Online Hostel Meal And Account Management System

Prepared by:

Md.Kamrul Hsan

ID:121-33-444

Mst.Nishat Tamanna

ID:143-35-755

Department of Software Engineering

Dafoodil International University

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APPROVAL

This **project** titled **"The Hostel Meal And Account Management System"** , submitted by **Md Kamrul Hasan, ID:131-35-437 and Mst.Nishat Tamanna, ID:143-35-755** to the department of software Engineering, Daffodil International University has ben accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc in Software Engineering and approved as to its style and content.

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Daffodil International University

Prof Dr. Mohammad Abul Kashem — **External Examiner**
Professor
Department of Computer Science and Engineering
Faculty of Electrical and Electronic Engineering
Dhaka University of Engineering & Technology, Gazipur

DECLARATION

We hereby declere that we have taken this project under the supervisor of **Khalid Been Md Badruzzaman Biplob,** Department of Software Engineering, Daffodil International University. It also declere that neither this project nor any part of this has been submitted elesewhere for award of any degree.

Mst.Nishat Tamanna
Student ID: 143-35-755
Department of Software Engineering
Faculty of Science & Information Technology
Daffodil International University

Md.Kamrul Hasan
Student ID: 131-35-437
Department of Software Engineering
Faculty of Science & Information Technology
Daffodil International University

Certified by:

Khalid Been Md Badruzzaman Biplob
Lecturer
Department of Software Engineering
Faculty of Science & Information Technology
Daffodil International University

Acknowledgement

For successful completion of this project, we like to pray gratitude first to Almighty ALLAH. Because without his mercy, this project could never be completed successfully.

We wish to express our profound gratitude and sincere appreciation to **Khalid Been Md Badruzzaman Biplob ,** Lecturer in Software Engineering Department, for his proper guidance, valuable advice, encouragement and untiring help in the preparation of this thesis. We are also grateful to all the teachers for their moral support and helpful attitude.

TABLE OF CONTANT

List of Tables

Serial No.....Table No..... Table Name..... Page No.

List of Figures

Serial No..... Figure No..... Figure Name..... Page No.

ABSTRACT

This project entitled “Hostel Meal and Account management System” is a web based application to manage hostel meal system and calculate complex meal costs. There is a large number of hostels in our country**.** The hostel meal system is developed for automating the activities of hostel meal process and rent payment. The software will be great relief to the hostel owner. This software will help owner in case of managing hostel activities and maintaining reports. It will calculate all the complex meal system and handle previous dues and advance payments for generating current month meal and rent payable amount. Owner/Admin can handle all the process so easily. End of the month hostel member will get notification about total meal cost and rent payable amount via email. we used laravel frame work, HTML 5, CSS 3, Bootstrap for this website. We also used client side scripting language javascript to make it more user friendly.

CHAPTER-1

INTRODUCTION

1.1 Overview

Hostel Meal and Account Management System is a web based application. This project can help to reduce Manual process in hostel management system. This system is developed for automating the activities of hostel meal process and rent payment. This is a whole process that will be started for Collecting Project/Thesis Proposal to Submit and assign Supervisor. Supervisor Add task day to day and follow up.

1.2 Purpose

A reliable documentation is always a must needed think for a well-structured project. The presence of documentation helps to keeps track of all, aspects of an application and it improves the quality of a software product.

This documentation identifies clearly about Hostel Meal and Account Management System that are providing help to successful manage hostel admin and users. This system will provide the case of use to staff of the hostel by performing all the work on a computer system rather than a paper pen approach. This approach helps improving a reliable data maintained and provides a fast efficient interface for the users of the software's.

1.2.1 Background Study

The hostel meal system is developed for automating the activities of hostel meal process and rent payment. The software will be great relief to the hostel owner. This software will help owner in case of managing hostel meal and accounts activities. Maintaining the meal system and complex account calculation reports just by clicking a button. It will calculate all the complex meal system and handle previous dues and advance payments for generating current month meal and rent payable amount. Owner or admin can handle all the process so easily.

1.2.2 Benefits and Beneficiaries

User and owner or admin are the main beneficiaries of this system. But all the people related to our Project area are the also beneficiaries. Benefits are given below;

i. Member can place meal order online.

Member can easily order their meal online. Otherwise member would have to order their meal by phone calls or attending physically.

ii. Update or cancel meal.

It is easy of cancelling meal or updating order by online without any complexity.

iii. Email Configuration is available.

Member will get any update via email.

Admin or owner can add the bazar cost.

By this system, it is easy to maintain the account such as the total number of meals per users, bazar costs and total payment.

1.2.3 Goals of the Project

This system gives basic functionality required for a hostel. It allows the member to take place meal order by online. Member can order meal, cancel meal or update meal. Member also can select the number of meals, and how many meals they want to take in future. Here is also a meal deadline time for selecting future meal. This system will developed for all kind of hostels such as school, college or university and many others food ordering system.

1.3 Find out Stakeholders

A stakeholder is a person or organization that has rights, share, claims or interests with respect to the system or its properties meeting their needs and expectations. To put it more simply, the interests of stakeholders have some influence on the project, so their opinion should always be taken into account. If you do not do this and overlook one of the key stakeholders, you can ruin the whole project and it will be much more expensive than just letting a development bug in the project. Stakeholders provide opportunities and limitations for the system and are the source of requirements. In this Hostel Meal and Account Management System, There are three (3) stakeholders;

- Admin
- Hostel Member
- Client

1.4 Project Schedule

A. Initial Step

Table 1.1: Initial Project Schedule Table

Serial	Work Description	Start(date)	End(date)	Total day
1	Idea Finding	01-07-2018	07-07-2018	6
2	Feasibility Study	08-07-2018	13-07-2018	5
3	Similar Site Analysis	14-07-2018	21-07-2018	7
4	Available Source check	22-07-2018	25-07-2018	3
5	Mind Mapping	26-07-2018	30-07-2018	4
			Total days=	25

B. Ideal Proposal

Table 1.2: Idea proposal

Serial	Work Description	Start(date)	End(date)	Total day
1	Idea Finding with supervisor	01-08-2018	03-08-2018	2
2	Feasibility Study with supervisor	04-08-2018	6-08-2018	2
3	Features Discussion with supervisor	07-08-2018	10-08-2018	3
4	Project problem find out with supervisor	11-08-2018	15-08-2018	4
5	Workflow Maintenance	16-08-2018	18-08-2018	2
			Total days=	13

C. Requirement Gathering

Table 1.3: Requirement gathering

Serial	Work Description	Start(date)	End(date)	Total day
1	System Work flow sketch	19-08-2018	21-04-2018	2
2	Requirements Gathering	22-08-2018	24-08-2018	2
3	Requirements Collect	25-08-2018	27-08-2018	2
4	SRS	28-08-2018	01-09-2018	3
5	All requirement and information	02-09-2018	07-09-2018	5
			Total days=	14

D. Physical System Design

Table-1.4: Physical System Design

Serial	Work Description	Start(date)	End(date)	Total day
1	Designing Prototype	08-09-2018	14-09-2018	6
2	GUI(Graphical User Interface)	15-09-2018	23-09-2018	8
3	Process Design	24-09-2018	30-09-2018	4

Total days=18

E. Logical System Design

Table-1.5: Logical System Design

Serial	Work Description	Start(date)	End(date)	Total day
1	Use Case Diagram Design	01-10-2018	03-10-2018	2
2	Dataflow Diagram Design(level-0)	04-10-2018	05-10-2018	1
3	Dataflow Diagram Design(level-1)	06-10-2018	07-10-2018	1
4	Entity Relationship Diagram	08-10-2018	10-10-2018	2
5	Class Diagram	11-10-2018	13-10-2018	2
			Total days=	8

F. Development Phase

Table-1.6: Development Phase

Serial	Work Description	Start(date)	End(date)	Total day
1	Build Admin Module	14-10-2018	23-10-2018	9
2	Build Member Module	24-10-2018	30-10-2018	6
3	Database Integration	01-11-2018	07-11-2018	6
4	Live Streaming	08-11-2018	10-11-2018	2
5	Understanding the clients	11-11-2018	20-11-2018	9
6	Intended Code	21-11-2018	27-11-2018	6
7	Recording All Members History	28-11-2018	30-11-2018	2
8	Send Notification Integration	01-12-2018	5-12-2018	4
			Total days=	46

G. System Testing

Table-1.7: System Testing

Serial	Work Description	Start(date)	End(date)	Total day
1	Separate Module Test	06-12-2018	08-12-2018	2
2	Boundary Value Testing	09-12-2018	10-12-2018	1
3	Functionality Test	11-12-2018	14-11-2018	3
			Total days=	6

1.4.1 Gantt Chart

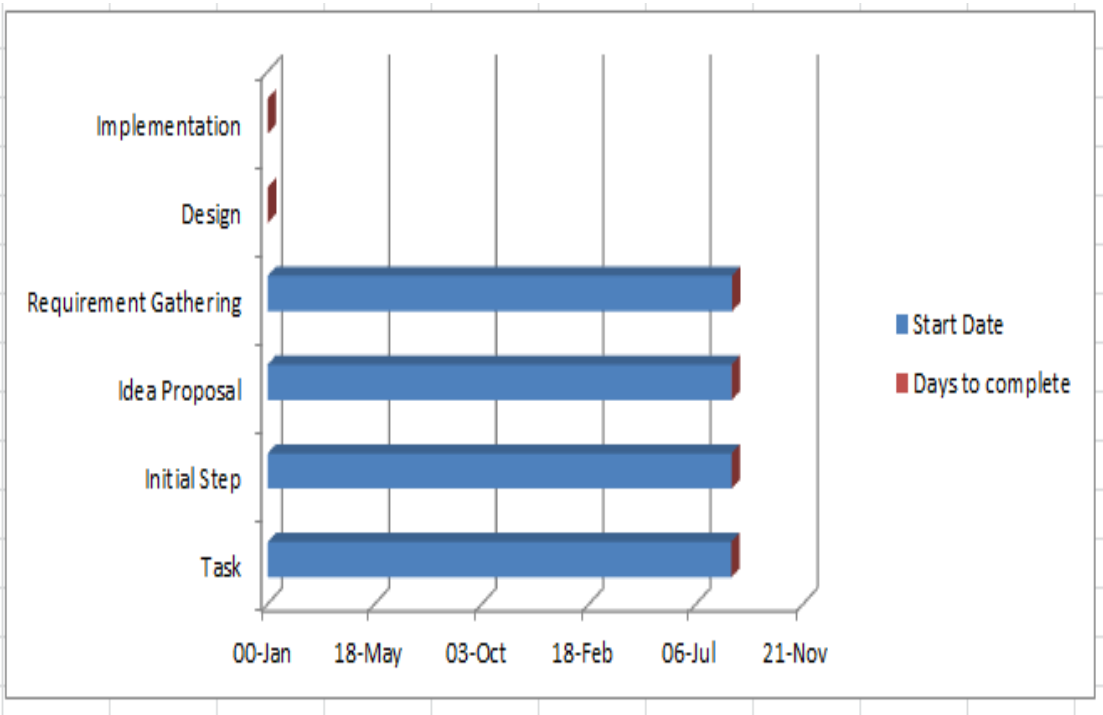

Fig-1.1: System Testing

1.4.2 Release Plan

After developing we are launching this web application Hostel Meal and Account Management System.

Launching date:-30-11-2018

CHAPTER- 2

Software Requirement Specification

2.1 Functional Requirements

Functional requirements are given bellow

2.1.1 Member Registration

Features:

The module will provide the member registration and the following reports summary of the registered members. Add a new member and detects unauthorized access.

Reports:

The module will provide the member registration and the following reports summary of the registered members. Add a new member and detects unauthorized access.

2.1.2 Admin Login

Features:

This software will give permission to access the website to the registered members. Prevent unregistered members to access the system. Admin can access the whole system.

Reports:

The module will provide the following reports summery of all registered members. Admin can able to see the summary of all information that the members gave.

2.1.3 Hostel Meal System Login

Features:

This software will give permission to access the website to the registered members. Prevent unregistered members to access the system. Admin can access the whole system. Here member can see the menu, order meal, update meal, cancel meal.

Reports:

The module will provide the following reports summary of all registered members. Admin can able to see the summary of all information that the members gave. Hostel Meal System able to see all the information and manage all the meal system.

2.1.4 Home

Features:

This software will able to show all the fields that will provide to members. Users can search here. Registered members will access here all modules.

Reports:

The module will provide the following reports summary of all registered members. Here show the registered members updates.

2.1.5 Order Meal

Features:

Member will able to order meal online.

Reports:

The module will provide the following reports summary of all registered members. Store the all information that will give the member.

2.1.6 Cancel Meal

Features:

In this system member will able to cancel meal online. But here will be a deadline. After deadline member will not cancel meal.

Reports:

The module will provide the following reports summary of all registered members. Store the all information that will give the member.

2.1.7 Update Meal

Features:

In this software member will able to update meal online.

Reports:

The module will provide the following reports summary of all registered members. Member will update meal before deadline.

2.1.8 See total Number of Meal

Features:

In this system member will able to see their total number of meal after the end of the month or any time.

Reports:

Member will able to see their total amount of meal.

2.1.9 See total Meal Cost

Features:

Member will able to see their total number of cost after the end of the month or any time.

Reports:

Member will able to see their total cost of their meal.

2.1.10 Add Bazar Cost

Features:

By this system admin will able to add bazar cost.

Reports:

The module will provide the following reports summary of all bazar cost.

2.1.11 See Total Payment

Features:

Admin and member will able to see total payment.

Reports:

The module will provide the following reports summary of all payment history.

2.1.12 See Total due

Features:

Hostel meal and accounts management system admin and member will able to see total due.

Reports:

The module will provide the following reports summary of all payment history.

2.1.13 See Meal Information

Features:

In this system member will able to see their meal information.

Reports:

The module will provide the following reports summary of all meal history.

2.1.14 See Notification

Features:

Through this system member will able to get their notification via email.

Reports:

The module will provide the following reports summary of all members and send notification to members.

2.2 Software Requirement Prioritizing

The analysis phase defines the requirements of the system, independent of how these requirements will be accomplished. This steps defines the problem that the customer is trying to solve. The result at the end of this phase is a requirement document. Ideally, this document states in a clear and precise fashion what is to be built. This analysis represents the “what" phase. The requirement document tries to capture the requirements from the customer's perspective by defining goals and interactions at a level removed from the implementation details. Prioritize also define which requirement should be fulfilled first or which one is important most. So we can start from the important one and will be more careful about them.Priority Check List Priority check list have 3 levels.

Table-2.1: Priority table

High level Priority	H
Mid-Level Priority	M
Low Level Priority	L

2.2.1: Software Requirement Specification Requirement Prioritize

Table 2.2: Specification Requirement Prioritize

No.	Requirements	Functional/Non - Functional	Priority	Description
FR	Login	Functional	H	Must be perform
FR	Sign In	Functional	H	Must be perform
FR	Order Meal	Functional	H	Must be perform
FR	Update Meal	Functional	H	Must be perform
FR	Cancel Meal	Functional	H	Must be perform
FR	See Total Number of Meal	Functional	M	Mid-level features
FR	Add Bazar cost	Functional	H	Must be perform
FR	See Total Meal Cost	Functional	M	Must be perform
FR	See Total Payment	Functional	M	Mid-level features
FR	See Total Due	Functional	H	Must be perform
FR	See Notification	Functional	M	Mid-level features
NFR	See Meal Information	Non Functional	M	Mid-level features
NFR	Availability	Functional	H	Must be perform
NFR	Security	Non Functional	H	Must be perform
NFR	Maintainability	Non Functional	H	Must be perform
NFR	Usability	Non Functional	H	Must be perform
NFR	Portability	Non Functional	M	Mid-level features

2.3 Performance requirements

2.3.1 Speed and Latency Requirements

- ✓ Upgrade work in less time
- ✓ Site visible at low bandwidth
- ✓ Make your site faster
- ✓ High performance of network device

2.3.2 Precision or Accuracy requirements

- ✓ The data of this system is precious and accurate

2.3.3 Capacity requirements

- ✓ Initially 100 users per day
- ✓ Speed 1 to 5 MB
- ✓ Average 128 kbps bandwidth need

2.4 Dependability requirements

2.4.1 Reliability Requirements

This system is fully reliable to the client. We can easily say this project maintain a strong reliability.

2.4.2 Availability Requirements

The system always will be available for access at 24 hours, but members order update or cancel their meal before deadline. Every time admin or member access the system. The System should be available 99% of the time.

2.4.3 Robustness or Fault -Tolerance Requirements

If users face any kind of problem to this site, then admin will solve.

2.4.4 Safety-Critical Requirement

The system shall support autonomous driving or flying.

2.5 Maintainability and Supportability Requirements

2.5.1 Maintenance Requirements

This system has the ability to work with new technology and also defects fixing ability.

2.5.2 Supportability Requirements

This system has the capability of total system design to support operations and readiness.

2.5.3 Adaptability Requirements

This system has the ability to adapt itself efficiency and fast to changed circumstances. This system is able to fit its behavior according to changes its environment or in part of itself.

2.5.4 Scalability or Extensibility Requirements

This systems extension can be through the addition or new functionality or modification. Extensibility Requirements are more important of this site.

2.6 Security Requirements

2.6.1 Access Requirements

This system provides user name password and email cause unknown user couldn’t access the system.

2.6.2 Integrity Requirements

Integrity is the security property that ensure the data is not modified, altered or deleted without authorization or either storage or transit.

2.6.3 Privacy Requirements

This system provides some input for the actions required for the ensure privacy.

2.7 Usability and Human-Interaction Requirements

2.7.1 Ease of Use Requirements

This system provides a help and support menu of members cause members can select their meal easily, order place online. They also can cancel or update their meal. Member can see their total meal cost and meal amount. They get notification about meal system and account information.

2.7.2 Personalization and Internationalization Requirements

The system has the ability to deal with international conventions such as languages, spelling preferences and language idioms.

2.7.3 Understandability and Politeness Requirements

This system provides specifics requirements for the product to be understood by its user. This system carries usability, efficiency, understandability to make the product more comprehensible.

2.7.4 Accessibility Requirements

The system is able to itself defeating to exclude this sizable community of potential members.

2.7.5 User Documentation Requirements

This system shall the guidelines for its users. It will provide users guidelines to help the user.

2.7.5 Training Requirements

This system has no training requirements.

2.8 Look and Feel Requirements

2.8.1 Appearance Requirements

From user experience point of view and to maintenance accommodation with the stage, the look feel should reflect the client's corporate identity for assimilating well into the municipality's systems. You are empowered by allocating priorities for

applying significant control over the flow of data in an application. For the most important request, it affords quicker service and the slower service to the less important requests. To serve best, the specific users at all times or in specific situations priority will be given.

2.8.2 Style Requirements

The platform is PHP 7.1.11 version language, frame work LA ravel 5.4 bootstrap, HTML, CSS, database MY SQL. The system will need to function internet operate functions such as chrome, Firefox, opera and Linux.

2.9 Operational and Environmental Requirements

2.9.1 Expected Physical Environments

- ✓ Perform beat in apache server
- ✓ Low perform IIE

2.9.2 Requirements for Interfacing with Adjacent Systems

The adjacent systems are those pieces of work that supply your work with information and services from your work. An adjacent system might be an individual organization, an individual a computer system or some other technologies. So here Hostel Meal and Account management System is an adjacent system.

2.9.3 Projectization Requirements

This system will vary dynamic and understandable. This system project manager has the main role because he is the one who manages the projects. Projectized reduces conflict and make decision making faster and flexible.

2.9.4 Release Requirements

First release version 1.0

2.10 Legal Requirements

2.10.1 Compliance Requirements

In general, compliance means confirming to a rule, such as specification, policy, standard or law. Our project built with all compliance requirements.

2.10.2 Standard Requirements

Standard requirements mean a condition or capability needed by a stakeholder to solve a problem or achieve an objective. So, in this system has the ability to solve any kind of problem.

CHAPTER-3

System Analysis

3.1 Use case diagrams and scenario

UML Use Case Diagrams can be used to describe the functionality of a system in a horizontal way. The emphasis of use case diagrams is on what a system does rather than how. That is, rather than merely representing the details of individual features of your system, a use case diagram is used to show all of its available functionality and represent the several users called actors and the different ways in which they interact with the system.

Table-3.1: Use Case Scenario

Use Case Scenario		
Hostel Meal and Account Management System	Use Case Name	Actor
	Add Bazar Cost	Admin
	See Total Meal Cost	Admin Member
	Login In	Admin Member
	Log Out	Admin Member
	See Total Number Of Meal	Admin Member
	Meal Order	Member
	Cancel Meal	Admin Member
	Update Meal	Admin Member
	Change Password	Member
	See Total Payment	Admin Member
	See Total Due	Admin Member
	See Meal Information	Admin
	Registration	Admin Member

3.1.1 Use Case Diagram

Figure-3.1: Use Case Diagram of Hostel Meal and Account Management System

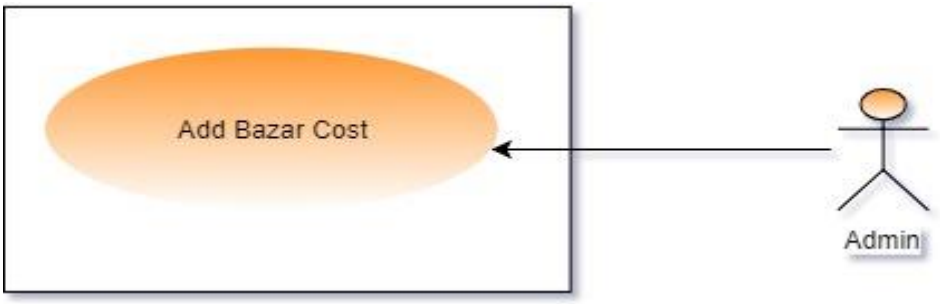

Figure-3.2: Use Case for Add bazar cost

3.1.2 Use Case Description Add Bazar Cost

Table-3.2: Use Case Description: Add Bazar Cost

Use Case Name	Add Bazar Cost
Primary Actor	1.Admin
Secondary Actor	1.Member
Trigger	Add Bazar Cost
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	1.Bazaar Costs
Basic path	1. Click Bazar Menu 2.Click Add Bazar Item 3. Input Bazar Costs Uniquely
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

Figure-3.3: Use Case for See total meal cost

3.1.3 Use Case Description See total meal cost

Table-3.3: Use Case Description See total meal cost

Use Case Name	Total meal cost
Primary Actor	1.Admin
Secondary Actor	2.Member
Trigger	See total meal cost
Precondition	1. Must have an account on this system. 2. Must be logged in.
Post condition	1.click Member 2.See Total meal cost
Basic path	1. Click Member 2.Click Meal Account 2. See Meal Cost
Possible Enhancement	1. None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Case	Message Show

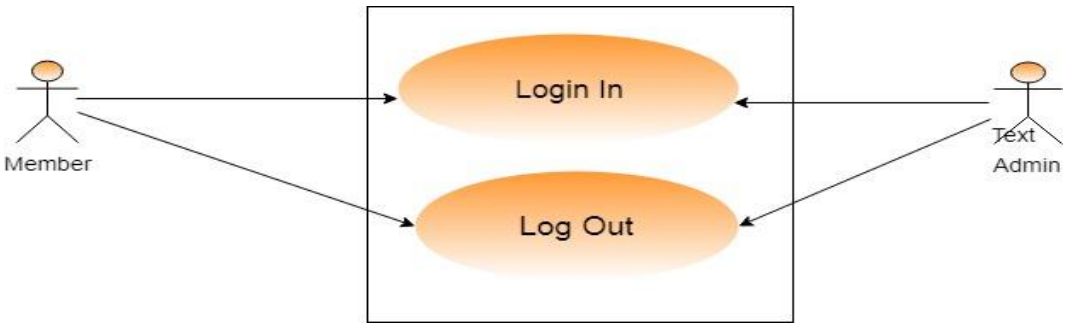

Figure-3.4: Use Case for Log In/Log out

3.1.4 Use Case Description Log In

Table-3.4: Use Case Description Log In

Use Case Name	Log In
Primary Actor	1.Admin 2.Member
Secondary Actor	None
Trigger	To enter the system
Precondition	Must have an account on this system
Post condition	Click log out
Basic path	1. View log in window. 2. Click on „Log In“ button. 3. Input User name or User ID & Password. 4. Proceed to the next activity.
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Paths	Redirect Page Again

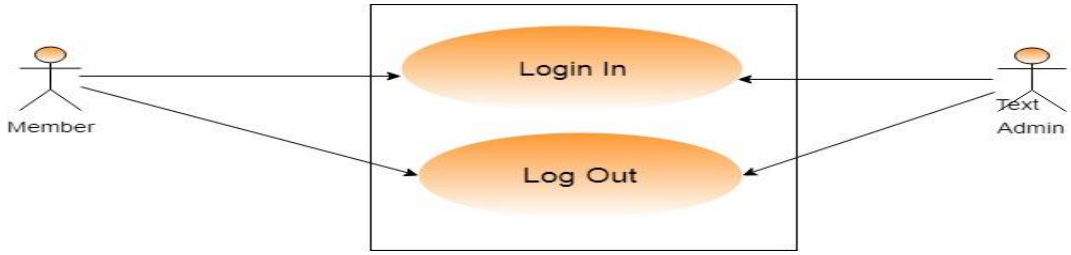

Figure-3.5: Use Case for Log In/Log out

3.1.5 Use Case Description Log out

Table-3.5: Use Case Description Log out

Use Case Name	Log out
Primary Actor	1.Admin 2.Member
Secondary Actor	None
Trigger	To exit from the system.
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	1.Click Sign out
Basic path	1. View log in window. 2. Click on „Log In“ button. 3. Input User name or User ID & Password. 4. Proceed to the next activity.
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative paths	Redirect Page Again

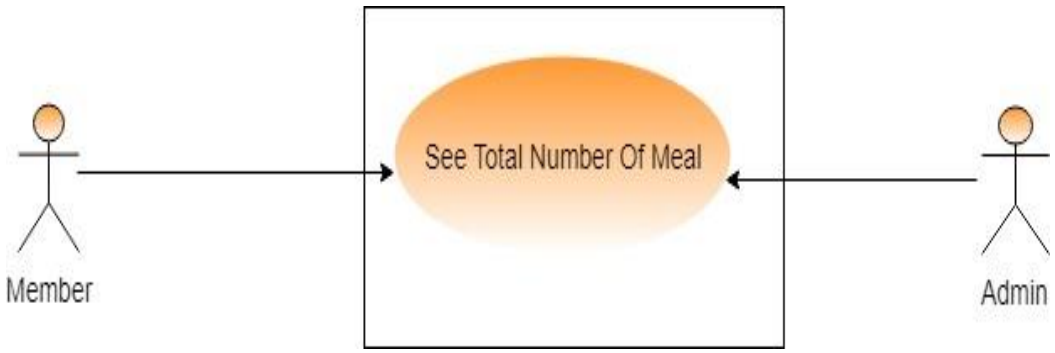

Figure-3.6: Use Case for See Total number of meal

3.1.6 Use Case Description See Total Number of Meal

Table-3.6: Use Case Description See Total Number of Meal

Use Case Name	See Total Number of Meal
Primary Actor	1.Member
Secondary Actor	1.Admin
Goal in Context	See Total Number of Meal
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	Sign out after see total number of meal
Trigger	1. Click Meal Menu 2.Click Meal list
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	None

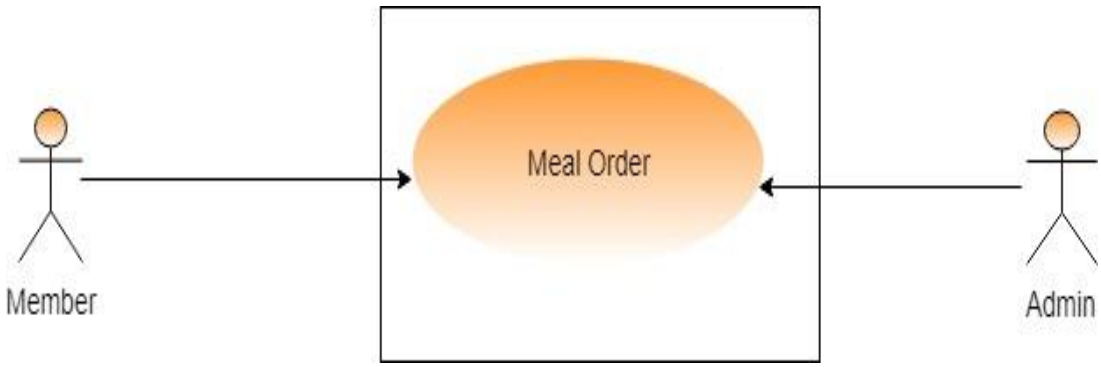

Figure-3.7: Use Case for Meal Order

3.1.7 Use Case Description Meal Order

Table-3.7: Use Case Description Meal Order

Use Case Name	Meal order
Primary Actor	1.Member
Secondary Actor	2.Admin
Trigger	Place meal order online
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	Order Meal Before deadline
Basic Path	1.Click Meal Order 2.Click Meal list 3.Select Meal 5.Confirm meal
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Phone call

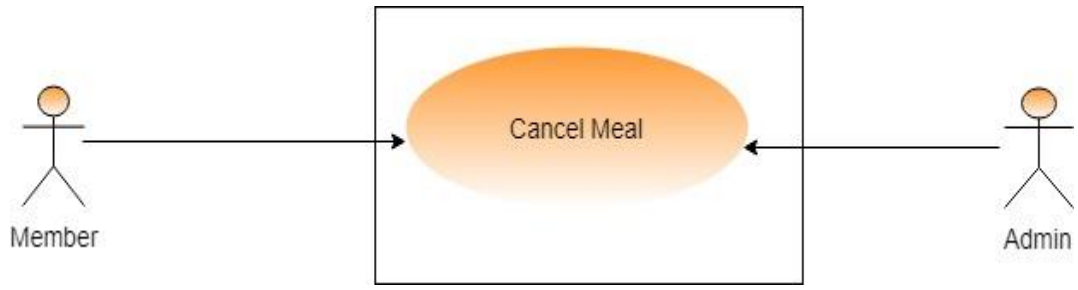

Figure-3.8: Use Case for Cancel Meal

3.1.8 Use Case Description Cancel Meal

Table-3.8: Use Case Description Cancel Meal

Use Case Name	Cancel Meal
Primary Actor	1.Admin
Secondary Actor	1.Member
Trigger	1.Cancel their meal easily
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	Cancel Meal Before deadline
Basic Path	1.Click Meal list 2.Select Meal 3.Cancel Meal
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

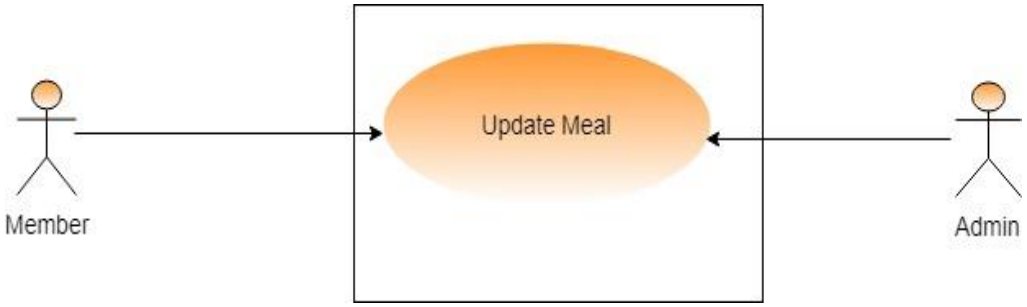

Figure-3.9: Use Case for Update Meal

3.1.9 Use Case Description Update Meal

Table-3.9: Use Case Description Update Meal

Use Case Name	Update Meal
Primary Actor	Member
Secondary Actor	Admin
Trigger	Update Meal
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	Cancel Meal Before deadline
Basic Path	1.Click Meal list 2.Select Meal 3.Cancel Meal
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

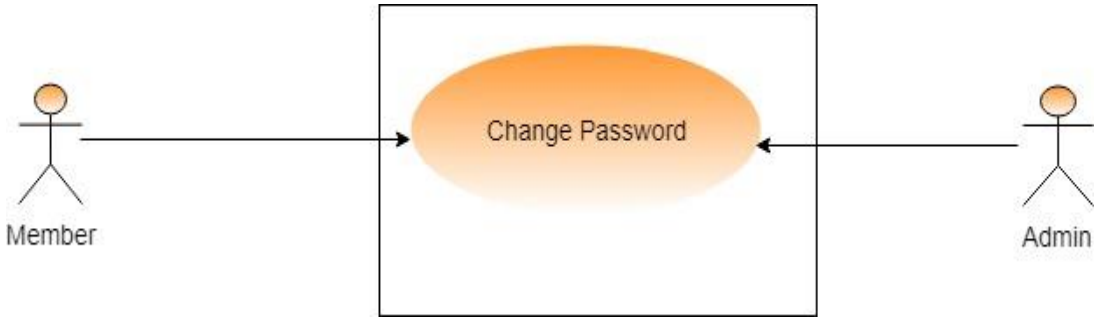

Figure-3.10: Use Case for Change Password

3.1.10 Use Case Description Change password

Table-3.10: Use Case Description Change password

Use Case Name	Change Password
Primary Actor	1.Admin 2.member
Secondary Actor	None
Trigger	1.To secure the system
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	1.Must have valid information 2.must have Old Password
Basic Path	1Click Change password 2.Enter Old Password 3.Enter New Password 4.Enter confirm Password 5.Password Change
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

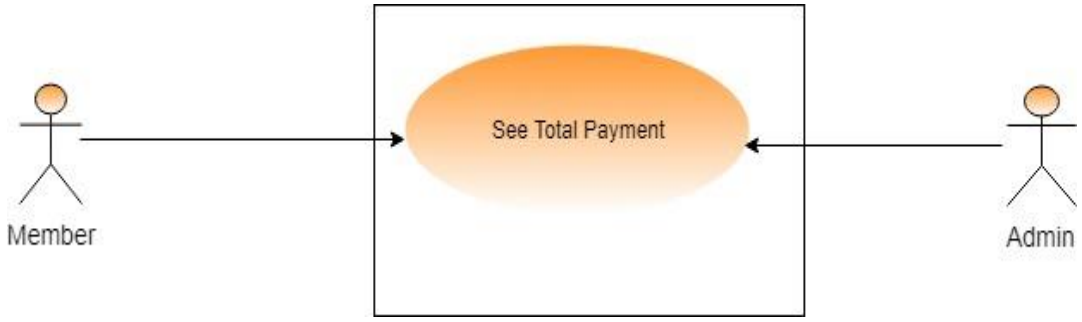

Figure-3.11: Use Case for See total payment

3.1.11 Use Case Description See Total Payment

Table-3.11: Use Case Description See Total Payment

Use Case Name	See total payment
Primary Actor	1.Member
Secondary Actor	1.Admin
Trigger	See the total payment
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	Member should be registered
Basic Path	1. click members account 2.login to the account 3.See total Payment
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Message Show

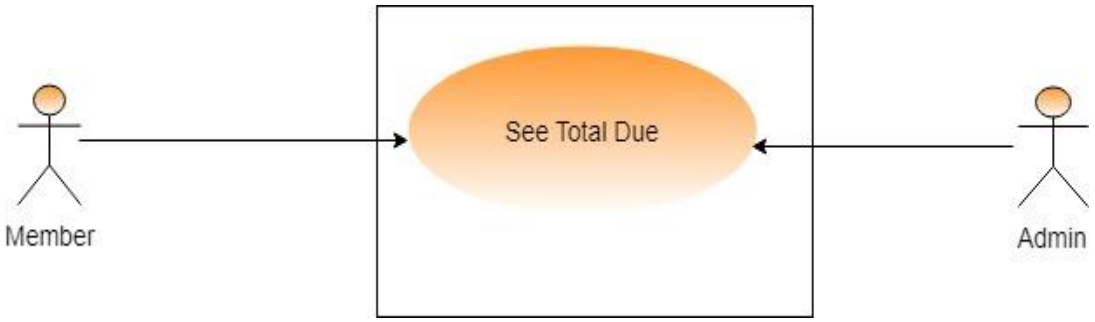

Figure-3.12: Use Case for See total due

3.1.12 Use Case Description See Total Due

Table-3.12: Use Case Description See Total Due

Use Case Name	See total due
Primary Actor	1.Member
Secondary Actor	Admin
Trigger	See total due
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	1.Member must be registered
Basic Path	1. click members account 2.login to the account 3.See total Due
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

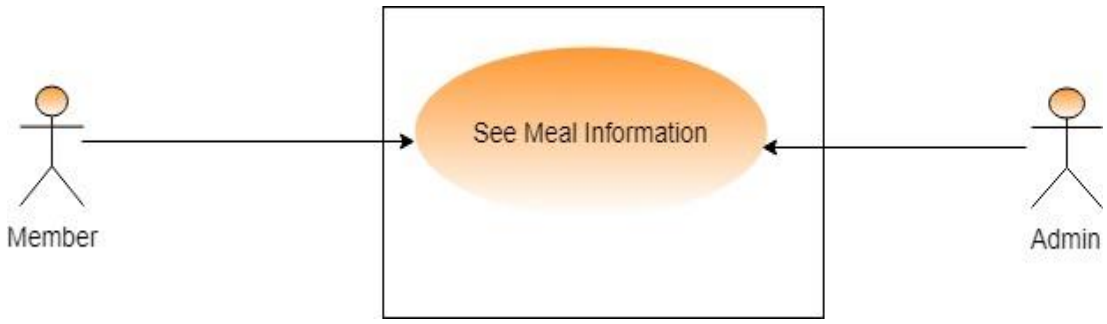

Figure-3.13: Use Case for See Meal Information

3.1.13 Use Case Description See Meal Information

Table-3.13: Use Case Description See Meal Information

Use Case Name	See Meal Information
Primary Actor	Member
Secondary Actor	Admin
Trigger	See Meal Information
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	None
Basic Path	1. Click Student 2. Click Follow up 3. See Follow up
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

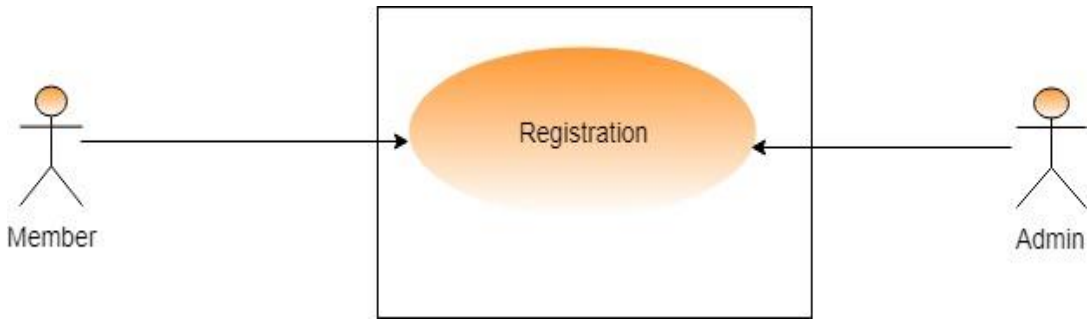

Figure-3.14: Use Case for Registration

3.1.14 Use Case Description Registration

Table-3.14: Use Case Description Registration

Use Case Name	Registration
Primary Actor	Member
Secondary Actor	None
Trigger	1.To Enter the system 2. Submit data
Precondition	1. Must have an account on this system 2. Must be logged in
Post condition	Should have Valid ID.
Basic Path	1. Click Registration 2. Fill up Information 3. Registration Done.
Possible Enhancement	None
Priority	Essential, must be implemented.
Frequency of Use	Many times per day
Alternative Path	Redirect Page Again

3.2 Activity diagram

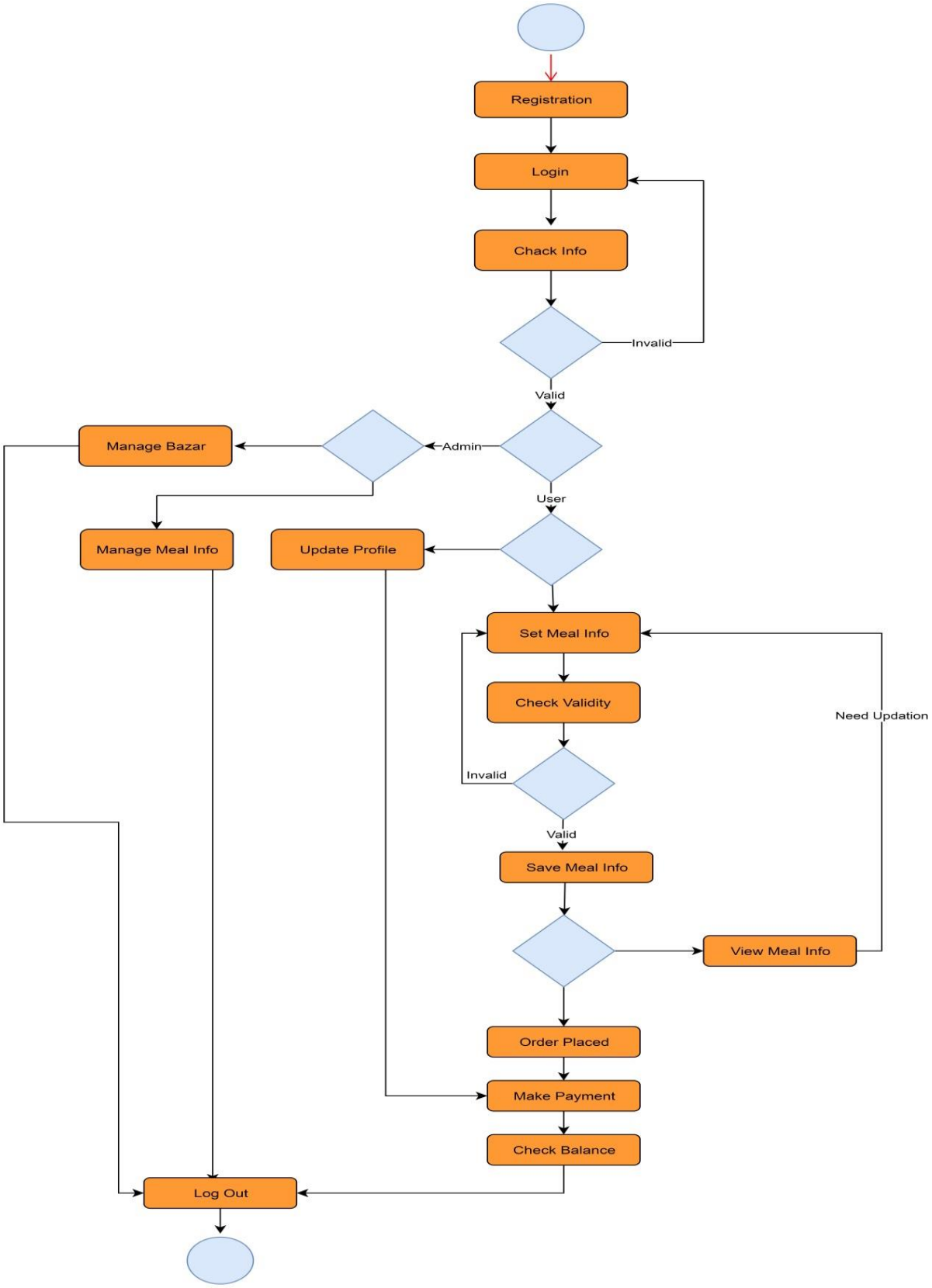

Figure 3.15: Activity diagram

3.2.1 Activity diagram of login

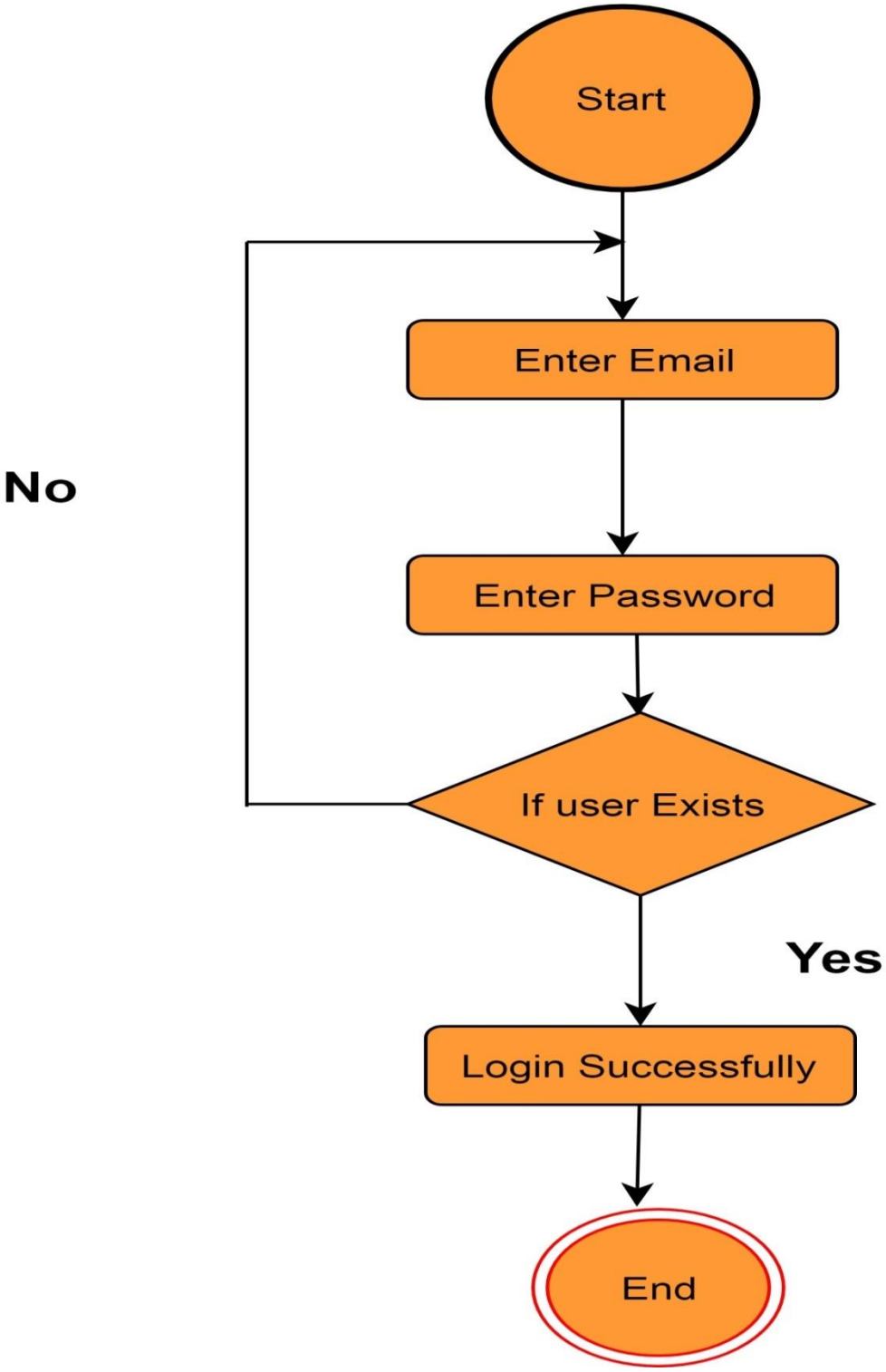

Figure 3.16: Activity diagram of login

3.2.2 Activity diagram of logout

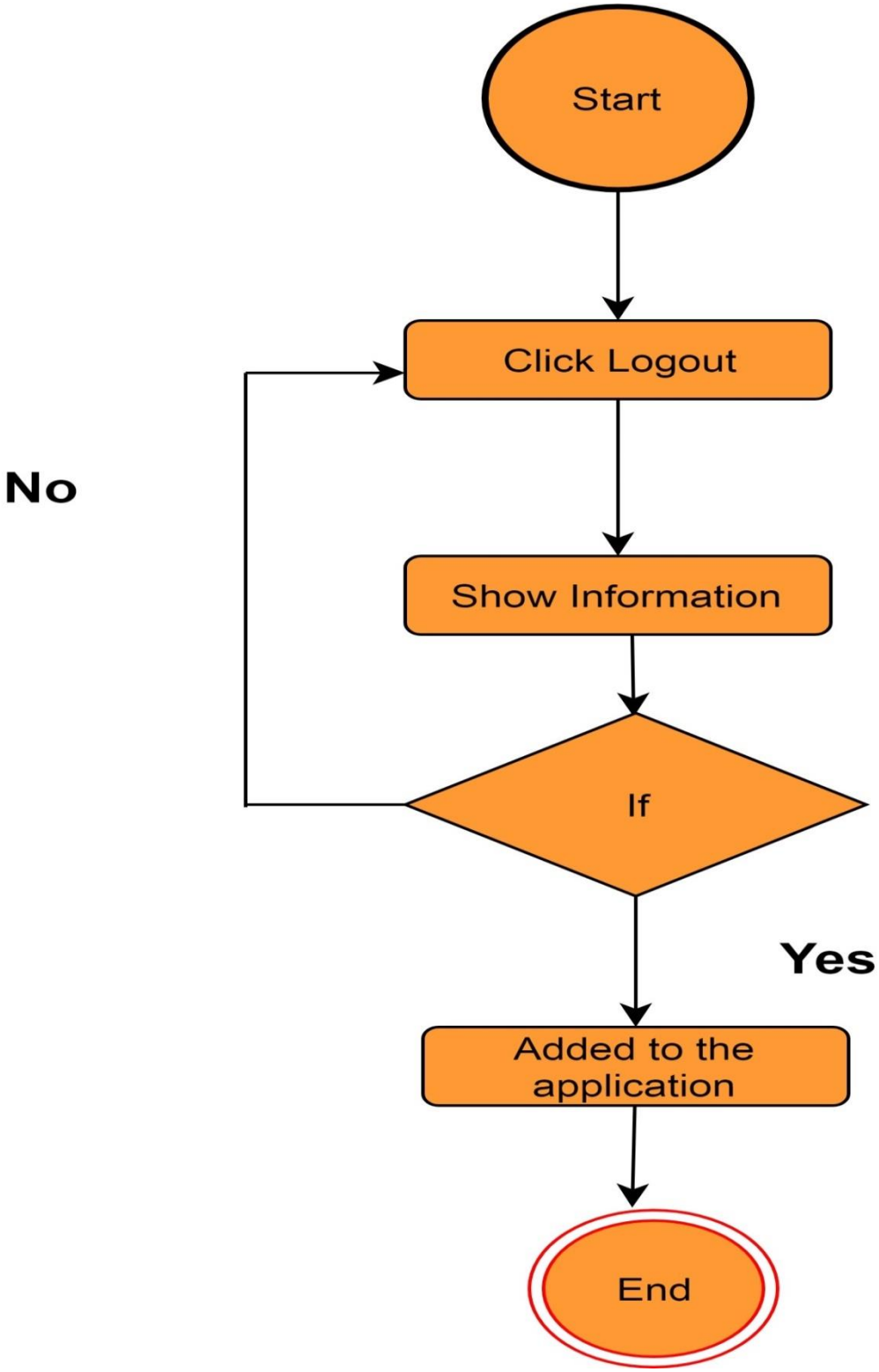

Figure 3.17: Activity diagram of logout

3.2.3 Activity diagram of Registration

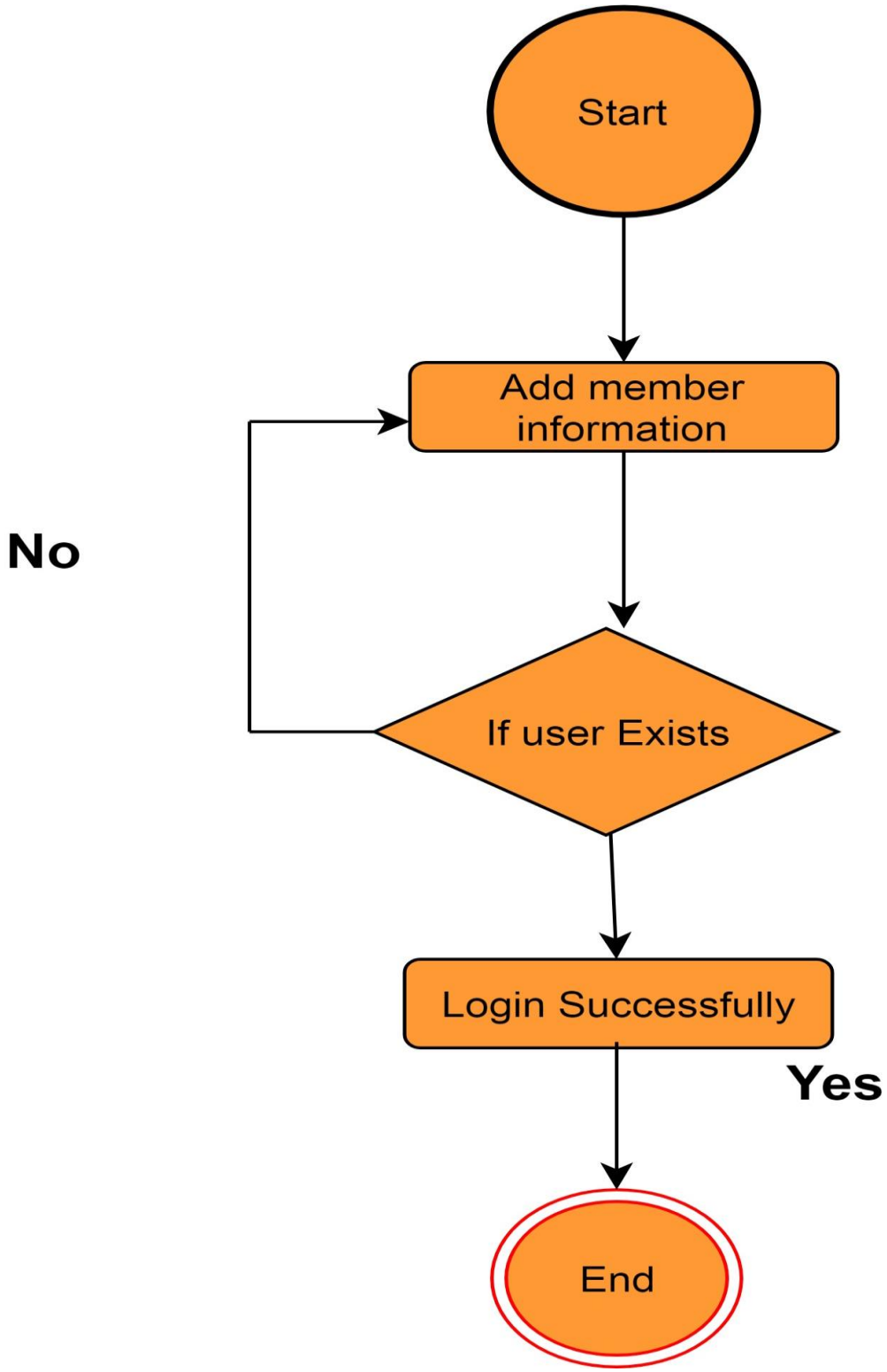

Figure 3.18: Activity diagram of Registration

3.2.4 Activity diagram of Bazar Cost

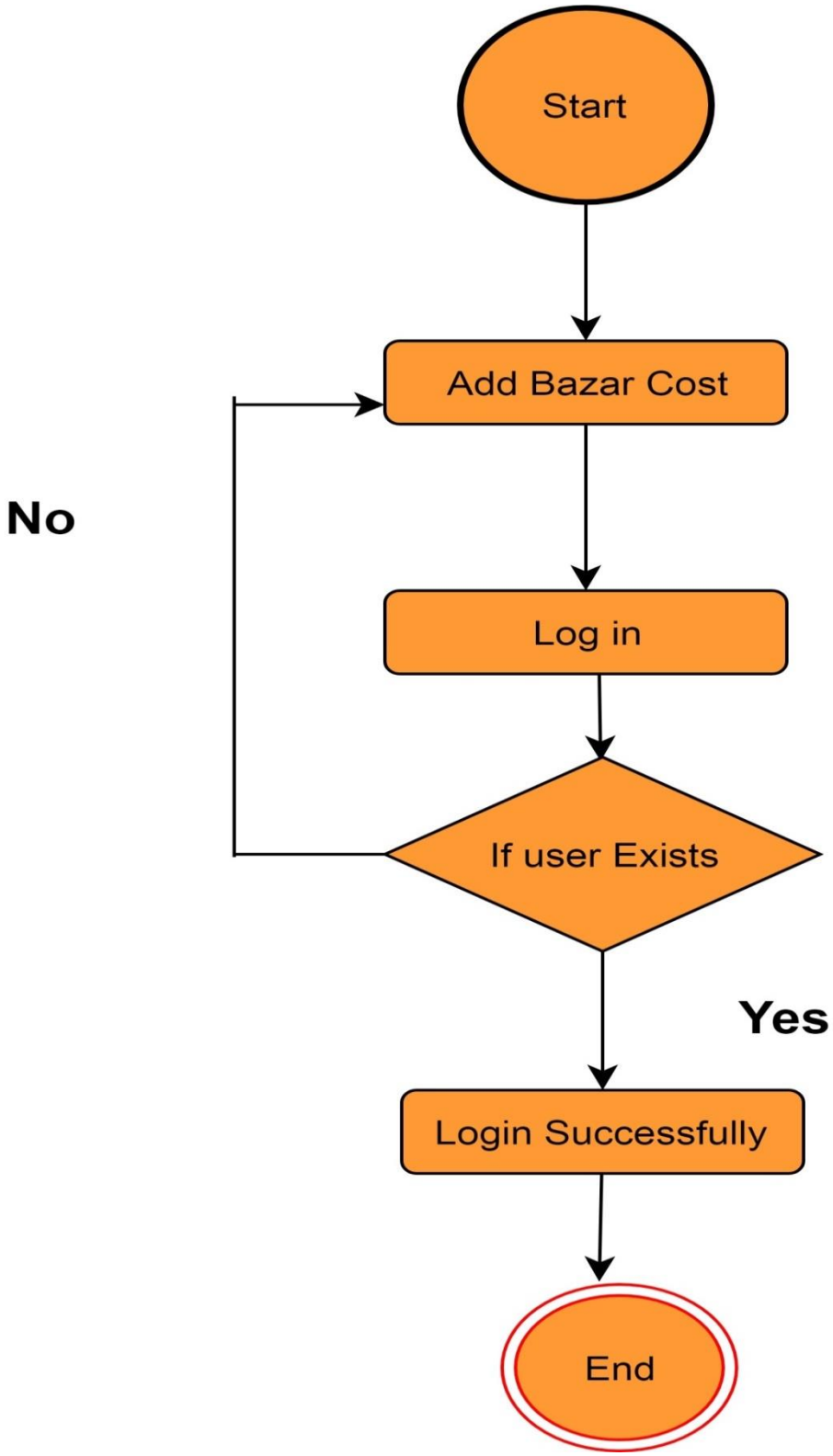

Figure 3.19: Activity diagram of add bazar cost

3.2.5 Activity diagram of See Total Number of Meal

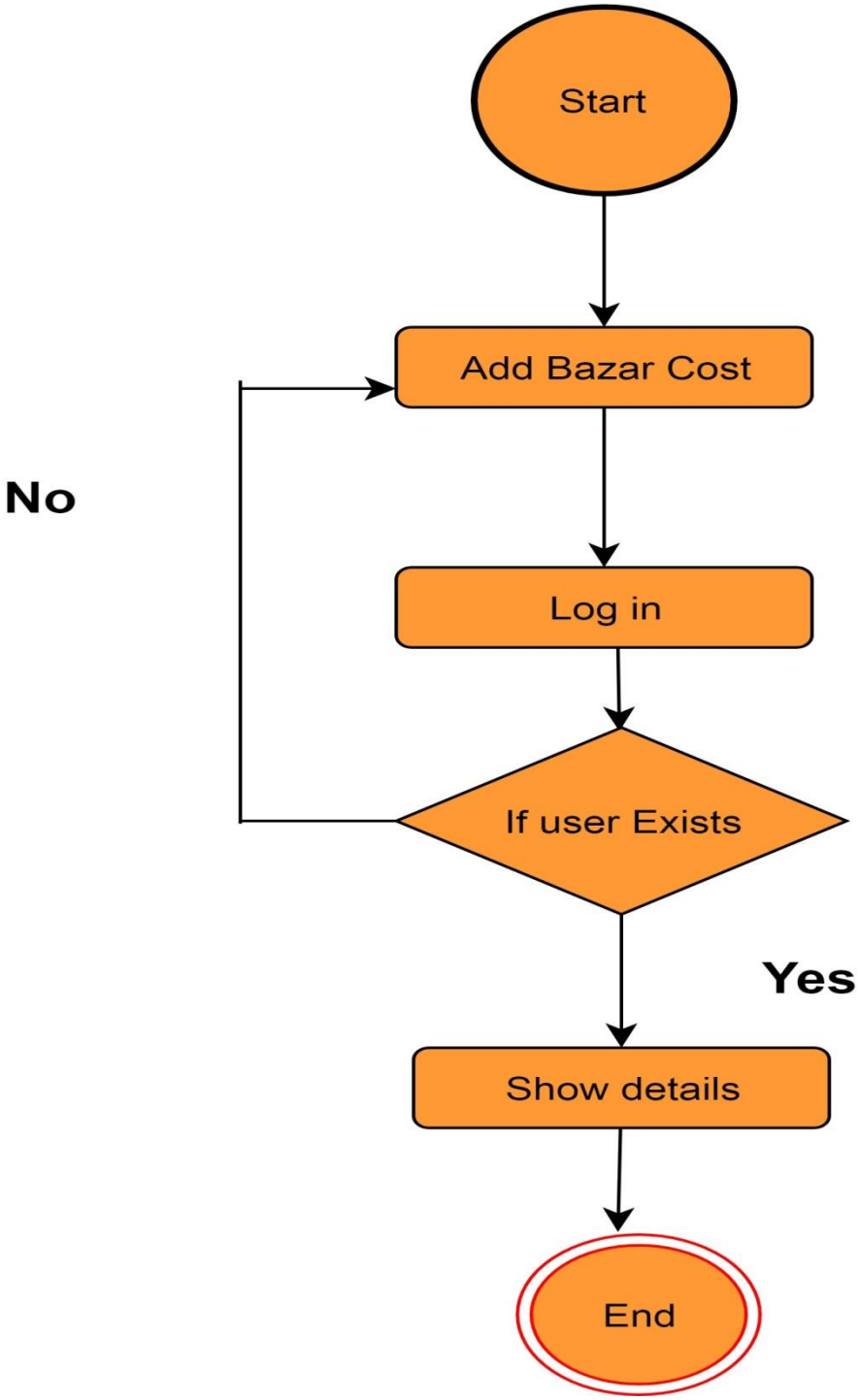

Figure 3.20: Activity diagram of See total number of meal

3.2.6 Activity diagram of Meal Order

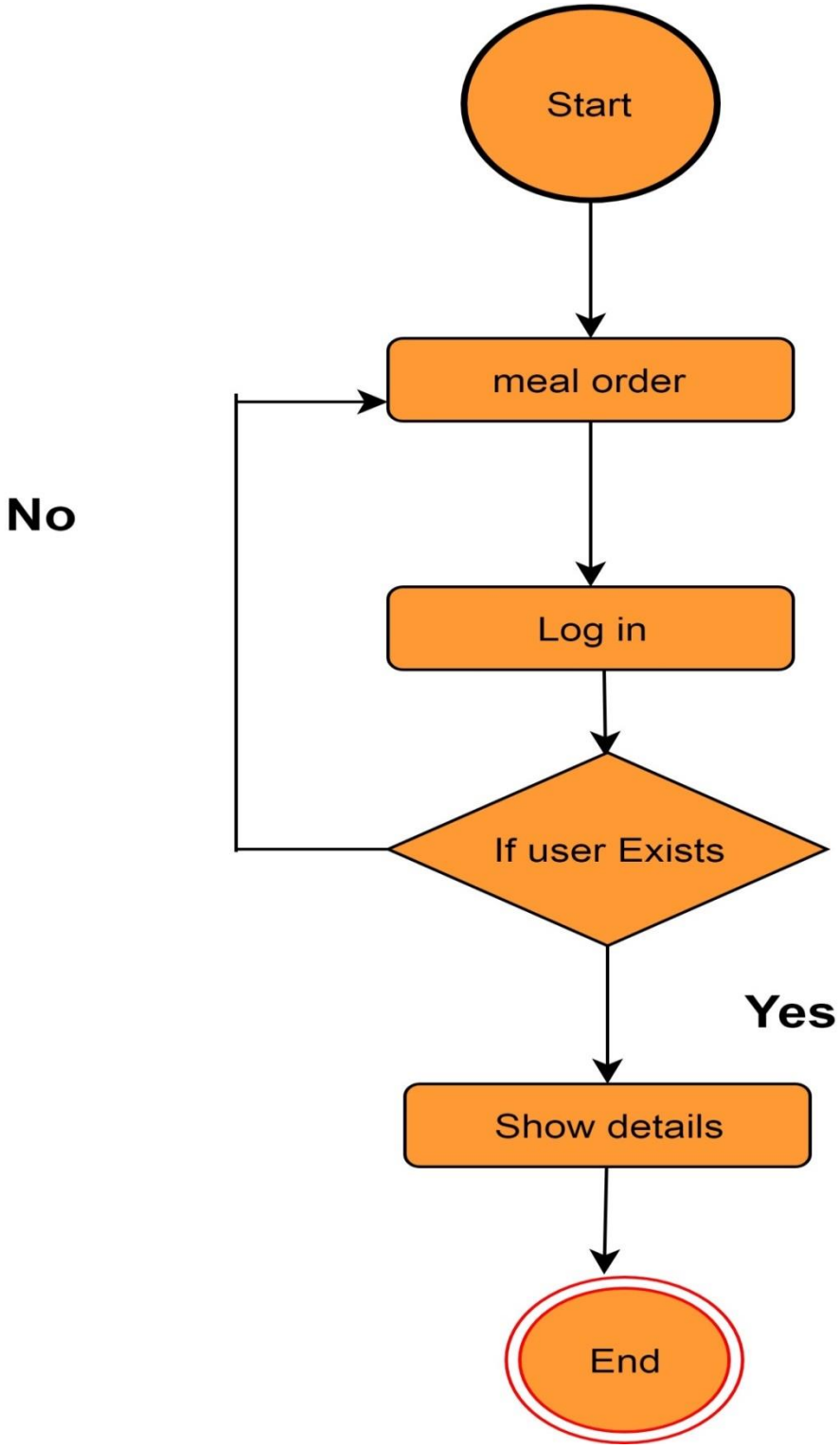

Figure 3.21: Activity diagram of meal order

3.2.7 Activity diagram of Cancel Meal

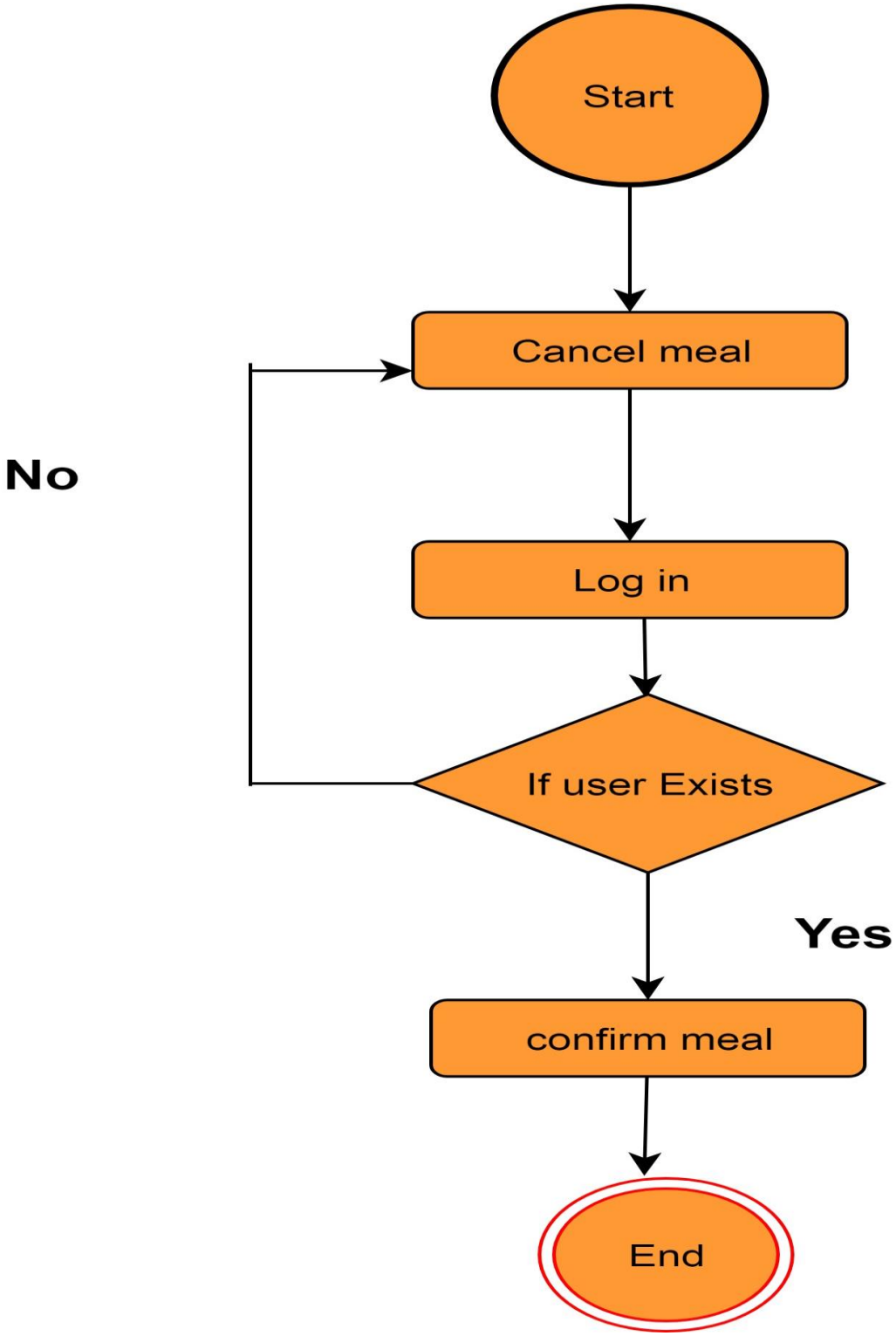

Figure 3.22: Activity diagram of cancel meal

3.2.8 Activity diagram of Update Meal

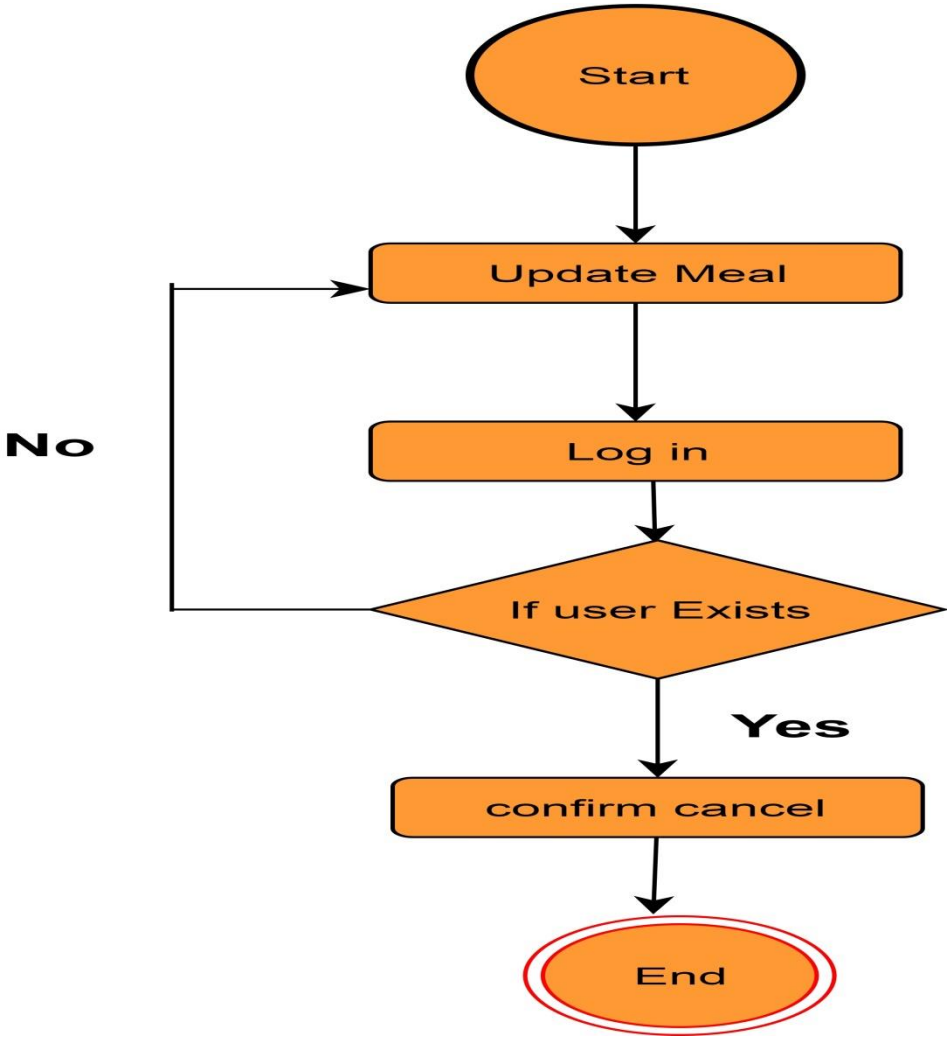

Figure 3.23: Activity diagram of update meal

3.2.9 Activity diagram of Change password

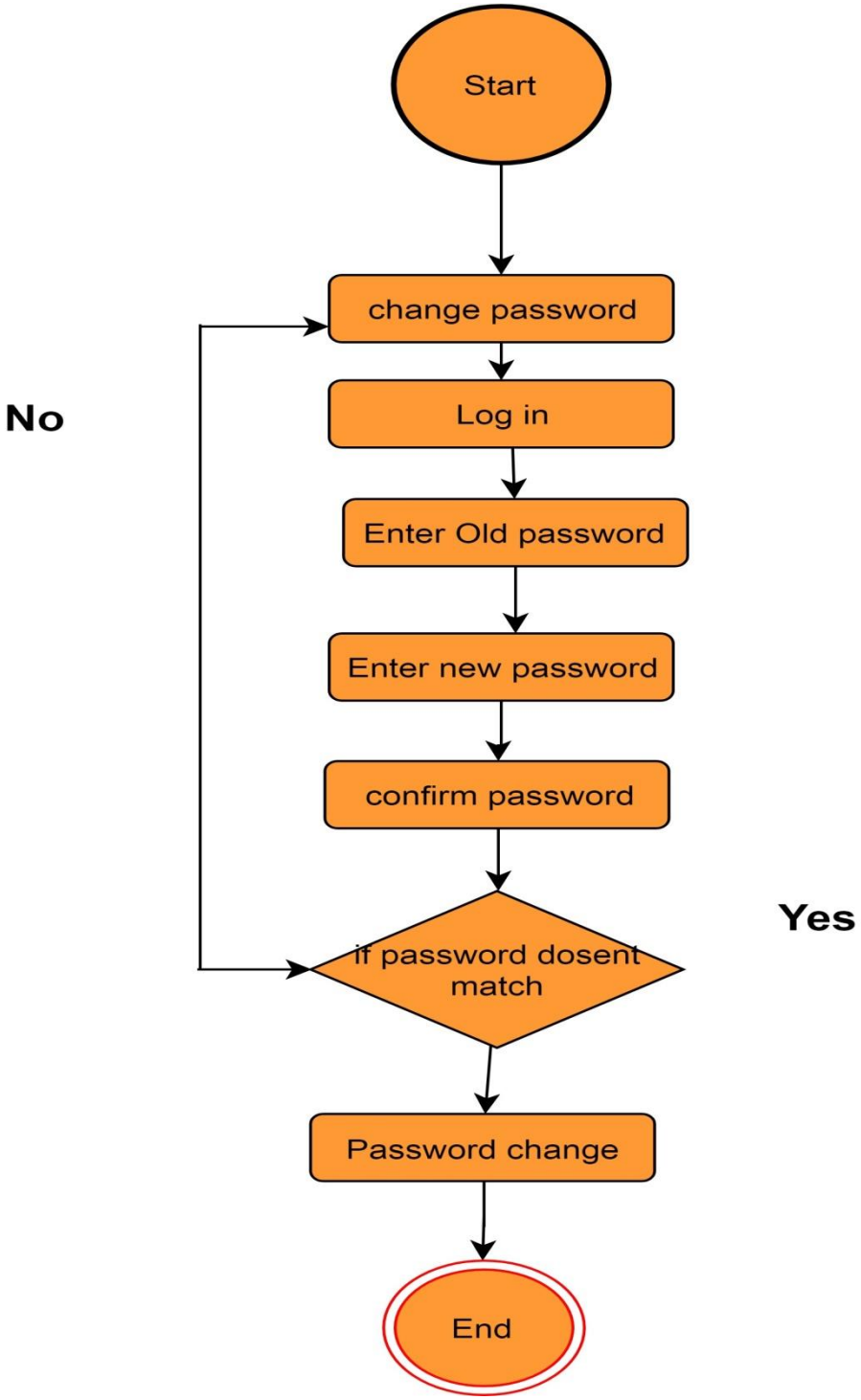

Figure 3.24: Activity diagram of change password

3.2.10 Activity diagram of See Total Payment

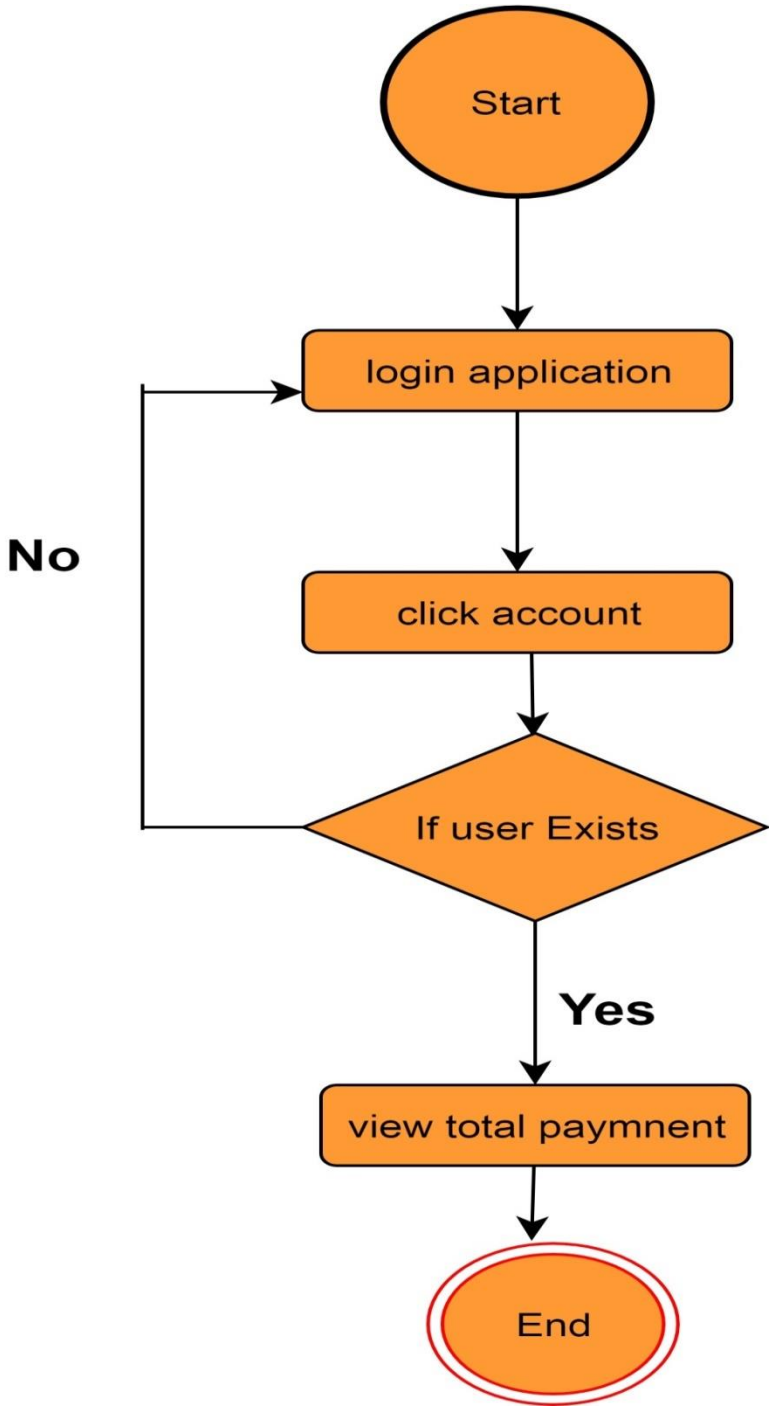

Figure 3.24: Activity diagram of total meal

3.2.11 Activity diagram of See Total Due

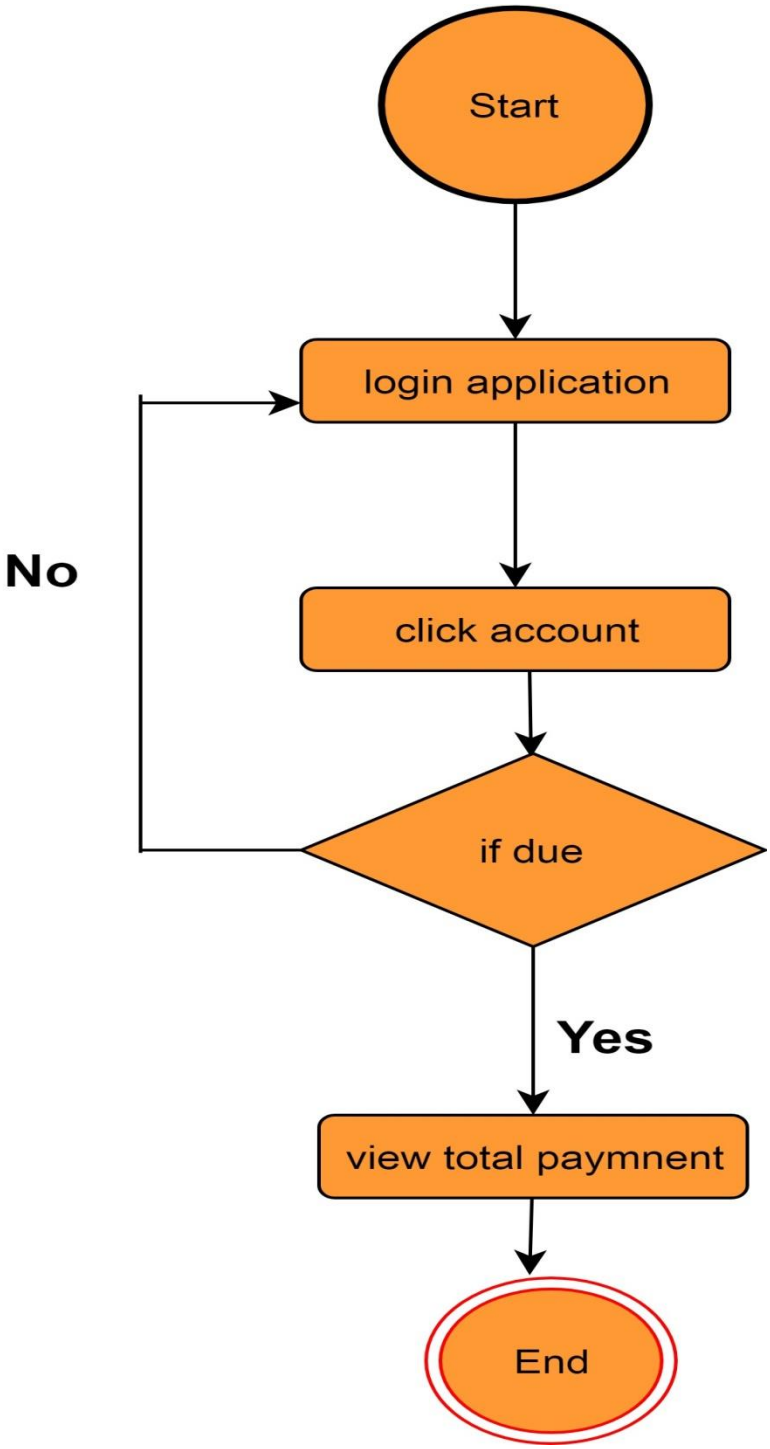

Figure 3.25: Activity diagram of See Total due

3.2.12 Activity diagram of See Meal Information

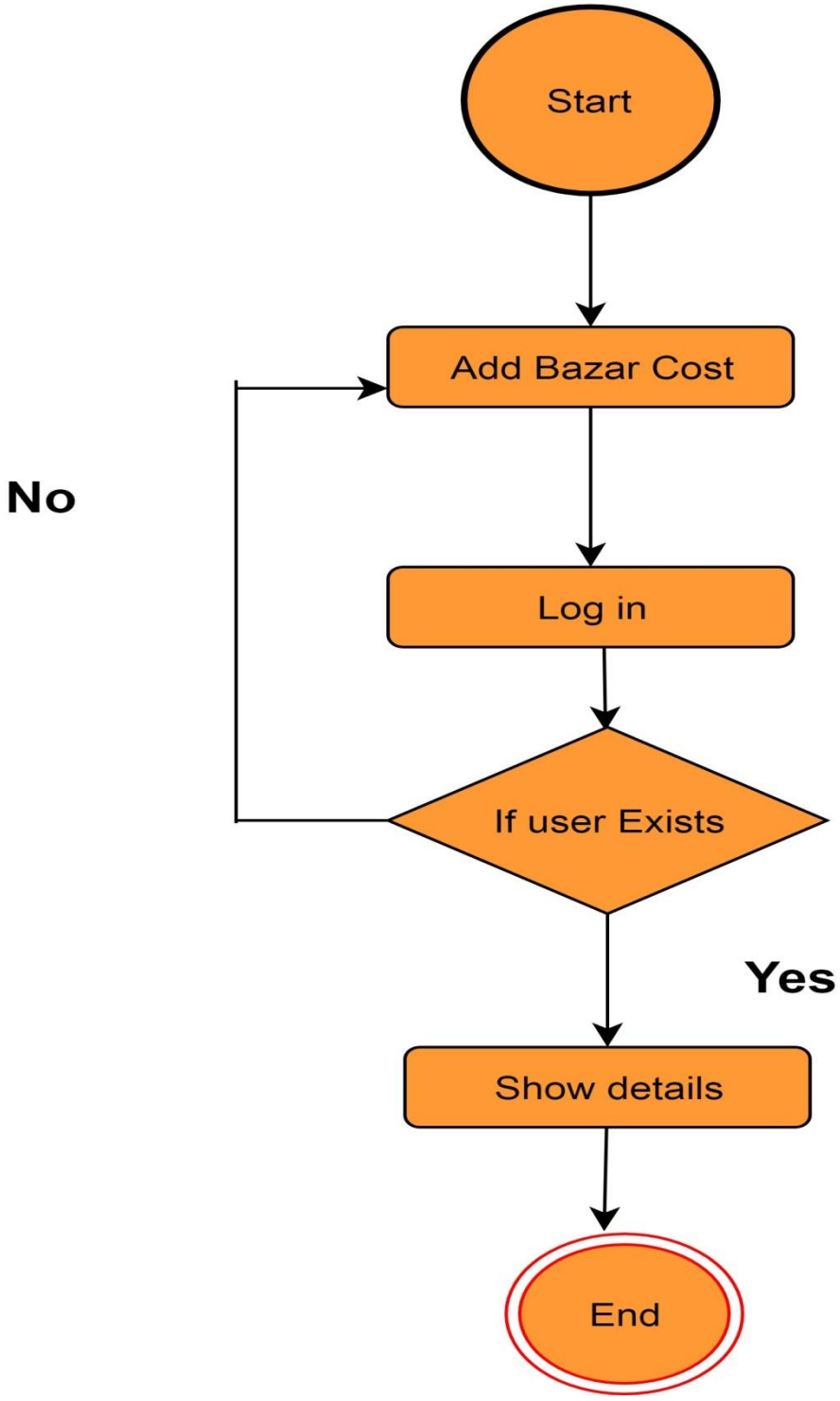

Figure 3.26: Activity diagram of See Meal Information

3.3 System Sequence Diagram

A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involve in the scenario and the sequence or messages exchange between the objects needed to carry out the functionality of the scenario.

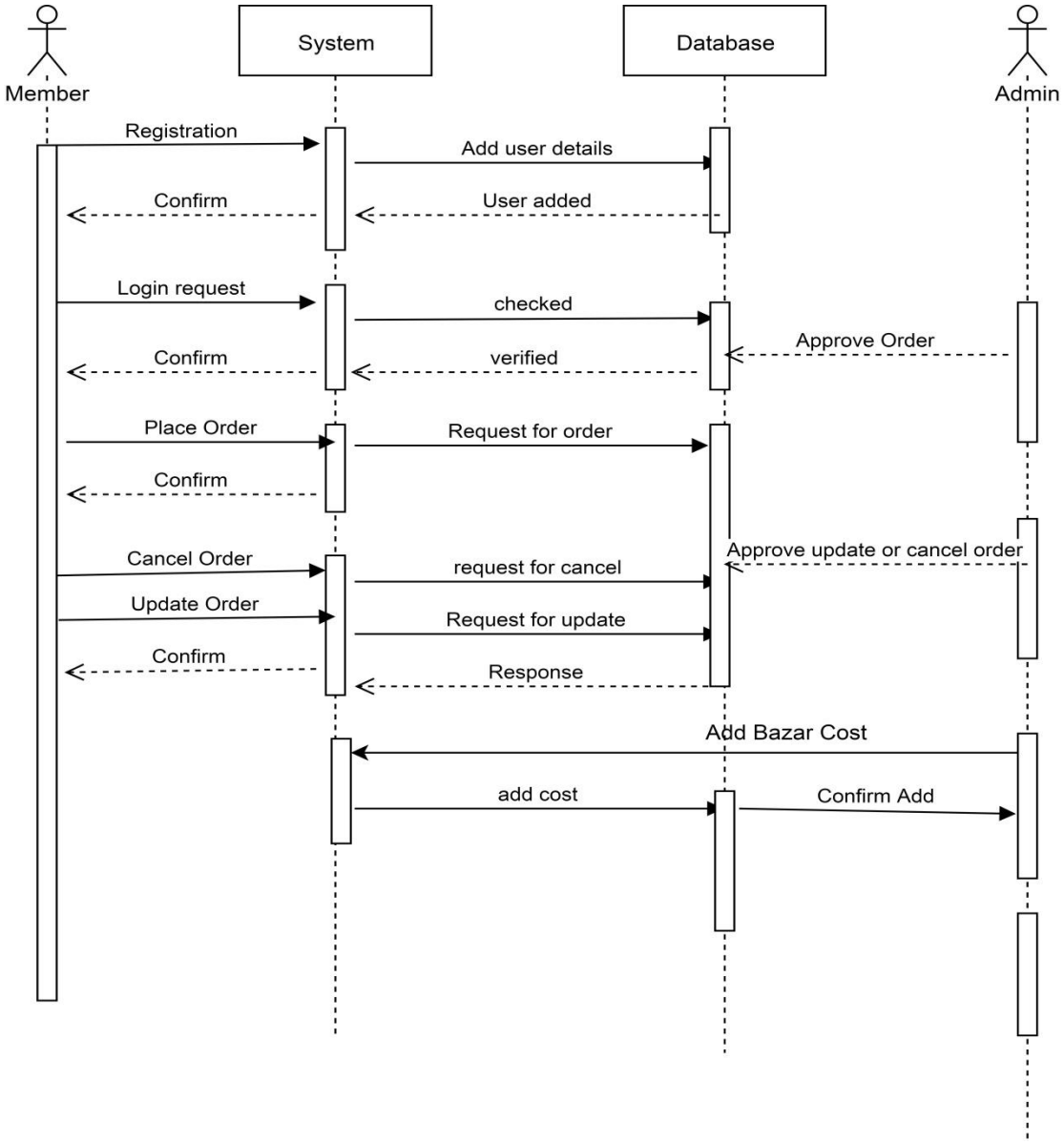

Figure 3.28: System Sequence Diagram

3.3.1 Admin Perspective Sequence Diagram

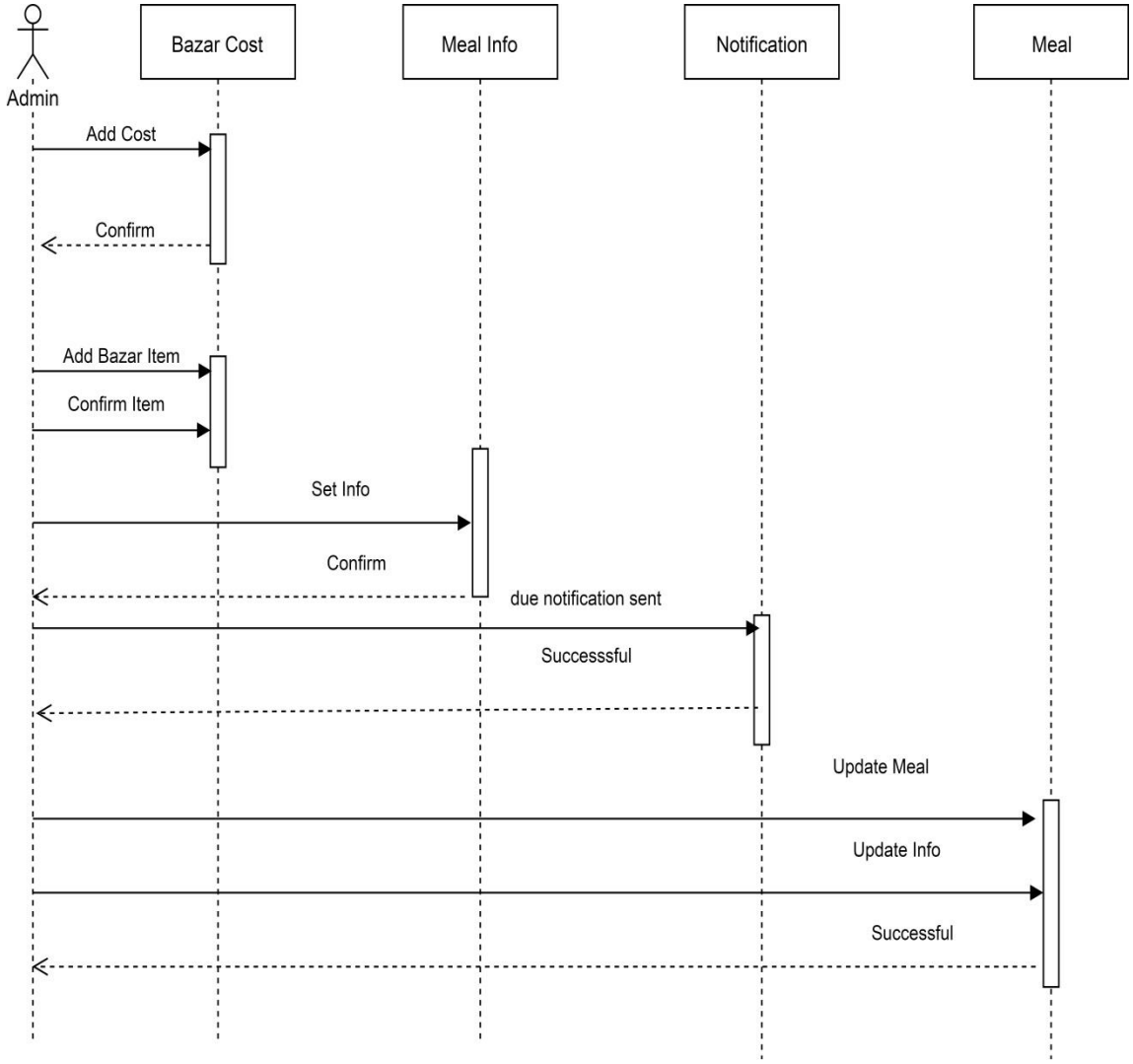

Figure-3.29: Admin Perspective Sequence Diagram

3.3.2 Users Perspective Sequence Diagram

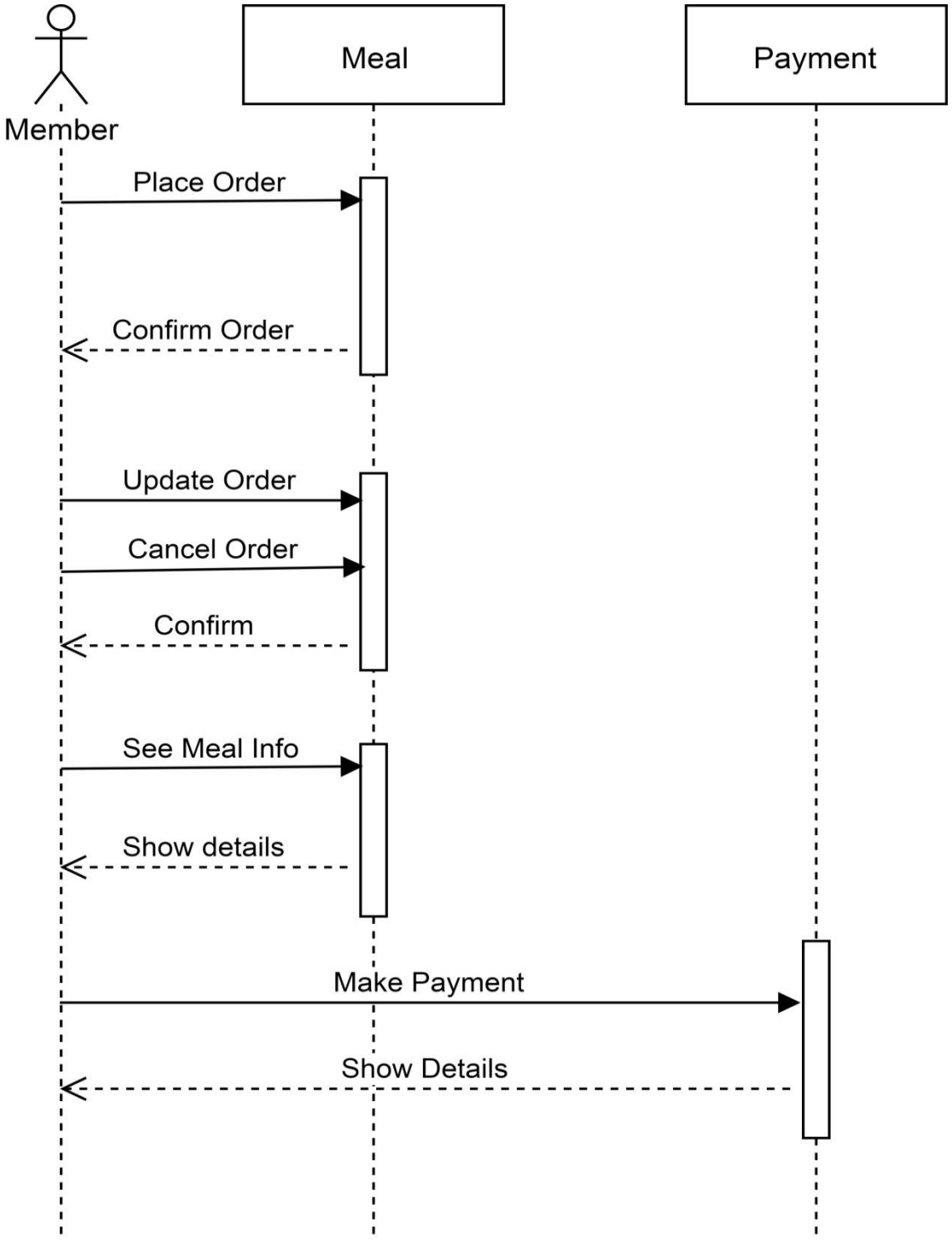

Figure-3.30: Users Perspective Sequence Diagram

3.3.3 Sequence Diagram of Member Login

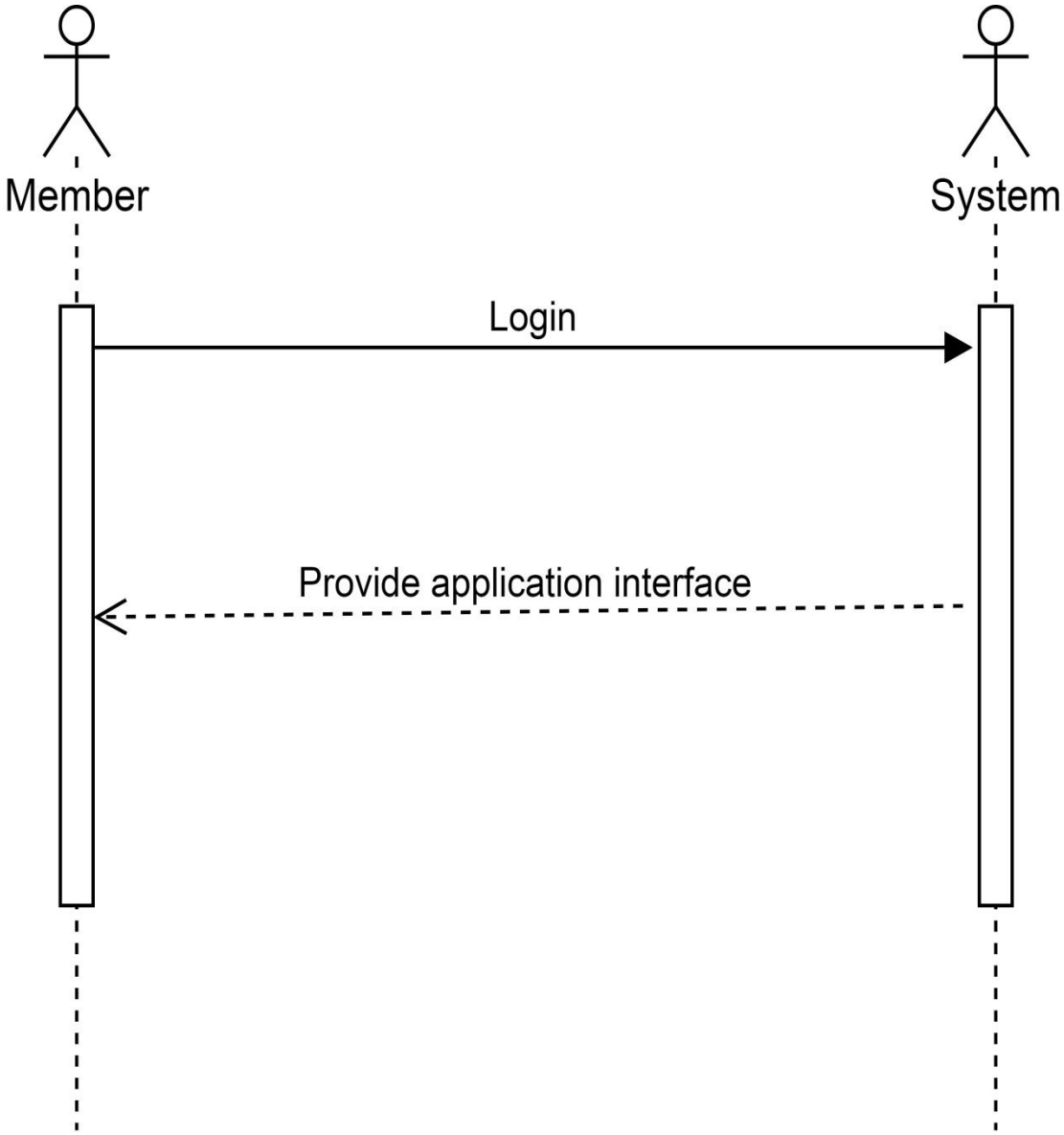

Figure-3.31: Sequence Diagram of member login

3.3.4 Sequence Diagram of Member Registration

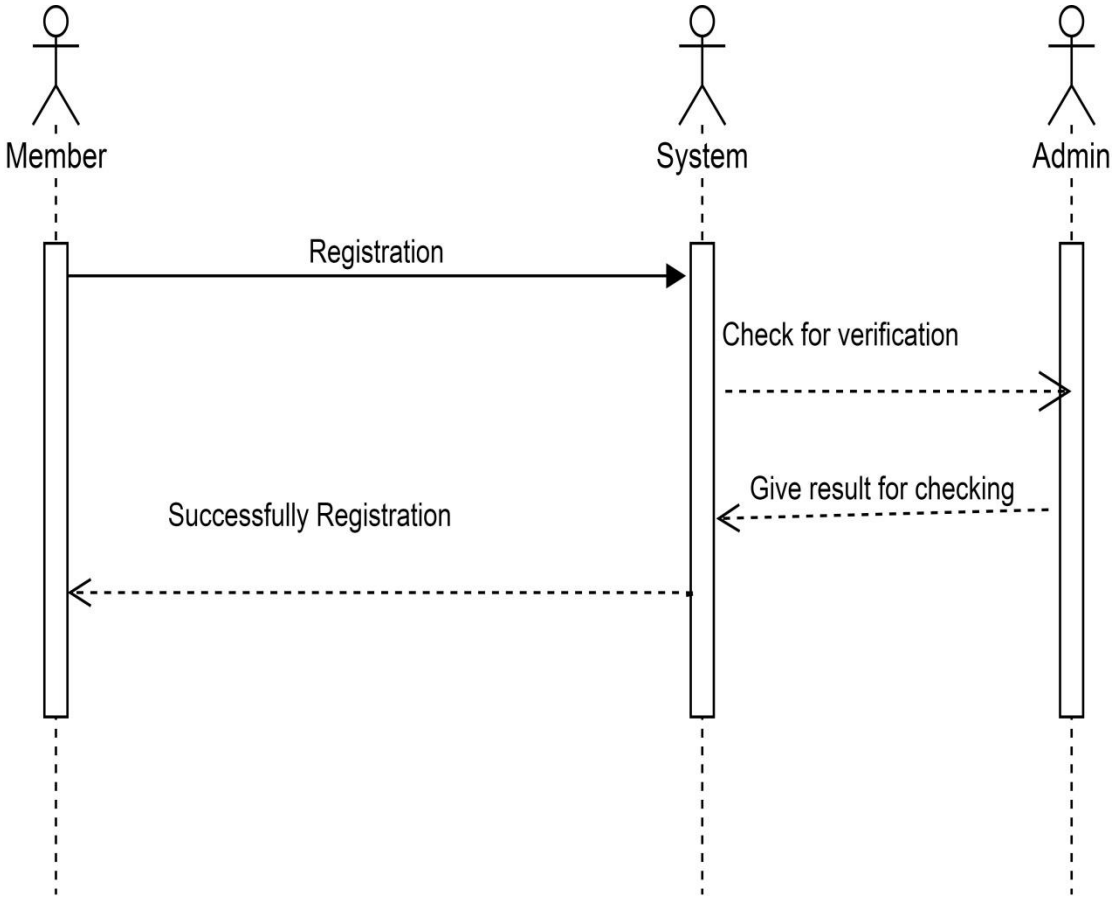

Figure-3.32: Sequence Diagram of member Registration

3.3.5 Sequence Diagram of Add Bazar Cost

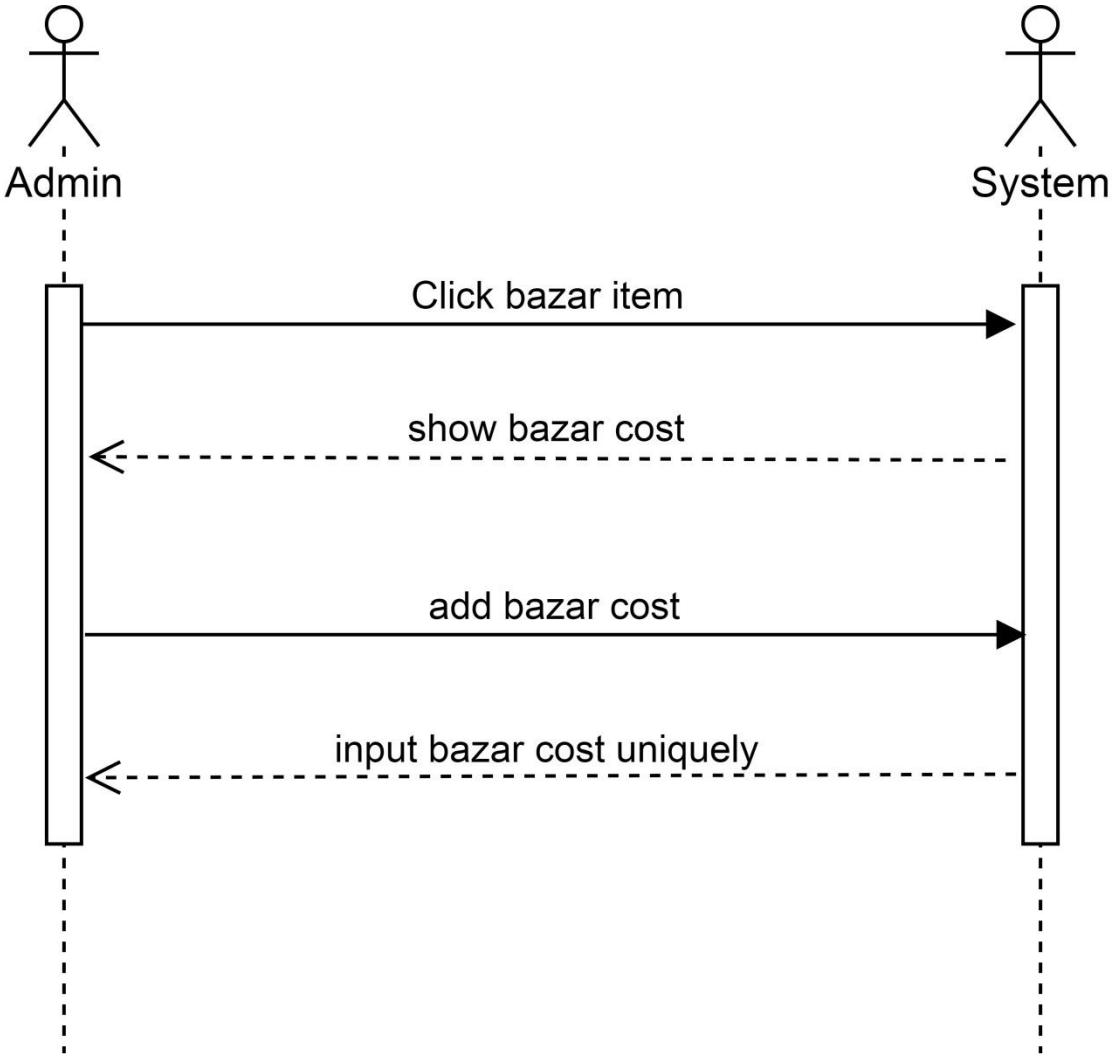

Figure-3.33: Sequence Diagram of add bazar cost

3.3.6 Sequence Diagram of See Total Number of meal

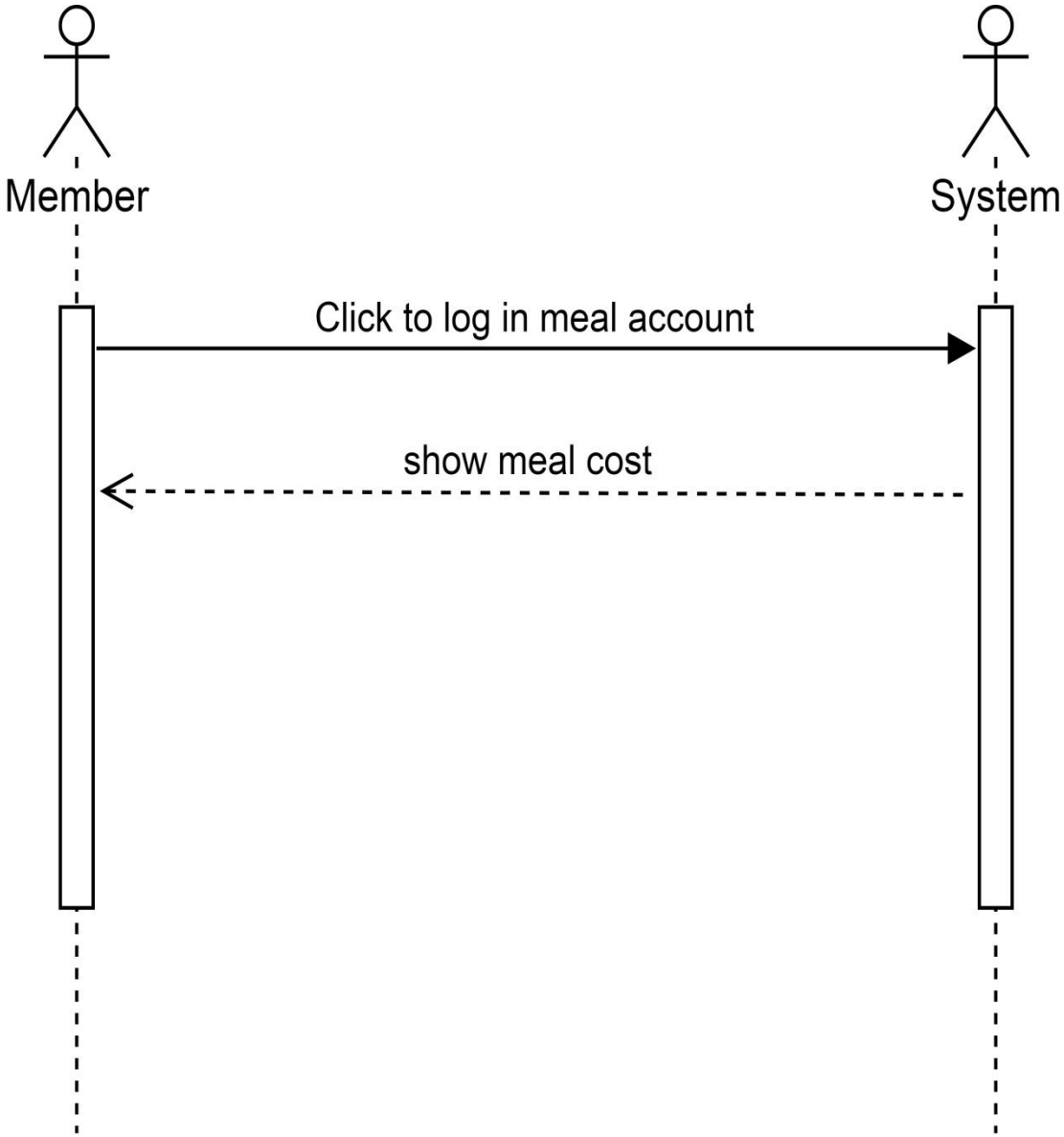

Figure-3.34: Sequence Diagram of see total number of meal

3.3.7 Sequence Diagram of Meal order

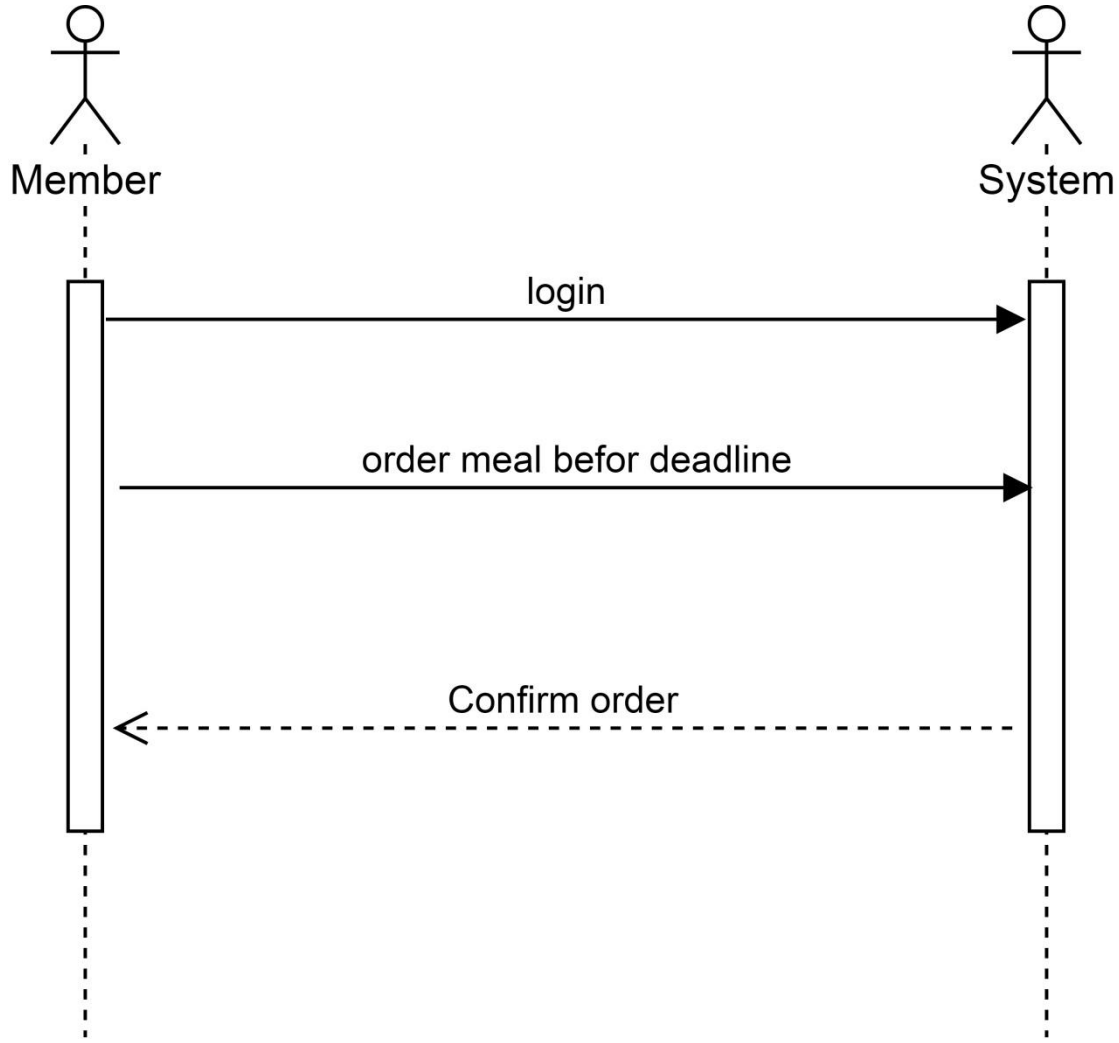

Figure-3.35: Sequence Diagram of meal order

3.3.8 Sequence Diagram of Cancel Meal

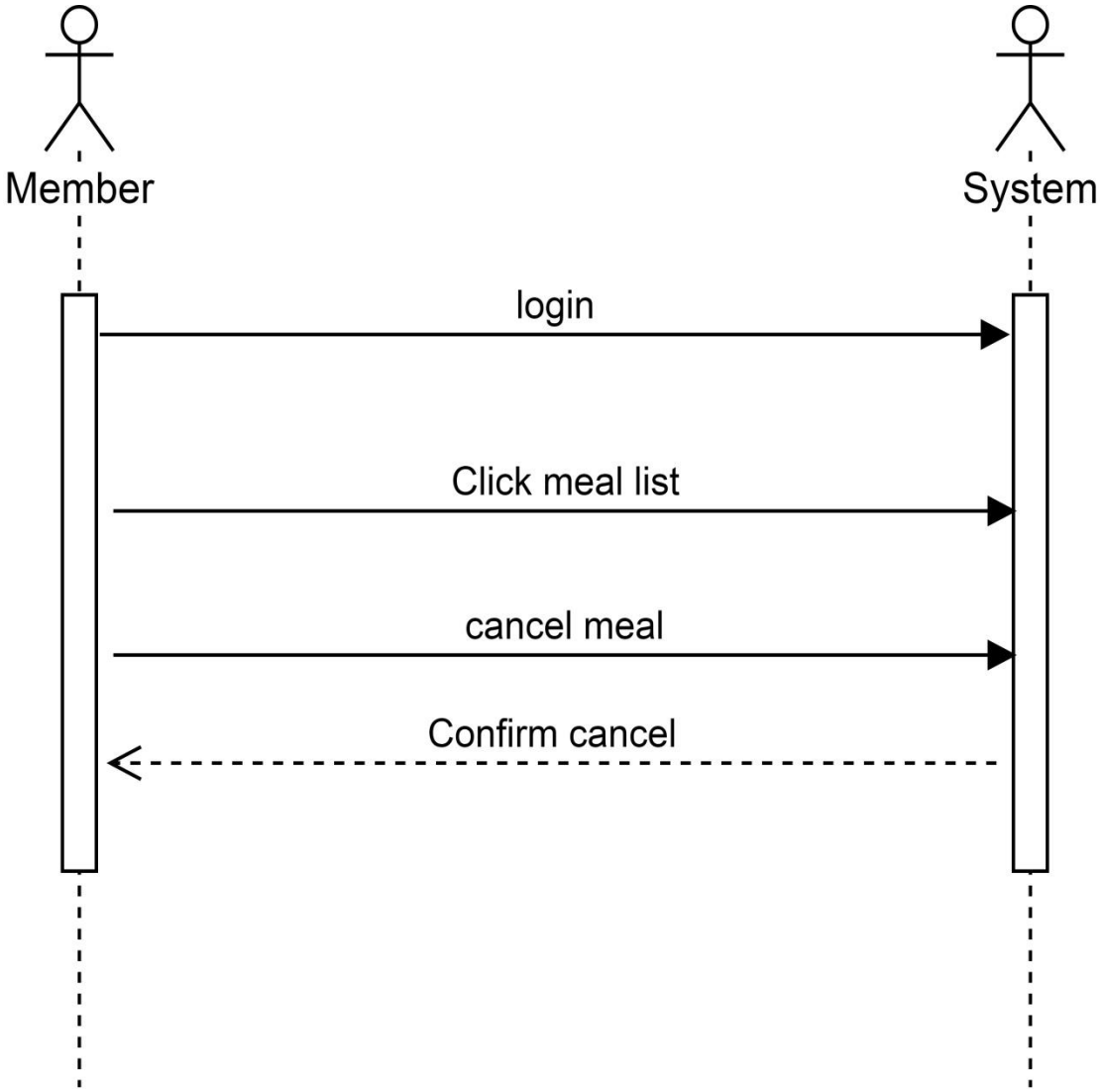

Figure-3.36: Sequence Diagram of cancel meal

3.3.9 Sequence Diagram of Update Meal

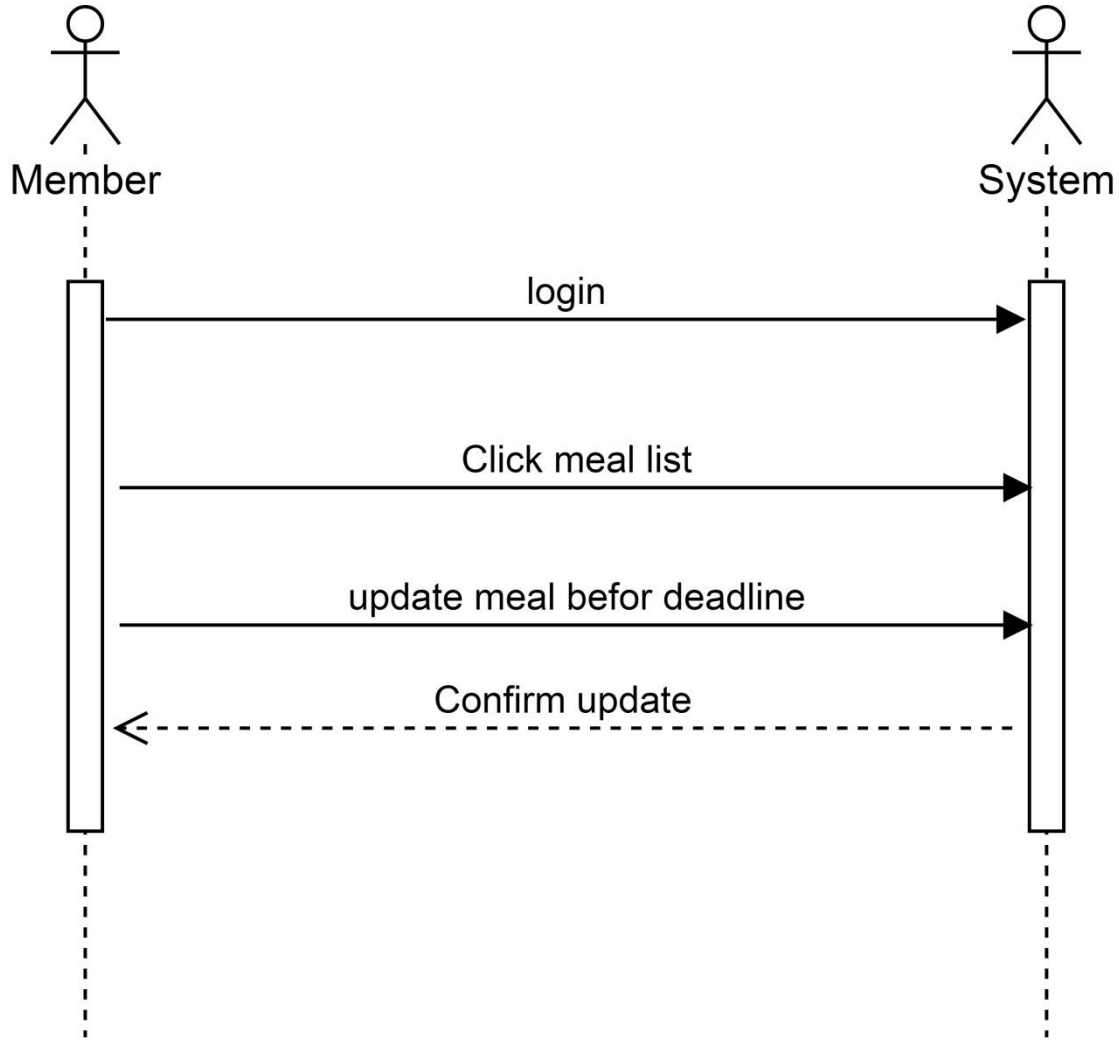

Figure-3.37: Sequence Diagram of update meal

3.3.10 Sequence Diagram of Change Password

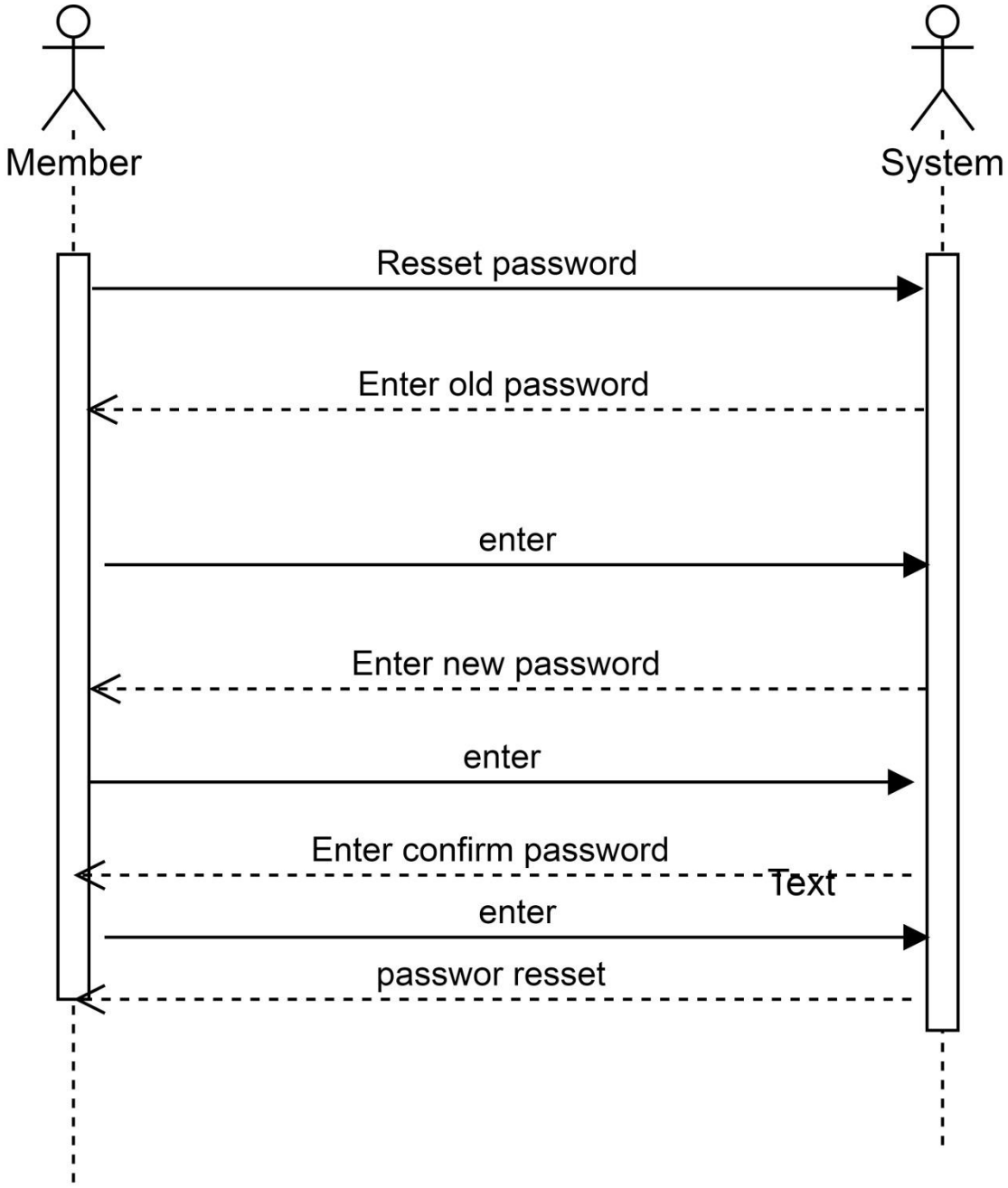

Figure-3.38: Sequence Diagram of change password

3.3.11 Sequence Diagram of See total Payment

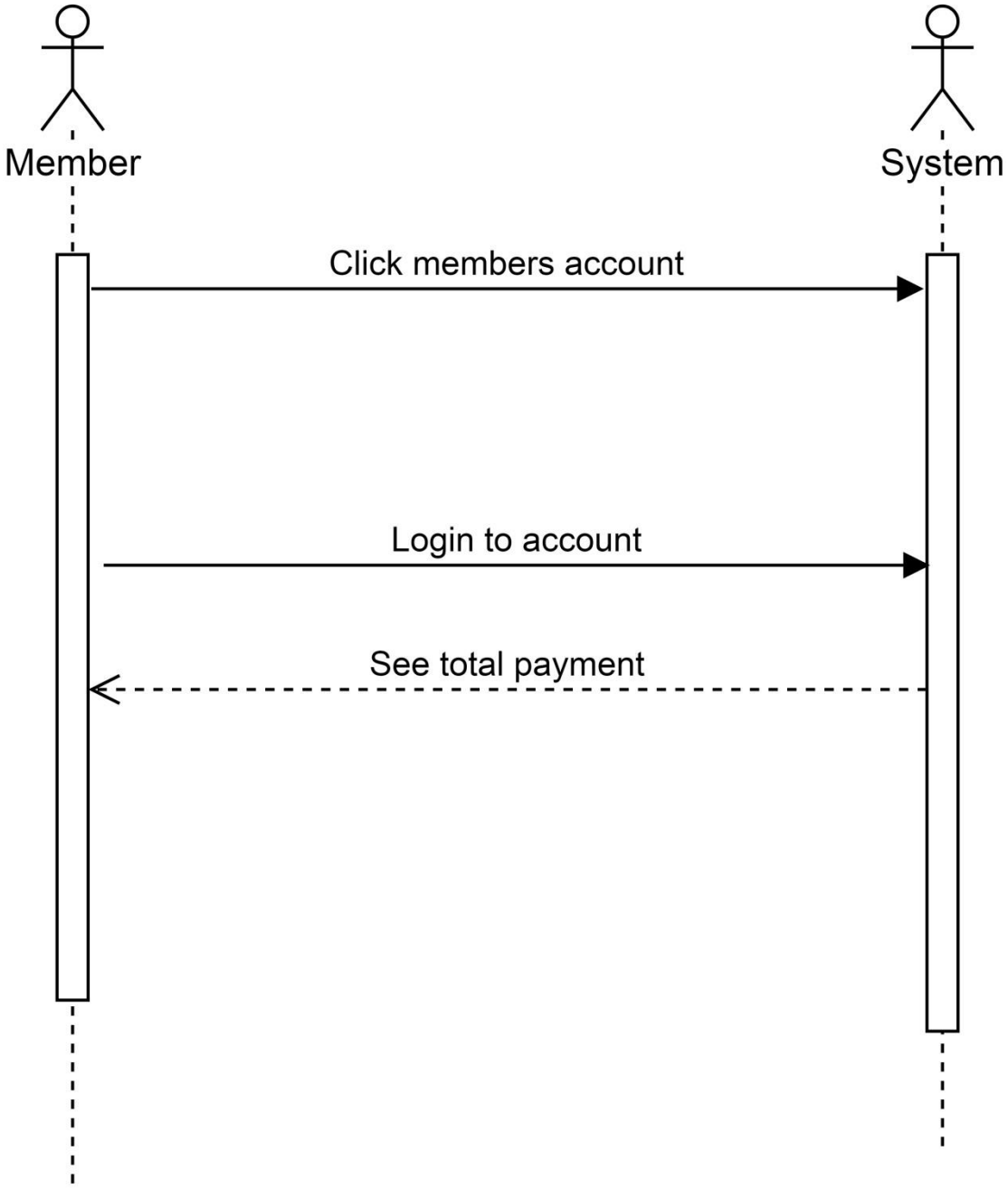

Figure-3.39: Sequence Diagram of see total payment

3.3.12 Sequence Diagram of See total Due

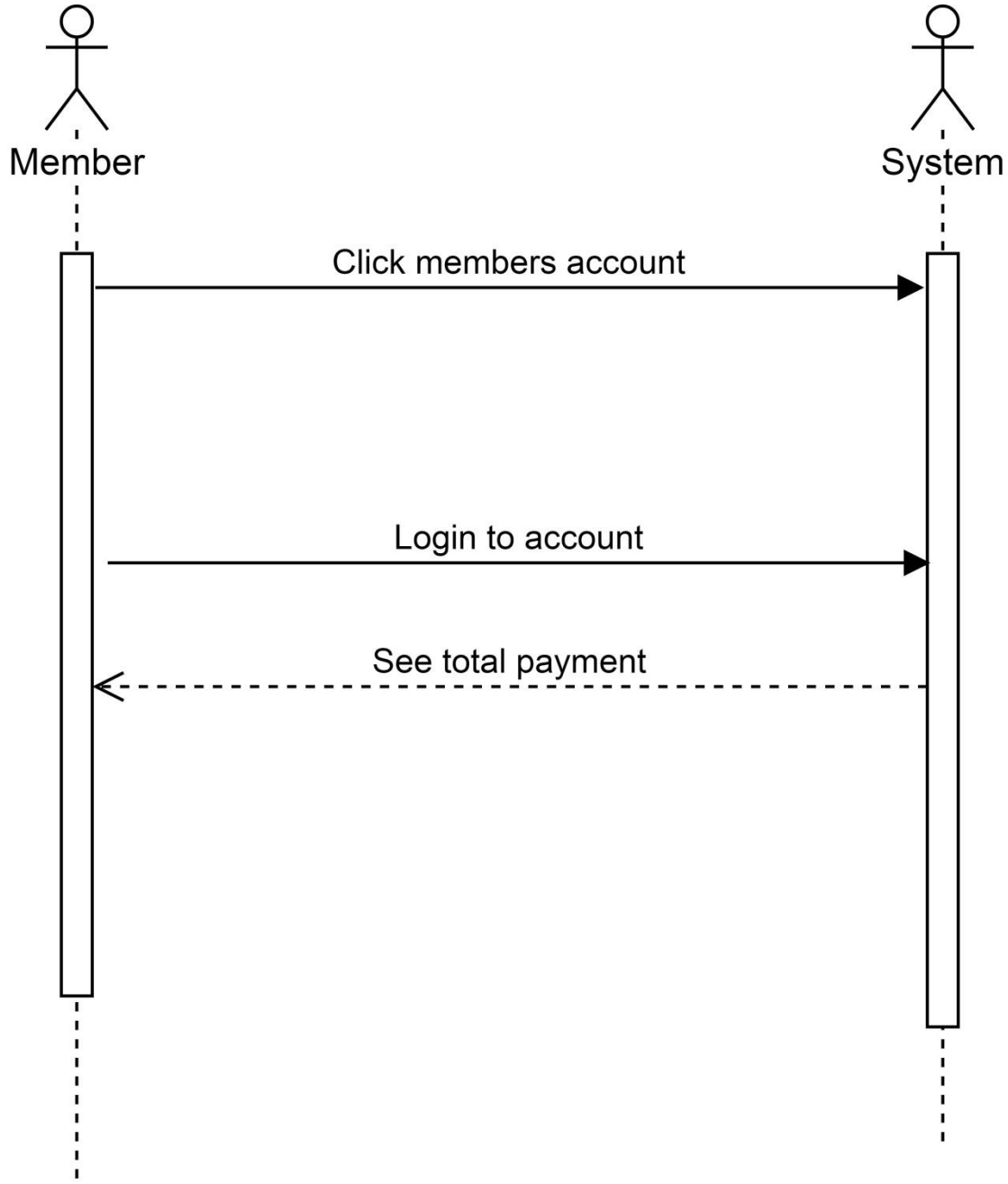

Figure-3.40: Sequence Diagram of see total due

CHAPTER-4

System Design Specification

4.1 Sequence Diagram

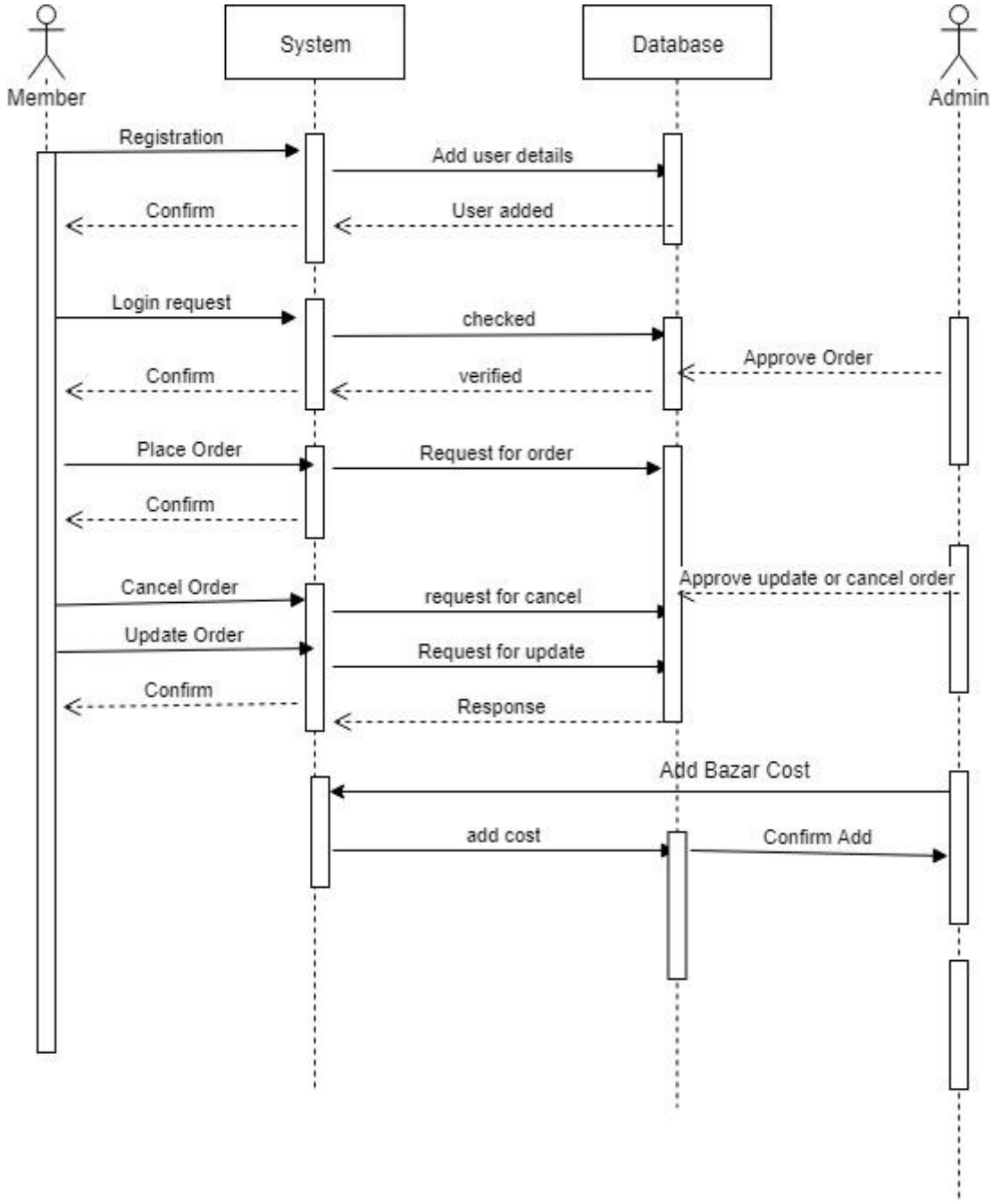

Figure-4.1: Sequence Diagram

4.2 Class Diagram

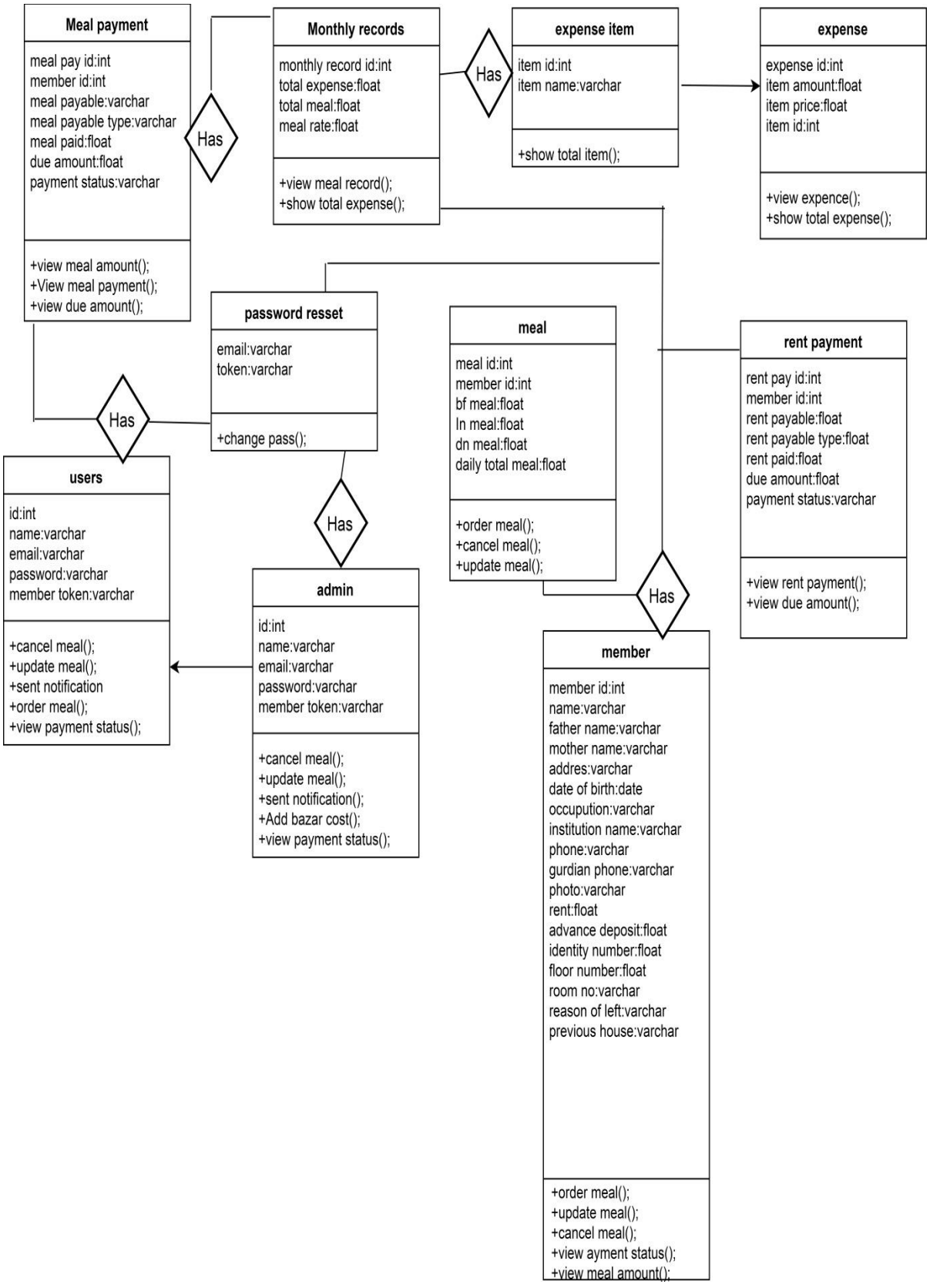

Figure-4.2: Class Diagram

4.3 Database Design Diagram

4.3.1 Entity Relationship Diagram

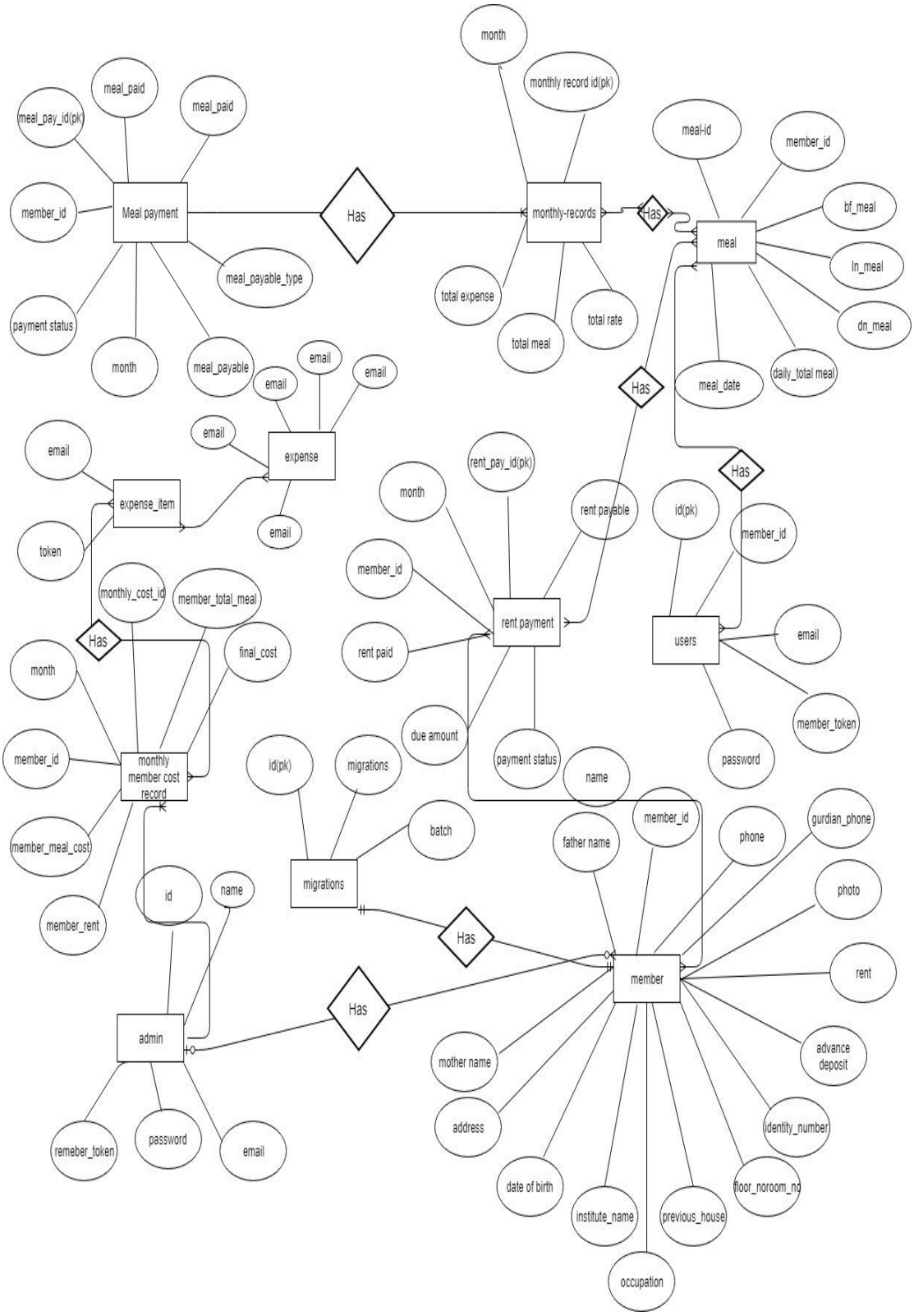

Figure-4.3: Entity Relationship Diagram

4.4 Development Tools and Technology

4.4.1 User Interface Technology

4.5.1.1 LA ravel framework

4.5.1.2 Angular JS

4.5.1.3 CSS3 framework

4.5.1.1 Font Awesome

4.4.2 Implementation Tools and Platforms

4.5.2.1 PHP Strom

4.5.2.2 MSSQL Server 2012

4.5.2.3 Apache HTTP Server

CHAPTER-5

System Testing

5.1 Testing Features

5.1.1 Features to be tested

- ✓ Registration
- ✓ Users Login
- ✓ Notification
- ✓ Payment status

5.1.2 Features not to be tested

- ✓ Cancel Order
- ✓ Meal Order
- ✓ See Total Meal Cost
- ✓ Meal Information
- ✓ Manage Member Account

5.2 Testing Strategies

The approach should be described as sufficient details to ensure identification of the major testing tasks and estimation of the time required to do each one.

5.2.1 Test Approach

Testing can be defined as a process of analyzing a software item to detect the differences between existing and required conditions (that is defects/errors/bugs) and to evaluate the features of the software item. So we think about the necessity of our system testing. There are various types and methods of testing. According to the structure of our system we have decided to complete 2 methods of testing. One of them are 'Black Box testing' and another is 'White Box testing'

5.2.1.1 Implement White Box testing

Contrary to black-box testing, software is viewed as a white-box, or glass-box in white-box testing, as the structure and flow of the software under test are visible to the tester. Testing plans are made according to the details of the software implementation, such as programming language, logic, and styles. Test cases are derived from the program structure. White-box testing is also called glass-box testing, logic-driven testing or design-based testing.

There are many techniques available in white-box testing, because the problem of intractability is eased by specific knowledge and attention on the structure of the software under test. The intention of exhausting some aspect of the software is still strong in white-box testing, and some degree of exhaustion can be achieved, such as executing each line of code at least once (statement coverage), traverse every branch statements (branch coverage), or cover all the possible combinations of true and false condition predicates (Multiple condition coverage).

5.2.1.2 Implement Black Box testing

The black-box approach is a testing method in which test data are derived from the specified functional requirements without regard to the final program structure. It is also termed data driven, input/output driven or requirements-based testing. Because only the functionality of the software module is of concern, black-box testing also mainly refers to functional testing - a testing method emphasized on executing the functions and examination of their input and output data. The tester treats the software under test as a black box -- only the inputs, outputs and specification are visible, and the functionality is determined by observing the outputs to corresponding inputs. In testing, various inputs are exercised and the outputs are compared against specification to validate the correctness. All test cases are derived from the specification.

No implementation details of the code are considered.

5.2.2 Pass/Fail Criteria

A) Fail Criteria:

During the White Box testing both we and some user got some problems. Some of them are followings;

a. Some ending statement was missing

b. Sometime product picture was not uploading

c. Sometime the product was not publishing

B) Pass Criteria:

After finding such types of error we have solved that error successfully. For solving those errors, we had to work coding part.

5.2.3 Suspension and Resumption

a) Suspension Criteria:

- ✓ Unavailability of external dependent systems during execution.
- ✓ When unknown defect is introduced that couldn't any further test.
- ✓ When client will not accept delivery if all testing is completed.

b) Resumption Requirements:

- ✓ If the external dependent system become available again
- ✓ When a fix is successfully implemented and the testing team is notified to continue testing.
- ✓ The holiday period end

5.2.4 Testing Schedule

Table-5.1: Testing Schedule

Serial	Work Description	Start(date)	End(date)	Total day
1	Idea Finding	01-07-2018	07-07-2018	6
2	Feasibility Study	08-07-2018	13-07-2018	5
3	Similar Site Analysis	14-07-2018	21-07-2018	7
4	Available Source check	22-07-2018	25-07-2018	3
5	Mind Mapping	26-07-2018	30-07-2018	4
			Total days=	25

5.3 Testing Environment (Hardware/Software Requirements)

Test Environment set up should outline information about a number of environments and required set up for each environment. Testing Environment define the number of users supported on each environment, access roles for each user, software and hardware requirements like operating system, memory, free disk space, number of systems etc.

5.4 Test Cases

Table-5.2: Test Cases Registration and login

Test Name: Registration and Login			
Test Procedure	PHP Unit Test		
Test Id	TC001		
Step Number	Operator Actions	Expected Result And Evolution Criteria	Result
1	Form validation check	Escape slash, escape special character, file size not more than 2M	Ok
2	User Existing(Registration)	Checking existing user	Ok
3	Secure logged In	User session creating	Ok

Table-5.3: Test case Notification

Test Name: Notification			
Test Procedure	PHP Unit Test		
Test Id	TC002		
Step Number	Operator Actions	Expected Result And Evolution Criteria	Result
1	Notification unread	True	Ok
2	Notification read	True	Ok
3	Notification linkup	True	Ok

Table -5.4: Test case payment status

Test Name: Payment Status			
Test Procedure	PHP Unit Test		
Test Id	TC003		
Step Number	Operator Actions	Expected Result And Evolution Criteria	Result
1	Members payment status check	True	Ok
2	Members payment status do not check	False	Ok
3	Payment status update	True	Ok

CHAPTER-6

User Manual of Hostel Meal and Account Management System

A user guide or user's guide, also commonly known as a manual, is a technical communication document intended to give assistance to people using a particular system.

6.1 User Class- A Guidelines:-Home Page

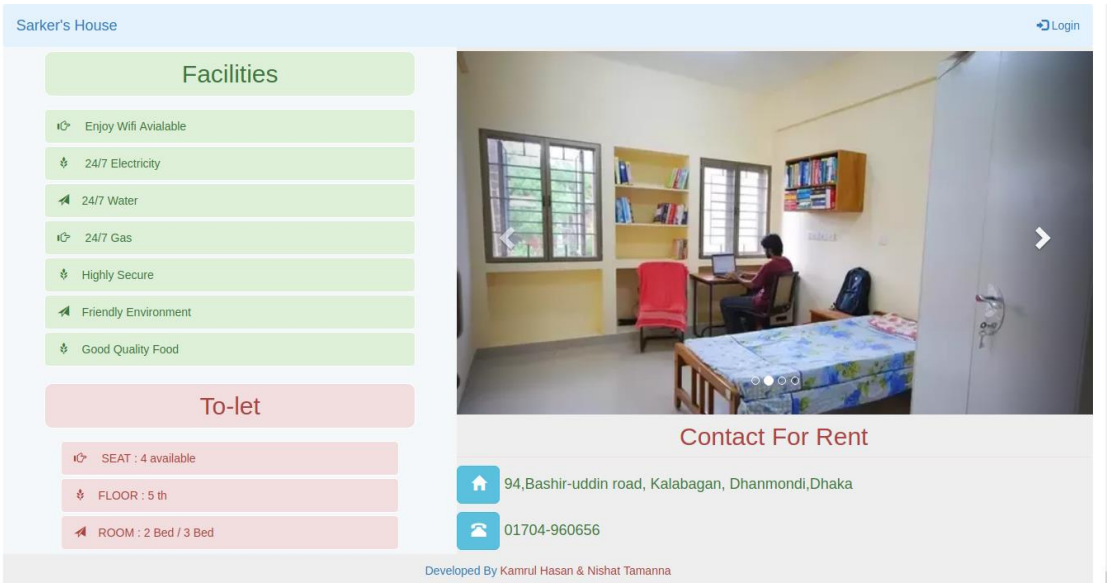

Figure-6.1: Home page

6.2 User Class- A Guidelines:-Admin Home Page

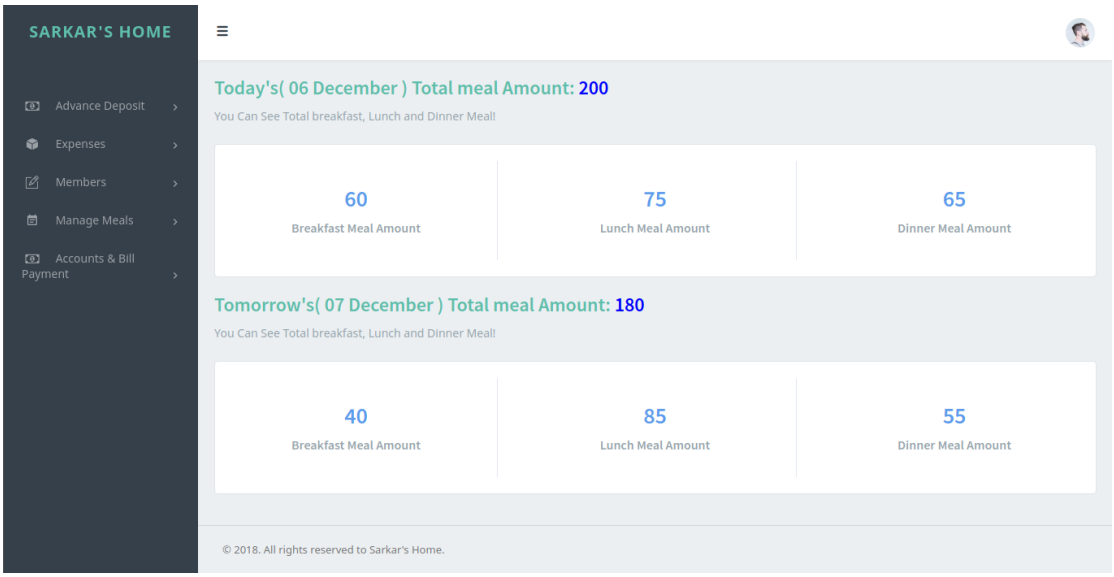

Figure-6.2: Admin Home page

6.3 User Class- A Guidelines:-User Home Page

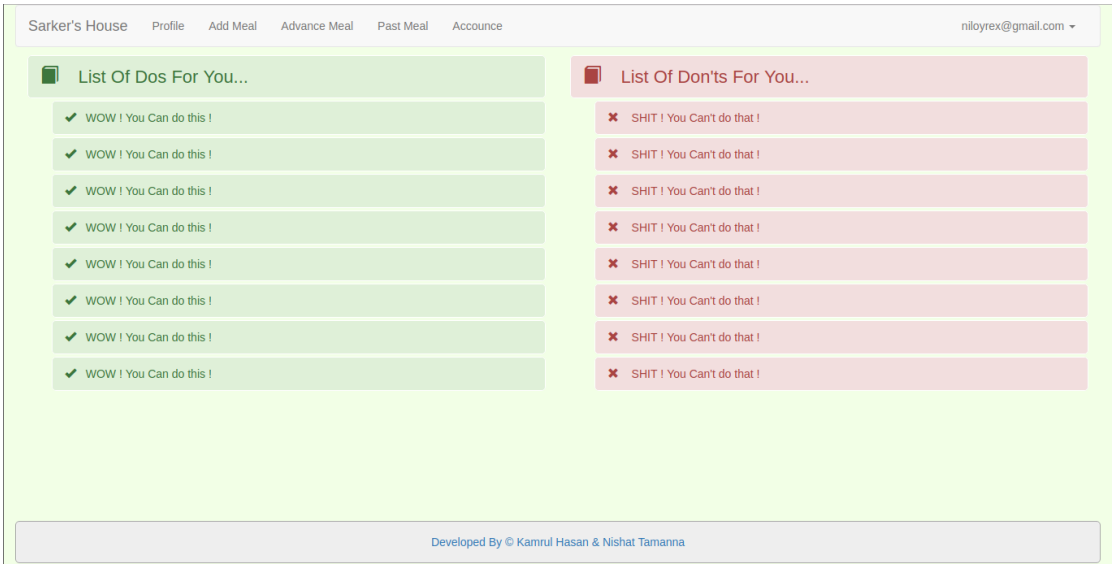

Figure-6.3: User Home page

6.4 User Class- A Guidelines:-User Registration Page

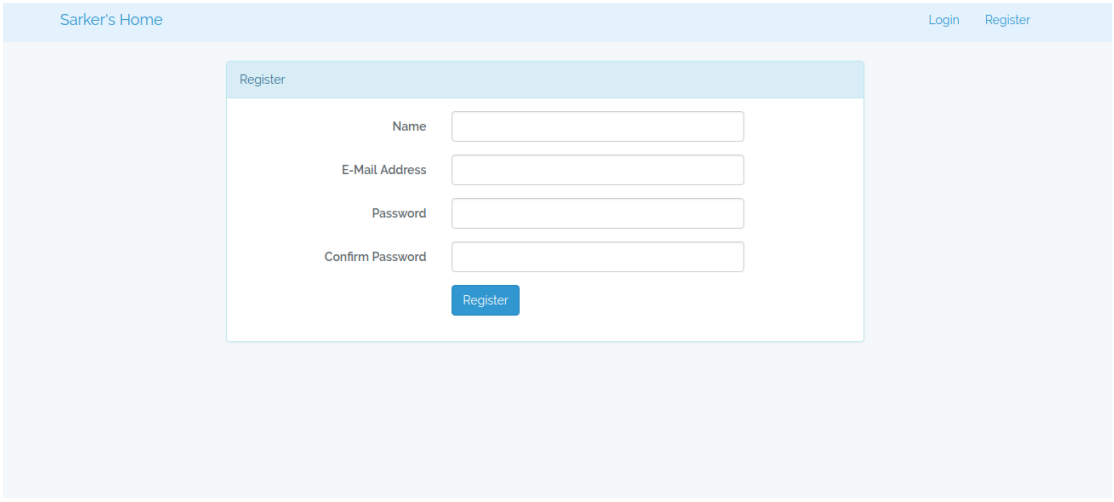

Figure-6.4: User Registration page

6.5 User Class- A Guidelines:-User Login Page

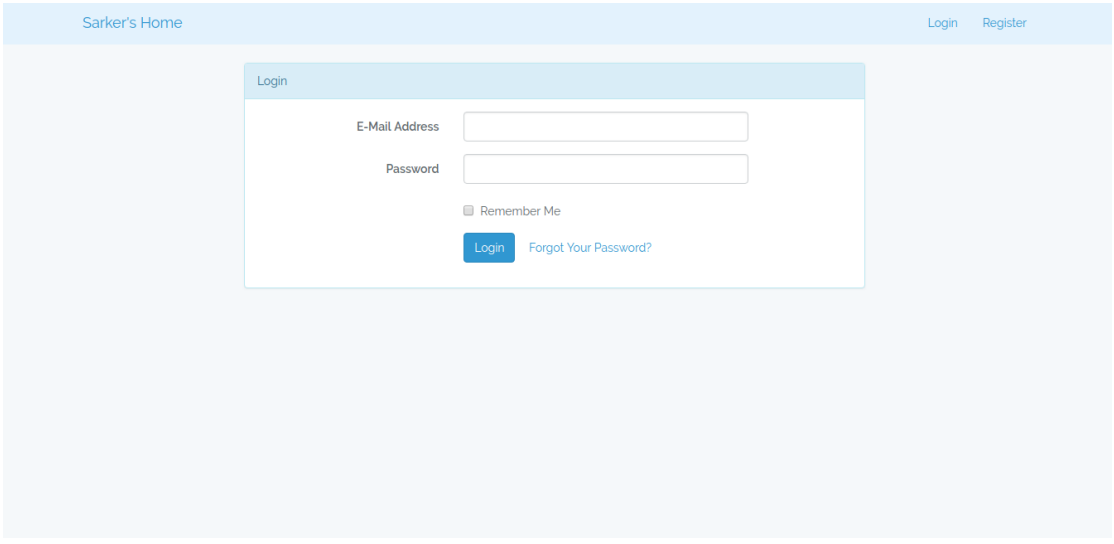

Figure-6.5: User Login page

6.6 User Class- A Guidelines:-Admin Login Page

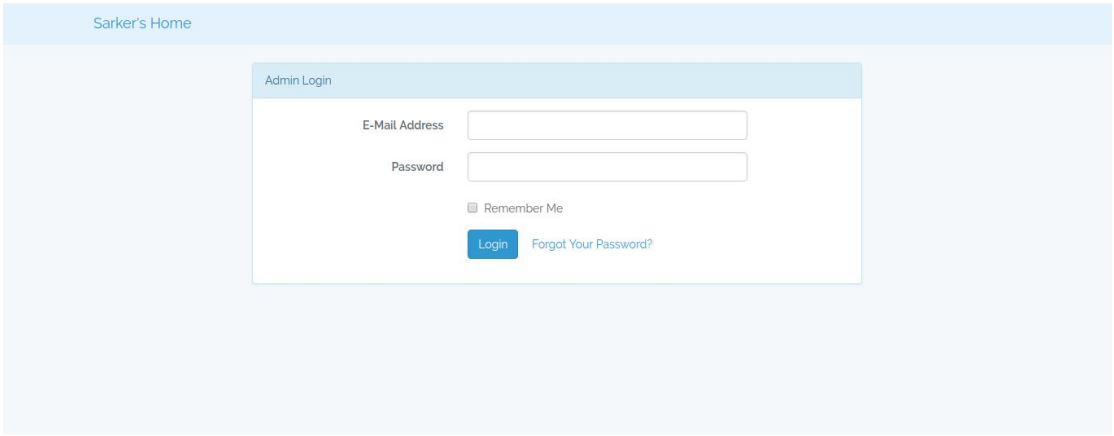

Figure-6.6: Admin Login page

CHAPTER-7

Project Summary

7.1 Github Link

https://github.com/kamrulhasan0101/sarkers_home?fbclid=IwAR0Mo8YC-eDJno7NBafy_YVeAhr-5x94pbm-HsB9A0GG9QYSv-84zrmCLQc

7.2 Critical Evolution

- ✓ Analysis and research
- ✓ Decision Making
- ✓ Initiative
- ✓ Knowledge/experience of specific software or equipment
- ✓ Planning
- ✓ Time management
- ✓ Ability to meet deadlines
- ✓ Problem solving

7.3 Limitations

Some of the limitations of the proposed system are:

- The system cannot handle the online payment of hostel member's meal payment and maintenance fee.
- The system cannot handle other issues.

7.4 Obstacles and Achievements

The Hostel Meal and account Management System has been tested and found to achieve the followings;

- ✓ Online Meal System
- ✓ The development of robust database to help manage member data at the appropriate data locations.
- ✓ Automatic meal amount and meal cost calculating
- ✓ Ensure Security of information
- ✓ View payment status such as rent payment and due payment
- ✓ Notification systems are available via email

Obstacles are following bellow;

- Owner /admin would have to ask every individual member for their meal amount. It's hard to reached 200 member or more.
- In case of cancelling or updating order, member would have to call admin; it's hard to handle this for owner or admin when the number will be increased.
- Owner must have to maintain a register book. There is a chance of manipulating that register book by dishonest employees which is a treat for owner's business.
- Because of lack of transparency member were doubtful about their meal count.
- Notification systems are more costly in manual system.
- Members would have to meet physically for querying about their meal or payment information.

- It is very tedious and time consuming to calculate the meal cost and rent payable information without this system.
- After all, we all know “to error is human”. It’s better to depend on technology

7.5 Future Scope

The software product “Hostel Meal and Account Management System” will be an application that will be used for maintaining the records of meal system and accounts in an organized manner and to replace all manual paper work system. This project aims at automating the hostel meal system its related payment system and other activities. Update and modifications will be easily achievable all the meal and bazar cost calculations and accounting work would be accurate.

References

I. Learn activity diagram
https://www.tutorialspoint.com/uml/uml_activity_diagram.htm

II. Gather knowledge Use Case Diagram
https://online.visual-paradigm.com/tutorials/use-case-diagram-tutorial/

III. Gather knowledge Class Diagram
https://www.tutorialspoint.com/uml/uml_class_diagram.htm

IV. Gather Knowledge Sequence Diagram
https://creately.com/blog/diagrams/sequence-diagram-tutorial/

V. Draw Diagram
https://www.draw.io/

VI. Knowledge Gather About Gantt chart
https://plan.io/blog/gantt-chart-excel-template/