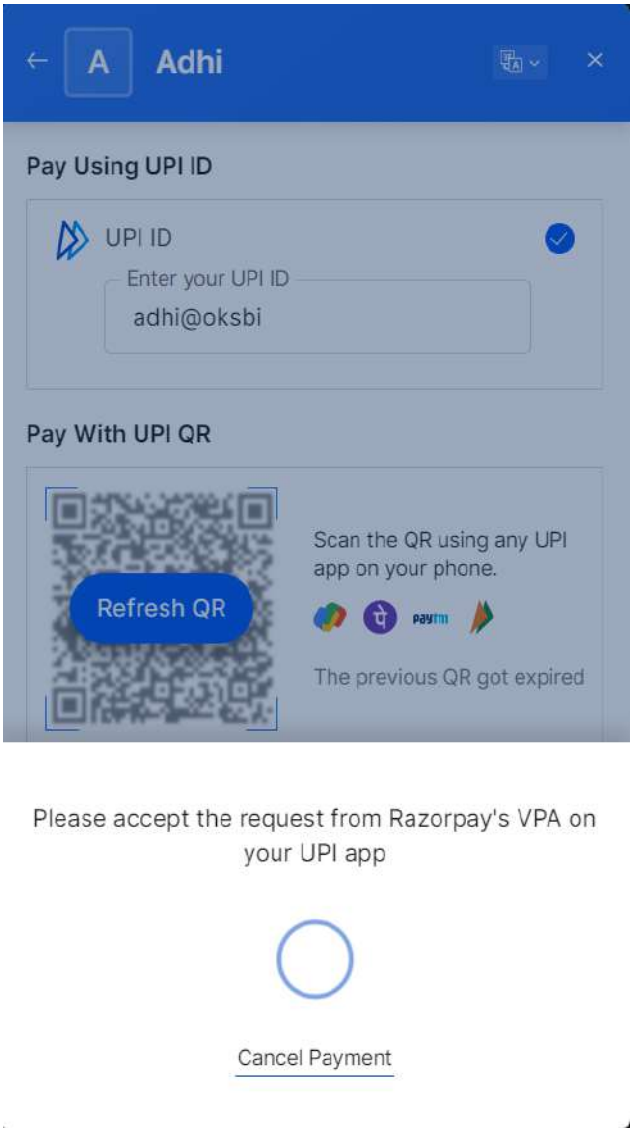

10:19
RÉPUBLIQUE
Republique
French • Breakfast & Brunch • Cocktail Bars • $$ •
• 4 ⭐ (undefined+)
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
View Cart $ $47.20
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
$19.20
Chilaquiles
Chilaquiles with cheese and sauce. A delicious mexican dish 🇲🇽
$14.50

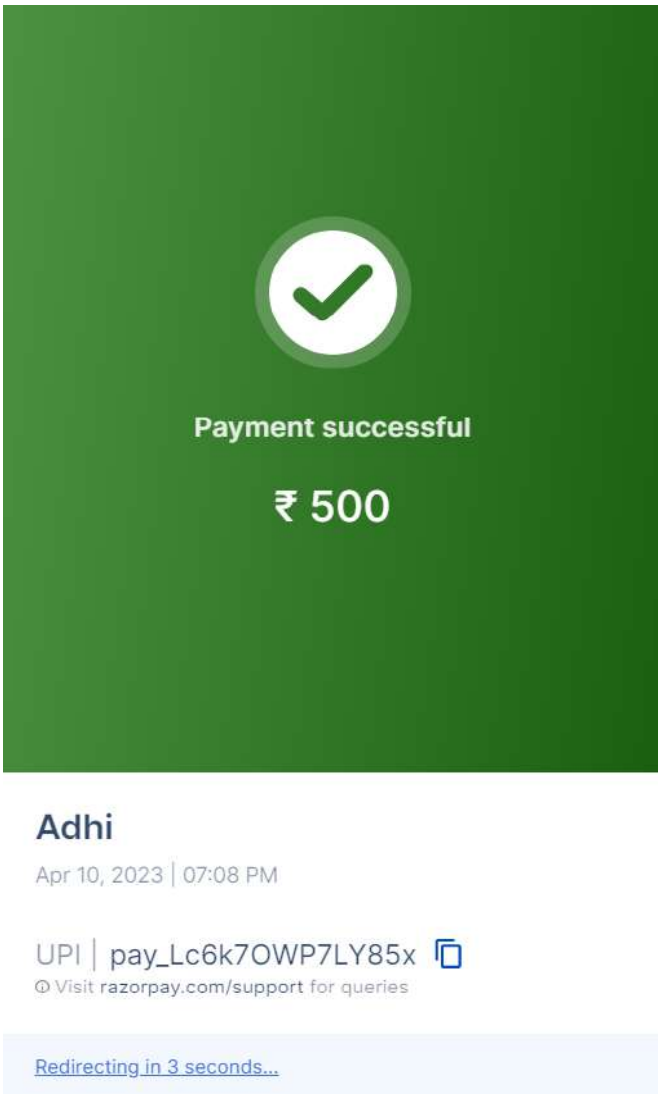

10:19
RÉPUBLIQUE
Republique
French • Breakfast & Brunch • Cocktail Bars • $$ •
• 4 ⭐ (undefined+)
Lasagna
With butter lettuce, tomato and sauce bechamel
$13.50
View Cart $ $47.20
Amazing Indian dish with tenderloin chicken off the sizzles 🔥
$19.20
Chilaquiles
Chilaquiles with cheese and sauce. A delicious mexican dish 🇲🇽
$14.50

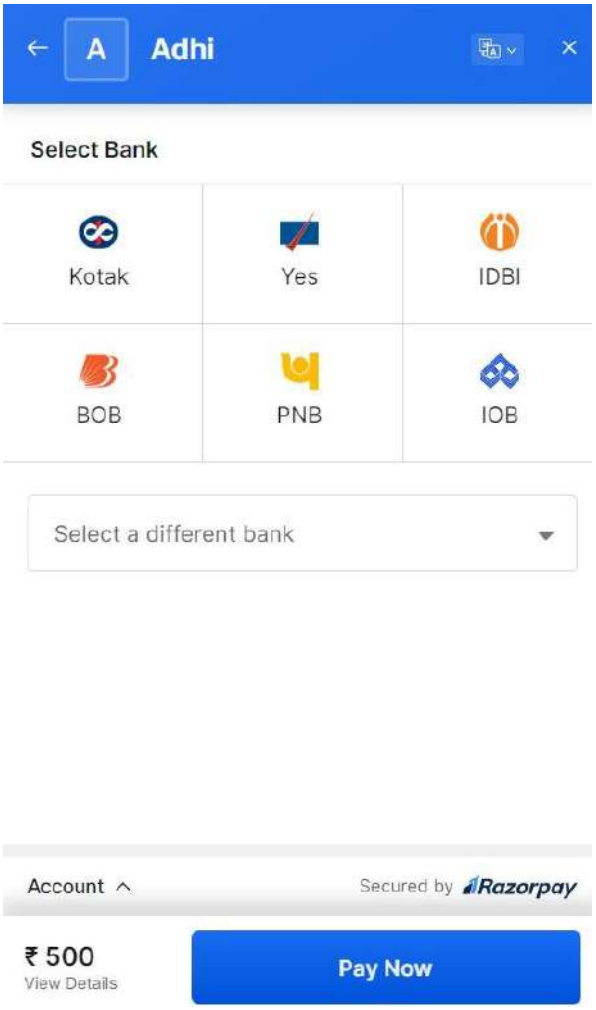
Payment Module:






A
Adhi
Pay Using UPI ID
UPI ID
Enter your UPI ID
adhi@oksbi
Pay With UPI QR
Refresh QR
Scan the QR using any UPI app on your phone.
The previous QR got expired
Please accept the request from Razorpay's VPA on your UPI app
Cancel Payment


Payment successful
₹ 500
Adhi
Apr 10, 2023 | 07:08 PM
UPI | pay_Lc6k7OWP7LY85x
Visit razorpay.com/support for queries
Redirecting in 3 seconds...


A
Adhi
Select Bank
Kotak
Yes
IDBI
BOB
PNB
IOB
Select a different bank
Account
Secured by Razorpay
₹ 500
View Details
Pay Now

TESTING REPORT

Application test report

Project name: Dine and Donate

Usability testing

S.No	Tests
1	Verify if the user is able to search for food
2	Verify if the user is able to choose a restaurant
3	Verify if the user is able to place order
4	Verify if the user is able to track the order
5	Verify if the user is able to donate food
6	Verify if the user is able to get a refund

Tests	Passed or Failed	Time Taken
Verify if the user is able to search for food	Passed	1 min
Verify if the user is able to choose a restaurant	Passed	< 1min
Verify if the user is able to place order	Passed	2 mins
Verify if the user is able to track the order	Failed	-NA-
Verify if the user is able to donate food	Passed	1 min

Summary:

- No of test cases planned vs executed: 6 vs 5
- No of test cases passed vs failed: 4 vs 1

Test cases planned	Test cases executed	Test cases passed	Test cases failed
6	5	4	1

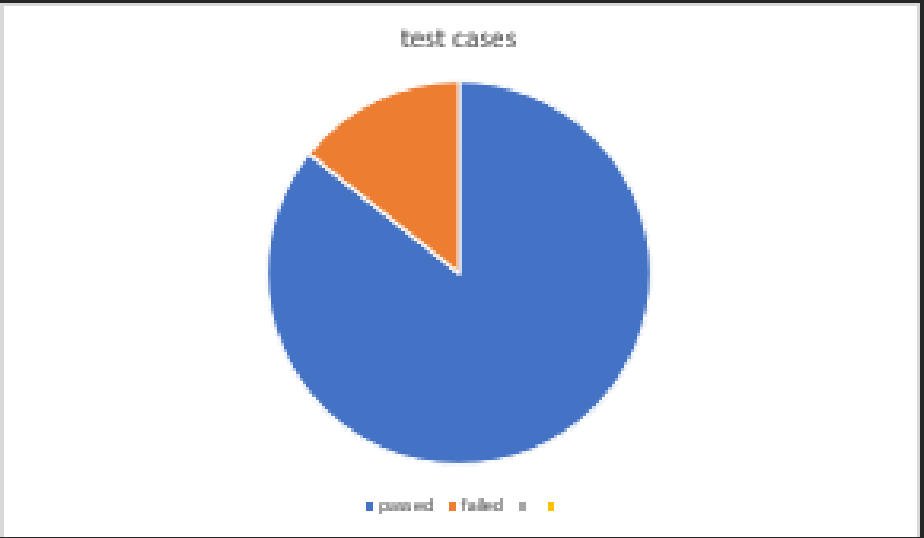
Unit testing				
Test case No	Test case	Expected Result	Actual Result	Pass/Fail
1	NGO registration	NGO should be able to register via website	NGO is able to register via website	pass
2	hotel registration	Hotel should be able to register via website	hotel is able to register via website	pass
3	Menu display	API should fetch data and frontend should display them	API was able to fetch data and frontend displayed them	pass
4	Find NGOs	API should fetch data and frontend should display them	API was able to fetch data and frontend	pass

			displayed them	
5	Track food	API should fetch data and frontend should display them	Code seems to have an error	fail
6	Get recommendation	API should fetch data and frontend should display them	API was able to fetch data and frontend displayed them	pass
7	Authentication	Authentication functionalities should be working fine	Authentication functionalities works fine	pass

Summary:

- No of test cases planned vs executed: 7 vs 7
- No of test cases passed vs failed: 6 vs 1

Test cases planned	Test cases executed	Test cases passed	Test cases failed
7	7	6	1



CONCLUSION AND FUTURE SCOPE

We successfully designed a user friendly and reliable application DINE AND DONATE that performs its job of search ability and displaying food products, dining, donating and also providing food recommendations for users.

Also , our application offers future scope of further explorations and improvements.The improvements can be of providing and integrating distance based recommendations for NGOs to deliver, offering crypto based rewards for donors, coupons and discounts and also cloud kitchen integration etc :

REFERENCES

[1] Zion,A., Spangler, J., & Hollmann, T. (2019). Food delivery apps: usage and demographics- winners, losers and laggards.

[2] Babu, R., & Arthy, R. (2019). Ordering of food through online - an empirical study among young adults. International Journal of Management Studies, 6(2), 96-102.

[3] Larsen, L. (2020, April 14). Study highlights risks of food poisoning with online food ordering. Food Poisoning Bulletin.

[4] Changeadmin. (2020, September 27). Swiggy and Zomato Food Wastage.

DINE AND DONATE

Prof. SENTHILNATHAN P

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

TEAM - 5

INTRODUCTION

Hunger is one of the world's issues that demands attention. On the other hand, research indicates that people all around the world are switching to online food delivery services where the ordering portal does not include a contribution component. Additionally, current study indicates that hunger is rising globally as a result of wars, radically changing weather patterns that reduce crop yield and food production, and a decline in human physical interaction since the introduction of COVID-19.

MOTIVATION

Therefore, we gathered ideas that can minimize poverty hunger and help people dine better and thus decided to develop an app named DINE AND DONATE , a food app that helps people dine their favorite food items and also donate their food by volunteering themselves and registering a NGO for the phrase of DONATE AND SAVE LIVES. As a result, we put into practice our DINE AND DONATE concept, that works on dine, donate and delivery . For the development of our app's user interface, we employed APIs like GCloud, Yelp, the redux framework, and ReactJs.

SCOPE OF THE PROJECT

The aim of our project is not only about dining and donating food using NGOs, but also involves tracking and implements the idea of recommending the food items based on the user's location by taking inputs such as time and weather. Thus, providing a better user experience and requirement.

PROPOSED METHODOLOGY

Our project has been split into five seperate modules that works together

- **Product Search**

  After the user login/signup , he/she can search the food product using the serach icon that they wish to have. A list of available and related products show up on perfoming the operation.

- **Product Display**

  Our app displays products in a precised and aligned order .Once the user clicks on a product he/she can view the product along with the product details, ingredients used and description of the food.

- **Donate and Refund**

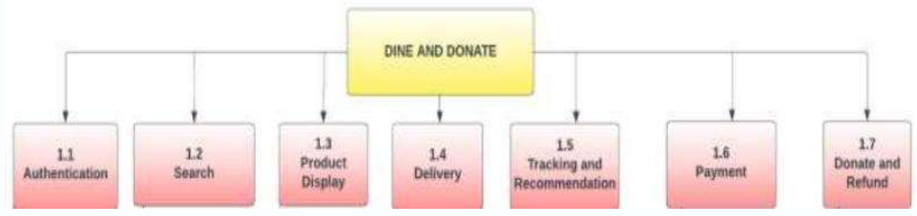
  Sometimes, the buyer after ordering the item can cancel the food . In this case our app supports donation where the user can register for an NGO and volunteer for donating. Further , after donating the user gets a refund of 50%

- **Payment**

  The user can make payments through daily basis payment methods such as pays and cards.Thus, enabling the users have a supportive and feasible experience.

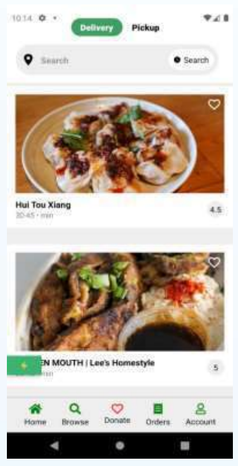
- **Recommendation**

  Also , our app suggests food items for users i.e recommending them food items by taking into account and tracking the users location, weather and time.

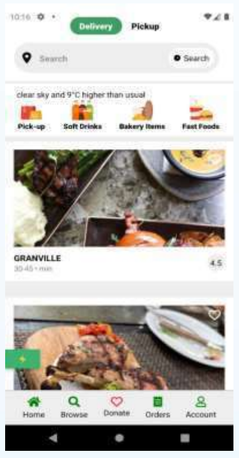


RESULTS

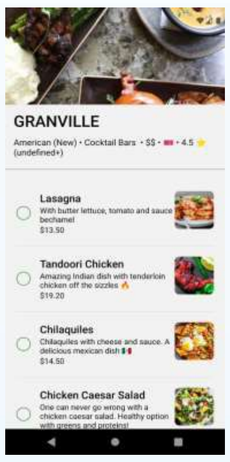
HOME



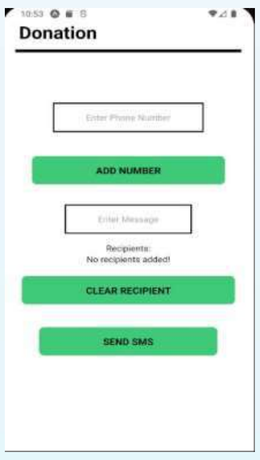
SEARCH



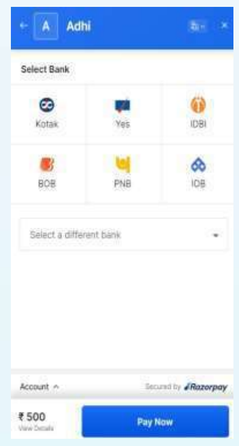
DISPLAY



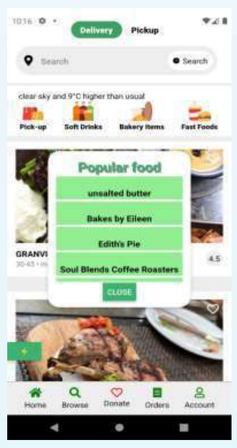
DONATE



PAYMENT



RECOMMENDATION



CONCLUSION AND FUTURE SCOPE

We successfully designed a user friendly and reliable application DINE AND DONATE that performs its job of search ability and displaying food products, dining, donating and also providing food recommendations for users.

Also , our application offers future scope of further explorations and improvements. The improvements can be of providing and integrating distance based recommendations for NGOs to deliver, offering crypto based rewards for donors, coupons and discounts and also cloud kitchen integration etc :

REFERENCES

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