Software Requirements Specification

For

Waste Food Management System

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1. Introduction

1.1. Purpose

The aim of this document is to gather and analyze and give complete overview of web-based waste food management system. It contains a software project's all features in detail. SRS fully describes what the software will do and how it will be expected to perform. It helps developers to reduce the time and effort necessary to meet their goals and as well as save money on the cost of development.

1.2. Document Convention

This document follows MLA Format. Bold-faced text has been used to emphasize section and sub-section headings. Italicized text is used to label and recognize diagrams.

1.3. Intended Audience and Reading Suggestion

This document is for developers and other staff who is involved in building waste food management system. They use the document to learn about the project and understand the requirements.

1.4. Product Scope

This system allows users to send request to NGO for collecting their leftover food and also allow NGO to make request for food to users.

1.5. References

Fundamentals Of Software Engineering, Third Edition by Rajib Mall.

2. Overall Description

2.1. Product Perspective

The waste food management system provides the functionality to users to donate their leftover food to NGO. After that NGO distribute that food to needy people. Main purpose of system is for those people who throwaway leftover food due to lack of time for going and donating food by their selves.

2.2. Product Functions

Access to the system for the administration, NGO, and user is provided by individual login.
Ever user have their individual username and own password.
Only the administer can add or update the database.
NGO can make request for food and accept request for collecting food.
User can make request for collecting food and respond to NGO's request for food.

2.3. User Classes and Characteristics

There is main two type of users for this system.
1.Administrator: Administrator is one who manage NGO and users.
2.End Users/Food Doners/Food Collector: Food Doners will be the one who visits the website for donating their food. Food Collector will be the one who visits the website for collecting food and make request for food.

2.4. Operating Environment

Hardware Requirements:

A PC/Laptop with proper speed and memory.

Software Requirements:

Front End: HTML, CSS, JavaScript
Back End: MySQL database, Python, Django

2.5. Design and Implementable Constraints

The main constraint here would be the checking the hygiene of food which is NGO have to do before distribute food to needy people.
This system should run under any platform like Unix, Linux, Mac, Windows etc.
MySQL should be available in the local host.
The website is not published on internet so it is run on the local host itself.

2.6. Assumptions and Dependencies

Admin is created in the system already. Admin mange NGO and doner users. Users can't update their account information. Only NGO can confirm the request from users. Roles and tasks are predefined.

3. External Interface Requirements

3.1. User Interfaces

Every part of the user interface intends to be as user friendly as possible. All web pages are light in space so that it won't take long time for the page to lode. First page of web-app is home page of app. It asks user for login. After login users have their different page views based on their type.

Doners can make request for collecting food and also see requests if any NGO made request for food. NGO can confirm the doner's request for collecting food and send conformation Mail to doner. If NGO need any food than it can also make request to all doners by sending them Mail.

3.2. Hardware Interfaces

Processer: Pentium I or above
RAM:128 MB or above.
HD:20 GB or above

3.3. Software Interfaces

The following are needed requirements.

Operating System: Unix, Linux, Mac, Windows, etc.
Development tool: JavaScript, Django
Data Base:

3.4. Communication Interfaces

Django frame work is used to communicate between pages and website.

4. System Features

4.1.Doner Features

4.1.1. Create request for donating food

Description and Priority:
This feature provide facility to user to make request for collecting their leftover food.

Stimulations/Response Sequences:
First user has to click on donate food button. The system prompts the user to fill out details about the food. User have to fill all details about the food. User have to give all the detail about the food like type of food, quantity of food, how many days it can be fresh through filling out the form.

Functional Requirements
REQ-1: A button or link for donate food must be available.
REQ-2: A form for all details about food.
REQ-3: A table in the database must be created for all requests made by user.

4.1.2. View pervious request

Description and Priority:
In this feature users can see their previous donations.

Stimulations/Response Sequences:
First user has to click on view previous donations. The system provides the details about particular users all past donations.

Functional Requirements
REQ-1: A button or link for view previous donations must be there.
REQ-2: A table in the database must be contain all past donations of all users.

4.1.3. See request status

Description and Priority:
In this feature users can see their donation request status whether it is confirmed or pending. They notify whether NGO confirm or cancel their donation request.

Stimulations/Response Sequences:
First user has to click on view donations request status. The system provides the details about status of donation request.

Functional Requirements:
REQ-1: A button or link for view donations request status must be there.
REQ-2: A table in the database must be contain donation request of all users.

4.1.4. View gallery

Description and Priority:
In this feature users can see gallery of NGO. They can see various photos of NGO which NGO upload on website during donating food to needy people.

Stimulations/Response Sequences:
First user has to click on gallery. Then system give all the photos which NGO share are displayed on user's screen.

Functional Requirements:
REQ-1: A button or link for view gallery.
REQ-2: A table in the database must be table which have all the image which NGO share.

4.2.NGO Features

4.2.1. View donation or food request

Description and Priority:
This feature helps NGO to view all the requests for food donation from the doners and food request from consumers. So, they can confirm their requests.

Stimulations/Response Sequences:
First NGO have to click on view all requests button. System gives the list of all pending food donation requests.

Functional Requirements:
REQ-1: A button or link for view pending request must be available.
REQ-2: A table in the database must be maintain for all pending requests.

4.2.2. Confirm or cancel donation or food request

Description and Priority:
This feature helps NGO to confirm or cancel the requests for collecting food from the doners and food request from consumers.

Stimulations/Response Sequences:
First NGO have to click on view all requests button. After that they have to click on confirm request or decline request. If NGO click on confirm request than confirmation Mail has been send to particular user who send the request for donating food.

Functional Requirements:
REQ-1: A button for confirm request and decline request must be available.
REQ-2: A table in the database must be maintain for confirmed requests.

4.2.3. View available food

Description and Priority:
This feature provides the list of all available food to NGO.

Stimulations/Response Sequences:
First NGO have to click on view available food. After that system provide the list of all available food to NGO.

Functional Requirements:
REQ-1: A button or link must be available for view available food.
REQ-2: A table in the database must be created for storing list of all foods.

4.2.4. View list of all previous donations

Description and Priority:
This feature provides the list of all previous donations to the NGO.

Stimulations/Response Sequences:
First NGO have to click on view list of donations button or link. After that system provide the list of all the donations of the food to NGO.

Functional Requirements:
REQ-1: A button or link must be available for view list of donations.
REQ-2: A table in the database must be created for storing list of all donations.

4.2.5. Manage gallery

Description and Priority:
In this feature NGO can share the photos of donating food to needy people with users who donate the food. NGO can upload and delete the photos on their page.

Stimulations/Response Sequences:
First NGO has to click on upload photo option. After that they can upload the photos from their local device.

Functional Requirements:
REQ-1: A button or link must be available for upload photo.
REQ-2: A table in the database must be created for storing all photos.

4.2.6. Manage feedback

Description and Priority:
In this NGO can view the all feedbacks which is given by the food doners.

Stimulations/Response Sequences:

First NGO have to click on view feedback link or button. System loads all the given feedback of users on the NGO's site.

Functional Requirements:
REQ-1: A button or link must be available for view feedback.
REQ-2: A table in the database must be created for storing all feedback.

4.3.Consumer Features

4.3.1. Create food request

Description and Priority:
This feature provide facility to user to make request for food.

Stimulations/Response Sequences:
First user has to click on select food button. The system prompts the all-available food to user. User have to select food and quantity of as his/her requirements. All selected food selected food added in cart. After that user have to click on confirm order for ordering food.

Functional Requirements
REQ-1: A button or link for select food must be available.
REQ-2: A button or link for my cart must be available.
REQ-3: A button or link for confirm order must be available.
REQ-4: A table in the database must be created for manage cart.

4.3.2. View pervious requests

Description and Priority:
In this feature users can see their previous orders.

Stimulations/Response Sequences:
First user has to click on view previous orders. The system provides the details about particular users all past orders.

Functional Requirements
REQ-1: A button or link for view previous orders must be there.
REQ-2: A table in the database must be contain all past orders of all users.

4.3.3. See request status

Description and Priority:
In this feature users can see their order request status whether it is confirmed or pending. They notify whether NGO confirm or cancel their order request.

Stimulations/Response Sequences:

First user has to click on view order request status. The system provides the details about status of order request.

Functional Requirements:
REQ-1: A button or link for view order request status must be there.
REQ-2: A table in the database must be contain order request of all users.

4.3.4. Give feedback

Description and Priority:
In this feature users can give their feedback about their experience.

Stimulations/Response Sequences:
First user clicks on give or share your feedback button or link. The system prompts the user to fill the form for feedback.

Functional Requirements:
REQ-1: A button or link is must be there for give feedback.
REQ-2: A table in the database must be created for store feedbacks from all users.

4.3.5. View gallery

Description and Priority:
In this feature users can see gallery of NGO. They can see various photos of NGO which NGO upload on website during donating food to needy people.

Stimulations/Response Sequences:
First user has to click on gallery. Then system give all the photos which NGO share are displayed on user's screen.

Functional Requirements:
REQ-1: A button or link for view gallery.
REQ-2: A table in the database must be table which have all the image which NGO share.

4.4.Common Features

4.4.1. Login and register

Description and Priority:
This feature creates an account for new user and give log in option for existing users. For donating food and collecting food user have an account and must be logged into it. This feature adds the user details in the database. This is an important feature so it has high priority.

Stimulations/Response Sequences:
User first clicks on the button for registration process. The system then prompts the user to fill out his/her first name, last name, email address, address and their

password. User fill all the fields. System validates the user's information and create new account for the user.

Functional Requirements:
REQ-1: A button for register and log in must be available.
REQ-2: A table in the database must be created for all users.

4.4.2. Manage profile

Description and Priority:
In this feature consumers and doners can manage their profiles. They can change their information like phone number, address, profile photo, etc.

Stimulations/Response Sequences:
First users have to click on my account link or button. After that they can see the various option related to managing their profile. They can view and update it.

Functional Requirements:
REQ-1: A button or link for manage profile.
REQ-2: A table in the database must be created for all users.

4.4.3. Change password

Description and Priority:
In this feature user can change their password for their account. consumer and doner both can change their password.

Stimulations/Response Sequences:
First user has to click on my account button or link after that he/she have to click on change password button or link. After that system provides the form for changing password to user.

Functional Requirements:
REQ-1: A button or link for my account must be available.
REQ-2: A button or link for change password must be available.

5. Other Nonfunctional Requirements

5.1. Performance Requirements

The changes if any made should be reflected automatically in the next screens. Appearance of user interface is very user friendly.

5.2. Safety Requirements

This application is password protected. Any updation is done by admin side only. User can access their account providing their id password.

5.3. Software Requirements

The necessary qualities of software products are:

5.3.1. Security

This application is password protected. Any updation is done by admin side only. User can access their account providing their id password.

5.3.2. Maintainability

The application is to be designed so that it is easily maintained. Also, it should allow incorporating new requirements in any module of the system.

5.3.3. Portability

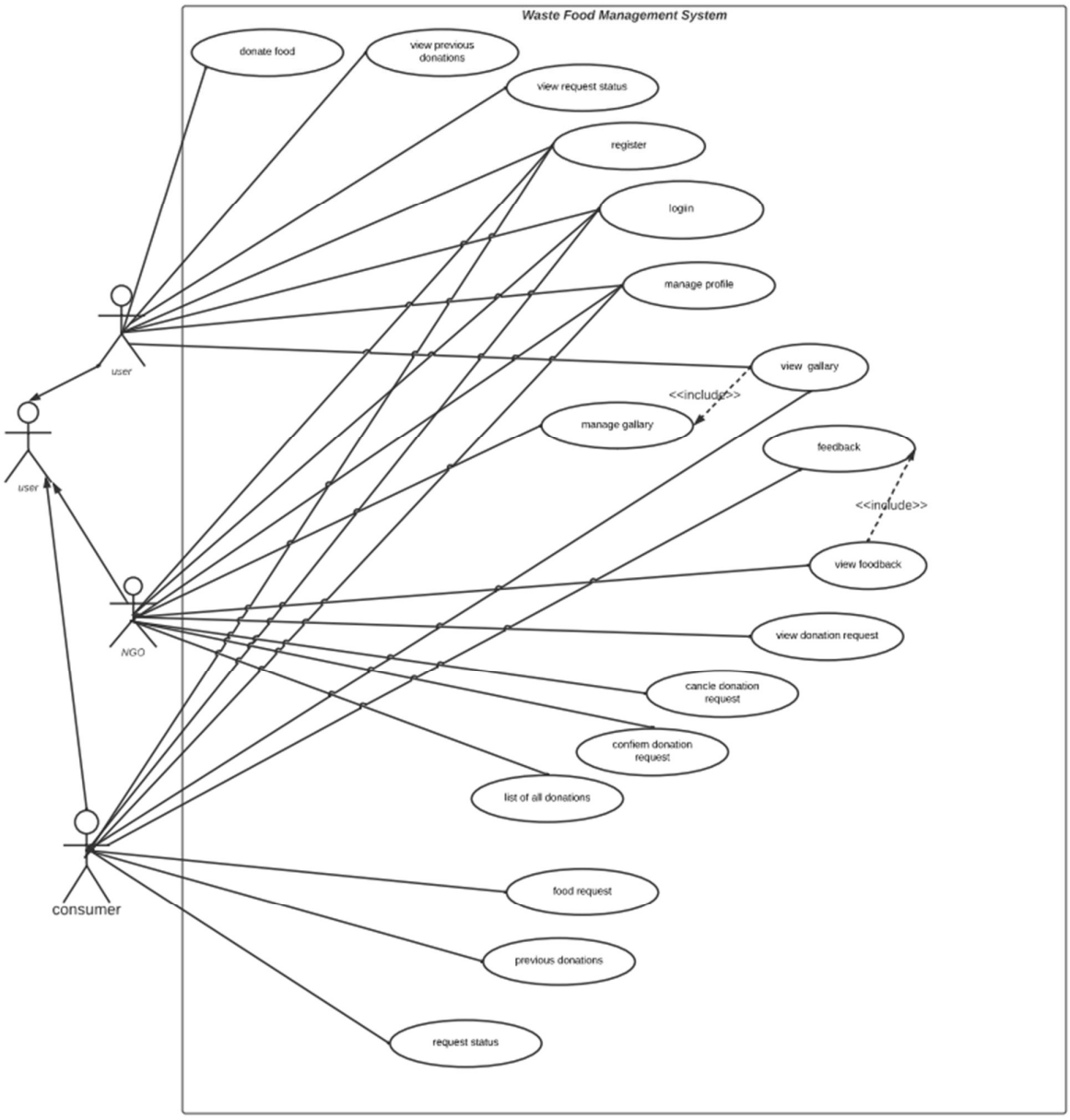
The application will be easily portable on any window-based system.

5.4. Business Rules

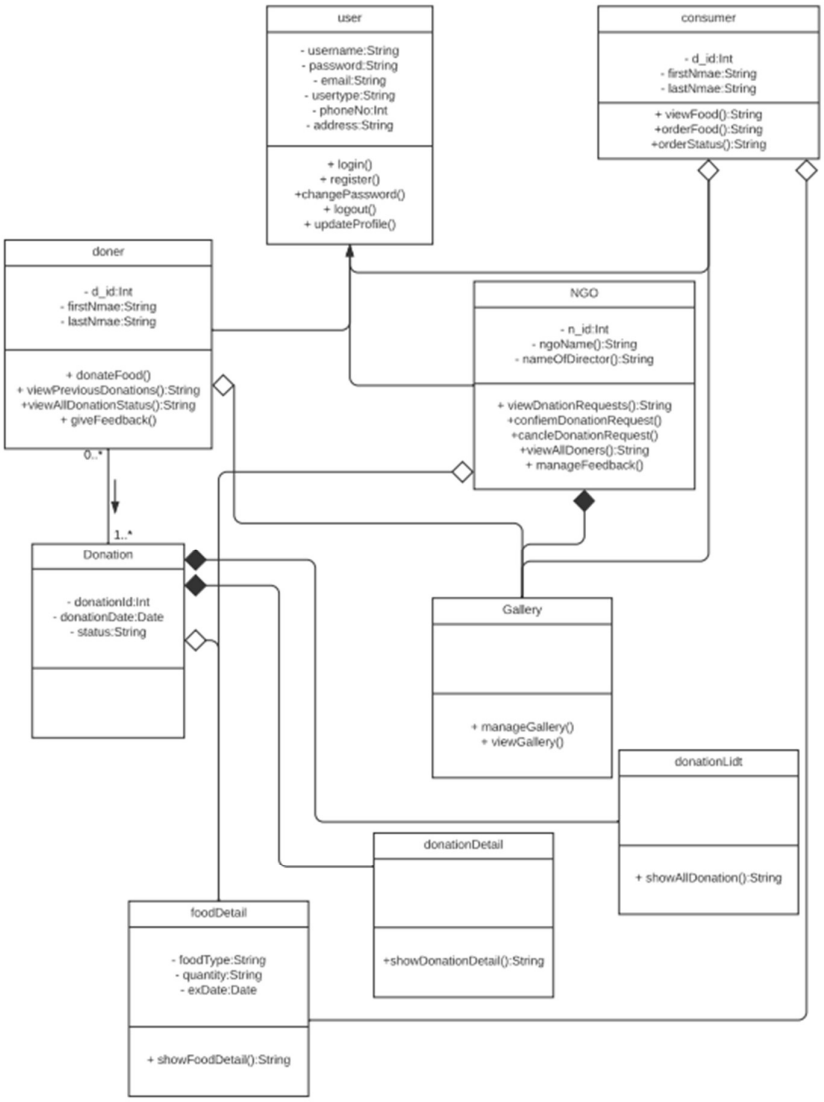
Only admin can change in database. The doner can only made request for donating food and NGO can only accept or decline request for collecting food. Admin cannot made any request for donating food or cannot confirm request for collecting food.

6. Diagrams

6.1. Use Case Diagram

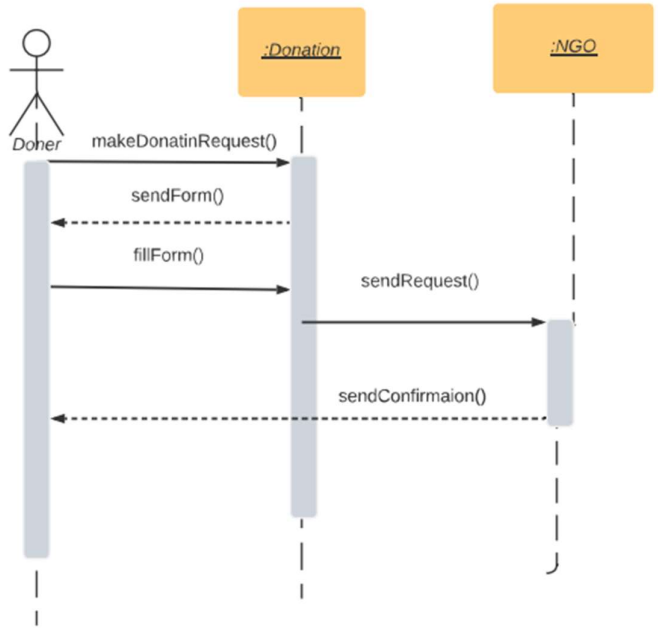


6.2.Class Diagram

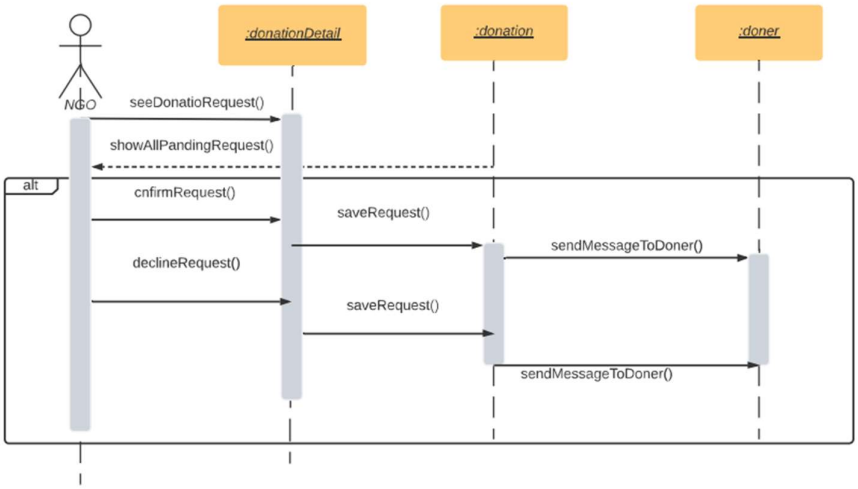


6.3.Sequence Diagram

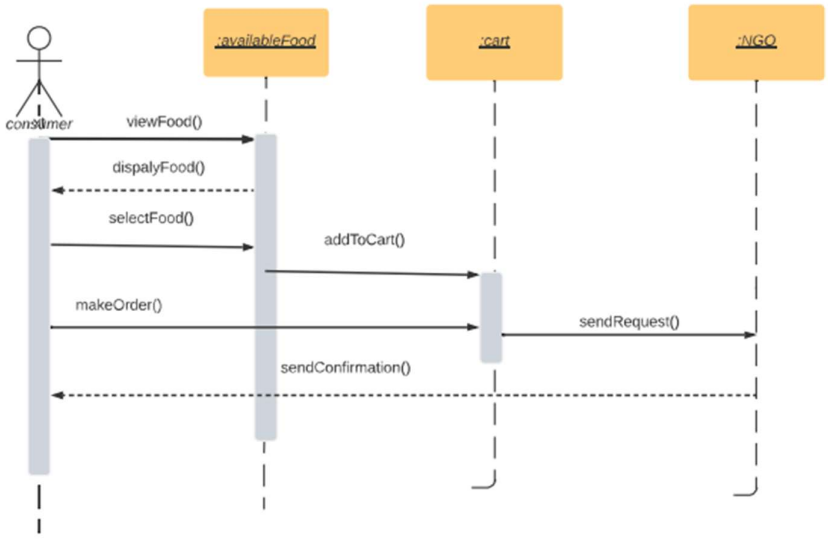
Make donation:



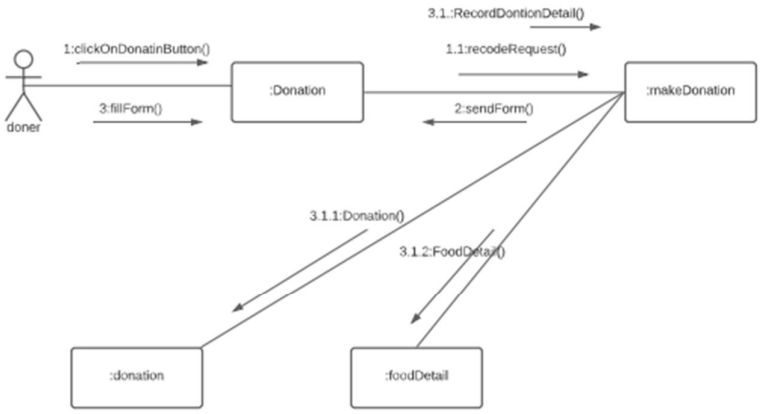
Confirm or cancel request:

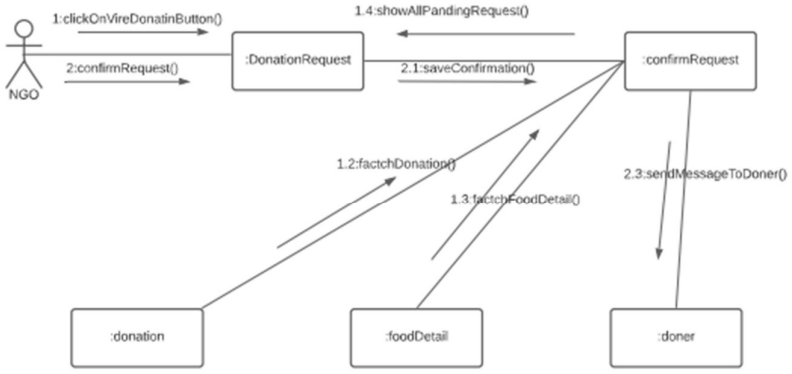


Make food request:

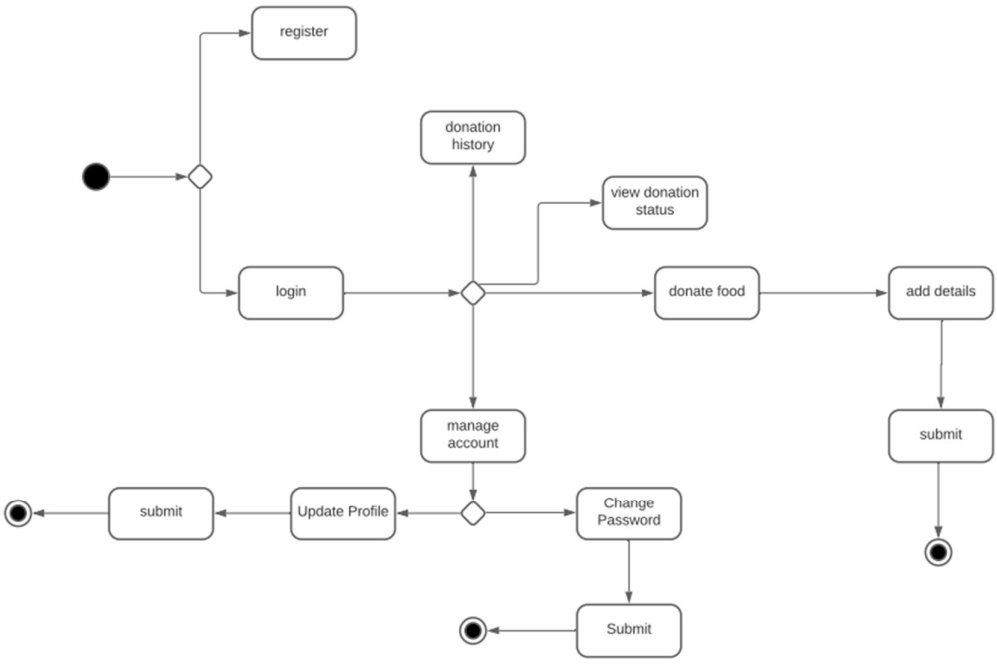


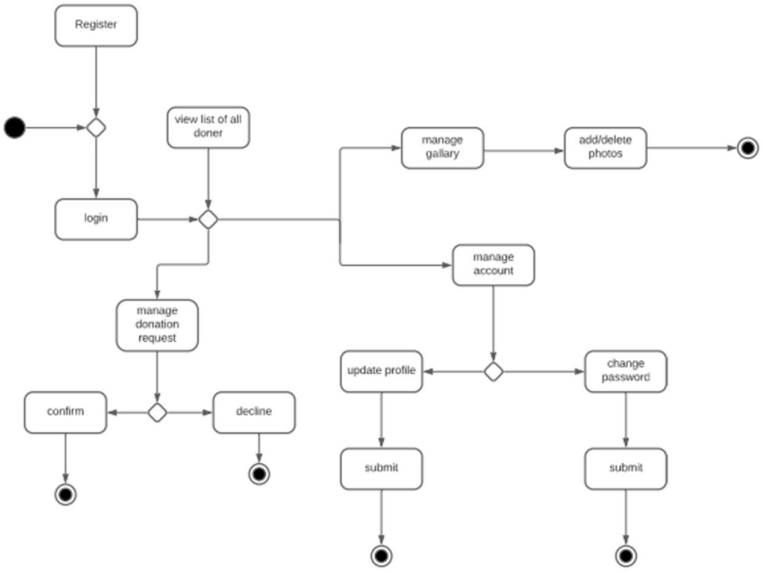
6.4.Collaboration Diagram





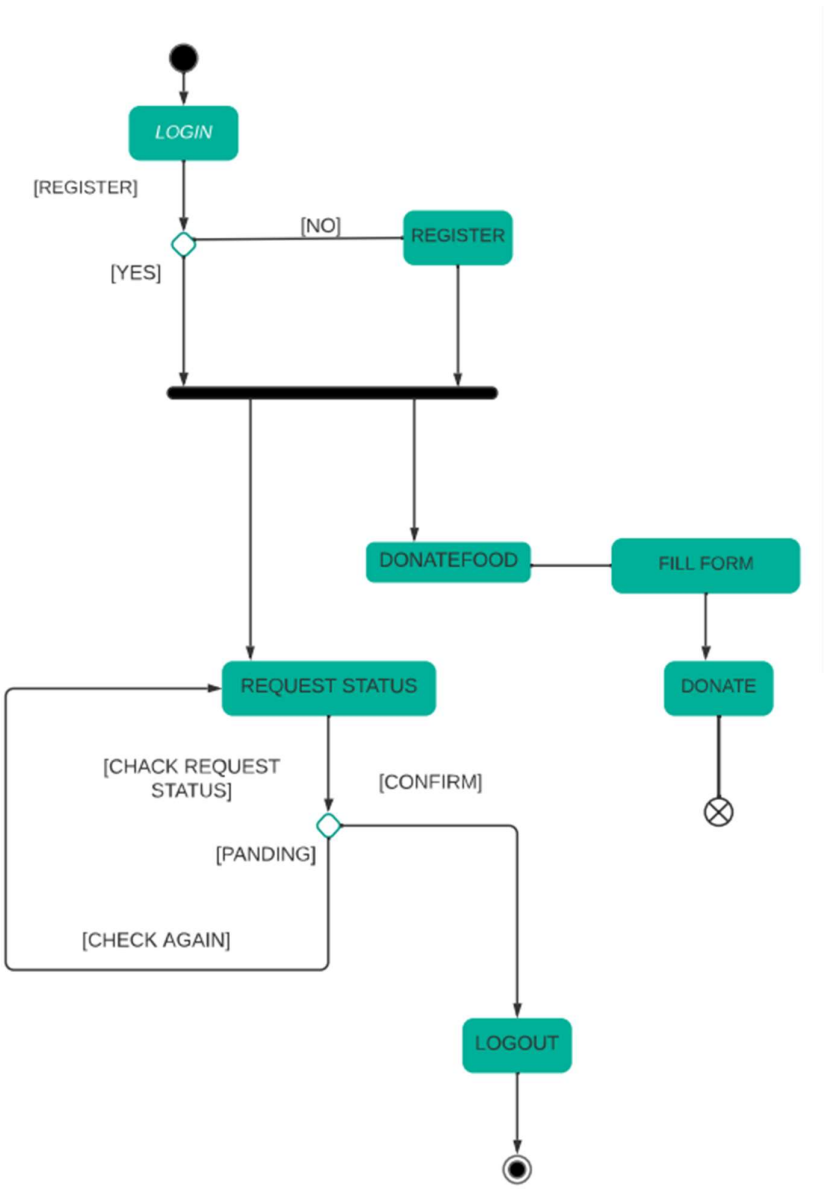
6.5.State-Chart Diagram



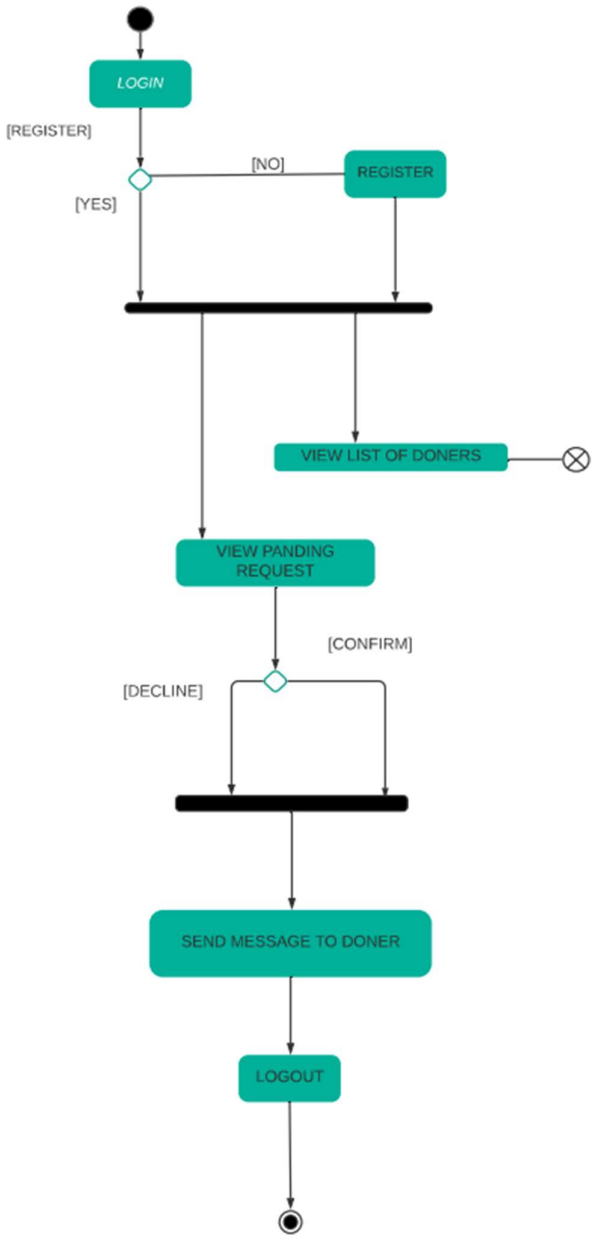


6.6.Activity Diagram

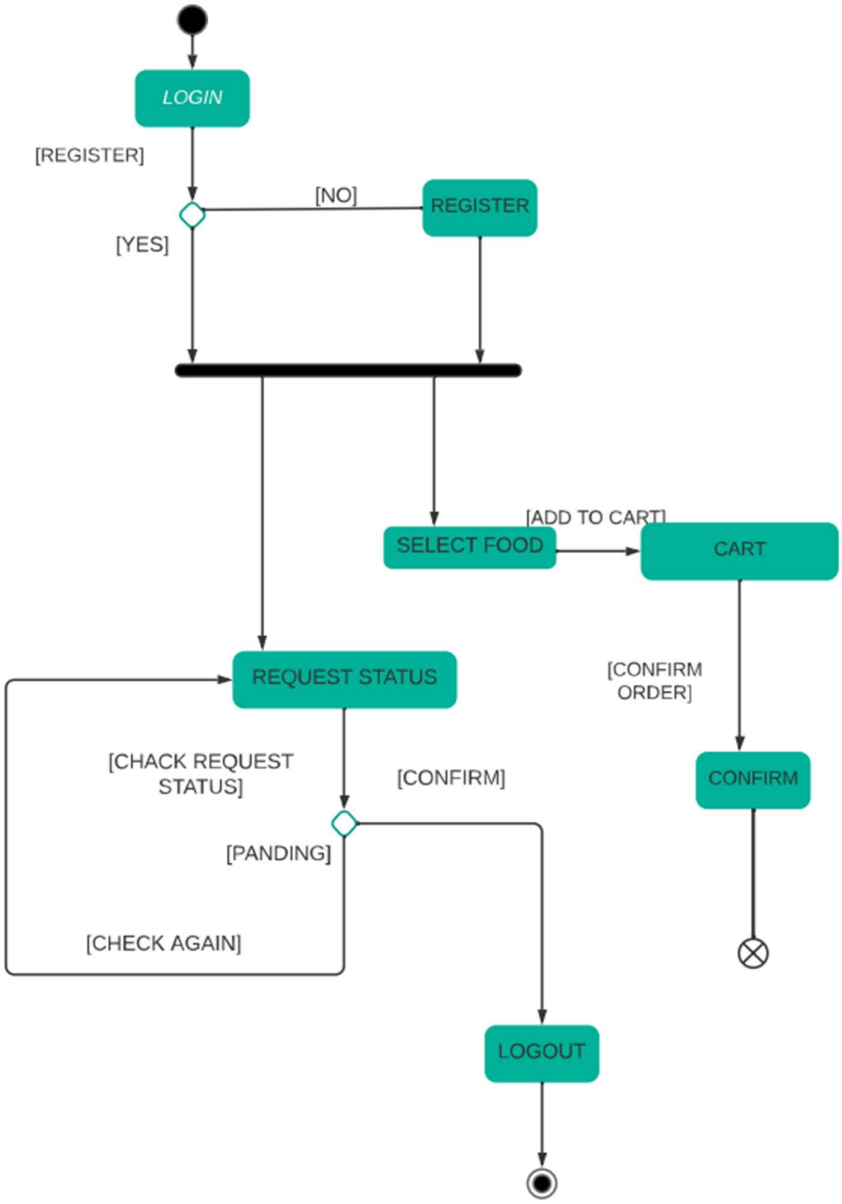
Make food donation request and check request status:



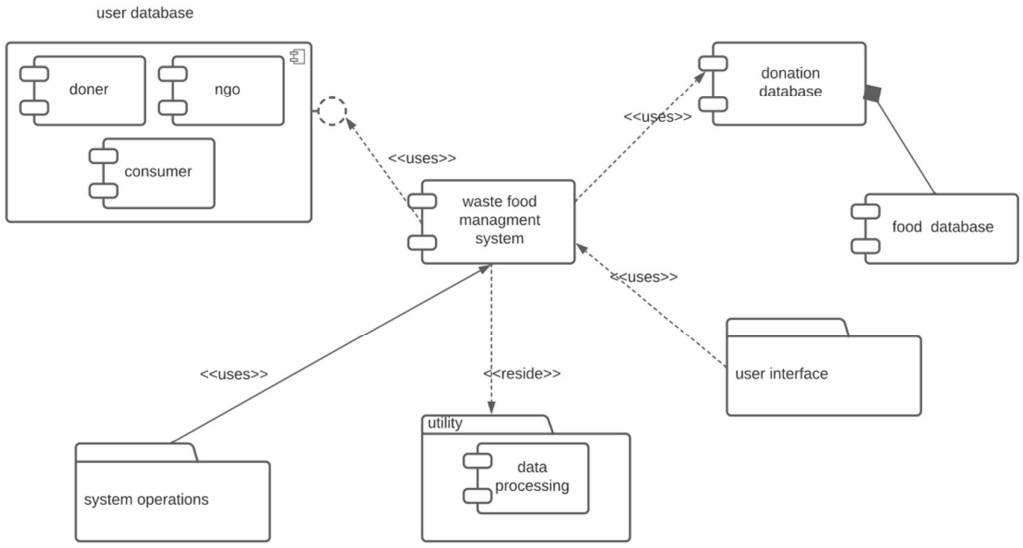
View and manage donation request:



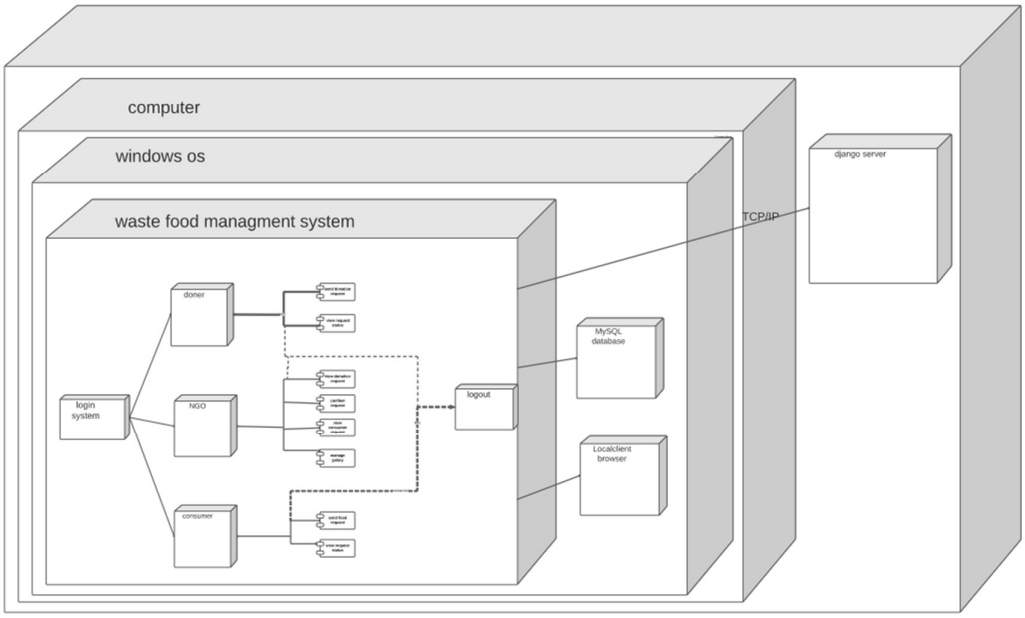
Select food and make order:



6.7.Component Diagram



6.8.Deployment Diagram



Thank You……..!!