System Requirements Statement (SRS) – Mess-Mate

Introduction

- This document explains the system requirements and scope for developing MessMate.
- MessMate System could divide the three main parts, Admin part, Customer part and Mess Owner part.

Functional Requirements

No	BRS requirement ID	Description
1	Admin Module	
1.1	F1	Login Process
1.2	F2	Check Registration Requests
1.3	F3	Approve User
1.4	F4	Reject User
1.5	F5	View All Users
1.6	F6	View Feedback
1.7	F7	Disable User
1.8	F8	Manage Menu Structure
1.9	F9	View & Process Food Item Requests (NEW)
1.10	F10	Logout Process
2	Mess Owner Module	
2.1	F11	Account Registration Process
2.2	F12	Login Process
2.3	F13	Forgot Password Process
2.4	F14	Change Password Process
2.5	F15	Update Profile / Mess Information
2.6	F16	Manage Daily Menu
2.7	F17	Manage Monthly Plans
2.8	F18	View Registered Customers
2.9	F19	Request New Food Item
2.10	F20	View Ratings
2.11	F21	Logout Process
3	Customer Module	

3.1	F21	Customer Registration Process
3.2	F22	Login Process
3.3	F23	Forgot Password Process
3.4	F24	Change Password Process
3.5	F25	Profile Management
3.6	F26	Search Mess
3.7	F27	View Mess Details
3.8	F28	Subscribe to Mess (Daily/Monthly Plans)
3.9	F29	Rate Mess
3.10	F30	View Subscription history
3.11	F31	Logout Process

1.1 Admin Module

1.1.1 Admin Login Process

The Admin must authenticate before accessing any administrative features.

Login Requirements

Admin must enter:

1. Admin ID (Username)
2. Password

Validation Rules

1. Credentials Check
   o Username and password must match stored admin records.
   o If incorrect → access is denied.
2. User Type Check
   o User type must be Admin.
   o Valid admin is redirected to the Admin Dashboard.

After Successful Login – Admin Dashboard Provides

1. Check Registration Requests
2. Manage Users (View / Approve / Reject / Disable)
3. View Feedback
4. Manage Menu Structure
5. Logout

1.1.2 Check Registration Requests

Admin can view all new / pending registration requests submitted by:

- Customers
- Mess Owners

Information Displayed

1. Applicant Name
2. Contact Details
3. User Type
4. Registration Date

5. Status

Includes Sub-Tasks

- Approve User
- Reject User

1.1.3 Approve User

Admin approves a registration request when:

- All required information is valid
- No duplicate record exists
- User meets system requirements

After Approval

- User account becomes active
- User can log in successfully

1.1.4 Reject User

Admin rejects a registration request if:

- Information is incomplete
- Duplicate or invalid details
- Verification fails

After Rejection

- User is notified
- User cannot log in unless re-registered

1.1.5 View All Users

Admin can see complete details of all system users.

Displayed Information

1. Username
2. User Type (Customer / Mess Owner)
3. Email
4. Registration Date
5. Account Status (Active / Disabled)

1.1.6 View Feedback

Admin views all feedback sent by customers for mess services.

Admin Can See

1. Customer Name
2. Mess Name
3. Rating (1–5)

Purpose

- Monitor service quality
- Ensure fairness and accountability

1.1.7 Disable User

Admin can disable any user account.

Conditions for Disable

- Misuse or fraud
- Fake information
- Customer complaints
- Policy violations

Effect

- Disabled user cannot log in
- Admin can re-enable later

1.1.8 Manage Menu Structure

Admin manages the system's main menu and site navigation.

Admin Can

1. Add new menu items
2. Edit or rename menu options
3. Remove outdated menu items
4. Arrange overall navigation structure

Purpose

- Keep system organized
- Improve user experience

1.1.9 View & Process Food Item Requests (NEW)

Admin can view food item addition requests submitted by Mess Owners.

Information Displayed:

1. Requested Food Name
2. Category
3. Sub-Category
4. Requested By (Mess Owner)
5. Request Date
6. Request Status

Admin Actions:

- Approve Request
- Reject Request (with reason)

After Approval:

- Food item is added to the **Food Item Table**
- Item becomes available for all Mess Owners to select in daily menus

After Rejection:

- Request status is updated to **Rejected**
- Mess Owner is notified

1.1.10 Logout Process

- Ends Admin session
- Prevents unauthorized access
- Redirects to Login Page

2.2 Mess Owner Module

2.2.1 Account Registration Process

- The Mess Mate requires Mess Owners to create an account before accessing any owner-specific functionality.
- While creating a new account, the system requires the following categories of information:

1. Login Information

2. Contact Details

3. Mess Information

4. Security Question Information

Login Information

The login information consists of:

1. Owner ID (Username)
2. Password
3. Mess name
4. Email Address
5. User Type (Mess Owner)

Rules:

- All fields are mandatory.
- User ID must be unique. If the ID already exists (case-insensitive), registration is rejected.
- Password Requirements:
    - 8 to 16 characters
    - At least one uppercase letter
    - At least one lowercase letter
    - At least one number
    - At least one special character (#, $, %, &, etc.)
    - Password should be masked and encrypted in the system.
- User Type is auto-assigned as Mess Owner (cannot select Admin).

Contact Details

The contact details include:

1. Permanent Address
2. Contact Phone Number

Rules:

- All fields are compulsory.
- Address must be provided; city/state fields may be selected from predefined options.

Mess Information

The following mess-related details are collected during registration:

1. Mess Name
2. Mess Address (location)
3. Mess Type (Veg / Non-Veg / Mixed)
4. Mess Timing

Rules:

- All fields are compulsory.

Security Question Information

Used for password recovery. Includes:

1. Selected Security Question
2. Answer

Rules:

- Both fields are mandatory.
- System provides predefined questions.

2.2.2 Login Process

- The system requires Mess Owner authentication before accessing owner features.
- Authentication requires Owner ID and Password, validated through two checks:

1. Credentials Check

- Username & Password must match stored records.
- If not matched: authentication fails.

2. User Type Check

- User type must be Mess Owner.
- Valid owners are redirected to Owner Dashboard.

Owner Dashboard Features

After successful login, the following actions are available:

1. Update Profile
2. Manage Mess Information
3. Manage Daily Menu
4. Manage Monthly Plans
5. View and manage Registered Customers
6. View Ratings & Feedback
7. Logout

2.2.3 Forgot Password Process

If a mess owner forgets their password:

1. Owner enters their Owner ID.
2. System prompts for the security answer saved during registration.
3. If the answer is correct:
    - System sends a new auto-generated password to the registered email.
    - Password follows the same complexity rules.
4. If the answer is incorrect:
    - System requests the correct answer again.
    - Password is not reset.

2.2.4 Change Password Process

Mess Owner can change password after logging in.

Process Includes:

1. Owner enters current password.
2. Owner enters new password twice.
3. New password must follow the complexity rules.
4. If the current password is correct → password updated.
5. System requires owner to log in again with the new password.

2.2.5 Update Profile / Mess Information

The system allows Mess Owners to update their profile.

Updateable Fields:

Login Information

1. Mess name
2. Email Address

Contact Information

1. Phone Number
2. Permanent Address

Mess Information

1. Mess Name
2. Mess Address / Location
3. Mess Type
4. Mess Timing
5. Upload Mess Photos

Security Question

1. Selected Question
2. Answer

Note:
All fields are mandatory but updating is optional.

2.2.6 Manage Daily Menu

Mess Owner can publish or edit the daily meal menu.

Daily Menu May Include:

1. Breakfast items
2. Lunch items
3. Dinner items

Rules:

- Owner can update menu multiple times a day.
- Customers see the updated menu immediately.

2.2.7 Manage Monthly Plans

Mess Owner can create, update, or delete monthly mess plans.

Plan Includes:

1. Plan Name
2. Monthly Price
3. Meal Count / Meal Inclusion
4. Validity Period
5. Special Offers

2.2.8 View Registered Customers

The system allows Mess Owners to see customers who have registered or subscribed to their mess.

Displayed Information:

1. Customer Name
2. Contact Information
3. Active / Past Subscription
4. Plan Chosen
5. Subscription Duration

2.2.9 Request New Food Item

Description:
The system allows Mess Owners to request the Admin to add a new food item that is not currently available in the system.

Process:

1. Mess Owner selects **"Request New Food Item"**
2. Owner enters:
    - Food Name
    - Category (Veg / Non-Veg / Jain)
    - Sub-category (Starter / Main Course / Bread / Rice / Dessert etc.)
3. System submits request to Admin
4. Status is set as **PENDING**

Rules:

- Mess Owner cannot directly add food items
- Duplicate requests are prevented
- Request status: Pending / Approved / Rejected

2.2.10 View Ratings

Mess Owner can view customer ratings.

Owner Can See:

1. Customer Rating (1–5 stars)
2. Customer Name

Purpose:

- Improve service quality

2.2.11 Logout Process

- Ends the owner's session.
- Redirects to login page.

3.1 Customer Module

3.1.1 Customer Registration Process

The system requires Customers to create an account before using customer-specific features.

Information Collected During Registration

1. Login Information
2. Contact Information
3. Profile Information
4. Security Question Information

1. Login Information
Fields:
- Customer ID (Username)
- Password
- Full Name
- Email Address
- User Type (Customer – auto-assigned)

Rules:
- All fields are mandatory.
- Username must be unique (case-insensitive).
- Password requirements:
    o 8 to 16 characters
    o Minimum one uppercase letter
    o Minimum one lowercase letter
    o Minimum one numeric digit
    o Minimum one special symbol (#, $, %, &, etc.)
- Password must be encrypted.
- User Type cannot be changed by the user.

2. Contact Information

Fields:
- Phone Number
- Permanent Address (optional)

Rules:
- Phone Number is compulsory.
- Address may include predefined city/state options.

3. Profile Information

Fields:
- Date of Birth
- Approximate Location (Area/Landmark)

Rules:
- All fields are mandatory.

4. Security Question Information

Used for password recovery.

Fields:
- Selected Security Question
- Answer

Rules:
- Both fields are required.
- System provides a predefined list of questions.

3.1.2 Login Process
Customers must authenticate to use system features.
Login Validation Steps

1. Credentials Check
- Username and password must match stored data.
- If mismatch → login fails.

2. User Type Check
- User type must be "Customer".

After Successful Login → Customer Dashboard

Customers can perform:
1. Search Mess
2. View Mess Details
3. Subscribe to Daily / Monthly Plans
4. View Rate Mess
5. Manage Profile
6. View Subscriptions
7. Logout

3.1.3 Forgot Password Process

If a customer forgets their password:
1. Customer enters their Customer ID.
2. System asks the saved security question.
3. If answer matches:
    o   System sends an auto-generated password to registered email.
    o   Password follows system complexity rules.
4. If answer is incorrect:
    o   System does not reset password.
    o   Customer must retry.

3.1.4 Change Password Process

Logged-in customer can change their password.
Steps
1. Enter current password.
2. Enter new password twice.
3. New password must follow complexity rules.
4. If current password is correct → password is updated.
5. System logs out customer and requires login with new password.

3.1.5 Profile Management

Customers can update their profile anytime.
Updatable Fields
Login Information:
- Full Name
- Email

Contact Information:
- Phone Number
- Permanent Address

Profile Information:
- Age
- Gender
- Location

Security Question:
- Question
- Answer

All fields are mandatory, but updating is optional.

3.1.6 Search Mess

Customers can search messes based on:
1. Location
2. Address
3. Mess Name
4. Mess Type (Veg / Non-Veg / Mixed) (optional)
5. Distance
6. Ratings

Rules:
- Search results must be accurate and updated.

3.1.7 View Mess Details

Customers can view complete information about a selected mess.

Displayed Details
- Mess Name
- Mess Address
- Mess Type (optional)
- Mess Timings
- Daily Menu
- Monthly Plans
- Mess Photos
- Ratings and Reviews

3.1.8 Subscribe to Mess (Daily / Monthly Plans)

Customers can subscribe to any available plan.

Plan Details Include
- Plan Name
- Price (Daily / Monthly)
- Meal Inclusion (Breakfast / Lunch / Dinner)
- Validity Period
- Special Offers

Rules:
- Activated plan appears in customer subscription history.

3.1.9 Rate Mess

Customers can provide feedback.

Includes

- Star Rating (1–5)
- Written Review (optional)

Purpose:
Helps improve mess service quality.

3.1.10 View Subscription History
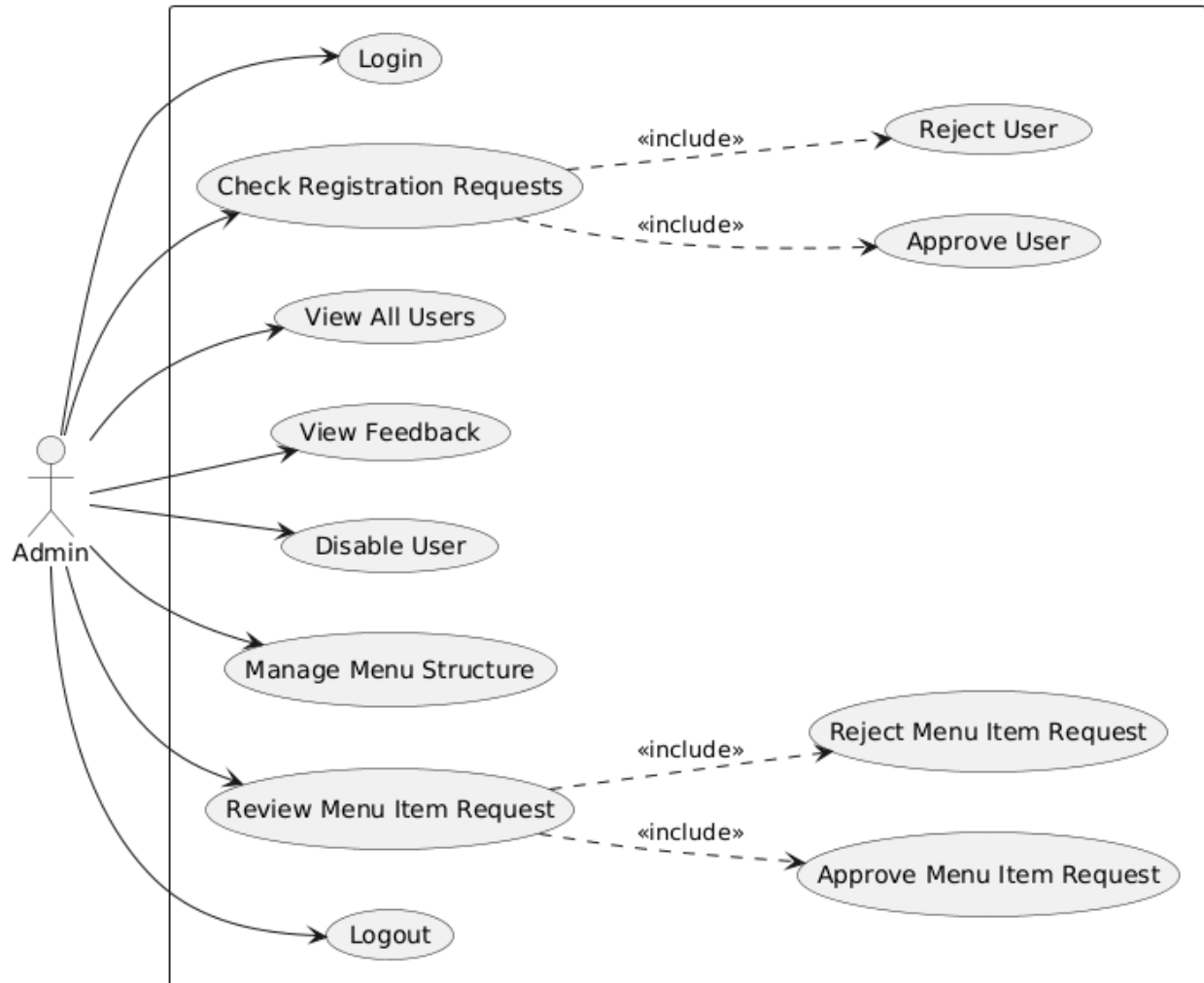
Customers can view:
- Active Subscriptions
- Past Subscriptions
- Plan Details
- Subscription Duration
- Renewal Options (if any)

3.1.11 Logout Process

- Ends current customer session.
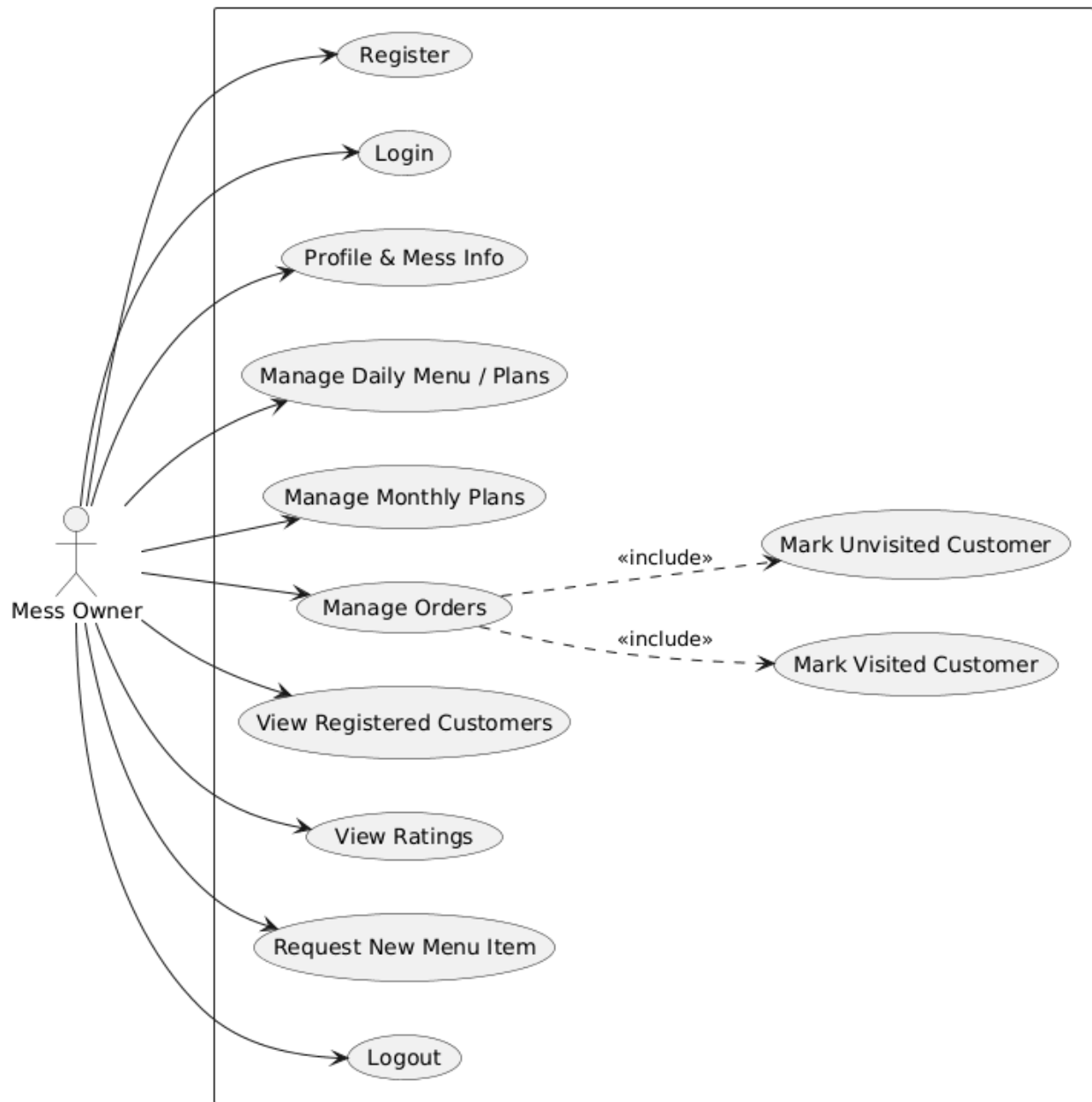- Redirects to login page.

2.5 Use Case Diagram

Admin:

1. In Admin use-case diagram, Admin is the Actor.
2. Admin can perform the following use-cases:

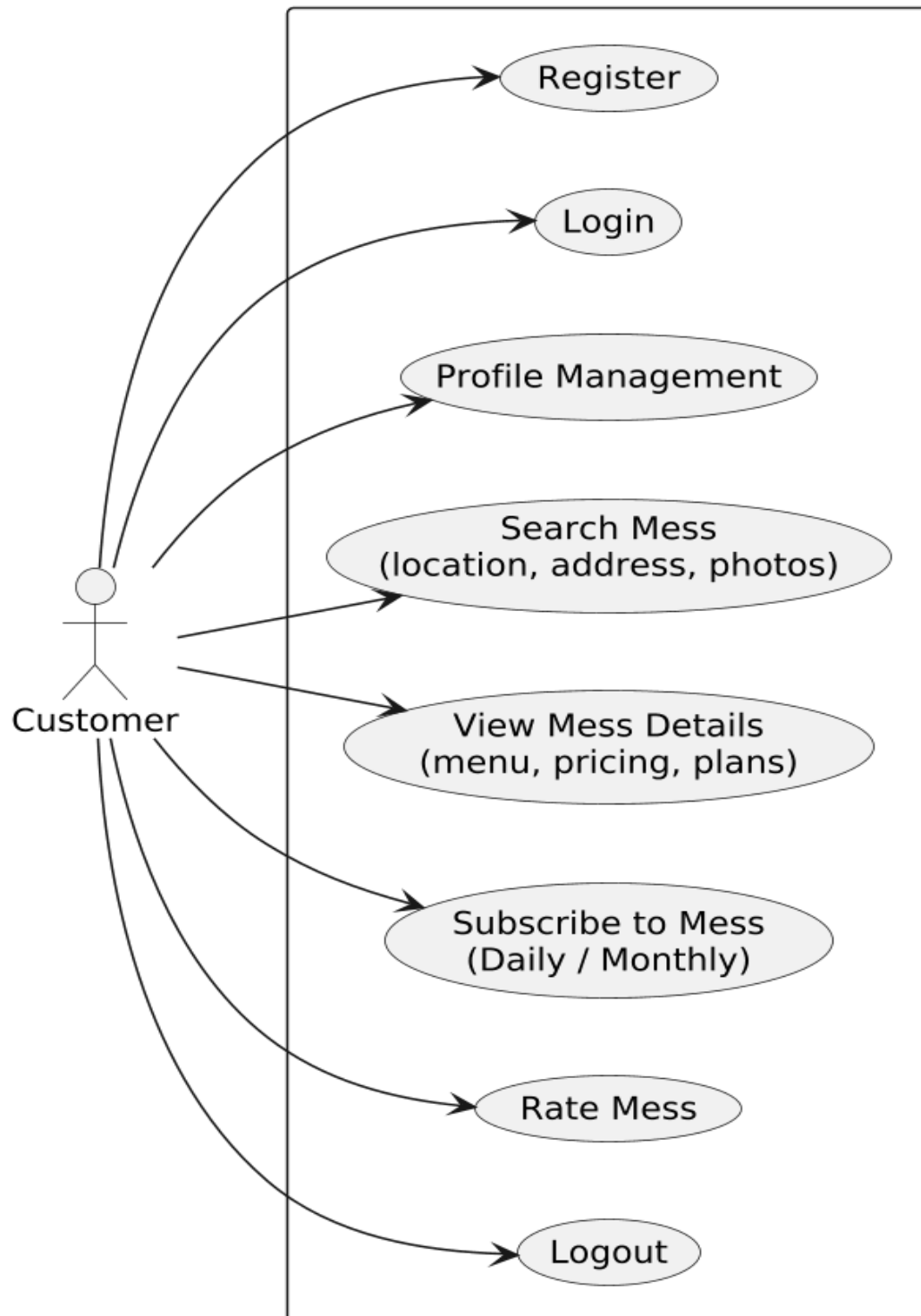| Sr. No.	Use Case	Description
1	Login	Admin can login using authorized credentials.
2	Check Registration Requests	Admin views new registration requests from customers and owners.
3	Approve User	Admin approves valid user account request.
4	Reject User	Admin rejects invalid/incomplete registration request.
5	View All Users	Admin views list of all registered users (customers + owners).
6	View Feedback	Admin view feedback submitted by customers for different messes.
7	Disable User	Admin disables user account if necessary.
8	Manage Menu Structure	Admin manages overall system menu/navigation structure.
9	Logout	Admin logs out securely.

Mess Owner:

1. In Mess Owner use-case diagram, Mess Owner is the Actor.
2. Mess Owner can perform the following use-cases:

Sr. No.	Use Case	Description
1	Register	Mess owner creates an account by entering business details.
2	Login	Mess owner logs into system using valid credentials.
3	Profile & Mess Information	Owner updates mess details such as contact info, address, photos etc.
4	Manage Daily Menu / Plans	Upload or edit daily menu for lunch, dinner.
5	Manage Monthly Plans	Create/Update mess monthly subscription packages.
6	Manage Orders	Owner manages daily customer entries and food orders.
7	Mark Visited Customer	Marks customer as visited if meal was consumed.
8	Mark Unvisited Customer	Marks customer as unvisited if they do not come.
9	View Registered Customers	Displays list of customers subscribed to their mess.
10	View Ratings	Mess owner checks ratings given by customers.
11	Logout	Owner logs out securely.

Customer:

1. In Customer use-case diagram, Customer is the Actor**.**
2. Customer can perform the following use-cases:

Sr. No.	Use Case	Description
1	Register	Customer signs up by providing name, phone number, address, email etc.
2	Login	Customer logs in using valid credentials.
3	Search Mess	Customer searches mess by location, name and distance.
4	View Mess Details	Customer views menu, pricing, timings, and mess images.
5	Subscribe to Mess (Daily/Monthly Plans)	Customer selects a subscription plan according to preference.
6	Rate Mess	Customer rates for the mess.
7	Profile Management	Customer updates personal details when needed.
8	Logout	Customer securely exits their account.