The SUPERIOR COLLEGE LAHORE

Faculty of Computer Science & IT

Final Year Project
PROJECT REPORT

E-donation

Project ID: **FYP-MCSM-S18-004**

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Project Report

E-donation

Change Record

Author(s)	Version	Date	Notes	Supervisor's Signature
Tabinda, Iqra and Rabia	1.0		Template 1	
Tabinda, Iqra and Rabia	1.2		Documentation	
Tabinda, Iqra and Rabia	1.3		Review of layouts	
Tabinda, Iqra and Rabia	1.4		Review of Coding	
Tabinda, Iqra and Rabia	1.5	13-06-2019	Review of database	

APPROVAL

PROJECT SUPERVISOR

Comments: _____

_____

Name:_____

Date:_____ Signature:_____

PROJECT MANAGER

Comments: _____

_____

Date:_____ Signature:_____

HEAD OF THE DEPARTMENT

Comments: _____

_____

Date:_____ Signature:_____

Dedication

First of all, we dedicate our project to Allah Almighty

And to whom the world owes its existence

Muhammad (Peace Be upon Him)

This humble effort is dedicated to

Our beloved parents who brought us

To the level of excellence where we

Are studying today looking for most

Promising and gleaming future ahead

For which they scarified most of the

Time of their life

&

To our respected and genius teachers

Who guided us throughout academic career!

And all those people

Who have remembered us in their prayers!

A lot of thanks for all my teachers!

Acknowledgements

Above all, I owe much tribute to the Almighty God who gave us a life worth living and i thank Him for giving us the strength to accomplish this project. The success and accomplishment of this project stems from efforts and dedication offered by many individuals whose support was either direct or indirect. I thank all of them for their devotion.

The author would like to express the sincere gratitude to their project advisor **Muhammad Javaid Iqbal** for his vigilant supervision, intellectual guidance, constructive advice and very kind attitude throughout the course of project.

Appreciate to the efforts of all our teachers whose teachings have brought us to this stage of academic zenith.

In the last but not the least, special gratitude with the deepest sense of respects to our parents whose love and affections kept us steep fast and enabled us to attain targets and goals of academic life. The authors are extremely indebted to their brothers and sisters whose constant encouragement provides us with the impetus that was necessary for attaining academic initiatives.

Executive Summary

The proposed system has functionality to facilitate the deserving peoples. Different restaurants, wedding halls, and volunteers donate their food items (edible) to the NGO's, Trust organization, in the society. It is a unique idea in Pakistan and there is not existing system in Pakistan. This system is also known as E-Donation system. According to the survey this system is only using in five countries all over the world. This system has both donor and consumers, they can register and get services via online using this system. The deserving people who needs food according to their demands can send request to nearby NGO or Trust organization using this system. The requests from the deserving peoples and from the NGO or Trust organizations goes to the system and then forward to the restaurant, wedding halls and other donating communities. Then the donor accepts request and provide food to donate. In this app also keep a feedback section for both donor and needy people to avoid, deceive, misbehavior and fraud. This system we will provide services for the donation and for deserving peoples.

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Chapter 1

Introduction

Chapter 1: Introduction

First, we developed a social mobile app for welfare in the society. This app use for sharing food in the society. For this needy people, NGO and Trust who need food they search nearest Restaurant, wedding Hall and volunteer who share their excess food. This a unique initiative. For This Firstly, the NGOS and Trust create their profiles who need food. The Restaurant, wedding hall and volunteer (single person) known as donor also create their profile the admin also create profiles who manage both donor and consumer accounts respectively. The NGO send request for food with per head quantity and the Donor. The app also keeps the review and feedback of the both donor and consumer. This the first ever system to provide a single platform for donors and deserving people can donate their food through a single click timely. While we look back toward application development and revolution, there are different applications which are providing home delivery facility services, traditionally. There is no mobile app for social welfare in Pakistan, but this is the first app which will use to share excess food as donation. It is online services the purpose of this application to provide donation food to needy and deserving ones in a faster way. This mobile app changes the way of people life to make their life better and create social awareness for humanity

1.1 Background

- The present food movement has its roots in the efforts of John Van Hengel, a retired businessman who began volunteering at a soup kitchen in Phoenix, Arizona in the late 1960s. To support the program, he began soliciting donations of food products from area grocery stores, but soon his efforts were generating more food than the soup kitchen could handle [1].
- Van Hengel decided to set up a warehouse where he could store the donated products for distribution to charities feeding hungry people in Phoenix. it was the birth of the first food bank and the foundation for a movement that would spread across the nation, beginning in the early 1970s.
- In 1976, the federal government gave John Van Hegel's food bank a grant to assist in developing food banks throughout the nation. The impetus for growth had been increased

by the passage of the 1976 Tax Reform Act, which made it more financially advantageous for companies to donate their products. This federally funded development expanded and ultimately incorporated as to manage solicitation of donations from national donors and develop standards for food banks pertaining to storage capacity, quality control and management.

- By 1982, federal funding was discontinued; however, America's Second Harvest increased its pursuit of alternative sources of financial support and in 1984, the national office was moved to Chicago, Illinois. The organization continued to grow as the the practice of food banking gained acceptance and support from the food industry and local social service providers feeding hungry Americans.
- With many major cities having food banks by the mid 1980's, network expansion slowed and America's Second Harvest's focus shifted to improving existing programs. Professionalism and efficiency of food bank operations improved dramatically, resulting in a much greater amount of food and grocery products being distributed by the Network.
- In 1999, the name of the national organization was officially changed to America's Second Harvest with a focused goal of ending hunger in America. In March of 2000, America's Second Harvest merged with Food chain, the nation's largest food-rescue organization - producing the most comprehensive and efficient charitable food rescue and distribution organization in the country.
- In 2008, America's Second Harvest changed its name to Feeding America. As the nation’s largest domestic hunger-relief charity, Feeding America's network members supply food to more than 25 million Americans each year, including 9 million children and 3 million seniors. Serving the entire United States, more than 200 member food banks operate 63,000 agencies that address hunger through emergency food assistance and programs.

[1] https://www.hungernwnc.org/about-us/history%20of%20food%20banking.htm

1.2 Motivations and Challenges

Now a day people use more mobiles for internet for different purpose. It is very easy to use for everyone. It is app only for donation food. A great new idea to help people through mobile app. The close gap between fortune and unfortunate people in the society.

1.3 Goals and Objectives

Donation sharing food is advanced concept to donate food quickly on time. It is a completely social and non -profit app. It brings to close gap between fortunate people and unfortunate people in the society.

1.4 Literature Review/Existing Solutions

We create a social app which is easy in use for everyone. In this app different NGSO-TRUT who need foods according to their requirement can send request near by the restaurant, wedding hall and volunteer admin will approve their request and provide food in quick time. Allowing excess food to be donated from the food service industry to qualified charities that work with the needy. E-donation act as a medium that connects Donors who wish to donate food with Charities who work with needy, and thus help in diverting the excess to needy to reduce problem of food wastage

1.5 Gap Analysis

There is no online mobile app before this create for food donation online. This app creates for social welfare and non-profit organization who collect food according to their demand from different restaurant, wedding hall and volunteer.

1.6 Proposed Solution

The main purpose of this app to provide easy and faster solution in new searching style in all the cities. In this era everything is moving so fast that we cannot afford any delay. This application

will allow the users to donate food timely to avoid food wastage and reduce the ratio of food spoiling

1. Registration both donor and consumers
2. Admin manage both accounts.
3. NGOS give request and donor approved request.

1.7 Project Plan

This is our project plan that tells about how our Android Application operate by and with following responsibility matrix, WBS and Gantt chart.

1.8 Work Breakdown Structure

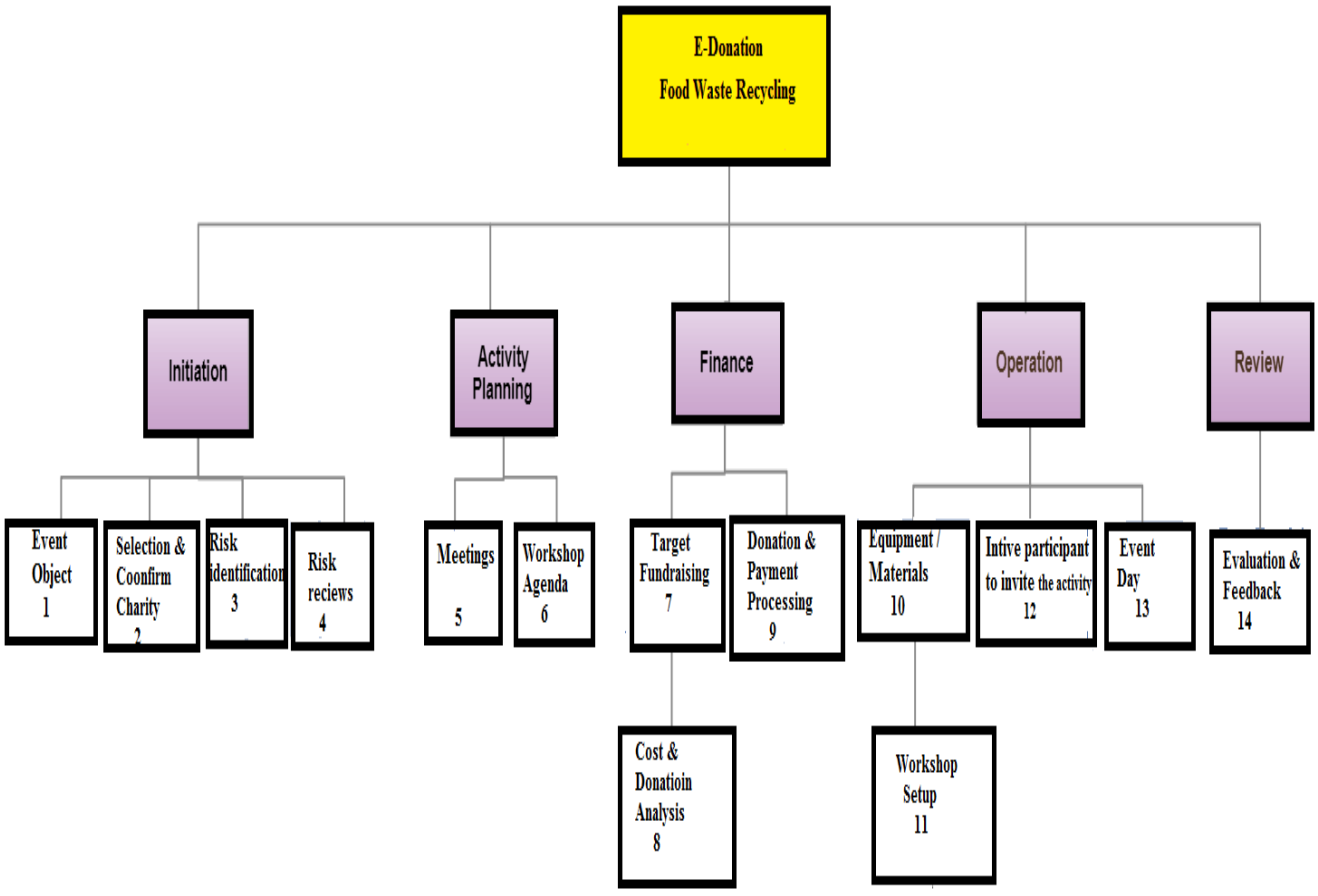


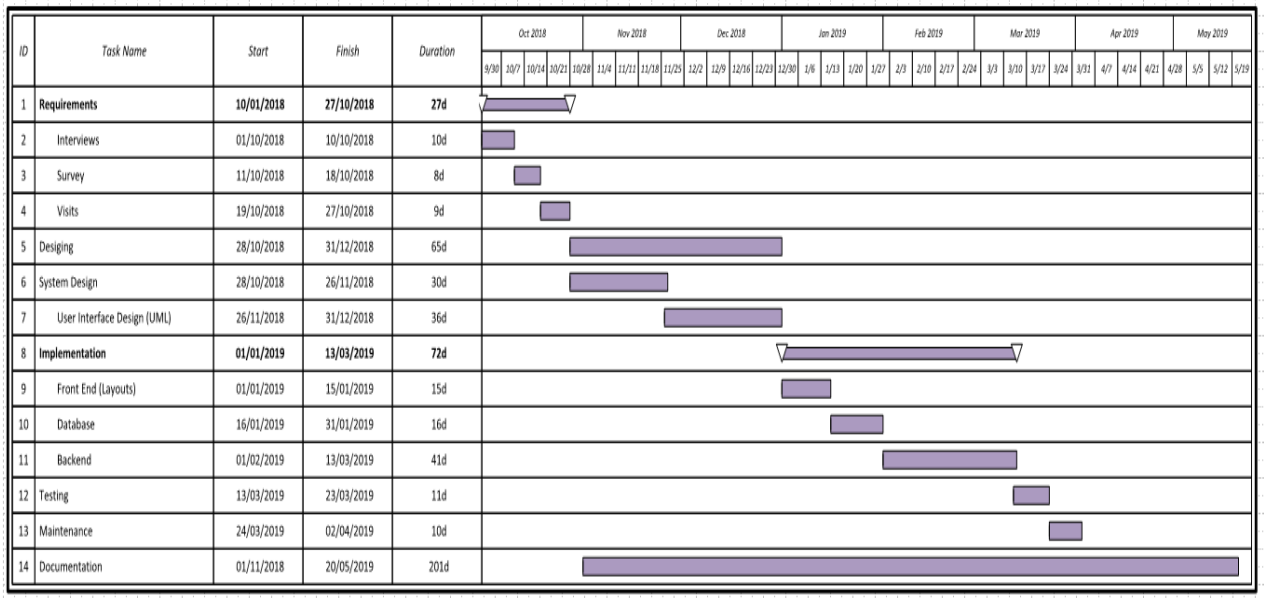
Figure 1: Work break down structure

1.9 Roles & Responsibility Matrix

WBS #	WBS Deliverable	Activity #	Activity to Complete the Deliverable	Duration (# of Days)	Responsible Team Member(s) & Role(s)
1	Requirement gathering	1	Technical specification Restricted areas Available solutions.	15 Days	tabinda rabia iqra
2	Analysis	2		10 Days	tabinda rabia iqra
3	Architecture	3		20 Days	tabinda rabia iqra
4	Designing	4		15 Days	tabinda rabia iqra
5	Implementation &development	5		90 Days	tabinda rabia iqra
6	Database Module	6		20 Days	tabindajved rabia iqra
7	Final testing	7		5 Days	tabindajved rabia iqra
8	Documentation	8		25 Days	tabindajved rabia iqra

Table 1:Role& Responsibility Matrix

1.1 Gantt Chart



ID	Task Name	Start	Finish	Duration
1	**Requirements**	**10/01/2018**	**27/10/2018**	**27d**
2	Interviews	01/10/2018	10/10/2018	10d
3	Survey	11/10/2018	18/10/2018	8d
4	Visits	19/10/2018	27/10/2018	9d
5	Desiging	28/10/2018	31/12/2018	65d
6	System Design	28/10/2018	26/11/2018	30d
7	User Interface Design (UML)	26/11/2018	31/12/2018	36d
8	**Implementation**	**01/01/2019**	**13/03/2019**	**72d**
9	Front End (Layouts)	01/01/2019	15/01/2019	15d
10	Database	16/01/2019	31/01/2019	16d
11	Backend	01/02/2019	13/03/2019	41d
12	Testing	13/03/2019	23/03/2019	11d
13	Maintenance	24/03/2019	02/04/2019	10d
14	Documentation	01/11/2018	20/05/2019	201d

Figure 2: Gantt chart

Report Outline

- The Requirement was gathered in about 15 Days.
- The Documentation was made in a whole year.
- The coding and data were implanted in almost 4 months.
- The Test were made, and errors were debugged after and through the coding period.
- Validation and finalization in added golden days.

Chapter 2

Software Requirement Specifications

Chapter 2: Software Requirement Specifications

Introduction

2.1 Purpose

This mobile application is used for social welfare. The application performance should be optimized, and response time should be minimized. this app is social app used to donate food items and excess food to reduce the ratio of wastage of food.

2.2 Document Conventions

This record is. Its degree is to portray the necessities of the Advertisement Management System and its affiliations. This report has been composed after the AMS and consider that future changes to this program ought to be incorporated into this prerequisites determination record for keeping up its helpful part. To the extent the program usage is concerned while it's not been actualized, this record can be utilized as manual for improvement of framework. CSS, VCSS property, descriptor, and pseudo-class names are specify by single quotes. Values are specifying by single quotes. Document language element names are in upper case Letters. Document language attribute names are in lower case letters and specify by Double quotes.

2.3 Intended Audience and Reading Suggestions

This application highly scalable. Its purpose is to enable a sense of solidarity in the community. The app has a societal impact since its aim is to close the gap between the less fortunate people and the more unfortunate in terms of quality of life.

2.4 Product Scope

E-donation, originally designed for food donations on small and large scale the product aims at satisfying the requirements of needy organizations through donations over the net. The application shall ask the user/donor to register his/her details into the system and then he/she can login and put up food to donate. Similarly, organizations can register in the system and then put up their food requirements. Also, a donor can view the list of it food put up by seekers and can donate the same, if possible. In the same way, seekers can view the list of items put up by donors and if required, can claim the donated item by contacting the donor. The main objectives

of the proposed application include reduction in wastage of food, making food, making food available to orphanages, old age homes and other such organizations, which will also inculcate values of sharing and sensitivity among people.

2.5 References

IEEE standard document for software requirement specification.

2.6 Overall Description

2.6.1 Product Perspective

E-donation will provide a platform for donors and seekers after they successfully register into the system. If a user wishes to donate something, he/she can send a request in application. We are aiming to avoid the major wastage that usually happens in country and that is foodstuffs. We are looking and expecting to update and refine the donation system the application will be beneficial if donors and seekers are located near each other.

2.6.2 Product Functions

Donor (restaurants, wedding hall), Receiver (NGOS, nonprofit organization) and Admin. The Donor performs operations like Registration and Login into the System. He can also put up food for donation and view all donation requests. The Admin and Donor both can view the Receiver's location. The Admin can also monitor and update the database. The Admin and Receiver both can view the Donor's location. The Receiver can an also perform operations like requesting for items, viewing requested food.

2.6.3 User Classes and Characteristics

There is the following user of our system

Administrators:

- The administrators have complete control over all the activities that can be performed.
- They verify the user after he/she registers.
- They must provide rules for the Login.
- They must maintain the website and update the same making necessary changes at times.
- They must take care of the security issues involved in the login.

- They must inform the users about their login status and keep them updated about the progress through emails.

Users/donors:

- They are the registered members of the system. They can view all the features.
- User should be familiar with the terms like login, register etc.
- Two type of users are included donners and receiver/consumer.
- General user have the access to view the specific features whereas, admin, donner receiver and registered user can view, update or add the features.
- They are able to see the requirement or request from consumer receiver/consumer.
- They are the registered members of the system. They can view all the features.
- User should be familiar with the terms like login, register etc.
- They can view all the features.
- User should be familiar with the terms like login, register etc.
- They can request for the required quantity of food

2.6.4 Operating Environment

This system will operate in browsers like Mozilla, Firefox, and Opera and for their different version also.

- It can be open on window, android and iPhone.
- The processor should be core 2 duo or above.
- The processor's speed should be 2.8 GHz or greater.
- Ram should be or greater than 512 MB.

2.6.5 Design and Implementation Constraints

There are the following design and implementation constraints that we should keep in our mind during developing of the application.

- This system is working for single server
- Limited to HTTP/HTTPS.
- Sketch or proto.io for prototyping the system
- XAMPP server for the local host
- MYSQL used for manage the database specification
- Operating system required for this application is windows kit Kat 4.0 android or any other higher version

2.6.6 User Documentation

Latterly, the uses of mobile devices and wireless network applications became more and more widespread. Project has solved the issue that people donate food manually by visiting each organization number of times. It provides single platform for donors and consumers to donate food timely and securely to the needy people

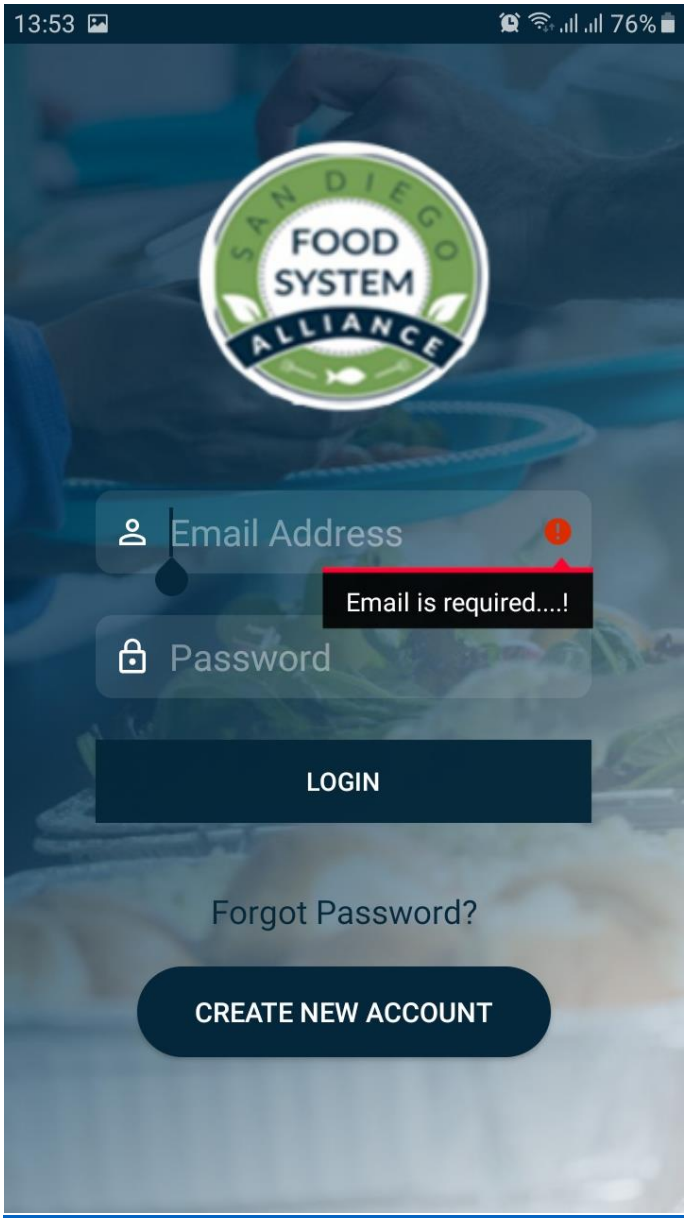
2.6.7 Assumptions and Dependencies

There are assumptions and dependencies that should be fulfilled for use of this application:

- User should have basic knowledge of English language and computer and smart phone usage.
- Admin monitoring the use of Website/application.

User have basic understanding on how to operate computer and computer software.

2.6.8 External Interface Requirements



2.6.9 User Interfaces

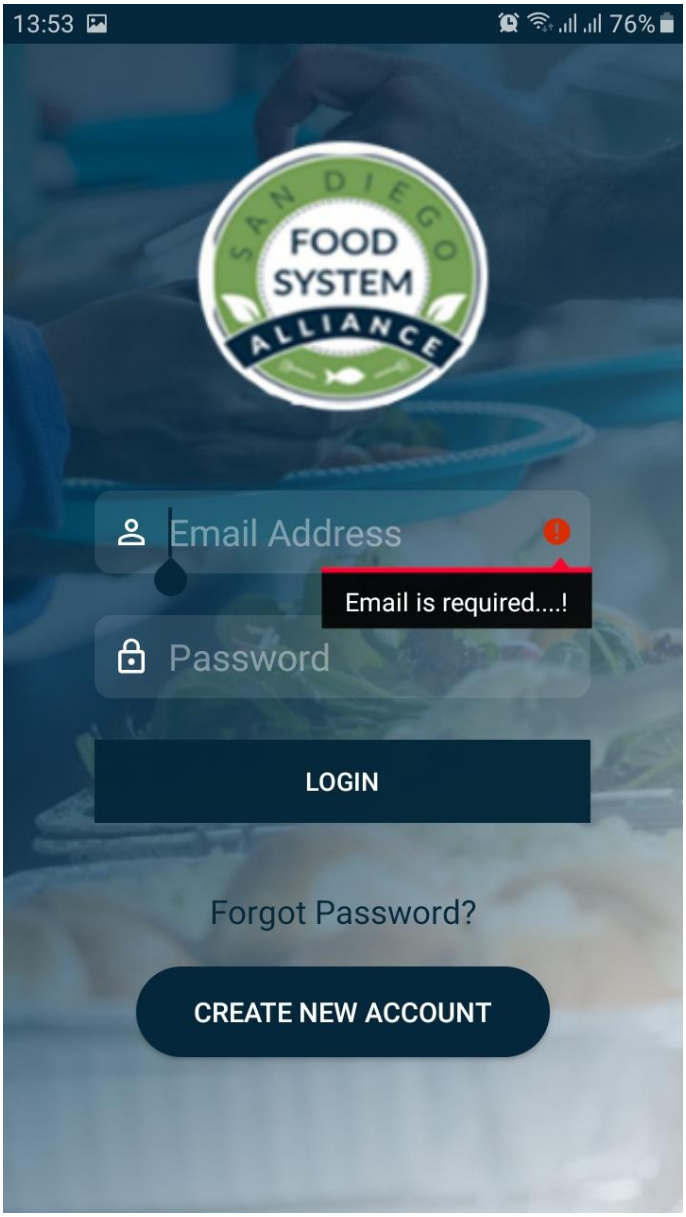


Figure 3:: Login Interface

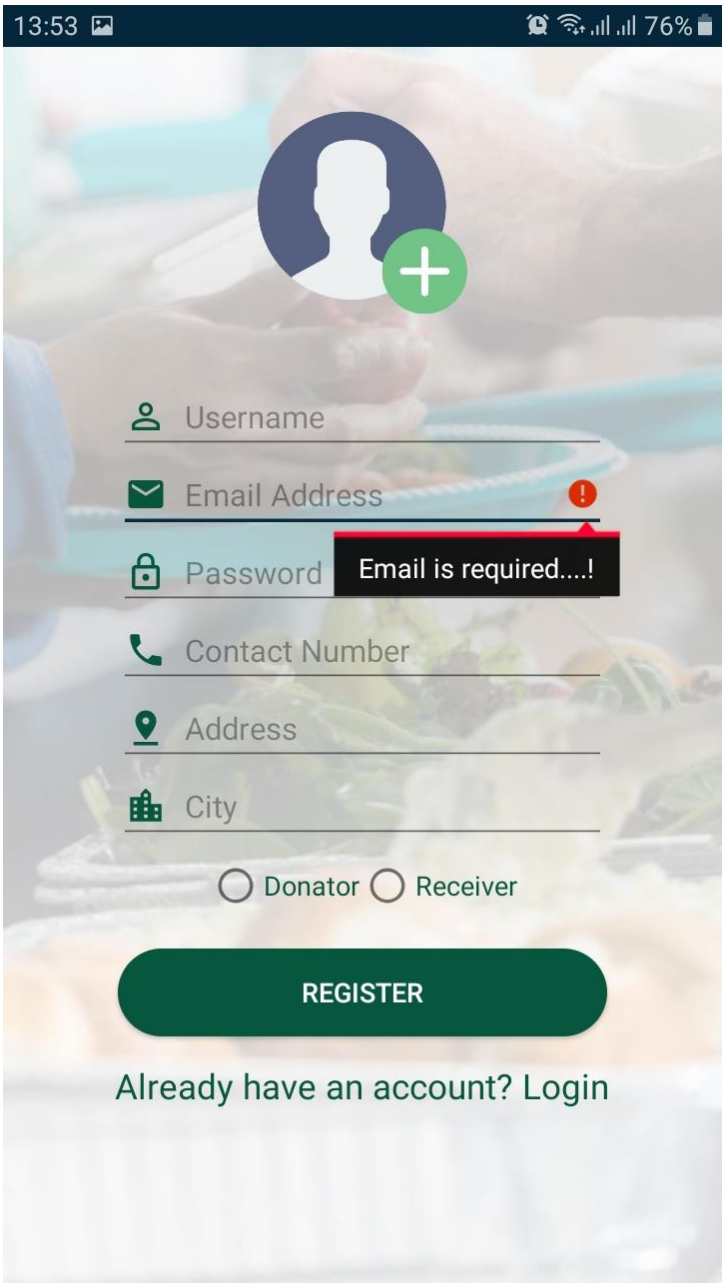


Figure 4: Sign up interface

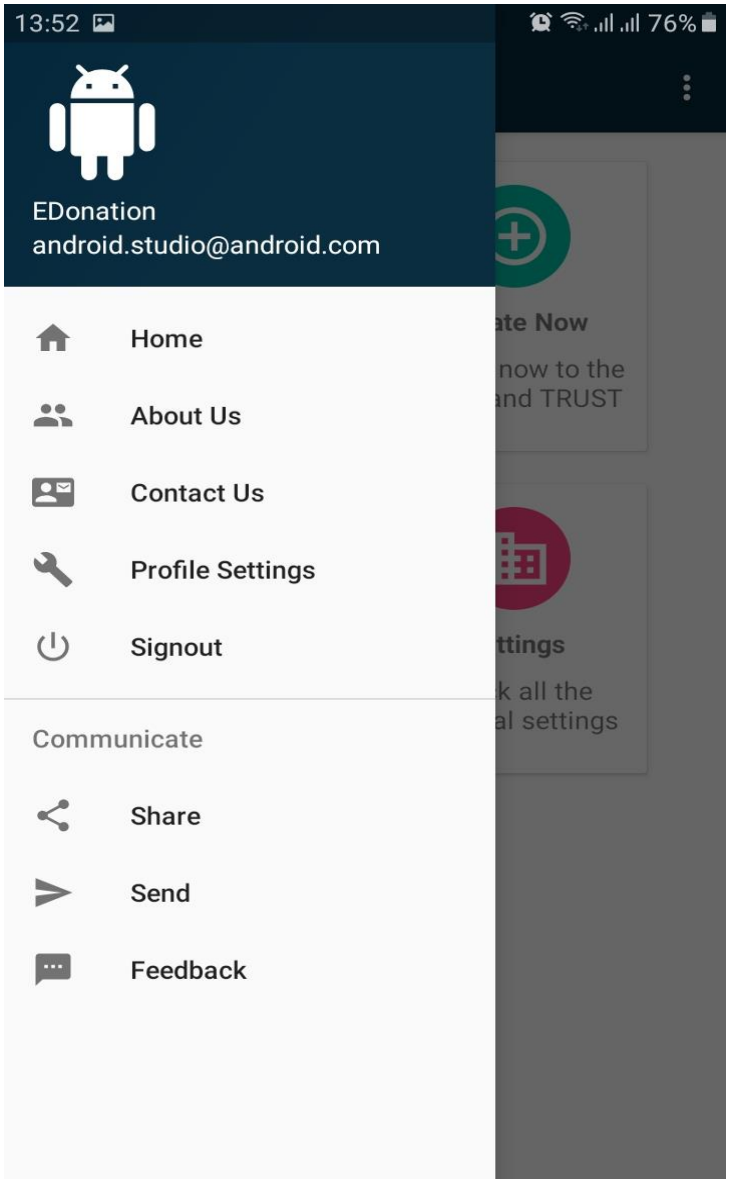


Figure 5: Interface for functionalities

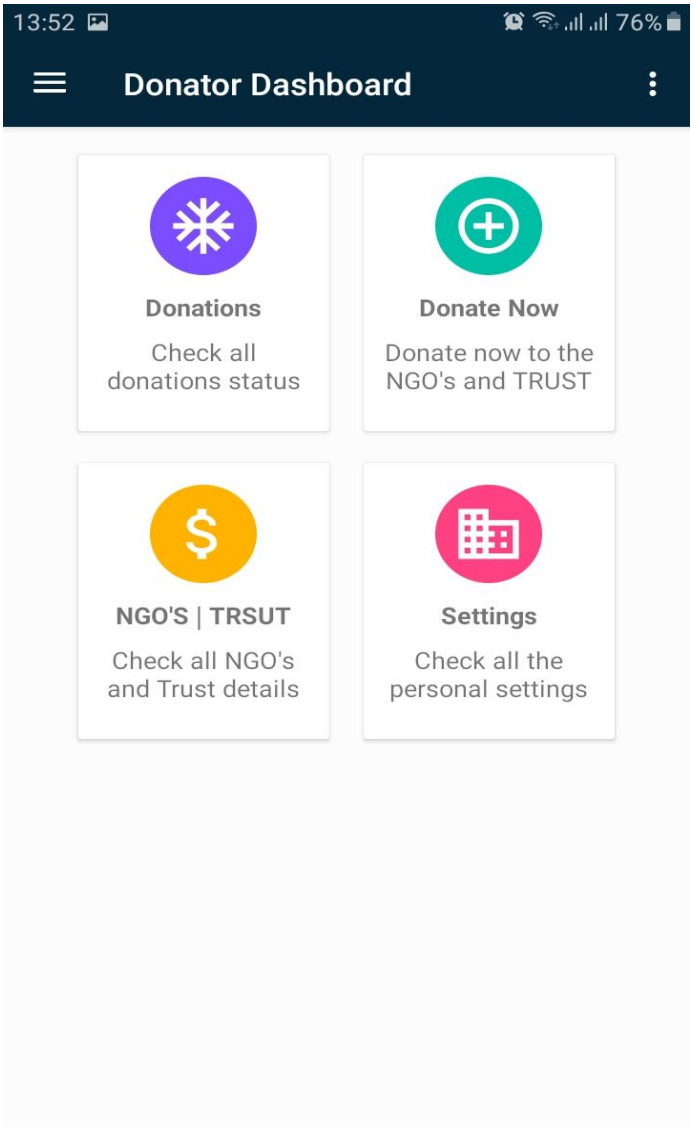


Figure 6 : Donor dashboard

2.6.10 Hardware Interfaces

This is an online system so the hardware interface that are going to be used are the hardware components that are required for the internet access. These have been mentioned in the following table.

WLAN	WAN	LAN	Ethernet cross-cable	Modem	Router

Table 2 : Hardware Interfaces

2.6.11 Software Interfaces

- **External machine interfaces**

- External Machine interface is not required since computation will be done on Windows OS and Android OS.
- **External system interfaces**
- This will only include the Firebase database for the products.
- **Human interface**
- The software will use a Graphical User Interface coded in XML.

Communications Interfaces

The e- donation system shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

System Features

The system is going to consist of multiple modules, each separately developed with their own features.

Register Account

Description and Priority

If customer/user wants to buy the product then he/she must be registered, unregistered user can't able to use our auto generate LMS. For this purpose, user/customer will register to the system.

Stimulus/Response Sequences

- User first clicks on the button or link to initiate registration process.
- System prompts the user to fill out his/her first name, last name, address, email address, and their password.
- User enters fields.
- System validates the user's information.
- System creates a new account for the user.

Functional Requirements

REQ-SF1-1: System must be able to verify and validate information.

REQ-SF1-2: The system must encrypt the password of the user to provide security.

Login/Logout Account

Description and Priority

This feature used by the user to login into system. A user must login with his user name and password to the system after registration. If they are invalid, the user not allowed entering the system

Stimulus/Response Sequences

- User clicks on the button or link to initiate the login process.
- System prompts the user for his/her email and password.
- System verifies the information.
- System displays account home page to the user.
- User clicks the button or link in order to initiate logout process.

Functional Requirements

REQ-SF2-1: Username and password will be provided after user registration is confirmed.

REQ-SF2-2: Password should be hidden from others while typing it in the field.

2.6.12 Other Nonfunctional Requirements

Performance Requirements

- **Response time:** The home page loaded in 3-5 seconds.
- **Availability:** The site will available 99.99% of the time.
- **Throughput:** Page hits per second or orders per hour.
- **Capacity**: Maximum throughput that can be achieved with acceptable response time and availability.

Safety Requirements

- Once admin delete record or user account the data of that user can't be retrieve. To handle this problem system gives warning before delete the record.
- Safety disclaimers will be given for both students and teachers.

If any user has some problem while using the site, so he can contact via mail to website maintainer

Security Requirements

Security is one of the major concerns of these days. Our system is based on following security parameters which are given below:

- This software keeps the information of students and teachers safe.
- User will be registered after verification of user data.
- Secure login and logout. If renter forget his account credential than he has to get new credential through his sign-up e-mail.
- Admin area will be secured.

Software Quality Attributes

- **Usability**: This website should be easy to use and easy to learn how to operate.
- **Correctness**: When user search something but spellings are not right the system search related to that spelling or give autocomplete search.
- **Portability**: This product can be used on different devices like tablets, mobiles, laptops etc.
- **Robustness**: This software can handle many problems itself like if user forgets his password so system gives it option to re-write name and user password.
- **Flexibility**: The functionality of this software can be increased after development because documentation is available.
- **Performance:** The loading speed of web pages onto a Clients web browser is quite good.
- **Reliability:** This software is reliable.
- **Maintainability:** Admin of the website will maintain the working of this software.
- **Security:** This software is secure enough to use. This software keeps the information of users safe.

Business Rules

- If user want to perform some crud operation than he/she has to first sign up.
- User has to follow terms and conditions of website.

Chapter 3

Use Case Analysis

Chapter 3: System Analysis

This chapter describe about system use cases and how the different actors are interacting with the system. This system is all about use case of system and role we assign and categorize the user of solution. We describe the all terms about the use case model and use case diagram of every role.at the end we make a proper dressed use case model of our project.

3.1. Use Case Model

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses.

Use case model for Admin:

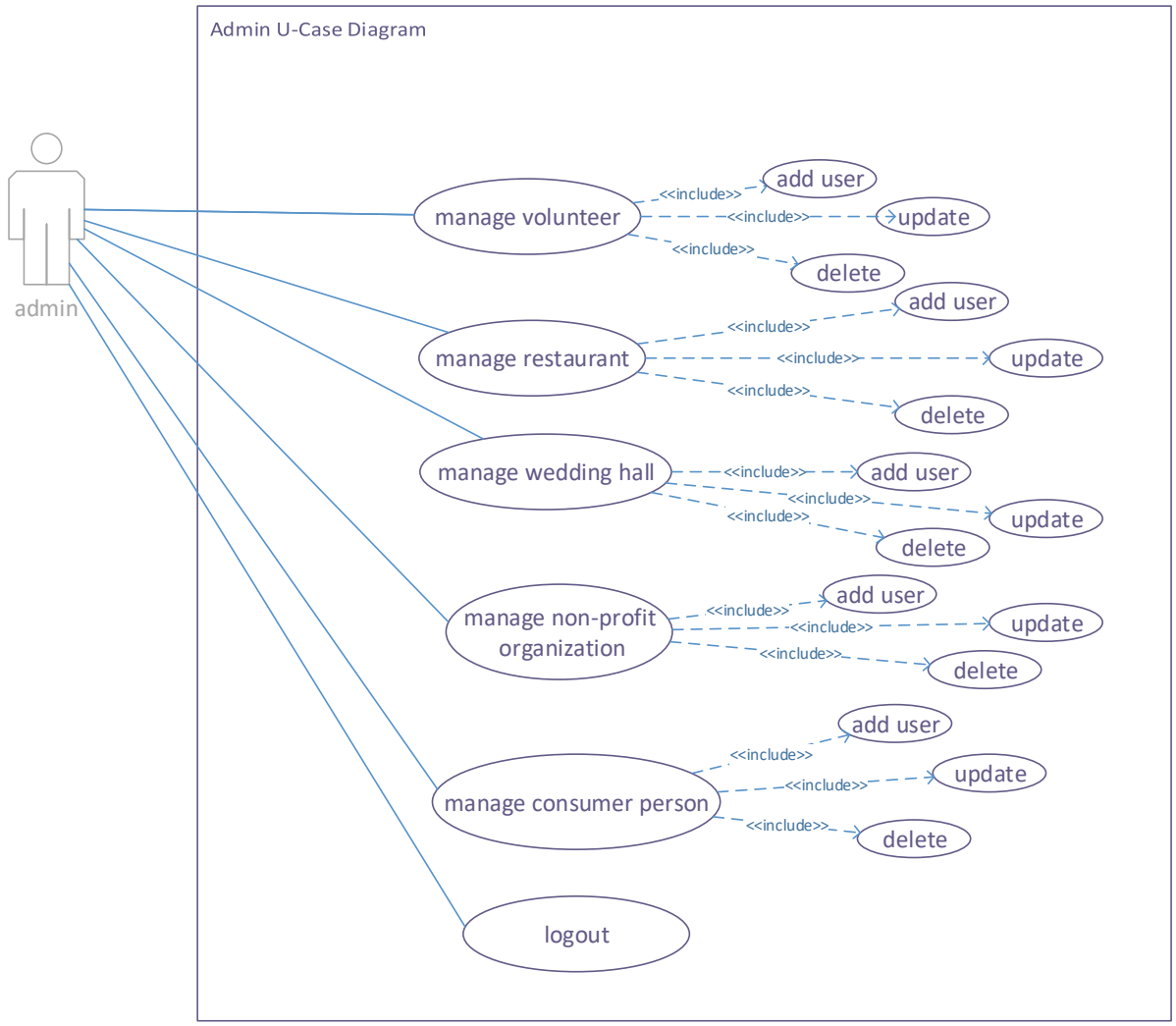


Figure 7: use case of admin

Fully dressed use case

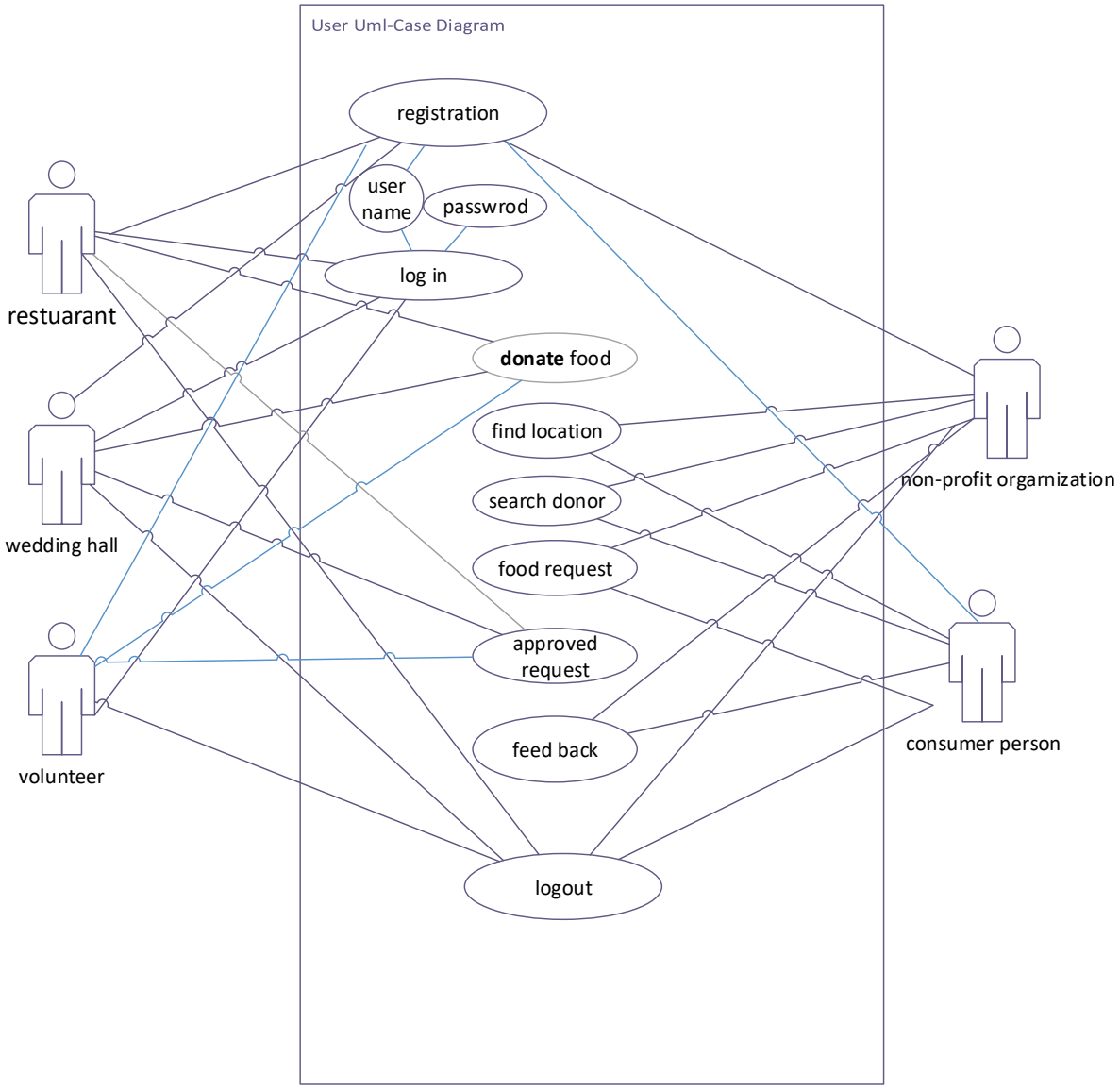


Figure 8: fully dressed use case

Use Case for restaurants

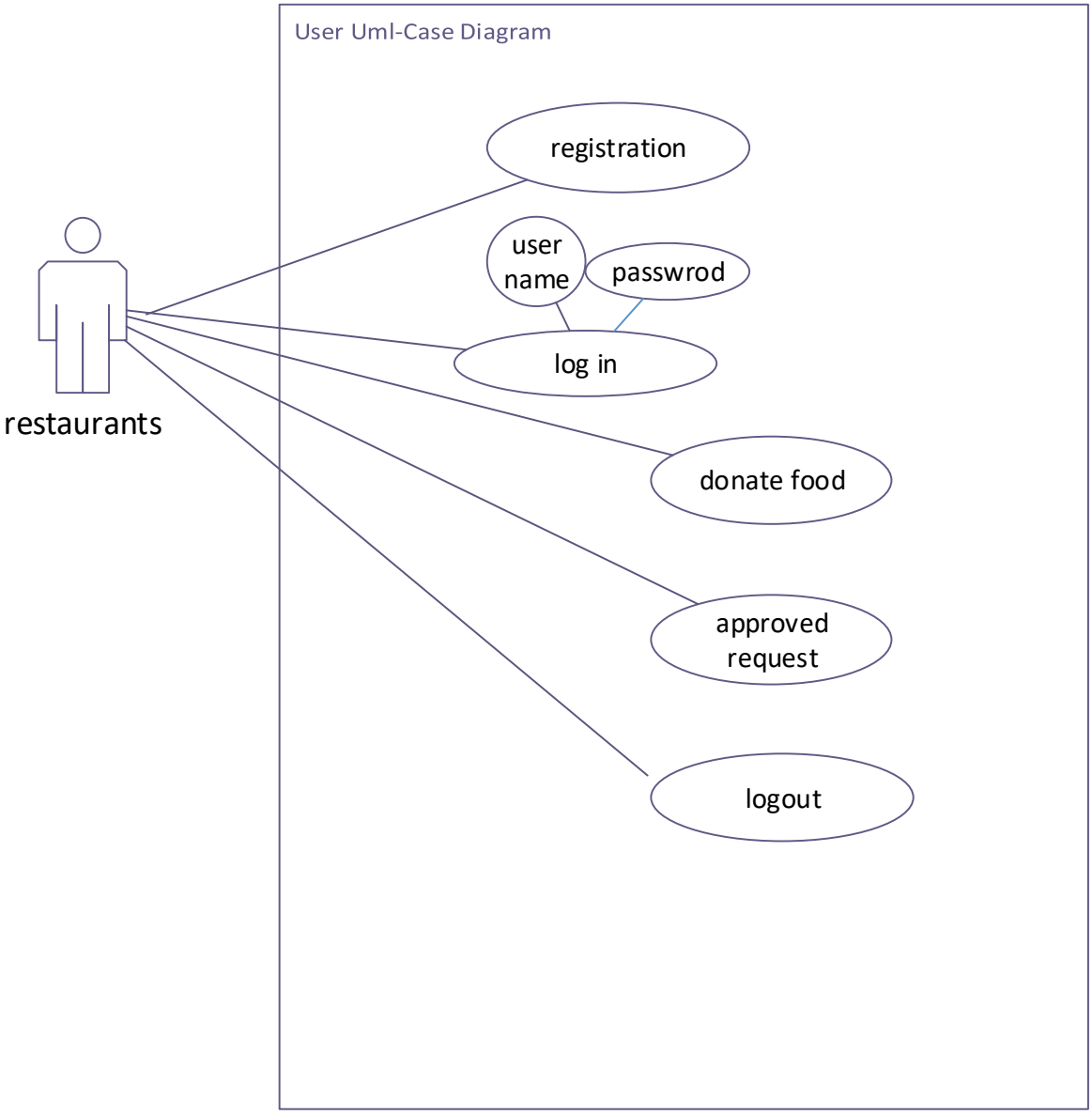


Figure 9: use case of restaurant

Use Case of volunteer

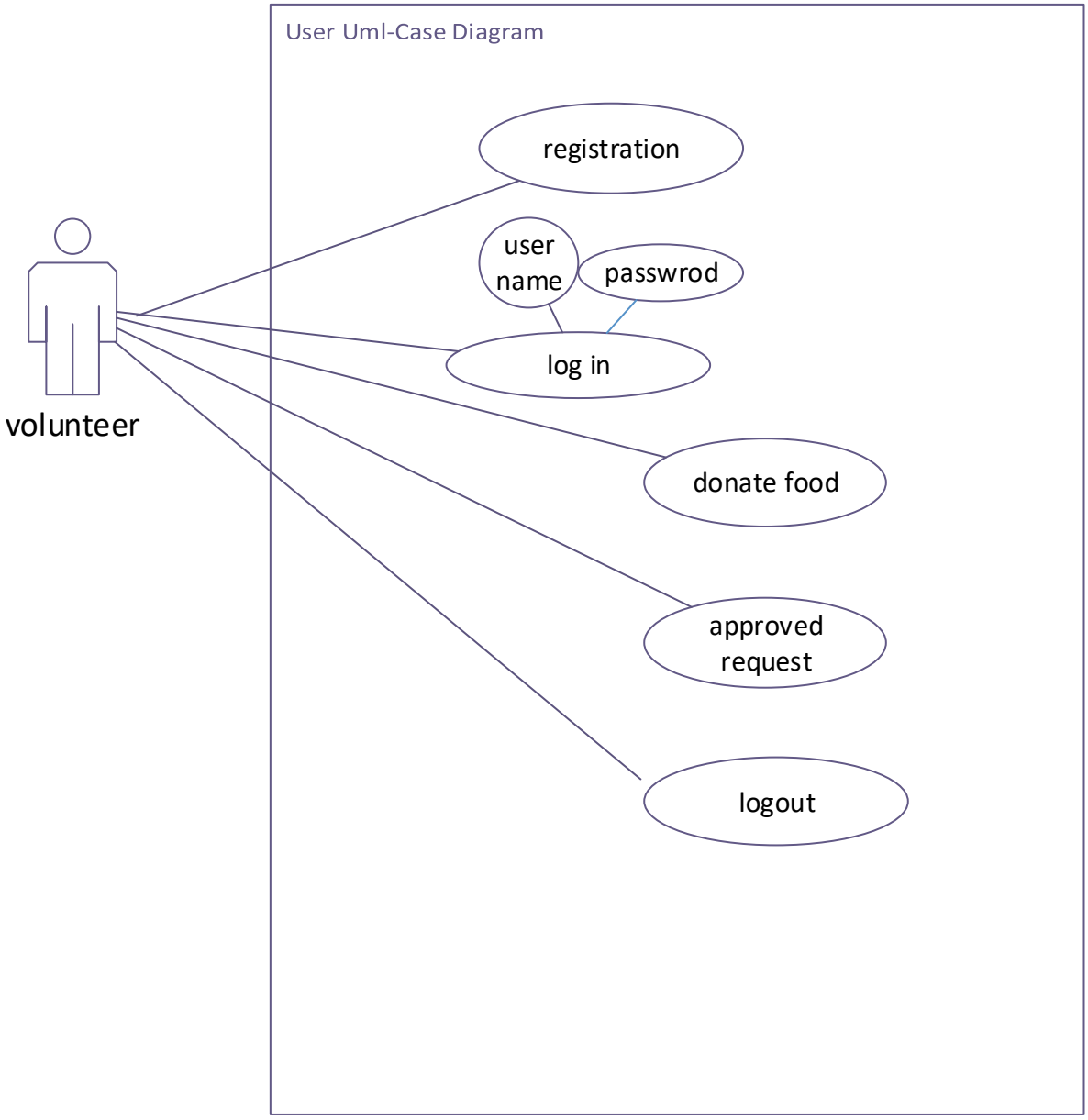


Figure 10: use case of volunteer

Use Case of wedding hall

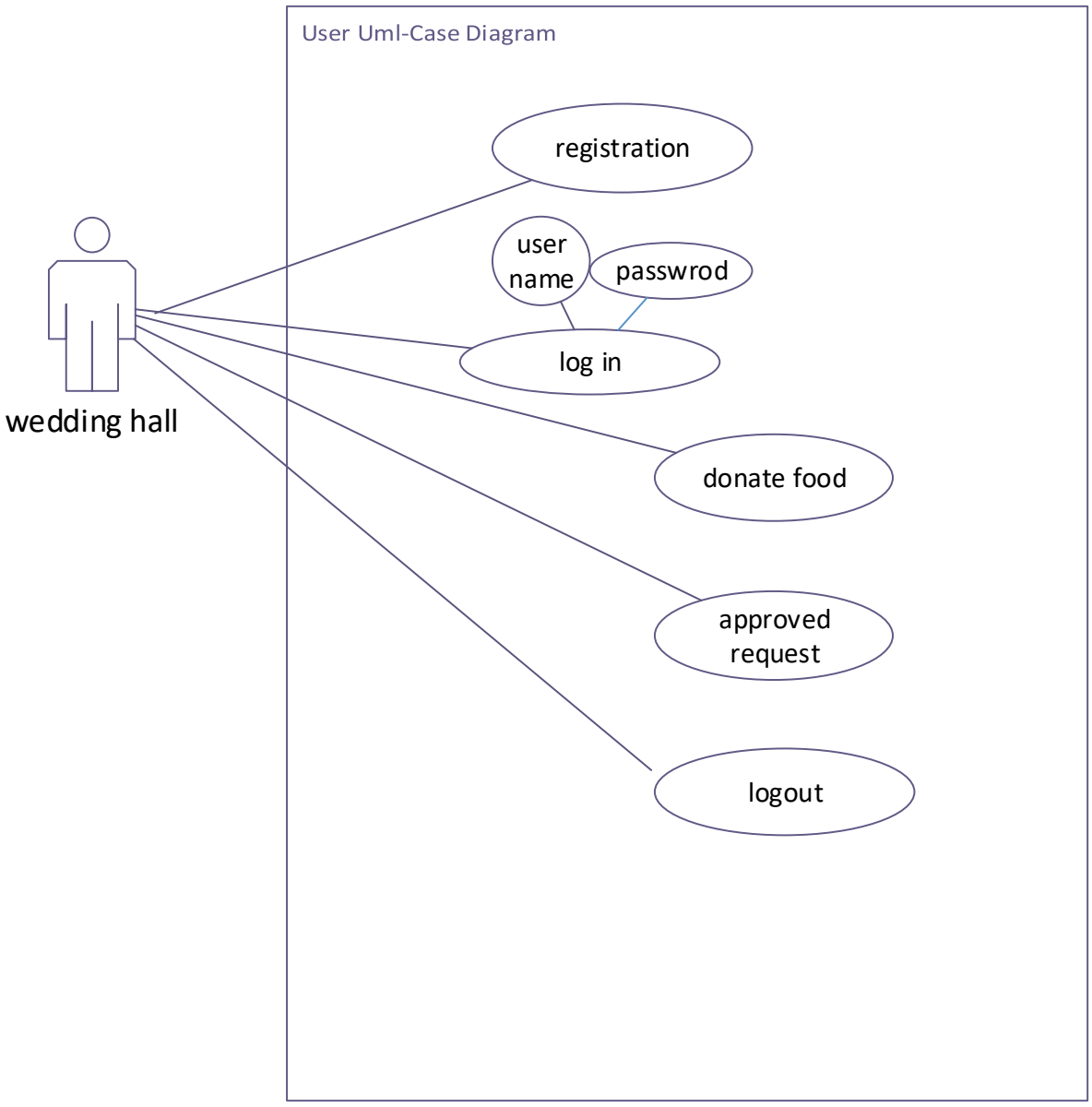


Figure 11: use case of wedding hall

Use Case of non-profit organization

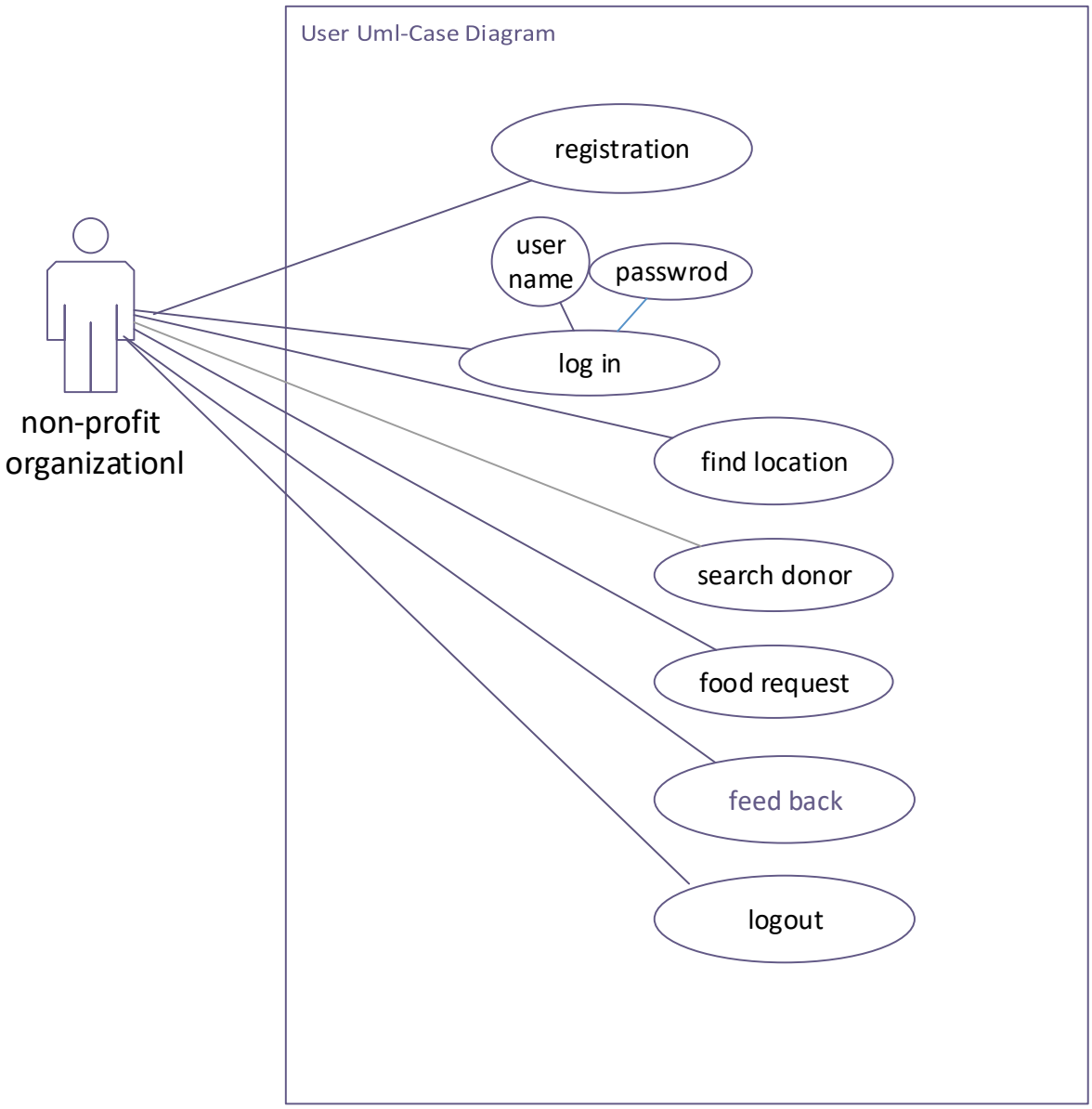


Figure 12: use case of non-profit org

Use Case of consumer

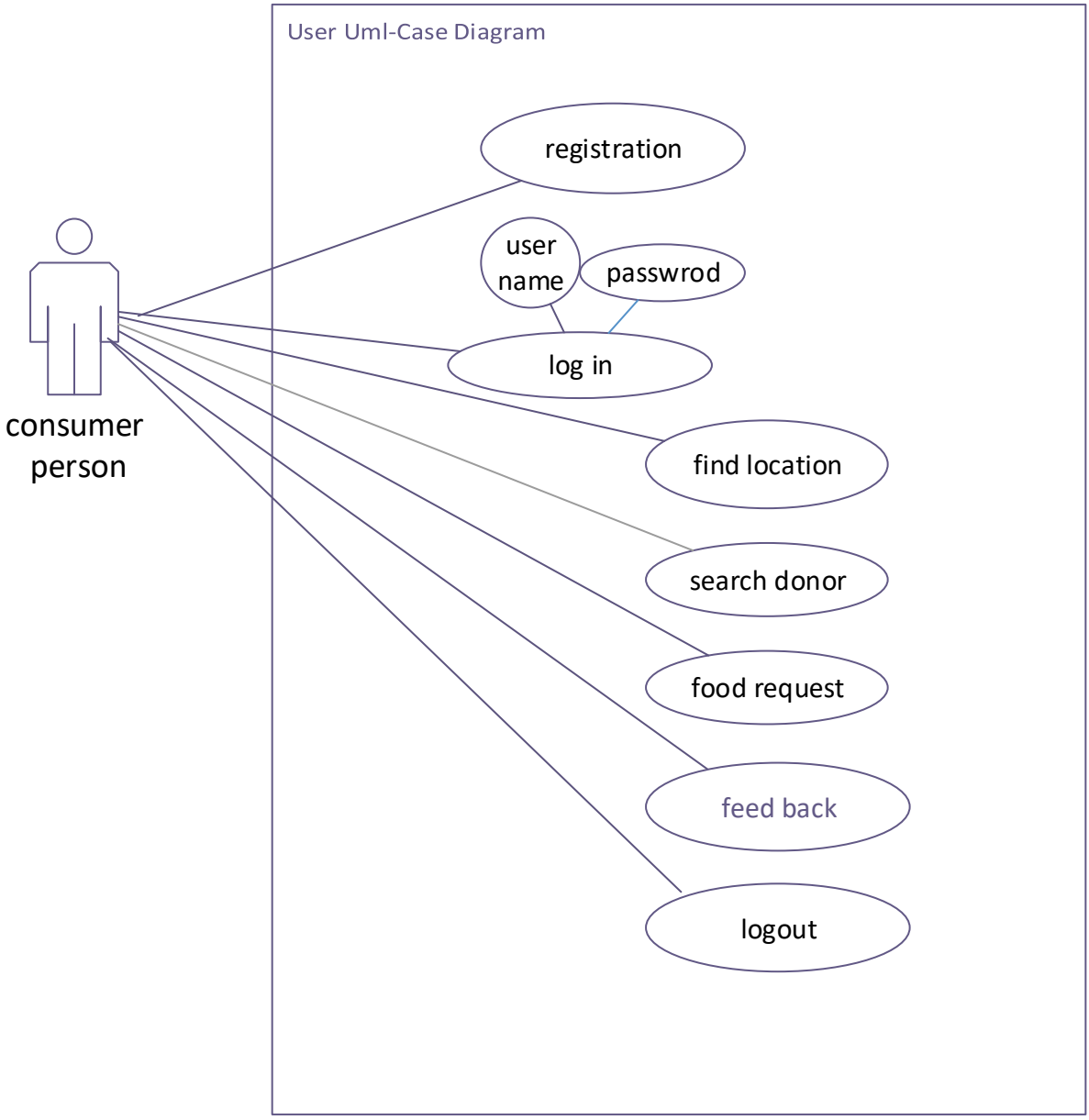


Figure 13: use case of consumer

3.2. Use Case Descriptions

<table>
<tr><td>Name</td><td colspan="2">Register</td></tr>
<tr><td>Brief Description</td><td colspan="2">A user of the System creates an account</td></tr>
<tr><td>Actor(s)</td><td colspan="2">Admin</td></tr>
<tr><td colspan="3">Flow of Events</td></tr>
<tr><td colspan="3">Basic Flow</td></tr>
<tr><td colspan="3">This use case starts when a system user is not logged in to the system and goes to the login page.
1. The System prompts the user for a username and password or register new account.
2. The user selects registration option.
3. The System prompts user for registration information, Username, password, etc
4. The user enters in their information.
5. System verifies information and creates account.
6. The use case ends.</td></tr>
<tr><td colspan="3">Alternate Flows</td></tr>
<tr><td>Title</td><td colspan="2">Description</td></tr>
<tr><td>Cancel Registration</td><td colspan="2">1. The user selects the cancel option.
2. The system returns the user to the home page without the user being logged in and any information entered has been erased.</td></tr>
<tr><td>Invalid Information Entered</td><td colspan="2">1. User clicks submit after entering information system asked for.
2. System displays information with appropriate message to correct invalid information.
3. User re-enters information.</td></tr>
<tr><td colspan="3">Pre-Conditions</td></tr>
</table>

Title	**Description**
System	To logged in to the system the user must have the System
Internet	To logged in to the system the user must have the network on the System.
Post-Conditions	
Title	**Description**
Success	The user entered successful information and is returned to the home page as a Logged In User
Failure	User is unable to log in for one or more reasons and is returned to the home page as a Guest.
Extension Points If the User is unable to log in for one or more reasons the user must once check the internet Connection.	

Table 3 :User case of register

Name	Log In
Brief Description	The System user logs in to the System.
Actor(s)	Logged In User
Flow of Events	
Basic Flow	

This use case starts when a system user is not logged in to the system and goes to the login page.

1. The System prompts the user for a username and password or register new account
2. The user enters his/her username and password.
3. The system validates the entered username and password, making sure that the entered username is a valid username in the System, and that the required password is entered for the entered username.
4. The user is signed in and returned to the home page as a Logged In User.
5. The use case ends.

Alternate Flows	
Title	**Description**
User Fails Authentication	If the User entered an invalid username and/or password, the following occurs: 1. The system describes the reasons why the User failed authentication. 2. The system presents the User with suggestions for changes necessary to allow the User to pass authentication. 3. The system prompts the User to re-enter the valid information. 4. The Basic Flow continues where the User enters new information.
Pre-Conditions	
Title	**Description**
Register	A user of the System creates an account
Post-Conditions	
Title	**Description**

Success	The User is authenticated and the system displays a home page based on the user type.
Failure	User is unable to log in for one or more reasons.
Extension Points	
The user must making sure that the entered username is a valid username in the System or entered password is a valid password.	

Table 4: User case of login

Name	Consumer Request For Food
Brief Description	The consumer may be whole family or single person who request food in their nearest area.
Actor(s)	Consumer
Flow of Events	
Basic Flow	
This use case starts when a student accesses the “Application Form" feature of the system. 1. The system asks the student to enter the appropriate information to get admission in the school (e.g. Student Name, Father Name, Gender, CNIC, DOB, etc...). 2. Student enters appropriate information and clicks submit. 3. System validates student information. 4. Student is returned to student panel. 5. This Use Case ends.	
Alternate Flows	
Title	**Description**
Invalid Information Entered	1. The system displays an “Invalid Information” error after the user submits the information and asks the Student to re-enter the information. 2. Student re-enters information and clicks submit.

Cancel Submitted Application Form	1. Consumer clicks cancel after selecting the "Application Form" feature. 2. System returns consumer to the consumer panel.
Pre-Conditions	
Title	**Description**
Register	A user of the System creates an account
Login	The System user logs in to the System.
Post-Conditions	
Title	**Description**
Success	The new student information is added into the database.
Failure	Student information is not added for one or more reasons.
Extension Points	
If the consumer information form is not submitted for one or more reasons the student must re-entered or fill valid information in all the requisite information and re-submit the application form.	

Table 5 : use case of consumer

Chapter 4

System Design

Chapter 4: System Design

The Chapter is all about how the software is going to work and how will the processes be executed as we see we have several diagrams that shows how really is the system performing and what will be the requirements to perform the operations required tasks as well as the diagrams and data clearly describes the process and shows a great help in understanding the

4.1. Architecture Diagram

Following Architecture Diagram of e donation is a graphical representation to understand, clarify, and communicate ideas about the game structure and the user requirements that the game must support.

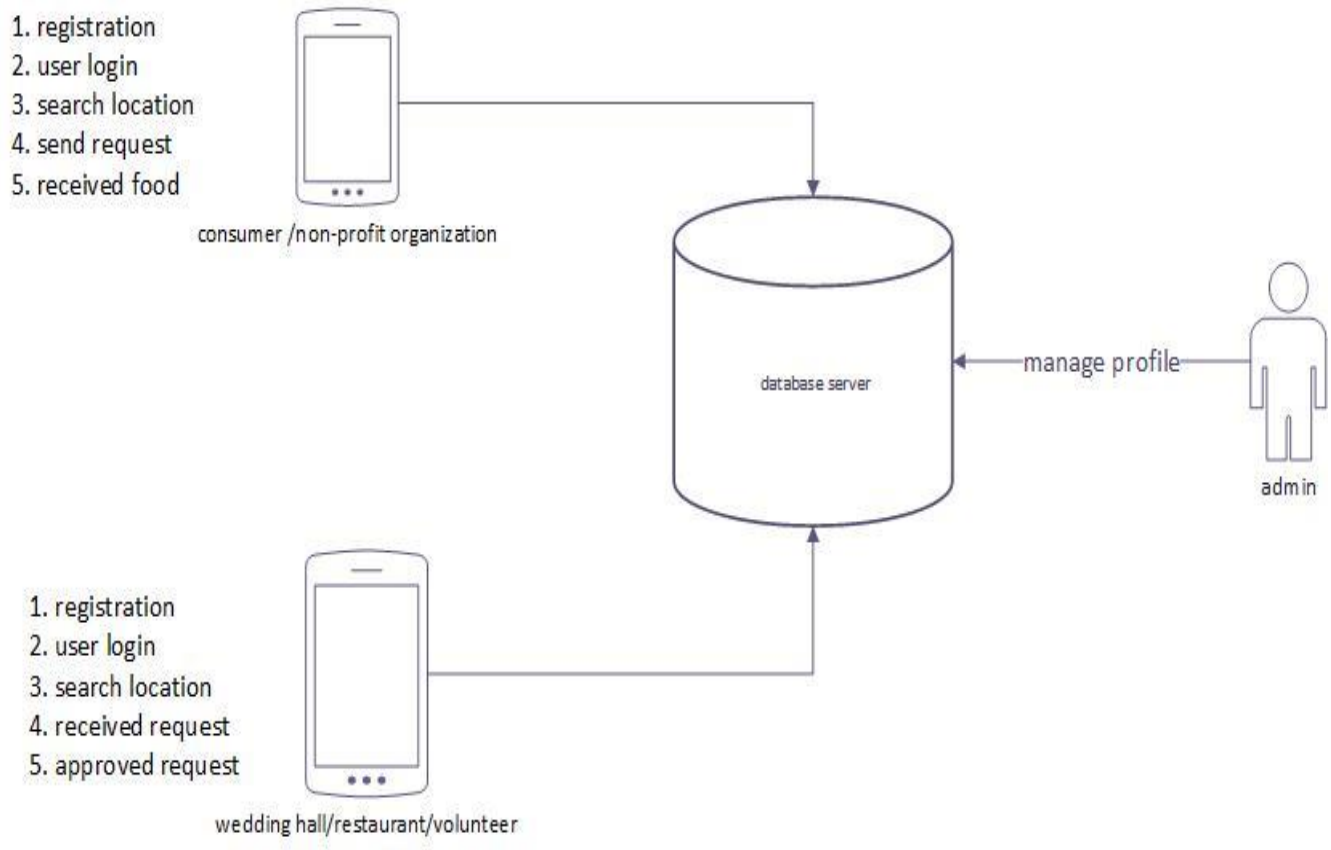


Figure 14 : Architecture Diagram

4.2. Domain Model

A domain model is a formal representation of a knowledge domain with concepts, roles, datatypes, individuals, and rules, typically grounded in a description logic in fth following figure we use spiral model

Spiral model in software engineering is also a step by step procedure to develop new software.It is mainly used when there is a dependency between the models. Each phase in the spiral model begins with design and ends with the client reviewing the process

.palning and designing
Implementation
Play test
evaluating

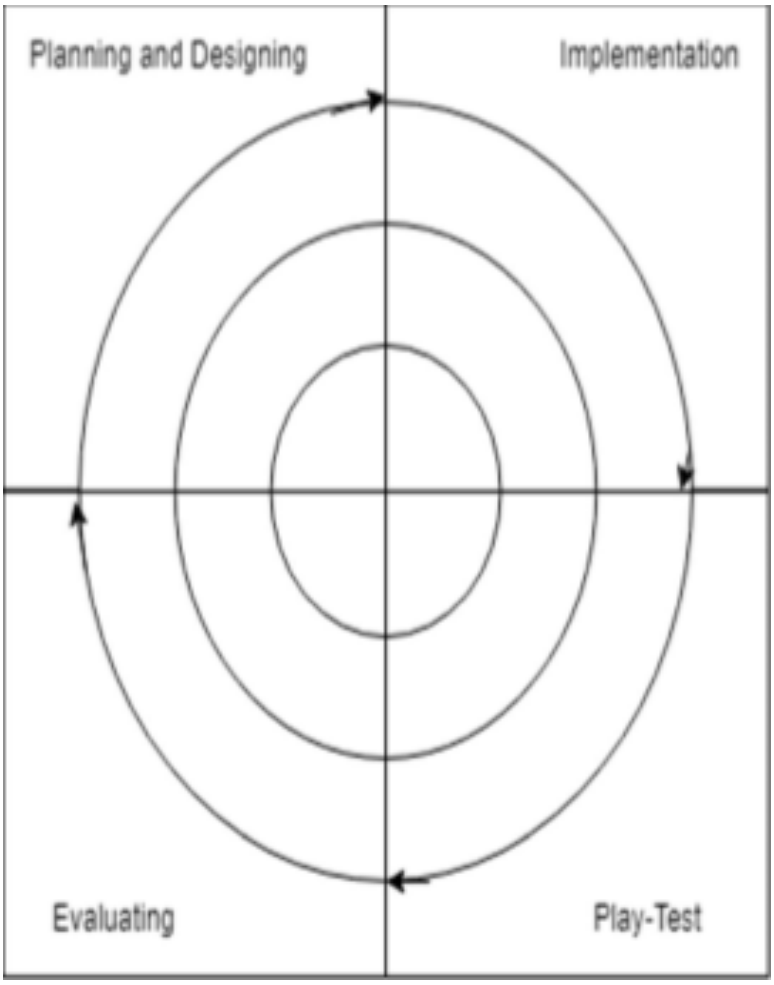


Figure 15 : Domain Model

4.3. Entity Relationship Diagram with data dictionary

An entity-relationship diagram (ERD) is a data modeling technique that graphically illustrates an information system's entities and the relationships between those entities.

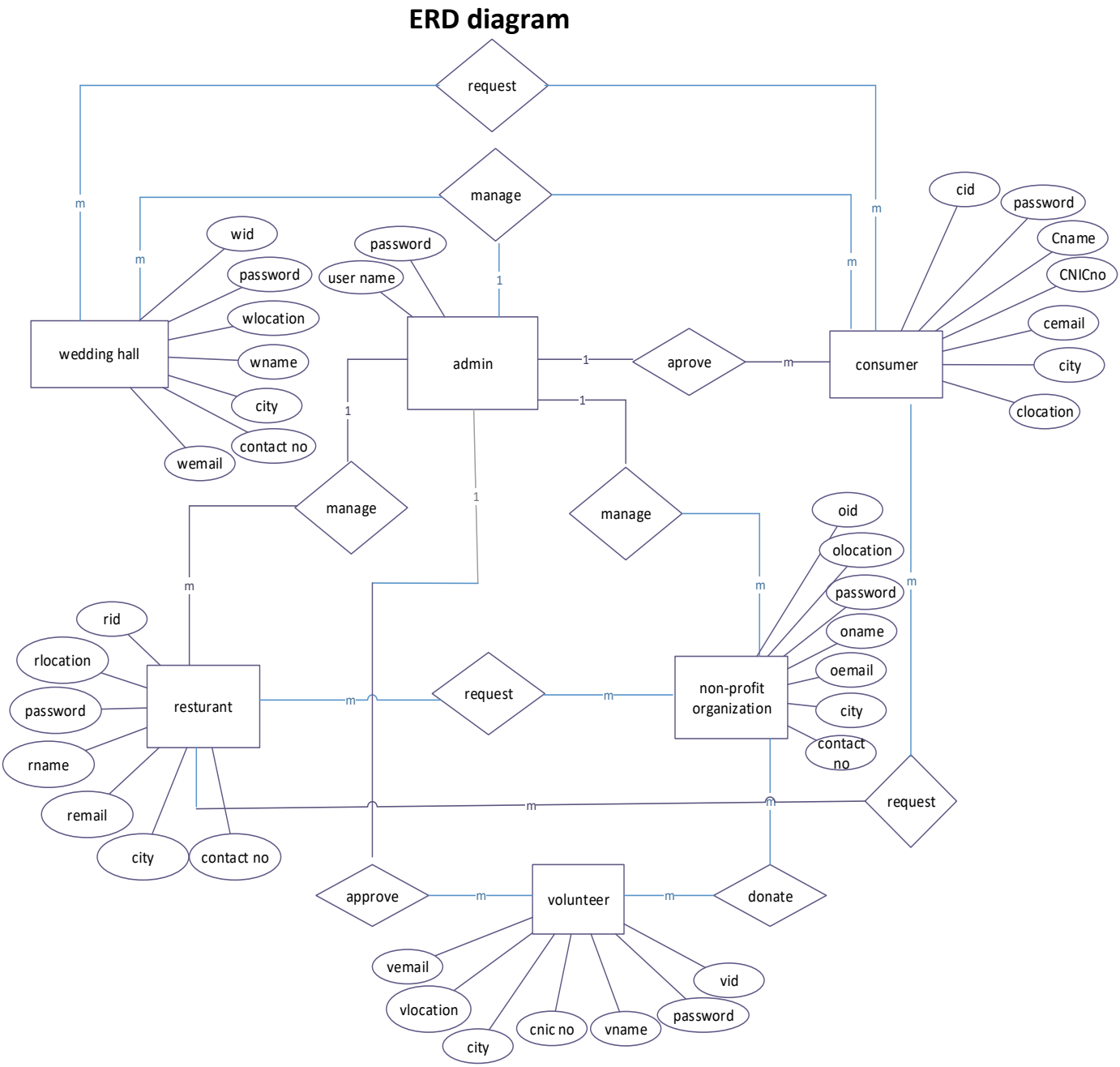


Figure 16: ERD diagram

4.4. Class Diagram

The following Class Diagram of our project gives an overview of e donation system by displaying its classes, attributes and operations:

Class diagram

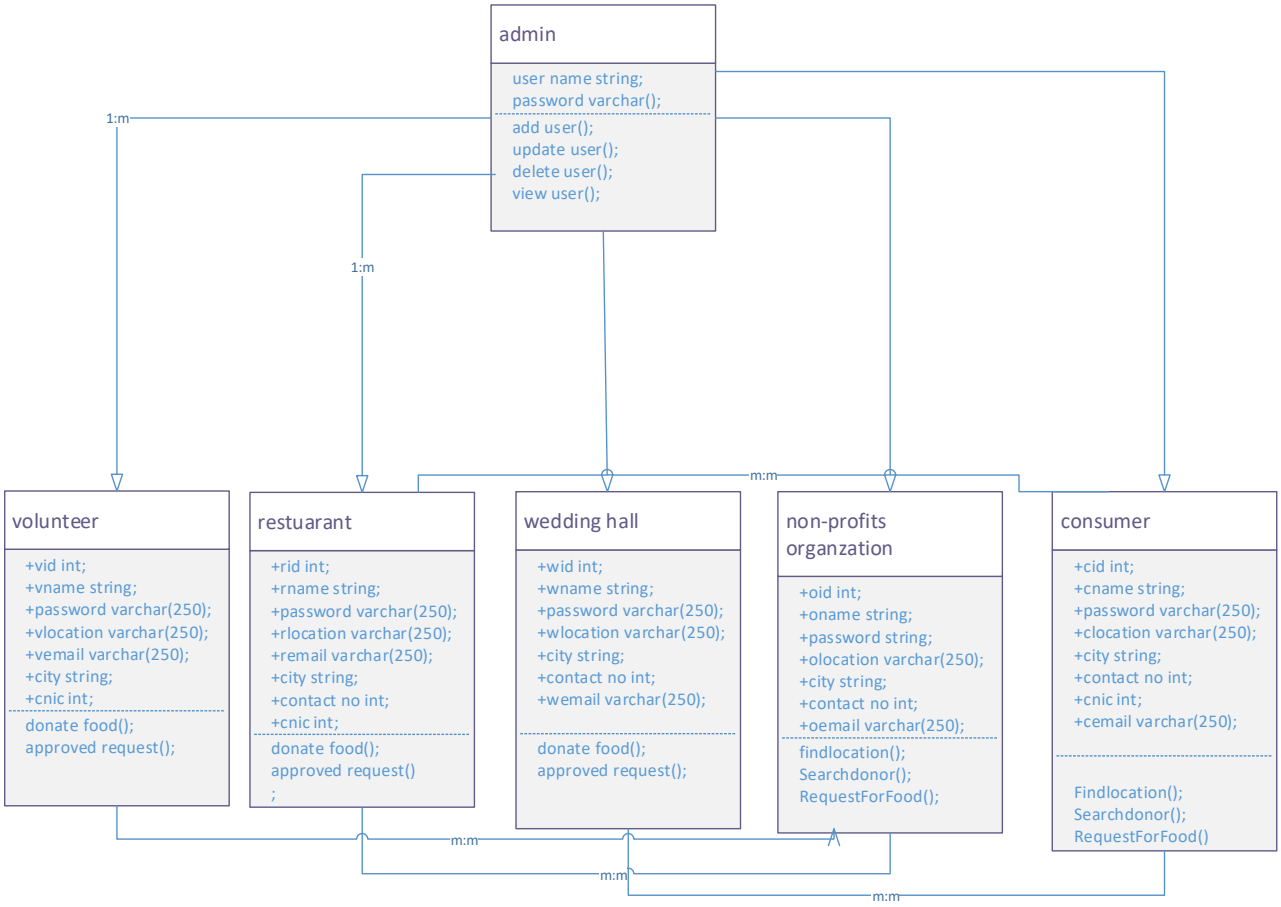


Figure 17: Class Diagram

4.5. Sequence / Collaboration Diagram

The following Sequence Diagram shows system's objects interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the system

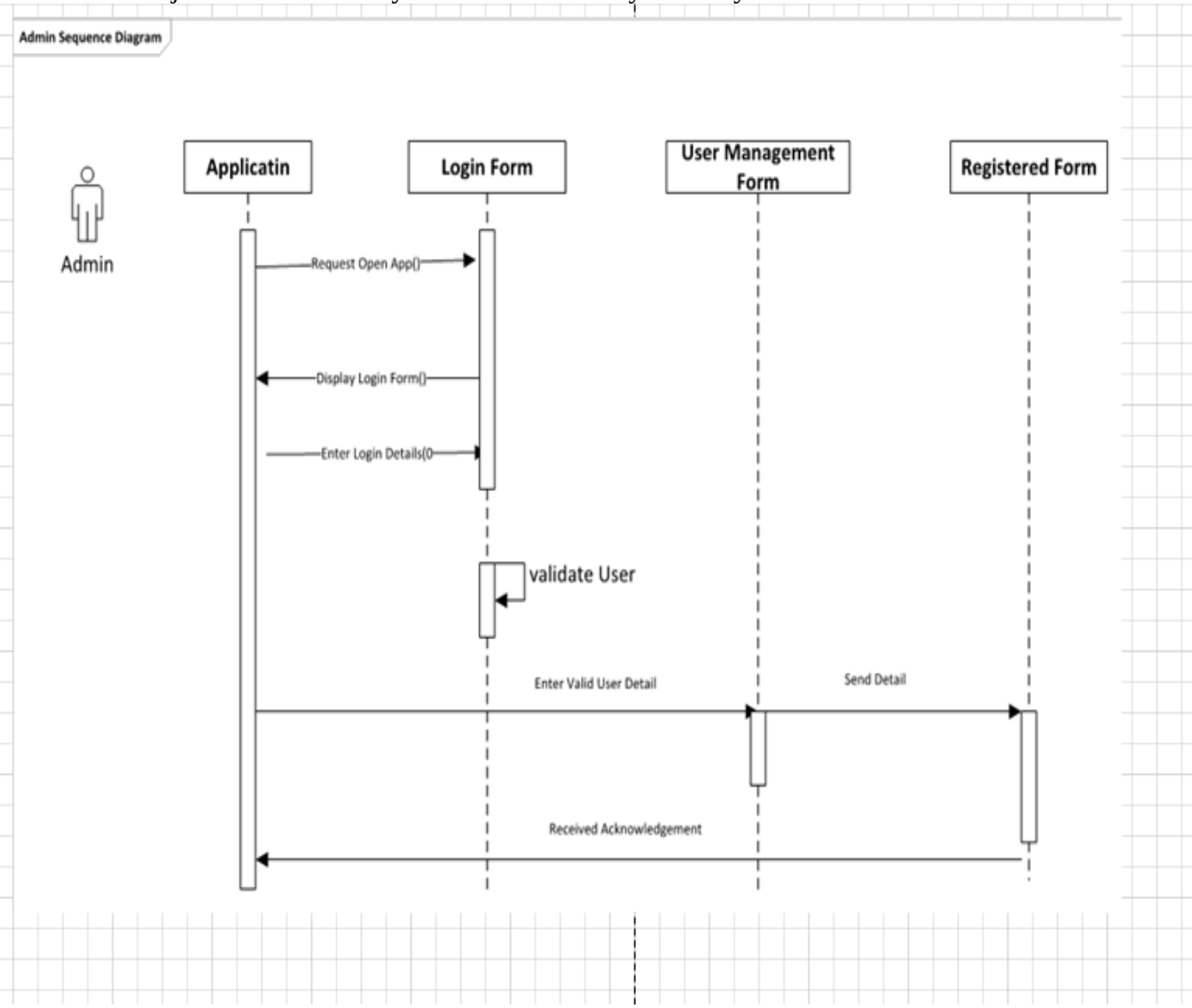


Figure 18: sequence diagram of admin

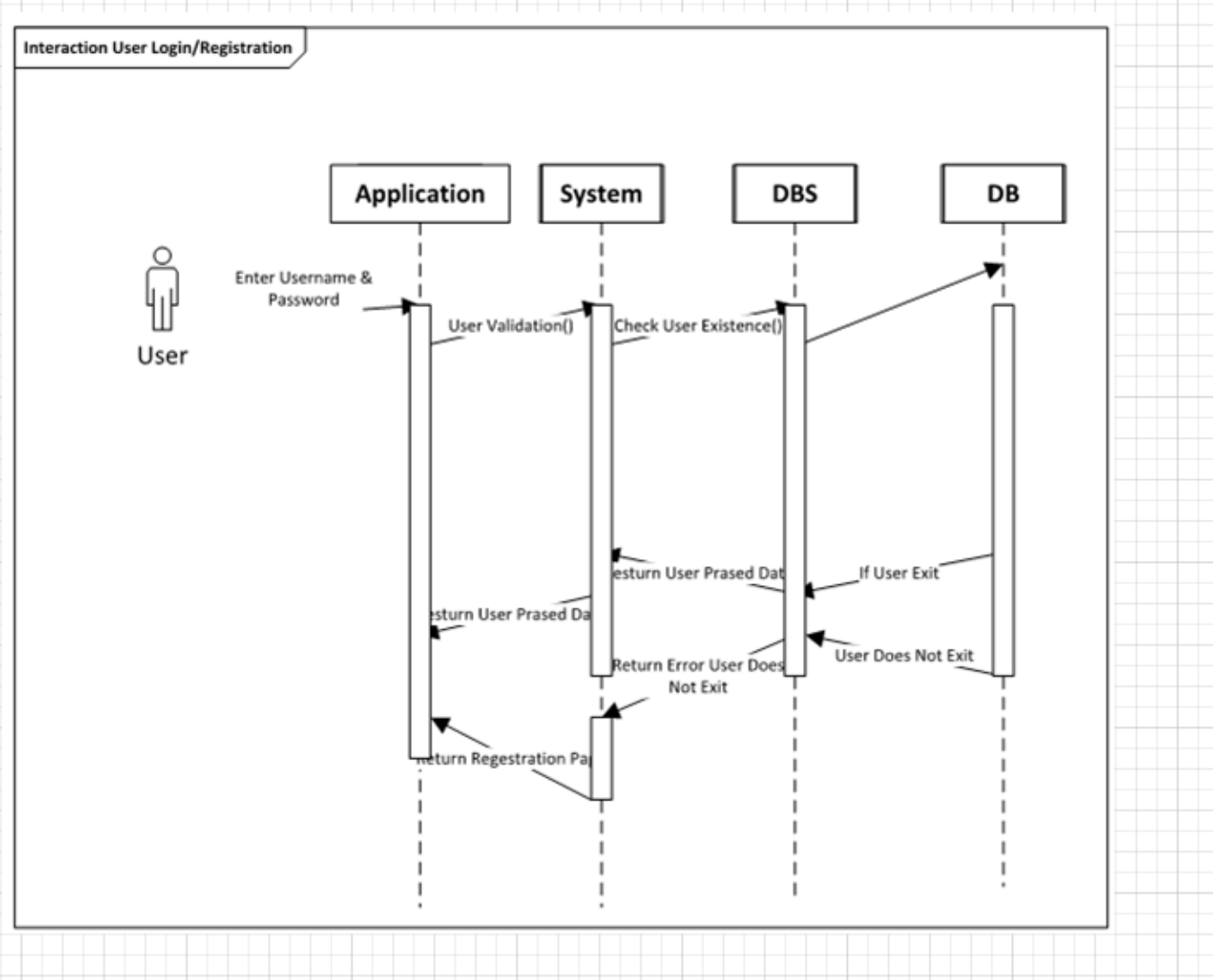


Figure 19 : sequence diagram of user

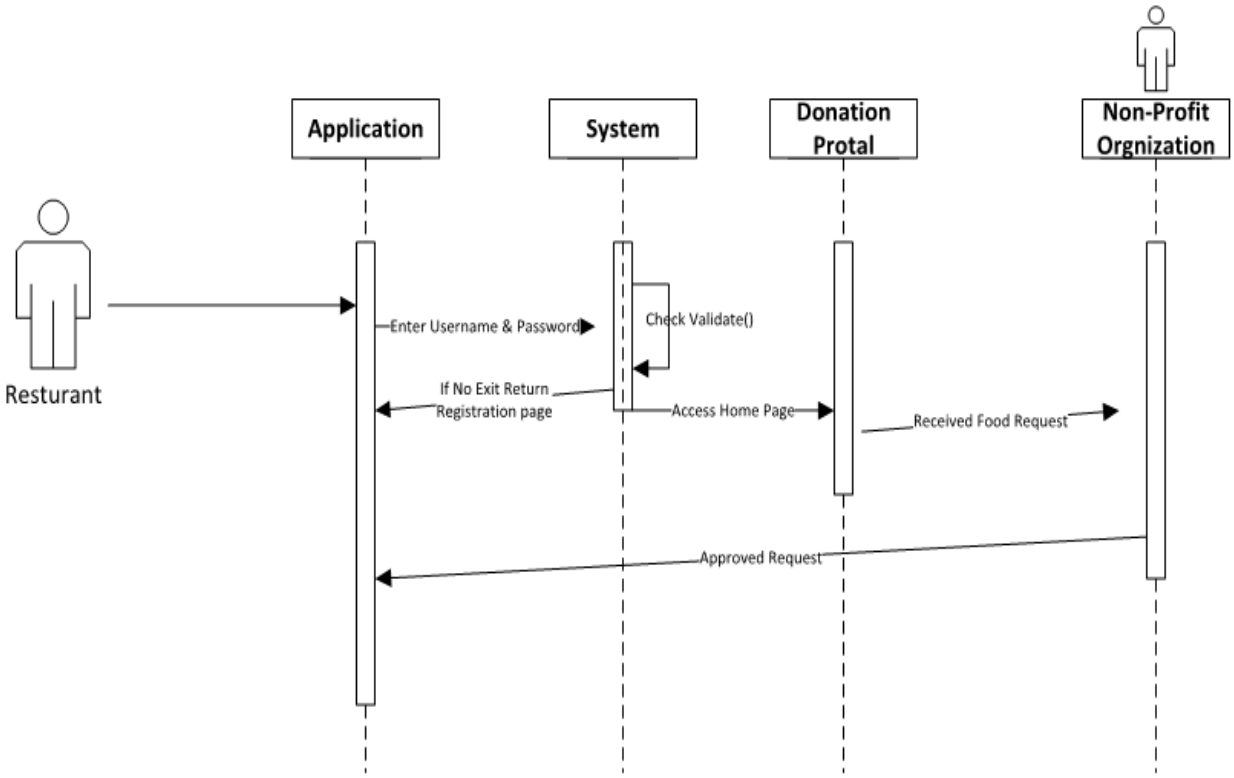
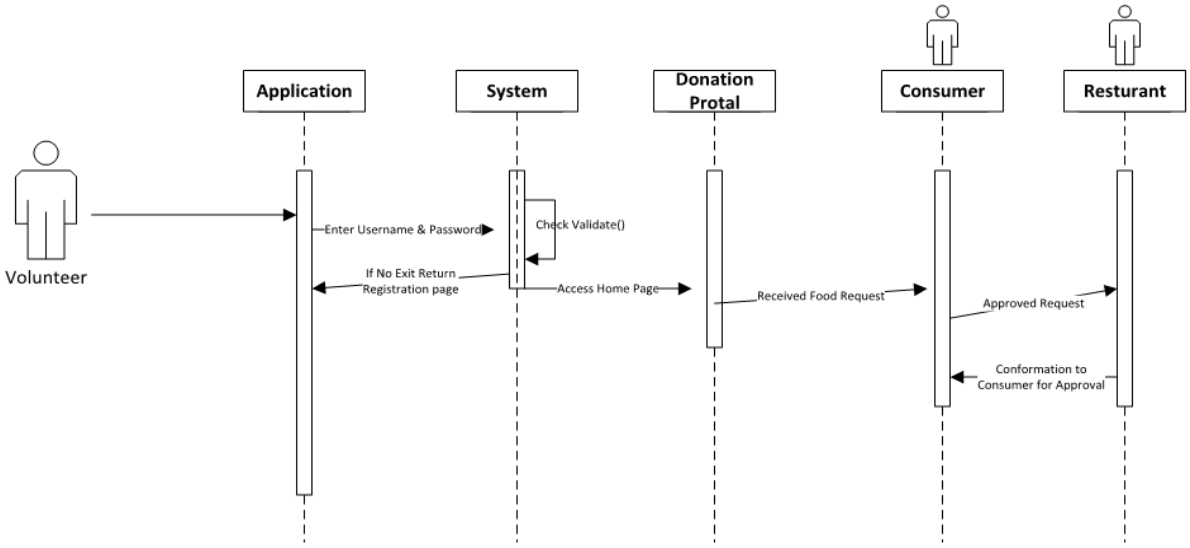
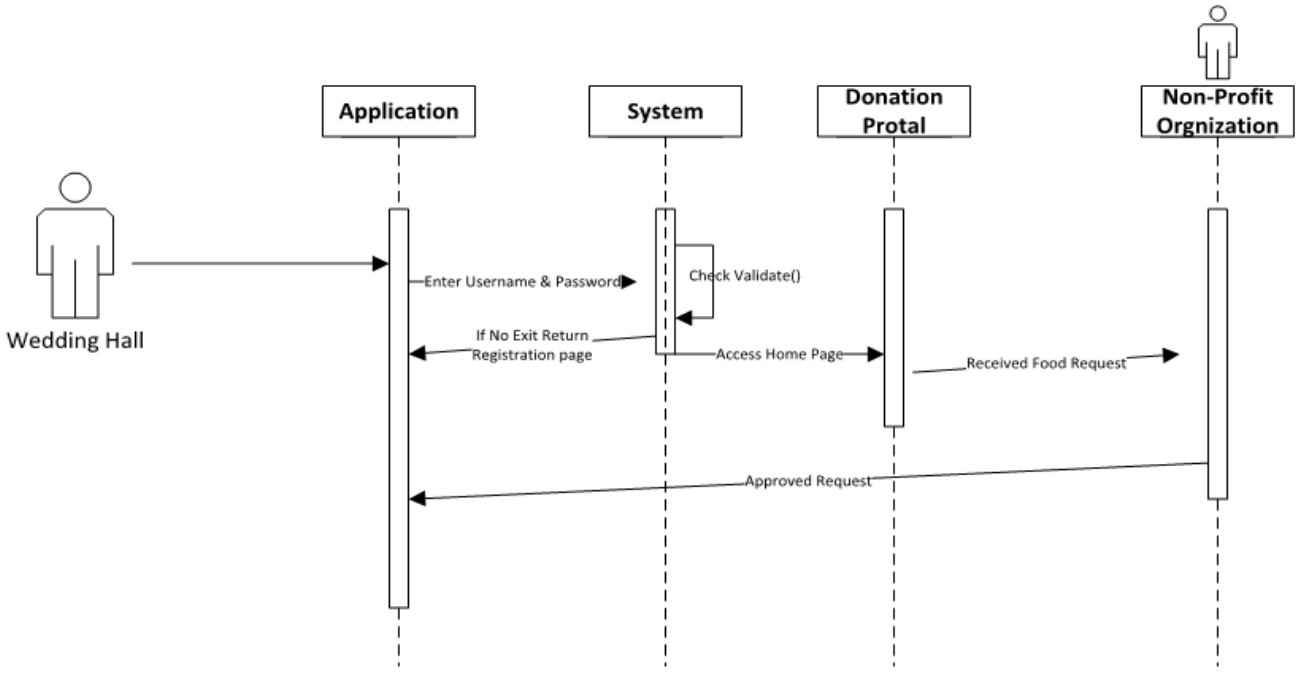


Figure 20 : Sequence diagram of restaurant



Volunteer Sequence Diagram

Figure 21 : sequence diagram of volunteer



Wedding Hall Sequence Diagram

Figure 22 : sequence diagram of wedding hall

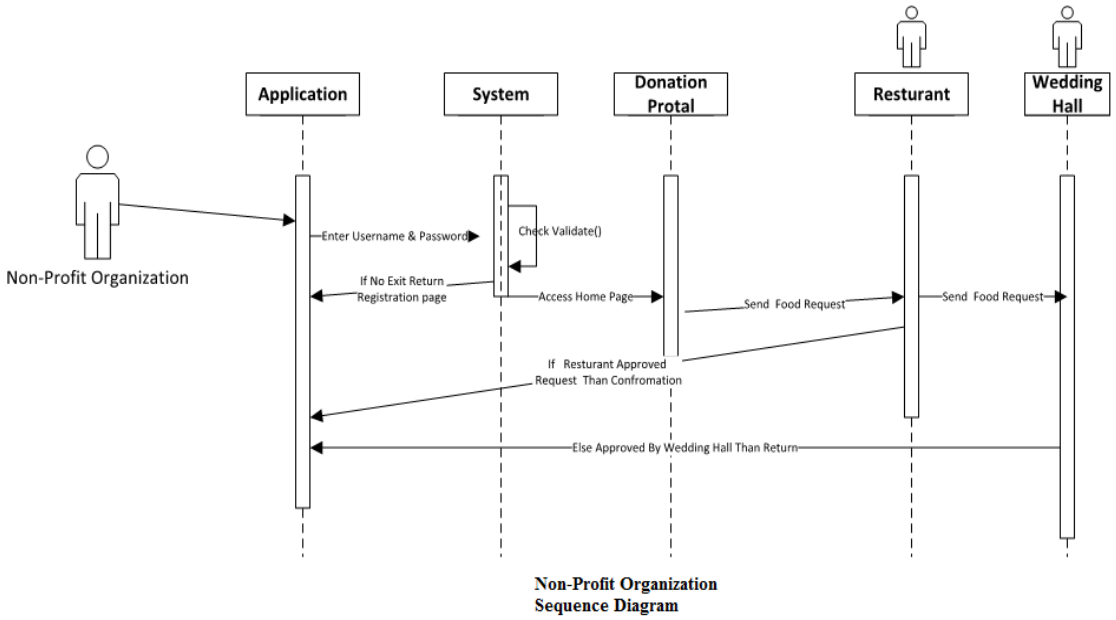


Figure 23: sequence diagram of non-profit org

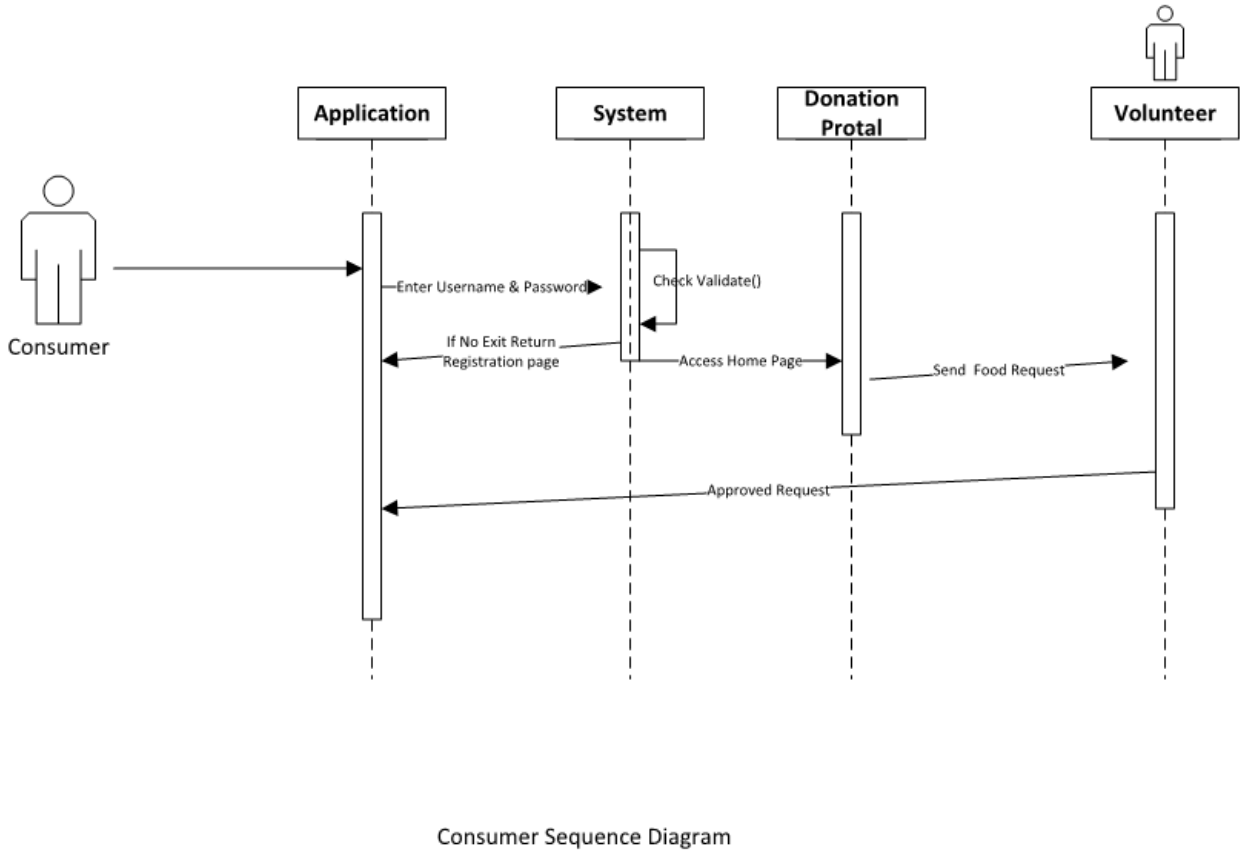


Figure 24 : sequence diagram of consumer

4.6. Activity Diagram

Activity diagrams are graphical representations of workflows of stepwise activities and action with support for choice, iteration and concurrency in following diagrams we present the graphical image of the system

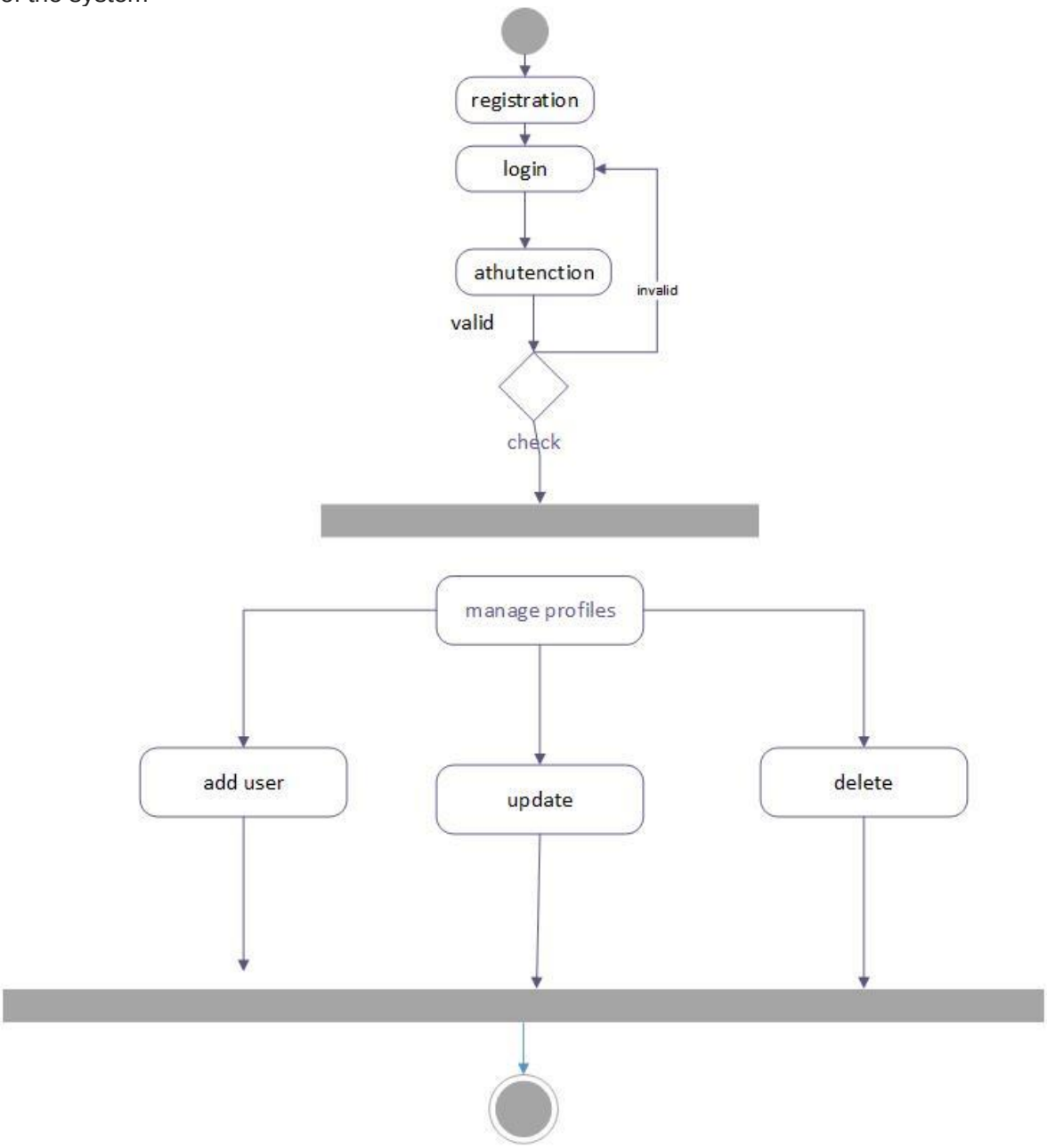


Figure 25 : Activity diagram of admin

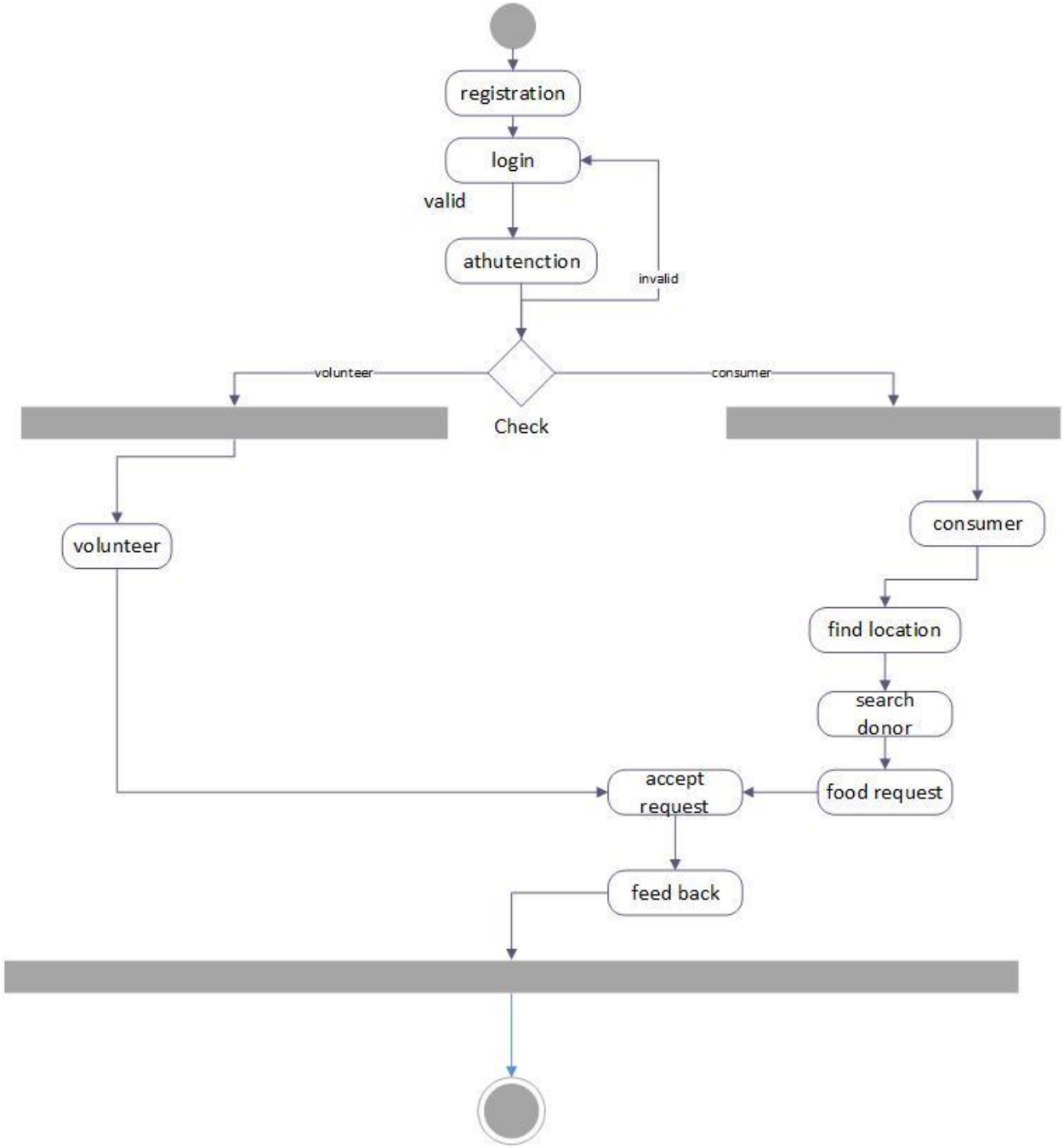


Figure 26 : Activity of volunteer/consumer

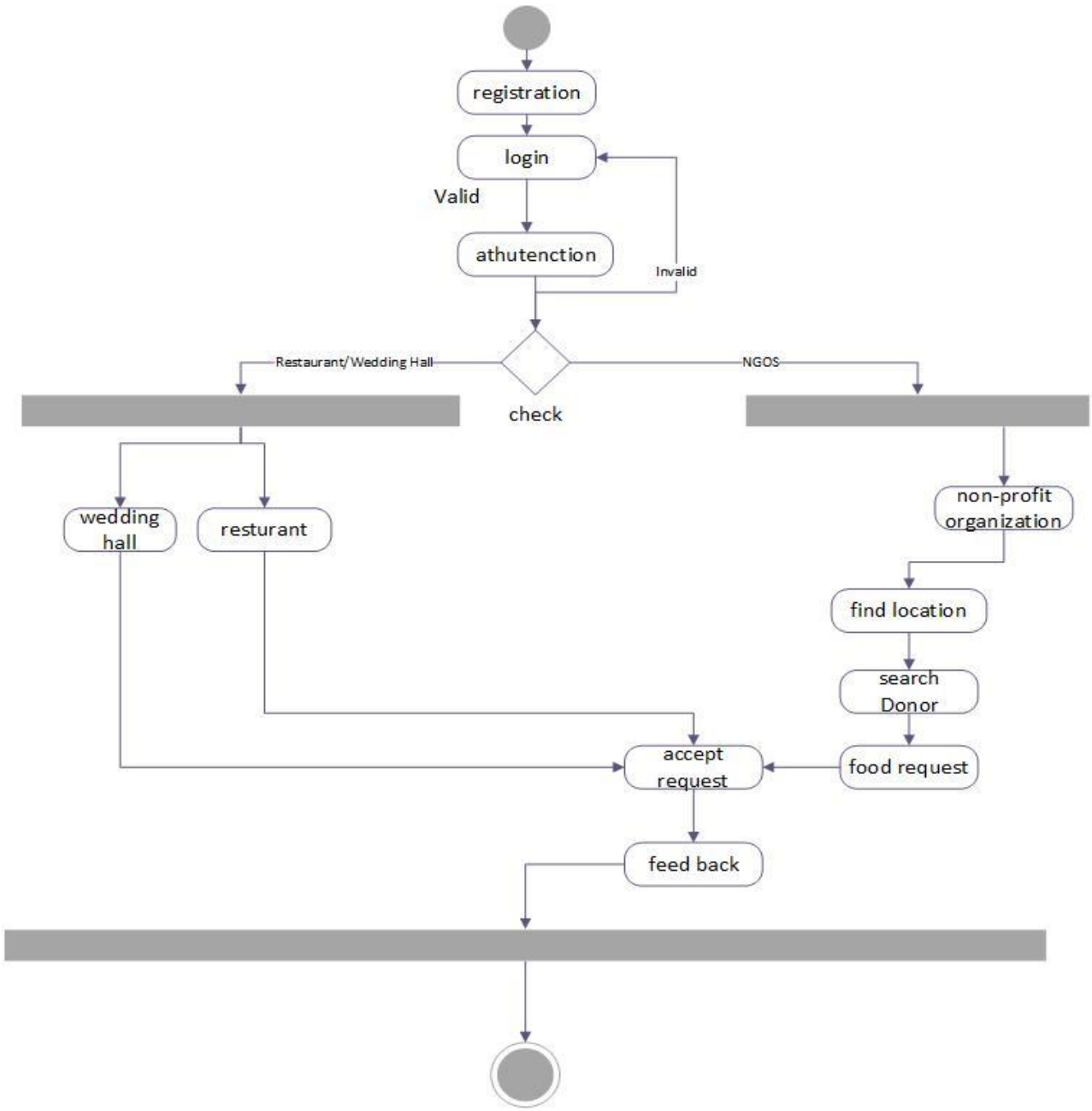


Figure 27 : Activity of wedding hall/restaurant

4.7. State Transition Diagram

A diagram consisting of circles to represent state anddirected line segments to represent transitions bet ween thestates. One or more actions (outputs) may be associated with each transition. The diagram represents the proper state of e donation system

State transition diagram

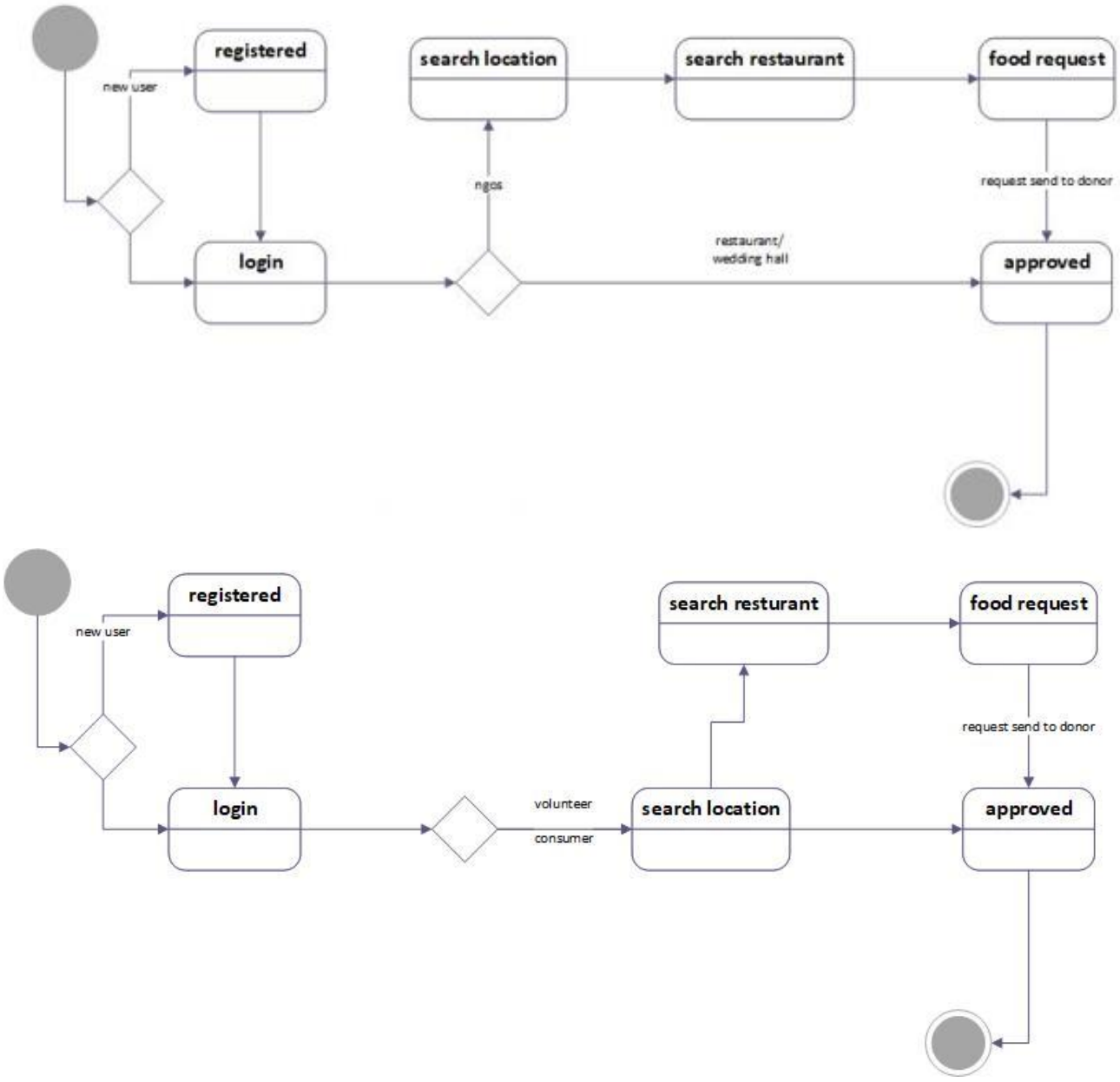


Figure 28: state transition diagram

4.8. Component Diagram

A component diagram allows verification that a system's required functionality is acceptable. These diagrams are presenting the flow and verification system

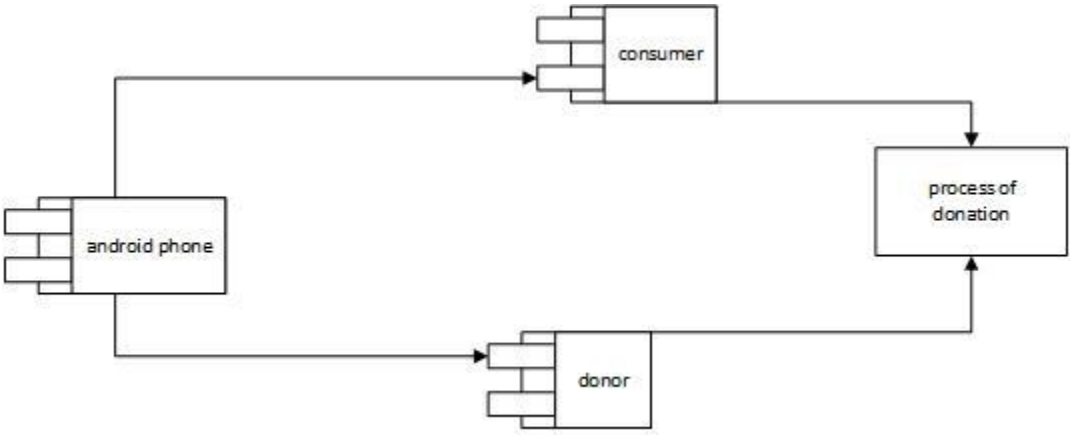


Figure 29: Component Diagram

4.9. Deployment Diagram

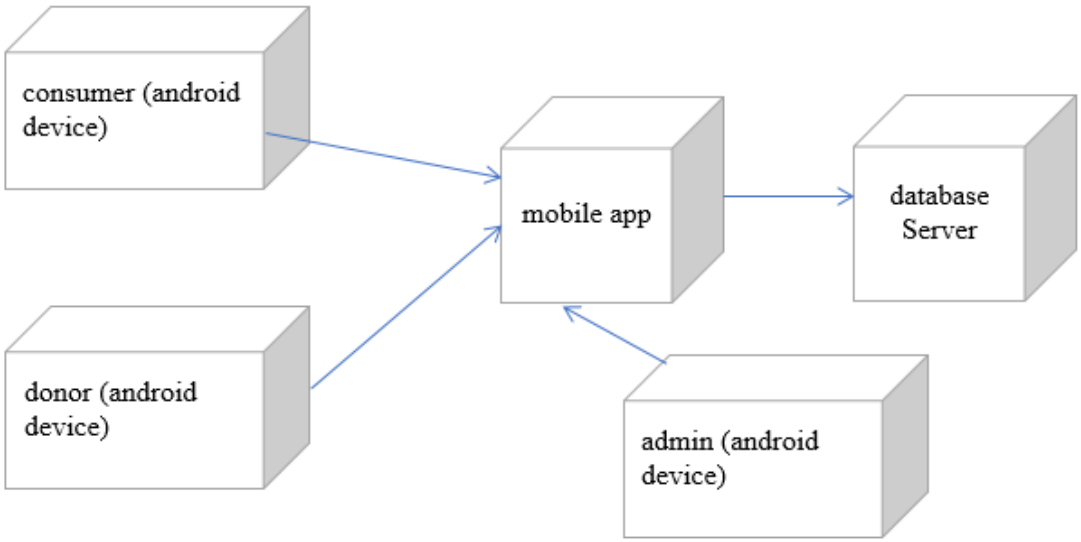


Figure 30: Deployment Diagram

4.10. Data Flow diagram

A data-flow-daigram (DFD) is a way of representing a flow of a data of a process or a system . The DFD also provides information about the outputs and inputs of each entity and the process itself.

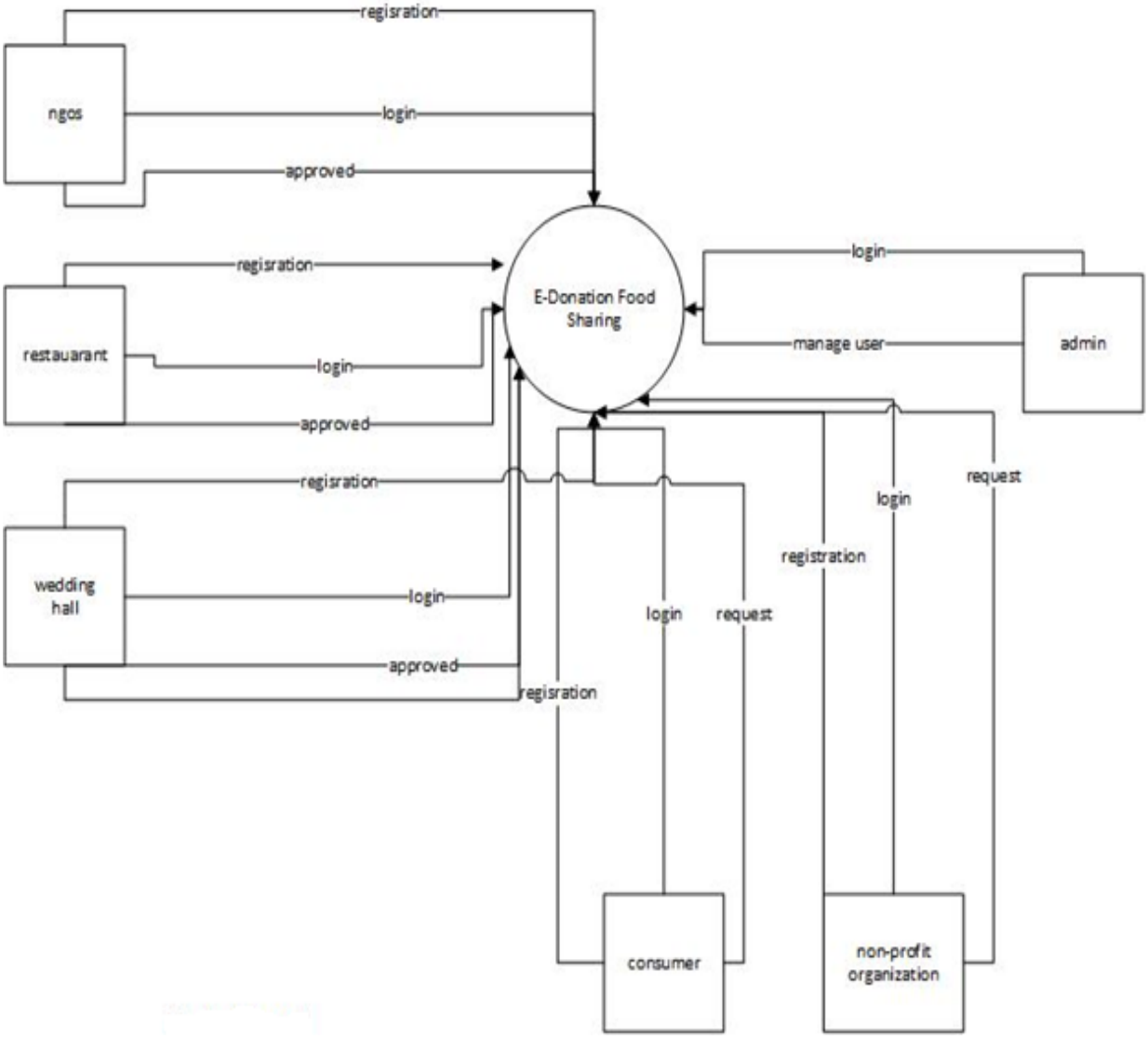


Figure 31 : DFD Level-0

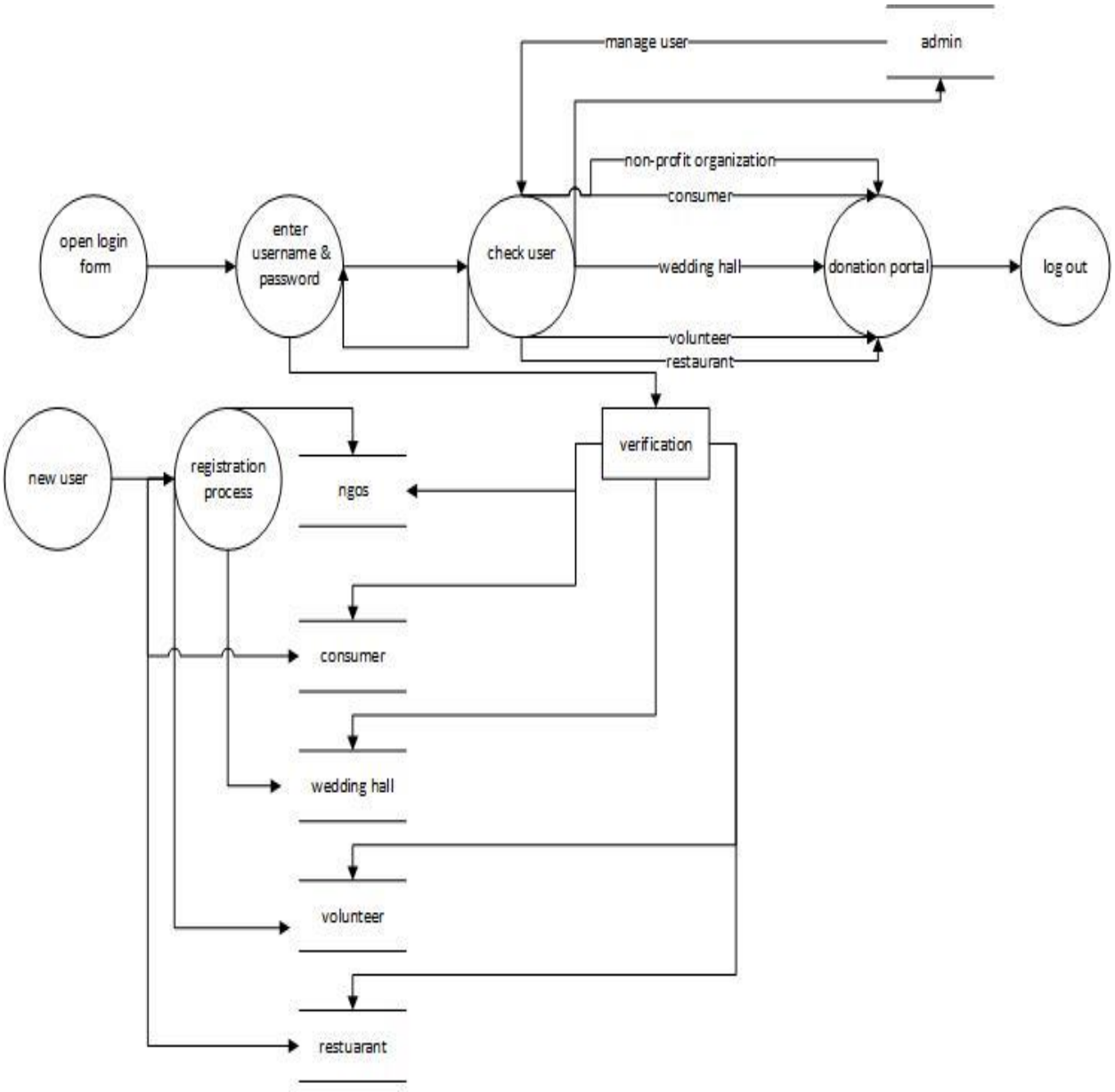


Figure 32 : DFD level-1

Chapter 5

Implementation

Chapter 5: Implementation

Important Flow Control/Pseudo codes

- Services that this application will provide are the following: ·
- There are two types of users
- 1. Users who want to provide information about families.
- They will be able to create a profile with the necessary information (contact, location, etc.)

  · Add/check reviews.
- 2. Users who want to donate. ·
- They will be able to access profiles based on the criteria they specify ·
- Add/check reviews.

Components, Libraries, Web Services and stubs

- Gson. Gson is a Java library used for serializing and desterilizing Java objects from and into JSON. ...
- Retrofit. From their site: "Retrofit turns your REST API into a Java interface.” ...
- Event Bus. ...
- Active Android. ...
- Universal Image Loader

Deployment Environment

In Deployment environment we work on android studio for build our android based application

5.1. Tools and Techniques

Tool	Android Studio 3.4
Languages	JAVA, XML
Data base	Firebase

Table 6 : tool and technique

5.2. Best Practices / Coding Standards

- Testing on android studio
- Use java language
- Use xml language

Version Control

Now we just working on version 1 after the passage of time we changed the version. From the start of the project number of versions updated and finalized now version 1.5 mentioned here.

Chapter 6

Testing and Evaluation

Chapter 6: Testing and Evaluation

Use Case Testing is a functional black box testing technique that helps testers to identify test scenarios that exercise the whole system on each transaction basis from start to finish.

6.1. Use Case Testing

6.1.1.

Test Suite ID	TS001
Test Case ID	TC001
Test Case Summary	To verify that by clicking Signup button username, password, email, phone# and address store in users detail in database.
Related Requirement	RSoo1: User should able to Sign up.
Prerequisites	No
Test Procedure	1. Select fields in Signup form. 2. Enter user data in fields. 3. Click Signup button.
Test Data	Valid username: Iqra, IQRA Invalid username: 12 iqra ./iqra ,iqra %^3 Valid password: 123Abc@5, Abc567$%9 Invalid password: 1_2iqra, _iqra12 Valid email:ali@gmail.com, 12ali@yahoo.com Invalid email: ali.com, iqra@yahoo Valid phone# :03123456578 Invalid phone: @56rfgf7999, 2wstyyA
Expected Result	1. If username, password, email and phone# are valid then store user data by clicking signup button. 2. If given inputs are invalid then display error message. 3. If fields are empty then show warning message.
Actual Result	1. If name is valid, the result is as expected. 2. If name is not valid then invalid message displayed. 3. If fields are empty then warning massage displayed.
Status	Pass

Remarks	This test case is simple and easy.
Created By	Rabia Saleem
Date of Creation	04/01/19
Executed By	Rabia Saleem
Date of Execution	04/01/19
Text Environment	OS: Android Studio Version 3.4

Table 7 : Use case of Sign up

6.1.2:

Test Suite ID	TS001
Test Case ID	TC002
Test Case Summary	To verify Authentication or Login.
Related Requirement	RS002: User should able to Login.
Prerequisites	User should Signup first.
Test Procedure	1. Select Username field and enter username. 2. Select Password field and enter password. 3. Click Login button.
Test Data	Valid username: Iqra,iqra Invalid username: 1iqra, ./iqra , iqra%^3 Valid password: 123Aabc@, abMc567$% Invalid password: 1_2iqra, _iqra12
Expected Result	1. If username and password are valid then clicking the Login button user successfully login. 2. If username and password are invalid then clicking the Login button invalid message display. 3. If fields are empty then display warning message
Actual Result	1. If fields are valid, the result is as expected. 2. If fields are not valid then invalid message displayed. 3. If fields are empty then warning message displayed.

Status	Pass
Remarks	This test case is simple and easy.
Created By	Rabia Saleem
Date of Creation	04/01/19
Executed By	Rabia Saleem
Date of Execution	04/01/19
Text Environment	OS: Android Studio Version 3.4

Table 8 : use case of login

6.1.3:

Test Suite ID	TS001
Test Case ID	TC003
Test Case Summary	To verify that wedding halls, restaurants, volunteer, consumer and non-profit organization once signup if they are forgot password then they can update it by email.
Related Requirement	RS003: user should able to update data.
Prerequisites	user should login.
Test Procedure	1. Select fields. 2. Enter data in fields. 3. Click forgot password button.
Test Data	04/01/19
Expected Result	1. If enter data is valid then update data by clicking update button 2. If given inputs are invalid then display error message. 3. If fields are empty then display warning message.
Actual Result	1. If fields are valid, the result is as expected. 2. If fields are not valid then invalid message displayed. 3. If fields are empty then warning message displayed.
Status	Pass

Remarks	This test case is simple and easy.
Created By	Rabia saleem
Date of Creation	04/01/19
Executed By	Rabia saleem
Date of Execution	04/01/19
Text Environment	OS: Android Studio Version 3.4

Table 9 : use case of update password

6.1.4:

Test Suite ID	TS002
Test Case ID	TC004
Test Case Summary	To verify that wedding halls, restaurants, volunteer, consumer and non-profit organization once signup if they are deleted in database by performing crud operation by clicking Delete button.
Related Requirement	RS004: Admin can delete data.
Prerequisites	Admin should login.
Test Procedure	Click delete button.
Expected Result	If data is deleted by click button then message will appear
Actual Result	If action is valid, the result is as expected.
Status	Pass
Remarks	This test case is simple and easy.
Created By	Rabia Saleem
Date of Creation	04/01/19

Executed By	Rabia Saleem
Date of Execution	04/01/19
Text Environment	OS: Android Studio Version 3.4

Table 10 : use case of delete data

6.1.5:

Test Suite ID	TS002
Test Case ID	TC005
Test Case Summary	To verify that data is searched by clicking search button.
Related Requirement	RS005: User should be able to search data.
Prerequisites	User should login.
Test Procedure	1. Select search field. 2. Enter name in fields. 3. Click search button.
Expected Result	1. If name is valid then show detail. 2. If name is invalid then display error message. 3. If field is empty then display warning message.
Actual Result	1. If name is valid, the result is as expected. 2. If name is not valid then invalid message displayed. 3. If fields are empty then warning message displayed.
Status	Pass
Remarks	This test case is simple and easy.
Created By	Rabia Saleem
Date of Creation	04/01/19
Executed By	Rabia Saleem
Date of Execution	04/01/19

Text Environment	OS: Android Studio Version 3.4

Table 11: use case of search data

6.1.6:

Test Suite ID	TS002
Test Case ID	TC006
Test Case Summary	To verify that record is display.
Related Requirement	RS006: User should be able to view data.
Prerequisites	User should login.
Test Procedure	1. Enter name in fields. 2. Click View button.
Expected Result	1. If name is valid then show detail. 2. If name is invalid then display error message. 3. If field is empty then display warning message.
Actual Result	1. If name is valid, the result is as expected. 2. If name is not valid then invalid message displayed. 3. If fields are empty then warning message displayed.
Status	Pass
Remarks	This test case is simple and easy.
Created By	Rabia Saleem
Date of Creation	04/01/19
Executed By	Rabia Saleem
Date of Execution	04/01/19
Text Environment	OS: Android Studio Version 3.4

Table 12 : use case of record to display

6.2. Equivalence partitioning

1	User name is alphabetic.	valid
2	User name is not alphabetic.	invalid
3	Password is equal to 10 or greater than 15 characters in length.	valid
4	Password is 2 to 16 characters in length.	invalid
5	Password include one uppercase letter & one lowercase letter.	valid
6	Password include '_'.	invalid
7	Email without '@' and '.com'.	invalid
8	Email with '@' and '.com'.	valid
9	Price only be numeric.	valid
10	Price is alphabetic.	invalid
11	Search product with alphabetic.	valid
12	Search product with special character (/,%,^,#,@).	invalid
13	No search product name entered	invalid
14	Brand name alphabetic	valid
15	Brand name with special character	invalid
16	Empty field	invalid

6.3. Boundary value analysis

Sr.		Partition 1	Partition 2	Partition 3
1.	Password	Less than 8 character	1 – 8 character	9 – 12
2.	Phone	<=0	1 - 11	9 – 12

Table 13: boundary analysis

6.4. Data flow testing

The relationship between one entity and another while performing a specific task in during data flow. Such as between the sign up and registration process etc.

6.5. Unit testing

In unit testing we have testified our different panel codes individually by performing different tests and by executing them individually, separately on different computers and they were successfully executed and they performed well.

6.6. Performance testing

In performance testing a particular certain situation is given to the website let's just say a 100 users try to register at the same time so how the system recovers back gracefully with complete results. So according to our extracted results, around 100+ people were able to register in our website.

6.7. Stress Testing

Let's say if 100 customers order at the same restaurants at the same time along with the same food level which increases the stress on the website at a maximum load how will the website will perform under these circumstances.

Activity	Description
Register	The user can register and save his/her information into the system
Login	The user can login using his/her credentials
Type of user	Upon registering, the user specifies which type of user they are
Manage profiles	The user can edit/disable their accounts
Browse Categories	The donators can browse the categories of lup they want to donate to.
Search Profiles	The donators can search profiles based on the nearest
Call user	The user can call the phone number of the user
Send Notification	The donator can send notification for possible donation
Add Reviews	The donators can add reviews concerning user

Confirm Donation	The user can confirm receiving donations
Check Notification	The user can check notifications for possible donations
Log out	The user can log out

Interface for Login:

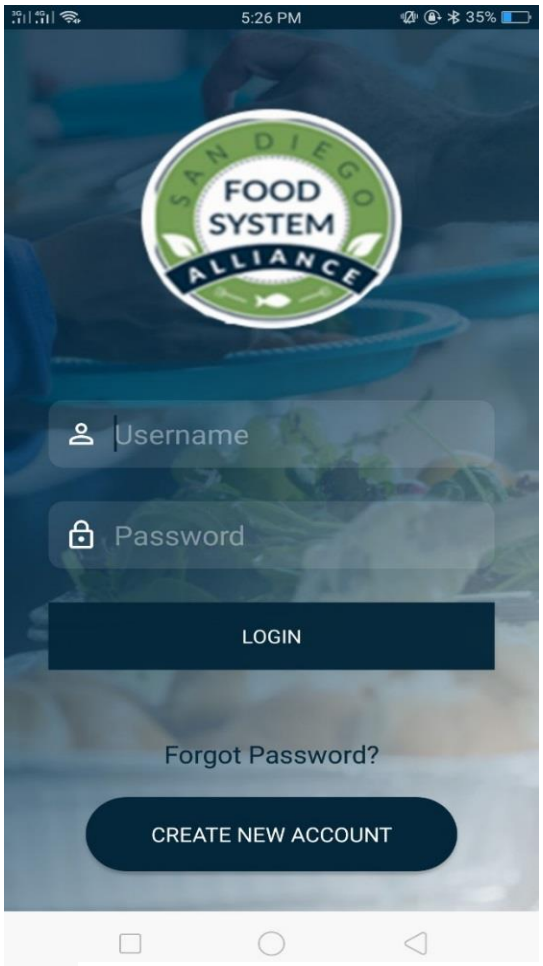


Figure 33:login

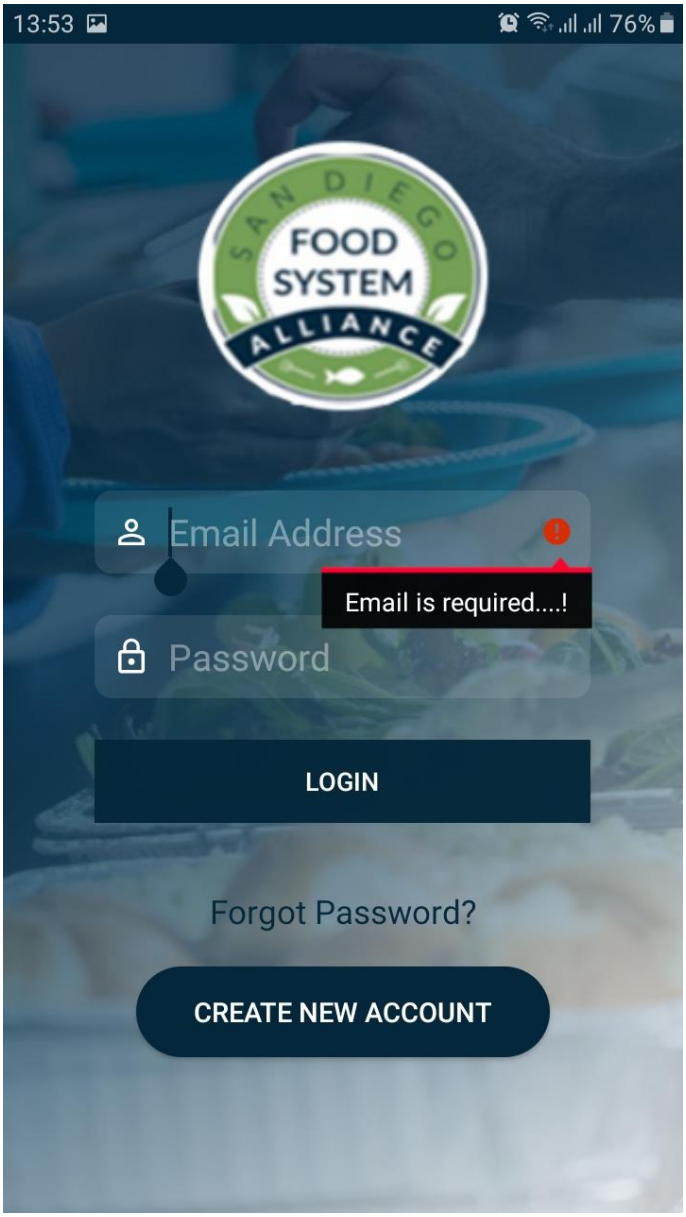


Figure 34 Register layout

Chapter 7

Summary, Conclusion and Future Enhancements

Chapter 7: Summary, Conclusion & Future Enhancements

7.1. Project Summary

Now that the project E- DONATION is completed so that I can explain the purpose of the app it is basically a mobile app. The main purpose of this app is to control food wastage and forward this food to needy and unprivileged people by collecting the extra food from wedding halls and restaurants to the NGO'S and nonprofit organization online within no time . Our software would generate the interface and its associated functionalities according to the requirement of both organizations. This system will provide many features in a single platform.

That said, there is always room for improvement

7.2. Achievements and Improvements

The biggest achievements here are that we were able to enhance our skills to the professional extend that we learned in four years of studying and apply it to this project. We learned software architecture design techniques, UML modeling, project management, testing and much more, and were able to apply it all in this project.

The next big achievement is the things we learnt during this project. New languages, frameworks, libraries, different software's for diagrams Database. All that will be useful for us in our futures. We learn Creative thinking.

7.3. Critical Review

The critical element of our system is: Is our system is fast moving, give user friendly interface, not very costly, fulfill the specific requirements of the users at a runtime, has all the features which any organizations can require. To manage all these aspects it took lot of time and hard work.

7.4. Lessons Learnt

We absorb very much from this project. This project sharpens our skills in xml and andriod studio many other tools and many management concepts as well as how to deal with a problem and

how to stick for finding the solution of any problem until you fond. As well as technical skills this project also enhances our personal development skills such as team working, dedication.

7.5. Future Enhancements/Recommendations

As it has been already said, there is always room for further improvement. And since we plan to launch this website as our own startup, enhancements will keep coming.

The system has been built on react native, but at some point we work on its efficiency, accessibility, flexibility, we are definitely going to scale it up which we believe ours is eventually going to become. We make it more user friendly interface.

Appendices

Appendix A: User Manual

In this appendix section we describe the different phases of user interface and also describe how user can use our project

Appendix A: E-donation

A.1. Login

User can login by entering name and password.

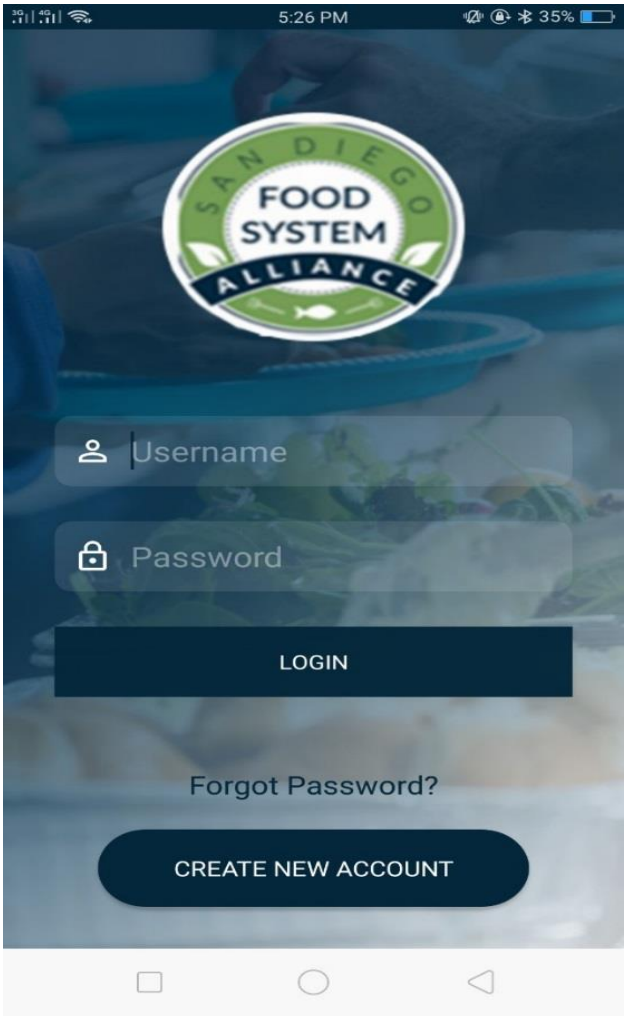


Figure 34: interface of login

A.1.2 Signup

User fills the registration form.in case if ser is not valid aur enter wrong name and password it will show a authentication warning

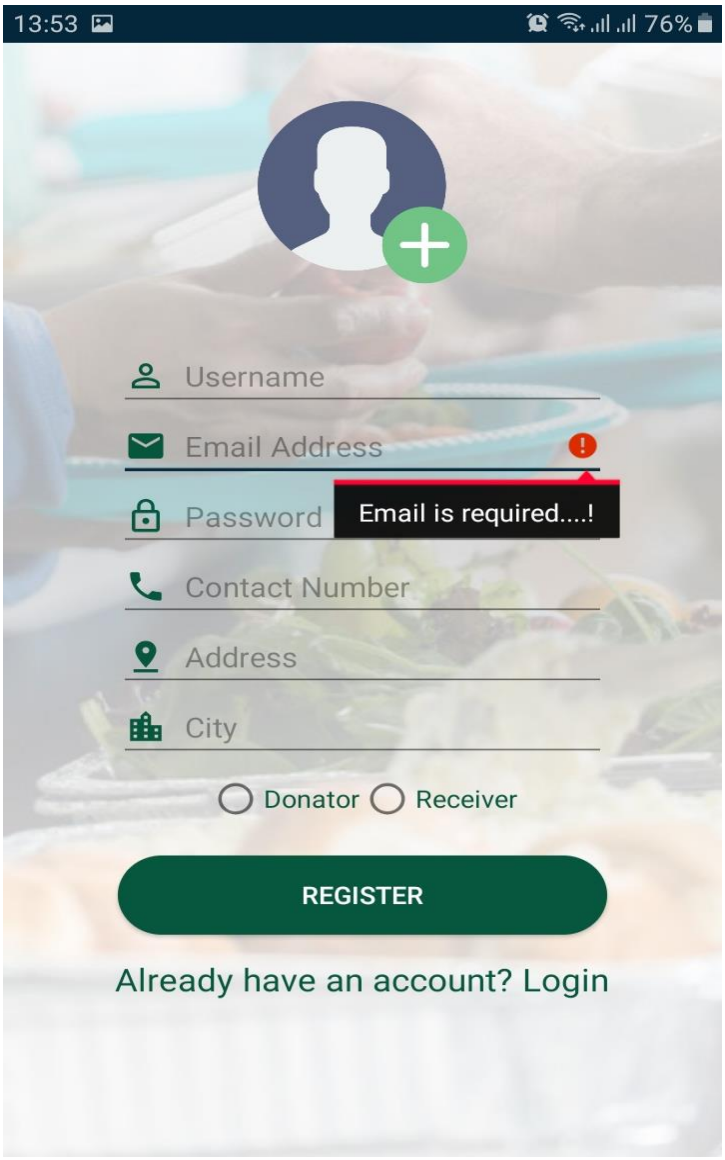


Figure 35: interface of sign up

A.1.3 Select functionalities

User selects the functionalities which he wants in LMS.

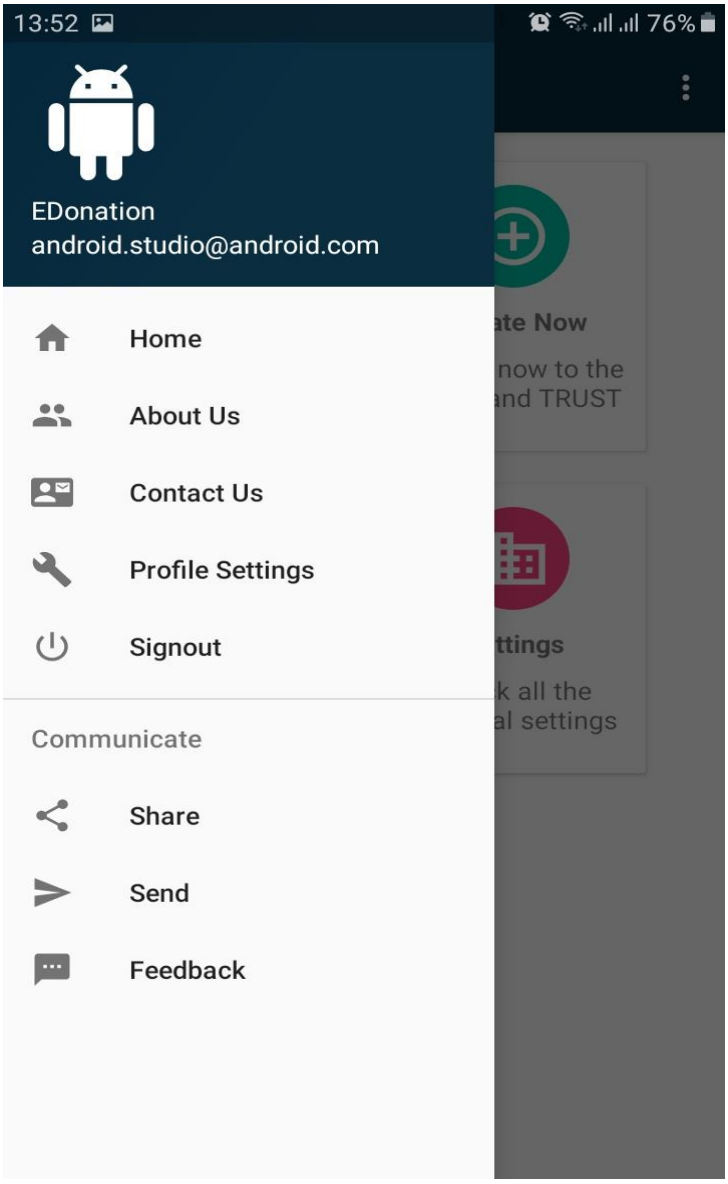


Figure 36: interface of functionalities

Appendix B: Administrator Manual

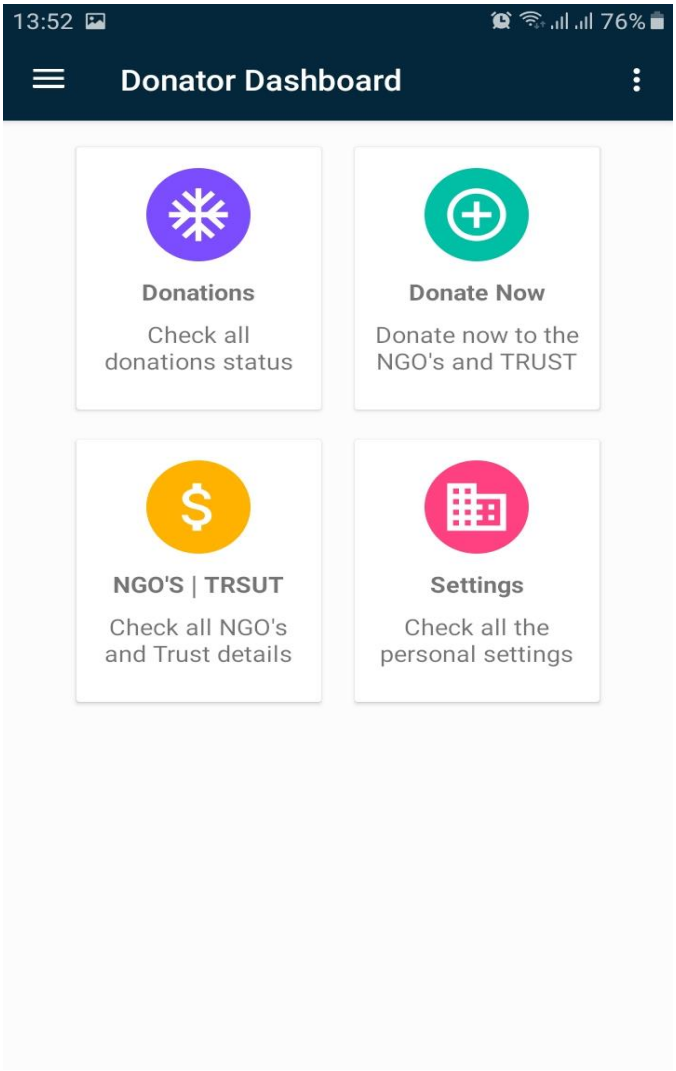
In this appendix section we describe the different phases of admin interface and also describe how admin can manage the system.

B.1. Login

User can login by entering the password and username.

B.1.1. Manage Donor Panel

Admin can have a full access of and record of donations of food donated and consumed by the user.

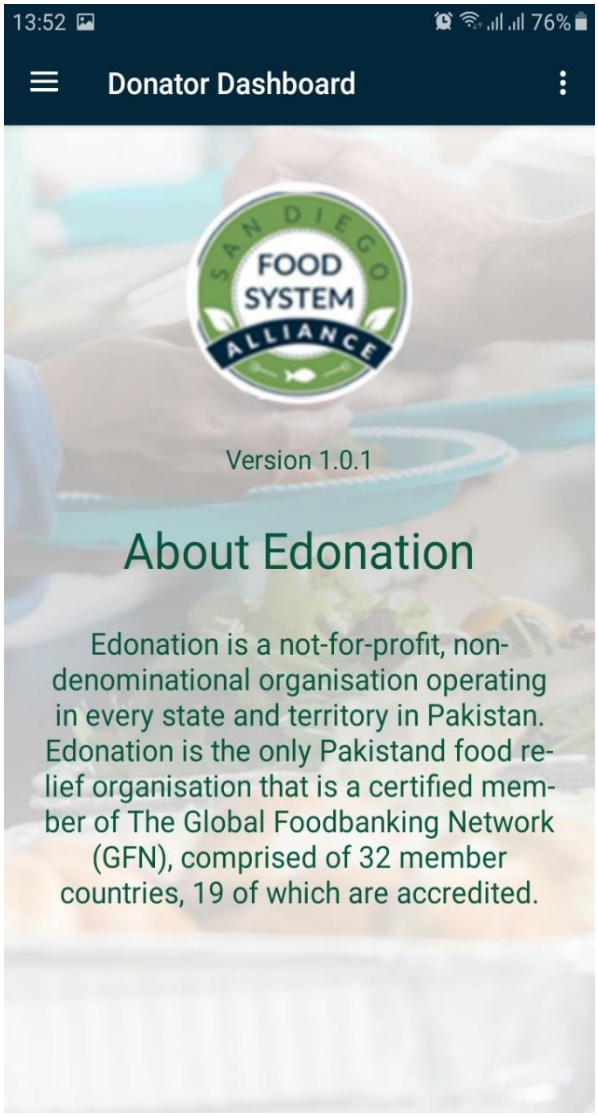


Appendix C: Information / Promotional Material

In Appendix we add promotional material about our application and application. We add these for promote our application.

C.1. Broacher


FOOD SYSTEM ALLIANCE
We Need Your Help To
Make Superior
PAKISTAN
To provide Food, To Hungry people Just
Using our E-donation Mobile Application.
Contact Us: 0423-5258963


13:52
76%
Donator Dashboard
SAN DIEGO FOOD SYSTEM ALLIANCE
Version 1.0.1
About Edonation
Edonation is a not-for-profit, non-denominational organisation operating in every state and territory in Pakistan. Edonation is the only Pakistand food relief organisation that is a certified member of The Global Foodbanking Network (GFN), comprised of 32 member countries, 19 of which are accredited.

C.2. Flyer


FOOD SYSTEM ALLIANCE
Donor
Consumer
RAVI
E-donation Mobile Application
Contact Us: 0423-5258963

C.3. Banner


SAN DIEGO
FOOD SYSTEM
ALLIANCE
Together we can GROW food security
volunteer
donate
sponsor
Even $1 will make a difference

Reference and Bibliography

Reference and Bibliography

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