AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)
Faculty of Science and Technology (FST)
Department of Computer Science & Engineering (CSE)
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Software Engineering (Section-F)
Project Documentation

Submitted To-
Farzana Bente Alam
Mail- farzana.alam@aiub.edu

Project Topic- **Waste Food Management System (WFMS)**

Submitted Details-

Group No- 2			
Serial No-	Student Name	Student ID	Individual Marks
1	SADIA KHANAM	20-44005-2	
2	SHAJID KAMAL JOY	20-43677-2	
3	KAZI RUBAB BASHAR	20-43661-2	
4	MD. ESHMAM RAYED	20-43044-1	
5	SHAZIDUL ISLAM	17-34207-1	

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American International University-Bangladesh (AIUB)

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1. PROJECT PROPOSAL

1.1 PROBLEM STATEMENT

Food waste has increased significantly worldwide. Bangladesh also facing this problem. According to the Food and Agriculture Organization (FAO) (https://www.fao.org/platform-food-loss-waste/en), around 1.3 billion tons of food produced for human use is wasted each year. On the other hand, according to the WHO, 20% of the population is facing severe food shortages. In Bangladesh, many restaurants, community centers, community centers, even households can donate their extra foods to the NGOs, so that they can distribute it to the needy people. To do that, a solution is required which can avoid food waste while also feeding the hungry. With this project, we will provide a simple and user-friendly solution that can avoid food waste & can help the needy.

1.2 SOLUTION TO THE PROBLEM

There are lots of organizations and NGOs who distribute food among the needy and poor people. Restaurants and households will now be able to inform people about their waste food via our software and the representative of that area will receive the waste food and deliver it to the organizations and NGOs. The software can be used by three login methods. Restaurant and household members who will give those waste food will have a donor account and the organizations and NGOs who are going to distribute those food to the poor and needy people, will have the distributer account. People can track down their donations and can get a visible view of data how much people got food from their donation and this count will generate total food distributed. People also can find their share of distribution from total data. After the distribution, the food will be delivered to the nearest fertilizer factory. They will create an account on industry category and get those waste food after distribution and they will use them to produce fertilizer. But the industry owner must go on with the agreement that- Every month they must provide tree plants to the NGOs and Organization which will be planted in many areas, and it will be mapped. People will be able to see those plants via in-app maps. The people who were needy and poor will take after those plants. And every month a total growth of whole data will be shown in every type of account and the software will have a complain ticketing system where people can share their problem with delivery and distribution. As the entire process will be transparent to the whole and anyone can see without any account it will encourage an increase in people to join. For those people who want to donate food without knowing his/her name, there will be an option to hide their name from other people.

2. SOFTWARE REQUIREMENT SPECIFICATION

2.1 LOGIN

Functional Requirements

1.1 The software shall allow users to give their username, password, email address, phone number, etc.
1.2 Given credentials will be checked if it is valid or not.
1.3 If the credentials are valid, then users will get to choose their designated role.
1.4 The credentials will be saved in the database.
1.5 Users will be redirected to the login page.

Priority Level: High

2.2 SIGN-UP

Functional Requirements

2.1 The software shall allow users to login with their given username and password.
2.2 The login credentials (username and password) will be verified with database records.
2.3 If the login is successful, the home page of the user account will be displayed according to their role.
2.4 If the username and/or password has been inserted wrong, they will get notified as they have inserted wrong credentials.
2.5 If the user forgets their password, they can retrieve their credentials by using forget password option.
2.6 The software shall allow the user to give their email or phone number.
2.7 If the given email or phone number verified with database, they will get them credential via message or email.
2.8 If the email or phone number could not be found in database, they will get another chance for inputting their phone number or email.

Priority Level: High
Precondition: user have valid user id and password or have sign up for new user

2.3 MONTHLY REPORT

Functional Requirements

3.1 Users can see the top 3 donators of the month.
3.2 Users can see the total food donated to the needy people for the current month.
3.3 Users can see how many trees were planted this month.

Priority Level: Medium

2.4 TREE TRACKING

Functional Requirements

4.1. Users can see the mapping representation of trees that were planted against the donation.
4.2. If user tap on the mapped tree mark, he/she can see the age of that tree by days.
4.3. Users can see the total number of trees planted in an area by tapping the area's name.
4.4. Users can report on trees if the tree was not taken care of correctly.
4.5. Users can suggest planting trees in their desired areas.

Priority Level: Medium
Precondition: To report user must have to login

2.5 DONATE FOOD

Functional Requirements

5.1. The software shall allow donors to give the quantity of food.
5.2. Information about food quantity will be saved in the database.

Priority Level: Medium
Precondition: User have to login successfully

2.6 ACCOUNT SETTINGS

Functional Requirements

6.1. The software shall allow users to update their credentials

6.2. Users can turn on the anonymous mood to hide their profile.

6.3. Updated credentials will be saved in database.

Priority Level: Medium
Precondition: User have to login successfully

2.7 CHECK AVAILABLE FOOD DONATION

Functional Requirements

7.1. System shall allow the NGO/Organizations to see the available food donation requests which will be activated by the donor accounts.
7.2. And, after selecting the donor request the Organization will see the other details of donor (Like- Address, Unit of donation, Available time slot for donation pick-up, etc.)

Priority Level: Medium
Precondition: User have to login successfully in Organization interface.

2.8 AVAILABLE DISTRIBUTOR

Functional Requirements

8.1. System shall allow the organizations to check the availability of distributor within their organizations.
8.2. Also provide their suitable area of distribution. So that the organization can assign them their task to pick up the food.
8.3. And the system must provide a unique serial number of that donation process after assigning the distributor. Which will help to keep track on the donor and the distributor combination.

Priority Level: Medium

Precondition: User must check the available food request first with the details of location, donation unit, etc.

2.9 CHECK THE FOOD QUALITY

Functional Requirements

9.1. The system must allow the option to notify the distributor to distribute his/her collected food if it's edible.
9.2. To send notification about the edible food distribution to the specified distributor, who collected the food, the system should allow the option to take input of the collected food serial number and send message to the connected distributor with that serial number.
9.3. But if the food turns out to be inedible then the system shall provide an option of sending a recycle alert by that unique serial number. Which will be again recorded in the database of the system.
9.4. The system must allow the industrial interface to see these inedible food alerts, after organization updates the inedibility alert to the database.

Priority Level: Medium
Precondition: User must check the food quality first.

2.10 CHECK REQUEST FOR INEDIBLE FOOD

Functional Requirements

10.1. The system should allow to show the industrial request of inedible food collect after seeing the alert posts by organization.
10.2. And if the system accepts the request of the industry. The industry should get the acceptance message. And should also receive a specific inedible food pick up time slot.

Priority Level: Medium
Precondition: User must give the recycle food alert for the industry.

2.11 TREE MAPPING

Functional Requirements

11.1. Based on the database history of tree mapping the system shall give the next destination for tree plantation.

11.2. Also, an option should be there to keep the record after planting the tree unit by the distributor according to their unique serial number. This record in database plays a major role in monthly report generating sub-system and tree tracking sub-system.

Priority Level: Medium
Precondition: User must have some unit of trees to plant.

2.12 AVAILABLE RECYCLE FOOD

Functional Requirements

12.1. The software will show the industry information about available food quantity.
12.2. Industry shall be given the option to select their preferred quantity
12.3. The software shall send a request to the Organization from the industry

Priority Level: High
Precondition: User have to login successfully

2.13 PENDING TREES

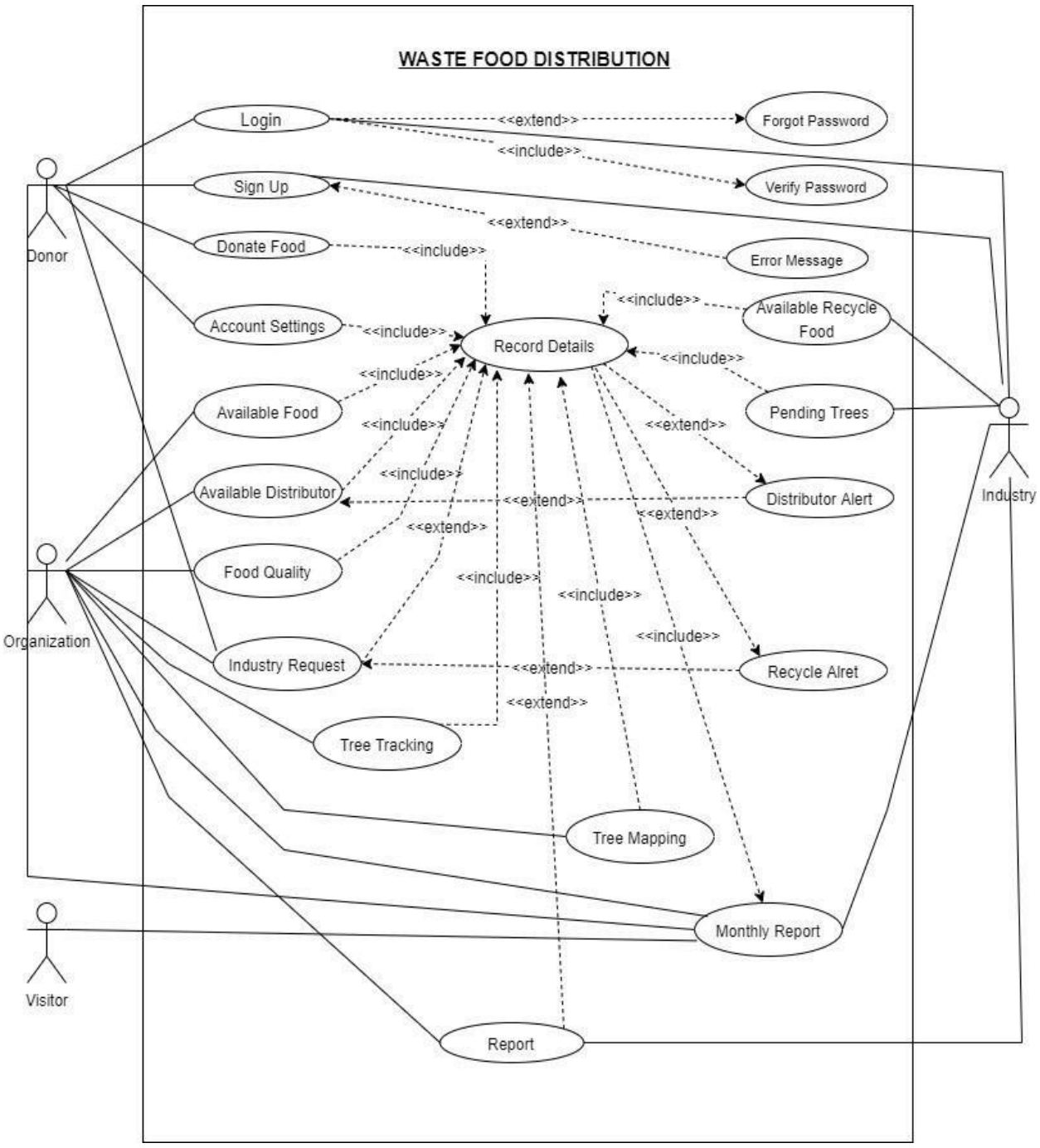
Functional Requirements

13.1 The software shall allow industry to choose the Organization name from a list.
13.2 After industry selects an organization, the number of pending trees will be shown for that Organization.
13.3 After every collection of recycle food, software will update the number of pending trees.
13.4 When trees are delivered to Organization, the number of pending trees will be deducted by the software.

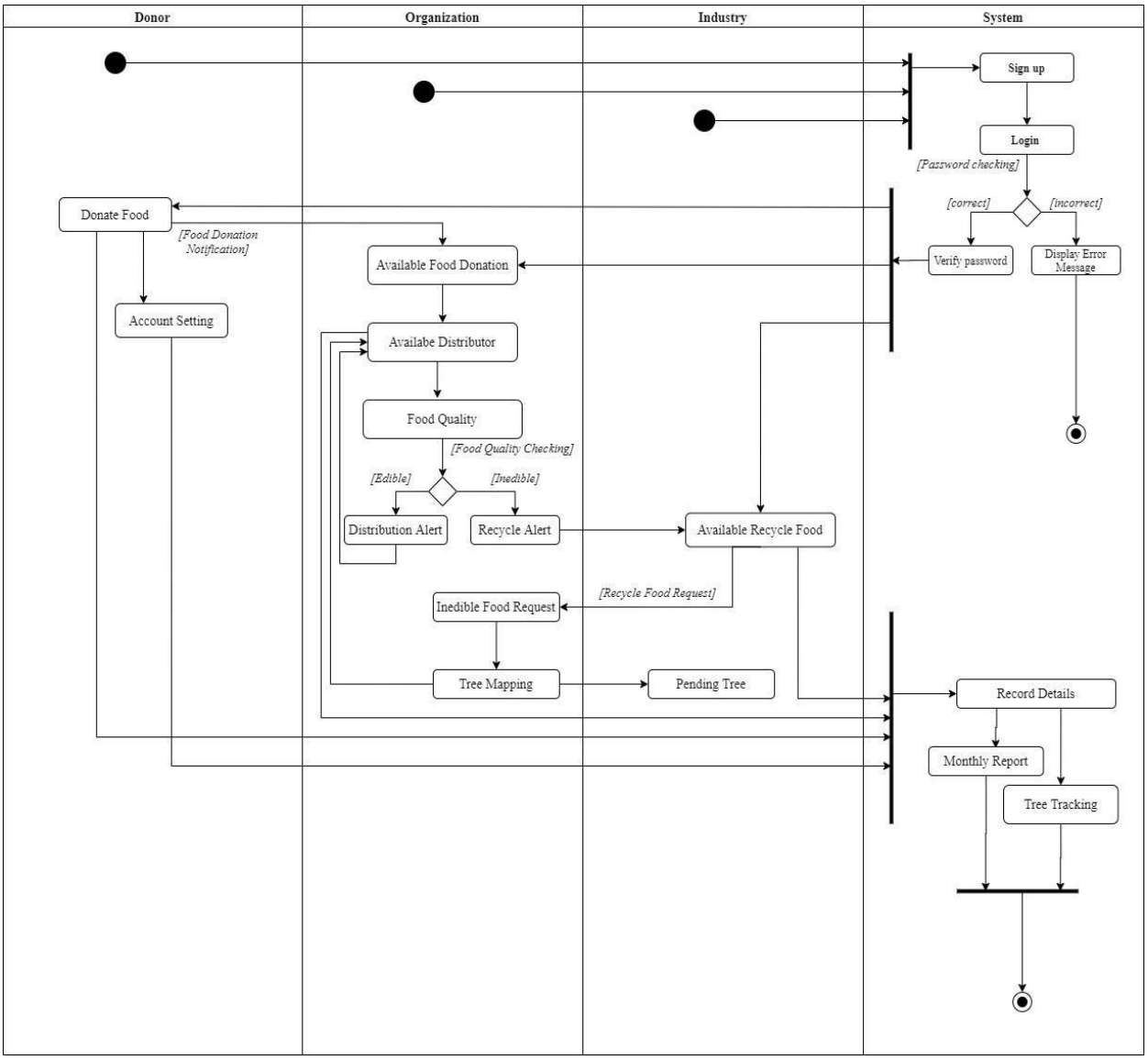
Priority Level: High
Precondition: NGOs must update tree information.

3. SYSTEM DESIGN SPECIFICATION

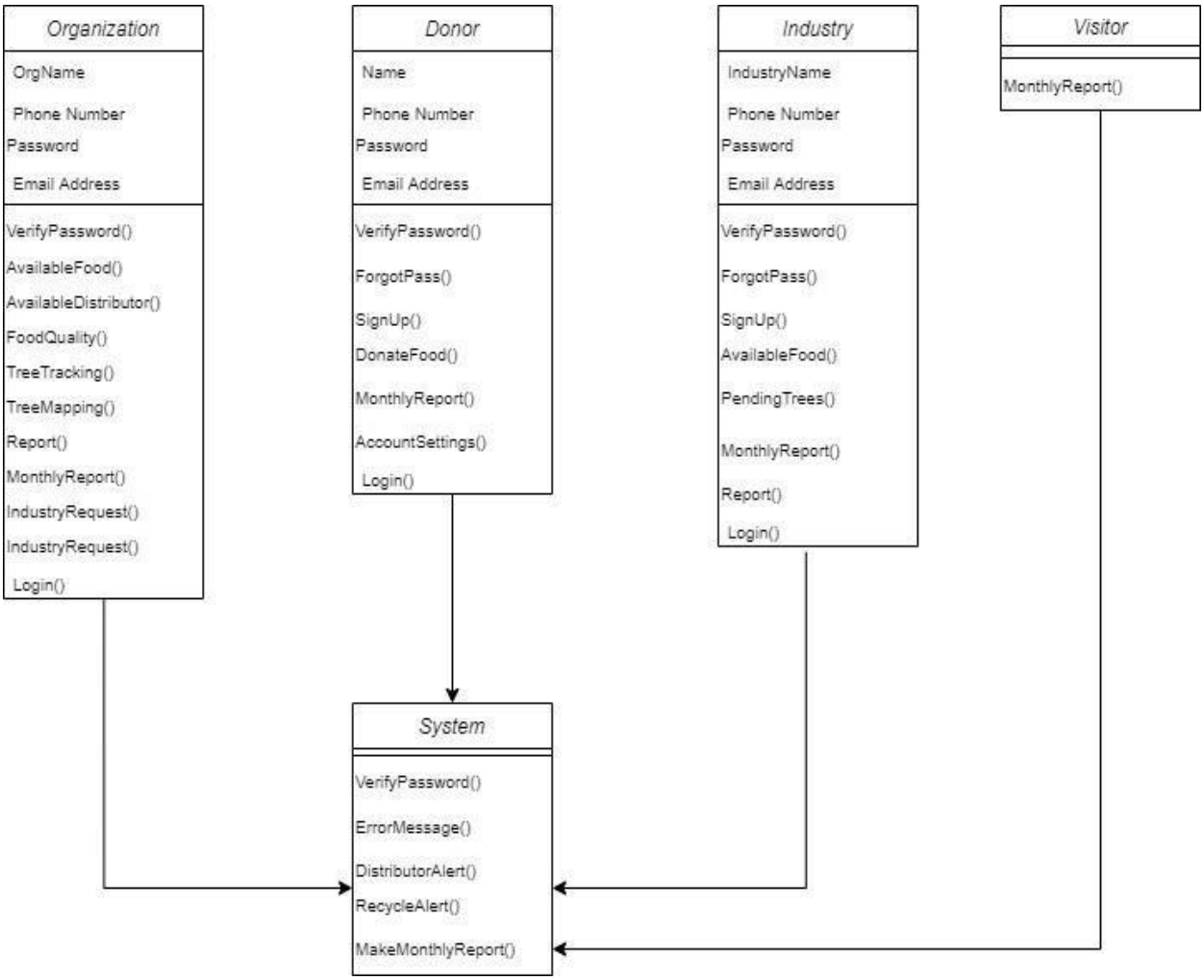
3.1 USE CASE DIAGRAM



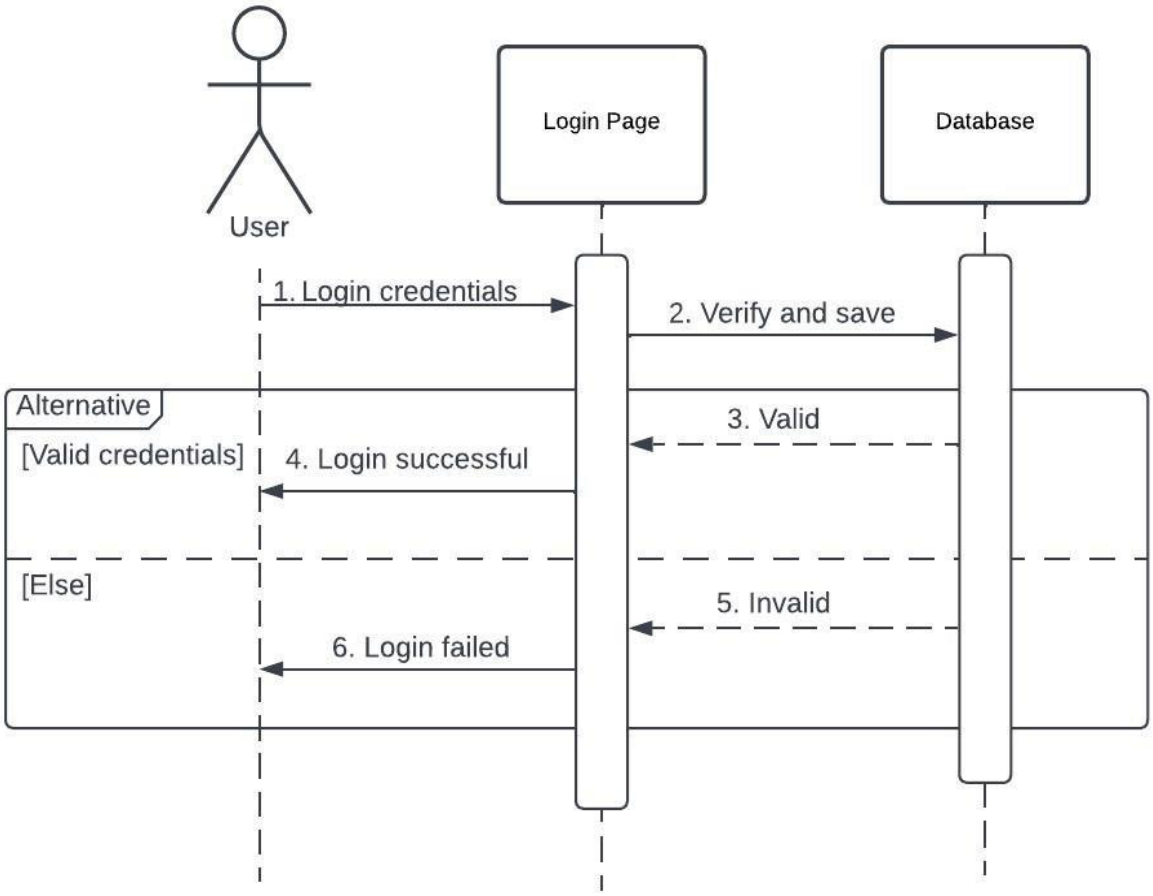
3.2 ACTIVITY DIAGRAM

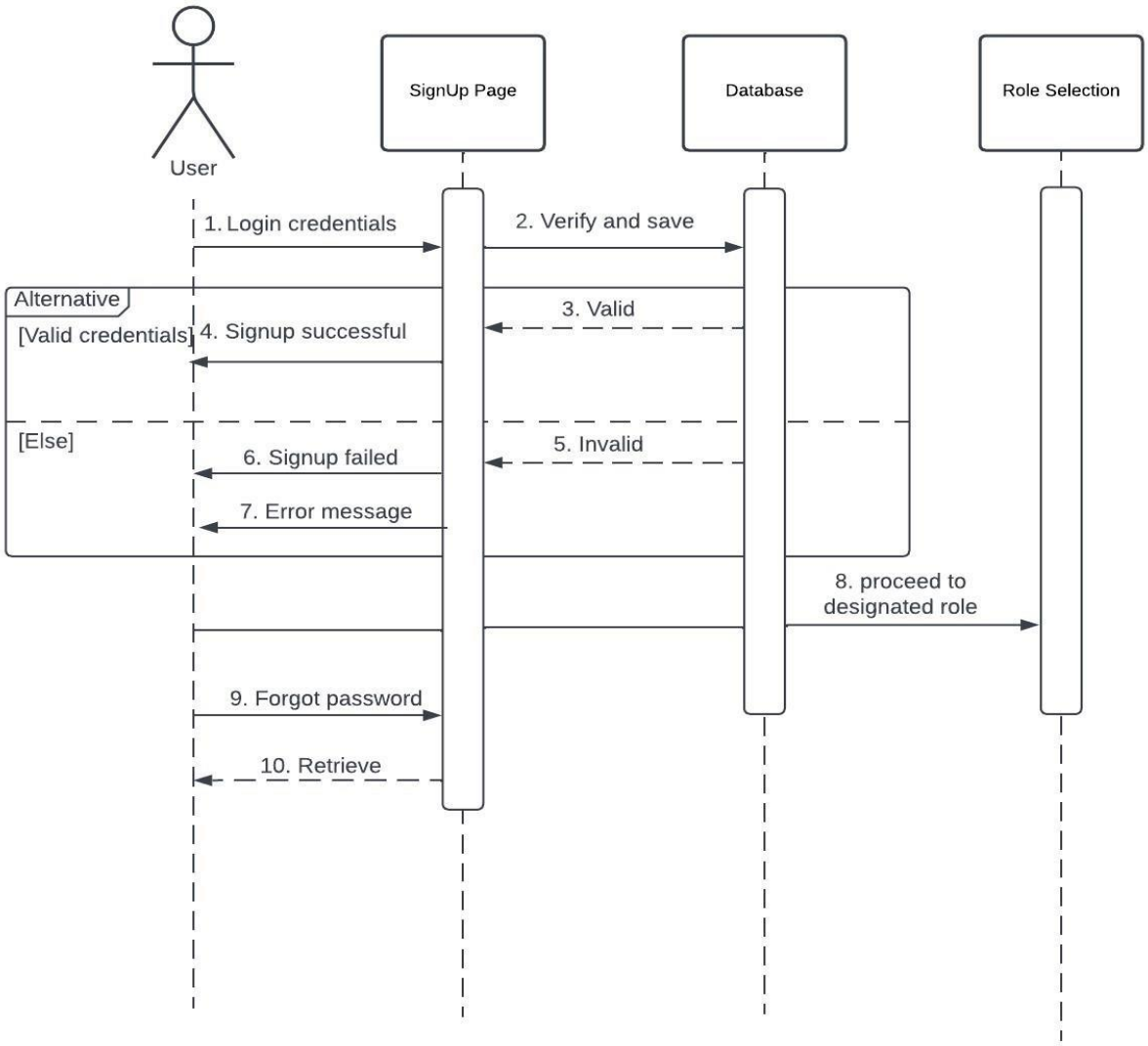


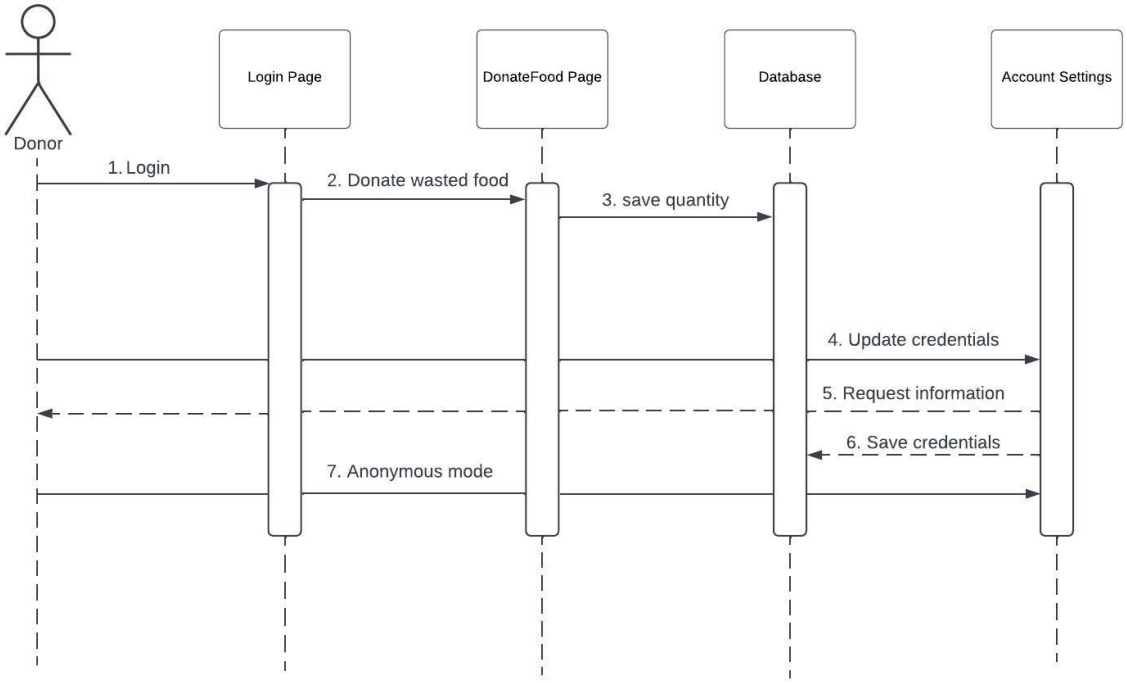
3.3 CLASS DIAGRAM

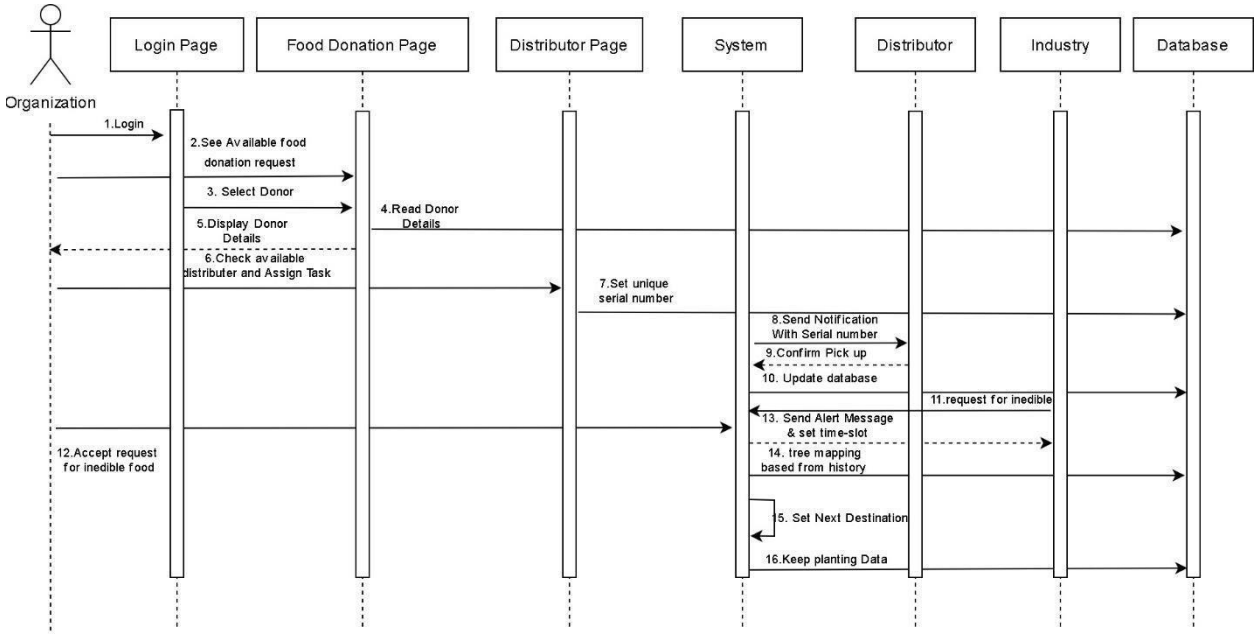


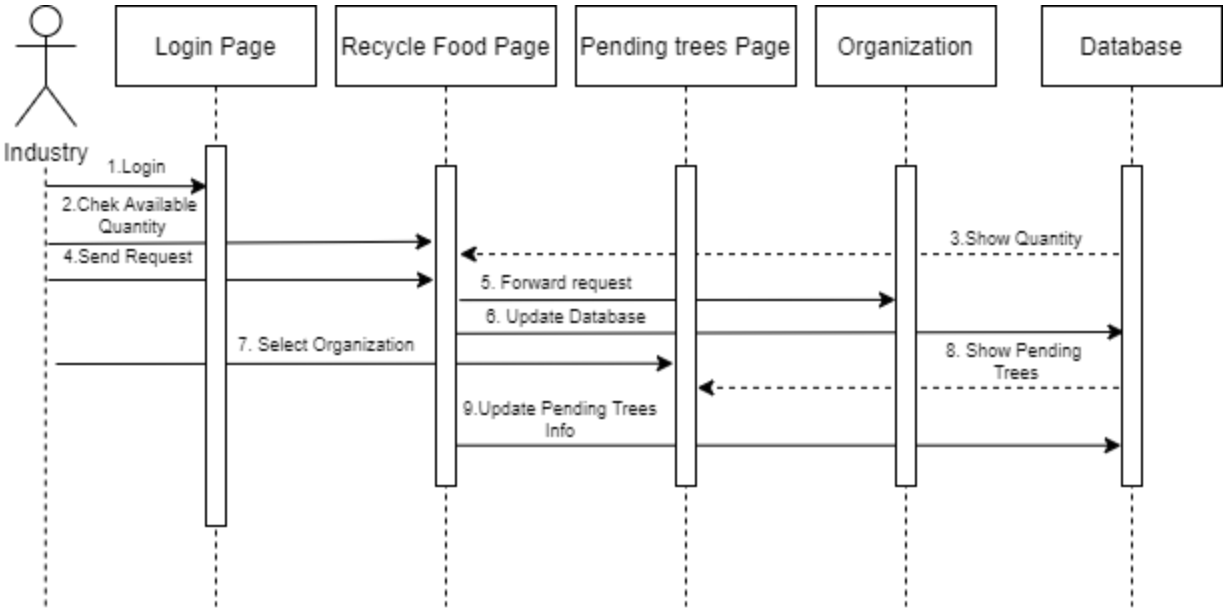
3.4 SEQUENCE DIAGRAM



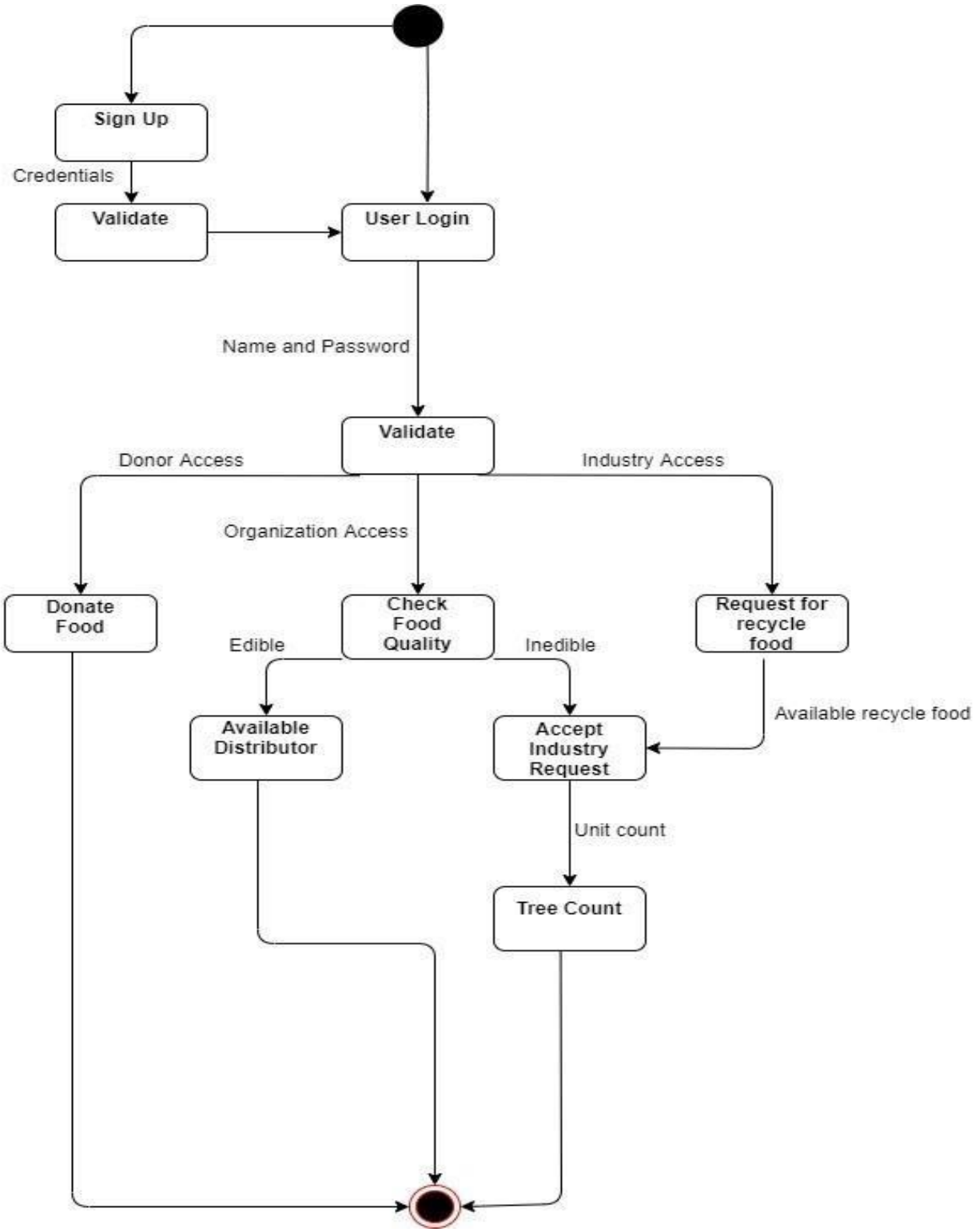

User
SignUp Page
Database
Role Selection
1. Login credentials
2. Verify and save
Alternative
[Valid credentials]
3. Valid
4. Signup successful
[Else]
5. Invalid
6. Signup failed
7. Error message
8. proceed to designated role
9. Forgot password
10. Retrieve


Donor
Login Page
DonateFood Page
Database
Account Settings
1. Login
2. Donate wasted food
3. save quantity
4. Update credentials
5. Request information
6. Save credentials
7. Anonymous mode


Organization
Login Page
Food Donation Page
Distributor Page
System
Distributor
Industry
Database
1.Login
2.See Available food donation request
3. Select Donor
4.Read Donor Details
5.Display Donor Details
6.Check available distributer and Assign Task
7.Set unique serial number
8.Send Notification With Serial number
9.Confirm Pick up
10. Update database
11.request for inedible
12.Accept request for inedible food
13. Send Alert Message & set time-slot
14. tree mapping based from history
15. Set Next Destination
16.Keep planting Data


Login Page
Recycle Food Page
Pending trees Page
Organization
Database
Industry
1.Login
2.Chek Available Quantity
4.Send Request
3.Show Quantity
5. Forward request
6. Update Database
7. Select Organization
8. Show Pending Trees
9.Update Pending Trees Info

3.5 STATE DIAGRAM



4. SELECTION OF PROCESS MODEL

As **WASTE FOOD MANAGEMENT SYSTEM** is a mass-market product, it is not possible to gather the development requirements on-point. And, on the other hand, based on the different types of customers, the complexity of this project becomes much dynamic as well as the development budget becomes very high which increases the failure rate somewhere. So, considering these obstacles, the agile development approach will be suitable for WFMS project where changes in requirements are always welcome, even late in development. Agile process harness (control) change for the customer´s competitive advantage.

Now, coming to choosing the process model, **Scrum** will be the most versatile process model for WFMS. As, scrum uses an approach that is both iterative and incremental. There are frequent assessments of the project, which enhances predictability and reduces the failure rate. Talking about the frequent assessment, scrum basically based on three major pillars, such as: Transparency, Inspection, and Adaptation.

i. Transparency- It will help the development process to be more transparent between the inside and the outside of the team. Where everyone can see the progress, flaw, or development blockage within the development time.

ii. Inspection- It plays a major role in working progress, as in scrum model the has the frequent inspection process, where the whole development crew engages with three different types of meeting phase. Such as, Sprint (iteration) planning meeting, Daily Scrum meeting, and Sprint review meeting. This type of inspection approach detects the undesirable derivation from the expected outcome. So, the process model has more controlled environment when it comes to develop a dynamic system.

iii. Adaptation- So, when the undesirable outcome is detected the scrum crew takes it as a positive manner and gets adjusted with the new derivation. Easily adapt the situation.

Beside these basic properties, scrum also has the little iteration called sprint, where the highly prioritized development requirements will get developed. So, this stepbystep development makes the development process more frequent and reduces risks.

But talking about the other agile process models, Like- XP (Extreme Programming), DSDM (Dynamic System Development Method) or FDD (Feature Driven Development), Scrum is more adaptable and versatile for our development process. Because,

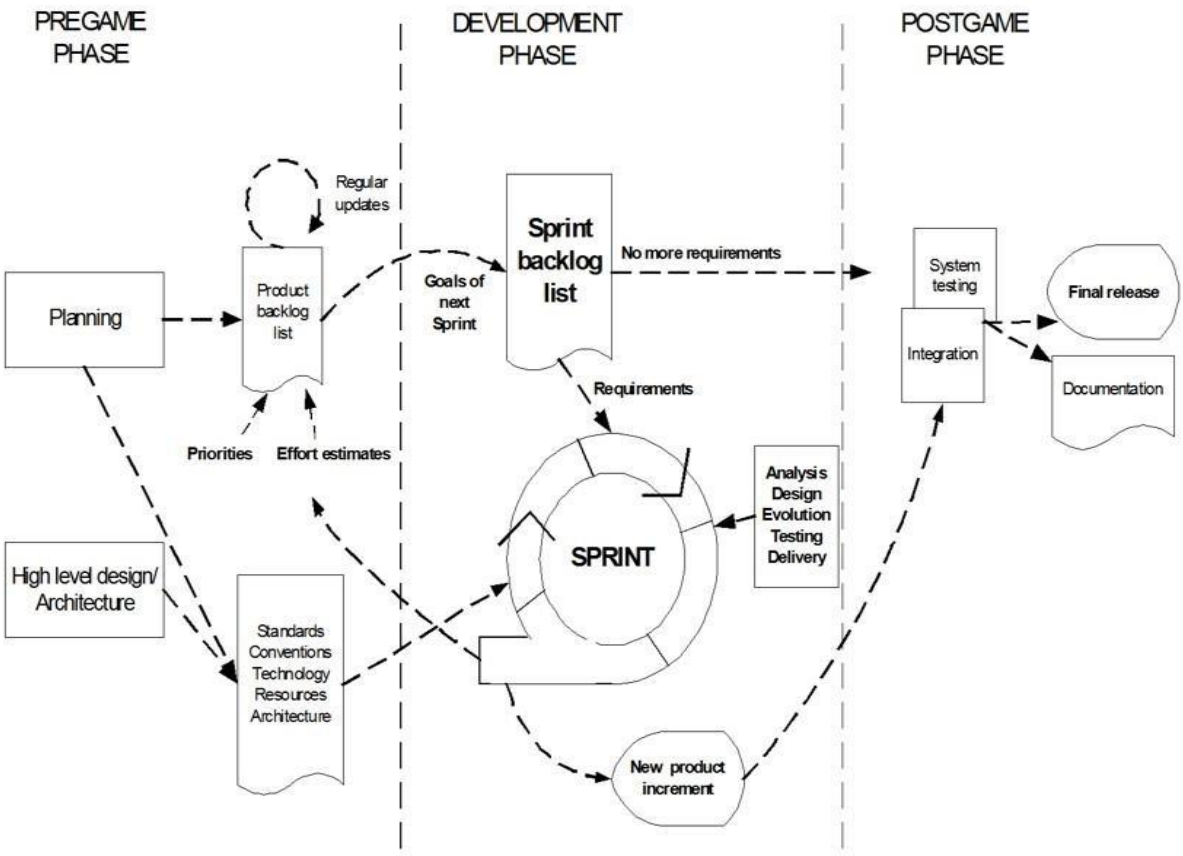
i. In XP, it a very big-budget development approach, but as our project is already large scaled so it becomes expensive. Extra investment in the development

approach won't be appreciable. Also, in XP the development team must work in a compact environment. Most likely, within the same root top, which requires extra effort. That's why, Scrum is more suitable for WFMS.

ii. Although in DSDM, the development process is much faster, it requires very high skilled development team, which can be difficult to manage in WFMS development time. And DSDM also needs a large team, which is not mandatory for WFMS development process.

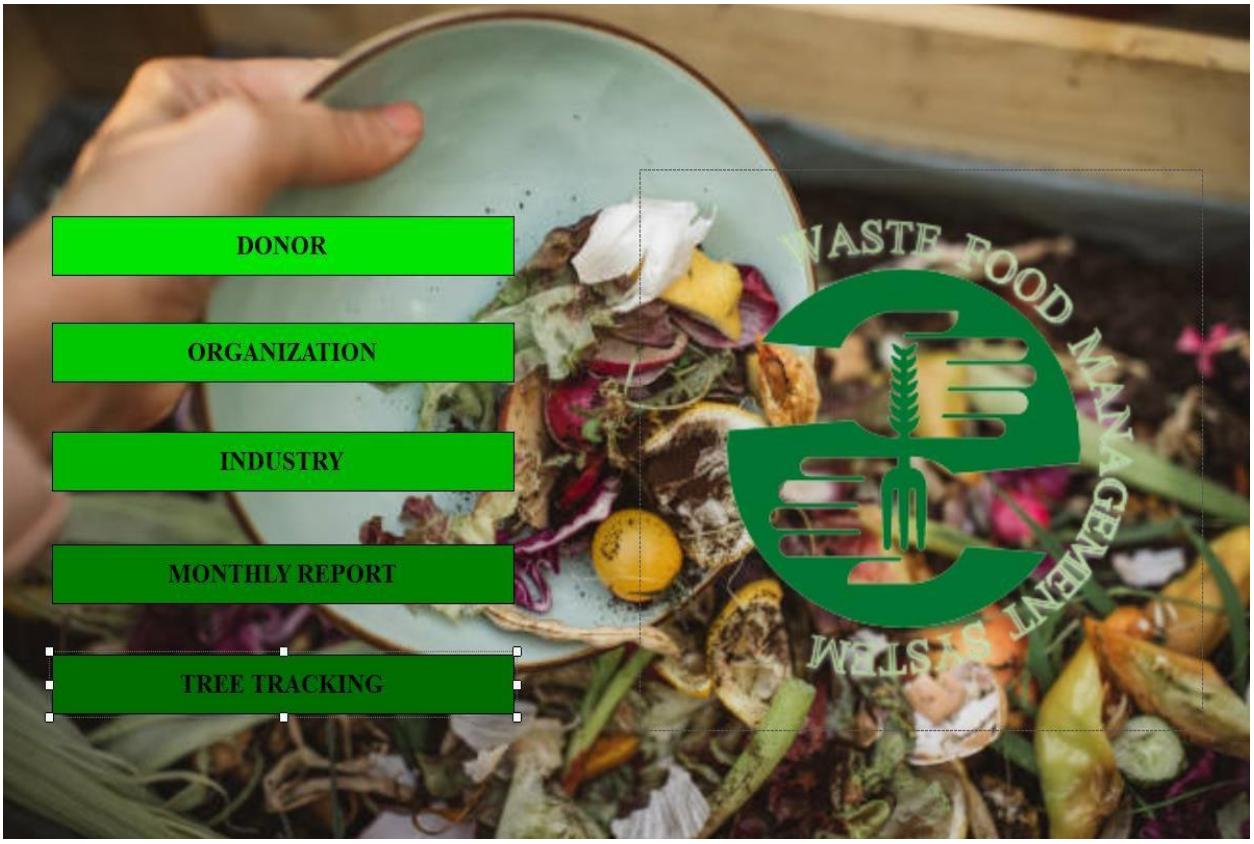
iii. In FDD, the development style supports multiple teams working in parallel, which might create ambiguity in the WFMS development process, as the interconnection between different user interfaces might create complexity in development phase. So, for multiple user interface in WFMS, the Scrum will be an ideal approach.

So, it can clearly be seen that Scrum agile model is the most appropriate approach for our project development. And WFMS will get developed following three phases- pre-game, game-phase, and post-game. The development approach diagram is given below-

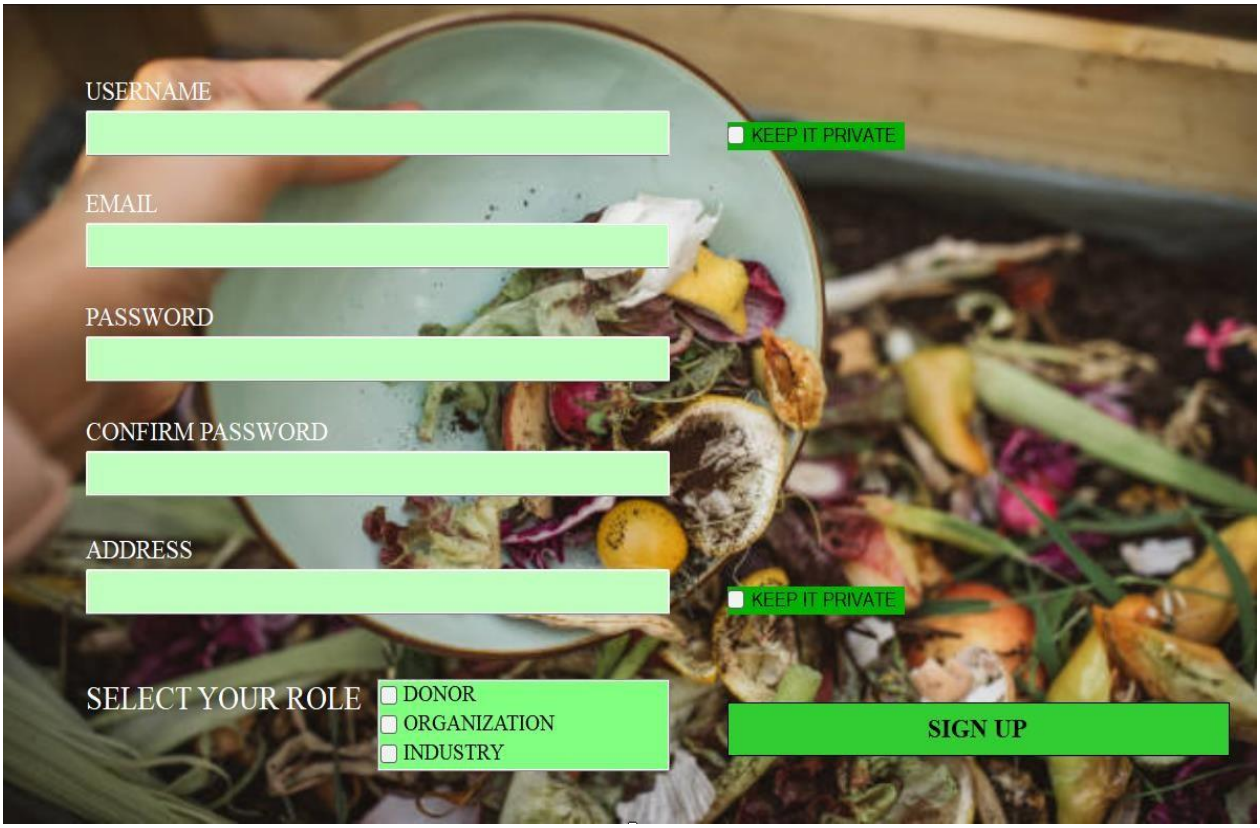


5. USER INTERFACE DESIGN

5.1 HOME PAGE

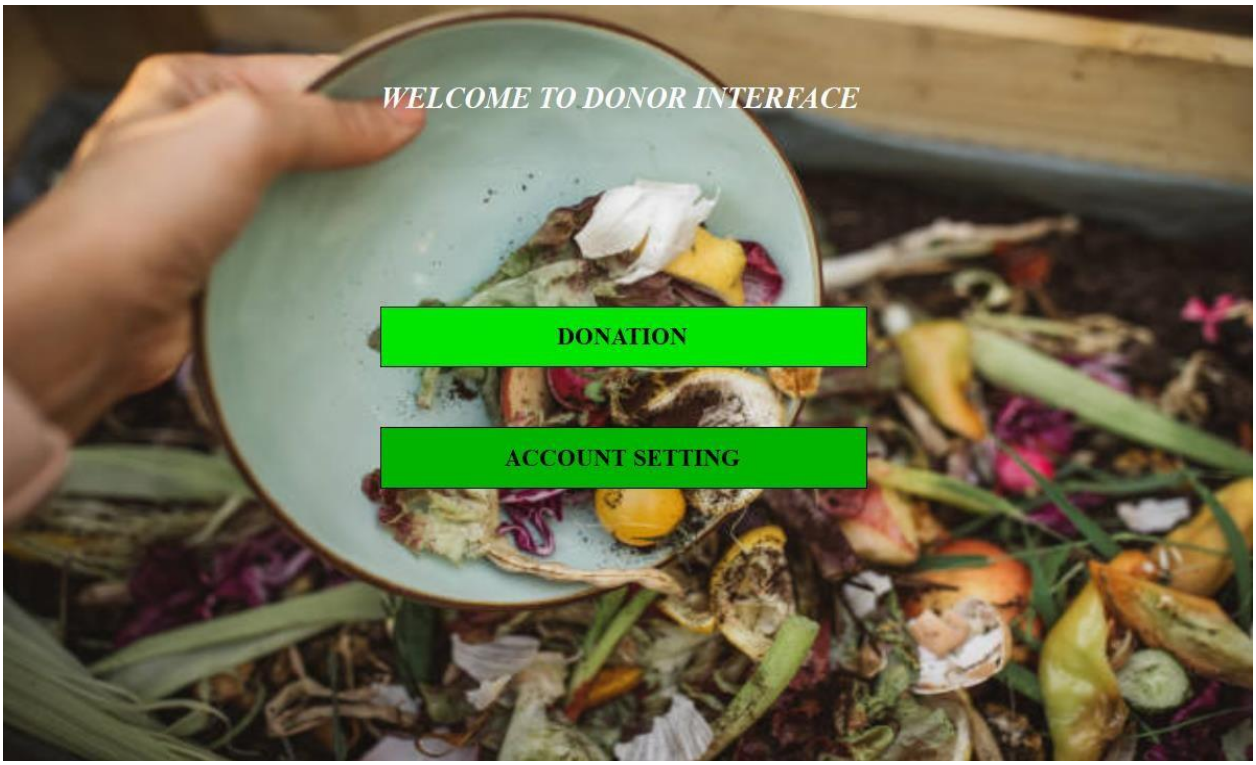


5.2 SIGN-UP

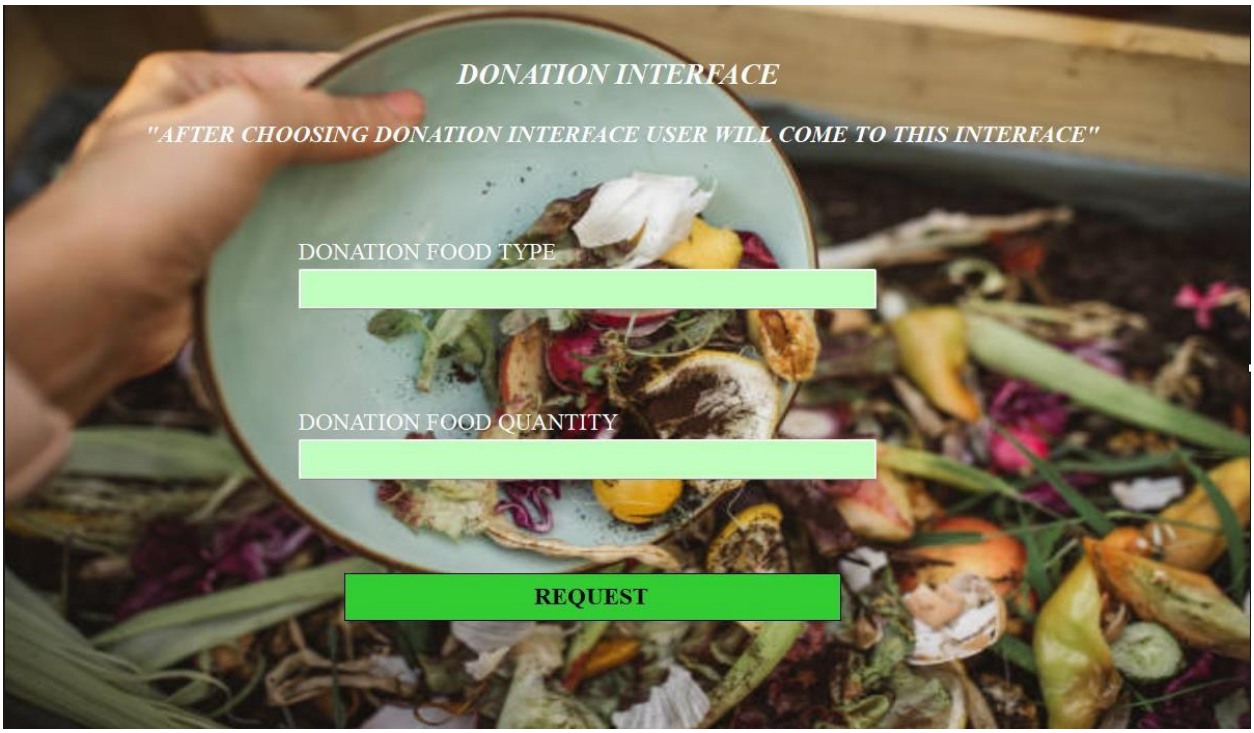

USERNAME
KEEP IT PRIVATE
EMAIL
PASSWORD
CONFIRM PASSWORD
ADDRESS
KEEP IT PRIVATE
SELECT YOUR ROLE
DONOR
ORGANIZATION
INDUSTRY
SIGN UP

5.3 LOGIN

5.4 DONOR HOME PAGE



5.5 DONATION INTERFACE



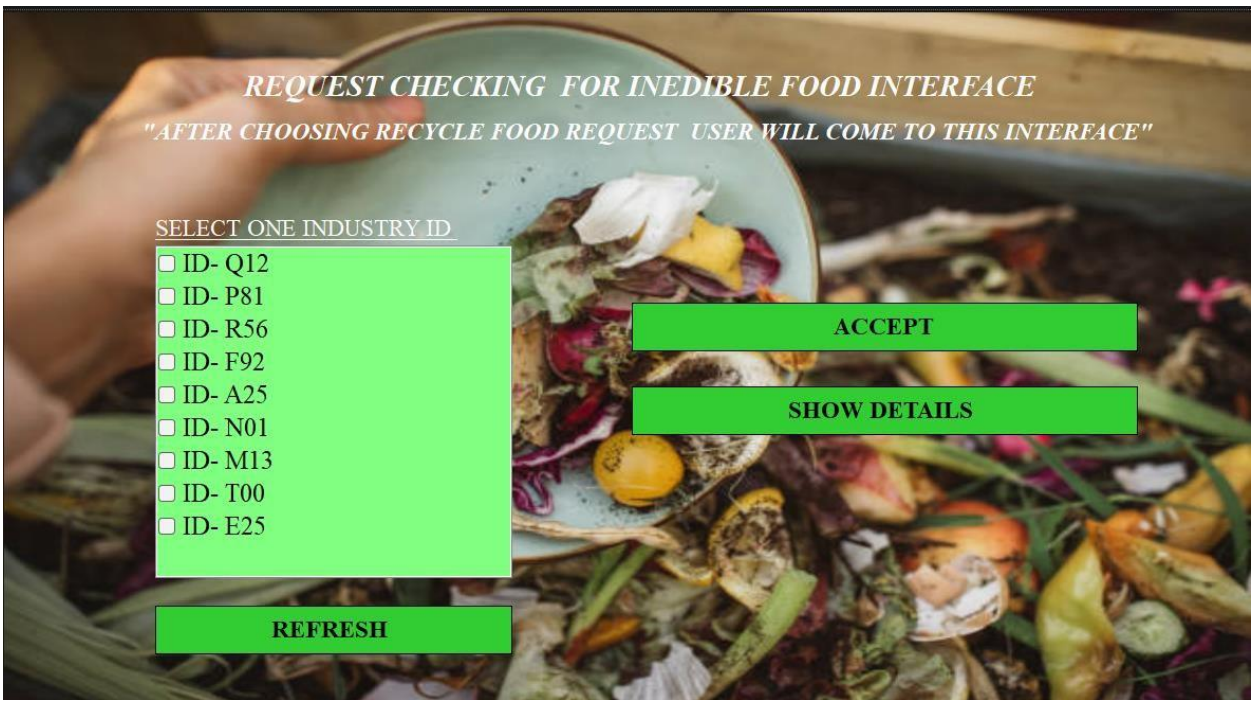
5.6 ORGANIZATION HOME PAGE

5.7 AVAILABLE DONATION REQUEST INTERFACE

5.8 AVAILABLE DISTRIBUTOR CHECKING INTERFACE

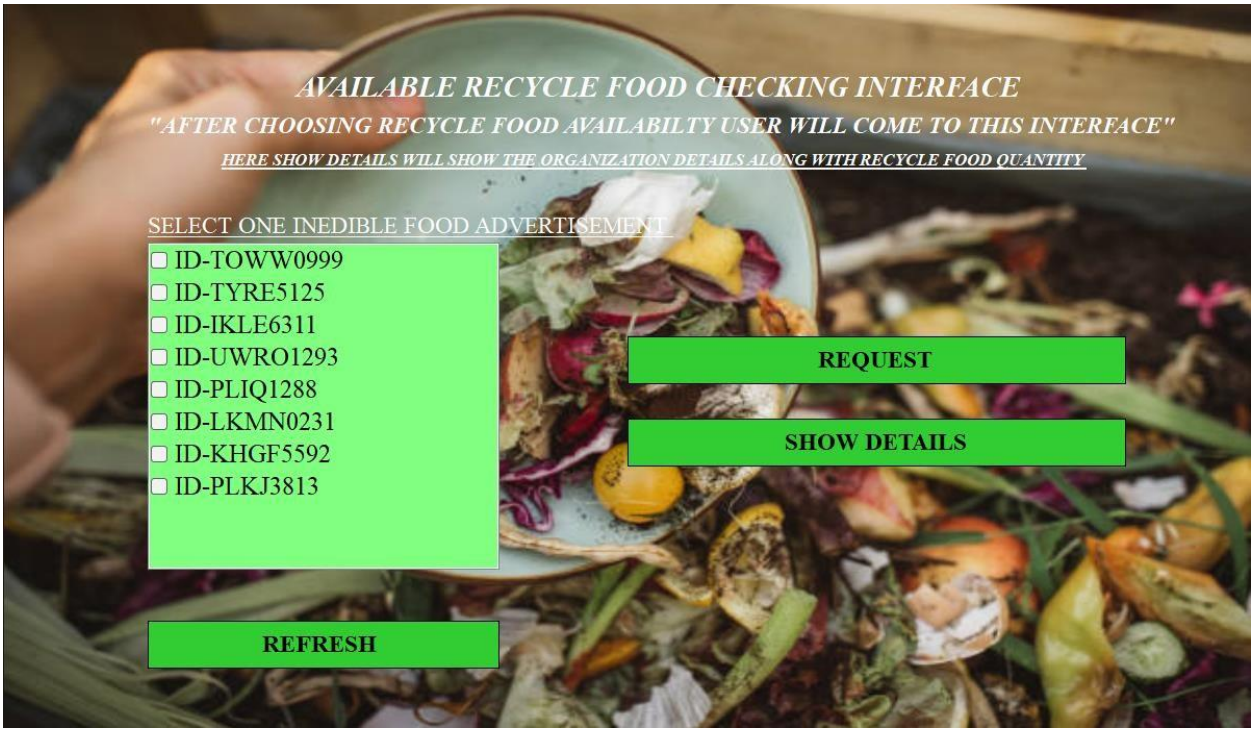
5.9 FOOD QUALITY CHECKING INTERFACE

5.10 INEDIBLE FOOD REQUEST CHECKING INTERFACE



5.11 INDUSTRY HOME PAGE

5.12 AVAILABLE RECYCLE FOOD CHECKING INTERFACE



6. PROJECT TEST PLANNING

6.1 SIGN-UP

Project Name: WFMS			Test Designed by: JOY	
Test Case ID: SUP_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): HIGH			Test Executed by: ESHMAM	
Module Name: Sign Up Module			Test Execution date: 19/7/2022	
Test Title: verify sign up with valid credentials				
Description: Test website sign up page				
Precondition (If any):				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click Sign Up 3. Enter username, password, email address, phone number 4. Click create account	Username: GOAT Password: 123456 Email: angelsadia@mail.com	User should get sign up confirmation message	As expected,	Pass

6.2 LOGIN

Project Name: WFMS			Test Designed by: SADIAESHMAM	
Test Case ID: LGN_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): HIGH			Test Executed by: JOY	
Module Name: Login Session			Test Execution date: 19/7/2022	
Test Title: verify login with valid username and password				
Description: Test website login page				
Precondition (If any): User must have valid username and password				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter username 3. Enter password 4. Click submit	Username: GOAT Password: 123456	User should login into the application	As expected,	Pass

6.3 MONTHLY REPORT

Project Name: WFMS			Test Designed by: JOY	
Test Case ID: MR_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: RUBAB	
Module Name: Monthly Report Page			Test Execution date: 19/7/2022	
Test Title: Examine if all the contents of the monthly report page showing				
Description: Test website monthly report page				
Precondition (If any):				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click Monthly Report	N/A	User should able to see top donators, total food donated, total trees planted this month	As expected,	Pass

6.4 TREE TRACKING

Project Name: WFMS			Test Designed by: SADIA	
Test Case ID: TT_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: JOY	
Module Name: Tree Tracking page			Test Execution date: 19/7/2022	
Test Title: Examine if all the contents of the tree tracking page showing				
Description: Test tree tracking page				
Precondition (If any): User must be logged in				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter login credentials 3. Click on tree tracking 4. Click on mapped tree to see the age of trees 5. Click on area's name to see the total numbers of planted trees 6. Click on report if trees were not taken care of 7. Click on suggest planting to suggest plantation of trees in desired areas	Username: GOAT Password: 123456	User should able to see the age of trees, total numbers of planted trees, report on trees, suggest planting trees.	As expected,	Pass

6.5 DONATE FOOD

Project Name: WFMS			Test Designed by: RUBAB	
Test Case ID: DF_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: ESHMAM	
Module Name: Donate Food Page			Test Execution date: 19/7/2022	
Test Title: Examine if all the contents of the food donation page showing				
Description: Test website donate food page				
Precondition (If any): User must be logged in				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter login credentials 3. Click on Donate Food 4. Click to select the quantity of food	Username: GOAT Password: 123456	User should able to see the quantity of food	As expected,	Pass

6.6 ACCOUNT SETTING

Project Name: WFMS			Test Designed by: ESHMAM	
Test Case ID: AS_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: SADIA	
Module Name: Account Setting Page			Test Execution date: 19/7/2022	
Test Title: Update profile by verifying valid credentials				
Description: Test website account setting page				
Precondition (If any): User must be logged in				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter login credentials 3. Click on Account Setting 4. Click on update profile to update valid credentials 5. Click on anonymous mode to hide profile	Username: GOAT Password: 123456	User should able to update their valid credentials, turn on/off anonymous mode	As expected,	Pass

6.7 CHECK AVAILABLE FOOD DONATION

Project Name: WFMS			Test Designed by: RUBAB	
Test Case ID: CAFD_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: JOY	
Module Name: Available Food Donation Page			Test Execution date: 19/7/2022	
Test Title: Examine if all the contents of the available food donation page showing				
Description: Test website available food donation page				
Precondition (If any): User must be logged in to Organization interface				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter login credentials 3. Click to see the available food donation requests 4. Click on show details to see the details of donor (Like- Address, Unit of donation, Available time slot for donation pick-up)	Username: ORG Password: 1234	User should able to see the available food donation requests, details of donor (Like- Address, Unit of donation, Available time slot for donation pick-up)	As expected,	Pass

6.8 AVAILABLE DISTRIBUTOR

Project Name: WFMS			Test Designed by: ESHMAM	
Test Case ID: AD_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: JOY	
Module Name: Available Distributor Page			Test Execution date: 19/7/2022	
Test Title: Check if the distributors are available or not				
Description: Test website available distributor page				
Precondition (If any): User must be logged in to Organization interface and check the available food request first with the details of location and donation unit				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Enter login credentials 3. Click on Available Distributor to check if the distributors are available or not 4. Provide suitable area of distribution 5. Click to provide a unique serial number of that donation process after assigning the distributor	Username: ORG Password: 1234	User should able to check if the distributors are available or not, provide a suitable area of distribution, provide a unique serial number to assigned distributors	As expected,	Pass

6.9 CHECK THE FOOD QUALITY

Project Name: WFMS			Test Designed by: RUBAB	
Test Case ID: CFQ_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: SADIA	
Module Name: Check the Food Quality Page			Test Execution date: 19/7/2022	
Test Title: Check if the food is edible or not				
Description: Test website food quality checking page				
Precondition (If any): User must be logged in and check the food quality				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click on check food quality 3. Send notification about the edible food to the specified distributor 4. Send recycle alert about the inedible food to the industry	Username: GOAT Password: 123456	User should able to check the collected food edible or not, send distribution notification for the edible food to the distributor, send recycle alert for the inedible food to the industry	As expected,	Pass

6.10 CHECK REQUEST FOR INEDIBLE FOOD

Project Name: WFMS			Test Designed by: ESHMAM	
Test Case ID: CRIF_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: JOY	
Module Name: Check Request for Inedible Food Page			Test Execution date: 19/7/2022	
Test Title: Check if the food is edible or not				
Description: Test website food quality checking page				
Precondition (If any): User must be logged in and check the food quality				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click on check food quality 3. Send notification about the edible food to the specified distributor 4. Send recycle alert about the inedible food to the industry	Username: GOAT Password: 123456	User should able to check the collected food edible or not, send distribution notification for the edible food to the distributor, send recycle alert for the inedible food to the indus try	As expected,	Pass

6.11 TREE MAPPING

Project Name: WFMS			Test Designed by: SADIA	
Test Case ID: TM_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): MEDIUM			Test Executed by: JOY	
Module Name: Destination for Tree Mapping Page			Test Execution date: 19/7/2022	
Test Title: Check the tree mapping details				
Description: Test website tree mapping page				
Precondition (If any): User must be logged in and have some unit of trees				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click on check food quality 3. Send notification about the edible food to the specified distributor 4. Send recycle alert about the inedible food to the industry	Username: ORG Password: 1234	User should able to check the notification about edible food, should send the recycle alert about inedible food to the industry	As expected,	Pass

6.12 AVAILABLE RECYCLE FOOD

Project Name: WFMS			Test Designed by: SADIA	
Test Case ID: ARF_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): HIGH			Test Executed by: RUBAB	
Module Name: Available Recycle Food page			Test Execution date: 19/7/2022	
Test Title: Check the available food for recycling				
Description: Test available recycle food page				
Precondition (If any): User must be logged in				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click on available recycle food 3. Click on show to show the information about available food quantity 4. Click to select preferred quantity 5. Click on send to send a request to the organization from industry	Username: INDUSTRY Password: IN1234	User should able to see the information about available food quantity, select preferred quantity, send a request to the organization	As expected,	Pass

6.13 PENDING TREES

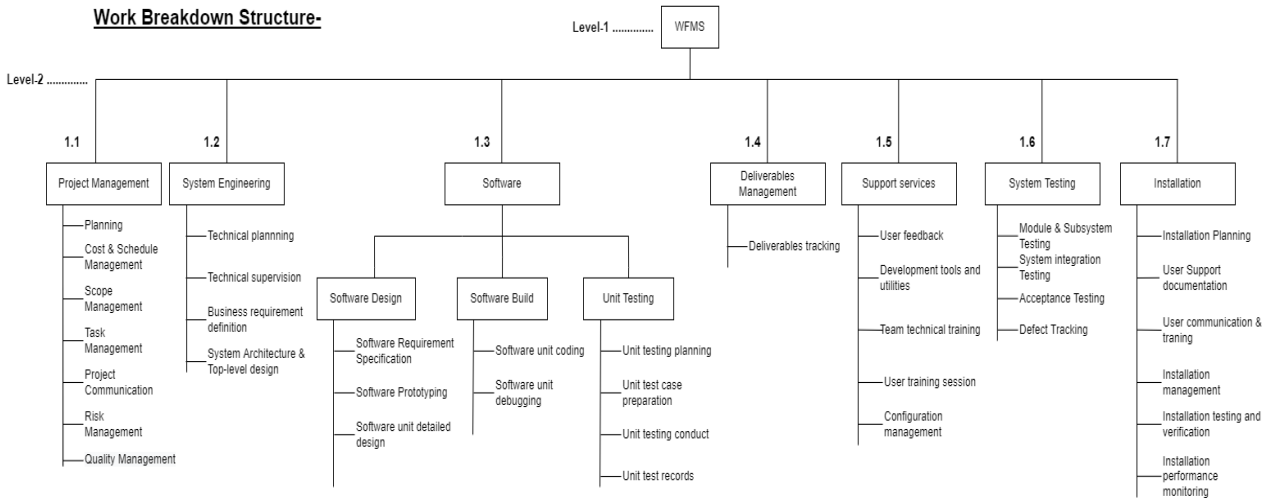
Project Name: WFMS			Test Designed by: ESHMAM	
Test Case ID: PT_1			Test Designed date: 19/7/2022	
Test Priority (Low, Medium, High): HIGH			Test Executed by: JOY	
Module Name: Pending Trees page			Test Execution date: 19/7/2022	
Test Title: Check the pending trees				
Description: Test pending trees page				
Precondition (If any): NGOs must update tree information				
Test Steps	Test Data	Expected Results	Actual Results	Status (Pass/Fail)
1. Go to the website 2. Click on pending trees 3. Click to choose the organization name from a list 4. Click to check the number of pending trees of that specific organization 5. Click to update the pending tree list	Username: INDUSTRY Password: IN1234	User should able to choose the organization name from a list, check the number of pending trees of a specific organization, update the pending tree list	As expected,	Pass

7. EFFORT ESTIMATION

Here,
Our Project's SLOC = 30000
Project type = **Organic**
Effort = PM = 2.4*(30000/1000) ^1.05 = **85.347 hours**
Development time = DM = 2.50*(85.347) ^0.38 = **13.545 month**
Required number of people = ST = 85.347/13.545 = **6.3 ≈ 7 people**

PM: person-months needed for project (labor working hours)
DM: duration time in months for project (weekdays)
ST: average staffing necessary

8. WBS (WORK BREAKDOWN STRUCTURE)



9. ACTIVITY SCHEDULING & RESOURCE ALLOCATION

SCRUM MODEL TIMELINE CHART DISTRIBUTION-

Activity Key-	
Pre-Game	
A :	Overall Planning
B :	High-level architecture design
C :	Update Product Backlog
Development Phase (In-Game)	
D :	Sprint Backlog List
	Module-1
E :	Analysis
F :	Design
G :	Development
H :	Testing
	Module-2
I :	Analysis
J :	Design
K :	Development
L :	Testing
	Module-3
M :	Analysis
N :	Design
O :	Development
P :	Testing
Post-Game	
Q :	System Intregation
R :	System Testing
S :	Documentation
T :	Final Release

TIMELINE CHARTS-

Timeline Chart Part-1

Task: Person	Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
A:	Rubab																												
B:	Eshmom																												
C:	Shohid																												
D:	Shohid																												
E:	Rubab																												
F:	Eshmom																												
G:	Shohid																												
H:	Rubab																												
I:	Rubab																												
J:	Eshmom																												
K:	Shohid																												
L:	Rubab																												
M:	Rubab																												
N:	Eshmom																												
O:	Shohid																												
P:	Rubab																												
Q:	Shohid																												
R:	Rubab																												
S:	Eshmom																												
T:	Rubab																												

Development Team-
Rubab
Eshmom
Shohid

Timeline Chart Part-2

Work Tasks	Weeks	Week-1	Week-2	Week-3	Week-4	Week-5	Week-6	Week-7	Week-8	Week-9	Week-10	Week-11	Week-12	Week-13	Week-14	Week-15	Week-16	Wee
		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2
1.1.1	Planning																	
1.1.2	Cost & Schedule Management																	
1.1.3	Scope Management																	
1.1.4	Task Management																	
1.1.5	Project Communication																	
1.1.6	Risk Management																	
1.1.7	Quality Management																	
Milestone : Project Management Defined																		
1.2.1	Technical plannning																	
1.2.2	Technical supervision																	
1.2.3	Business requirement definition																	
1.2.4	System Architecture & Top-level design																	
Milestone : System Engineering Complete																		
1.3.1.1	Software Requirement Specification																	
1.3.1.2	Software Prototyping																	
1.3.1.3	Software unit detailed design																	
Milestone : Software Design Complete																		
1.3.2.1	Software unit coding																	
1.3.2.2	Software unit debugging																	
Milestone : Software Build Complete																		
1.3.3.1	Unit testing planning																	
1.3.3.2	Unit test case preparation																	
1.3.3.3	Unit testing conduct																	
1.3.3.4	Unit test records																	

Timeline Chart Part-2

Work Tasks	Weeks	Week-15	Week-16	Week-17	Week-18	Week-19	Week-20	Week-21	Week-22	Week-23	Week-24	Week-25	Week-26	Week-27	Week-28
		5 1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
1.3.3.2	Unit test case preparation														
1.3.3.3	Unit testing conduct														
1.3.3.4	Unit test records														
Milestone : Unit Testing Complete															
1.4.1	Deliverables tracking														
Milestone : Deliverables Management Defined															
1.5.1	User feedback														
1.5.2	Development tools and utilities														
1.5.3	Team technical training														
1.5.4	User training session														
1.5.5	Configuration management														
Milestone : Support services Defined															
1.6.1	Module & Subsystem Testing														
1.6.2	System integration Testing														
1.6.3	Acceptance Testing														
1.6.4	Defect Tracking														
Milestone : System Testing Complete															
1.7.1	Installation Planning														
1.7.2	User Support documentation														
1.7.3	User communication & traning														
1.7.4	Installation management														
1.7.5	Installation testing and verification														
1.7.6	Installation performance monitoring														
Milestone : Installation Complete															

10. CONCLUSION

Our project reflects how we can solve the biggest problem of this modern time, where everyone is wasting food without even bothering about the poor hungry people who can't afford that food. In this report,

- We basically designed the phase of developing a waste food distribution system, with the help of UML modeling (Use case diagram, Sequence Diagram, Activity Diagram, Class Diagram and so on).
- Our proposed solution in the report will help to solve the existing problems of food distribution.
- It will make an easy way of donating food which will encourage the users to donate more foods.
- On the other hand, all the distributers like NGO's or social workers can use this app to get a clear idea about food quality, quantity, where to distribute in on system.
- Our proposed project idea is helping the nature too. Because when the fertilizing industries are donating trees for the exchange of inedible foods, the distributors will plant those trees in their distributing areas.
- So ultimately the plantation of trees will increase the oxygen level of nature.
- After all this, there will be a monthly report generated by the system which will contain all these donations, distribution, tree plantation, as well as the mapping of panted trees, which will be published publicly to encourage other people to take part in this good initiative.

We hope this idea will bring a massive change in our daily and social life, having a positive impact on everyone.