COMSATS University Islamabad (CUI)

SKOOP

By

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Bachelor of Science in Computer Science (2020-2024)

The candidate confirms that the work submitted is their own and appropriate credit has been given where reference has been made to the work of others.

COMSATS University, Islamabad Pakistan

SKOOP

A project presented to

COMSATS University, Islamabad

In partial fulfillment

of the requirement for the degree of

Bachelor of Science in Computer Science (2020-2024)

By

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DECLARATION

We hereby declare that this software, neither whole nor as a part has been copied out from any source. It is further declared that we have developed this software and accompanied report entirely on the basis of our personal efforts. If any part of this project is proved to be copied out from any source or found to be reproduction of some other, we will stand by the consequences. No Portion of the work presented has been submitted of any application for any other degree or qualification of this or any other university or institute of learning.

Muhammad Ahmar Tariq   Muhammad Bilal Anwar   Raja Shahmeer Ahmed

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CERTIFICATE OF APPROVAL

It is to certify that the final year project of BS (CS) SKOOP was developed by **Muhammad Ahmar Tariq (CIIT/SP20-BCS-056)**, **Muhammad Bilal Anwar (CIIT/SP20-BCS-058)** and **Raja Shahmeer Ahmed(CIIT/SP20-BCS-083)** under the supervision of “Mr. Umar Nauman” and co supervision by “Mr. Rashid Mukhtar” and that in his opinion; it is fully adequate, in scope and quality for the degree of Bachelors of Science in Computer Sciences.

Supervisor

External Examiner

Head of Department

(Department of Computer Science)

Executive Summary

The software system being developed for the client is an efficient and affordable food delivery service to cater the problems faced by the client and students in the western countries. There are a few applications that are used to order food on campus, but no available system targets the students as their primary users. The main problem we are trying to solve is that ordering food on campus becomes quite expensive in terms of cost and time when normal food delivery apps are used. Thus, the system we tend to produce aims to reduce these costs and provide opportunities for students to earn income while attending college and to alleviate the financial burden faced by many students and to enhance the inventory management of the restaurants which are registered in the system. The system is designed to be user-friendly, with a simple and intuitive interface that enables students to place orders easily and track their deliveries in real-time. By integrating with existing venues on campus, the system aims to offer a wide range of food and beverage options that cater to the diverse needs and preferences of the student community. Additionally, integrating the restaurants with the vendors will enhance and improve the inventory management. The system will provide the analytics based on the statistics data using machine learning algorithms. The software system aims to promote a sense of community on campus, fostering connections and collaborations between students and building a supportive and inclusive environment. The goal of the system is to improve the college experience for students by providing a reliable, efficient, and student-run food delivery service that enhances their overall well-being and success.

Acknowledgement

All praise is to Almighty Allah who bestowed upon us a minute portion of His boundless knowledge by virtue of which we were able to accomplish this challenging task.

We are greatly indebted to our project supervisor "Mr. Umar Nauman" Without their personal supervision, advice and valuable guidance, completion of this project would have been doubtful. We are grateful to them for their encouragement and continual help during this work.

And we are also thankful to our parents and family who have been a constant source of encouragement for us and brought us with the values of honesty & hard work.

Muhammad Ahmar Tariq Muhammad Bilal Anwar Raja Shahmeer Ahmed

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Abbreviations

SRS	Software Requirement Specification
SDS	Software Design Specification
FR	Functional Requirements
NFR	Non-Functional Requirements

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1 Introduction

This document will describe the planning information about Skoop. It will contain the guidance about (Skoop) scope including the actors its major functionalities along with tools and technologies, constraints, and mockup details. The system will enable students to place orders for food and beverages directly from their favorite restaurants and cafes on campus through a user-friendly interface. The delivery service will be student-run, providing opportunities for students to earn income and gain valuable work experience while attending college.

The system will be designed to prioritize the needs of the student community, offering delivery options that are tailored to their schedules and preferences. The software system will also provide a platform for students to connect and collaborate with each other, building a sense of community on campus. The system will have a vendor system which will be integrated with the restaurants to improve and enhance the inventory management of the restaurants. Additionally, the system can be integrated with existing campus technologies such as meal plans, student IDs, and campus maps. Overall, the scope of the software system is to improve the college experience for students by offering a convenient, accessible, and affordable food delivery service that is efficient, reliable, and student-run.

1.1 Vision Statement

Skoop is intended to empower and support college students by providing a convenient and affordable food delivery service that is run by students themselves. By offering opportunities for students to earn income and gain work experience while attending college, the system aims to alleviate the financial burden faced by many students. Ultimately, the vision of the system is to improve the college experience for students by providing a reliable, efficient, and student-run food delivery service that enhances their overall well-being and success.

1.2 Related System Analysis/Literature Review

Below mentioned are the similar applications that were selected for system analysis.

Table 1: Related System Analysis with proposed project solution

Application Name	Weakness	Proposed Project Solution
GrubHub [1]	GrubHub does not allow delivery, only self-pick-up is possible	Students will deliver the food across their own campus
DoorDash [2]	Takes a lot of time and is very expensive, and is also a generic system (similar to our food panda [3] service)	Costs regarding time and money will be reduced because a specialized system for campus delivery only will be produced.

1.3 Project Deliverables

Table 2: Project Deliverables

Semester	Activity	Completion Dates	Description
6	Scope Document's Online Submission	12th week of Semester	Submission of the Scope Document via the FYP portal, marked as Document 1.
7	Evaluation 1: Software Requirement Specification Document	4th week of Semester	Submission of the Software Requirement Specification Document marked as Document 2, including a detailed outline of software requirements for the project.
7	Evaluation 2: Software Design Specification Document & 30% Implementation Report	14th week of Semester	Submission of the Software Design Specification Document marked as Document 3, along with a 30% Implementation Report outlining the progress of implementation.
8	Evaluation 3: 60% Implementation along with Coding Document (half report)	7th week of semester	Submission of 60% Implementation progress, including Coding Documentation, marked as Document 4 (half report). This report will demonstrate substantial progress in project implementation.

1.4 System Limitations/Constraints

Following are the system Limitations for Skoop.

LI-1: Some food items that are available from the cafeteria will not be suitable for delivery, thus the restaurants will only be allowed to add items in their menus that can be easily delivered by every Skooper.
LI-2: Our system will only work on-campus, thus buildings outside the campus even if they are close will not be able to utilize our provided service.

1.5 Tools and Technologies

Below mentioned are the tools and technologies that will be used to implement the Skoop project.

Table 3: Tools and Technologies for SKOOP

	Tools	Version	Rationale
Tools And Technologies	MS Visual Studio Code	1.73	IDE
	MongoDB Compass	6.0	DBMS
	Adobe Photoshop	CC 2022	Design Work
	MS Word	23.3	Documentation
	MS PowerPoint	2021	Presentation
	Figma	9.0	Mockups Creation
	Jupyter Notebook	5.0	IDE
	Technology	**Version**	**Rationale**
	Express	4.18.2	Node.js Framework
	Html	5	Web Development
	CSS	3	Web Design
	JavaScript	ES6	Programming Language
	Flutter	3.7	Mobile Frontend
	React.js	17.02	Front-end JS Library
	Node.js	16.0	Runtime JavaScript
	Tailwind CSS	V3.0	CSS Framework
	MongoDB	V6.0	Non-Relational Database
	Python	3.11.0	Programming Language

1.6 Relevance to Course Modules

- **Database Management Systems**: Knowledge of DBMS is used for efficient data storage and retrieval.
- **Web Development:** Skills in HTML, CSS, JavaScript, and web frameworks are used for creating user-friendly interfaces.
- **Software Engineering:** Principles aid in designing and developing a robust system. Concepts like software architecture, design patterns, and software development methodologies are applied.
- **Object-Oriented Programming:** OOP principles, such as encapsulation, inheritance, and polymorphism, are fundamental for designing structured and organized code in StepEv.
- **Data Structures and Algorithms:** Helpful for optimizing system performance.
- **Mobile App Development:** The concepts used in this course are vital in ensuring a seamless and user-friendly mobile experience, enhancing accessibility and engagement for users.

2 Problem Definition

2.1 Problem Statement

In Western Countries, the culture is that the students once in college must manage their studies and expenses both by themselves. Sometimes it becomes hard for the students in college to manage part time job with their studies because of the intense pressure put on them by the college. There is lack of opportunities for students to earn money to meet their expenses and gain valuable work experience while attending college. Also, there are currently a lack of efficient, user-friendly, and affordable delivery options on college campuses, which results in inconvenience and limited access to essential food and beverage services for students who may have limited time and busy schedules. The current delivery services do not prioritize the needs of the student community, leading to a lack of engagement and a sense of community on campus.

2.2 Problem Solution

To address the challenges faced by students in Western countries, a software system can be developed to provide an efficient and affordable food delivery service that is student-run, offering opportunities for students to earn income while attending college to meet their expenses. The system can be designed to be user-friendly, with a simple and intuitive interface that enables students to place orders easily and track their deliveries in real-time. The system will be designed to prioritize the needs of the student community, offering delivery options that are tailored to their schedules and preferences. Additionally, the software system can provide a platform for students to connect with each other and build a sense of community on campus.

Through this system, students can interact and collaborate with their peers, creating opportunities for social and professional development. Ultimately, the software system can improve the college experience for students by offering a convenient and accessible food delivery service that is affordable, efficient, and student-run, while also providing valuable opportunities for income and community-building.

2.3 Objectives of the Proposed System

The following are the main objectives of our system:

- To provide an efficient and affordable food delivery service on college campuses that is student-run.
- To offer opportunities for students to earn income while attending college to meet their expenses.
- To enhance the inventory management of the restaurants.
- To provide analytics using machine learning algorithms.
- To prioritize the needs of the student community by offering delivery options that are tailored to their schedules and preferences.
- To create a platform for students to connect with each other and build a sense of community on campus.

2.4 Scope

SKOOP will be a multi-role and multi-user food delivery application which will focus on the cost and time reduction of the food delivery process on campus and provide an opportunity for the students to make some extra cash. There will be four users of **SKOOP**:

- Admin
- Restaurant
- Customer
- Vendor
- Skooper (Delivery Person)

The customer will select a food item from a verified restaurant on campus using the application. The item will be added to a cart and after the order is complete, and making the payment, the restaurant will receive a notification of the order they received.

The restaurant will then start to prepare the order, 4-5 mins before the order, the restaurant will press the “look for a Skooper” button and all the Skooper who are currently logged in and are on active mode will receive a notification regarding the order. The first one to accept the order will be shown the details of the restaurant and the Skooper will move towards the restaurant.

In the meantime, the order is being completed, the Skooper will reach the restaurant and pick up the order and press the “order received” button on the Skooper App. At the same time the customer is also notified about their orders’ progress. The Skooper then moves towards the delivery location and upon reaching the target location, they press the “At your location” button and the customer is notified that their order is here, and they can go outside and receive their order.

The restaurant will also maintain an inventory. Each item in the inventory will have a minimum limit, once the item count reaches a certain limit, an automatic order will be placed to a preselected vendor.

The vendor will deliver the product and the number will be automatically updated after a said amount of time.

After receiving the order, the customer can give reviews and feedback to the Skooper and Restaurant. The admin can manage the customers, Skooper and restaurants and review feedback and complaints and view different type of stats regarding the application.

2.5 Modules

Following are the modules and their main features:

2.5.1 Module 1: User Profiling

There are four different roles a user can assume while using this app, these are:

- Customer
- Skooper
- Restaurant
- Vendor

This module focuses on account creation and management of users. The user will be able to access the functionalities of the application using Login. They can view their profile and edit their information. The following are some features.

MF-1.3.1.1 Signup

Users can sign up by email verification.

MF-1.3.1.2 Login

Users can log in by User ID and Password to access the functionalities of this application.

MF-1.3.1.3 Forgot Password

Users can reset their passwords after authenticating themselves via email verification.

MF-1.3.1.4 Update

Users can update their Profile Information.

MF-1.3.1.5 Delete Account

A User can delete their account on the application.

2.5.2 Module 2: Administrative Panel

In this module, the admin will be having authority to control all the activities related to restaurants, Skoopers and Users. The admin will have access to manage the overall system. Following are some features:

MF-1.3.2.1 Manage Customers

Admin has the authority to manage customers.

MF-1.3.2.2 Manage Skoopers

Admin has the authority to manage skoopers.

MF-1.3.2.3 Manage Restaurants

Admin has the authority to manage restaurants.

MF-1.3.2.4 Manage Vendors

Admin has the authority to manage restaurants.

MF-1.3.2.5 Verify Mobile App and Student ID

Admin can verify and approve the mobile apps' front-end and backend, along with student ID verification during the registration process.

2.5.3 Module 3: Customer App

This module focuses on the customer end of the system. It deals with all the activities the customer can perform on the system. Following are the major features:

MF-1.3.3.1 Manage Profile
Customer can manage their profiles which include update, delete etc.
MF-1.3.3.3 Manage Location and Address
Customer can add, view, and remove delivery address. They can also choose their current location.
MF-1.3.3.4 Manage Favorite Restaurants
Customer can add, view, or remove favorite restaurants.

2.5.3.1 Sub Module 1: Cart Management

This module focuses on the operations related to Cart Management of the system. Where Customer can manage their Cart items. Following are the major features:

MF-1.3.3.1.1 Manage Cart
Customer can add, remove, update or delete items in the cart.

2.5.4 Module 4: Skooper App

This module focuses on the Skooper end of the system. It deals with all the activities the skooper can perform on the system. Following are the major features:

MF-1.3.4.1 Manage Profile
Skooper can manage their profiles which include updates, delete etc.
MF-1.3.4.2 Accept or Reject Order
Skooper will be alerted through a notification, they can accept or reject an order delivery.
MF-1.3.4.3 Map Integration
Skooper will be able to view a path from the restaurant to the customers' location on map after picking up the order from the restaurant.
MF-1.3.4.4 Manage Ride Details
Skooper will be able to view current and previous ride details.
MF-1.3.4.5 Smart Skooper Assignment
Implement a smart algorithm that assigns a skooper based on multiple factors (distance, acceptance, rating, fair chance, weight). Displaying the skooper's shortest path to the restaurant and the customer.

2.5.5 Module 5: Restaurant Panel

This module focuses on the Restaurant end of the system. Where they will have a web and mobile app both, the major functionalities will be accessible through mobile and through web they can manage all functionalities. It deals with all the menu the restaurant is providing to the students. Following are the major features:

MF-1.3.5.1 Manage Profile

Restaurant can manage their profiles which include registering, update, delete etc.

MF-1.3.5.2 Verify Restaurant Document

Description: Restaurant can upload official documents for verification. Image processing and predictions can be implemented to analyze the documents.

2.5.5.1 Sub Module 1: Food Management

This module focuses on the operations related to Menu of a restaurant. It deals with all the activities the restaurant can perform on the Menu. Following are the major features:

MF-1.3.5.1.1 Manage Categories

Add, view, update, and delete the categories in the menu.

MF-1.3.5.1.2 Manage Items

Add, view, update, and delete the items in the different categories.

MF-1.3.5.1.3 Manage Customized Deals

Add, view, update, and delete the deals created in the menu.

2.5.5.2 Sub Module 2: Restaurant Inventory

This module focuses on the operations related to Menu of a restaurant. It deals with all the activities the restaurant can perform on the Menu. Following are the major features:

MF-1.3.5.2.1 Manage Inventory

Restaurants can manage their inventory as they can add, view, update or remove the inventory which they will be required for their food.

MF-1.3.5.2.2 Auto order stock

The system will monitor the stock products of the restaurant, and when a product reaches a preset limit of the stock amount, an automatic order will be placed to a preselected vendor using the payment method added by the restaurant.

MF-1.3.5.2.3 Manual Order Stock

The restaurant will also be able to restock the products manually.

2.5.6 Module 6: Vendor App

This module focuses on the Vendor end of the system. It deals with the Food Ingredient inventory of the system where the restaurant will be able to purchase the ingredients for their foods from a specific vendor. Following are the major features:

MF-1.3.6.1 Manage Profile

Vendors will be able to complete their profile, such as add their description, type of ingredients they sell, etc. And can further edit, update or delete their profile.

2.5.6.1 Sub Module 1: Stock Management

MF-1.3.6.1.1 Manage Stock Categories

Vendors can add, view, update, and delete the stock categories that they can provide to the restaurant.

MF-1.3.6.1.2 Manage Stock Products

Vendors can add, view, update, and delete the stock products against the added category along with the minimum stock quantity limitation.

2.5.7 Module 7: Order Management

This module focuses on the operations related to Order Management of the system. Where all users can perform varies functionalities on Orders. Following are the major features:

MF-1.3.7.1 Manage Orders

Users can see, update, delete their current and past orders, also they can see the status of their orders and track the current orders.

MF-1.3.7.2 View Pending Order

Restaurant can view its pending orders with the order details and delivery estimate time.

2.5.8 Module 8: Payment Gateway

This module allows users to make transactions online in a secure environment to avoid fraud. This module provides payment solutions for. Following are some features:

MF-1.3.8.1 Financial Transactions

The users can add dining dollars against their actual currency. Customers can tip the skooper other than the actual bill. Skoopers and Restaurant can transfer the dining dollars to their bank accounts, zelle or venmo account.

MF-1.3.8.2 Add Payment Methods

The users can add their card number and other payment methods in their accounts.

MF-1.3.8.3 Pay Order Bill

Customer will pay through their wallet for their order on receiving the food.

2.5.9 Module 9: Statistics and Analytics

This module focuses on the statistical and analytical part of the system. Different analytics will be displayed to the users of the system by manipulating the data using different Machine Learning Algorithms. Major features are shown below:

MF- 1.3.9.1 Restaurant Rating
Users can view the Restaurants based on their performance.
MF-1.3.9.2 Skooper Analytics
Admin can view the analytics of the skoopers.
MF-1.3.9.3 System Statistics
The admin can view graphical Statistics as well as analytics of the system.
MF-1.3.9.4 Order Analytics
Admin can view the order analytics, as well as the order average time.
MF-1.3.9.5 Restaurant Ordering Analytics
Enhancing the analytics to provide meaningful insights into restaurant ordering patterns, predicting peak times, and optimizing the system based on historical data.
MF-1.3.9.6 Smart Skooper Rating
Implementing a smart rating system for Skoopers by analyzing customer comments using sentiment analysis. The system should generate a meaningful and insightful rating based on the sentiment expressed in the comments.

2.5.10 Module 10: Search, Filters, and Notifications

This module makes sure that each user gets notified on every update and it is convenient for each of them to view information using filters and searches. Following are the main features of this module:

MF-1.3.10.1 Manage Notifications
The admin can generate Notifications for other users, and they can view, mark as read the notifications. Users can filter restaurants, menus, orders or skoopers on various attributes. The system will generate the notifications for operations such as, new order, order pickup, skooper arrival, payment verification, etc
MF-1.3.10.2 Keyboard Search
Users can search for restaurants, menu, orders or skoopers.
MF-1.3.10.3 Sorting
Users can sort the restaurant, menu, orders or skoopers in different orders.

2.5.11 Module 11: Feedback and Reports

This module deals with the feedback and reports functionality that is used throughout the system. Following are the major functionalities:

MF-1.3.11.1 Give Feedback
Users can give feedback on system.
MF-1.3.11.2 Give Review
After ordering the customer can give a review to the restaurant, food product, and skooper along with start rating.
MF-1.3.11.3 View Feedbacks
Admin can view the system feedbacks given by other users.
MF-1.3.11.4 View Reviews
Users can view the reviews and rating for the restaurant, food product and skooper.
MF-1.3.11.5 Manage Reports
The customer can report restaurant or skooper, and admin can view these reports.
MF-1.3.11.6 Customer Updates
Implementing a feature to provide regular and proper updates to customers about their orders, including order status, estimated delivery time, and any other relevant information.

2.5.12 Module 12: Chat

The following are the main features of the chat module.

MF-1.3.12.1 Initiate Chat
Users can initiate chats with each other during the order.
MF-1.3.12.2 View Chat
Users can View chats of other users during the order.

3 Requirement Analysis

3.1 User classes and characteristics

Table 4 User Classes and Characteristics

User class	Description
Customer	A Customer is a university student or a University Staff member who wants to order meals from restaurants present on campus to any location. There are about 4000-6000 potentials customers.
Skooper	A Skooper is a university student who will be responsible for delivering food from restaurant's to delivery locations. They will receive a notification on Skooper App which will guide them through the process.
Restaurant	The Restaurant will handle the orders placed by customers through the SKOOP app. And after completing the order they will hand over the order to the Skooper to be delivered to the customer.
Vendor	A vendor will be any registered wholesaler on the Skoop application. In most cases the restaurant will already be taking their stock from them. The vendor will be responsible for the completion and delivery of the order placed by the restaurant. They can be a lot of vendors as there are no on-campus restrictions, the vendor can be anywhere near the university.
Admin	The admin will be the application owner, he will have the complete authority over the system. The admin can manage all the details and he will get all the statistics of the system.

3.2 Requirement Identifying Technique

Following requirements gathering techniques were implemented.

3.2.1 Requirement Identifying Technique

3.2.1.1 Questionnaire and Surveys:

A set of Questions were given to the public for their thoughts on application. Requirements for our system were extracted from these Questionnaires. Data was gathered for Improvement and best features that were to be included.

3.2.1.2 Group Discussion:

Group discussions with public was held for gathering the information necessary for development of this application.

3.2.2 Use case Diagram(s)

Following are the use case diagrams of our system:

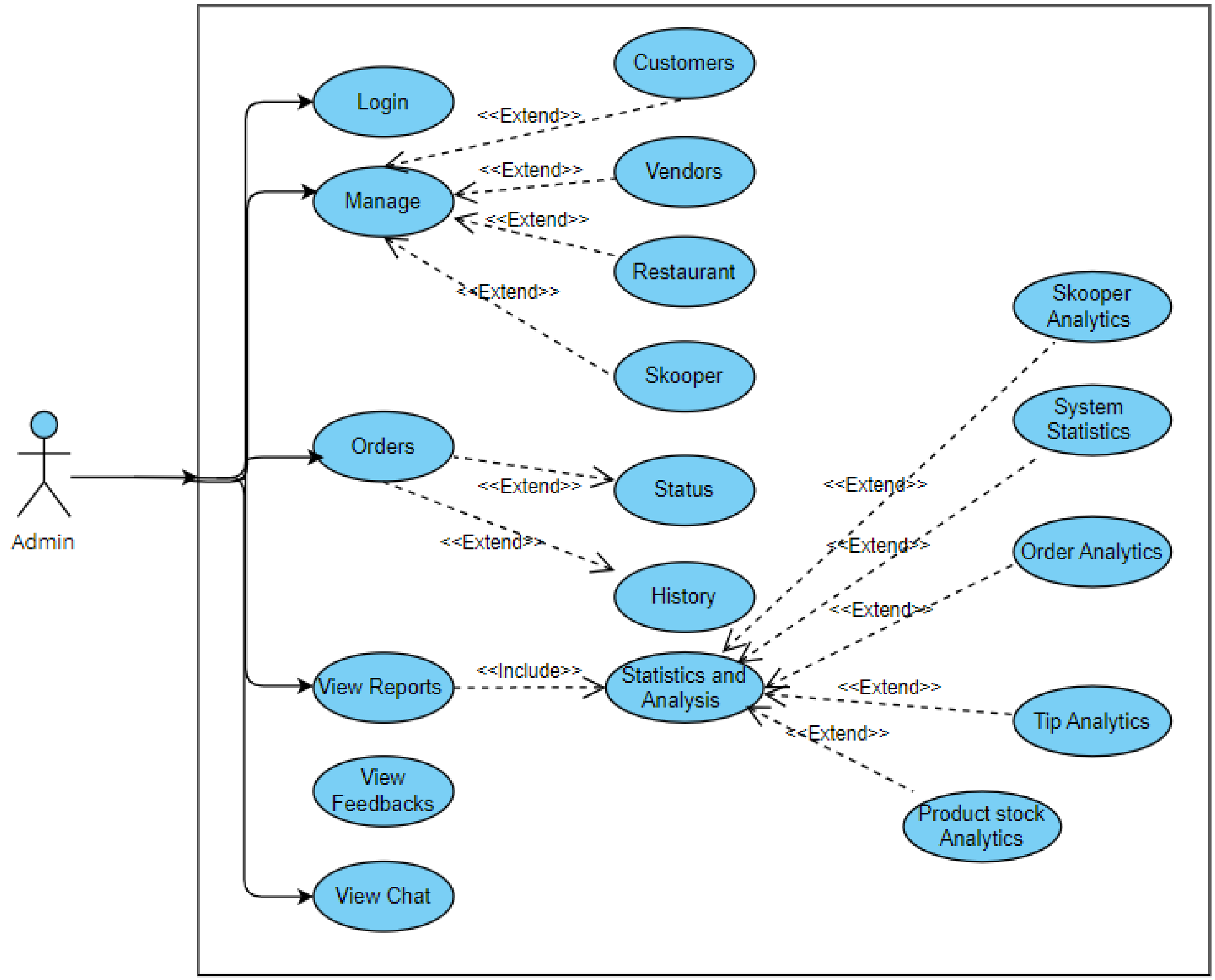

Figure 1 Use case Diagram for Admin

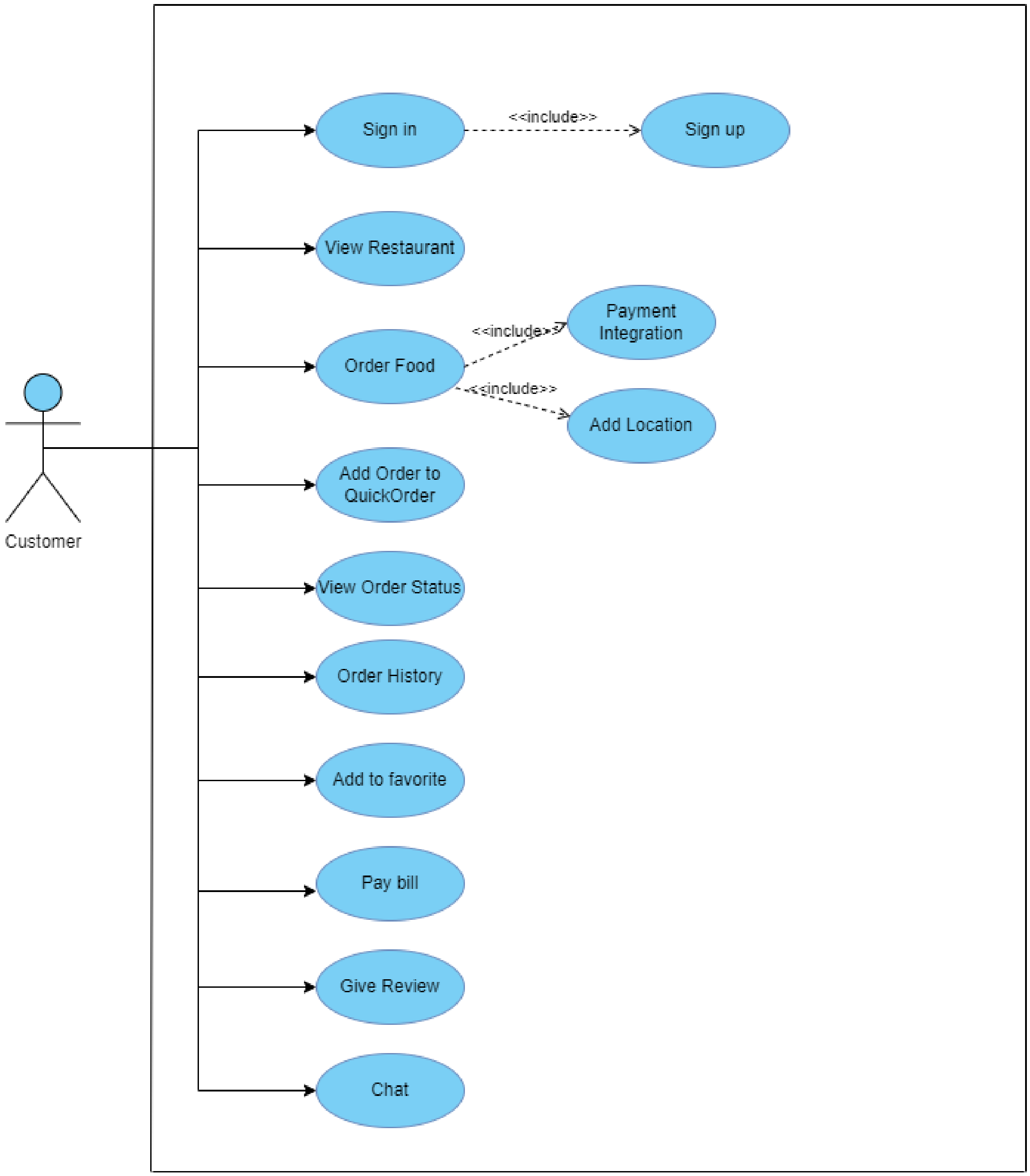

Figure 2 Use Case Diagram for Customer

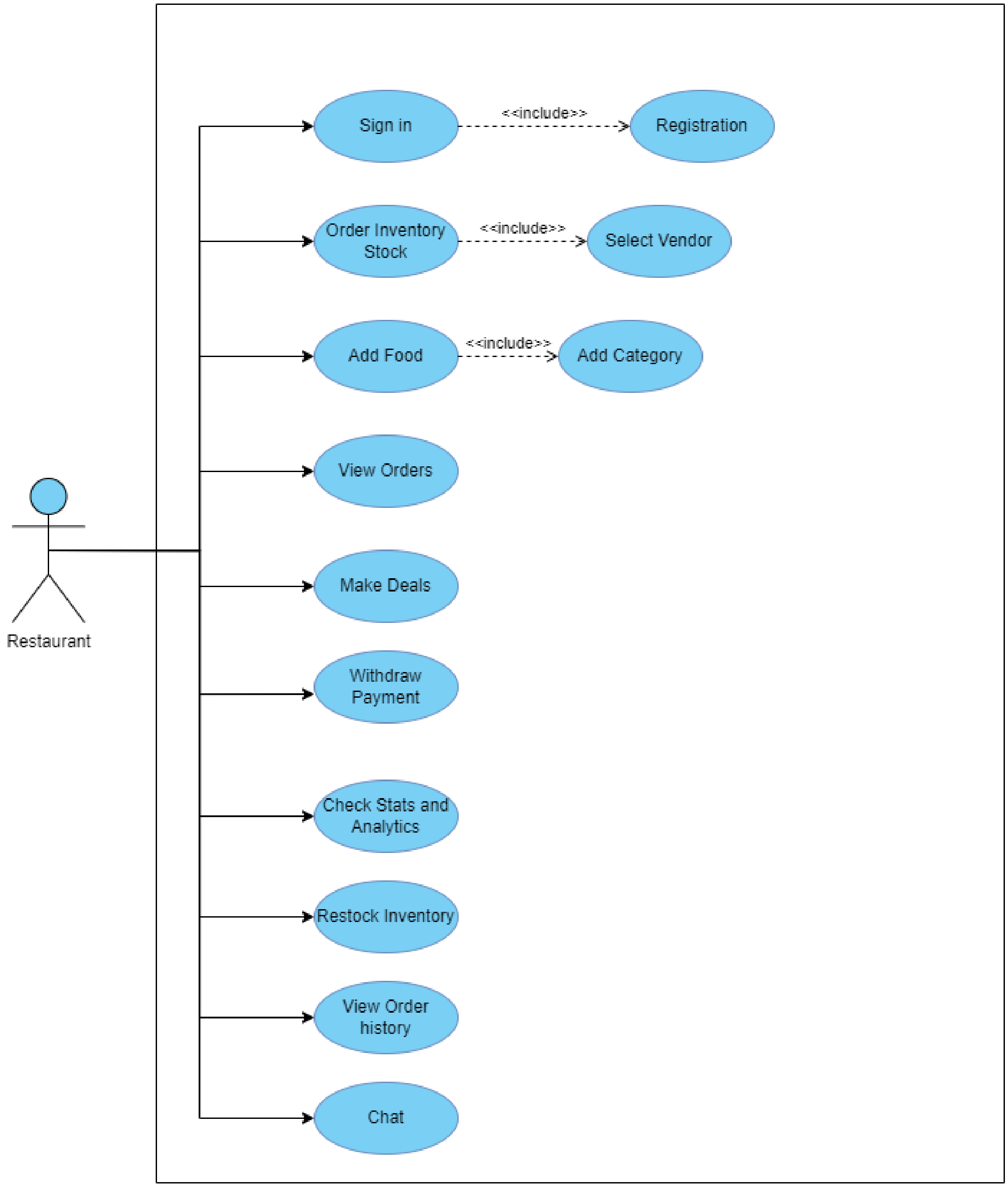

Figure 3 Use Case Diagram for Restaurant

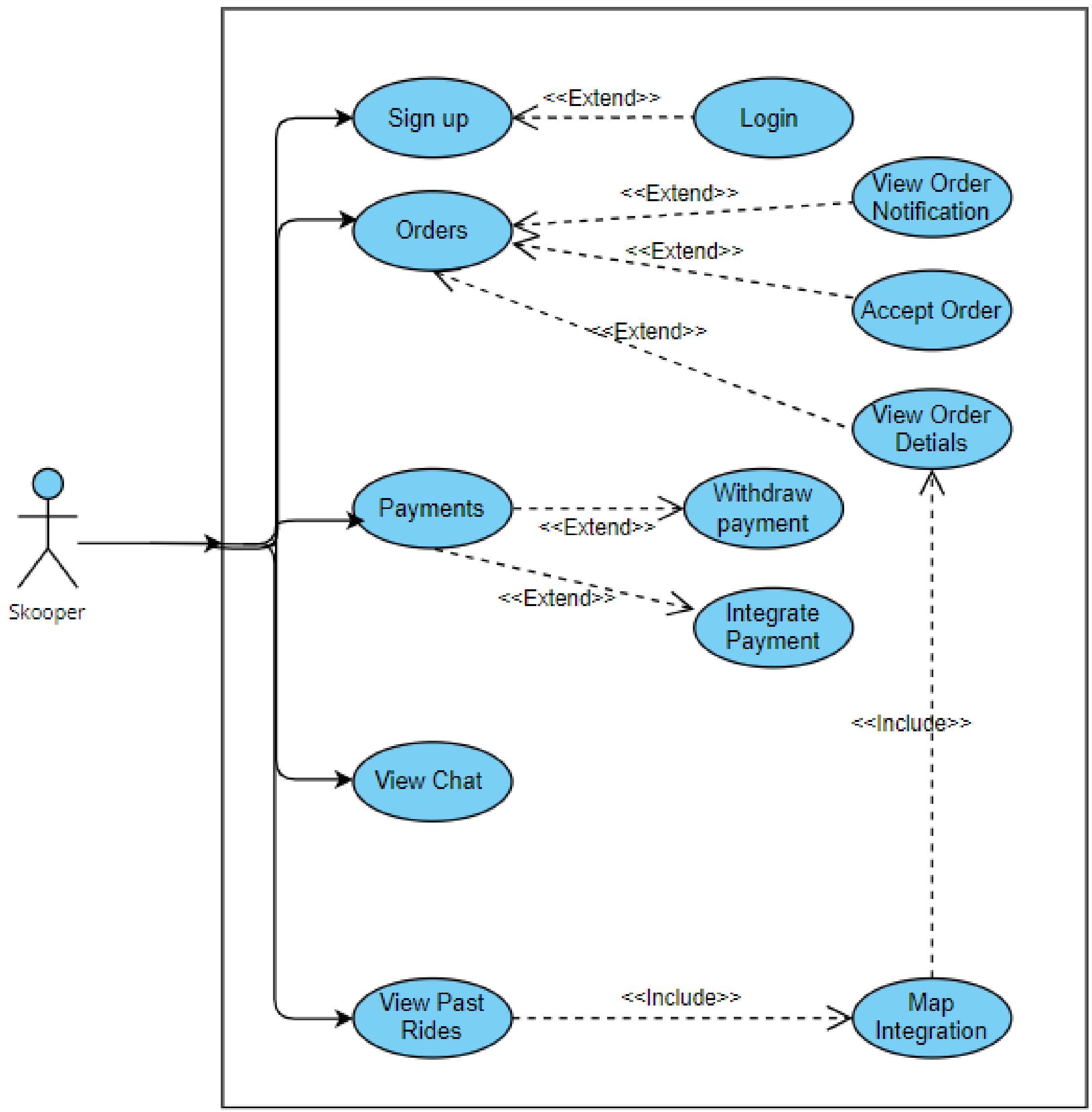

Figure 4 Use Case Diagram for Skooper

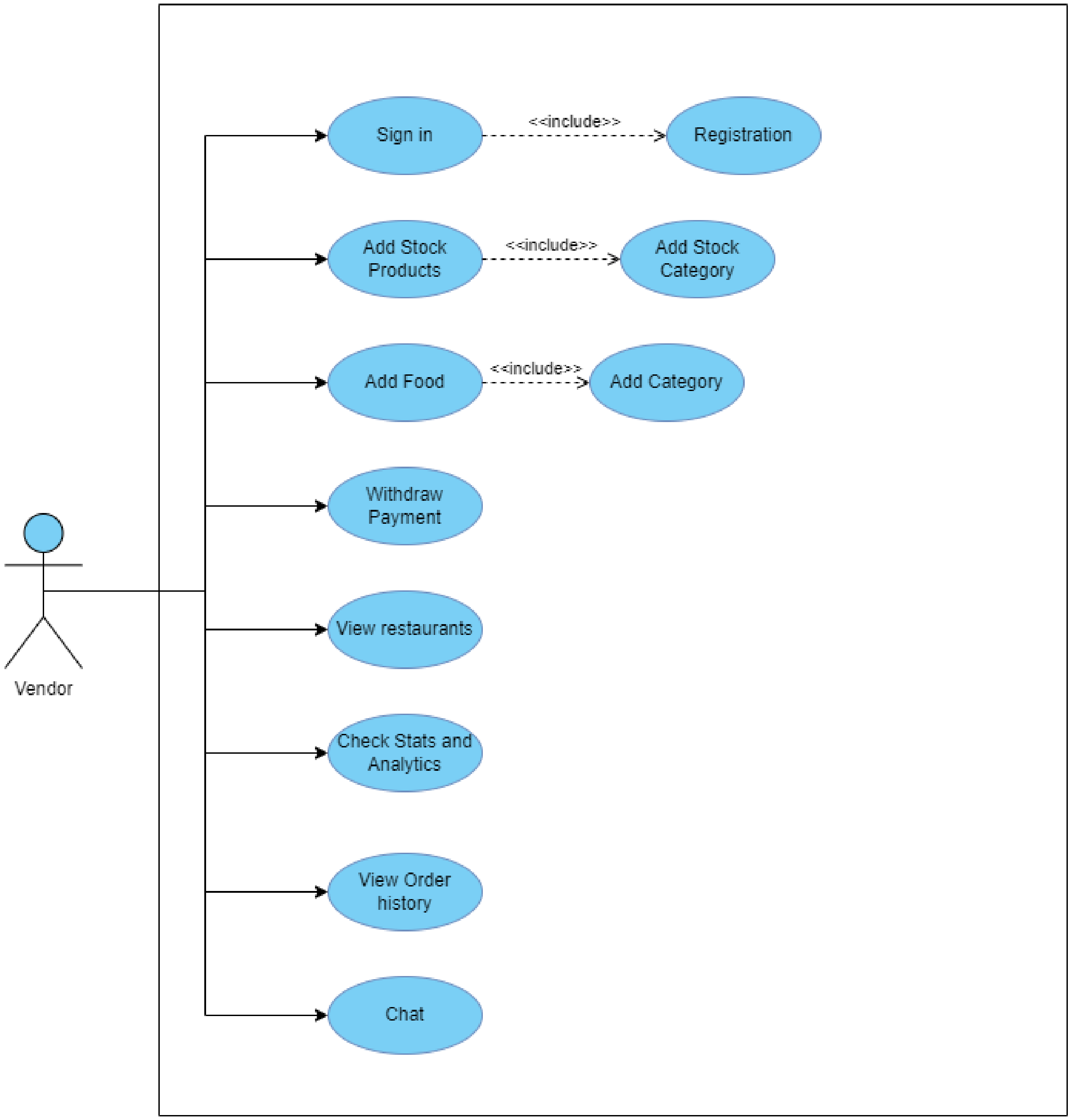

Figure 5 Use Case Diagram for Vendor

3.2.3 Use cases

Below is the description of modules provided in the system.

Module 1: User Profiling

Table 5 Description for Module 1

M1-UC1	Sign Up
M1-UC2	Login
M1-UC3	Forget Password
M1-UC4	Update Profile
M1-UC5	Change Password
M1-UC6	View Profile

Module 2: Admin Panel

Table 6 Description for Module 2

M2-UC1	Manage Customer
M2-UC2	Manage Skooper
M2-UC3	Manage Restaurant
M2-UC4	Manage Vendor

Module 3: Customer Panel

Table 7 Description for Module 3

M3-UC1	Manage Profile
M3-UC2	Manage Location
M3-UC3	Manage Favourite Restaurant
M3-UC4	Manage Cart

Module 4: Skooper App

Table 8 Description for Module 4

M4-UC1	Manage Profile
M4-UC2	Accept or Reject Order
M4-UC3	Map Integration
M4-UC4	Manage Skooper Ride

Module 5: Restaurant App

Table 9 Description for Module 5

M5-UC1	Manage Restaurant Profile
M5-UC2	Manage Item Category
M5-UC3	Manage Items
M5-UC4	Manage Deals
M5-UC5	Manaage Vendors
M5-UC6	Manage Inventory
M5-UC7	Auto Order Stock
M5-UC8	Manual Order Stock

Module 6: Vendor App

Table 10 Description for Module 6

M6-UC1	Manage Vendor Profile
M6-UC2	Manage Stock Category
M6-UC3	Manage Stock Product

Module 7: Order Management

Table 11 Description for Module 7

M7-UC1	Place Order
M7-UC2	Manage QuickOrder
M7-UC3	View Order
M7-UC4	View Pending Orders
M7-UC5	Restaurant Orders
M7-UC6	Order Tracking
M7-UC7	View Order History

Module 8: Payment Gateway

Table 12 Description for Module 8

M8-UC1	Payment and Financial Transactions
M8-UC2	Card Integration
M8-UC3	Pay Order Bills

Module 9: Statistics and Analytics

Table 13 Description for Module 9

M9-UC1	Restaurant Statistics
M9-UC2	Skooper Statistics
M9-UC3	Vendor Statistics
M9-UC4	Skoop Analytics

Module 10: Search, Filter and Notifications

Table 14 Description for Module 10

M10-UC1	Manage Notifications
M10-UC2	Type Filtering
M10-UC3	Keyword Searches
M10-UC4	Sorting
M10-UC5	Generate System Notifications

Module 11: Feedback and Reports

Table 15 Description for Module 11

M11-UC1	Give Feedback
M11-UC2	View Feedback
M11-UC3	Give Rating
M11-UC4	Add Report
M11-UC5	View Report
M11-UC6	Restrict Accounts

Module 12: Chat

Table 16 Description for Module 12

M12-UC1	Start Chat and video call
M12-UC2	Chat Images
M12-UC3	Delete Chat
M12-UC4	Block and restrict User

3.2.4 Use Cases:

3.2.4.1 Module 1: User Profiling

UC-1.1: Sign Up

Table 17 Textual Description of Use Case Sign Up UC-1.1

Actors:	• Skooper • Customer • Restaurant • Vendor
Trigger:	A user wants to create a new account.
Preconditions:	The user must have a valid email address.
Postconditions:	The user has successfully created a new account and is logged in.
Normal Flow:	• The user opens the app and selects the "Signup" option. • The app displays a form for the user to enter their personal information, such as name, email, phone number, and address. • The user fills in the required fields and submits the form. • The app verifies the user's information and creates a new account for them. • The app logs the user in and displays a message confirming that the signup was successful.
Alternative Flows:	If the user already has an account, they can choose to log in instead of signing up.
Exceptions:	If the user enters invalid or incomplete information, the app displays an error message and prompts the user to correct their information.
Business Rules	• Users must provide accurate and complete information when signing up. • Users must agree to the terms and conditions of the app in order to create an account.
Assumptions:	• The app is available for download and installation on the user's device. • The user has a stable internet connection to access the app.

UC-1.2: Login

Table 18: Textual Description of Use Case Login UC-1.2

Actors:	• Skooper • Customer • Restaurant • Vendor
Trigger:	The user wants to access their account and perform actions that require authentication.
Preconditions:	The user must have a registered account.
Postconditions:	The user is successfully logged in and can access their account.
Normal Flow:	• The user opens the login page and enters their username and password. • The system verifies the credentials and checks if the user is active. • If the user is verified and active, the system logs the user in and redirects them to their respective dashboard. • If the user is not verified or active, the system displays an error message and prompts the user to try again or contact support.
Alternative Flows:	• 1a. If the user forgets their password, they can click on the "Forgot Password" link. • 2a. The system prompts the user to enter their registered email address. • 3a. The system sends a password reset link to the user's email address. • 4a. The user clicks on the link and is redirected to a page where they can reset their password.
Exceptions:	• Invalid username or password entered. • Users are not registered. • User accounts areinactive. • Server is down or unable to process the request. • User's email address is not registered. .
Business Rules	• User passwords must be encrypted and stored securely. • Login attempts must be limited to prevent brute-force attacks. • Users must have an active account to log in.
Assumptions:	• The user has a valid email address registered to their account. • The user has access to their registered email address. • The user has a stable internet connection.

UC-1.3: Forget Password

Table 19: Textual Description of Use Case Forget Password UC-1.3

Actors:	• Skooper • Customer • Restaurant • Vendor
Trigger:	User forgets the password
Preconditions:	• User has registered with the system. • User remembers the email address or phone number used during registration.
Postconditions:	• User is able to reset the password. • User can log in to the system using the new password.
Normal Flow:	• User clicks on the 'Forgot Password' link. • System prompts the user to enter their email address or phone number. • User enters the email address or phone number used during registration. • System validates the email address or phone number and sends a verification code to the user's email or phone number. • User enters the verification code. • System prompts the user to enter a new password. • User enters the new password and confirms it. • System validates the new password and updates it in the database. • System notifies the user that the password has been reset successfully.
Alternative Flows:	• 4a. If the email address or phone number entered by the user is not registered in the system, the system displays an error message and prompts the user to enter a valid email address or phone number. • 6a. If the verification code entered by the user is incorrect, the system displays an error message and prompts the user to enter the correct code.
Exceptions:	• System fails to send the verification code to the user's email or phone number. • System fails to update the new password in the database. .
Business Rules	• The verification code should expire after a certain period of time. • The password policy should include minimum length, special characters, and uppercase/lowercase letters.
Assumptions:	• User has access to the email address or phone number used during registration. • User is authorized to reset the password for the account.

UC-1.4: Update Profile

Table 20: Textual Description of Use Case Update Peofile UC-1.4

Actors:	• Skooper • Customer • Restaurant • Vendor
Trigger:	User wants to update their profile information.
Preconditions:	User must be logged in to their account.
Postconditions:	User's profile information is updated in the system.
Normal Flow:	• User navigates to their profile page. • User clicks on the "Edit Profile" button. • System displays a form containing the user's current profile information. • User modifies their profile information. • User clicks on the "Save" button. • System updates the user's profile information in the database. • System displays a message confirming the profile update.
Alternative Flows:	• 3a. If the user wants to change their password, they click on the "Change Password" button and follow the password reset process.
Exceptions:	If there is an error while updating the user's profile information, the system displays an error message and prompts the user to try again..
Business Rules	• User can only update their own profile information. • User's profile information must be in a valid format.
Assumptions:	• User has the necessary permissions to update their profile information. • User has a stable internet connection.

UC-1.5: Change Password

Table 21: Textual Description of Use Case Change Password UC-1.5

Actors:	• Skooper • Customer • Restaurant • Vendor
Trigger:	The user wants to change the password for their account.
Preconditions:	• The user must be logged in to their account. • The user must know their current password.
Postconditions:	The user's password is updated in the system.
Normal Flow:	• The user clicks on the "Change Password" option in their profile settings. • The system prompts the user to enter their current password and their desired new password. • The user enters their current password and their desired new password. • The system verifies that the current password is correct and the new password meets the system's password policy requirements. • The system updates the user's password in the system. • The system displays a message confirming that the password has been changed.
Alternative Flows:	• 4a. If the current password entered by the user is incorrect, the system displays an error message and prompts the user to enter their current password again.
Exceptions:	If the user enters a new password that does not meet the system's password policy requirements, the system will display an error message and prompt the user to enter a different password.
Business Rules	• The password policy requirements are set by the system and cannot be changed by the user. • The user's password is stored securely in the system and cannot be accessed by anyone, including system administrators.
Assumptions:	The user has access to their email address associated with the account in case they need to reset their password in the future.

UC-1.6: View Profile

Table 22: Textual Description of Use Case View Profile UC-1.6

Actors:	• Skooper • Customer • Restaurant • Vendor
Trigger:	The user wants to view their own profile information.
Preconditions:	The user must be logged in to their account.
Postconditions:	The user can view their own profile information.
Normal Flow:	• The user clicks on the "View Profile" button in the user profile section. • The system displays the user's profile information, such as name, email, phone number, profile picture, and any other relevant information.
Alternative Flows:	If the user has not completed their profile information, the system will prompt them to fill out any missing fields before allowing them to view their profile.
Exceptions:	If the user is not logged in, the system will redirect them to the login page
Business Rules	• • Users can only view their own profile information. • User profile information is private and cannot be viewed by other users.
Assumptions:	The user has a valid account and is logged in

3.2.4.2 Module 2: Admin Panel

UC-2.1: Manage Customer

Table 23: Textual Description of Use Case Manage Customer UC-2.1

Actors:	• Admin
Trigger:	Admin wants to manage customer accounts.
Preconditions:	• Admin must be logged in. • At least one customer account should exist.
Postconditions:	Admin has successfully managed customer accounts
Normal Flow:	• Admin navigates to the Customer section of the Admin Panel. • Admin searches for the desired customer using the search bar or filter options. • Admin selects one of the following actions:

	a. View Customer: Admin clicks on the customer's name or account number to view the details, and the system displays the customer's profile, including their personal information, order history, and relevant details. b. Add Customer: Admin selects the "Add Customer" option from the admin panel, fills in the required customer details, and submits the form. The system validates and adds the customer to the system. c. Update Customer: Admin selects the customer they want to update, chooses the "Update" option, updates relevant customer information, and saves the changes. The system confirms the successful update. d. Remove Customer: Admin selects "Remove Customer" option, confirms the removal, and the system removes the customer from the system. e. Restrict Customer: Admin selects the customer account to be restricted, confirms the restriction, and the system restricts the customer account.
Alternative Flows:	• If the customer does not exist or the search yields no results in the View Customer scenario, the system displays an error message and prompts the admin to try again. • If provided details are invalid during the Add Customer scenario, the system displays an error message indicating required changes. • If there is an error during the update process, the system displays an error message. • If the admin does not want to update any information during the Update Customer scenario, they can choose to cancel the operation. • If the admin cancels the removal of the customer during the Remove Customer scenario, the system does not remove the customer and returns to the previous state. • If the customer account does not exist in the system during the Remove Customer or Restrict Customer scenario, the system displays an error message to the admin. • If the admin does not have the necessary permissions to add, update, remove, or restrict a customer, the system displays an error message and does not allow the action to proceed. • Once a customer account is restricted, the customer cannot access the Skooper platform until the restriction is lifted.
Exceptions:	None
Business Rules	• Admin can only manage customer accounts but cannot make changes to a customer's profile without their explicit consent. • Admin can only add a customer with a unique email address. • The customer's password is auto generated by the system and sent to the customer's email address. • The customer's account is inactive until they confirm their email address. • Only authorized admins can manage customer accounts. • The updated information must meet the validation rules set by the system.
Assumptions:	All customers have a unique identifier, such as an account number or email address.

	Admin has the necessary permissions to manage customer accounts. Admin has access to the internet and the admin panel. The admin panel has proper security measures in place to prevent unauthorized access. The customer management section of the admin panel displays a list of all customer accounts, their information, and their status

UC-2.2: Manage Skooper

Table 24: Textual Description of Use Case Manage Skooper UC-2.2

Actors:	Admin
Trigger:	Admin wants to manage Skooper accounts.
Preconditions:	• Admin must be logged in • At least one Skooper account should exist
Postconditions:	Admin has successfully managed Skooper accounts.
Normal Flow:	• Admin navigates to the Skooper section of the Admin Panel. • Admin searches for the desired Skooper using the search bar or filter options. • Admin selects one of the following actions: a. View Skooper: Admin clicks on the Skooper's name or account number to view the details, and the system displays the Skooper's profile, including their personal information, order history, and relevant details. b. Add Skooper: Admin selects the "Add Skooper" option from the admin panel, fills in the required Skooper details, and submits the form. The system validates and adds the Skooper to the system. c. Update Skooper: Admin selects the Skooper they want to update, chooses the "Update" option, updates relevant Skooper information, and saves the changes. The system confirms the successful update. d. Remove Skooper: Admin selects "Remove Skooper" option, confirms the removal, and the system removes the Skooper from the system. e. Restrict Skooper: Admin selects the Skooper account to be restricted, confirms the restriction, and the system restricts the Skooper account.
Alternative Flows:	• If the Skooper does not exist or the search yields no results in the View Skooper scenario, the system displays an error message and prompts the admin to try again. • If provided details are invalid during the Add Skooper scenario, the system displays an error message indicating required changes. • If there is an error during the update process, the system displays an error message. • If the admin does not want to update any information during the Update Skooper scenario, they can choose to cancel the operation.

	• If the admin cancels the removal of the Skooper during the Remove Skooper scenario, the system does not remove the Skooper and returns to the previous state. • If the Skooper account does not exist in the system during the Remove Skooper or Restrict Skooper scenario, the system displays an error message to the admin. • If the admin does not have the necessary permissions to add, update, remove, or restrict a Skooper, the system displays an error message and does not allow the action to proceed. • Once a Skooper account is restricted, the Skooper cannot access the Skooper platform until the restriction is lifted.
Exceptions:	None
Business Rules	• Admin can only manage Skooper accounts but cannot make changes to a Skooper's profile without their explicit consent. • Admin can only add a Skooper with a unique email address. • The Skooper's password is auto-generated by the system and sent to the Skooper's email address. • The Skooper's account is inactive until they confirm their email address. • Only authorized admins can manage Skooper accounts. • The updated information must meet the validation rules set by the system
Assumptions:	• All Skoopers have a unique identifier, such as an account number or email address. • Admin has the necessary permissions to manage Skooper accounts. • Admin has access to the internet and the admin panel. • The admin panel has proper security measures in place to prevent unauthorized access. • The Skooper management section of the admin panel displays a list of all Skooper accounts, their information, and their status.

UC-2.3: Manage Restaurant

Table 25: Textual Description of Use View Restaurant UC-2.9

Actors:	Admin
Trigger:	Admin wants to manage restaurant accounts.
Preconditions:	• Admin must be logged in. • At least one restaurant account should exist.
Postconditions:	Admin has successfully managed restaurant accounts.
Normal Flow:	• Admin navigates to the Restaurant section of the Admin Panel. • Admin searches for the desired restaurant using the search bar or filter options. • Admin selects one of the following actions: a. View Restaurant: Admin clicks on the restaurant's name or account number to view the details, and the system displays the restaurant's profile, including their personal information, order history, and relevant details.

	b. Add Restaurant: Admin selects the "Add Restaurant" option from the admin panel, fills in the required restaurant details, and submits the form. The system validates and adds the restaurant to the system. c. Update Restaurant: Admin selects the restaurant they want to update, chooses the "Update" option, updates relevant restaurant information, and saves the changes. The system confirms the successful update. d. Remove Restaurant: Admin selects "Remove Restaurant" option, confirms the removal, and the system removes the restaurant from the system. e. Restrict Restaurant: Admin selects the restaurant account to be restricted, confirms the restriction, and the system restricts the restaurant account.
Alternative Flows:	• If the restaurant does not exist or the search yields no results in the View Restaurant scenario, the system displays an error message and prompts the admin to try again. • If provided details are invalid during the Add Restaurant scenario, the system displays an error message indicating required changes. • If there is an error during the update process, the system displays an error message. • If the admin does not want to update any information during the Update Restaurant scenario, they can choose to cancel the operation. • If the admin cancels the removal of the restaurant during the Remove Restaurant scenario, the system does not remove the restaurant and returns to the previous state. • If the restaurant account does not exist in the system during the Remove Restaurant or Restrict Restaurant scenario, the system displays an error message to the admin. • If the admin does not have the necessary permissions to add, update, remove, or restrict a restaurant, the system displays an error message and does not allow the action to proceed. • Once a restaurant account is restricted, the restaurant cannot access the restaurant platform until the restriction is lifted.
Exceptions:	• Admin can only manage restaurant accounts but cannot make changes to a restaurant's profile without their explicit consent. • Admin can only add a restaurant with a unique email address. • The restaurant's password is auto-generated by the system and sent to the restaurant's email address. • The restaurant's account is inactive until they confirm their email address. • Only authorized admins can manage restaurant accounts. • The updated information must meet the validation rules set by the system.
Business Rules	• Admin can only view the details of restaurants and cannot make any changes to their profile without their explicit consent.

	• Admin can only add a restaurant with a unique email address. • The restaurant's password is auto-generated by the system and sent to the restaurant's email address. • The restaurant's account is inactive until they confirm their email address. • Only authorized admins can manage restaurant accounts. • The updated information must meet the validation rules set by the system. • Once a restaurant account is restricted, the restaurant cannot access the restaurant platform until the restriction is lifted. • Admins with the necessary permissions can perform actions such as adding, updating, removing, and restricting restaurant accounts. • All restaurants must have a unique identifier, such as an account number or email address. • Proper security measures are in place within the admin panel to prevent unauthorized access to restaurant accounts and data. • The restaurant management section of the admin panel displays a list of all restaurant accounts, their information, and their status for easy management. • Error messages are displayed when invalid or incorrect actions are attempted, and admin permissions are enforced.
Assumptions:	• All restaurants have a unique identifier, such as an account number or email address. • Admin has the necessary permissions to manage restaurant accounts. • Admin has access to the internet and the admin panel. • The admin panel has proper security measures in place to prevent unauthorized access. • The restaurant management section of the admin panel displays a list of all restaurant accounts, their information, and their status.

UC-2.4: Manage Vendor

Table 26: Textual Description of Use Case Manage Vendor UC-2.4

Actors:	Admin
Trigger:	Admin wants to manage vendor accounts.
Preconditions:	• Admin must be logged in. • At least one vendor account should exist.
Postconditions:	Admin has successfully managed vendor accounts.
Normal Flow:	• Admin navigates to the Vendor section of the Admin Panel. • Admin searches for the desired vendor using the search bar or filter options. • Admin selects one of the following actions:

	a. View Vendor: Admin clicks on the vendor's name or account number to view the details, and the system displays the vendor's profile, including their personal information, order history, and relevant details. b. Add Vendor: Admin selects the "Add Vendor" option from the admin panel, fills in the required vendor details, and submits the form. The system validates and adds the vendor to the system. c. Update Vendor: Admin selects the vendor they want to update, chooses the "Update" option, updates relevant vendor information, and saves the changes. The system confirms the successful update. d. Remove Vendor: Admin selects "Remove Vendor" option, confirms the removal, and the system removes the vendor from the system. e. Restrict Vendor: Admin selects the vendor account to be restricted, confirms the restriction, and the system restricts the vendor account.
Alternative Flows:	• If the vendor does not exist or the search yields no results in the View Vendor scenario, the system displays an error message and prompts the admin to try again. • If provided details are invalid during the Add Vendor scenario, the system displays an error message indicating required changes. • If there is an error during the update process, the system displays an error message. • If the admin does not want to update any information during the Update Vendor scenario, they can choose to cancel the operation. • If the admin cancels the removal of the vendor during the Remove Vendor scenario, the system does not remove the vendor and returns to the previous state. • If the vendor account does not exist in the system during the Remove Vendor or Restrict Vendor scenario, the system displays an error message to the admin. • If the admin does not have the necessary permissions to add, update, remove, or restrict a vendor, the system displays an error message and does not allow the action to proceed. • Once a vendor account is restricted, the vendor cannot access the vendor platform until the restriction is lifted.
Exceptions:	• If the admin provides invalid details when adding a restaurant, the system displays an error message indicating the required changes to be made, and the restaurant is not added until valid details are provided. • If the admin does not have the necessary permissions to perform actions such as adding, updating, removing, or restricting a restaurant, the system displays an error message, and the action is not permitted. • If there is an error in the system while updating restaurant information, the system displays an error message to the admin, and the changes are not saved. • If the admin searches for a restaurant that does not exist or the search yields no results, the system displays an error message. In the View

	Restaurant scenario, the admin is prompted to try again. In the Remove Restaurant and Restrict Restaurant scenarios, the admin is informed that the restaurant does not exist, and no further action is taken. • If the admin cancels the removal of a restaurant during the Remove Restaurant scenario, the system does not remove the restaurant, and the system returns to the previous state, with the restaurant remaining in the system. • If the admin cancels the restriction of a restaurant during the Restrict Restaurant scenario, the system does not restrict the restaurant, and the system returns to the previous state, with the restaurant's access remaining unchanged. • Once a restaurant account is restricted, the restaurant cannot access the restaurant platform until the restriction is lifted.
Business Rules	• Admin can only manage vendor accounts but cannot make changes to a vendor's profile without their explicit consent. • Admin can only add a vendor with a unique email address. • The vendor's password is auto-generated by the system and sent to the vendor's email address. • The vendor's account is inactive until they confirm their email address. • Only authorized admins can manage vendor accounts. • The updated information must meet the validation rules set by the system.
Assumptions:	• All vendors have a unique identifier, such as an account number or email address. • Admin has the necessary permissions to manage vendor accounts. • Admin has access to the internet and the admin panel. • The admin panel has proper security measures in place to prevent unauthorized access. • The vendor management section of the admin panel displays a list of all vendor accounts, their information, and their status.

UC-2.5: Verify Mobile Apps and Student ID during registration

Table 26: Textual Description of Use Case Verify Mobile Apps and Student ID during Registration

Actors:	Admin
Trigger:	Admin initiates the verification process during the registration of a new user.
Preconditions:	• Admin must be logged in. • A new user is in the registration process.
Postconditions:	Admin has successfully verified and approved the mobile app's front-end and backend, along with student ID verification.
Normal Flow:	• Admin navigates to the Registration Verification section of the Admin Panel.

	• Admin identifies the pending registration that requires verification. • Admin selects the pending registration to view the details. • Admin verifies the following: a. Mobile App Front-end: Admin reviews the user interface of the mobile app to ensure it meets the specified standards. b. Mobile App Backend: Admin assesses the backend functionality of the mobile app to ensure it meets the specified standards. c. Student ID: Admin reviews the submitted student ID to ensure it is valid and matches the registration details. • If verification is successful, admin approves the registration. • The system updates the user's status to "Verified" and notifies the user about the successful verification.
Alternative Flows:	• If the mobile app front-end or backend does not meet the specified standards, admin marks the registration as "Verification Failed" and provides feedback to the user. • If the student ID is invalid or does not match the registration details, admin marks the registration as "Verification Failed" and provides feedback to the user.
Exceptions:	• If there is a system failure during the verification process, admin receives an error message, and the verification process is halted. • If the admin does not have the necessary permissions to perform verification, the system displays an error message, and the verification process is not allowed. • If the admin cancels the verification process, the system does not update the user's status, and the registration remains pending.
Business Rules	• Admin can only verify and approve registrations after ensuring the mobile app's front-end and backend meet the specified standards and the student ID is valid. • The system sends a notification to the user upon successful verification. • Verification feedback, whether successful or failed, should be clear and informative for the user.
Assumptions:	• Admin has received proper training on the verification process. • The specified standards for mobile app front-end and backend are well-documented and communicated to the admin. • The student ID provided by the user is expected to be a valid and legitimate form of identification. • The admin panel has proper security measures in place to prevent unauthorized access to user registration details.

3.2.4.3 Module 3: Customer Panel

UC-3.1: Manage Profile

Table 27: Textual Description of Use Case Manage Profile UC-3.1

Actors:	Customer
Trigger:	Customer wants to manage their profile in the customer app.
Preconditions:	• The customer has installed the customer app on their device. • The customer has created an account in the customer app. • The customer must be logged into their account.
Postconditions:	• The customer profile is updated with the new information (for "Complete Profile" and "Update Profile"). • Customer can view their profile information (for "View Profile"). • Customer's profile and associated data should be removed from the system (for "Delete Profile").
Normal Flow:	• The customer opens the customer app. • Customer logs in to their account using their credentials. • Customer navigates to the "Profile" section. • In the profile section, customer is presented with the following options: a. Complete Profile: i. Customer clicks on the "Complete Profile" button. ii. Customer is presented with a form to fill out their personal information, including name, email address, phone number, and address. iii. Customer fills out the form with the required information. iv. Customer clicks on the "Submit" button. v. The customer profile is updated with the new information. vi. Customer is redirected to their updated profile page. b. View Profile: i. Customer can view their profile information, including their name, contact information, and any other relevant details. c. Update Profile: i. Customer clicks on the "Edit" button. ii. Customer updates the necessary fields (e.g., name, address, phone number, etc.). iii. Customer clicks on the "Save" button to submit the changes. iv. The app displays a message indicating that the profile has been updated successfully. d. Delete Profile: i. Customer selects the option to delete their profile. ii. App displays a confirmation message and asks for customer confirmation. iii. If the customer confirms the deletion, the app removes the customer's profile and associated data from the system. iv. Customer is logged out of the app.

Alternative Flows:	• If the customer has already completed their profile, they are redirected to their profile page. • If the customer enters invalid or incomplete information, an error message is displayed, and the customer is prompted to correct the errors. • If the customer has an active order linked with their account, the app displays an error message stating that the profile cannot be deleted until the order is complete. • If the customer has not completed their profile, the app displays an error message stating that the profile cannot be deleted until it is completed. • If the customer cancels the deletion process before confirmation, the app returns them to the settings or account section. • If there are technical errors during the deletion process, the app displays an error message and prompts the customer to try again later. • If the customer is not able to log in to their account, the app displays an error message and prompts the customer to check their login details or reset their password. • If the customer does not want to update any information, they can simply close the profile editing page. • If the customer enters invalid information (e.g., an invalid phone number), the app displays an error message and prompts the customer to correct the information.
Exceptions:	• If there is an error retrieving the customer's profile information, an error message is displayed to the customer. • If the customer's account has been deactivated, an error message is displayed to the customer. • If the customer does not want to update any information, they can simply close the profile editing page. • If the customer enters invalid information (e.g., an invalid phone number), the app displays an error message and prompts the customer to correct the information.
Business Rules	• The customer must fill out all required fields in the form (for "Complete Profile"). • The customer's personal information must be accurate and up-to-date. • The deletion of the customer's profile and associated data should be irreversible. • The customer should be required to confirm their decision to delete their profile to prevent accidental deletion.
Assumptions:	• The customer has a stable internet connection to submit their profile information. • The customer has a valid email address and phone number. • The app should ensure that the customer has completed their profile and has no active orders before deleting their profile to prevent data loss and errors.

UC-3.2: Manage Location

Table 28: Textual Description of Use Case Add Location UC-3.2

Actors:	Customer
Trigger:	Customer wants to manage their saved locations.
Preconditions:	• Customer is logged in to their account.
Postconditions:	• The requested location-related action has been successfully performed.

Normal Flow:	• Customer opens the app and goes to their profile page.
	• Customer selects one of the following location-related options:
	a. Add Location: Customer can add a new location to their profile.
	b. View Locations: Customer can view a list of their saved locations.
	c. Delete Location: Customer can delete a location from their profile.
	• Depending on the selected option:
	  ◦ For "Add Location," the app opens a map interface where the customer can select their location or manually enter location information. The app saves the location to the customer's profile and confirms the addition.
	  ◦ For "View Locations," the app displays a list of the customer's saved locations, including relevant details.
	  ◦ For "Delete Location," the app displays the list of locations and prompts the customer to confirm the deletion. Upon confirmation, the selected location is removed from the customer's profile, and a success message is displayed.

Alternative Flows:	• If the customer cannot access the map interface (in the "Add Location" scenario), they can manually enter their location information. • If the customer selects the wrong location to delete (in the "Delete Location" scenario), they can cancel the operation and return to the list of locations.
Exceptions:	• If the customer's location cannot be identified through the map interface or the location information provided during "Add Location," an error message is displayed. • If the customer is not logged in, the app prompts them to log in or create an account before proceeding..
Business Rules	• Customers can save multiple locations. • Each saved location must have a unique name and address. • Customers can edit or delete saved locations. • The app should provide a user-friendly interface to view and manage saved locations.
Assumptions:	• The app has access to the customer's device location information. • The customer has added at least one location to their profile before attempting to delete a location.

UC-3.3: Manage Favorite Restaurant

Table 29: Textual Description of Use Case Add Favorite Restaurant UC-3.3

Actors:	• Customer
Trigger:	Customer wants to manage their list of favorite restaurants in the app.
Preconditions:	• Customer must be logged in. • The restaurant must exist in the app's database for adding to favorites. • The customer must have added at least one restaurant to their favorites list for viewing and removing.
Postconditions:	• The restaurant is added to the customer's favorites list (for "Add Favorite Restaurant"). • The customer is able to view and manage their list of favorite restaurants (for "View Favorite Restaurants" and "Remove Favorite Restaurant").
Normal Flow:	• Customer opens the app and logs in to their account. • Customer navigates to the restaurant's page (for adding a favorite restaurant) or clicks on the "Favorite Restaurants" button in the app menu (for viewing and removing). • If adding a favorite restaurant: a) Customer clicks the "Add to favorites" button. b) App checks if the customer is logged in. c) App checks if the restaurant exists in the app's database. d) App adds the restaurant to the customer's favorites list. e) App displays a confirmation message to the customer. • If viewing favorite restaurants: a) App displays a list of the customer's favorite restaurants. b) The customer can scroll through the list to view their favorite restaurants. c) If the customer wants to remove a restaurant from their favorites list, they can click on a "remove" button next to the restaurant name. • If removing a favorite restaurant: a) Customer selects the option to remove a favorite restaurant. b) App presents the list of favorite restaurants to the customer and prompts them to select which restaurant they want to remove. c) Customer selects the restaurant they want to remove. d) App confirms with the customer that they want to remove the selected restaurant. e) App removes the selected restaurant from the customer's list of favorite restaurants and updates the display accordingly.
Alternative Flows:	• If the customer is not logged in, App prompts the customer to log in or create an account before adding, viewing, or removing restaurants from their favorites list. • If the restaurant does not exist in the app's database, App displays an error message to the customer.

	• If the customer has not added any restaurants to their favorites list, the app displays a message stating that the list is currently empty. • If the customer has no favorite restaurants in their list, the app informs them that they do not have any favorite restaurants added and returns them to the home screen.
Exceptions:	• If the app encounters an error while adding, viewing, or removing favorite restaurants, it displays an error message to the customer and prompts them to try again later.
Business Rules	• Only logged-in customers can add, view, and remove favorite restaurants. • The customer must have at least one favorite restaurant in their list before they can remove any. • A customer can add multiple restaurants to their favorites list. • The app must display a clear confirmation message to the customer after successfully adding a restaurant to their favorites list or removing one.
Assumptions:	• The customer is familiar with the process of logging into their account and navigating through the app. • The restaurant exists in the app's database for adding to favorites. • The customer has an internet connection and can access the app's services.

UC-3.4: Manage Cart

Table 30: Textual Description of Use Case Manage Cart UC-3.4

Actors:	Customer
Trigger:	Customer wants to manage their shopping cart.
Preconditions:	• Customer must be logged in. • Customer must have a valid payment method associated with their account. • Items to be managed in the cart must be in stock.
Postconditions:	• The requested cart-related action has been successfully performed.
Normal Flow:	• Customer selects an item to add, view, or update in their cart. • The system verifies that the customer is logged in and has a valid payment method. • Depending on the selected action: a. Add to Cart: The system verifies that the item is in stock, adds the item to the customer's cart, and reduces the item's stock quantity. b. View Cart: The app displays the list of items in the cart, and the customer can perform actions like adjusting quantities or proceeding to checkout. c. Update Cart: The customer selects an item to update, specifies the changes (quantity, toppings, etc.), confirms the changes, and the app updates the cart accordingly.
Alternative Flows:	• In the "Add to Cart" scenario, if the item is out of stock, the system displays an error message to the customer and does not add the item to the cart.

	• In the "View Cart" scenario, if the cart is empty, the app displays a message indicating that the cart is empty. • In the "Update Cart" scenario, if the item is not editable, the app displays an error message, and if the customer cancels the update, they are returned to the cart view without changes.
Exceptions:	• If the item being added is not found, the system displays an error message. • If the quantity of the item in stock is not sufficient, the system displays an error message. • If there is an error loading cart information or during the update process, the app displays an error message.
Business Rules	• Only items in stock can be added to the cart. • The cart cannot be updated if the item is no longer available or if the customer has exceeded the restaurant's order limit.
Assumptions:	• The customer has already logged in to their account. • The customer has at least one valid payment method associated with their account. • The system has up-to-date inventory information for all items. • The app has access to the restaurant's menu and inventory information in real-time.

3.2.4.4 Module 4: Skooper App

UC-4.1: Manage Profile

Table 31: Textual Description of Use Case Manage Profile UC-4.1

Actors:	Skooper
Trigger:	Skooper wants to manage their profile in the Skooper app.
Preconditions:	• The Skooper has installed the Skooper app on their device. • Skooper has created an account in the Skooper app. • For deleting the profile: Skooper's account should not be linked with any active orders.
Postconditions:	• Skooper's profile is updated with new information (for completion and update scenarios). • Skooper's profile and associated data are removed from the system (for deletion scenario).
Normal Flow:	• Skooper opens the Skooper app. • Skooper navigates to the "Profile" section. • Depending on the action selected: a. Complete Profile: Skooper clicks on the "Complete Profile" button, fills out a form with personal information (name, email, phone, address), submits it, and their profile is updated with the new information.

	b. View Profile: Skooper views their profile information including their name, contact information, and other relevant details. c. Update Profile: Skooper clicks on the "Edit" button, updates necessary fields (e.g., name, address, phone number), and clicks on "Save" to submit the changes. The app displays a success message indicating the profile has been updated successfully. d. Delete Profile: Skooper navigates to the settings or account section, selects the option to delete their profile, confirms the deletion, and the app removes their profile and associated data from the system. Skooper is logged out of the app.
Alternative Flows:	• If the Skooper has already completed their profile (for Complete Profile), they are redirected to their profile page. • If the Skooper enters invalid or incomplete information (for Complete Profile or Update Profile), an error message is displayed, and the Skooper is prompted to correct the errors. • If the Skooper has an active order linked with their account (for Delete Profile), the app displays an error message stating that the profile cannot be deleted until the order is complete. • If Skooper has not completed their profile (for Delete Profile), the app displays an error message stating that the profile cannot be deleted until it is completed. • If the Skooper cancels the deletion process before confirmation (for Delete Profile), the app returns them to the settings or account section.
Exceptions:	• If there are technical errors during the deletion process (for Delete Profile), the app displays an error message and prompts the Skooper to try again later. • If the Skooper is not able to log in to their account, the app displays an error message and prompts the Skooper to check their login details or reset their password.
Business Rules	• The Skooper must fill out all required fields in the form (for Complete Profile). • Skooper’s personal information must be accurate and up-to-date (for Complete Profile and Update Profile). • The deletion of the Skooper's profile and associated data should be irreversible (for Delete Profile). • The Skooper should be required to confirm their decision to delete their profile to prevent accidental deletion (for Delete Profile).
Assumptions:	• The Skooper has a stable internet connection to submit their profile information (for Complete Profile and Update Profile). • The Skooper's profile information is accurate and up-to-date (for Complete Profile and Update Profile). • Skooper's account should not be linked with any active orders before deleting their profile to prevent data loss and errors (for Delete Profile).

UC-4.2: Accept or Reject Order

Table 32: Textual Description of Use Case Accept or Reject Order UC-4.2

Actors:	• Skooper
Trigger:	Skooper receives an order request from the customer.
Preconditions:	• Skooper is logged in to the Skooper app. • Skooper is assigned an order.
Postconditions:	The order is either accepted or rejected by the Skooper
Normal Flow:	• Skooper receives a notification for a new order request. • Skooper opens the Skooper app and views the order details. • Skooper reviews the order details, including the delivery address and estimated delivery time. • Skooper accepts the order if he/she is available to deliver it. • If the Skooper cannot accept the order, he/she rejects the order, providing a reason for rejection. • The customer is notified of the Skooper's decision.
Alternative Flows:	• 4a. If the Skooper is not available to deliver the order, he/she rejects the order, providing a reason for rejection. • 6a. The Skooper may be reassigned to another order if available.
Exceptions:	• Skooper may encounter technical difficulties while using the Skooper app. • Skooper may not be able to accept the order due to unforeseen circumstances (e.g., traffic, personal emergency).
Business Rules	Skooper must accept or reject the order within a specific time frame.
Assumptions:	• The Skooper has a reliable internet connection. • The Skooper has a functional mobile device capable of running the Skooper app. • The Skooper is available to deliver the order at the specified time.

UC-4.3: Map Integration

Table 33: Textual Description of Use Case Map Integration UC-4.3

Actors:	• Skooper
Trigger:	Skooper wants to see the delivery location on the map.
Preconditions:	• Skooper must be logged in to the app. • Skooper must have an order assigned to them.
Postconditions:	Skooper can see the delivery location on the map.
Normal Flow:	• Skooper logs into the app. • Skooper accepts an order assigned to them. • Skooper taps on the Map Integration button on the order details screen. • The app displays a map with the delivery location marked. • Skooper can see the delivery location and can use the map to navigate to it.
Alternative Flows:	If there is an error in loading the map or the delivery location cannot be displayed, the app shows an error message.
Exceptions:	If there are no orders assigned to Skooper, the Map Integration button will not be available.
Business Rules	• The map integration should be accurate and reliable. • The map should provide the necessary information for Skooper to deliver the order on time.
Assumptions:	Skooper has access to a smartphone with GPS functionality to use the map.

UC-4.4: Manage Skooper Rides

Table 34: Textual Description of Use Case View Ride Details UC-4.4

Actors:	• Skooper
Trigger:	Skooper wants to perform actions related to their rides.
Preconditions:	• Skooper must be logged into the app. • Skooper has accepted a ride request and started the ride for certain actions. • Skooper must have completed at least one ride for viewing past rides.
Postconditions:	Skooper can perform actions related to their current ride or view details of past rides.
Normal Flow:	• Skooper opens the Skooper app. • Skooper selects the "Manage Skooper Rides" option. • Depending on the specific action, the app displays the details of the current ride, including pickup and dropoff locations, customer information, and order details, or a list of past rides. • Skooper can interact with the displayed ride information or past ride list based on the selected action
Alternative Flows:	• If there is no current ride, the app displays a message informing Skooper that there is no current ride. • If the current ride has been cancelled or completed, the app displays a message informing Skooper accordingly. • If the Skooper has not completed any rides, the app displays a message indicating that there are no past rides to view. • If the Skooper selects a specific past ride but there is no additional information available, the app displays a message indicating that there are no details available for that ride.
Exceptions:	• Technical errors, such as connectivity issues or app crashes, may prevent Skooper from viewing ride details or past rides.
Business Rules	• Skooper can only view the details of their current ride after accepting the ride request and starting the ride. • Past ride details should be accurate and up to date. • Skooper is only able to view their own past rides and not those of other Skoopers. • Past rides are stored securely in the app and are only accessible to the Skooper who completed the ride.
Assumptions:	• Skooper uses a compatible device and has a stable internet connection. • The ride information is being properly tracked and updated in the app. • Skooper is familiar with using the Skooper app and understands how to navigate the app menu and select options. • The app is properly functioning, and there are no technical issues preventing Skooper from accessing their ride information.

UC-4.5: Smart Skooper Assignment

Table 35: Textual Description of Use Case Smart Skooper Assignment UC-4.5

Actors:	• Skooper • System
Trigger:	The system needs to assign a Skooper for a ride request.
Preconditions:	• The Skooper app must be running. • The system has received a ride request.
Postconditions:	The system successfully assigns a Skooper based on the smart algorithm.
Normal Flow:	• The system receives a ride request from a customer. • The smart algorithm evaluates available Skoopers based on multiple factors, including distance, acceptance rate, rating, fair chance, and assigned weight. • The system selects the most suitable Skooper for the ride assignment. • The selected Skooper receives a notification about the ride assignment. • The Skooper can view details of the assigned ride, including pickup and dropoff locations, customer information, and order details. • The Skooper can choose to accept or reject the ride assignment. • If the Skooper accepts the assignment, the system updates the ride status, and the Skooper can proceed with the ride.
Alternative Flows:	• If no Skooper is available within a reasonable distance, the system notifies the customer that no Skooper is currently available. • In case the selected Skooper rejects the ride assignment, the system repeats the algorithm to assign the ride to the next suitable Skooper. • If technical issues prevent the proper functioning of the smart algorithm, the system uses a default method to assign the ride.
Exceptions:	• Technical errors, such as connectivity issues or system failures, may hinder the proper functioning of the smart algorithm. • If the Skooper experiences technical issues or app crashes, they may not receive the ride assignment notification.
Business Rules	• The smart algorithm considers multiple factors to ensure fair and efficient Skooper assignments. • Skoopers are assigned rides based on their availability, distance, and overall performance.
Assumptions:	• Skooper app users have a compatible device with a stable internet connection. • The smart algorithm is regularly updated and optimized to enhance assignment accuracy. • Skoopers are willing to accept ride assignments based on the provided factors. • The Skooper app functions correctly without significant technical issues.

3.2.4.5 Module 5: Restaurant App

UC-5.1: Manage Restaurant Profile

Table 36: Textual Description of Use Case Manage Restaurant Profile UC-5.1

Actors:	• Restaurant
Trigger:	The restaurant wants to perform actions related to their profile in the Restaurant App.
Preconditions:	• The restaurant must be logged into the app for profile-related actions. • For some actions, the restaurant must have completed registration. • The restaurant's account should not be linked with any active orders for account deletion.
Postconditions:	The restaurant can perform actions related to their profile, including viewing, updating, and deleting it.
Normal Flow:	• The restaurant opens the Restaurant App. • Depending on the specific action: • For registration, the restaurant clicks on the "Register" button, fills out a registration form, and receives a confirmation email. • For completing the profile, the restaurant navigates to the "Profile" section and clicks on the "Complete Profile" button, filling out necessary information. • For viewing the profile, the restaurant logs in, navigates to the profile section, and views their profile information. • For updating the profile, the restaurant logs in, navigates to their profile page, clicks on the "Edit" button, updates necessary fields, and saves changes. • For deleting the profile, the restaurant navigates to the settings or account section, selects the option to delete their profile, confirms the deletion, and logs out of the app. • The app verifies the information for registration and updates. • For registration, the restaurant receives a confirmation email, clicks on the confirmation link, and gets registered. • For updating the profile, the app displays a message indicating that the profile has been updated successfully.
Alternative Flows:	• If invalid information is entered during registration or updating the profile, the app displays an error message and prompts the restaurant to correct it. • If the restaurant has already completed their profile during the "Complete Profile" action, they are redirected to their profile page.
Exceptions:	• Technical errors during registration, updating, or deletion may occur, leading to error messages. • The app may fail to send the confirmation email during registration. • The restaurant may not receive the confirmation email.

	• The restaurant may not be able to log in to their account, leading to error messages. • If the restaurant has an active order linked with their account during deletion, the app displays an error message.
Business Rules	• The restaurant must provide accurate information during registration and updating. • The restaurant must have the legal right to operate a restaurant in their location. • The restaurant must comply with all applicable laws and regulations. • The deletion of the restaurant's profile and associated data is irreversible. • The restaurant must confirm their decision to delete their profile to prevent accidental deletion.
Assumptions:	• The restaurant has read and agreed to the terms and conditions of the app. • The restaurant has provided a valid email address. • The restaurant's profile information is accurate and up-to-date. • The restaurant has a stable internet connection to perform profile-related actions. • For deletion, the restaurant has completed their profile and has no active orders to prevent data loss and errors.

UC-5.2: Manage Item Category

Table 37: Textual Description of Use Case Manage Item Category UC-5.2

Actors:	• Restaurant
Trigger:	The restaurant wants to perform actions related to their menu in the Restaurant App.
Preconditions:	• The restaurant must be logged into the app for menu-related actions. • For some actions, the restaurant must have completed registration. • The restaurant's account should not be linked with any active orders for item category deletion.
Postconditions:	The restaurant can perform actions related to their menu, including adding, updating, viewing, and deleting item categories.
Normal Flow:	• The restaurant opens the Restaurant App. • Depending on the specific action: a) For adding an item category, the restaurant logs in, navigates to the menu section, selects the option to add a new item category, enters its name and description, and saves it. b) For updating an item category, the restaurant logs in, navigates to the menu section, selects the item category they want to update, clicks on the "Update" button, makes necessary changes, clicks "Save," and receives a confirmation message. c) For viewing item categories, the restaurant logs in, navigates to the menu section, and views the list of item categories.

	d) For deleting an item category, the restaurant logs in, selects the "Menu" option, chooses the item category to delete, confirms the deletion, and removes it from the menu. • For adding an item category, the app verifies the information and adds the new item category to the restaurant's menu. • For updating an item category, the app validates changes and saves the updated item category to the menu. • For deleting an item category, the item category is removed from the restaurant's menu.
Alternative Flows:	• If the restaurant enters a name for a new item category that already exists in the menu, the system prompts them to enter a unique name. • If the restaurant realizes they don't want to make changes during an update, they can cancel the operation.
Exceptions:	• If the restaurant is not registered with the system, they cannot perform menu-related actions. • If the restaurant is not logged in, they cannot perform menu-related actions. • If the restaurant does not have the necessary permissions, they cannot add a new item category. • If the item category to be deleted does not exist in the menu, an error message is displayed. • If there are active orders containing items from the item category to be deleted, an error message is displayed, and the item category cannot be deleted.
Business Rules	• Only restaurants can manage item categories in their menu. • The name of each item category must be unique for each restaurant. • Item categories should be visible to customers while placing orders.
Assumptions:	• The restaurant has read and agreed to the terms and conditions of the app. • The restaurant's menu information is accurate and up-to-date. • The app has the necessary functionality to allow a restaurant to manage item categories. • The restaurant has the necessary permissions and stable internet connection for menu-related actions .

UC-5.3: Manage Items

Table 38: Textual Description of Use Case Manage Item UC-5.3

Actors:	Restaurant
Trigger:	The restaurant wants to manage items (item categories and individual items) in their menu.
Preconditions:	• The restaurant must be registered with the system. • The restaurant must be logged in to the system.

	• The restaurant must have the necessary permissions to manage items.
Postconditions:	• For adding an item category: The new item category is added to the restaurant's menu. • For updating an item category: The item category is updated with new details. • For viewing item categories: The restaurant can view the item categories in their menu. • For deleting an item category: The item category is removed from the restaurant's menu. • For adding an item: The new item is added to the restaurant's menu. • For updating an item: The item is updated with new details. • For viewing items: The restaurant can view the items in their menu. • For deleting an item: The item is removed from the restaurant's menu.
Normal Flow:	• Restaurant logs in to the system. • Depending on the action selected: a. Add Item Category: Restaurant navigates to the menu section, selects the option to add a new item category, enters the name and description, and saves it. b. Update Item Category: Restaurant navigates to the menu section, selects the item category they want to update, clicks on the "Update" button, makes necessary changes, and saves it. c. View Item Categories: Restaurant selects "View Item Categories" option, and the system displays a list of item categories in their menu. d. Delete Item Category: Restaurant selects the item category they want to delete, selects the "Delete" option, confirms the deletion, and the item category is removed. e. Add Item: Restaurant navigates to the menu section, selects the option to add a new item, enters the item details, and saves it. f. Update Item: Restaurant navigates to the menu section, selects the item they want to update, clicks on the "Update" button, makes necessary changes, and saves it. g. View Items: Restaurant selects "View Items" option, and the system displays a list of items in their menu. h. Delete Item: Restaurant selects the item they want to delete, selects the "Delete" option, confirms the deletion, and the item is removed.
Alternative Flows:	• If the entered name for the new item category or item already exists in the restaurant's menu (for adding), the system will prompt the restaurant to enter a unique name. • If the restaurant selects the wrong item or item category by mistake (for deleting), they can cancel and select the correct one.
Exceptions:	• If the restaurant is not registered with the system, they cannot manage items.

	• If the restaurant is not logged in to the system, they cannot manage items. • If the restaurant does not have the necessary permissions to manage items, they cannot manage items. • If the item to be deleted (item or item category) does not exist in the restaurant's menu, an error message will be displayed. • If there are any active orders containing items from the item or item category to be deleted, an error message will be displayed, and the item or item category cannot be deleted. • If the changes made by the restaurant violate any business rules, such as invalid characters or an existing item category or item with the same name, an error message will be displayed.
Business Rules	• A restaurant can have multiple item categories and items in their menu. • The name of the item category or item must be unique for each restaurant. • The restaurant must have the necessary permissions to manage items.
Assumptions:	• The system provides the necessary fields to enter item category or item details. • The system ensures that the name of the new item category or item is unique for the restaurant. • The restaurant is authorized to make changes to their menu. • The app has access to the restaurant's menu and can retrieve and save changes to the database.

UC-5.4: Manage Deals

Table 39: Textual Description of Use Case Manage Deals UC-5.4

Actors:	Restaurant
Trigger:	The restaurant wants to manage deals for their customers.
Preconditions:	• The restaurant must be registered and logged into the restaurant app. • The restaurant must have at least one item added to their menu (for creating a deal).
Postconditions:	• For creating a deal: The new deal is added to the list of active deals available to customers. • For viewing deals: The restaurant can view the details of selected deals. • For updating a deal: The deal is updated with new information. • For deleting a deal: The selected deal is permanently deleted from the restaurant's list of deals.
Normal Flow:	• Restaurant navigates to the "Deals" section of the restaurant app. • Depending on the action selected:

	a. Create a New Deal: Restaurant clicks on the "Create New Deal" button, inputs the deal details (name, description, duration, items included, price), and saves it. b. View Deals: Restaurant selects the "View Deals" option, and the app displays a list of all the deals created by the restaurant. The restaurant selects the deal they want to view. c. Update Deal: Restaurant selects the deal they wish to update, makes the necessary changes to the deal information, and saves the updated deal. d. Delete Deal: Restaurant selects the option to delete a deal, and the system displays a list of the restaurant's current deals. The restaurant selects the deal they wish to delete, confirms the deletion, and the deal is removed.
Alternative Flows:	• If the restaurant has not added any items to their menu (for creating a deal), they will not be able to create a new deal. The restaurant will be prompted to add items to their menu before proceeding. • If the selected deal to be deleted is associated with active orders, the system will prompt the restaurant to confirm the deletion to avoid affecting active orders. • If the restaurant decides not to update the deal, they can choose to discard the changes and return to the previous screen.
Exceptions:	• If there are technical issues with the restaurant app, the restaurant may not be able to create, view, update, or delete a deal. • If the restaurant is not logged in, they will be prompted to log in first. • If the restaurant has no deals to view or delete, the system displays an error message. • If the selected deal to be updated or deleted cannot be found, the system displays an error message. • A deal cannot be deleted if it is currently associated with any active orders.
Business Rules	• The restaurant can only create a new deal if they have at least one item added to their menu. • Only the restaurant that created the deal can view, update, or delete it. • A deal cannot be deleted if it is currently associated with any active orders. • The restaurant is responsible for setting the price for the new deal.
Assumptions:	• The new deal will be available to customers for the duration specified by the restaurant. • Customers will be able to view and order from the new deal only during its duration. • The restaurant has created at least one deal. • The restaurant has an internet connection to access the app. • The system has access to the restaurant's list of deals and can detect active orders associated with a deal.

UC-5.5: Manage Approved Vendors

Table 40: Textual Description of Use Case Manage Approved Vendors UC-5.5

Actors:	Restaurant
Trigger:	The restaurant wants to manage their list of approved vendors for ordering supplies.
Preconditions:	• The restaurant must be logged into the application. • The restaurant should have the necessary permissions to manage approved vendors. • Vendors must be available in the system for selection.
Postconditions:	The restaurant can perform actions related to managing their approved vendors, including viewing the list, selecting vendors, and removing vendors.
Normal Flow:	• The restaurant opens the application and logs in. • Depending on the specific action: a) For viewing vendors, the restaurant navigates to the "View Vendors" section. b) For selecting a vendor, the restaurant accesses the list of vendors and selects a vendor to order supplies from. c) For removing a vendor, the restaurant opens the list of approved vendors, selects the vendor they want to remove, confirms the removal, and the vendor is removed. • For viewing vendors, the application retrieves the list of vendors from the database and displays it to the restaurant. • For selecting a vendor, the system confirms the selection and adds the vendor to the restaurant's list of selected vendors. • For removing a vendor, the system removes the vendor from the list of approved vendors, cancels any active deals with the vendor, and notifies the restaurant.
Alternative Flows:	• If the restaurant does not have the necessary permissions to manage approved vendors, the application displays an error message. • If there are no vendors available in the system, the restaurant cannot select a vendor.
Exceptions:	• If there is an error in removing a vendor from the list of approved vendors, the system displays an error message, and the use case ends.
Business Rules	• Only authorized restaurants can manage approved vendors. • Any active deals with a vendor being removed will be canceled. • The system should store the restaurant's list of selected vendors for future orders.
Assumptions:	• The restaurant has a valid account with the system. • The system has a list of available vendors for the restaurant's location. • The system can easily remove vendors from the list of approved vendors and cancel active deals.

UC-5.6: Manage Inventory

Table 41: Textual Description of Use Case Manage Inventory UC-5.6

Actors:	• Restaurant
Trigger:	Restaurant wants to add new inventory to their system.
Preconditions:	The Restaurant is authenticated and authorized to add inventory.
Postconditions:	The new inventory is added to the restaurant's inventory list.
Normal Flow:	• Restaurant selects the "Add Inventory" option in the system. • System displays a form for the restaurant to input the details of the new inventory. • Restaurant fills out the form with the name, description, quantity, price, and other necessary details of the inventory. • Restaurant submits the form. • System validates the form and adds the new inventory to the restaurant's inventory list. • System displays a confirmation message to the restaurant. • Restaurant can either add more inventory or choose to exit.
Alternative Flows:	5a. If the form fails validation, the system displays an error message indicating which fields need to be corrected and asking the restaurant to resubmit the form.
Exceptions:	The system fails to save the new inventory due to technical issues. In this case, the system displays an error message and advises the restaurant to try again later.
Business Rules	• Inventory items must have a unique name. • All required fields must be filled out in the form. • The system should validate the form to ensure that the entered data is correct and complete.
Assumptions:	The Restaurant has the necessary information about the new inventory, such as its name, description, quantity, and price.

UC-5.7: Auto Order Stock

Table 42: Textual Description of Use Case Add Order Stock UC-5.7

Actors:	• Restaurant
Trigger:	The restaurant's inventory reaches a pre-determined minimum threshold level.
Preconditions:	• The restaurant must have set a minimum threshold level for their inventory. • The inventory management system must be up and running. • The system should be able to connect with the vendor's system.
Postconditions:	• The system will generate an automatic order to the vendor. • The vendor will be notified of the order and will process it. • The inventory will be restocked once the order is fulfilled.
Normal Flow:	• The system monitors the inventory levels in real-time. • When the inventory level reaches the minimum threshold, the system generates an automatic order. • The system sends the order to the vendor. • The vendor confirms the order and processes it. • The system updates the inventory once the order is fulfilled.
Alternative Flows:	None
Exceptions:	• If there is a system failure, the automatic order may not be generated. • If the vendor's system is down, the order may not be processed.
Business Rules	• The minimum inventory threshold should be set based on the restaurant's inventory usage patterns. • The system should only order from approved vendors. • The inventory management system should have an accurate inventory count at all times.
Assumptions:	• The vendor will fulfill the order within a reasonable time frame. • The inventory management system is accurately monitoring the inventory levels. .

UC-5.8: Manual Order Stock

Table 43: Textual Description of Use Case Manual Order Stock UC-5.8

Actors:	• Restaurant
Trigger:	The restaurant wants to manually order more stock for their inventory.
Preconditions:	• The restaurant must have a registered account in the app. • The restaurant must have inventory items that are low on stock.
Postconditions:	• The restaurant successfully orders more stock for their inventory. • The inventory level of the items ordered is increased.
Normal Flow:	• The restaurant logs into their account in the app. • The restaurant navigates to the "Inventory" section. • The restaurant selects the item they want to order more stock of. • The restaurant enters the quantity they want to order. • The restaurant submits the order. • The app confirms the order and provides an estimated delivery date. • The restaurant can view the order status and expected delivery date in the "Orders" section.
Alternative Flows:	None
Exceptions:	• If the restaurant does not have an account in the app, they cannot manually order stock. • If the restaurant tries to order more stock of an item that is not in their inventory, the app displays an error message informing the restaurant that the item is not available for order.
Business Rules	• The app only allows restaurants to order stock of items that are available in the app's inventory database. • The app may limit the quantity of stock that can be ordered based on availability from vendors or other factors. • .
Assumptions:	• The app has a database of available inventory items. • The app has partnerships with vendors to fulfill orders. • The app is able to track and update inventory levels in real-time

UC-5.9: Automatic Document Analysis for Restaurant Verification

Table 44: Textual Description of Use Case UC-5.9: Automatic Document Analysis for Restaurant Verification

Actors:	• Restaurant Owner • System
Trigger:	The restaurant owner initiates the document verification process during the restaurant registration.
Preconditions:	• The restaurant owner is logged into the system. • The restaurant owner has started the registration process for their restaurant.
Postconditions:	• The system will perform predictive document analysis to verify the authenticity of uploaded documents. • The restaurant owner will receive a notification regarding the verification status.
Normal Flow:	• The system prompts the restaurant owner to upload official documents during the registration process. • The restaurant owner uploads the required documents for verification. • The system performs image processing to extract relevant information from the documents. • A predictive algorithm analyzes the extracted information for document authenticity. • The system notifies the restaurant owner of the verification status.
Alternative Flows:	None
Exceptions:	• If there is a system failure, the document analysis may not be completed. • If the uploaded documents are found to be fraudulent or manipulated, the system rejects the documents and notifies the restaurant owner.
Business Rules	• The system must adhere to legal and regulatory requirements for document verification. • Document analysis results should be processed in a secure and confidential manner.
Assumptions:	• The restaurant owner has already created an account on the platform and has started the registration process.

3.2.4.6 Module 6: Vendor App

UC-6.1: Manage Vendor Account

Table 45: Textual Description of Use Case Manage Vendor Account UC-6.1

Actors:	Vendor
Trigger:	The vendor wants to manage their account within the Vendor App.
Preconditions:	• The vendor needs to have access to the Vendor App. • The vendor must have a valid email address and contact information. • For updating the profile and deleting the account, the vendor must be logged into the Vendor App.
Postconditions:	The vendor has successfully managed their account within the Vendor App, including registration, profile completion, profile update, viewing, and deletion.
Normal Flow:	• The vendor navigates to the Vendor App's registration system. • The vendor provides their name, email address, and contact information. • The vendor creates a username and password for their account. • The vendor submits their registration information. • Profile Completion: a) The vendor navigates to the "Profile" section of their account. b) The vendor provides additional information, such as their business name, address, and payment information. c) The vendor confirms their profile information. d) The system saves the vendor's profile information. • Profile Update: a) The vendor navigates to the "Profile" section of the Vendor App. b) The vendor selects the option to edit their profile. c) The vendor updates their profile information, which may include contact information, business information, and payment information. d) The vendor reviews the updated information and confirms the changes. e) The Vendor App saves the updated information and displays the updated profile. • View Profile: a) The vendor navigates to the "Profile" section of the Vendor App. b) The vendor selects the option to view their profile. c) The Vendor App displays the vendor's profile information, including contact information, business information, and payment information. • Delete Account: a) The vendor navigates to the "Settings" section of the Vendor App. b) The vendor selects the option to delete their account. c) The Vendor App prompts the vendor to confirm the deletion. d) The vendor confirms the deletion. e) The Vendor App permanently deletes the account and all associated data.

Alternative Flows:	• If there is an issue with any of the above actions (e.g., registration information errors), the system prompts the vendor to correct the errors. • If the vendor's chosen username during registration is already taken, the system prompts the vendor to choose a different username.
Exceptions:	• If any part of the Vendor App is unavailable, the corresponding action cannot be performed. • If the vendor's email address is already associated with an existing account during registration, the system prompts the vendor to log in or reset their password. • For account deletion, if the vendor's account has outstanding payments or orders that need to be resolved, the deletion cannot proceed until those are resolved.
Business Rules	• Only authorized vendors can perform actions related to their account. • The vendor must provide valid and accurate information during registration, profile completion, and profile updates. • The vendor is responsible for keeping their account information up-to-date. • The system should store the vendor's profile information for future use.
Assumptions:	• The vendor has a valid email address and contact information. • The vendor has access to a device with internet access to manage their account. • The Vendor App is operational. • The vendor understands that deleting their account will result in the permanent deletion of all associated data.

UC-6.2: Manage Stock Category

Table 46: Textual Description of Use Case Manage Stock Category UC-6.2

Actors:	Vendor
Trigger:	The vendor wants to manage stock categories in the Vendor App.
Preconditions:	• Vendor is logged into the Vendor App. • The Vendor App is operational.
Postconditions:	• For adding stock category: A new stock category has been added to the Vendor App. • For updating stock category: The updated stock category information is saved in the Vendor App. • For viewing stock category: The vendor can view the information for the selected stock category. • For deleting stock category: The selected stock category and all products assigned to it are deleted from the Vendor App.
Normal Flow:	• Vendor navigates to the "Stock" section of the Vendor App. • Depending on the action selected:

	a. Add Stock Category: The Vendor selects the option to add a new stock category. The Vendor App prompts the Vendor to enter the name and description of the new stock category. Vendor enters the name and description and confirms the creation of the new stock category. The Vendor App saves the new stock category and displays it in the list of available stock categories. b. Update Stock Category: The Vendor selects the option to view the list of available stock categories. The Vendor selects the stock category to update, edits the stock category information as needed, confirms the changes, and the Vendor App saves the updated information for the stock category. c. View Stock Category: The Vendor selects the option to view the list of available stock categories. The Vendor selects the stock category to view, and the Vendor App displays the current information for the selected stock category, including its name, description, and the list of products assigned to it. d. Delete Stock Category: The Vendor selects the option to view the list of available stock categories. The Vendor selects the stock category to delete, confirms the deletion, and the Vendor App deletes the selected stock category and all products assigned to it.
Alternative Flows:	None
Exceptions:	None
Business Rules	None
Assumptions:	• The Vendor has the necessary permissions to manage stock categories.

UC-6.3: Manage Stock Product

Table 47: Textual Description of Use Case Manage Stock Product UC-6.3

Actors:	• Vendor
Trigger:	Vendor wants to add a new stock product on the Vendor App.
Preconditions:	• Vendor is logged into the Vendor App. • The Vendor App is operational. • The vendor has access to create new stock products.
Postconditions:	The new stock product is added to the Vendor App.
Normal Flow:	• Vendor navigates to the "Stock" section of the Vendor App. • Vendor selects the option to add a new stock product. • The Vendor App prompts the Vendor to enter the following information for the new stock product: o Product name o Description o Price o Stock category o Quantity in stock o Image (optional)

	• Vendor enters the required information and selects the option to save the new stock product. • The Vendor App saves the new stock product and adds it to the list of available stock products.
Alternative Flows:	If the Vendor App does not require all of the information above, the vendor can choose to fill out only the required fields to add the new stock product.
Exceptions:	• The Vendor App is unavailable. • The required fields are not filled out. • The new stock product already exists.
Business Rules	• Only authorized personnel are allowed to add new stock products. • All required fields must be filled out to add a new stock product. • Each stock product must be assigned to a stock category.
Assumptions:	• The Vendor has the necessary permissions to add new stock products. • The Vendor understands the importance of accurate and detailed information for stock products for ease of search and purchase by customers.

3.2.4.7 Module 7: Order Management

UC-7.1: Manage Customer Orders

Table 48: Textual Description of Use Case Manage Customer Orders UC-7.1

Actors:	Customer
Trigger:	The customer wants to manage their orders.
Preconditions:	• The customer must be logged in to their account. • The ordering system is operational. • The customer has placed at least one order.
Postconditions:	• For placing an order: The order is placed and sent to the selected restaurant for preparation. • For managing quick orders: The customer's quick order has been managed. • For viewing order history: The customer is able to view their order details. • For checking order status: The customer can view the status of their order. • For order tracking: The customer is able to track the status of their order.
Normal Flow:	• Depending on the action selected: a. Place Order: The customer selects the desired restaurant from a list of available options, browses the menu, selects items to order, specifies customizations or special requests, proceeds to checkout, provides payment

	information, and confirms the order. The ordering system confirms the order and provides an estimated delivery/pickup time. b. Manage Quick Order: The customer navigates to their quick order page, selects the option to manage their quick order, and can add, remove, or edit items in their quick order. The system updates the customer's quick order. c. View Order History: The customer opens the "Order History" page in the customer portal. The system displays a list of all the orders placed by the customer, sorted by date with the most recent first. The customer can select a particular order to view its details. d. Check Order Status: The customer opens the Order Status page, enters the order number or scans the QR code provided during checkout. The system retrieves and displays the current status of the order, along with an estimated delivery time or pickup time. e. Order Tracking: The customer navigates to the Order Tracking section, enters the order number or scans the QR code on their receipt. The app displays the current status of their order, location if available, and additional details.
Alternative Flows:	• For checking order status: If the customer enters an invalid order number or scans an invalid QR code, the system displays an error message and prompts the customer to try again. • For order tracking: If the customer does not have their order number or QR code, they can enter their phone number or email address to retrieve their order information. • For viewing order history: If there are no orders placed by the customer, the system displays a message indicating that the customer has no order history.
Exceptions:	• If the customer is not logged in, the system will prompt the customer to log in before they can manage their quick order, view order history, check order status, or track their order. • If there is an error retrieving order-related information from the database, the system will display an error message.
Business Rules	• The system should only display the order history of the logged-in customer. • The order history should be sorted by date with the most recent order first. • Changes to the quick order will not affect any in-progress orders. • Only customers with a valid account and existing orders can use these order management features.
Assumptions:	• For placing an order: The customer has a valid payment method and has selected a restaurant that is open and able to fulfill the order. • For managing quick orders: The customer has previously saved a quick order.

	• For checking order status and tracking orders: The restaurant or delivery provider must have a system in place for real-time order status updates. • The customer has access to a device with internet connectivity to access the restaurant's app or website.

UC-7.2: View Pending Orders

Table 49: Textual Description of Use Case View Pending Order UC-7.2

Actors:	• Restaurant (primary) • System (secondary)
Trigger:	The restaurant wants to view the list of pending orders.
Preconditions:	• The restaurant must be logged in. • There must be at least one pending order in the system.
Postconditions:	• The restaurant can view the list of pending orders. • The status of the pending orders is not changed.
Normal Flow:	• The restaurant logs in to the system. • The restaurant navigates to the "Pending Orders" section. • The system retrieves a list of pending orders. • The system displays the list of pending orders to the restaurant. • The restaurant can view the details of each order by clicking on it.
Alternative Flows:	4a. If there are no pending orders, the system displays a message indicating that there are no pending orders.
Exceptions:	• If the restaurant is not logged in, the system displays an error message and prompts the user to log in. • If there is an error retrieving the list of pending orders, the system displays an error message and prompts the user to try again later.
Business Rules	• Only the restaurant can view the list of pending orders for their own restaurant. • The list of pending orders should be sorted in chronological order (i.e. oldest orders first).
Assumptions:	• The restaurant has the necessary permissions to view the list of pending orders. • The restaurant can access the internet and the system is functioning properly.

3.2.4.8 Module 8: Payment Gateway

UC-8.1: Payment and Financial Transactions

Table 50: Textual Description of Use Case Payment and Financial Transactions UC-8.1

Actors:	• Customer • Skooper • Restaurant • System (Payment Gateway)
Trigger:	Any actor initiates a financial transaction within the system.
Preconditions:	• Actors (Customers, Skoopers, Restaurants) have valid accounts with the payment gateway system. • Applicable payment methods are available and properly linked to actor accounts. • Orders must have been successfully processed and delivered where applicable. • Actors must have sufficient balances or funds available in their accounts.
Postconditions:	The payment gateway system must have successfully processed the financial transaction, and relevant account balances must be updated.
Normal Flow:	• The actor logs into their account on the payment gateway system. • Depending on the specific transaction scenario: • For Customer: a) Customer navigates to the "Top-up Wallet" section. b) Customer selects a payment method for topping up. c) Customer enters the desired top-up amount. d) Customer confirms the transaction. • For Skooper : a) Skooper selects the option to transfer payment to a restaurant. b) Skooper enters the payment amount. c) Skooper confirms the transfer. • For Payment of Order Bills: a) Customer initiates the payment process for an outstanding order balance. b) Customer selects a payment method (e.g., credit card, bank transfer). c) Customer enters the necessary payment information. d) Customer confirms the payment. • The payment gateway system verifies the payment method and checks for sufficient account balance (where applicable). • The payment gateway system processes the transaction. • The payment gateway system sends a confirmation of the transaction to the actor and relevant parties (e.g., restaurant). • Account balances of the involved actors (Customers, Skoopers, Restaurants) are updated to reflect the transaction.

Alternative Flows:	• If the payment method selected by the actor is invalid or not linked to their account: The payment gateway system displays an error message and prompts the actor to select a valid payment method. • If the actor's payment information cannot be verified or is incomplete: The payment gateway system will notify the actor and request the necessary information. • If there is an issue with the transaction processing or technical errors: The system displays an error message and advises the actor to try again later.
Exceptions:	• If the payment gateway system experiences downtime: The system will display an error message and prevent any transaction processing. • If the actor's account balance is insufficient: The system will display an error message and prompt the actor to select a different payment method or add funds to their account.
Business Rules	• The payment gateway system must comply with relevant security and privacy regulations. • Actors must have valid accounts with the payment gateway system to initiate transactions. • Payment information provided by actors must be accurate and complete for successful processing.
Assumptions:	• The payment gateway system is fully functional and reliable. • Actor's payment methods are valid and linked to their account.

UC-8.2: Select Payment Method

Table 51: Textual Description of Use Case Select Payment Method UC-8.2

Actors:	• Customer • System
Trigger:	The customer initiates the payment process and selects the option to choose a payment method.
Preconditions:	• The customer must have a valid account with the payment gateway system. • The payment gateway system must have at least one payment method available for the customer to choose from.
Postconditions:	• The customer must have selected a payment method to use for the payment. • The payment gateway must have received the information required for the payment method selected by the customer.
Normal Flow:	• The customer initiates the payment process and selects the option to choose a payment method. • The system presents a list of available payment methods, such as credit card, debit card, bank transfer, or e-wallet. • The customer selects the desired payment method from the list.

	• The system prompts the customer to enter the necessary information for the selected payment method, such as card details, bank account information, or e-wallet login credentials. • The customer enters the required information and confirms the payment. • The payment gateway system processes the payment and confirms the transaction status to the customer.
Alternative Flows:	• 2a. If the customer has already saved payment methods on their account, the system can display the saved payment methods instead of presenting a list of available payment methods.
Exceptions:	• If the payment gateway system is down, the system will display an error message and prevent the customer from selecting a payment method.
Business Rules	• The payment gateway system must support at least one payment method for the customer to choose from. • The payment information provided by the customer must be valid and complete in order for the payment to be processed.
Assumptions:	• The payment gateway system is able to process the selected payment method. • The customer has sufficient funds or credit available to complete the payment. • The customer is authorized to use the selected payment method for the transaction.

UC-8.3: Authenticate Payment

Table 52: Textual Description of Use Case Authenticate Payment UC-8.3

Actors:	• System
Trigger:	The customer has initiated a payment and provided payment information.
Preconditions:	• The customer must have a valid account with the payment gateway system. • The payment information provided by the customer must be complete and valid.
Postconditions:	• The payment gateway must have authenticated the payment information and approved the transaction. • The payment gateway must have sent confirmation of the transaction to the merchant and customer.
Normal Flow:	• The customer initiates a payment and provides payment information. • The payment gateway system receives the payment information and verifies that it is complete and valid. • The payment gateway system authenticates the payment information, such as by checking the card number and expiration date or verifying the bank account details.

	• The payment gateway system approves the transaction and sends confirmation of the transaction to the merchant and customer. • The payment gateway system updates the transaction status in its database.
Alternative Flows:	3a. If the payment information cannot be authenticated, such as if the card has expired or the bank account is inactive, the payment gateway system will decline the transaction and notify the customer and merchant. 4a. If the payment gateway system detects any suspicious activity or fraud, it may decline the transaction and alert the appropriate parties.
Exceptions:	• If the payment gateway system is down, the system will display an error message and prevent the transaction from being authenticated. • If the payment information provided by the customer is invalid or incomplete, the payment gateway system will decline the transaction and notify the customer and merchant.
Business Rules	• The payment gateway system must comply with all relevant security and privacy regulations. • The payment gateway system must have a system in place to detect and prevent fraudulent transactions. • The payment gateway system must have a way to communicate the transaction status to the merchant and customer.
Assumptions:	• The payment gateway system is able to authenticate various payment methods and payment information. • The payment gateway system has the necessary infrastructure to handle a high volume of transactions.

UC-8.4: Card Integration

Table 53: Textual Description of Use Case Card Integration UC-8.4

Actors:	• Restaurant (primary) • System (secondary)
Trigger:	The restaurant initiates the integration process to enable credit card payments.
Preconditions:	• The restaurant must have a valid account with the payment gateway system. • The restaurant must have a payment system in place that can integrate with the payment gateway
Postconditions:	• The restaurant's payment system must be integrated with the payment gateway system and able to process credit card payments. • The payment gateway system must have received and validated the necessary information to enable credit card payments.
Normal Flow:	• The restaurant initiates the integration process with the payment gateway system. • The payment gateway system provides the necessary integration instructions and documentation to the restaurant.

	• The restaurant follows the integration instructions and configures their payment system to integrate with the payment gateway. • The restaurant sends the required information, such as merchant ID and API key, to the payment gateway system for validation. • The payment gateway system validates the information and enables credit card payments for the restaurant's payment system. • The restaurant's payment system is able to process credit card payments using the payment gateway system.
Alternative Flows:	• 3a. If the restaurant encounters any issues during the integration process, they can contact the payment gateway system's support team for assistance. • 5a. If the payment gateway system is unable to validate the information provided by the restaurant, it will notify the restaurant and provide guidance on correcting the information.
Exceptions:	• If the payment gateway system is down, the system will display an error message and prevent the integration process from proceeding. • If the restaurant's payment system does not support the necessary integration requirements, the integration process will fail.
Business Rules	None
Assumptions:	• The restaurant has a payment system in place that can integrate with the payment gateway system. • The restaurant is authorized to accept credit card payments. • The payment gateway system is able to handle a high volume of transactions.

3.2.4.9 Module 9: Statistics and Analytics

UC-9.1: Restaurant Analytics

Table 54: Textual Description of Use Case Restaurant Analytics UC-9.1

Actors:	• Restaurant • Customer • System
Trigger:	The restaurant wants to view statistics and analytics related to their restaurant operations.
Preconditions:	• The system must be installed and running. • The restaurant must have authorized access to the system. • The system must have collected data related to restaurant operations.
Postconditions:	• The system must display relevant statistics and analytics to the restaurant. • The restaurant may use the information provided to improve their operations and profitability.

Normal Flow:	• The restaurant logs into the statistics and analytics system using their authorized credentials. • The system verifies the restaurant's identity and displays a dashboard or menu of available analytics options. • The restaurant selects the desired analytics option. • The system retrieves relevant data from its database and analyzes it according to the selected option. • The system generates a report or display of the relevant statistics and analytics. • The restaurant reviews the information presented and uses it to improve their operations and profitability.
Alternative Flows:	4a. If the system encounters errors or is unable to retrieve or analyze data, it will display an error message and prompt the restaurant to try again or contact technical support.
Exceptions:	If the system experiences technical issues or malfunctions, it may be unable to generate accurate analytics or may not function at all.
Business Rules	• The statistics and analytics system must comply with all relevant security and privacy regulations. • The restaurant must have authorized access to the system. • The system must collect and analyze relevant data related to restaurant operations.
Assumptions:	• The system is able to collect and analyze a sufficient amount of data related to restaurant operations. • The restaurant has access to reliable internet and a compatible device to access the system.

UC-9.2: Skooper Analytics

Table 55: Textual Description of Use Case Skooper Analytics UC-9.2

Actors:	• Skooper • Customer • System
Trigger:	The skooper wants to view statistics and analytics related to their delivery operations.
Preconditions:	• The system must be installed and running. • The skooper must have authorized access to the system. • The system must have collected data related to skooper operations.
Postconditions:	• The system must display relevant statistics and analytics to the skooper. • The skooper may use the information provided to improve their performance and earnings.
Normal Flow:	• The skooper logs into the statistics and analytics system using their authorized credentials.

	• The system verifies the skooper's identity and displays a dashboard or menu of available analytics options. • The skooper selects the desired analytics option. • The system retrieves relevant data from its database and analyzes it according to the selected option. • The system generates a report or display of the relevant statistics and analytics. • The skooper reviews the information presented and uses it to improve their performance and earnings.
Alternative Flows:	4a. If the system encounters errors or is unable to retrieve or analyze data, it will display an error message and prompt the skooper to try again or contact technical support.
Exceptions:	If the system experiences technical issues or malfunctions, it may be unable to generate accurate analytics or may not function at all.
Business Rules	• The statistics and analytics system must comply with all relevant security and privacy regulations. • The skooper must have authorized access to the system. • The system must collect and analyze relevant data related to skooper operations.
Assumptions:	• The system is able to collect and analyze a sufficient amount of data related to skooper operations. • The skooper has access to reliable internet and a compatible device to access the system.

UC-9.3: Vendor Analytics

Table 56: Textual Description of Use Case Vendor Analytics UC-9.3

Actors:	• Vendor • Customer • System
Trigger:	The vendor wants to view statistics and analytics related to their vendor operations.
Preconditions:	• The system must be installed and running. • The vendor must have authorized access to the system. • The system must have collected data related to vendor operations.
Postconditions:	• The system must display relevant statistics and analytics to the vendor. • The vendor may use the information provided to improve their operations and profitability.
Normal Flow:	• The vendor logs into the statistics and analytics system using their authorized credentials.

	• The system verifies the vendor's identity and displays a dashboard or menu of available analytics options. • The vendor selects the desired analytics option. • The system retrieves relevant data from its database and analyzes it according to the selected option. • The system generates a report or display of the relevant statistics and analytics. • The vendor reviews the information presented and uses it to improve their operations and profitability.
Alternative Flows:	4a. If the system encounters errors or is unable to retrieve or analyze data, it will display an error message and prompt the vendor to try again or contact technical support.
Exceptions:	If the system experiences technical issues or malfunctions, it may be unable to generate accurate analytics or may not function at all.
Business Rules	• The statistics and analytics system must comply with all relevant security and privacy regulations. • The vendor must have authorized access to the system. • The system must collect and analyze relevant data related to vendor operations.
Assumptions:	• The system is able to collect and analyze a sufficient amount of data related to vendor operations. • The vendor has access to reliable internet and a compatible device to access the system. • The system has sufficient security measures in place to prevent unauthorized access to the data.

UC-9.4: User engagement

Table 57: Textual Description of Use Case User Engagement UC-9.4

Actors:	• Admin
Trigger:	The admin wants to monitor user engagement on the platform.
Preconditions:	• The system must be installed and running. • The admin must have authorized access to the system.
Postconditions:	• The admin must have a clear understanding of user engagement on the platform. • The admin may use this information to make decisions about improving user engagement.
Normal Flow:	• The admin logs into the statistics and analytics system using their authorized credentials. • The system verifies the admin's identity and displays a dashboard or menu of available analytics options.

	• The admin selects the "User Engagement" option. • The system retrieves relevant data from its database and analyzes it according to the selected option. • The system generates a report or display of the relevant statistics and analytics related to user engagement, such as user retention rates, active users, and frequency of use. • The admin reviews the information presented and uses it to make decisions about improving user engagement, such as implementing new features or improving user experience.
Alternative Flows:	4a. If the system encounters errors or is unable to retrieve or analyze data, it will display an error message and prompt the admin to try again or contact technical support.
Exceptions:	If the system experiences technical issues or malfunctions, it may be unable to generate accurate analytics or may not function at all.
Business Rules	• The statistics and analytics system must comply with all relevant security and privacy regulations. • The admin must have authorized access to the system. • The system must collect and analyze relevant data related to user engagement.
Assumptions:	• The system is able to collect and analyze a sufficient amount of data related to user engagement. • The admin has access to reliable internet and a compatible device to access the system. • The system has sufficient security measures in place to prevent unauthorized access to the data.

UC-9.5: Order Analytics

Table 58: Textual Description of Use Case Order Analytics UC-9.5

Actors:	• Admin
Trigger:	The admin wants to monitor order analytics on the platform.
Preconditions:	• The system must be installed and running. • The admin must have authorized access to the system.
Postconditions:	• The admin must have a clear understanding of order analytics on the platform. • The admin may use this information to make decisions about improving the ordering process.
Normal Flow:	• The admin logs into the statistics and analytics system using their authorized credentials. • The system verifies the admin's identity and displays a dashboard or menu of available analytics options.

	• The admin selects the "Order Analytics" option. • The system retrieves relevant data from its database and analyzes it according to the selected option. • The system generates a report or display of the relevant statistics and analytics related to orders, such as total number of orders, average order value, popular items, and delivery time metrics. • The admin reviews the information presented and uses it to make decisions about improving the ordering process, such as updating the menu, optimizing delivery routes, or changing delivery providers.
Alternative Flows:	4a. If the system encounters errors or is unable to retrieve or analyze data, it will display an error message and prompt the admin to try again or contact technical support.
Exceptions:	If the system experiences technical issues or malfunctions, it may be unable to generate accurate analytics or may not function at all.
Business Rules	• The statistics and analytics system must comply with all relevant security and privacy regulations. • The admin must have authorized access to the system. • The system must collect and analyze relevant data related to order analytics.
Assumptions:	• The system is able to collect and analyze a sufficient amount of data related to order analytics. • The admin has access to reliable internet and a compatible device to access the system. • The system has sufficient security measures in place to prevent unauthorized access to the data.

UC-9.6: Tip Analytics

Table 59: Textual Description of Use Case Tip Analytics UC-9.6

Actors:	• Admin
Trigger:	The admin wants to view the tip analytics of the platform.
Preconditions:	• The system is up and running. • The admin has the necessary permissions to view the tip analytics.
Postconditions:	• The admin can view the tip analytics of the platform.
Normal Flow:	• The admin logs into the system. • The admin navigates to the "Tip Analytics" section of the dashboard. • The system presents the admin with various visualizations and reports on tip-related data, such as: • Total tips received by the platform • Average tip amount per order • Tip distribution by customer demographic • Tip distribution by restaurant

	• etc. • The admin can interact with the visualizations and reports to get more detailed information.
Alternative Flows:	If the admin does not have the necessary permissions to view the tip analytics, the system will deny access and display an error message.
Exceptions:	• The system may encounter errors or issues when retrieving and processing the tip data, in which case it should display an error message to the admin.
Business Rules	• Tip data should be anonymized and aggregated to protect customer and restaurant privacy. • The system should follow relevant regulations and laws related to tipping and gratuity
Assumptions:	• The tip data is accurate and up-to-date. • The system has the necessary processing power and storage capacity to handle the tip data.

UC-9.7: Product Stock Analytics

Table 60: Textual Description of Use Case Stock Analytics UC-9.7

Actors:	• Admin
Trigger:	The admin wants to analyze the product stock of the company.
Preconditions:	The system has product stock data available.
Postconditions:	The admin has access to product stock analytics.
Normal Flow:	• The admin logs into the system. • The admin navigates to the product stock analytics page. • The system retrieves and displays the product stock analytics data. • The admin analyzes the data, including current stock levels, stock turnover rate, and trends. • The admin can make data-driven decisions regarding product ordering and inventory management based on the insights gained.
Alternative Flows:	If there is no product stock data available, the system displays an error message informing the admin.
Exceptions:	• The system experiences technical difficulties and cannot retrieve or display the data. • The admin encounters difficulty in interpreting the analytics data and requires assistance from a data analyst.
Business Rules	• The system should regularly update product stock data to ensure the analytics are up-to-date and accurate. • The analytics should be presented in an easy-to-understand format that the admin can interpret and use to make informed decisions. • The system should provide data security measures to ensure the confidentiality of the product stock data.

Assumptions:	• The admin has the necessary permissions to access the product stock analytics page. • The admin has the necessary skills to interpret the analytics data. • The system has access to accurate and up-to-date product stock data.

UC-9.8: Restaurant Ordering Analytics

Table 61: Textual Description of Use Case Restaurant Ordering Analytics UC-9.8

Actors:	• Admin
Trigger:	The admin wants to gain insights into restaurant ordering patterns and optimize the system.
Preconditions:	The system has historical restaurant ordering data available.
Postconditions:	The admin has access to meaningful restaurant ordering analytics.
Normal Flow:	• The admin logs into the system using their credentials. • The admin navigates to the restaurant ordering analytics page within the admin panel. • The system retrieves and displays comprehensive analytics data related to restaurant ordering patterns. • The admin analyzes the data, including peak ordering times, popular menu items, and trends in customer preferences. • Based on the insights gained, the admin can make informed decisions to optimize the system, such as adjusting staffing levels during peak times or promoting specific menu items.
Alternative Flows:	If there is no historical restaurant ordering data available, the system displays an error message, notifying the admin that analytics cannot be generated.
Exceptions:	• The system experiences technical difficulties preventing the retrieval or display of analytics data. • The admin encounters difficulty interpreting the analytics data and may require assistance from a data analyst.
Business Rules	• The system should regularly update and maintain historical restaurant ordering data to ensure the accuracy of analytics. • Analytics should be presented in a user-friendly format that allows the admin to make informed decisions. • Data security measures should be in place to maintain the confidentiality of restaurant ordering data.
Assumptions:	• The admin has the necessary permissions to access the restaurant ordering analytics page. • The admin possesses the skills to interpret the analytics data effectively. • The system has access to accurate and up-to-date historical restaurant ordering data.

3.2.4.10 Module 10: Search, Filter and Notifications

UC-10.1: Manage Notifications

Table 62: Textual Description of Use Case Manage Notifications UC-10.1

Actors:	User
Trigger:	The user wants to manage their notifications.
Preconditions:	• The user is logged into their account. • There is at least one notification that the user has not read or that can be opened or deleted.
Postconditions:	• For marking as read: The selected notification is marked as read. • For opening notification: The notification details are displayed to the user. • For deleting notification: The selected notification is permanently deleted from the user's account.
Normal Flow:	• The user logs into their account. • The user navigates to their notification feed. • Depending on the action they want to perform (mark as read, open, or delete), the user selects the corresponding action. • The system performs the selected action. • Depending on the action, the system may display relevant information to the user.
Alternative Flows:	• Depending on the action, if there are no notifications to mark as read, open, or delete, the system displays a message informing the user that their notification feed is empty.
Exceptions:	• If the user is not logged in, the system prompts them to log in before they can manage their notifications. • If there is an error performing the selected action, the system displays an error message to the user.
Business Rules	• Notifications can only be managed by the user who received them. • Notifications cannot be recovered once deleted.
Assumptions:	• The user is familiar with the concept of notifications and how they work in the system. • The user understands the purpose of marking a notification as read, opening, or deleting it.

UC-10.2: Type Filtering

Table 63: Textual Description of Use Case Type Filtering UC-10.2

Actors:	• User
Trigger:	User wants to filter search results by typing keywords.

Preconditions:	User has initiated a search query.
Postconditions:	Search results are filtered based on the typed keywords.
Normal Flow:	• User initiates a search query. • System displays search results. • User types keywords in the filtering box. • System filters the search results based on the typed keywords. • System displays the filtered search results.
Alternative Flows:	If the user types an invalid or unrecognized keyword, the system displays an error message and prompts the user to enter valid keywords.
Exceptions:	None.
Business Rules	• The system uses an algorithm to match the typed keywords with the search results. • The system displays only the search results that match the typed keywords.
Assumptions:	• The user has a basic understanding of how to use the filtering feature. • The system can handle a large number of keywords and search results.

UC-10.3: Keyword Searches

Table 64: Textual Description of Use Case Keyword Searches UC-10.3

Actors:	• User
Trigger:	User wants to search for specific content on the platform.
Preconditions:	• User has an account on the platform. • User is logged in to their account.
Postconditions:	The system displays search results based on the user's search query.
Normal Flow:	• User enters the search query in the search bar. • The system displays the search results based on the keyword entered by the user. • User can click on any of the search results to view the details.
Alternative Flows:	• If the search query does not yield any relevant results, the system displays a message informing the user of no results found. • The user can modify the search query and repeat the search.
Exceptions:	If the user is not logged in, the system prompts them to log in to their account before proceeding with the search.
Business Rules	• The search function should prioritize displaying the most relevant results to the user based on their search query. • The search function should be able to handle variations of the search query, including spelling errors and synonyms.
Assumptions:	• The search function is available for all users of the platform. • The search function is optimized for speed and accuracy.

	• The search function is capable of handling a large number of concurrent searches.

UC-10.4: Sorting

Table 65: Textual Description of Use Case Sorting UC-10.4

Actors:	• User
Trigger:	User wants to sort a list of items based on a specific criteria
Preconditions:	User has a list of items that can be sorted
Postconditions:	The list of items is sorted based on the selected criteria
Normal Flow:	• User opens the list of items to be sorted • User selects the sorting criteria (e.g. price, rating, popularity, etc.) • System sorts the list of items based on the selected criteria • System displays the sorted list to the user
Alternative Flows:	• If the sorting criteria is invalid or not supported, system prompts the user to select a different criteria • If there are no items to be sorted, system displays a message to the user indicating that there are no items available to sort
Exceptions:	• System error occurs while sorting the list • User cancels the sorting process
Business Rules	• Only valid sorting criteria can be selected • Sorting criteria may vary depending on the context • The sorting process should be quick and efficient to avoid user frustration
Assumptions:	• User understands the available sorting criteria • The list of items is large enough to benefit from sorting • User is interested in sorting the list of items

UC-10.5: Generate System Notifications

Table 66: Textual Description of Use Case Generate System Notification UC-10.5

Actors:	• System
Trigger:	The system detects a triggering event (e.g., new order placed, new message received, etc.).

Preconditions:	• The system has access to the necessary data to generate notifications. • The notification settings of the user(s) receiving the notification are properly configured.
Postconditions:	A system-generated notification is sent to the appropriate user(s).
Normal Flow:	• The system detects a triggering event. • The system checks the notification settings of the user(s) receiving the notification. • The system generates the appropriate notification(s) based on the triggering event and user settings. • The system sends the notification(s) to the appropriate user(s).
Alternative Flows:	• 2a. If the notification settings of the user(s) receiving the notification are not properly configured, the system will not generate a notification. • 4a. If the system encounters an error while sending the notification(s), it will log the error and retry sending the notification(s) later.
Exceptions:	• The triggering event does not occur, and therefore no notifications are generated. • The system encounters an error while generating or sending the notification(s).
Business Rules	• The system must generate notifications only for relevant and important events. • The system must respect the notification settings of the user(s) receiving the notification. • The system must log any errors encountered while generating or sending notifications.
Assumptions:	• The necessary data for generating notifications is available and up-to-date. • The notification settings of the user(s) receiving the notification are properly configured. • The system is able to send notifications to the appropriate user(s).

3.2.4.11 Module 11: Feedback and Reports

UC-11.1: Give Feedback

Table 67: Textual Description of Use Case Give Feedback UC-11.1

Actors:	• User
Trigger:	The user wishes to provide feedback on their experience using the application.
Preconditions:	• The user has used the application and has something they would like to provide feedback on. • The user has access to the Feedback and Reports module within the application.
Postconditions:	• The feedback has been successfully submitted. • The application team has received the feedback and can review it for possible action.
Normal Flow:	• The user navigates to the Feedback and Reports module within the application. • The user selects the option to provide feedback. • The user provides a title or subject for the feedback. • The user provides a detailed description of the feedback. • The user submits the feedback. • The application confirms that the feedback has been received.
Alternative Flows:	• 3a. The user decides not to provide a title or subject for the feedback. • 4a. The user decides not to provide a detailed description of the feedback. • 5a. The user cancels the feedback submission.
Exceptions:	• If the application experiences technical difficulties during the feedback submission process, the user is notified and the feedback is not submitted. • If the feedback contains inappropriate content or violates the application's terms of service, the application team reserves the right to take appropriate action, including removing the feedback from the system.
Business Rules	• The user is only allowed to submit feedback related to their experience using the application. • The feedback must be appropriate and not violate the application's terms of service.
Assumptions:	• The application team will review and consider all feedback submitted through the Feedback and Reports module. • The user's feedback will be kept confidential and not shared with any third-party without the user's consent.

UC-11.2: View Feedback

Table 68: Textual Description of Use Case View Feedback UC-11.2

Actors:	• Admin

Trigger:	The admin wishes to view feedback submitted by users.
Preconditions:	Users have submitted feedback through the Feedback and Reports module within the application.
Postconditions:	• The admin has viewed the feedback. • The admin can take appropriate action based on the feedback.
Normal Flow:	• The admin navigates to the Feedback and Reports module within the application. • The admin selects the option to view feedback. • The application displays a list of feedback items submitted by users. • The admin selects a feedback item to view in detail. • The application displays the details of the selected feedback item. • The admin can take appropriate action based on the feedback, such as responding to the user or taking steps to address any issues identified.
Alternative Flows:	• 4a. The admin decides not to view any of the feedback items in detail. • 6a. The admin decides not to take any action based on the feedback.
Exceptions:	• If the application experiences technical difficulties during the feedback viewing process, the admin is notified and the feedback cannot be viewed. • If a user has submitted inappropriate feedback that violates the application's terms of service, the admin reserves the right to take appropriate action, including removing the feedback from the system.
Business Rules	• The admin is only allowed to view feedback related to the user's experience using the application. • The admin must keep user feedback confidential and not share it with any third-party without the user's consent.
Assumptions:	• The admin will review and consider all feedback submitted by users through the Feedback and Reports module. • The admin will take appropriate action based on the feedback to address any issues identified and improve the user's experience using the application.

UC-11.3: Give Rating

Table 69: Textual Description of Use Case Give Rating UC-11.3

Actors:	• User

Trigger:	The user wishes to provide a rating for their experience using the application.
Preconditions:	• The user has used the application and has completed an activity or transaction. • The user has access to the Feedback and Reports module within the application.
Postconditions:	• The rating has been successfully submitted. • The application team has received the rating and can review it for possible action.
Normal Flow:	• The user navigates to the Feedback and Reports module within the application. • The user selects the option to provide a rating. • The application displays a rating scale or system, such as stars or numbers. • The user selects the rating that best represents their experience. • The user submits the rating. • The application confirms that the rating has been received.
Alternative Flows:	• 4a. The user decides not to provide a rating. • 5a. The user cancels the rating submission.
Exceptions:	• If the application experiences technical difficulties during the rating submission process, the user is notified and the rating is not submitted. • If the user submits an inappropriate rating or violates the application's terms of service, the application team reserves the right to take appropriate action, including removing the rating from the system.
Business Rules	• The user is only allowed to submit a rating related to their experience using the application. • The rating must be appropriate and not violate the application's terms of service.
Assumptions:	• The application team will review and consider all ratings submitted through the Feedback and Reports module. • The user's rating will be kept confidential and not shared with any third-party without the user's consent.

UC-11.4: Add Report

Table 70: Textual Description of Use Case Add Report UC-11.4

Actors:	• User

Trigger:	The user encounters an issue or problem while using the application and wishes to report it.
Preconditions:	• The user has used the application and has encountered an issue or problem. • The user has access to the Feedback and Reports module within the application.
Postconditions:	• The report has been successfully submitted. • The application team has received the report and can review it for possible action.
Normal Flow:	• The user navigates to the Feedback and Reports module within the application. • The user selects the option to add a report. • The application displays a form or template for the user to complete. • The user completes the form, providing details about the issue or problem they encountered. • The user submits the report. • The application confirms that the report has been received.
Alternative Flows:	• 4a. The user decides not to add a report. • 5a. The user cancels the report submission.
Exceptions:	• If the application experiences technical difficulties during the report submission process, the user is notified and the report is not submitted. • If the user submits an inappropriate report or violates the application's terms of service, the application team reserves the right to take appropriate action, including removing the report from the system.
Business Rules	• The user is only allowed to submit a report related to an issue or problem they encountered while using the application. • The report must be appropriate and not violate the application's terms of service.
Assumptions:	• The application team will review and consider all reports submitted through the Feedback and Reports module. • The user's report will be kept confidential and not shared with any third-party without the user's consent.

UC-11.5: View Report

Table 71: Textual Description of Use Case View ReportUC-11.5

Actors:	• Admin

Trigger:	The admin wishes to view a report that has been submitted by a user.
Preconditions:	• The admin has access to the Feedback and Reports module within the application. • One or more reports have been submitted by users.
Postconditions:	• The admin has viewed the selected report. • The admin can take any necessary action based on the content of the report.
Normal Flow:	• The admin navigates to the Feedback and Reports module within the application. • The admin selects the option to view reports. • The application displays a list of all the reports that have been submitted. • The admin selects the report they wish to view. • The application displays the selected report. • The admin reviews the report and takes any necessary action based on the content of the report.
Alternative Flows:	• 3a. If no reports have been submitted, the application displays a message indicating that there are no reports to view. • 5a. If the admin decides not to view any reports, they can cancel the action.
Exceptions:	• If the application experiences technical difficulties while retrieving a report, the admin is notified and the report is not displayed. • If a report contains inappropriate or irrelevant content, the admin can choose to remove the report from the system.
Business Rules	• The admin is only allowed to view reports that have been submitted by users. • The admin is required to maintain the confidentiality of the report and not share it with any unauthorized parties.
Assumptions:	• The admin is authorized to access and view reports submitted by users. • The admin will take appropriate action based on the content of the report to address any issues or problems.

UC-11.6: Restrict Accounts

Table 72: Textual Description of Use Case Restrict Account UC-11.6

Actors:	• Admin • System
Trigger:	The admin identifies a user account that requires restriction.
Preconditions:	• The admin has access to the Feedback and Reports module within the application. • The admin has identified a user account that requires restriction.
Postconditions:	• The user account has been successfully restricted. • The user is notified of the account restriction.
Normal Flow:	• The admin navigates to the Feedback and Reports module within the application. • The admin selects the option to view reports. • The application displays a list of all the reports that have been submitted. • The admin identifies the user account that requires restriction. • The admin selects the option to restrict the user account. • The system restricts the user account and notifies the user of the account restriction.
Alternative Flows:	• 3a. If no reports have been submitted, the application displays a message indicating that there are no reports to view. • 5a. If the admin decides not to restrict any accounts, they can cancel the action.
Exceptions:	• If the admin does not have the authority to restrict user accounts, the system will not allow the action to be completed. • If the application experiences technical difficulties while restricting a user account, the admin is notified and the account may not be restricted.
Business Rules	• The admin is only allowed to restrict user accounts for valid reasons, such as violations of the application's terms of service. • The admin is required to provide justification for the account restriction.
Assumptions:	• The admin is authorized to restrict user accounts. • The admin will only restrict user accounts for valid reasons. • The system will notify the user of the account restriction and provide them with information on how to appeal the decision.

UC-11.7: Customer Updates

Table 73: Textual Description of Use Case Customer Updates UC-11.7

Actors:	• Customer • System
Trigger:	The system receives an update regarding the customer's order status, estimated delivery time, or other relevant information.
Preconditions:	• The customer has an active order. • The system has received an update related to the customer's order.
Postconditions:	• The customer is informed of the updated information. • The customer can view the updated details in the application.
Normal Flow:	• The system receives an update related to the customer's order, such as a change in order status, an adjusted delivery time, or any other relevant information. • The system identifies the customer associated with the updated order information. • The system sends a notification to the customer's mobile application, indicating that there is a new update regarding their order. • The customer opens the application and navigates to the order details section. • The customer views the updated information, including the current order status, revised delivery time, or any other relevant details. • The system logs the delivery of the update in the order history for future reference.
Alternative Flows:	• If the customer has disabled notifications, the system sends an email with the order update information. • If the customer does not open the application immediately after receiving the notification, the update remains visible in the order details section until viewed.
Exceptions:	• If there is a system failure or technical difficulties while sending the update notification, the system logs the failure for investigation, and the customer may not receive the immediate notification. • If the order update contains sensitive information, the system ensures that the information is transmitted securely to the customer.
Business Rules	• The system must prioritize timely and accurate delivery of order updates. • Order update notifications should be clear and concise, providing meaningful information to the customer.
Assumptions:	• The customer's mobile application is properly installed and configured to receive notifications. • The customer has a stable internet connection to receive real-time updates. • The system has access to the latest order information to generate accurate updates.

3.2.4.12 Module 12: Chat

UC-12.1: Start Chat and Voice Call

Table 74: Textual Description of Use Case Start Chat and Voice Call UC-12.1

Actors:	• User
Trigger:	The user wants to initiate communication with another user through the Chat module within the application.
Preconditions:	• The user has access to the Chat module within the application. • The user has identified the person they want to communicate with. • Both the user and the recipient have a stable internet connection for voice calls (applies to voice call initiation).
Postconditions:	• A chat session or voice call (depending on the user's choice) is initiated between the user and the selected person. • The user can communicate with the other person through the chat interface or voice call (depending on the chosen mode).
Normal Flow:	• The user navigates to the Chat module within the application. • The user selects the option to start a new chat or initiate a voice call (selecting the desired mode). • The user identifies the person they want to communicate with and selects their name. • For chat initiation, the application initiates a chat session between the user and the selected person. The chat interface is displayed, and the user can start typing messages. • For voice call initiation, the application initiates a voice call between the user and the selected person. The call is established, and the user can communicate through voice. • Communication can now proceed through the chosen mode.
Alternative Flows:	If the person the user wants to chat with or call is not available, the user can select a different person to chat with or try again later (applies to both chat and voice call modes).
Exceptions:	None
Business Rules	• The user is only allowed to initiate communication (chat or voice call) with other users or support representatives who have agreed to participate in the communication system. • The user is required to abide by the application's terms of service and code of conduct while using the communication system.
Assumptions:	• The user is only allowed to initiate communication (chat or voice call) with other users or support representatives who have agreed to participate in the communication system. • The user is required to abide by the application's terms of service and code of conduct while using the communication system.

UC-12.2: Chat Images

Table 75: Textual Description of Use Case Chat Images UC-12.2

Actors:	• User • Recipient
Trigger:	The user wants to send an image to the recipient through the chat module.
Preconditions:	• The user has access to the Chat module within the application. • The user has identified the recipient they want to send the image to. • The user has access to the image they want to send.
Postconditions:	• The image is sent and received by the recipient. • The user and recipient can view and discuss the image.
Normal Flow:	• The user navigates to the Chat module within the application. • The user selects the recipient they want to send the image to. • The user selects the option to send an image. • The user selects the image they want to send from their device's image gallery or camera roll. • The application uploads the image and sends it to the recipient. • The recipient receives the image and can view it in the chat.
Alternative Flows:	• 4a. If the user wants to take a new image to send, they can select the option to use their device's camera to take a photo. • 4b. If the user wants to send an image from a third-party application, they can select the option to share the image to the chat module.
Exceptions:	• If the image file size is too large, the application may not be able to upload and send the image. • If the user's internet connection is unstable or slow, the image may take longer to upload and send. • If the recipient's device or application is not able to receive or display the image, they may not be able to view it properly.
Business Rules	• The user is only allowed to send images that are appropriate and do not violate the application's terms of service or code of conduct. • The user is not allowed to send images that are illegal, harmful, or offensive.
Assumptions:	• The user has the necessary permissions to access the image they want to send. • The recipient's device and application are capable of receiving and displaying the image. • The image file size is not too large to be uploaded and sent through the application.

UC-12.3: Delete Chat

Table 76: Textual Description of Use Case Delete Chat UC-12.3

Actors:	• User
Trigger:	The user wants to delete a chat from the Chat module within the application.
Preconditions:	• The user has access to the Chat module within the application. • The user has an existing chat conversation that they want to delete.
Postconditions:	• The chat conversation is deleted from the Chat module. • The user and the recipient are no longer able to access the chat conversation.
Normal Flow:	• The user navigates to the Chat module within the application. • The user selects the chat conversation they want to delete. • The user selects the option to delete the chat conversation. • The application prompts the user to confirm if they really want to delete the chat conversation. • The user confirms the deletion of the chat conversation. • The chat conversation is deleted from the Chat module.
Alternative Flows:	4a. If the user selects the wrong chat conversation to delete, they can cancel the deletion process.
Exceptions:	• If the user accidentally deletes a chat conversation, there may not be a way to recover the chat conversation. • If the user's internet connection is unstable or slow, the deletion process may take longer to complete.
Business Rules	• The user is only allowed to delete chat conversations that they are authorized to delete. • The user is not allowed to delete chat conversations that are required for record-keeping purposes or are subject to legal retention requirements.
Assumptions:	• The user understands that deleting a chat conversation is a permanent action and cannot be undone. • The user has the necessary permissions to delete the chat conversation.

UC-12.4: Block User and Restrict Accounts:

Table 77: Textual Description of Use Case Block User and Restrict Accounts UC-12.4

Actors:	• Admin • System
Trigger:	The admin wants to take action against a user who has violated the application's policies or rules within the Chat module.
Preconditions:	• The user has an account within the application. • The user has access to the Chat module within the application. • The user has violated the application's policies or rules related to the use of the Chat module.
Postconditions:	• Depending on the severity of the violation, the admin can choose to block the user temporarily or restrict their account within the Chat module. • The user may receive a notification regarding the action taken by the admin. • The user's chat history is retained, but they may be unable to send or receive new messages within the Chat module.
Normal Flow:	• The system detects a violation of the application's policies or rules related to the use of the Chat module by a user. • The system alerts the admin about the violation. • The admin reviews the violation and decides on the appropriate action: • If the violation is less severe and warrants temporary action, the admin selects the option to block the user temporarily. • If the violation is severe and requires stronger action, the admin restricts the user's account within the Chat module. • The admin confirms the chosen action. • Depending on the action taken: a) If the user is temporarily blocked, they receive a notification indicating the temporary block and its duration. b) If the user's account is restricted, they receive a notification explaining the restriction. c) The user is now unable to send or receive new messages within the Chat module, as per the admin's decision.
Alternative Flows:	If the admin mistakenly blocks a user or restricts an account, they can reverse the action by selecting the option to unblock or lift restrictions on the user's account
Exceptions:	• If the system fails to properly detect a violation of the application's policies or rules related to the use of the Chat module, the user's account may not be restricted or blocked.
Business Rules	• The admin is only allowed to take actions against users within the Chat module in accordance with the application's policies and rules.
Assumptions:	• The system has the capability to automatically detect and flag inappropriate or abusive behavior by users.

3.3 Functional Requirements

3.3.1 Module 1: User Profiling

3.3.1.1 Use case 1: Sign Up

FR-1: Enter Information

Table 78: Enter Information

Identifier	FR-1.1.1
Title	Enter Information
Requirement	The Customer or Skooper shall be able to enter their full name, email, password, ID to be able to complete their registration.
Source	Muhammad Ahmar Tariq
Rationale	To get registered to the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-2: Select Role

Table 79: Select Role

Identifier	FR-1.1.2
Title	Select Role
Requirement	The Customer or Skooper shall be able to select their role of a skooper or customer to be able to access the functionalities of that role.
Source	Muhammad Ahmar Tariq
Rationale	To get registered to the system’s end with a specific role.
Business Rule	NA
Dependencies	NA
Priority	High

FR-3: Tick Terms and Conditions

Table 80: Select Role

Identifier	FR-1.1.3
Title	Tick Terms and Conditions
Requirement	The Customer or Skooper shall be able to check the terms and condition.
Source	Muhammad Ahmar Tariq
Rationale	To get registered to the system by reading and accepting the terms.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.1.2 Usecase 2: Login

FR-4: Enter Email ID

Table 81: Enter Email ID

Identifier	FR-1.2.1
Title	Enter Email ID
Requirement	The Customer or Skooper shall be able to Enter Email ID.
Source	Muhammad Ahmar Tariq
Rationale	To be able to access their respected end of the system
Business Rule	The email should contain the @ and must end with .com
Dependencies	NA
Priority	High

FR-5: Enter Password

Table 82: Enter Email ID

Identifier	FR-1.2.2
Title	Enter Password
Requirement	The Customer or Skooper shall be able to Enter their password.
Source	Muhammad Ahmar Tariq
Rationale	To be able to access their respected end of the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.1.3 Usecase 3: Forget Password

FR-6: Enter Email ID

Table 83: Enter Email ID

Identifier	FR-1.3.1
Title	Enter Email ID
Requirement	The Customer or Skooper shall be able to Enter Email ID to be able to get the mail on email.
Source	Muhammad Ahmar Tariq
Rationale	To be able to reset their password
Business Rule	The email should contain the @ and must end with .com
Dependencies	NA
Priority	High

FR-7: Send Code to Email ID

Table 84: Enter Email ID

Identifier	FR-1.3.2
Title	Send Code to Email ID
Requirement	The Customer or Skooper shall be able to click the send code button to be able to get the password reset code on their email.
Source	Muhammad Ahmar Tariq
Rationale	To be able to change their password.
Business Rule	NA
Dependencies	NA
Priority	High

FR-8: Enter New Password

Table 85: Enter New Password

Identifier	FR-1.3.3
Title	Enter New Password
Requirement	The Customer or Skooper shall be able to enter new password.
Source	Muhammad Ahmar Tariq
Rationale	To set a new password againt the ID.
Business Rule	The Password should contain atleast 8 letters.
Dependencies	NA
Priority	High

3.3.1.4 Usecase 4: Update Profile

FR-9: Change Full Name or Email

Table 86: Change Full Name or Email

Identifier	FR-1.4.1
Title	Change Full Name or email
Requirement	The Customer or Skooper shall be able to change their Full name and email address.
Source	Muhammad Ahmar Tariq
Rationale	To set a new full name against their profile
Business Rule	NA
Dependencies	NA
Priority	High

FR-10: Change Role

Table 87: Change Role

Identifier	FR-1.4.2
Title	Change Role
Requirement	The Customer or Skooper shall be able to switch between the roles.
Source	Muhammad Ahmar Tariq
Rationale	To Change the role to skooper or customer.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.1.5 Usecase 5: Change Password

FR-11: Enter New password

Table 88: Enter New Password

Identifier	FR-1.5.1
Title	Enter New Password
Requirement	The Customer or Skooper shall be able to enter a new password.
Source	Muhammad Ahmar Tariq
Rationale	To get a new secured password

Business Rule	The Password should contain atleast 8 letters which should include atleast a capital letter, small letter and a number.
Dependencies	NA
Priority	High

FR-12: Enter New Confirmpassword

Table 89: Enter New Confirm Password

Identifier	FR-1.5.2
Title	Enter New Confirm Password
Requirement	The Customer or Skooper shall be able to reenter a new password.
Source	Muhammad Ahmar Tariq
Rationale	To get a new secured password
Business Rule	The Confirm Password should match with the password.
Dependencies	1.5.1
Priority	High

3.3.1.6 Usecase 6: View Profile

FR-13: View Basic information

Table 90: View Basic information

Identifier	FR-1.6.1
Title	View Basic information
Requirement	The Customer or Skooper shall be able to View their basic information like full name, email, id etc after logging in the system.
Source	Muhammad Ahmar Tariq
Rationale	To ge the access to the system
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-14: View Role

Table 91: View Role

Identifier	FR-1.6.2
Title	View Role
Requirement	The Customer or Skooper shall be able to see their role in the dashboard.
Source	Muhammad Ahmar Tariq
Rationale	To be able to know in which end they are at the moment.
Business Rule	NA
Dependencies	NA
Priority	Medium

3.3.2 Module 2: Admin Panel

3.3.2.1 Usecase 1: Manage Customers

FR-15: View Customer Name

Table 92: View Customer Name

Identifier	FR-2.1.1
Title	View Customer Name
Requirement	The Admin shall be able to see Customer's Role.
Source	Muhammad Bilal Anwar
Rationale	To be able to check the role of the specific customer.
Business Rule	NA
Dependencies	NA
Priority	High

FR-16: View Customer Information

Table 93: View Customer Information

Identifier	FR-2.1.2
Title	View Customer Information
Requirement	The Admin shall be able to see Customer's Email ID and registered name.
Source	Muhammad Bilal Anwar
Rationale	To be able to check the information of the specific customer.
Business Rule	NA
Dependencies	NA
Priority	High

FR-17: View Number of Orders Placed

Table 94: View Number of Orders Placed

Identifier	FR-2.1.3
Title	View Number of Orders Placed
Requirement	The Admin shall be able to see Customer’s Number of Orders Placed.
Source	Muhammad Bilal Anwar
Rationale	To be able to check the number of orders placed by a specific customer.
Business Rule	NA
Dependencies	NA
Priority	High

FR-18: View Customer Total Amount Spent

Table 95: View Customer Total Amount Spent

Identifier	FR-2.1.4
Title	View Customer Total Amount Spent
Requirement	The Admin shall be able to see Customer’s Total Amount they have spent through the system to order from the restaurant.
Source	Muhammad Bilal Anwar
Rationale	To be able to check the Total Amount Spent by a specific customer.
Business Rule	NA
Dependencies	NA
Priority	High

FR-19: Edit Customer information

Table 96: Edit Customer information

Identifier	FR-2.1.5
Title	Edit Customer Information
Requirement	The Admin shall be able to Edit the Phone Number, profile pic, email address of the customer.
Source	Muhammad Bilal Anwar
Rationale	To change the phone number of customer if he/she could not access the system.
Business Rule	The Confirm password should match with the password
Dependencies	NA
Priority	High

FR-20: Remove Customer

Table 97: Remove Customer

Identifier	FR-2.1.6
Title	Remove Customer
Requirement	The Admin shall be able to remove a Customer by clicking a remove button.
Source	Supervisor
Rationale	To Remove a specific customer from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-21: Restrict Customer

Table 98: Restrict Customer

Identifier	FR-2.1.7
Title	Restrict Customer
Requirement	The Admin shall be able to restrict a Customer by clicking a Restrict button.
Source	Supervisor
Rationale	To Restrict a specific customer from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.2.2 Usecase 2: Manage Skooper

FR-22: View Skooper Information

Table 99: View Skooper Information

Identifier	FR-2.2.1
Title	View Skooper Information
Requirement	The Admin shall be able to see Skooper’s Name, email ID, phone number and profile pic
Source	Supervisor
Rationale	To be able to check the name of the specific Skooper.
Business Rule	NA
Dependencies	NA
Priority	High

FR-23: View Skooper Number of Completed Rides

Table 100: View Skooper Number of Completed Rides

Identifier	FR-2.2.2
Title	View Skooper Number of Completed Rides
Requirement	The Admin can see the number of rides a skooper have completed.
Source	Supervisor
Rationale	To be able to check the number of rides completed by a specific skooper.
Business Rule	NA
Dependencies	NA
Priority	High

FR-24: View Skooper Total Amount Earned

Table 101: View Skooper Total Amount Earned

Identifier	FR-2.2.3
Title	View Skooper Total Amount Earned
Requirement	The Admin shall be able to see total amount earned by the skooper
Source	Supervisor
Rationale	To be able to check the Total Amount Earned by a specific Skooper.
Business Rule	NA
Dependencies	NA
Priority	High

FR-25: Edit Skooper Information

Table 102: Edit Skooper Information

Identifier	FR-2.2.4
Title	Edit Skooper Information
Requirement	The Admin shall be able to Edit the Full Name, student ID, email, phone number and profile picture of the Skooper.
Source	Supervisor
Rationale	To change the details of the skooper.
Business Rule	NA
Dependencies	NA
Priority	High

FR-26: Remove Skooper

Table 103: Remove Skooper

Identifier	FR-2.2.5
Title	Remove Skooper
Requirement	The Admin shall be able to remove skooper by clicking a remove button.
Source	Supervisor
Rationale	To Remove a specific skooper from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-27: Restrict Skooper

Table 104: Restrict Skooper

Identifier	FR-2.2.6
Title	Restrict Skooper
Requirement	The Admin shall be able to Restricing a skooper from using the System by clicking a Restrict button.
Source	Supervisor
Rationale	To Restrict a specific customer from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.2.3 Use case 3: Manage Restaurant

FR-28: View Restaurant Information

Table 105: View Restaurant Information

Identifier	FR-2.3.1
Title	View Restaurant Information
Requirement	The Admin shall be able to see registerted Restaurant details.
Source	Supervisor
Rationale	To be able to check the information of the specific restaurant.
Business Rule	NA
Dependencies	NA
Priority	High

FR-29: View Restaurant Number of Orders Completed

Table 106: View Restaurant Number of Orders Completed

Identifier	FR-2.3.2
Title	View Restaurant Number of Orders Completed
Requirement	The Admin shall be able to see Restaurant Number of Orders completed.
Source	Surpervisor
Rationale	To be able to check the number of orders completed by a specific restaurant.
Business Rule	NA
Dependencies	NA
Priority	High

FR-30: View Restaurant Total Amount Earned

Table 107: View Restaurant Total Amount Earned

Identifier	FR-2.3.3
Title	View Restaurant Total Amount Earned
Requirement	The Admin shall be able to see Restaurant Total Amount they have earned.
Source	Supervisor
Rationale	To be able to check the Total Amount Earned by a specific restaurant.
Business Rule	NA
Dependencies	NA
Priority	High

FR-31: Enter a new Restaurant

Table 108: Enter a new Restaurant

Identifier	FR-2.3.4
Title	Enter a new restaurant
Requirement	The Admin shall be able to Enter the name, email ID, password of the restaurant to register the restaurant in the System.
Source	Supervisor
Rationale	To give the access to the Restaurant of the System.
Business Rule	NA
Dependencies	NA
Priority	High

FR-32: Edit a Restaurant

Table 109: Edit a Restaurant

Identifier	FR-2.3.5
Title	Edit a Restaurant
Requirement	The Admin shall be able to Edit the name, email ID, logo and pictures of the restaurant.
Source	Supervisor
Rationale	To change the details of the restaurant.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-33: Remove Restaurant

Table 110: Remove Restaurant

Identifier	FR-2.3.6
Title	Remove Restaurant
Requirement	The Admin shall be able to remove a restaurant by clicking remove button.
Source	Supervisor
Rationale	To Remove a specific restaurant from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-34: Restrict Restaurant

Table 111: Restrict Restaurant

Identifier	FR-2.3.7
Title	Restrict Restaurant
Requirement	The Admin shall be able to Restricing a Restaurant from using the System by clicking a Restrict button.
Source	Supervisor
Rationale	To Restrict a specific Restaurant from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.2.4 Usecase 4: Manage Vendor

FR-35: View Vendor Information

Table 112: View Vendor Information

Identifier	FR-2.4.1
Title	View Vendor Information
Requirement	The Admin shall be able to see registerted Vendor details.
Source	Supervisor
Rationale	To be able to check the information of the specific vendor.
Business Rule	NA
Dependencies	NA
Priority	High

FR-36: View Vendor Approval Request

Table 113: View Vendor Approval Request

Identifier	FR-2.4.2
Title	View Vendor Approval Request
Requirement	The Admin shall be able to view the approval request sent by the vendor.
Source	Supervisor
Rationale	To only allow the vendor, admin wants be added in the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-37: Enter a new vendor

Table 114: Enter a new vendor

Identifier	FR-2.4.3
Title	Enter a new vendor
Requirement	The Admin shall be able to Enter the name, email id and password.
Source	Supervisor
Rationale	To give the access to the vendor of the System.
Business Rule	NA
Dependencies	NA
Priority	High

FR-38: Edit Vendor information

Table 115: Edit Vendor information

Identifier	FR-2.4.4
Title	Edit Vendor information
Requirement	The Admin shall be able to Edit the information of the vendor.
Source	Supervisor
Rationale	To change the details of the vendor.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-39: Remove Vendor

Table 116: Remove Vendor

Identifier	FR-2.4.5
Title	Remove Vendor
Requirement	The Admin shall be able to remove a vendor from the System by clicking a remove button.
Source	Supervisor
Rationale	To Remove a specific vendor from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-40: Restrict Vendor

Table 117: Restrict Vendor

Identifier	FR-2.4.6
Title	Restrict Vendor
Requirement	The Admin shall be able to Restricing a Vendor from using the System by clicking a Restrict button.
Source	Supervisor
Rationale	To Restrict a specific Vendor from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.2.5 Use case 5: Verify Mobile App and Student ID during Registration

FR-41: Mobile App Front-end Verification

Table 118: Mobile App Front-end Verification

Identifier	FR-2.5.1
Title	Mobile App Front-end Verification
Requirement	The system shall provide tools for the admin to verify the front-end of the mobile app during the user registration process.
Source	Supervisor
Rationale	To ensure that the mobile app's user interface meets the specified standards.
Business Rule	NA
Dependencies	NA
Priority	High

FR-42: Mobile App Backend Verification

Table 119: Mobile App Backend-end Verification

Identifier	FR-2.5.2
Title	Mobile App Backend Verification
Requirement	The system shall provide tools for the admin to verify the backend functionality of the mobile app during the user registration process.
Source	Supervisor
Rationale	To ensure that the mobile app's backend meets the specified standards.
Business Rule	NA
Dependencies	NA
Priority	High

FR-43: Student ID Verification

Table 120: Student ID Verification

Identifier	FR-2.5.3
Title	Student ID Verification
Requirement	The system shall provide tools for the admin to verify the submitted student ID during the user registration process.

Source	Supervisor
Rationale	To ensure that the provided student ID is valid and matches the registration details.
Business Rule	NA
Dependencies	NA
Priority	High

FR-44: Registration Approval

Table 121: Registration Approval

Identifier	FR-2.5.4
Title	Registration Approval
Requirement	Upon successful verification of the mobile app front-end, backend, and student ID, the system shall allow the admin to approve the user registration.
Source	Supervisor
Rationale	To enable the admin to officially approve the user registration after successful verification.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-45: User Status Update

Table 122: User Status Update

Identifier	FR-2.5.5
Title	User Status Update
Requirement	Upon admin approval, the system shall update the user's status to "Verified."
Source	Supervisor
Rationale	To reflect the successful verification in the user's status.
Business Rule	NA
Dependencies	NA
Priority	Low

FR-46: User Notification

Table 123: User Notification

Identifier	FR-2.5.6
Title	User Notification
Requirement	Upon successful verification and approval, the system shall send a notification to the user informing them of the successful registration.
Source	Supervisor
Rationale	To communicate the verification outcome to the user.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-47: Verification Feedback

Table 124: Verification Feedback

Identifier	FR-2.5.7
Title	Verification Feedback
Requirement	In case of verification failure, the system shall provide clear and informative feedback to the admin for communication to the user.
Source	Supervisor
Rationale	To ensure transparent communication regarding the reasons for verification failure.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-48: Verification Process Security

Table 125: Verification Process Security

Identifier	FR-2.5.8
Title	Verification Process Security
Requirement	The system shall have proper security measures in place to prevent unauthorized access to user registration details during the verification process.

Source	Supervisor
Rationale	To protect user information and maintain the integrity of the verification process.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.3 Module 3: Customer Panel

3.3.3.1 Usecase 1: Manage Customer

FR-49: Complete Profile

Table 126: Complete Profile

Identifier	FR-3.1.1
Title	Complete Profile
Requirement	The Customer shall have the ability to complete their profile by providing their name, email address, phone number, and address.
Source	Muhammad Ahmar Tariq
Rationale	To ensure that the customer's profile is up-to-date and contains accurate information for effective communication and service delivery.
Business Rule	All required fields in the form must be filled out.
Dependencies	NA
Priority	High

FR-50: View Profile

Table 127: View Profile

Identifier	FR-3.1.2
Title	View Profile
Requirement	The Customer shall be able to view their profile information, including their name, contact information, and other relevant details.
Source	Muhammad Ahmar Tariq
Rationale	To allow the customer to review and verify their profile information.
Business Rule	None
Dependencies	None
Priority	Medium

FR-51: Update Profile

Table 128: Update Profile

Identifier	FR-3.1.3
Title	Update Profile
Requirement	The Customer shall have the ability to update their profile information, including their name, address, phone number, and other relevant details.
Source	Muhammad Ahmar Tariq
Rationale	To enable customers to keep their profile information accurate and up-to-date.
Business Rule	The updated information should be saved only if it is valid and complete.
Dependencies	None
Priority	High

FR-52: Delete Profile

Table 129: Delete Profile

Identifier	FR-3.1.4
Title	Delete Profile
Requirement	The Customer shall be able to delete their profile and associated data from the system.
Source	Muhammad Ahmar Tariq
Rationale	To allow customers to permanently remove their profiles from the system.
Business Rule	The deletion of the customer's profile and associated data should be irreversible, and the customer should confirm their decision to delete.
Dependencies	None
Priority	High

3.3.3.2 Usecase 2: Manage Location

FR-53: Add Location

Table 130: Add Location

Identifier	FR-3.2.1
Title	Add Location
Requirement	The Customer shall have the ability to add a new location to their profile.
Source	Muhammad Ahmar Tariq

Rationale	To allow customers to save new locations to their profiles for future reference.
Business Rule	Each saved location must have a unique name and address.
Dependencies	None
Priority	High

FR-54: View Saved Locations

Table 131: View Saved Locations

Identifier	FR-3.2.2
Title	View Saved Locations
Requirement	The Customer shall be able to view a list of their saved locations.
Source	Muhammad Ahmar Tariq
Rationale	To provide customers with an overview of their saved locations.
Business Rule	None
Dependencies	None
Priority	Medium

FR-55: Delete Location

Table 132: Delete Location

Identifier	FR-3.2.3
Title	Delete Location
Requirement	The Customer shall have the ability to delete a location from their profile.
Source	Muhammad Ahmar Tariq
Rationale	To enable customers to remove locations.
Business Rule	None
Dependencies	None
Priority	High

FR-56: Cancel Location Deletion

Table 133: Cancel Location Deletion

Identifier	FR-3.2.4
Title	Cancel Location Deletion
Requirement	If the customer selects the wrong location to delete, they shall undo it.
Source	Muhammad Ahmar Tariq

Rationale	To allow customers to correct their selection before confirming the deletion.
Business Rule	None
Dependencies	None
Priority	Low

3.3.3.3 Usecase 3: Manage Favourite Restaurant

FR-57: Add Favorite Restaurant

Table 134: Add Favorite Restaurant

Identifier	FR-3.3.1
Title	Add Favorite Restaurant
Requirement	The Customer shall be able to add a restaurant to list of favorite restaurants.
Source	Muhammad Ahmar Tariq
Rationale	To allow customers to save restaurants they like for easy access.
Business Rule	Only logged-in customers can add favorite restaurants.
Dependencies	
Priority	High

FR-58: View Favorite Restaurant

Table 135: View Favorite Restaurant

Identifier	FR-3.3.2
Title	View Favorite Restaurants
Requirement	The Customer shall be able to view their list of favorite restaurants.
Source	Muhammad Ahmar Tariq
Rationale	To provide customers with quick access to their favorite restaurants.
Business Rule	The customer must have added at least one restaurant to their favorites list.
Dependencies	None
Priority	High

FR-59: Remove Favorite Restaurant

Table 136: Remove Favorite Restaurant

Identifier	FR-3.3.3
Title	Remove Favorite Restaurant
Requirement	The Customer shall be able to remove a restaurant from their list of favorite restaurants.

Source	Muhammad Ahmar Tariq
Rationale	To allow customers to manage their list of favorite restaurants.
Business Rule	None
Dependencies	None
Priority	High

FR-60: Multiple Favorite Restaurant

Table 137: Multiple Favorite Restaurant

Identifier	FR-3.3.4
Title	Multiple Favorite Restaurants
Requirement	A customer shall be able to add multiple restaurants to their list of favorite restaurants.
Source	Muhammad Ahmar Tariq
Rationale	To allow customers to save multiple favorite restaurants.
Business Rule	None
Dependencies	The restaurant must exist in the app's database.
Priority	High

FR-61: Confirmation Message (Add and Remove)

Table 138: Confirmation Message (Add and Remove)

Identifier	FR-3.3.5
Title	Confirmation Message (Add and Remove)
Requirement	The app shall display a clear confirmation message to the customer.
Source	Muhammad Ahmar Tariq
Rationale	To provide feedback to the customer after performing actions.
Business Rule	None
Dependencies	None
Priority	Medium

3.3.3.4 Usecase 4: Manage Cart

FR-62: Add Item to Cart

Table 139: Add Item to Cart

Identifier	FR-3.4.1
Title	Add Item to Cart
Requirement	The Customer shall be able to add an item to their shopping cart.
Source	Muhammad Ahmar Tariq
Rationale	To enable customers to add items they want to purchase to their cart.
Business Rule	None
Dependencies	None
Priority	High

FR-63: View Cart

Table 140: View Cart

Identifier	FR-3.4.2
Title	View Cart
Requirement	The Customer shall be able to view the contents of their shopping cart.
Source	Muhammad Ahmar Tariq
Rationale	To allow customers to review the items in their cart before proceeding to checkout.
Business Rule	None
Dependencies	None
Priority	High

FR-64: Update Cart

Table 141: Update Cart

Identifier	FR-3.4.3
Title	Update Cart
Requirement	The Customer shall be able to update the contents of their shopping cart.
Source	Muhammad Ahmar Tariq
Rationale	To provide customers with the flexibility to modify items in their cart as needed.
Business Rule	None
Dependencies	None
Priority	High

FR-65: Add to Cart - Out of Stock

Table 142: Add to Cart - Out of Stock

Identifier	FR-3.4.4
Title	Add to Cart - Out of Stock
Requirement	If the item is out of stock, the system shall display an error message to the customer and shall not add the item to the cart.
Source	Muhammad Ahmar Tariq
Rationale	To prevent customers from adding out-of-stock items to their cart.
Business Rule	NA
Dependencies	NA
Priority	Medium

3.3.4 Module 4: Skooper App

3.3.4.1 Usecase 1: Manage Profile

FR-66: Insert Profile Picture

Table 143: Insert Profile Picture

Identifier	FR-4.1.1
Title	Insert Profile Picture
Requirement	The Skooper -able to Insert a profile picture after logging into their account.
Source	Supervisor
Rationale	To get the additional data from the skooper.
Business Rule	NA
Dependencies	NA
Priority	High

FR-67: Enter Phone Number

Table 144: Enter Phone Number

Identifier	FR-4.1.2
Title	Enter Phone Number
Requirement	The skooper -able to enter a phone number after logging into their account.
Source	Supervisor
Rationale	To get the additional data from the skooper.
Business Rule	NA
Dependencies	NA
Priority	High

FR-68: View vendor information

Table 145:View vendor information

Identifier	FR-4.1.3
Title	View vendor information
Requirement	The skooper shall be able to view his/her information in the system.
Source	Supervisor
Rationale	To let the skooper check in which panel he is logged in.
Business Rule	NA
Dependencies	NA
Priority	High

FR-69: Update Profile Picture

Table 146: Update Profile Picture

Identifier	FR-4.1.4
Title	Update Profile Picture
Requirement	The skooper shall be able to change the profile picture.
Source	Supervisor
Rationale	To let the skooper change his display picture.
Business Rule	NA
Dependencies	NA
Priority	High

FR-70: Change Full name

Table 147: Change Full name

Identifier	FR-4.1.5
Title	Change Full name
Requirement	The skooper shall be able to change his/her full name.
Source	Supervisor
Rationale	To let the skooper have control over his profile.
Business Rule	NA
Dependencies	NA
Priority	High

FR-71: Change Role

Table 148: Change Role

Identifier	FR-4.1.6
Title	Change Role
Requirement	The skooper shall be able to change his/her role in the system so he can switch to the customer panel as well.
Source	Supervisor
Rationale	To let the skooper become the customer so he can order food too.
Business Rule	NA
Dependencies	NA
Priority	High

FR-72: Change Phone Number

Table 149: Change Phone Number

Identifier	FR-4.1.7
Title	Change Phone Number
Requirement	The skooper shall be able to change his/her personal phone number which is inserted by skooper in the system.
Source	Supervisor
Rationale	To let the skooper edit his phone number in case he change or lost the old number.
Business Rule	NA
Dependencies	NA
Priority	High

FR-73: Delete Profile

Table 150: Delete Profile

Identifier	FR-4.1.8
Title	Delete Profile
Requirement	The skooper shall be able to delet his/her profile from the system.
Source	Supervisor
Rationale	To let the skooper delete the account
Business Rule	None
Dependencies	None
Priority	High

FR-74: Confirm Delete Profile

Table 151: Confirm Delete Profile

Identifier	FR-4.1.9
Title	Confirm Delete Profile
Requirement	The skooper shall be able to delete the profile
Source	Supervisor
Rationale	To double check confirm delete the account from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.4.2 Usecase 2: Accept or Reject Order

FR-75: View Notification

Table 152: View Notification

Identifier	FR-4.2.1
Title	View Notification
Requirement	System shall send an alert to skooper
Source	Supervisor
Rationale	To let the skooper get the order from the near restaurant.
Business Rule	NA
Dependencies	NA
Priority	High

FR-76: View Restaurant Name

Table 153: View Restaurant Name

Identifier	FR-4.2.2
Title	View Restaurant Name
Requirement	The skooper shall be able to see the name of the restaurant with in the order details.
Source	Supervisor
Rationale	To let the skooper know about the restaurant from where he/she has to pick the order.
Business Rule	NA
Dependencies	NA
Priority	High

FR-77: View Order

Table 154: View Order

Identifier	FR-4.2.3
Title	View Order
Requirement	The skooper shall be able to see order details which will be delivered.
Source	Supervisor
Rationale	To let the skooper know about the order.
Business Rule	NA
Dependencies	NA
Priority	High

FR-78: View Amount

Table 155: View Amount

Identifier	FR-4.2.4
Title	View Amount
Requirement	The skooper shall be able to see order amount and the tip amount
Source	Supervisor
Rationale	To let the skooper know about the amount he can earn.
Business Rule	NA
Dependencies	NA
Priority	High

FR-79: View Estimated Time

Table 156: View Estimated Time

Identifier	FR-4.2.5
Title	View Estimated Time
Requirement	The skooper shall be able to see delivery's estimated time, in which he/she has to complete the ride.
Source	Supervisor
Rationale	To let the skooper know how much time he/she has to complete the order job.
Business Rule	NA
Dependencies	NA
Priority	High

FR-80: Accept Order

Table 157: Accept Order

Identifier	FR-4.2.6
Title	Accept Order
Requirement	The skooper shall be able to perform an action to accept the order.
Source	Supervisor
Rationale	To let the skooper decide if he is willing to do the delivery.
Business Rule	NA
Dependencies	NA
Priority	High

FR-81: Reject Order

Table 158: Reject Order

Identifier	FR-4.2.7
Title	Reject Order
Requirement	The skooper shall be able to perform an action to reject the order.
Source	Supervisor
Rationale	To let the skooper decide if he doesnot want to do the job.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.4.3 Usecase 3: Map Integration

FR-82: View Map

Table 159: View Map

Identifier	FR-4.3.1
Title	View Map
Requirement	When the skooper accepts the order he can view a map with pickup and destination pinned and marked route.
Source	Supervisor
Rationale	To let the skooper find the location of restaurant and customer.
Business Rule	NA
Dependencies	NA
Priority	High

FR-83: Zoom In

Table 160: Zoom In

Identifier	FR-4.3.2
Title	Zoom In
Requirement	The skooper shall be able to zoom in the map.
Source	Supervisor
Rationale	To let the skooper see the map in more detail.
Business Rule	NA
Dependencies	NA
Priority	High

FR-84: Zoom Out

Table 161: Zoom Out

Identifier	FR-4.3.3
Title	Zoom Out
Requirement	The skooper shall be able to zoom out in the map.
Source	Supervisor
Rationale	To let the skooper see the whole route in full screen.
Business Rule	NA
Dependencies	NA
Priority	High

FR-84: View Start and End Point

Table 162: View Start and End Point

Identifier	FR-4.3.4
Title	View Start and End Point
Requirement	The skooper shall be able to see restaurant location on map highlighted and customer location.
Source	Supervisor
Rationale	To let the skooper know from where he can pick up the order and where to deliver.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.4.4 Usecase 4: Manage Skooper Rides

FR-85: View Current Ride Details

Table 163: View Current Ride Details

Identifier	FR-4.4.1
Title	View Current Ride Details
Requirement	Skooper, should be able to view the details.
Source	Supervisor
Rationale	To provide Skooper with real-time information about the ongoing ride for effective navigation and service
Business Rule	NA
Dependencies	NA
Priority	High

FR-86: View Past Ride History

Table 164: View Past Ride History

Identifier	FR-4.4.2
Title	View Past Ride History
Requirement	Skooper, when logged into the app, should be able to view a list of their past rides, including details such as pickup and dropoff locations, customer information, and order details.
Source	Supervisor
Rationale	To allow Skooper to access and review their past ride history for record-keeping and reference purposes.
Business Rule	Skooper can only view their own past rides.
Dependencies	NA
Priority	High

FR-87: Display No Current Ride Message

Table 165: Display No Current Ride Message

Identifier	FR-4.4.3
Title	Display No Current Ride Message
Requirement	If there is no current ride (e.g., when no ride request is accepted or the current ride is cancelled or completed), the app shall display a message to inform Skooper that there is no current ride.
Source	Supervisor

Rationale	To provide clear feedback to Skooper when there is no ongoing ride.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-88: Display No Past Rides Message

Table 166: Display No Past Rides Message

Identifier	FR-4.4.4
Title	Display No Past Rides Message
Requirement	if Skooper has not completed any rides, the app shall display a message indicating that there are no past rides to view.
Source	Supervisor
Rationale	To inform Skooper when they have not yet completed any rides.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.4.5 Use case 5: Smart Skooper Assignment

FR-89: Smart Skooper Assignment Algorithm

Table 167: Smart Skooper Assignment Algorithm

Identifier	FR-4.5.1
Title	Smart Skooper Assignment Algorithm
Requirement	The system shall implement a smart algorithm for assigning Skoopers to ride requests based on factors such as distance, acceptance rate, rating, fair chance, and assigned weight.
Source	Supervisor
Rationale	To optimize Skooper assignments and enhance overall efficiency in the ride assignment process.
Business Rule	NA
Dependencies	NA
Priority	High

FR-90: Skooper Notification for Ride Assignment

Table 168: Skooper Notification for Ride Assignment

Identifier	FR-4.5.2
Title	Skooper Notification for Ride Assignment
Requirement	When a Skooper is assigned a ride through the smart algorithm, the system shall send a notification to the Skooper with details of the assigned ride.
Source	Supervisor
Rationale	To promptly inform the Skooper about the assigned ride and facilitate efficient communication.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-91: Skooper Acceptance of Ride Assignment

Table 169: Skooper Acceptance of Ride Assignment

Identifier	FR-4.5.3
Title	Skooper Acceptance of Ride Assignment
Requirement	The system shall allow Skoopers to accept or reject ride assignments received through the smart algorithm.
Source	Supervisor
Rationale	To provide Skoopers with the flexibility to manage their ride assignments based on their availability and preferences.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-92: Default Ride Assignment Method

Table 170: Default Ride Assignment Method

Identifier	FR-4.5.4
Title	Default Ride Assignment Method
Requirement	In case the smart algorithm encounters technical issues or fails, the system shall use a default method to assign rides to Skoopers.
Source	Supervisor
Rationale	To ensure continuity in the ride assignment process even in the event of algorithmic failure.
Business Rule	NA

Dependencies	NA
Priority	Low

3.3.5 Module 5: Restaurant Panel

3.3.5.1 Usecase 1: Manage Resturant Profile

FR-93: Restaurant Registration

Table 171: Restaurant Registration

Identifier	FR-5.1.1
Title	Restaurant Registration
Requirement	The restaurant shall be able to register in the Restaurant App
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to create an account in the app.
Business Rule	The restaurant must provide accurate information during registration.
Dependencies	The app must send a confirmation email.
Priority	High

FR-94: Complete Restaurant Profile

Table 172: Complete Restaurant Profile

Identifier	FR-5.1.2
Title	Complete Restaurant Profile
Requirement	The restaurant shall be able to complete their
Source	Muhammad Ahmar Tariq
Rationale	To ensure that the restaurant's profile is comprehensive and up-to-date.
Business Rule	The restaurant must provide accurate and up-to-date information.
Dependencies	NA
Priority	High

FR-95: View Restaurant Profile

Table 173: View Restaurant Profile

Identifier	FR-5.1.3
Title	View Restaurant Profile
Requirement	The restaurant shall be able to view their profile information.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to review the information in their profile.

Business Rule	None
Dependencies	None
Priority	High

FR-96: Update Restaurant Profile

Table 174: Update Restaurant Profile

Identifier	FR-5.1.4
Title	Update Restaurant Profile
Requirement	To enable restaurants to keep their profile information accurate and up-to-date.
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to keep their profile information accurate and up-to-date.
Business Rule	The restaurant must provide accurate and up-to-date information.
Dependencies	None
Priority	High

FR-97: Delete Restaurant Profile

Table 175: Delete Restaurant Profile

Identifier	FR-5.1.5
Title	Delete Restaurant Profile
Requirement	The restaurant shall be able to delete their profile, which is irreversible.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to close their account and remove associated data.
Business Rule	None
Dependencies	The restaurant must have completed their profile and have no active orders.
Priority	High

3.3.5.2 Usecase 2: Manage Item Category

FR-98: Add Item Category

Table 176:Add Item Category

Identifier	FR-5.2.1
Title	Add Item Category
Requirement	The restaurant shall be able to add a new item category
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to expand their menu with new item categories.
Business Rule	The name of each item category must be unique for each restaurant.
Dependencies	None
Priority	High

FR-99: Update Item Category

Table 177: Update Item Category

Identifier	FR-5.2.2
Title	Update Item Category
Requirement	The restaurant shall be able to update the existing category
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to modify item category details as needed.
Business Rule	None
Dependencies	None
Priority	High

FR-100: View Item Category

Table 178: View Item Category

Identifier	FR-5.2.3
Title	View Item Categories
Requirement	The restaurant shall be able to view a list of item categories in their menu.
Source	Muhammad Ahmar Tariq
Rationale	To provide restaurants with an overview of their menu.
Business Rule	Item categories should be visible to customers while placing orders.
Dependencies	None
Priority	High

FR-101: Delete Item Category

Table 179:Delete Item Category

Identifier	FR-5.2.4
Title	Delete Item Category
Requirement	The restaurant shall be able to delete an item category from their menu, which is irreversible.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to remove item categories that are no longer needed.
Business Rule	The deletion of an item category is irreversible.
Dependencies	None
Priority	High

3.3.5.3 Usecase 3: Manage Items

FR-102: Add Item

Table 180: Add Item

Identifier	FR-5.3.1
Title	Add Item
Requirement	The restaurant shall be able to add a new item
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to expand their menu with new items.
Business Rule	The name of each item must be unique for each restaurant.
Dependencies	None
Priority	High

FR-103: Update Item

Table 181: Update Item

Identifier	FR-5.3.2
Title	Update Item
Requirement	The restaurant shall be able to update the details of an existing item
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to modify item details as needed.
Business Rule	None
Dependencies	None
Priority	High

FR-104: View Item

Table 182: View Item

Identifier	FR-5.3.3
Title	View Items
Requirement	The restaurant shall be able to view a list of items in their menu, including details such as name, description, price, and category.
Source	Muhammad Ahmar Tariq
Rationale	To provide restaurants with an overview of the items in their menu.
Business Rule	None
Dependencies	None
Priority	High

FR-105: Delete Item

Table 183: Delete Item

Identifier	FR-5.3.4
Title	Delete Item
Requirement	The restaurant shall be able to delete an item from their menu, which is irreversible.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to remove items that are no longer needed.
Business Rule	The deletion of an item is irreversible.
Dependencies	There must be no active orders containing the item to be deleted.
Priority	High

3.3.5.4 Usecase 4: Manage Deals

FR-106: Create New Deal

Table 184: Create New Deal

Identifier	FR-5.4.1
Title	Create New Deal
Requirement	The restaurant shall be able to create a new deal by providing deal details, including name, description, duration, items included, and price. The deal is added to the list of active deals available to customers.
Source	Muhammad Ahmar Tariq

Rationale	To enable restaurants to offer special deals to their customers.
Business Rule	The restaurant can only create a new deal if they have at least one item added to their menu.
Dependencies	None
Priority	High

FR-107: View Deal

Table 185: View Deal

Identifier	FR-5.4.2
Title	View Deals
Requirement	The restaurant shall be able to view a list of all the deals they have created, including details such as name, description, duration, and price. The restaurant can select a deal to view its details.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to manage and review their existing deals.
Business Rule	Only the restaurant that created the deal can view it.
Dependencies	None
Priority	High

FR-108: Update Deal

Table 186: Update Deal

Identifier	FR-5.4.3
Title	Update Deal
Requirement	The restaurant shall be able to update the details of an existing deal, including name, description, duration, items included, and price. The updated deal replaces the previous version.
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to modify the terms and offerings of their deals.
Business Rule	A deal cannot be deleted if it is currently associated with any active orders.
Dependencies	None
Priority	High

FR-109: Delete Deal

Table 187: Delete Deal

Identifier	FR-5.4.4
Title	Delete Deal
Requirement	The restaurant shall be able to delete an existing deal. The selected deal is permanently removed from the restaurant's list of deals.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to remove deals that are no longer offered.
Business Rule	A deal cannot be deleted if it is currently associated with any active orders.
Dependencies	If the selected deal to be deleted is associated with active orders, the system will prompt the restaurant to confirm the deletion to avoid affecting active orders.
Priority	High

3.3.5.5 Usecase 5: Manage Approved Vendors

FR-110: View Approved Vendors

Table 188: View Approved Vendors

Identifier	FR-5.5.1
Title	View Approved Vendors
Requirement	The restaurant shall be able to view a list of approved vendors available for ordering supplies.
Source	Muhammad Ahmar Tariq
Rationale	To provide the restaurant with an overview of their approved vendors.
Business Rule	Only authorized restaurants can view approved vendors.
Dependencies	The system must have a list of available vendors for the restaurant's location.
Priority	High

FR-111: Select Vendor for Supplies

Table 189: Select Vendor for Supplies

Identifier	FR-5.5.2
Title	Select Vendor for Supplies
Requirement	The restaurant shall be able to select a vendor from the list.
Source	Muhammad Ahmar Tariq
Rationale	To allow restaurants to choose a vendor for their supply needs.

Business Rule	Only authorized restaurants can view approved vendors.
Dependencies	None
Priority	High

FR-112: Remove Approved Vendor

Table 190: Remove Approved Vendor

Identifier	FR-5.5.3
Title	Remove Approved Vendor
Requirement	The restaurant shall be able to remove an approved vendor from their list.
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to manage their list of approved vendors.
Business Rule	Any active deals with the vendor being removed will be canceled.
Dependencies	None
Priority	High

3.3.5.6 Usecase 6: Manage Inventory

FR-113: Add New Inventory

Table 191: Add New Inventory

Identifier	FR-5.6.1
Title	Add New Inventory
Requirement	The restaurant shall be able to add new inventory to their system by providing details such as name, description, quantity, price, and other necessary information.
Source	Muhammad Ahmar Tariq
Rationale	To enable restaurants to update their inventory and keep it up-to-date.
Business Rule	Any active deals with the vendor being removed will be canceled.
Dependencies	None
Priority	High

FR-114: Add New Inventory

Table 192: Add New Inventory

Identifier	FR-5.6.2
Title	Inventory Confirmation

Requirement	After successfully adding new inventory to the restaurant's system, the system shall display a confirmation message to the restaurant to acknowledge that the inventory has been added.
Source	Muhammad Ahmar Tariq
Rationale	To provide the restaurant with immediate feedback and confirmation of a successful inventory addition.
Business Rule	None
Dependencies	None
Priority	Medium

FR-115: Continuous Inventory Addition

Table 193: Continuous Inventory Addition

Identifier	FR-5.6.3
Title	Continuous Inventory Addition
Requirement	Upon receiving the confirmation message for added inventory, the restaurant shall have the option to either add more inventory or exit the inventory addition process.
Source	Muhammad Ahmar Tariq
Rationale	To allow the restaurant to efficiently add multiple inventory items without unnecessary interruptions.
Business Rule	None
Dependencies	None
Priority	Medium

FR-116: Inventory Details

Table 194: Inventory Details

Identifier	FR-5.6.4
Title	Inventory Details
Requirement	The restaurant shall provide details for each new inventory item, including its name, description, quantity, price, and any other necessary information.
Source	Muhammad Ahmar Tariq
Rationale	To ensure that the inventory information is complete and provides all relevant details for the restaurant's system.
Business Rule	Inventory items must have a unique name.
Dependencies	None
Priority	High

3.3.5.7 Usecase 7: View Item Category

FR-117: Edit Category Name

Table 195: Edit Category Name

Identifier	FR-5.7.1
Title	Edit Category Name
Requirement	The restaurant shall be able to Edit a category name.
Source	Supervisor
Rationale	The Category is an essential field for the food item as the customer can view the food items against a specific category. It is important to let the restaurant to edit a category name.
Business Rule	NA
Dependencies	NA
Priority	High

FR-118: Change Category Picture

Table 196: Change Category Picture

Identifier	FR-5.7.2
Title	Change Category Picture
Requirement	The restaurant shall be able to change category picture.
Source	Supervisor
Rationale	A category picture is an important visual representation of the category and helps to recognize categories among customers. It is important to allow restaurant to change their category picture to the system for display on the restaurant profile.
Business Rule	The picture upload feature should accept image files in common formats such as JPEG, PNG, or GIF. The maximum file size should be limited to ensure efficient storage and quick page loading times. The uploaded picture should be displayed prominently on category page. If the user's uploaded file is not an acceptable format or is too large, an error message should be displayed asking the user to upload a file that meets the requirements.
Dependencies	NA
Priority	High

FR-119: Edit Category Description

Table 197: Edit Category Description

Identifier	FR-5.7.3
Title	Edit Category Description
Requirement	The restaurant shall be able to edit category description in the assigned text field.
Source	Supervisor
Rationale	A category description provides customers with important information about the category. It is important to allow restaurant to edit description for their category to help attract and inform potential customers.
Business Rule	The category description feature should allow the user to enter a brief overview of the category. The description should be displayed prominently with category details. The description should be limited in length to ensure that it is concise and easy to read.
Dependencies	NA
Priority	High

3.3.5.8 Usecase 8: View Item Category

FR-120: View Category Name

Table 198: View Category Name

Identifier	FR-5.8.1
Title	View Category Name
Requirement	The restaurant shall be able to view category name.
Source	Supervisor
Rationale	The Category is an essential field for the food item as the customer can view the food items against a specific category.
Business Rule	NA
Dependencies	NA
Priority	High

FR-121: View Category Picture

Table 199: View Category Picture

Identifier	FR-5.8.2
Title	View Category Picture
Requirement	The restaurant shall be able to view category picture.
Source	Supervisor
Rationale	A category picture is an important visual representation of the category and helps to recognize categories among customers.
Business Rule	NA
Dependencies	NA
Priority	High

FR-122: View Category Description

Table 200: View Category Description

Identifier	FR-5.8.3
Title	View Category Description
Requirement	The restaurant shall be able to view category description.
Source	Supervisor
Rationale	A category description provides customers with important information about the category.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.9 Usecase 9: Delete Item Category

FR-123: Delete Category

Table 201: Delete Category

Identifier	FR-5.9.1
Title	Delete Category
Requirement	The restaurant shall be able to delete their item category from the system.
Source	Supervisor
Rationale	To let the restaurant delete the unwanted categories form the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-124: Confirm Delete Category

Table 202: Confirm Delete Category

Identifier	FR-5.9.2
Title	Confirm Delete Category
Requirement	The restaurant shall be able to see a pop up containing confirmation message to delete category from the system.
Source	Supervisor
Rationale	To double check confirm delete the category from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-125: Cancel Delete Category

Table 203: Cancel Delete Category

Identifier	FR-5.9.3
Title	Cancel Delete Category
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm the delete category function.
Source	Supervisor
Rationale	To avoid the misclick removale of the category from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.10 Usecase 10: Add Item

FR-126: Cancel Delete Category

Table 204: Cancel Delete Category

Identifier	FR-5.10.1
Title	Cancel Delete Category
Requirement	The restaurant shall be able to enter food item name.
Source	Supervisor
Rationale	The name is an essential field for the food item as the customer can view the food item. It is important to let the restaurant to add an item name.
Business Rule	NA
Dependencies	NA
Priority	High

FR-127: Enter Item Picture

Table 205: Enter Item Picture

Identifier	FR-5.10.2
Title	Enter Item Picture
Requirement	The restaurant shall be able to insert a food item picture for adding a item.
Source	Supervisor
Rationale	An item picture is an important visual representation of the item and helps to recognize item among customers.
Business Rule	The picture upload feature should accept image files in common formats.
Dependencies	NA
Priority	High

FR-128: Enter Item Description

Table 206: Enter Item Description

Identifier	FR-5.10.3
Title	Enter Item Description
Requirement	The restaurant shall be able to add item description in the assigned text field.
Source	Supervisor
Rationale	An item description provides customers with important information about the Item.
Business Rule	The Item description feature should allow the user to enter a brief overview of the food Item.
Dependencies	NA
Priority	High

FR-129: Enter Item Price

Table 207: Enter Item Price

Identifier	FR-5.10.4
Title	Enter Item Price
Requirement	The restaurant shall be able to add item price in the assigned text field.
Source	Supervisor
Rationale	An item price provides customers with cost information about the Item.
Business Rule	The Item price feature should allow the user to enter a cost of food Item.
Dependencies	NA
Priority	High

FR-130: Select Item Category

Table 208: Select Item Category

Identifier	FR-5.10.5
Title	Select Item Category
Requirement	The restaurant shall be able to select food category from the list added by the restaurant.
Source	Supervisor
Rationale	An item category provides customers with detail about the type of food item.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.11 Usecase 11: View Item

FR-131: View Item Name

Table 209: View Item Name

Identifier	FR-5.11.1
Title	View Item Name
Requirement	The restaurant shall be able to view food item name.
Source	Supervisor
Rationale	The name is an essential field for the food item as the customer can view the food item.
Business Rule	NA
Dependencies	NA
Priority	High

FR-132: View Item Picture

Table 210: View Item Picture

Identifier	FR-5.11.2
Title	View Item Picture
Requirement	The restaurant shall be able to view a food item picture for adding an item.
Source	Supervisor
Rationale	An item picture is an important visual representation of the item
Business Rule	NA
Dependencies	NA
Priority	High

FR-133: View Item Description

Table 211: View Item Description

Identifier	FR-5.11.3
Title	View Item Description
Requirement	The restaurant shall be able to view item description.
Source	Supervisor
Rationale	An item description provides customers with important information about the Item.
Business Rule	NA
Dependencies	NA
Priority	High

FR-134: Enter Item Price

Table 212: Enter Item Price

Identifier	FR-5.11.4
Title	Enter Item Price
Requirement	The restaurant shall be able to view item price.
Source	Supervisor
Rationale	An item price provides customers with cost information about the Item.
Business Rule	NA
Dependencies	NA
Priority	High

FR-135: View Item Category

Table 213: View Item Category

Identifier	FR-5.11.5
Title	View Item Category
Requirement	The restaurant shall be able to view food category of the food item.
Source	Supervisor
Rationale	An item category provides customers with detail about the type of food item.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.12 Usecase 12: Update Item

FR-136: Edit Item Name

Table 214: Edit Item Name

Identifier	FR-5.12.1
Title	Edit Item Name
Requirement	The restaurant shall be able to edit food item name.
Source	Supervisor
Rationale	The name is an essential field for the food item as the customer can view the food item. It is important to let the restaurant to edit an item name.
Business Rule	NA
Dependencies	NA
Priority	High

FR-137: Change Item Picture

Table 215: Change Item Picture

Identifier	FR-5.12.2
Title	Change Item Picture
Requirement	The restaurant shall be able to change a food item picture of an item.
Source	Supervisor
Rationale	An item picture is an important visual representation of the item and helps to recognize item among customers. It is important to allow restaurant to upload a new item picture to the system for display on the restaurant profile.
Business Rule	The picture upload feature should accept image files in common formats such as JPEG, PNG, or GIF. The maximum file size should be limited to ensure efficient storage and quick page loading times. The uploaded picture should be displayed prominently on item detail page. If the user's uploaded file is not an acceptable format or is too large, an error message should be displayed asking the user to upload a file that meets the requirements.
Dependencies	NA
Priority	High

FR-138: Edit Item Description

Table 216: Edit Item Description

Identifier	FR-5.12.3
Title	Edit Item Description
Requirement	The restaurant shall be able to edit item description in the assigned text field.

Source	Supervisor
Rationale	An item description provides customers with important information about the Item. It is important to allow restaurant to edit description for their Item to help attract and inform potential customers.
Business Rule	The Item description feature should allow the user to edit a brief overview of the food Item. The description should be displayed prominently with item details. The description should be limited in length to ensure that it is concise and easy to read.
Dependencies	NA
Priority	High

FR-139: Edit Item Price

Table 217: Edit Item Price

Identifier	FR-5.12.4
Title	Edit Item Price
Requirement	The restaurant shall be able to edit item price in the assigned text field.
Source	Supervisor
Rationale	An item price provides customers with cost information about the Item. It is important to allow restaurant to edit a price for their Item.
Business Rule	The Item price feature should allow the user to edit a cost of food Item. The price should be displayed prominently on item page. The price should only accept numbers.
Dependencies	NA
Priority	High

FR-140: Change Item Category

Table 218: Change Item Category

Identifier	FR-5.12.5
Title	Change Item Category
Requirement	The restaurant shall be able to change food category from the list added by the restaurant.
Source	Supervisor
Rationale	An item category provides customers with detail about the type of food item.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.13 Usecase 13: Delete Item

FR-141: Delete Item

Table 219: Delete Item

Identifier	FR-5.13.1
Title	Delete Item
Requirement	The restaurant shall be able to delete their item from the system.
Source	Supervisor
Rationale	To let the restaurant delete the unwanted food item form the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-142: Confirm Delete Item

Table 220: Confirm Delete Item

Identifier	FR-5.13.2
Title	Confirm Delete Item
Requirement	The restaurant shall be able to see a pop up containing confirmation message
Source	Supervisor
Rationale	To double check confirm delete the item from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-143: Cancel Delete Item

Table 221: Cancel Delete Item

Identifier	FR-5.13.3
Title	Cancel Delete Item
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm the delete item function.
Source	Supervisor
Rationale	To avoid the misclick removal of the item from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.14 Usecase 14: Make a Deal

FR-144: Enter Deal Name

Table 222: Enter Deal Name

Identifier	FR-5.14.1
Title	Enter Deal Name
Requirement	The restaurant shall be able to enter food deal name.
Source	Supervisor
Rationale	The name is an essential field for the food deal as the customer can view the deal. It is important to let the restaurant to add an deal name.
Business Rule	NA
Dependencies	NA
Priority	High

FR-145: Enter Deal Picture

Table 223: Enter Deal Picture

Identifier	FR-5.14.2
Title	Enter Deal Picture
Requirement	The restaurant shall be able to insert a deal picture for adding a deal.
Source	Supervisor
Rationale	A deal picture is an important visual representation of the Deal and helps to recognize item among customers.
Business Rule	The picture upload feature should accept image files in common formats.
Dependencies	NA
Priority	High

FR-146: Select Items

Table 224: Select Items

Identifier	FR-5.14.3
Title	Select Items
Requirement	The restaurant shall be able to select food from the list added by the restaurant.
Source	Supervisor
Rationale	An Item provides customers with detail about the food items the deal is having.
Business Rule	NA
Dependencies	NA
Priority	High

FR-147: Enter Deal Description

Table 225: Enter Deal Description

Identifier	FR-5.14.4
Title	Enter Deal Description
Requirement	The restaurant shall be able to add deal description in the assigned text field.
Source	Supervisor
Rationale	A deal description provides customers with important information about the deal.
Business Rule	The deal description feature should allow the user to enter a brief overview
Dependencies	NA
Priority	High

FR-148: Enter Deal Price

Table 226: Enter Deal Price

Identifier	FR-5.14.5
Title	Enter Deal Price
Requirement	The restaurant shall be able to add deal price in the assigned text field.
Source	Supervisor
Rationale	A deal price provides customers with cost information about the deal.
Business Rule	The Deal price feature should allow the user to enter a cost of deal.
Dependencies	NA
Priority	High

FR-149: Remove Item from Deal

Table 227: Remove Item from Deal

Identifier	FR-5.14.6
Title	Remove Item from Deal
Requirement	The restaurant shall be able to remove the food items added by him from the list of deal items.
Source	Supervisor
Rationale	Remove item provides restaurant with the feature to remove the items from the deal if they have added by mistake or does not fit in. It is important to allow restaurant to let restaurant to remove item from deal.
Business Rule	NA
Dependencies	NA
Priority	High

FR-150: Select Start Date and Time

Table 228: Select Start Date and Time

Identifier	FR-5.14.7
Title	Select Start Date and Time
Requirement	The restaurant shall be able to enter the start date and time for a promotional deal.
Source	Supervisor
Rationale	Promotional deals can help to attract customers to the restaurant and drive sales. It is important to allow restaurant to enter the start date and time for a deal to ensure that customers are aware of the promotion and can take advantage of it
Business Rule	The deal start date and time entry feature should allow the user to select a start date and time for the promotion. The date and time should be displayed in a clear and easy-to-read format. The system should validate the selected start date and time to ensure that it is in the future. If the selected start date and time are not valid, an error message should be displayed asking the user to select a valid start date and time. The start date and time information should be stored securely in the system
Dependencies	NA
Priority	medium

FR-151: Select End Start Date and Time

Table 229: Select End Start Date and Time

Identifier	FR-5.14.8
Title	Select End Start Date and Time
Requirement	The restaurant shall be able to enter the end date and time for a promotional deal.
Source	Supervisor
Rationale	Promotional deals can help to attract customers to the restaurant and drive sales. It is important to allow restaurant to enter the end date and time for a deal to ensure that customers are aware of the promotion ending and can take advantage of it.
Business Rule	The deal end date and time entry feature should allow the user to select a end date and time for the promotion. The date and time should be displayed in a clear and easy-to-read format.
Dependencies	NA
Priority	Medium

3.3.5.15 Usecase 15: View Deal

FR-152: View Deal Name

Table 230: View Deal Name

Identifier	FR-5.15.1
Title	View Deal Name
Requirement	The restaurant shall be able to view food deal name.
Source	Supervisor
Rationale	The name is an essential field for the food deal as the customer can view the deal.
Business Rule	NA
Dependencies	NA
Priority	High

FR-153: View Deal Picture

Table 231: View Deal Picture

Identifier	FR-5.15.2
Title	View Deal Picture
Requirement	The restaurant shall be able to view a deal picture.
Source	Supervisor
Rationale	A deal picture is an important visual representation of the Deal
Business Rule	NA
Dependencies	NA
Priority	High

FR-154: View Items

Table 232: View Items

Identifier	FR-5.15.3
Title	View Items
Requirement	The restaurant shall be able to view food items present in the deal.
Source	Supervisor
Rationale	Items provides customers with detail about the food items the deal is having.
Business Rule	NA
Dependencies	NA
Priority	High

FR-155: View Deal Description

Table 233: View Deal Description

Identifier	FR-5.15.4
Title	View Deal Description
Requirement	The restaurant shall be able to view deal description.
Source	Supervisor
Rationale	A deal description provides customers with important information about the deal.
Business Rule	NA
Dependencies	NA
Priority	High

FR-156: View Deal Price

Table 234: View Deal Price

Identifier	FR-5.15.5
Title	View Deal Price
Requirement	The restaurant shall be able to view deal price.
Source	Supervisor
Rationale	A deal price provides customers with cost information about the deal.
Business Rule	NA
Dependencies	NA
Priority	High

FR-157: View Start Date and Time

Table 235: View Start Date and Time

Identifier	FR-5.15.7
Title	View Start Date and Time
Requirement	The restaurant shall be able to view the start date and time for a promotional deal.
Source	Supervisor
Rationale	Promotional deals can help to attract customers to the restaurant and drive sales.
Business Rule	NA
Dependencies	NA
Priority	medium

FR-158: View End Start Date and Time

Table 236: View End Start Date and Time

Identifier	FR-5.15.8
Title	View End Start Date and Time
Requirement	The restaurant shall be able to view the end date and time for a promotional deal.
Source	Supervisor
Rationale	Promotional deals can help to attract customers to the restaurant
Business Rule	NA
Dependencies	NA
Priority	Medium

3.3.5.16 Usecase 16: Update a Deal

FR-159: Edit Deal Name

Table 237: Edit Deal Name

Identifier	FR-5.16.1
Title	Edit Deal Name
Requirement	The restaurant shall be able to edit food deal name.
Source	Supervisor
Rationale	The name is an essential field for the food deal as the customer can view the deal. It is important to let the restaurant to edit deal name.
Business Rule	NA
Dependencies	NA
Priority	High

FR-160: Change Deal Picture

Table 238: Change Deal Picture

Identifier	FR-5.16.2
Title	Change Deal Picture
Requirement	The restaurant shall be able to change a deal picture.
Source	Supervisor
Rationale	A deal picture is an important visual representation of the Deal and helps to recognize item among customers.
Business Rule	The picture upload feature should accept image files in common formats
Dependencies	NA
Priority	High

FR-161: Select New Items

Table 239: Select New Items

Identifier	FR-5.16.3
Title	Select New Items
Requirement	The restaurant shall be able to select new food from the list added.
Source	Supervisor
Rationale	An Item provides customers with detail about the food items the deal.
Business Rule	NA
Dependencies	NA
Priority	High

FR-162: Edit Deal Description

Table 239: Edit Deal Description

Identifier	FR-5.16.4
Title	Edit Deal Description
Requirement	The restaurant shall be able to edit deal description in the assigned text field.
Source	Supervisor
Rationale	A deal description provides customers with important information about the deal.
Business Rule	The deal description feature should allow the user to enter a brief overview of the deal.
Dependencies	NA
Priority	High

FR-163: Edit Deal Price

Table 240: Edit Deal Price

Identifier	FR-5.16.5
Title	Edit Deal Price
Requirement	The restaurant shall be able to edit deal price in the assigned text field.
Source	Supervisor
Rationale	A deal price provides customers with cost information about the deal
Business Rule	The Deal price feature should allow the user to edit a cost of deal.
Dependencies	NA
Priority	High

FR-164: Remove Item from Deal

Table 241: Remove Item from Deal

Identifier	FR-5.16.6
Title	Remove Item from Deal
Requirement	The restaurant shall be able to remove the food items added by him from the list of deal items.
Source	Supervisor
Rationale	Remove item provides restaurant with the feature to remove the items
Business Rule	NA
Dependencies	NA
Priority	High

FR-165: Change Start Date and Time

Table 242: Change Start Date and Time

Identifier	FR-5.16.7
Title	Change Start Date and Time
Requirement	The restaurant shall be able to change the start date and time for a promotional deal.
Source	Supervisor
Rationale	Promotional deals can help to attract customers to the restaurant and drive sales.
Business Rule	The deal start date and time entry feature should allow the user to change a start date and time for the promotion.
Dependencies	NA
Priority	Medium

FR-166: Change End Start Date and Time

Table 243: Change End Start Date and Time

Identifier	FR-5.16.8
Title	Change End Start Date and Time
Requirement	The restaurant shall be able to change the end date and time for a promotional deal.
Source	Supervisor
Rationale	Promotional deals can help to attract customers to the restaurant and drive sales. It is important to allow restaurant to change the end date and time for

	a deal to ensure that customers are aware of the promotion ending and can take advantage of it.
Business Rule	The deal end date and time entry feature should allow the user to change a end date and time for the promotion. The date and time should be displayed in a clear and easy-to-read format. The system should validate the selected end date and time to ensure that it is in the future. If the selected end date and time are not valid, an error message should be displayed asking the user to select a valid end date and time. The start date and time information should be stored securely in the system.
Dependencies	NA
Priority	Medium

3.3.5.17 Usecase 17: Delete Deal

FR-167: Delete Deal

Table 244: Delete Deal

Identifier	FR-5.17.1
Title	Delete Deal
Requirement	The restaurant shall be able to delete their deal from the system.
Source	Supervisor
Rationale	To let the restaurant delete the deal from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-168: Confirm Delete Deal

Table 245: Confirm Delete Deal

Identifier	FR-5.17.2
Title	Confirm Delete Deal
Requirement	The restaurant shall be able to see a pop up containing confirmation message to delete deal from the system.
Source	Supervisor
Rationale	To double check confirm delete the deal from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-169: Cancel Delete Deal

Table 246: Cancel Delete Deal

Identifier	FR-5.17.3
Title	Cancel Delete Deal
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm the delete deal function.
Source	Supervisor
Rationale	To avoid the misclick removal of the deal from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.18 Usecase 18: View Vendors

FR-170: View Vendor Name

Table 247: View Vendor Name

Identifier	FR-5.18.1
Title	View Vendor Name
Requirement	The restaurant shall be able to view vendor name who has registered.
Source	Supervisor
Rationale	The name is an essential field for the vendor as the restaurant can view.
Business Rule	NA
Dependencies	NA
Priority	High

FR-171: View Vendor Description

Table 248: View Vendor Description

Identifier	FR-5.18.2
Title	View Vendor Description
Requirement	The restaurant shall be able to view vendor.
Source	Supervisor
Rationale	Vendor description provides restaurant with important information about the vendor.
Business Rule	NA
Dependencies	NA
Priority	High

FR-172: Enter Contact Number

Table 249: Enter Contact Number

Identifier	FR-5.18.3
Title	Enter Contact Number
Requirement	The restaurant shall be able to view contact number of vendor.
Source	Supervisor
Rationale	Vendor contact number provides restaurant a contact information through which they can contact the vendor as well.
Business Rule	NA
Dependencies	NA
Priority	High

FR-173: View Vendor Address

Table 250: View Vendor Address

Identifier	FR-5.18.4
Title	View Vendor Address
Requirement	The restaurant shall be able to view vendor address.
Source	Supervisor
Rationale	An address provides restaurant the actual address of the vendor.
Business Rule	NA
Dependencies	NA
Priority	High

FR-174: View Vendor Products

Table 251: View Vendor Products

Identifier	FR-5.18.5
Title	View Vendor Products
Requirement	The restaurant shall be able to view vendor products which they deal with.
Source	Supervisor
Rationale	Vendor Products will let the restaurant know which product they sell and their information.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.19 Usecase 19: Select Vendor

FR-175: Select Vendor

Table 252: Select Vendor

Identifier	FR-5.19.1
Title	Select Vendor
Requirement	The restaurant shall be able to select a vendor for their required raw materials.
Source	Supervisor
Rationale	To let the restaurant select a vendor for required material from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-176: Confirm Select Vendor

Table 253: Confirm Select Vendor

Identifier	FR-5.19.2
Title	Confirm Select Vendor
Requirement	The restaurant shall be able to see a pop up containing confirmation message to select the vendor for a specific raw material.
Source	Supervisor
Rationale	To double check confirm selection of vendor.
Business Rule	NA
Dependencies	NA

FR-177: Cancel Select Vendor

Table 254: Cancel Select Vendor

Identifier	FR-5.19.3
Title	Cancel Select Vendor
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm selection of vendor.
Source	Supervisor
Rationale	To avoid the misclick removal of the deal from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.20 Usecase 20: Remove Vendor

FR-179 :Remove Vendor

Table 255: Remove Vendor

Identifier	FR-5.20.1
Title	Remove Vendor
Requirement	The restaurant shall be able to remove a vendor which they selected for a raw material.
Source	Supervisor
Rationale	To let the restaurant remove the vendor against a raw material.
Business Rule	NA
Dependencies	NA
Priority	High

FR-180: Confirm Remove Vendor

Table 256: Confirm Remove Vendor

Identifier	FR-5.20.2
Title	Confirm Remove Vendor
Requirement	The restaurant shall be able to see a pop up containing confirmation message
Source	Supervisor
Rationale	To double check confirm remove the vendor.
Business Rule	NA
Dependencies	NA
Priority	High

FR-181: Cancel Remove Vendor

Table 257: Cancel Remove Vendor

Identifier	FR-5.20.3
Title	Cancel Remove Vendor
Requirement	The restaurant shall be able to see a pop up containing a cancel button
Source	Supervisor
Rationale	To avoid the misclick removal of the vendor.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.21 Usecase 21: Add Inventory

FR-182: Cancel Remove Vendor

Table 258: Cancel Remove Vendor

Identifier	FR-5.21.1
Title	Enter Ingredient Name
Requirement	The restaurant shall be able to enter food ingredient name.
Source	Supervisor
Rationale	The name is an essential field for the food ingredient for the restaurant. It is important to let the restaurant to add an food ingredient name.
Business Rule	NA
Dependencies	NA
Priority	High

FR-183: Enter Ingredient Quantity

Table 256: Enter Ingredient Quantity

Identifier	FR-5.21.2
Title	Enter Ingredient Quantity
Requirement	The restaurant shall be able to enter ingredient quantity.
Source	Supervisor
Rationale	An Ingredient quantity is an important for keeping track of the inventory.
Business Rule	The quantity should only accept the numbers.
Dependencies	NA
Priority	High

FR-184: Enter Ingredient Description

Table 257: Enter Ingredient Description

Identifier	FR-5.21.3
Title	Enter Ingredient Description
Requirement	The restaurant shall be able to add food ingredient description.
Source	Supervisor
Rationale	An ingredient description provides restaurant with important information.
Business Rule	should allow the user to enter a brief overview of the ingredient Item.
Dependencies	NA
Priority	High

FR-185: Enter Ingredient Price

Table 258: Enter Ingredient Price

Identifier	FR-5.21.2
Title	Enter Ingredient Picture
Requirement	The restaurant shall be able to insert a food ingredient picture for adding an ingredient.
Source	Supervisor
Rationale	An ingredient picture is an important visual representation of the food ingredient and helps to recognize it.
Business Rule	The picture upload feature should accept image files in common formats
Dependencies	NA
Priority	High

3.3.5.22 Usecase 22: View Inventory

FR-186: View Ingredient Name

Table 259: View Ingredient Name

Identifier	FR-5.22.1
Title	View Ingredient Name
Requirement	The restaurant shall be able to view food ingredient name.
Source	Supervisor
Rationale	The name is an essential field for the food ingredient for the restaurant.
Business Rule	NA
Dependencies	NA
Priority	High

FR-187: View Ingredient Quantity

Table 260: View Ingredient Quantity

Identifier	FR-5.22.2
Title	View Ingredient Quantity
Requirement	The restaurant shall be able to view ingredient quantity.
Source	Supervisor
Rationale	An Ingredient quantity is an important for keeping track of the inventory.
Business Rule	NA
Dependencies	NA
Priority	High

FR-188: View Ingredient Description

Table 261: View Ingredient Description

Identifier	FR-5.22.3
Title	View Ingredient Description
Requirement	The restaurant shall be able to view food ingredient description.
Source	Supervisor
Rationale	An ingredient description provides restaurant with important information about the food ingredient.
Business Rule	NA
Dependencies	NA
Priority	High

FR-189: View Ingredient Picture

Table 262: View Ingredient Picture

Identifier	FR-5.22.4
Title	View Ingredient Picture
Requirement	The restaurant shall be able to view food ingredient picture.
Source	Supervisor
Rationale	An ingredient picture is an important visual representation of the food ingredient and helps to recognize it.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.23 Usecase 23: Update Inventory

FR-190: Edit Ingredient Name

Table 263: Edit Ingredient Name

Identifier	FR-5.23.1
Title	Edit Ingredient Name
Requirement	The restaurant shall be able to edit food ingredient name.
Source	Supervisor
Rationale	The name is an essential field for the food ingredient for the restaurant.
Business Rule	NA
Dependencies	NA

Priority	High

FR-191: Edit Ingredient Quantity

Table 264: Edit Ingredient Quantity

Identifier	FR-5.23.2
Title	Edit Ingredient Quantity
Requirement	The restaurant shall be able to Edit ingredient quantity for adding ingredient.
Source	Supervisor
Rationale	An Ingredient quantity is an important for keeping track of the inventory. It is important to allow restaurant to edit the quantity.
Business Rule	The quantity should only accept the numbers.
Dependencies	NA
Priority	High

FR-192: Edit Ingredient Description

Table 265: Edit Ingredient Description

Identifier	FR-5.23.3
Title	Edit Ingredient Description
Requirement	The restaurant shall be able to edit food ingredient description in the assigned text field.
Source	Supervisor
Rationale	An ingredient description provides restaurant with important information about the food ingredient. It is important to allow restaurant to edit a description for their ingredient.
Business Rule	The ingredient description feature should allow the user to enter a brief overview of the ingredient Item. The description should be displayed prominently with ingredient details. The description should be limited in length to ensure that it is concise and easy to read.
Dependencies	NA
Priority	High

FR-193:Edit Ingredient Picture

Table 266: Edit Ingredient Picture

Identifier	FR-5.23.2
Title	Change Ingredient Picture
Requirement	The restaurant shall be able to change food ingredient picture.

Source	Supervisor
Rationale	An ingredient picture is an important visual representation of the food ingredient and helps to recognize it. It is important to allow restaurant to change their ingredient picture to the system.
Business Rule	The picture upload feature should accept image files in common formats such as JPEG, PNG, or GIF. The maximum file size should be limited to ensure efficient storage and quick page loading times. The uploaded picture should be displayed prominently on ingredient detail page. If the user's uploaded file is not an acceptable format or is too large, an error message should be displayed asking the user to upload a file that meets the requirements.
Dependencies	NA
Priority	High

3.3.5.24 Usecase 24: Delete Inventory

FR-194: Delete Inventory Item

Table 267: Delete Inventory Item

Identifier	FR-5.24.1
Title	Delete Inventory Item
Requirement	The restaurant shall be able to delete their inventory item from the system.
Source	Supervisor
Rationale	To let the restaurant delete the inventory item from the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-195: Confirm Delete Inventory Item

Table 268: Confirm Delete Inventory Item

Identifier	FR-5.24.2
Title	Confirm Delete Inventory Item
Requirement	The restaurant shall be able to see a pop up containing confirmation message to delete inventory item from the system.
Source	Supervisor
Rationale	To double check confirm delete the inventory item from the system.
Business Rule	NA

Dependencies	NA
Priority	High

FR-196: Cancel Delete Inventory Item

Table 269: Cancel Delete Inventory Item

Identifier	FR-5.24.3
Title	Cancel Delete Inventory Item
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm the delete inventory item function.
Source	Supervisor
Rationale	To avoid the misclick removal of the inventory item from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.25 Usecase 25: Auto Order Stock

FR-197: View Stock

Table 270: View Stock

Identifier	FR-5.25.1
Title	View Stock
Requirement	The restaurant shall be able to view the stock left in the inventory.
Source	Supervisor
Rationale	To let the restaurant keep the check on the inventory.
Business Rule	NA
Dependencies	NA
Priority	High

FR-198:View Alert Notification

Table 271: View Alert Notification

Identifier	FR-5.25.2
Title	View Alert Notification
Requirement	When the stock of the restaurant is low the system will generate an alert for the restaurant to auto restock
Source	Supervisor

Rationale	To let the restaurant know that their stock is low.
Business Rule	NA
Dependencies	NA
Priority	High

FR-199: Select Auto Restock

Table 272: Select Auto Restock

Identifier	FR-5.25.3
Title	Select Auto Restock
Requirement	The restaurant shall be able to select to auto restock the inventory.
Source	Supervisor
Rationale	To avoid the shortage of stock and if the system restocks without the permission of the restaurant, it can cause a problem.
Business Rule	NA
Dependencies	NA
Priority	High

FR-200: Enter Quantity

Table 273: Enter Quantity

Identifier	FR-5.25.4
Title	Enter Quantity
Requirement	The restaurant shall be able to enter the quantity of the stock they want to order from the selected vendor.
Source	Supervisor
Rationale	To let the vendor know the amount of stock the restaurant wants.
Business Rule	NA
Dependencies	NA
Priority	High

FR-201: Confirm Order

Table 274: Confirm Order

Identifier	FR-5.25.5
Title	Confirm Order
Requirement	The restaurant shall be able to see a pop up containing confirmation message to order the stock.

Source	Supervisor
Rationale	To double check confirm ordering the stock from the vendor.
Business Rule	NA
Dependencies	NA
Priority	High

FR-202: Cancel Order

Table 275: Cancel Order

Identifier	FR-5.25.6
Title	Cancel Order
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm the order.
Source	Supervisor
Rationale	To decline the alert generated by the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.26 Usecase 26: Manual Order Stock

FR-203: View Stock

Table 276: View Stock

Identifier	FR-5.26.1
Title	View Stock
Requirement	The restaurant shall be able to view the stock left in the inventory.
Source	Supervisor
Rationale	To let the restaurant keep the check on the inventory.
Business Rule	NA
Dependencies	NA
Priority	High

FR-204: Select Inventory Item

Table 277: Select Inventory Item

Identifier	FR-5.26.2
Title	Select Inventory Item

Requirement	The restaurant should be able to select the item from the inventory they want to restock.
Source	Supervisor
Rationale	To let the let the restaurant to restock the inventory even if it is not empty or about to finish for deals.
Business Rule	NA
Dependencies	NA
Priority	High

FR-205: Enter Quantity

Table 278: Enter Quantity

Identifier	FR-5.26.3
Title	Enter Quantity
Requirement	The restaurant shall be able to enter the quantity of the stock.
Source	Supervisor
Rationale	To let the vendor know the amount of stock the restaurant wants.
Business Rule	NA
Dependencies	NA
Priority	High

FR-206: Confirm Order

Table 279: Confirm Order

Identifier	FR-5.26.4
Title	Confirm Order
Requirement	The restaurant shall be able to see a pop up containing confirmation message to order the stock.
Source	Supervisor
Rationale	To double check confirm ordering the stock from the vendor.
Business Rule	NA
Dependencies	NA
Priority	High

FR-207: Cancel Order

Table 280: Cancel Order

Identifier	FR-5.26.5
Title	Cancel Order
Requirement	The restaurant shall be able to see a pop up containing a cancel button to not confirm the order.
Source	Supervisor
Rationale	To decline the alert generated by the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.5.27 Usecase 27: Automatic Document Analysis for Restaurant Verification"

FR-208: Document Upload

Table 281: Document Upload

Identifier	FR-5.27.1
Title	Document Upload
Requirement	The system shall provide a feature for the restaurant owner to upload official documents during the registration process.
Source	Supervisor
Rationale	To collect necessary documents for the verification process.
Business Rule	NA
Dependencies	NA
Priority	High

FR-209: Predictive Document Analysis

Table 282: Predictive Document Analysis

Identifier	FR-5.27.2
Title	Predictive Document Analysis
Requirement	The system shall implement image processing and predictive algorithms to analyze the uploaded documents for authenticity.
Source	Supervisor
Rationale	To ensure a thorough and accurate verification process.
Business Rule	NA

Dependencies	Image processing module
Priority	High

FR-210: Verification Notification

Table 283: Verification Notification

Identifier	FR-5.27.3
Title	Verification Notification
Requirement	The system shall notify the restaurant owner of the document verification status.
Source	Supervisor
Rationale	To keep the restaurant owner informed about the outcome of the verification process.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-211: Fraudulent Document Handling

Table 284: Fraudulent Document Handling

Identifier	FR-5.27.4
Title	Fraudulent Document Handling
Requirement	If the uploaded documents are found to be fraudulent, the system shall reject the documents and notify the restaurant owner.
Source	Supervisor
Rationale	To maintain the integrity of the verification process.
Business Rule	NA
Dependencies	NA
Priority	High

FR-212: System Failure Handling

Table 285: System Failure Handling

Identifier	FR-5.27.5
Title	System Failure Handling
Requirement	The system shall have a contingency plan for handling system failures during the document analysis process.

Source	Supervisor
Rationale	To ensure the verification process is robust and resilient to system failures.
Business Rule	NA
Dependencies	NA
Priority	Meduim

3.3.6 Module 6: Vendor Panel

3.3.6.1 Use case 1: Manage Vendor Account

FR-213: Enter Vendor Information

Table 286: Enter Vendor Information

Identifier	FR-6.1.1
Title	Enter Vendor Information
Requirement	The Vendor should be able to enter the name, email id, phone number, description, address and password of the vendor in a designated input field.
Source	Supervisor
Rationale	To enable the vendor to access the app
Business Rule	The vendor name input field should only accept alphanumeric characters, spaces, and special characters like hyphens or apostrophes. The password should be between 8 and 15 characters in length.
Dependencies	NA
Priority	High

FR-214: Add vendor Logo

Table 287: Add vendor Logo

Identifier	FR-6.1.2
Title	Add vendor Logo
Requirement	The vendor should be able to upload the vendor logo to the system.
Source	Muhammad Ahmar Tariq
Rationale	A vendor logo is an important visual representation of the brand and helps to create brand recognition among customers. It is important to allow vendor to upload their logos to the system for display on the vendor profile.
Business Rule	The logo upload feature should accept image files in common formats such as JPEG, PNG, or GIF.
Dependencies	NA

Priority	High

FR-215: Change Vendor Information

Table 288: Change Vendor Information

Identifier	FR-6.1.3
Title	Change Vendor Information
Requirement	The vendor should to change his/her logo, name, address, phone number and description.
Source	Muhammad Ahmar Tariq
Rationale	A vendor's logo is a key component of its brand identity and can help restaurants to quickly recognize and identify the establishment.
Business Rule	None
Dependencies	NA

FR-216: View Vendor Information

Table 289: View Vendor Information

Identifier	FR-6.1.4
Title	View Vendor Information
Requirement	The vendor should be able to view his/her logo, name, address,email ID, phone Number and description.
Source	Muhammad Ahmar Tariq
Rationale	View the vendor Information.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-217: Delete Profile

Table 290: Delete Profile

Identifier	FR-6.1.5
Title	Delete Profile
Requirement	The vendor shall be able to delete their profile from the system.
Source	Supervisor
Rationale	To let the vendor delete the account if they do not want the account anymore.
Business Rule	NA
Dependencies	NA

Priority	High

FR-218: Cancel Delete Profile

Table 291: Cancel Delete Profile

Identifier	FR-6.1.6
Title	Cancel Delete Profile
Requirement	The vendor shall be able to see a pop up containing a cancel button to not confirm the delete profile function.
Source	Supervisor
Rationale	To avoid the misclick removal of the profile from the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.6.2 Usecase 2: Manage Stock Category

FR-219: Enter Category Information

Table 292: Enter Category Information

Identifier	FR-6.6.1
Title	Enter Category Information
Requirement	The vendor shall be able to add a category.
Source	Supervisor
Rationale	The Category is an essential field for the food item as the restaurants can view the items against a specific category.
Business Rule	NA
Dependencies	NA
Priority	High

FR-220: Edit Category Information

Table 293: Edit Category Information

Identifier	FR-6.2.2
Title	Edit Category Information
Requirement	The vendor shall be able to Edit a category name, picture and description.
Source	Supervisor
Rationale	The Category is an essential field for the food item as the restaurants can view the stock items against a specific category.

Business Rule	NA
Dependencies	NA
Priority	High

FR-221: View Category Information

Table 294: View Category Information

Identifier	FR-6.2.3
Title	View Category Information
Requirement	The vendor shall be able to view category name, picture and description.
Source	Supervisor
Rationale	The Category is an essential field for the stock item as the restaurant can view the stock items against a specific category.
Business Rule	NA
Dependencies	NA
Priority	High

FR-222: Delete Category

Table 295: Delete Category

Identifier	FR-6.2.4
Title	Delete Category
Requirement	The vendor shall be able to delete their item category from the system.
Source	Supervisor
Rationale	To let the vendor delete the unwanted categories form the system.
Business Rule	NA
Dependencies	NA

FR-223: Cancel Delete Category

Table 296: Cancel Delete Category

Identifier	FR-6.2.5
Title	Cancel Delete Category
Requirement	The vendor shall be able to see a pop up containing a cancel button to not confirm the delete category function.
Source	Supervisor
Rationale	To avoid the misclick removal of the category from the system.
Business Rule	NA

Dependencies	NA
Priority	High

3.3.6.3 Usecase3: Manage Stock product

FR-224: Enter Item Information

Table 297: Enter Item Information

Identifier	FR-6.3.1
Title	Enter Item Information
Requirement	The vendor shall be able to enter stock product details.
Source	Supervisor
Rationale	The name is an essential field as the restaurants can view the stock item.
Business Rule	NA
Dependencies	NA
Priority	High

FR-225: Enter Minimum Stock Quantity

Table 298: Enter Minimum Stock Quantity

Identifier	FR-6.3.2
Title	Enter Minimum Stock Quantity
Requirement	The vendor shall be able to enter the minimum amount of the stock.
Source	Supervisor
Rationale	The stock can only be bought in bulk not less than 100.
Business Rule	NA
Dependencies	NA
Priority	High

FR-226: View Item Information

Table 299: View Item Information

Identifier	FR-6.3.3
Title	View Item Information
Requirement	The vendor shall be able to view stock item details.
Source	Supervisor
Rationale	This is an essential field for the stock item as the restaurant can view.
Business Rule	NA

Dependencies	NA
Priority	High

FR-227: Edit Item Information

Table 300: Edit Item Information

Identifier	FR-6.3.4
Title	Edit Item Information
Requirement	The vendor shall be able to edit stock item name, picture, price, category and description.
Source	Supervisor
Rationale	This is an essential field for the stock item as the restaurant can view the stock item. It is important to let the vendor to edit an item.
Business Rule	NA
Dependencies	NA
Priority	High

FR-228: Delete Item

Table 301: Delete Item

Identifier	FR-6.3.5
Title	Delete Item
Requirement	The vendor shall be able to delete their stock product from the system.
Source	Supervisor
Rationale	To let the vendor delete the unwanted stock item form the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-229: Cancel Delete Item

Table 302: Cancel Delete Item

Identifier	FR-6.13.3
Title	Cancel Delete Item
Requirement	The vendor shall be able to see a pop up containing a cancel button to not confirm the delete stock product function.
Source	Supervisor
Rationale	To avoid the misclick removal of the item from the system.

Business Rule	NA
Dependencies	NA
Priority	High

3.3.7 Module 7: Order Management

3.3.7.1 Use case 1: Manage Customer Orders

FR-230: View Order Summary

Table 303: View Order Summary

Identifier	FR-7.1.1
Title	View Order Summary
Requirement	Display a concise summary of the customer's order details.
Source	Muhammad Ahmar Tariq
Rationale	Provides customers with a quick and easy way to review their purchase list.
Business Rule	NA
Dependencies	NA
Priority	High

FR-231: Add Special Instructions

Table 304: Add Special Instructions

Identifier	FR-7.1.2
Title	Add Special Instructions
Requirement	The system must provide a section to add special instructions.
Source	Muhammad Ahmar Tariq
Rationale	Provide additional clarity and guidance for completing a task or process.
Business Rule	NA
Dependencies	NA
Priority	High

FR-232: Add Special Instructions

Table 305: Add Special Instructions

Identifier	FR-7.1.3
Title	View Total Amount
Requirement	Display the total amount of a transaction or a set of transactions.

Source	Muhammad Ahmar Tariq
Rationale	Showing the total amount of a transaction or a set of transactions.
Business Rule	Users should only be able to view the total amount of their own transactions.
Dependencies	NA
Priority	High

FR-233: Select Location

Table 306: Select Location

Identifier	FR-7.1.4
Title	Select Location
Requirement	The system must allow users to select a location for the desired service or product.
Source	Muhammad Ahmar Tariq
Rationale	Users may have a specific location in mind, and providing the ability to search based on location can enhance their experience.
Business Rule	The user must provide a valid and accurate location to ensure that the correct service or product is provided.
Dependencies	NA
Priority	High

FR-234: Confirm Order

Table 307: Confirm Order

Identifier	FR-7.1.5
Title	Confirm Order
Requirement	The system should provide an option for the user to confirm their order before finalizing it.
Source	Muhammad Ahmar Tariq
Rationale	Having a confirmation step in the ordering process can prevent errors and reduce the number of returns or exchanges.
Business Rule	All orders must be confirmed by the user before they can be processed and fulfilled by the company.
Dependencies	NA
Priority	High

FR-235: Add Order To QuickOrder

Table 308: Add Order To QuickOrder

Identifier	FR-7.1.6
Title	Add Order To QuickOrder
Requirement	The system must allow the user to add an order to QuickOrder.
Source	Muhammad Ahmar Tariq
Rationale	QuickOrder feature enables users to quickly place orders, saving time and effort.
Business Rule	Orders added to QuickOrder must be processed and delivered within a set timeframe to ensure customer satisfaction.
Dependencies	NA
Priority	High

FR-236: View QuickOrders

Table 309: View QuickOrders

Identifier	FR-7.1.7
Title	View QuickOrders
Requirement	The View QuickOrders feature should allow users to quickly access.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with easy access to their previous orders.
Business Rule	Only users who have previously placed orders on the platform should be able to access the View QuickOrders feature.
Dependencies	NA
Priority	High

FR-237: Remove From QuickOrder

Table 310: Remove From QuickOrder

Identifier	FR-7.1.8
Title	Remove From QuickOrder
Requirement	The system should allow users to remove items from the QuickOrder list.
Source	Muhammad Ahmar Tariq
Rationale	Providing the ability to remove items.
Business Rule	Items can only be removed from QuickOrder if they have not already been added to an order.
Dependencies	NA
Priority	High

FR-238: View Restaurant name

Table 311: View Restaurant name

Identifier	FR-7.1.9
Title	View Restaurant name
Requirement	The system should display the name of the restaurant on the homepage.
Source	Muhammad Ahmar Tariq
Rationale	Displaying the name of the restaurant on the homepage.
Business Rule	The restaurant name should be displayed in a prominent location.
Dependencies	NA
Priority	High

FR-239: View Pending Order

Table 312: View Pending Order

Identifier	FR-7.1.10
Title	View Pending Order
Requirement	Allow users to view their pending orders.
Source	Muhammad Ahmar Tariq
Rationale	Providing a way for users to view pending orders can help them keep track.
Business Rule	Pending orders should be displayed in real-time to ensure that users have access to the most up-to-date information about their orders.
Dependencies	NA
Priority	High

FR-240: View Delivered Order

Table 313: View Delivered Order

Identifier	FR-7.1.11
Title	View Delivered Order
Requirement	Allow users to view their delivered orders in the system.
Source	Muhammad Ahmar Tariq
Rationale	Providing a way for users to access information about their previously delivered orders allows them to track their purchases and verify the accuracy of the delivery.
Business Rule	Users can only view their own delivered orders, and cannot view orders that belong to other users.
Dependencies	1.5.1
Priority	High

FR-241: Issue tracking ID

Table 314: Issue tracking ID

Identifier	FR-7.1.12
Title	Issue tracking ID
Requirement	The issue tracking system must assign a unique ID to each reported issue.
Source	Muhammad Ahmar Tariq
Rationale	Assigning a unique ID to each issue helps in efficient tracking, monitoring, and resolving of the reported issues.
Business Rule	The issue tracking ID must be alphanumeric and cannot be reused for a different issue.
Dependencies	NA
Priority	Medium

FR-242: Contact delivery person

Table 315: Contact delivery person

Identifier	FR-7.1.13
Title	Contact delivery person
Requirement	The system should allow customers to track the status of their orders.
Source	Muhammad Ahmar Tariq
Rationale	The system should allow customers to track the status of their orders.
Business Rule	Providing customers with real-time updates on the status of their orders can increase their satisfaction and reduce customer support inquiries.
Dependencies	NA
Priority	Medium

FR-243: View Skooper name

Table 316: View Skooper name

Identifier	FR-7.1.14
Title	View Skooper name
Requirement	The system should display the full name of the Skooper in the view.
Source	Muhammad Ahmar Tariq
Rationale	Showing the full name of the Skooper provides a personalized experience.
Business Rule	The Skooper's name should only be displayed with their consent.
Dependencies	NA
Priority	Medium

3.3.7.2 Use case 4: View Pending Orders

FR-244: View Customer name

Table 317: View Customer name

Identifier	FR-7.2.1
Title	View Customer Name
Requirement	Display customer name in the user interface.
Source	Muhammad Ahmar Tariq
Rationale	Providing easy access to customer names can enhance the user experience and improve the efficiency of certain tasks.
Business Rule	Customer names must be displayed only to authorized personnel and in accordance with applicable privacy laws and regulations.
Dependencies	NA
Priority	High

FR-245: View CustomerLocation

Table 318: View CustomerLocation

Identifier	FR-7.2.2
Title	View Customer Location
Requirement	The system must provide the ability to view the location of the customer.
Source	Muhammad Ahmar Tariq
Rationale	Allowing the user to view the customer's location can aid in efficient delivery and provide better customer service.
Business Rule	The customer's location information must be kept confidential
Dependencies	NA
Priority	High

FR-246: View Ordered Items

Table 319: View OrderedItems

Identifier	FR-7.2.3
Title	View Ordered Items
Requirement	Ability to view ordered items by customers.
Source	Muhammad Ahmar Tariq
Rationale	Providing customers with the ability to view their ordered items.
Business Rule	Customers should only be able to view their own ordered items.
Dependencies	NA

Priority	High

FR-247: View Special Instructions

Table 320: View Special Instructions

Identifier	FR-7.2.4
Title	View Special Instructions
Requirement	The system should provide a feature for users to view special instructions.
Source	Muhammad Ahmar Tariq
Rationale	Special instructions can help users understand how to complete a task correctly and safely.
Business Rule	Special instructions must be provided by authorized personnel.
Dependencies	NA
Priority	High

FR-248: View Amount

Table 321: View Amount

Identifier	FR-7.2.5
Title	View amount
Requirement	The system must display the total view count for each video.
Source	Muhammad Ahmar Tariq
Rationale	Providing the total view count for each video can give valuable insight.
Business Rule	The view count displayed should accurately reflect the number of unique views and not include repeated views from the same user.
Dependencies	NA
Priority	High

FR-249: View Business Daily Revenue

Table 322: View Business Daily Revenue

Identifier	FR-7.2.6
Title	View Business Daily Revenue
Requirement	The system should provide the ability to view daily revenue generated by the business.
Source	Muhammad Ahmar Tariq
Rationale	Being able to view daily revenue can help business owners track.
Business Rule	The daily revenue should only include sales generated.

Dependencies	NA
Priority	Medium

3.3.8 Module 8: Payment Gateway

3.3.8.1 Use case 1: Payment and Financial Transacations

FR-250: Select Topup Dining Dollar

Table 323: Select Topup Dining Dollar

Identifier	FR8.1.1
Title	Select Topup Dining Dollar
Requirement	Allow users to select and top up their dining dollar balance.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with the ability to top up their dining dollar balance allows for a seamless dining experience and ensures that users always have sufficient funds for meals.
Business Rule	The minimum amount for a dining dollar top-up is $10.
Dependencies	NA
Priority	High

FR-251: Select Payment Method

Table 324: Select Payment Method

Identifier	FR-8.1.2
Title	Select Payment Method
Requirement	The system must allow the user to select a payment method during the checkout process.
Source	Muhammad Ahmar Tariq
Rationale	Providing multiple payment options can improve the user experience and increase the likelihood of completing a purchase.
Business Rule	The selected payment method must be valid and authorized for use.
Dependencies	NA
Priority	High

FR-252: Enter Amount

Table 325: Enter Amount

Identifier	FR-8.1.3
Title	Enter Amount
Requirement	The system must allow users to enter an amount for transactions.

Source	Muhammad Ahmar Tariq
Rationale	Entering an amount is necessary for the system to accurately record and process financial transactions.
Business Rule	The entered amount must be within the allowed range for the specific transaction type and not exceed the user's available balance.
Dependencies	NA
Priority	High

FR-253: Cancel Topup

Table 326: Cancel Topup

Identifier	FR-8.1.4
Title	Cancel Topup
Requirement	Allow users to cancel a top-up transaction made to their account.
Source	Muhammad Ahmar Tariq
Rationale	Users may mistakenly make a top-up transaction or change their mind after making a transaction, therefore allowing them to cancel the transaction can improve user experience.
Business Rule	Users can only cancel a top-up transaction if the funds have not yet been credited to their account.
Dependencies	NA
Priority	High

FR-254: View Order Details

Table 327: View Order Details

Identifier	FR-8.1.5
Title	View Order Details
Requirement	View Order Details feature should display the complete details of a specific order placed by the customer.
Source	Muhammad Ahmar Tariq
Rationale	Help customers to track their order progress and resolve any issues related to the order more efficiently.
Business Rule	Customers can only view the details of their own orders and cannot access the order details of other customers.
Dependencies	NA
Priority	High

FR-255: Confirm Checkout

Table 328: Confirm Checkout

Identifier	FR-8.1.6
Title	Confirm Checkout
Requirement	The system should provide the user with the option to confirm checkout
Source	Muhammad Ahmar Tariq
Rationale	Confirming checkout helps prevent accidental purchases.
Business Rule	The user must confirm the checkout before the order is processed
Dependencies	NA
Priority	High

FR-256: View Skooper Details

Table 329: View Skooper Details

Identifier	FR-8.1.7
Title	View Skooper Details
Requirement	The system should allow users to view Skooper details.
Source	Muhammad Ahmar Tariq
Rationale	Providing Skooper details to users can help them make informed decisions about whether or not to use the service.
Business Rule	Only registered users should be able to view Skooper details to maintain data privacy and security.
Dependencies	NA
Priority	High

FR-257: Enter Tip Amount

Table 330: Enter Tip Amount

Identifier	FR-8.1.8
Title	Enter Tip Amount
Requirement	Users should be able to enter the tip amount.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to enter the tip amount gives them the flexibility to choose how much they want to tip based on their level of satisfaction with the service provided.
Business Rule	The tip amount should be a percentage of the total bill, typically ranging from 10% to 20%.
Dependencies	NA
Priority	High

FR-258: Confirm Bank Transfer

Table 331: Confirm Bank Transfer

Identifier	FR-8.1.9
Title	Confirm Bank Transfer
Requirement	Confirmation of successful fund transfer should be displayed to the user.
Source	Muhammad Ahmar Tariq
Rationale	To ensure that the user is aware of the successful transfer of funds and to provide a sense of security.
Business Rule	The confirmation message should be displayed immediately after the transfer is completed, and the user should be able to see the details of the transaction.
Dependencies	NA
Priority	High

FR-259: Cancel Transfer

Table 332: Cancel Transfer

Identifier	FR-8.1.10
Title	Cancel Transfer
Requirement	The system must provide the ability for a user to cancel a transfer transaction.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with the ability to cancel a transfer.
Business Rule	Transfers can only be cancelled if the transaction is still in progress.
Dependencies	NA
Priority	High

3.3.8.2 Use case 2: Select Payment Method

FR-260: Payment via Card

Table 333: Payment via Card

Identifier	FR-8.2.1
Title	Payment via Card
Requirement	The system must allow customers to make payments using a debit or credit card.
Source	Muhammad Ahmar Tariq
Rationale	Accepting card payments provides convenience and security for customers

Business Rule	The system must validate the card details.
Dependencies	NA
Priority	High

FR-261: Payment via Zelle

Table 334: Payment via Zelle

Identifier	FR-8.2.2
Title	Payment via Zelle
Requirement	Customers should be able to make payments using Zelle as a payment method.
Source	Muhammad Ahmar Tariq
Rationale	Zelle is a popular and convenient payment platform.
Business Rule	Payments made through Zelle must be confirmed.
Dependencies	NA
Priority	High

FR-262: Payment via Venmo

Table 335: Payment via Venmo

Identifier	FR-8.2.3
Title	Payment via Venmo
Requirement	Users must have a Venmo account in order to make payments via Venmo.
Source	Muhammad Ahmar Tariq
Rationale	Venmo is a popular and widely used payment platform.
Business Rule	All transactions made through Venmo.
Dependencies	NA
Priority	High

FR-263: Payment via Dining Dollar

Table 336: Payment via Dining Dollar

Identifier	FR-8.2.3
Title	Payment via Dining Dollar
Requirement	Payment via Dining Dollar.
Source	Muhammad Ahmar Tariq
Rationale	Provide a convenient and efficient way for customers to pay for their meals.
Business Rule	Dining Dollars can only be used for purchases at the dining establishment.
Dependencies	NA

Priority	High

3.3.8.3 Use case 3: Authenticate Payment

FR-264: Send OTP

Table 337: Send OTP

Identifier	FR-8.3.1
Title	Send OTP
Requirement	A system must be able to send a One-Time Password (OTP) to a user's registered mobile number or email address for authentication purposes.
Source	Muhammad Ahmar Tariq
Rationale	Sending OTPs provides an additional layer of security to verify the user's identity and prevent unauthorized access.
Business Rule	The OTP should be valid for a limited duration and should only be sent to the user's registered mobile number or email address.
Dependencies	NA
Priority	High

FR-265: Receive OTP

Table 338: Receive OTP

Identifier	FR-8.3.2
Title	Receive OTP
Requirement	The system should have the ability to receive OTP (One-Time Password) for user verification.
Source	Muhammad Ahmar Tariq
Rationale	OTP is a secure and convenient way to authenticate users and ensure that sensitive information is protected.
Business Rule	The OTP should only be valid for a limited time period to prevent unauthorized access and protect user data.
Dependencies	NA
Priority	High

FR-266: Verify OTP

Table 339: Verify OTP

Identifier	FR-8.3.3
Title	Verify OTP
Requirement	Verify OTP before allowing access to a user account.
Source	Muhammad Ahmar Tariq

Rationale	OTP verification adds an extra layer of security to user accounts.
Business Rule	OTPs should expire within a short timeframe and users should not be allowed to reuse an OTP.
Dependencies	NA
Priority	High

FR-267: Enter App Password

Table 340: Enter App Password

Identifier	FR-8.3.4
Title	Enter App Password
Requirement	Users must enter a secure password to access the app.
Source	Muhammad Ahmar Tariq
Rationale	A password helps to protect user data and prevent unauthorized access.
Business Rule	Passwords must meet minimum security requirements
Dependencies	NA
Priority	High

FR-268: Resent OTP

Table 341: Resent OTP

Identifier	FR-8.3.5
Title	Resend OTP
Requirement	The system should provide an option to resend OTP (One-Time Password) to the user in case the initial OTP is not received or expired.
Source	Muhammad Ahmar Tariq
Rationale	Resending OTP ensures that the user is able to complete the authentication process successfully and improves user experience.
Business Rule	The system should limit the number of times an OTP can be resent.
Dependencies	NA
Priority	High

3.3.8.4 Use case 4: Card Integration

FR-269: Enter Card Number

Table 342: Enter Card Number

Identifier	FR-8.4.1
Title	Enter Card Number
Requirement	Users must be able to enter their card number during payment process.

Source	Muhammad Ahmar Tariq
Rationale	Entering the card number is essential for the payment process.
Business Rule	Only valid and accepted card numbers will be allowed
Dependencies	NA
Priority	High

FR-270: Enter PassCode

Table 343: Enter PassCode

Identifier	FR-8.4.2
Title	Enter PassCode
Requirement	User must enter a valid passcode to access the system.
Source	Muhammad Ahmar Tariq
Rationale	Passcode verification helps to ensure only authorized users can access.
Business Rule	Passcodes must meet the minimum complexity requirements set by the organization.
Dependencies	NA
Priority	High

FR-271: Enter OTP

Table 344: Enter OTP

Identifier	FR-8.4.3
Title	Enter OTP
Requirement	Users must enter a One-Time Password (OTP) to verify their identity during certain transactions.
Source	Muhammad Ahmar Tariq
Rationale	The OTP system adds an extra layer of security to protect users' sensitive information and prevent fraudulent activity.
Business Rule	OTPs can only be used once and have a limited validity period to ensure their effectiveness as a security measure.
Dependencies	NA
Priority	High

FR-272: Confirm Integrate

Table 345: Confirm Integrate

Identifier	FR-8.4.4
Title	Confirm Integrate
Requirement	Ensure seamless integration between two or more systems.
Source	Muhammad Ahmar Tariq
Rationale	Necessary to ensure that data is accurately transmitted between systems and prevent data loss or errors.
Business Rule	Confirm Integrate should be performed before any system updates or changes are made to prevent system downtime and ensure business continuity.
Dependencies	NA
Priority	High

FR-273: Confirm Integrate

Table 346: Confirm Integrate

Identifier	FR-8.4.5
Title	Information Saved
Requirement	The system must save user information securely.
Source	Muhammad Ahmar Tariq
Rationale	Saving user information is essential for providing personalized services and improving user experience.
Business Rule	The system should only save user information that is necessary for providing the requested services
Dependencies	NA
Priority	High

3.3.9 Module 9: Statistics and Analytics

3.3.9.1 Use case 1: Restaurant Statistics

FR-274: View Restaurants Rating

Table 347: View Restaurants Rating

Identifier	FR-9.1.1
Title	View Restaurants Rating
Requirement	The system must allow users to view the ratings of restaurants.
Source	Muhammad Ahmar Tariq

Rationale	Providing restaurant ratings allows users to make informed decisions about where to dine.
Business Rule	The restaurant ratings must be based on authentic user reviews and ratings to maintain credibility and reliability.
Dependencies	NA
Priority	High

FR-275: View Highly Rated Restaurants

Table 348: View Highly Rated Restaurants

Identifier	FR-9.1.2
Title	View Highly Rated Restaurants
Requirement	Allow users to view a list of highly rated restaurants.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with a list of highly rated restaurants will help them make informed decisions about where to dine.
Business Rule	Only restaurants with an average rating of 4 stars or higher will be included in the highly rated list.
Dependencies	NA
Priority	High

FR-276: View Average Order Preparation Time

Table 349: View Average Order Preparation Time

Identifier	FR-9.1.3
Title	View Average Order Preparation Time
Requirement	Displaying the average order preparation time can help customers make informed decisions about which restaurant to choose based on their time constraints.
Source	Muhammad Ahmar Tariq
Rationale	The average order preparation time should be calculated based on the total time taken to prepare all orders divided by the number of orders processed in a given time frame.
Business Rule	Display the number of completed orders in the user's account dashboard.
Dependencies	NA
Priority	High

FR-277: View Number of Orders Completed

Table 350: View Number of Orders Completed

Identifier	FR-9.1.4
Title	View Number of Orders Completed
Requirement	Display the number of completed orders in the user's account dashboard.
Source	Muhammad Ahmar Tariq

Rationale	Providing the user with the number of completed orders will give them an idea of their purchasing history and can help them track their progress towards any loyalty program benefits or rewards.
Business Rule	The number of completed orders displayed should only include orders that have been successfully delivered and confirmed by the user.
Dependencies	NA
Priority	High

FR-278: View Total Cost of Orders

Table 351: View Total Cost of Orders

Identifier	FR-9.1.5
Title	View Total Cost of Orders
Requirement	The system should display the average cost per order on the order summary page.
Source	Muhammad Ahmar Tariq
Rationale	Providing the average cost per order can help customers better understand their spending habits and make informed purchasing decisions.
Business Rule	The average cost per order calculation should only include completed orders and exclude any cancelled or refunded orders.
Dependencies	NA
Priority	High

FR-279: View Average Cost Per Order

Table 352: View Average Cost Per Order

Identifier	FR-9.1.6
Title	View Average Cost Per Order
Requirement	The system should display the average cost per order on the order summary page.
Source	Muhammad Ahmar Tariq
Rationale	Providing the average cost per order can help customers better understand their spending habits and make informed purchasing decisions.
Business Rule	The average cost per order calculation should only include completed orders and exclude any cancelled or refunded orders.
Dependencies	NA
Priority	High

FR-280: View Average Restaurants Rating

Table 353: View Average Restaurants Rating

Identifier	FR-9.1.7
Title	View Average Restaurants Rating
Requirement	Display the average rating of restaurants.
Source	Muhammad Ahmar Tariq
Rationale	Showing the average rating of restaurants can help customers make informed decisions about where to dine.

Business Rule	The average rating should be calculated based on a minimum of 10 reviews to ensure accuracy.
Dependencies	NA
Priority	High

3.3.9.2 Use case 2: Skooper Statistics

FR-281: View Skoopers Rating

Table 354: View Skoopers Rating

Identifier	FR-9.2.1
Title	View Skoopers Rating
Requirement	Display the average rating of Skoopers on the View Skoopers Rating page.
Source	Muhammad Ahmar Tariq
Rationale	Providing the average rating of Skoopers can help customers make informed decisions and choose the best Skooper for their needs.
Business Rule	Only Skoopers with a minimum of 10 completed jobs and an average rating of 4 stars or higher can be listed on the View Skoopers Rating page.
Dependencies	NA
Priority	High

FR-282: View Highest Rated Skoopers

Table 355: View Highest Rated Skoopers

Identifier	FR-9.2.2
Title	View Highest Rated Skoopers
Requirement	The system must allow users to view a list of the highest rated Skoopers.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with a list of the highest rated Skoopers can help them identify the most reliable and trustworthy Skoopers.
Business Rule	Skoopers must have a minimum rating of 4 stars to be included in the list of highest rated Skoopers.
Dependencies	NA
Priority	High

FR-283: View Number of Orders Completed

Table 356: View Number of Orders Completed

Identifier	FR-9.2.3
Title	View Number of Orders Completed
Requirement	The system must display the number of orders completed.
Source	Muhammad Ahmar Tariq
Rationale	Displaying the number of orders completed provides transparency to customers and stakeholders about the efficiency of the business operations.
Business Rule	The number of orders completed should be updated in real-time to ensure accuracy and reliability of the displayed information.
Dependencies	NA
Priority	High

FR-284: View Profile Reports

Table 357: View Profile Reports

Identifier	FR-9.2.4
Title	View Profile Reports
Requirement	The system should provide the functionality to generate View Profile Reports for registered users.
Source	Muhammad Ahmar Tariq
Rationale	View Profile Reports enable users to review their personal information and activity history on the platform.
Business Rule	Users should be able to access their View Profile Reports only after successful authentication and authorization to ensure data privacy and security.
Dependencies	NA
Priority	High

FR-285: View Average Delivery time

Table 358: View Average Delivery time

Identifier	FR-9.2.5
Title	View Average Delivery time
Requirement	The system should display the average delivery time for each order.
Source	Muhammad Ahmar Tariq
Rationale	Showing the average delivery time helps customers make informed decisions and manage their expectations.
Business Rule	The average delivery time should be calculated based on the actual time taken to deliver each order, excluding any orders that were cancelled or returned.
Dependencies	NA
Priority	High

3.3.9.3 Use case 3: Skoop Analytics

FR-286: Monthly order Prediction

Table 359: Monthly order Prediction

Identifier	FR-9.2.1
Title	Monthly order Prediction
Requirement	The system should be able to predict monthly order quantities based on historical data.
Source	Muhammad Ahmar Tariq
Rationale	Predicting monthly order quantities can help businesses to better manage their inventory levels, production planning, and sales forecasting.
Business Rule	Monthly order prediction should take into account seasonal trends, promotions, and any other factors that may impact demand.
Dependencies	NA
Priority	High

FR-287: Monthly income Prediction

Table 360: Monthly income Prediction

Identifier	FR-9.2.2
Title	Monthly income prediction
Requirement	Develop a machine learning model that predicts monthly income based on available data.
Source	Muhammad Ahmar Tariq
Rationale	Predicting monthly income can help individuals and businesses plan and budget for expenses, investments, and savings.
Business Rule	The monthly income prediction model must adhere to relevant laws and regulations, and any sensitive data collected must be kept secure and confidential.
Dependencies	NA
Priority	High

FR-288: Stock consumption Prediction

Table 361: Stock consumption Prediction

Identifier	FR-9.2.3
Title	Stock consumption prediction
Requirement	Develop a machine learning model to predict stock consumption for a given time period.
Source	Muhammad Ahmar Tariq
Rationale	By accurately predicting stock consumption, businesses can better manage inventory, reduce waste, and improve overall efficiency.
Business Rule	The prediction model should be updated regularly to reflect changes in customer demand and market trends.
Dependencies	NA
Priority	High

FR-289: User Prediction

Table 362: User Prediction

Identifier	FR-9.2.4
Title	User prediction
Requirement	The system must be able to predict user behavior and preferences based on historical data.
Source	Muhammad Ahmar Tariq
Rationale	User prediction can provide personalized recommendations and improve the overall user experience.
Business Rule	User prediction models must comply with data privacy regulations and protect user data.
Dependencies	NA
Priority	High

3.3.9.4 Use case 4: Vendor stats

FR-290: View vendor Rating

Table 363: View vendor Rating

Identifier	FR-9.2.1
Title	View vendor Rating
Requirement	The system should allow users to view vendor ratings.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with vendor ratings can help them make informed decisions when choosing a vendor.
Business Rule	Only users who have completed a transaction with a vendor can rate and review that vendor.
Dependencies	NA
Priority	High

FR-291: View Number of Orders Completed

Table 364: View Number of Orders Completed

Identifier	FR-9.2.2
Title	View Number of Orders Completed
Requirement	The system should display the number of orders completed in a particular time frame.
Source	Muhammad Ahmar Tariq
Rationale	Providing the number of completed orders can help track business performance and identify areas for improvement.
Business Rule	Only authorized personnel should have access to view the number of completed orders for security and privacy purposes.
Dependencies	NA
Priority	High

FR-292: View Total Cost of Orders

Table 365: View Total Cost of Orders

Identifier	FR-9.2.3
Title	View Total Cost of Orders
Requirement	The system should allow users to view the total cost of their orders.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with the ability to view the total cost of their orders will help them to make informed decisions about their purchases and budget accordingly.
Business Rule	Customers must be able to view the total cost of their orders before submitting the order to ensure accuracy and prevent any unexpected charges.
Dependencies	NA
Priority	High

FR-293: View Average Cost of Orders

Table 366: View Average Cost of Orders

Identifier	FR-9.2.4
Title	View Average Cost Per Order
Requirement	The system should be able to calculate and display the average cost per order for each customer.
Source	Muhammad Ahmar Tariq
Rationale	By providing information on the average cost per order, the system can help the business to understand the spending habits of its customers and identify areas for improvement.
Business Rule	The average cost per order calculation should include all expenses related to the order, such as product cost, shipping, and taxes.
Dependencies	NA
Priority	High

FR-294: View AverageVendor Rating

Table 367: View AverageVendor Rating

Identifier	FR-9.2.4
Title	View Average vendor Rating
Requirement	Display the average rating of vendors in a clear and easily understandable format for customers.
Source	Muhammad Ahmar Tariq
Rationale	Customers value the opinions of other customers, and an easily accessible average vendor rating can provide valuable information to potential customers when making purchasing decisions.
Business Rule	The average vendor rating should be calculated based on the ratings provided by verified customers who have completed a transaction with the vendor.
Dependencies	NA
Priority	High

3.3.9.5 Use case 5: Restaurant Ordering Analytics

FR-295: Restaurant Ordering Peak Time Analytics

Table 368: Restaurant Ordering Peak Time Analytics

Identifier	FR-9.5.1
Title	Restaurant Ordering Analytics
Requirement	The system shall provide analytics that reveal peak times for restaurant orders, helping the admin identify periods of high order volume.
Source	Muhammad Ahmar Tariq
Rationale	To enable the admin to optimize staffing and resources during peak ordering times.
Business Rule	NA
Dependencies	NA
Priority	High

FR-296: Popular Menu Items Analytics

Table 369: Popular Menu Items Analytics

Identifier	FR-9.5.2
Title	Popular Menu Items Analytics
Requirement	The system shall present analytics highlighting popular menu items based on historical ordering data, aiding the admin in understanding customer preferences.
Source	Muhammad Ahmar Tariq
Rationale	To assist the admin in making data-driven decisions regarding menu promotions and optimization.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-297: Trend Analysis for Customer Preferences

Table 370: Trend Analysis for Customer Preferences

Identifier	FR-9.5.3
Title	Trend Analysis for Customer Preferences
Requirement	The system shall perform trend analysis on historical ordering data to identify evolving customer preferences over time.
Source	Muhammad Ahmar Tariq
Rationale	To help the admin stay proactive in adapting to changing customer preferences.
Business Rule	NA
Dependencies	NA
Priority	Medium

FR-298: Ordering Optimization Recommendations

Table 371: Ordering Optimization Recommendations

Identifier	FR-9.5.4
Title	Ordering Optimization Recommendations
Requirement	The system shall generate recommendations for optimizing the ordering process based on the insights derived from analytics data.
Source	Muhammad Ahmar Tariq
Rationale	To empower the admin with actionable recommendations for enhancing the efficiency of the ordering system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.9.6 Use case 6: Skooper Analytics

FR-299: Smart Skooper Rating

Table 372: Smart Skooper Rating

Identifier	FR-9.5.1
Title	Smart Skooper Rating
Requirement	The system should generate a meaningful and insightful rating based on the sentiment expressed in the comments.
Source	Muhammad Ahmar Tariq
Rationale	To provide a more nuanced and reflective rating for Skoopers, taking into account customer sentiments and feedback.
Business Rule	The smart rating should be based on a sophisticated sentiment analysis algorithm that considers the context of customer comments.
Dependencies	Implementation of sentiment analysis tools and integration with the Skooper rating system.
Priority	Medium

3.3.10 Module 10: Search Filter and notifications

3.3.10.1 Usecase 1: Manage Notifications

FR-300: Marks as read

Table 373: Marks as read

Identifier	FR-10.1.1
Title	Marks as read
Requirement	Marks should be marked as "read" when a user has viewed them.
Source	Muhammad Ahmar Tariq
Rationale	Marking marks as "read" provides a clear indication to the user of what they have already seen and what they still need to review.
Business Rule	The system should automatically mark marks as "read" after a certain amount of time has passed since the user's last interaction with them.
Dependencies	NA
Priority	High

FR-301: Open Notification

Table 374: Open Notification

Identifier	FR-10.1.2
Title	Open Notification
Requirement	The Open Notification system should be able to deliver real-time notifications to users on multiple platforms.
Source	Muhammad Ahmar Tariq
Rationale	Real-time notifications are essential to keep users engaged and informed about important updates and events.
Business Rule	Users must have the ability to control the types and frequency of notifications they receive to avoid overwhelming them
Dependencies	NA
Priority	High

FR-302: Clear Notification

Table 375: Clear Notification

Identifier	FR-10.1.3
Title	Clear Notification
Requirement	Clear Notification should allow users to dismiss all unread notifications at once.
Source	Muhammad Ahmar Tariq
Rationale	Clearing notifications can improve user experience and reduce clutter in the notification area.
Business Rule	Users can only clear their own notifications and not notifications belonging to other users.
Dependencies	NA
Priority	High

FR-303: Select Notification

Table 376: Select Notification

Identifier	FR-10.1.4
Title	Select Notification
Requirement	The system should allow users to select their preferred notification method.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to choose their preferred notification method increases user satisfaction and engagement with the system.
Business Rule	Users must have at least one notification method selected to receive important system updates and information.
Dependencies	NA
Priority	High

FR-304: Delete Notification

Table 377: Delete Notification

Identifier	FR-10.1.5
Title	Delete Notification
Requirement	Allow users to delete their own notifications.
Source	Muhammad Ahmar Tariq
Rationale	Users should have control over the notifications they receive and should be able to remove them if they are no longer relevant or needed.
Business Rule	Users may only delete notifications that are associated with their own account and not those of other users.
Dependencies	NA
Priority	High

FR-305: Receive Notification from Sellers

Table 378: Receive Notification from Sellers

Identifier	FR-10.1.6
Title	Receive Notification from Sellers
Requirement	The system should allow buyers to receive notifications from sellers.
Source	Muhammad Ahmar Tariq
Rationale	Enabling buyers to receive notifications from sellers can keep them updated on important information, such as new products, promotions, or order updates.
Business Rule	Sellers must obtain explicit consent from buyers before sending any marketing or promotional messages, as per the CAN-SPAM Act.
Dependencies	NA
Priority	High

FR-306: Receive Notification from Support

Table 379: Receive Notification from Support

Identifier	FR-10.1.7
Title	Receive Notifications from Support
Requirement	The system should allow users to receive notifications from the support team.
Source	Muhammad Ahmar Tariq
Rationale	This feature will enable users to stay informed about the status of their requests and any updates from the support team.
Business Rule	Users must opt-in to receive notifications and be able to select their preferred method of communication (e.g., email, text, push notification).
Dependencies	NA
Priority	High

FR-307: Receive Notification from Delivery

Table 380: Receive Notification from Delivery

Identifier	FR-10.4.3
Title	Receive Notifications from Delivery
Requirement	The system should allow users to receive notifications when their delivery status changes.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with real-time updates about their delivery status helps improve customer experience and reduce customer inquiries.
Business Rule	Notifications should only be sent to the user who placed the order and not to any other individual unless authorized by the user.
Dependencies	NA
Priority	High

3.3.10.2 Use case 2: Type Filtering

FR-308: View Order ID

Table 381: View Order ID

Identifier	FR-10.2.1
Title	View Order ID
Requirement	The system must display the unique order ID for each order placed by the customer.
Source	Muhammad Ahmar Tariq
Rationale	Displaying the order ID helps the customer to identify and track their order status easily.
Business Rule	The order ID should be generated automatically by the system and should be unique for each order to ensure accurate tracking and management of orders.
Dependencies	NA
Priority	High

FR-309: Search Via Price

Table 382: Search Via Price

Identifier	FR-10.2.2
Title	Search Via Price
Requirement	The system should allow users to search for products by specifying a price range.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to search for products within a particular price range can help them find products that fit their budget and needs.
Business Rule	The price range for product searches should be defined based on market research and analysis of customer spending patterns to ensure that it meets the needs of the target audience.
Dependencies	NA
Priority	High

FR-310: Search Via Product Name

Table 383: Search Via Product Name

Identifier	FR-10.2.3
Title	Search Via Product Name
Requirement	The product name search feature should only display products that are currently available for purchase.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to search by product name provides a quick and efficient way for users to find the product they are looking for.
Business Rule	The product name search feature should only display products that are currently available for purchase.
Dependencies	NA
Priority	High

FR-311: Search Via Price Range

Table 384: Search Via Price Range

Identifier	FR-10.2.4
Title	Search Via Price Range
Requirement	Users should be able to search for products based on a price range.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to search by price range can help them quickly find products within their budget and improve the overall shopping experience.
Business Rule	The price range for search should only include products that are currently in stock and available for purchase.
Dependencies	NA
Priority	High

3.3.10.3 Use case 3: Keyword Searches

FR-312: Type Restaurant Name

Table 385: Type Restaurant Name

Identifier	FR-10.3.1
Title	Type Restaurant Name
Requirement	The system should allow users to input the name of the restaurant when searching for nearby restaurants.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to input the restaurant name increases the accuracy of the search results and provides a more personalized experience.
Business Rule	Restaurant names should be unique and cannot be duplicated within the system to avoid confusion for users.
Dependencies	NA
Priority	High

FR-313: Type the Menu Name

Table 386: Type the Menu Name

Identifier	FR-10.3.2
Title	Type the Menu Name
Requirement	The system should allow users to type the menu name when searching for a particular dish.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to type the menu name will make it easier and quicker for them to find what they are looking for.
Business Rule	The menu name must be spelled correctly in order for the system to return accurate search results.
Dependencies	NA
Priority	High

FR-314: Type ODE

Table 387: Type ODE

Identifier	FR-10.3.3
Title	Type Ode
Requirement	The system should allow users to input a valid Type Ode during the registration process.
Source	Muhammad Ahmar Tariq
Rationale	Collecting accurate Type Ode information can assist in medical emergencies where blood transfusions are required.
Business Rule	Type Ode must consist of four alphanumeric characters and cannot be duplicated for multiple user registrations.
Dependencies	NA
Priority	High

3.3.10.4 Use case 4: Sorting

FR-315: Apply sorting category wise

Table 388: Apply sorting category wise

Identifier	FR-10.4.1
Title	Apply sorting category wise
Requirement	The system must allow users to apply sorting category-wise for better organization and easier navigation.
Source	Muhammad Ahmar Tariq
Rationale	Sorting data by categories can help users quickly find the information
Business Rule	The sorting categories must be clearly defined and easily accessible to users to ensure consistency and ease of use.
Dependencies	NA
Priority	High

FR-316: Apply sorting by price

Table 389: Apply sorting by price

Identifier	FR-10.4.2
Title	Apply sorting by price
Requirement	The system should allow users to apply sorting by price on product listings.
Source	Muhammad Ahmar Tariq
Rationale	Sorting by price is a crucial feature for e-commerce websites as it enables customers to find products that fit their budget.
Business Rule	The default sorting on product listings should be by relevance, however, customers should be able to sort by price, highest to lowest or lowest to highest.
Dependencies	NA
Priority	High

3.3.10.5 Use case 5: Generate System Notification

FR-317: Generate Notification on new Order

Table 390: Generate Notification on new Order

Identifier	FR-10.5.1
Title	Generate Notification on new Order
Requirement	Generate a notification when a new order is placed.
Source	Muhammad Ahmar Tariq
Rationale	Customers confirmation when their order has been successfully received and is being processed.
Business Rule	The notification should include the details of the order and the estimated delivery date.
Dependencies	NA
Priority	High

FR-318: Generate Notification on order pickup

Table 391: Generate Notification on order pickup

Identifier	FR-10.5.2
Title	Generate Notification on order pickup
Requirement	The system should generate a notification when an order is picked up by the delivery person.
Source	Muhammad Ahmar Tariq
Rationale	The notification will inform the customer that their order is on the way
Business Rule	Notifications should be sent only to the customer who placed the order
Dependencies	NA
Priority	High

FR-319: Generate Notification on Skooper Arrival

Table 392: Generate Notification on Skooper Arrival

Identifier	FR-10.5.3
Title	Generate Notification on Skooper Arrival
Requirement	The system must generate a notification to the user when their Skooper has arrived.
Source	Muhammad Ahmar Tariq
Rationale	Generating a notification to the user will allow them to be informed about their Skooper's arrival and be prepared to receive their order.
Business Rule	Notifications should be generated only for Skooper orders that have been marked as "delivered" by the Skooper.
Dependencies	NA
Priority	High

FR-320: Generate Notification on Payment Verification

Table 393: Generate Notification on Payment Verification

Identifier	FR-10.5.4
Title	Generate Notification on Payment Verification
Requirement	A system must generate a notification when a payment has been successfully verified.
Source	Muhammad Ahmar Tariq
Rationale	Generating a notification upon successful payment verification helps to keep the concerned parties informed and ensures the timely processing of orders or services.
Business Rule	All payments must be verified before any corresponding order or service is processed.
Dependencies	NA
Priority	High

FR-321: Generate Notification on Order delivered

Table 394: Generate Notification on Order delivered

Identifier	FR-10.5.5
Title	Generate Notification on order delivered.
Requirement	The system should generate a notification to the customer when their order is delivered.
Source	Muhammad Ahmar Tariq
Rationale	Notifying the customer about the delivery status of their order helps to improve their overall experience and provides transparency in the delivery process.
Business Rule	The notification should be sent to the customer immediately upon delivery confirmation to ensure timely communication and satisfaction.
Dependencies	NA
Priority	High

3.3.11 Module 11: Feedback and Reports

3.3.11.1 Use case 1: Give Feedback

FR-322: Add Feedback Title

Table 395: Add Feedback Title

Identifier	FR-11.1.1
Title	Add Feedback Title
Requirement	Users must be able to add a title when submitting feedback.
Source	Muhammad Ahmar Tariq
Rationale	A title will provide a brief summary of the feedback for easier reference and organization.
Business Rule	All feedback must have a title in order to be submitted.
Dependencies	NA
Priority	High

FR-323: Select rating stars

Table 396: Select rating stars

Identifier	FR-11.1.2
Title	Select rating stars
Requirement	The user should be able to select a rating from a set of stars.
Source	Muhammad Ahmar Tariq
Rationale	Providing a visual rating system can make it easier for users to express their opinions and provide feedback.
Business Rule	The maximum rating that can be given is five stars.
Dependencies	NA
Priority	High

FR-324: Add Feedback Descrption

Table 397: Add Feedback Descrption

Identifier	FR-11.1.3
Title	Add Feedback Descrption
Requirement	The system should allow users to add a feedback description when submitting feedback.
Source	Muhammad Ahmar Tariq
Rationale	Including a feedback description provides additional context and details to help improve the product or service.
Business Rule	All feedback submissions must include a feedback description in order to be considered for review by the appropriate team.
Dependencies	NA
Priority	High

FR-325: Submit Feedback

Table 398: Submit Feedback

Identifier	FR-11.1.4
Title	Submit Feedback
Requirement	The system should recommend relevant products to users based on their browsing and purchase history.
Source	Muhammad Ahmar Tariq
Rationale	Providing personalized product recommendations can increase the likelihood of a user making a purchase and enhance the user experience.
Business Rule	The system should not recommend products that are out of stock or have been discontinued to avoid frustrating the user.
Dependencies	NA
Priority	High

3.3.11.2 Use case 2: View Feedback

FR-326: View Feedback given by

Table 399: iew Feedback given by

Identifier	FR-11.2.1
Title	View Feedback given by
Requirement	Users should be able to view feedback given by other users.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to view feedback can help establish trust and credibility within the community.
Business Rule	Users can only view feedback given by others, but they cannot modify or delete it.
Dependencies	NA
Priority	High

FR-327: View Feedback Stars

Table 400: View Feedback Stars

Identifier	FR-11.2.2
Title	View feedback Stars
Requirement	The system should allow users to view feedback stars for products/services.
Source	Muhammad Ahmar Tariq
Rationale	Viewing feedback stars can help users make informed decisions about whether or not to purchase a product/service.
Business Rule	Only users who have purchased a product/service can view feedback stars for that item.
Dependencies	NA
Priority	High

FR-328: View Feedback Description

Table 401: View Feedback Description

Identifier	FR-11.2.3
Title	View feedback Description
Requirement	Allow users to view feedback received on their submitted work.
Source	Muhammad Ahmar Tariq
Rationale	Providing feedback to users helps them to improve their work and encourages participation.
Business Rule	Feedback can only be viewed by the user who submitted the work and authorized personnel.
Dependencies	NA
Priority	High

3.3.11.3 Use case 3: Give Rating

FR-329: Select rating stars

Table 402: Select rating stars

Identifier	FR-11.3.1
Title	Select rating stars
Requirement	The system must allow users to add a description when submitting a rating.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to provide additional context with their rating can help other users better understand and interpret the rating.
Business Rule	Ratings without descriptions will not be published on the platform.
Dependencies	NA
Priority	High

FR-330: Add Rating Descrption

Table 403: Add Rating Descrption

Identifier	FR-11.3.2
Title	Add Rating Descrption
Requirement	The product must have a feature for customers to leave reviews.
Source	Muhammad Ahmar Tariq
Rationale	Reviews provide valuable feedback for both the customers and the business to improve the product and services.
Business Rule	All reviews must be genuine and meet the community guidelines to maintain the integrity of the product and brand.
Dependencies	NA
Priority	High

FR-331: Submit Feedback

Table 404: Submit Feedback

Identifier	FR-11.3.3
Title	Submit Feedback
Requirement	Users must be able to submit feedback through a designated form on the website.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with a way to submit feedback helps businesses to better understand their customers' needs and improve their products or services accordingly.
Business Rule	All feedback must be reviewed and responded to within a specified timeframe to ensure customer satisfaction
Dependencies	NA
Priority	High

3.3.11.4 Use case 4: Add Report

FR-332: Add Report Description

Table 405: Add Report Description

Identifier	FR-11.4.1
Title	Add Report Description
Requirement	The system must allow users to add a description to a report.
Source	Muhammad Ahmar Tariq
Rationale	Adding a report description can provide context and clarity for users who may not be familiar with the report's purpose or content.
Business Rule	All reports generated by the system must have a clear and concise description that accurately reflects the report's contents.
Dependencies	NA
Priority	High

FR-333: Add Report Category

Table 406: Add Report Category

Identifier	FR-1.4.2
Title	Add Report Category
Requirement	The system should allow users to add a new report category.
Source	Muhammad Ahmar Tariq
Rationale	The ability to add a new report category provides users with flexibility to organize and sort their reports according to their needs.
Business Rule	All newly added report categories must have a unique name and be approved by a designated administrator before they can be used.
Dependencies	NA
Priority	High

FR-334: Add Report User

Table 407: Add Report User

Identifier	FR-11.4.3
Title	Add Reported User
Requirement	The system should provide a way to add a reported user.
Source	Muhammad Ahmar Tariq
Rationale	Adding a reported user will help track problematic users and take appropriate actions.
Business Rule	Only authorized users should be able to add reported users, and the reason for reporting must be provided.
Dependencies	NA
Priority	High

3.3.11.5 Use case 5: View Report

FR-335: View Report Description

Table 408: View Report Description

Identifier	FR-11.5.1
Title	View Report Description
Requirement	The View Report Description feature must display a detailed description of the selected report.
Source	Muhammad Ahmar Tariq
Rationale	Providing a detailed report description can help users understand the purpose and content of the report, which can improve their decision-making process.
Business Rule	The report description must be written in clear and concise language
Dependencies	NA
Priority	High

FR-336: View Report Category

Table 409: View Report Category

Identifier	FR-11.5.2
Title	View Report Category
Requirement	Allow users to add a description when providing feedback.
Source	Muhammad Ahmar Tariq
Rationale	Providing a description with feedback can help to provide additional context and clarity, improving the chances of the feedback being effectively addressed.
Business Rule	Users must provide a description when submitting feedback in order for it to be considered valid and actionable.
Dependencies	NA
Priority	High

FR-337: View ReportedUser

Table 410: View ReportedUser

Identifier	FR-11.5.3
Title	View Reported User
Requirement	The system must allow administrators to view a list of reported users.
Source	Muhammad Ahmar Tariq
Rationale	Providing administrators with the ability to view a list of reported users helps them to identify and address any inappropriate behavior or content on the platform.
Business Rule	Administrators can only view reported user information for the purpose of investigating and taking appropriate actions, and should not disclose any personal information of the reported users to any third party without the user's consent.
Dependencies	NA
Priority	High

3.3.11.6 Use case 6: Restrict Accounts

FR-338: Restrict Restaurant Account

Table 411: Restrict Restaurant Account

Identifier	FR-11.6.1
Title	Restrict Restaurant Account
Requirement	The system must have a feature to restrict restaurant account access.
Source	Muhammad Ahmar Tariq
Rationale	To prevent unauthorized access and ensure security of the system.
Business Rule	Only authorized personnel should be able to access and manage restaurant account information.
Dependencies	NA
Priority	High

FR-339: Restrict Skooper Account

Table 412: Restrict Skooper Account

Identifier	FR-11.6.2
Title	Restrict Skooper Account
Requirement	Skooper should have the ability to restrict user accounts.
Source	Muhammad Ahmar Tariq
Rationale	Restricting user accounts can help prevent fraudulent or malicious activity, protect user privacy, and maintain the integrity of the Skooper platform.
Business Rule	Skooper may restrict user accounts for violation of terms of service, suspected fraud, inappropriate behavior, or other reasons deemed necessary by Skooper.
Dependencies	NA
Priority	High

3.3.11.7 Use case 7: Provide Proper Updates to Customers

FR-340: Notify Customers of Order Updates

Table 413: Notify Customers of Order Updates

Identifier	FR-11.7.1
Title	Notify Customers of Order Updates
Requirement	The system must send timely and accurate notifications to customers regarding any updates to their orders, including changes in order status, estimated delivery time, or other relevant information.
Source	Muhammad Ahmar Tariq
Rationale	To enhance customer satisfaction and keep them informed about the progress of their orders.
Business Rule	Notifications should be sent only for significant updates that directly impact the customer's experience.
Dependencies	Reliable communication channels to deliver notifications.
Priority	High

FR-341: Provide In-App Order Update History

Table 414: Provide In-App Order Update History

Identifier	FR-11.7.2
Title	Provide In-App Order Update History
Requirement	The system should maintain a comprehensive order update history within the customer's application, allowing them to review past updates and changes to their orders.
Source	Muhammad Ahmar Tariq
Rationale	To empower customers with a transparent view of the order progress and any modifications made during the order lifecycle.
Business Rule	The order update history should be easily accessible and organized chronologically.
Dependencies	Proper data storage and retrieval mechanisms.
Priority	Medium

FR-342: Ensure Data Security in Order Updates

Table 415: Ensure Data Security in Order Updates

Identifier	FR-11.7.3
Title	Ensure Data Security in Order Updates
Requirement	All order update notifications sent to customers must be transmitted securely, ensuring the confidentiality and integrity of the information.
Source	Muhammad Ahmar Tariq
Rationale	To protect sensitive customer information and maintain the trust and credibility of the system.
Business Rule	Order update notifications should not contain sensitive information that could compromise customer privacy.
Dependencies	Implementation of secure communication protocols.
Priority	High

3.3.12 Module 12: CHAT And Call

3.3.12.1 Use case 1: Start Chat and Voice Call

FR-343: Initiate Chat

Table 416: Initiate Chat

Identifier	FR-12.1.1
Title	Initiate Chat
Requirement	The system should provide users with the ability to initiate a chat with other users.
Source	Muhammad Ahmar Tariq
Rationale	Enabling chat functionality will facilitate real-time communication between users, promoting collaboration and enhancing user engagement.
Business Rule	NA
Dependencies	NA
Priority	High

FR-344: Enter a message

Table 417: Enter a message

Identifier	FR-12.1.2
Title	Enter a message
Requirement	The system must allow users to enter a message of up to 1000 characters.
Source	Muhammad Ahmar Tariq
Rationale	Allowing users to enter a message will enable communication between users and facilitate the exchange of information.
Business Rule	NA
Dependencies	NA
Priority	High

FR-345: Send a message

Table 418: Send a message

Identifier	FR-12.1.3
Title	Send the message
Requirement	The system should allow users to send messages to other users.
Source	Muhammad Ahmar Tariq
Rationale	Enabling messaging functionality enhances user communication and collaboration within the system.
Business Rule	Users must only send messages that are professional, respectful, and relevant to the purpose of the system.
Dependencies	NA
Priority	High

FR-346: Start Call

Table 419: Start Call

Identifier	FR-12.1.4
Title	Start Call
Requirement	The system must allow users to initiate a call with another user.
Source	Muhammad Ahmar Tariq
Rationale	Enabling users to initiate calls facilitates real-time communication and collaboration.
Business Rule	Users must have permission to initiate calls with other users, based on their role and access level within the organization.
Dependencies	NA
Priority	High

FR-347: Mute Call

Table 420: Mute Call

Identifier	FR-12.1.5
Title	Mute Call
Requirement	The system should provide an option to mute calls during a conference call.
Source	Muhammad Ahmar Tariq

Rationale	The option to mute calls is important to prevent background noise and interruptions during a conference call, ensuring that the conversation remains clear and productive.
Business Rule	Participants must follow the moderator's instructions regarding muting and unmuting their calls to ensure an organized and efficient conference call.
Dependencies	NA
Priority	High

FR-348: End Call

Table 421: End Call

Identifier	FR-12.1.6
Title	End Call
Requirement	The system should have a button to end the call between the user and the other party.
Source	Muhammad Ahmar Tariq
Rationale	Providing a clear and easily accessible button to end the call ensures that users can quickly and efficiently terminate a call when necessary.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.12.2 Use case 2: Chat Images

FR-349: Send Images

Table 422: Send Images

Identifier	FR-12.2.1
Title	Send Images
Requirement	The system must support sending images as part of the messaging feature.
Source	Muhammad Ahmar Tariq
Rationale	Images can enhance communication and provide additional context or visual information that may be difficult to convey through text alone.
Business Rule	NA
Dependencies	NA
Priority	High

FR-350: Receives Images

Table 423: Receives Images

Identifier	FR-12.2.2
Title	Receive images
Requirement	The system must be able to receive images from users.
Source	Muhammad Ahmar Tariq
Rationale	Receiving images from users can enhance the user experience and provide additional information to the system.
Business Rule	NA
Dependencies	NA
Priority	High

FR-351: Delete Images

Table 424: Delete Images

Identifier	FR-12.2.3
Title	Delete images
Requirement	The system must provide the ability to delete images.
Source	Muhammad Ahmar Tariq
Rationale	Users may upload incorrect or unwanted images, and the ability to delete them allows for greater control over the content of the system.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.12.3 Use case 3: Delete Chat

FR-352: Select Chat

Table 425: Select Chat

Identifier	FR-12.3.1
Title	Select chat
Requirement	The Select chat feature must allow users to choose from a list of available chat conversations.
Source	Muhammad Ahmar Tariq
Rationale	Providing a Select chat feature allows users to easily navigate and switch between different ongoing conversations, improving the overall user experience.
Business Rule	NA
Dependencies	NA
Priority	High

FR-353: Delete Chat

Table 426: Delete Chat

Identifier	FR-12.3.2
Title	Delete chat
Requirement	Allow users to delete individual chat messages or entire chat history.
Source	Muhammad Ahmar Tariq
Rationale	Providing the option to delete chat messages or history gives users greater control over their conversations and can enhance their privacy and security.
Business Rule	NA
Dependencies	NA
Priority	High

3.3.12.4 Use case 4: Block user and Restrict Account

FR-336: Block User

Table 426: Block User

Identifier	FR-12.4.1
Title	Block user
Requirement	The system should allow administrators to block users from accessing certain features or content.
Source	Muhammad Ahmar Tariq
Rationale	Blocking users can help maintain a safe and secure environment for other users and protect the integrity of the platform.
Business Rule	Users who violate the platform's terms of service may be subject to being blocked from using certain features or accessing certain content.
Dependencies	NA
Priority	High

FR-337: View Report

Table 427: View Report

Identifier	FR-12.4.2
Title	View Report
Requirement	The system must allow users to view reports on demand.
Source	Muhammad Ahmar Tariq
Rationale	Providing users with access to up-to-date reports enables them to make informed decisions and track progress.
Business Rule	Only authorized users should be able to view reports containing sensitive information.
Dependencies	NA
Priority	High

3.4 Non-Functional Requirements

3.4.1 Reliability

Following are the Reliability of the system
AVAIL-1: 24/7 availability for all users.
AVAIL-2: Compatibility with the latest web browsers.
AVAIL-3: Availability on the latest Android and iOS devices.
AVAIL-4: Robust data security and privacy measures.
AVAIL-5: Strong authentication and authorization.
AVAIL-6: High uptime and performance.
AVAIL-7: Scheduled maintenance during non-peak hours.
AVAIL-8: Real-time performance monitoring and error detection.
AVAIL-9: Backup and disaster recovery procedures.
AVAIL-10: Redundancy and failover mechanisms.

3.4.2 Usability

Following are the usability of the system
USA-1: Basic user navigation understanding.
USA-2: User-friendly functionalities within 1-2 days of use.
USA-3: Clear onboarding instructions for new users.
USA-4: Intuitive UI/UX design.

3.4.3 Performance

Following are the performance of the system
PRE-1: Handling high user and transaction volume without performance issues.
PRE-2: Website responsiveness within 1 second.
PRE-3: Timely order processing within 1 second.
PRE-4: Average response time not exceeding 2 seconds.

3.4.4 Security

Following are the security of the system
PSE-1: Robust data protection and access control.
PSE-2: Password recovery via email and phone.
PSE-3: Verification for restaurants and vendors.

3.5 External Interface Requirements

This section provides information to ensure that the system will communicate properly with users and with external hardware or software elements. A complex system with multiple subcomponents should create a separate interface specification or system architecture specification. The interface documentation could incorporate material from other documents by reference. For instance, it could point to a hardware device manual that lists the error codes that the device could send to the software.

3.5.1 User Interfaces Requirements

UI-1: Display confirmation messages for actions.
UI-2: Maintain a consistent color theme.
UI-3: Present error messages in plain, easily understandable text.
UI-4: Provide easy-to-navigate interfaces.
UI-5: Alert users to correct data entry errors.

3.5.2 Software interfaces

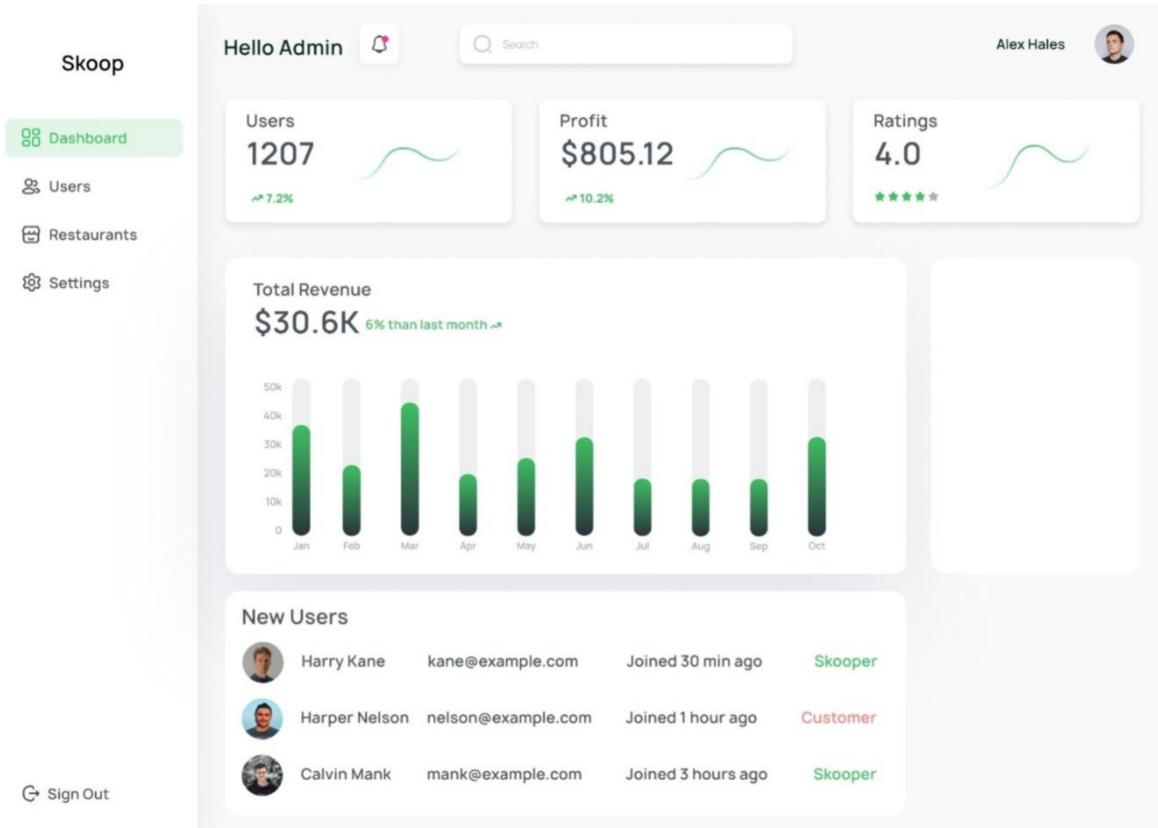

Figure 6 Admin Panel Dashboard

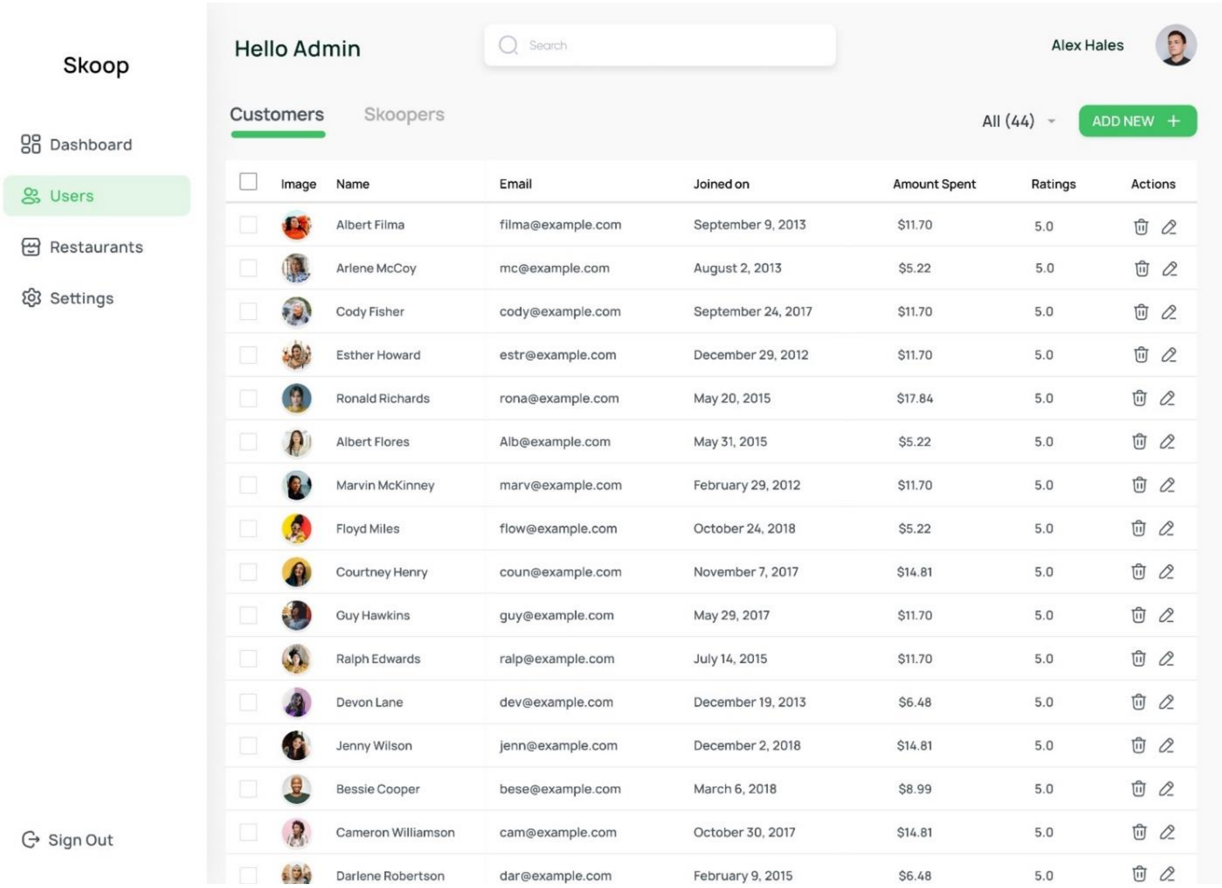

Figure 7 Admin Panel list of users

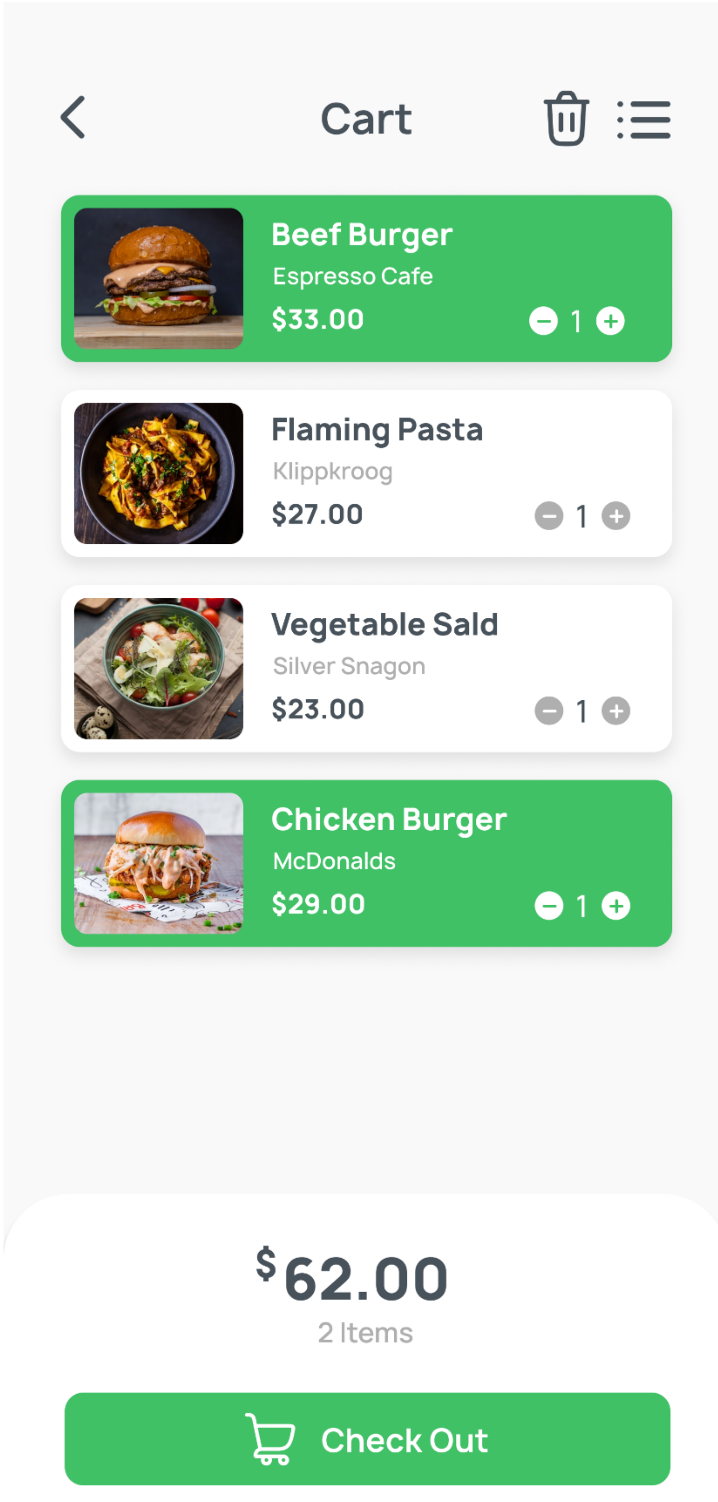

Figure 8 Customer App Cart

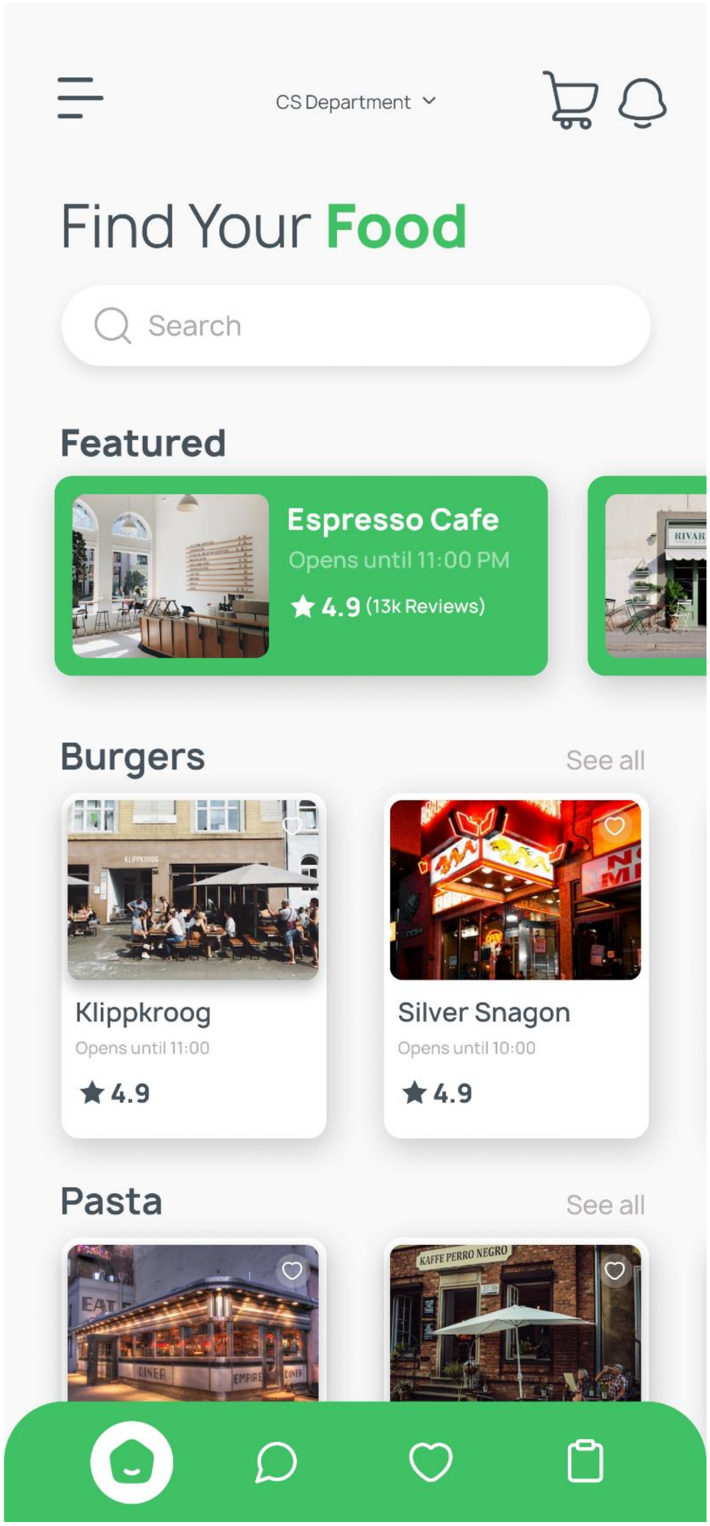

Figure 9 Customer App Dashboard

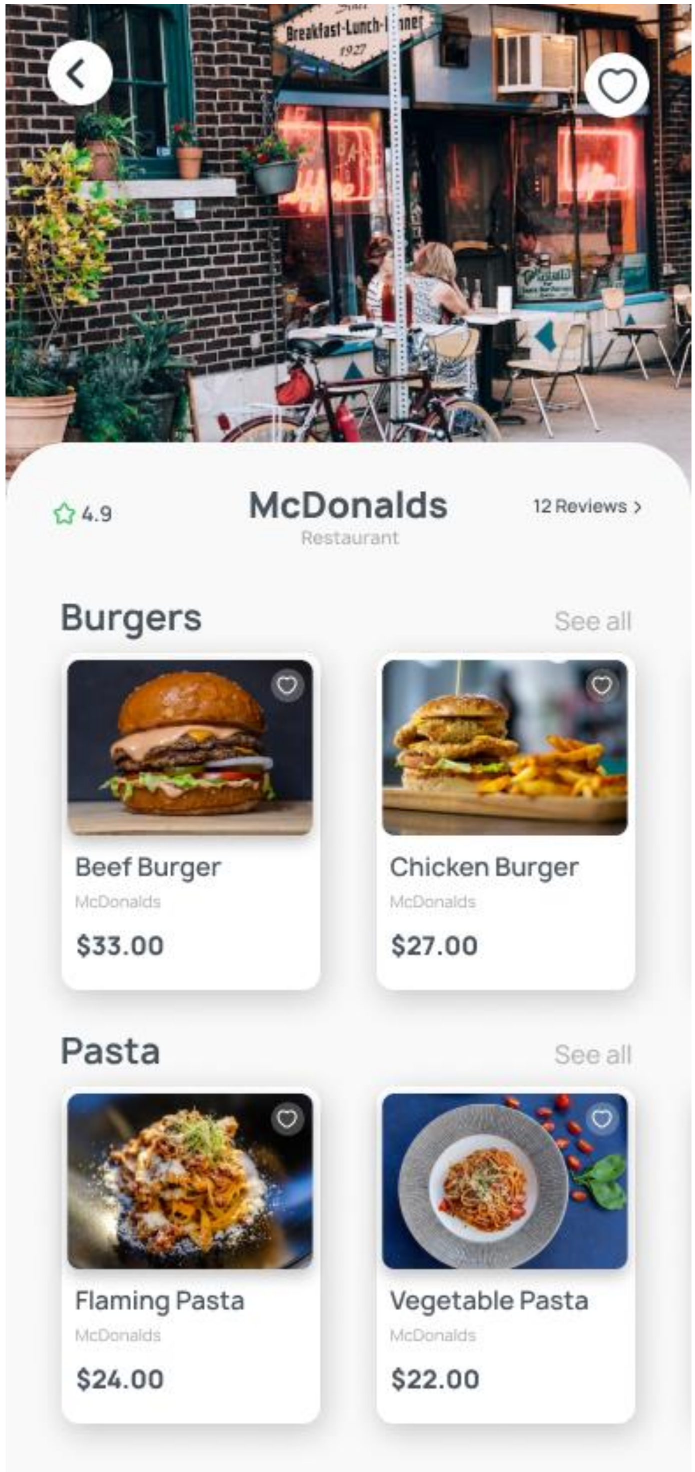

Figure 10 Customer App Restaurant view

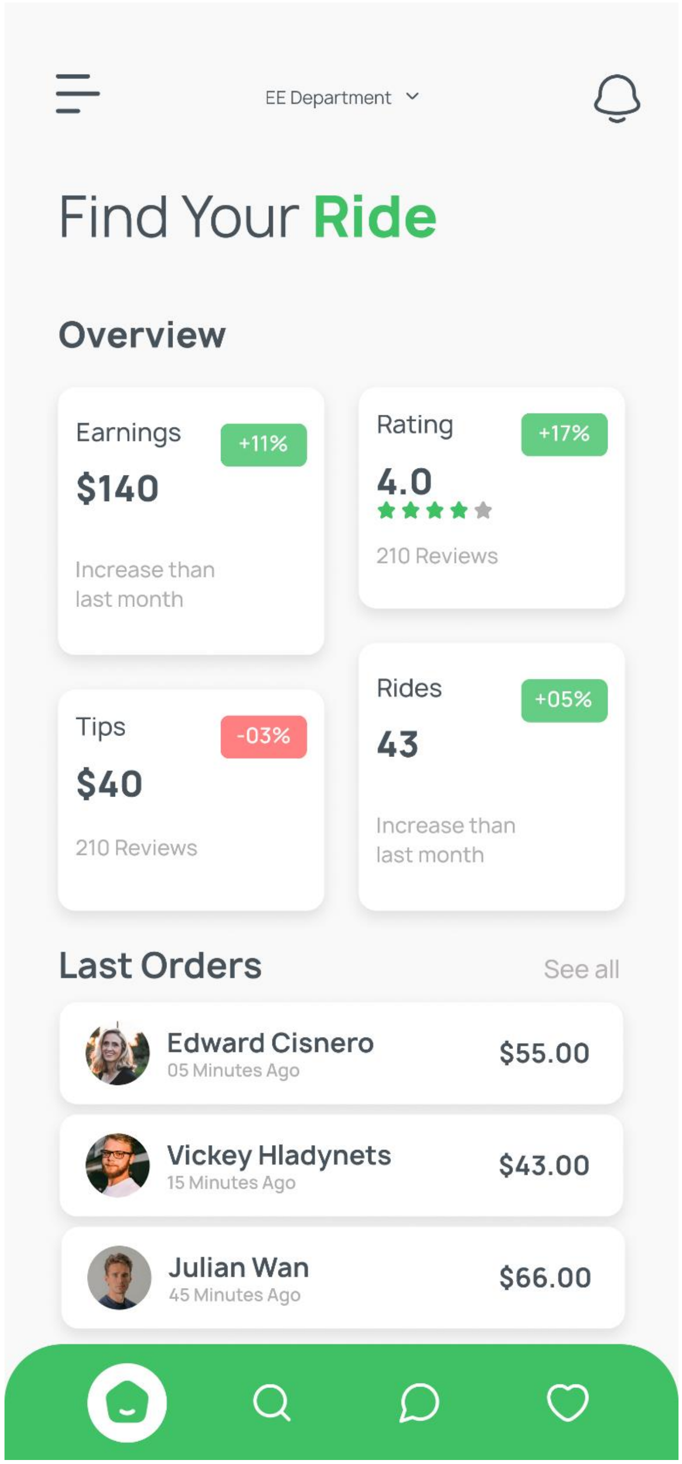

Figure 11 Skooper App Dashboard

3.5.3 Hardware interfaces

The developed system **'Skoop"** will interact with hardware and software. Space is used in our application to install, so that users can use the application.

3.5.4 Communications interfaces

The **Skoop** will need active internet connection that must be WIFI or data connection. The data will be saved in the mongodb, so, to store and then to retrieve data form database will require stable internet connection.

4 Design and Architecture

The following parts of Software DesignDescription (SDD) report should be included in this chapter.

4.1 Architectural Design

The architectural design for SKOOP is based on the 3-tier model, consisting of the presentation layer, application layer, and database layer.

The presentation layer is responsible for handling the user interface and user interaction. It consists of the SKOOP mobile application and web application, which enable customers, restaurants, and skoopers to interact with the system. The presentation layer also includes the Admin interface, which allows the admin to manage users and view statistics.

The application layer provides the business logic and processing of data. It consists of the server-side components that handle the data flow between the presentation and database layers. This layer includes the order management system, payment processing, vendor integration, and other key system functions.

The database layer is responsible for storing and managing data, including customer and restaurant information, skooper details, order history, and feedback data. It consists of a robust database management system, which ensures data security, integrity, and accessibility.

The 3-tier architecture provides several benefits, including scalability, modularity, and maintainability. This design allows for the easy addition of new functionality and modules without disrupting existing components. The architecture also promotes separation of concerns, enabling efficient development, testing, and deployment of the system.

Overall, the 3-tier architecture is an effective design choice for SKOOP, providing a robust, scalable, and flexible foundation for the development and deployment of the food delivery application.

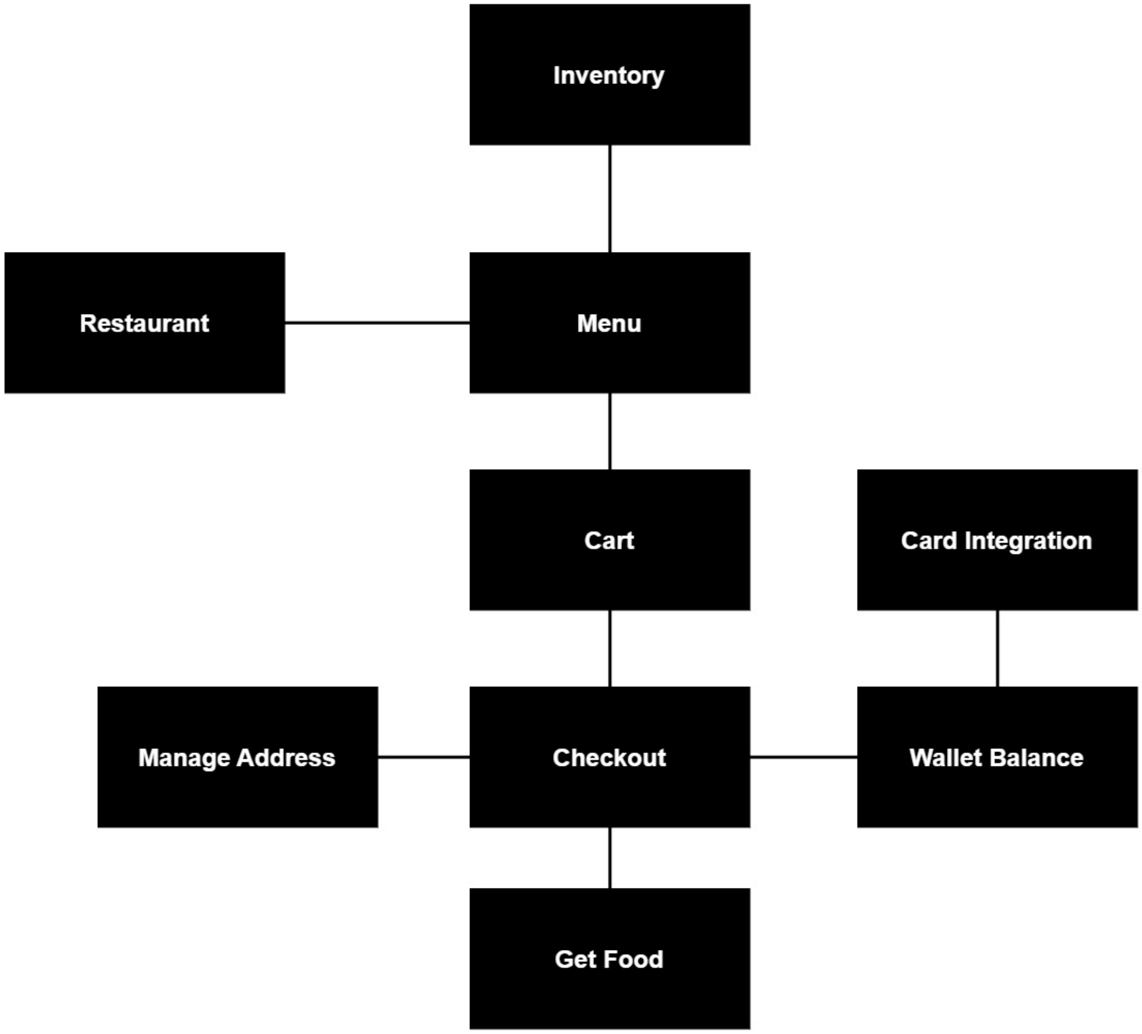

Figure 12 Box and Line Diagram

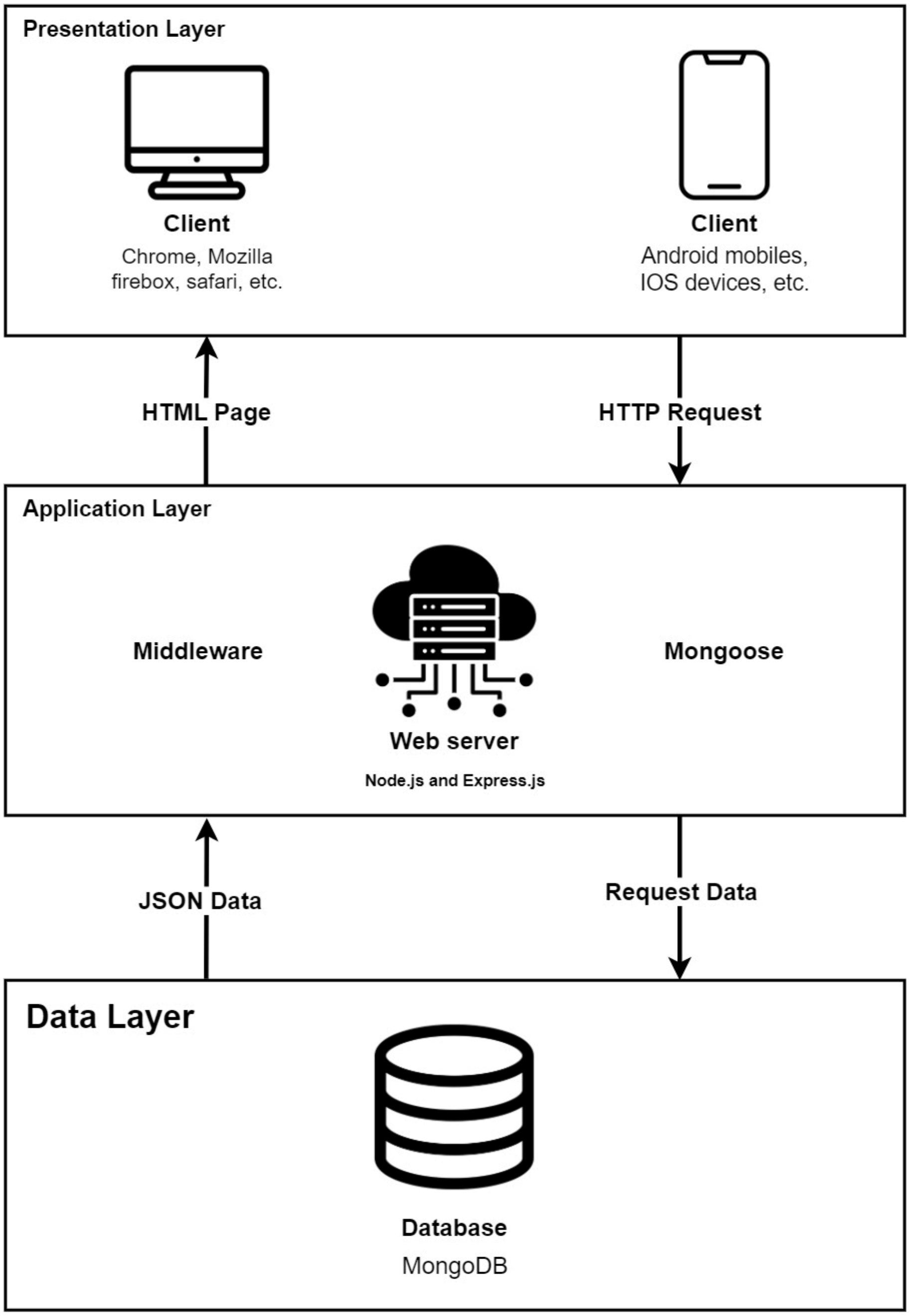

Figure 13 Architecture Pattern

4.2 Design Models

4.2.1 Activity Diagrams

User Sign Up

Following is the activity diagram is for customer and skooper.

Figure 14 Activity Diagram for User Signup

User Login
Following activity diagram is for all users.

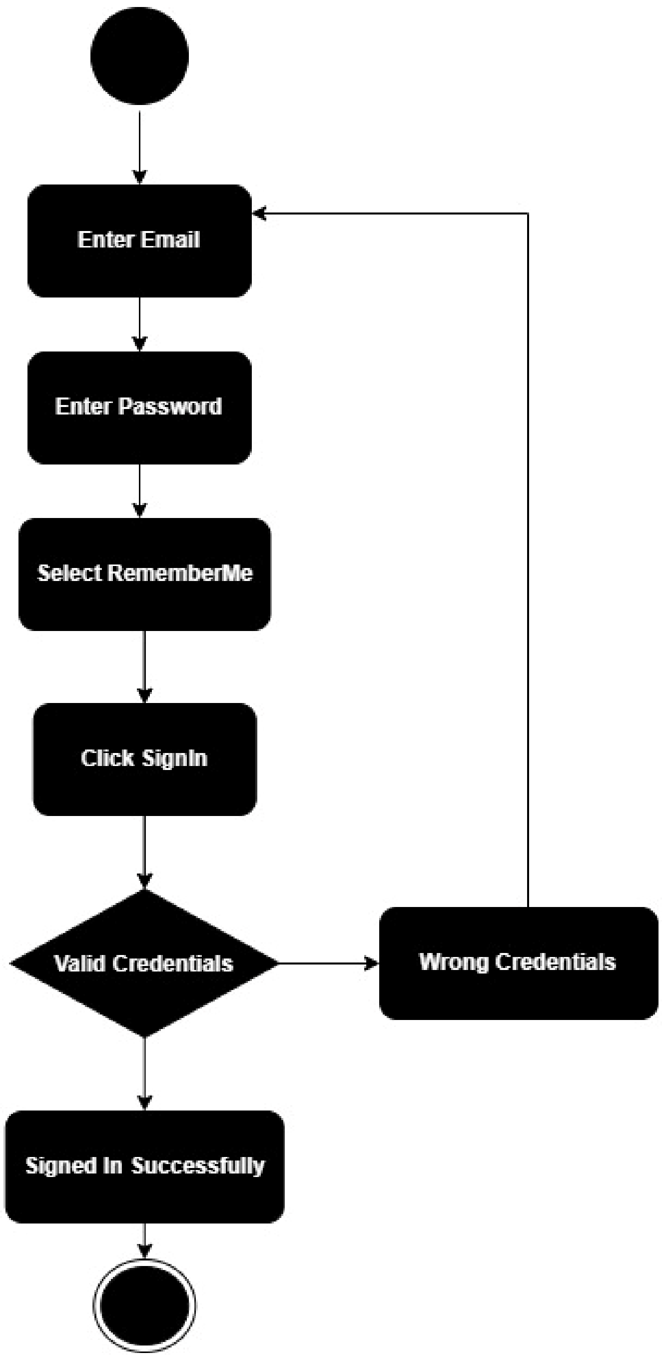

Figure 15 Activity Diagram for User Login

Admin Management-1

Following Activity Diagram is of admin managing the customers and Skooper.

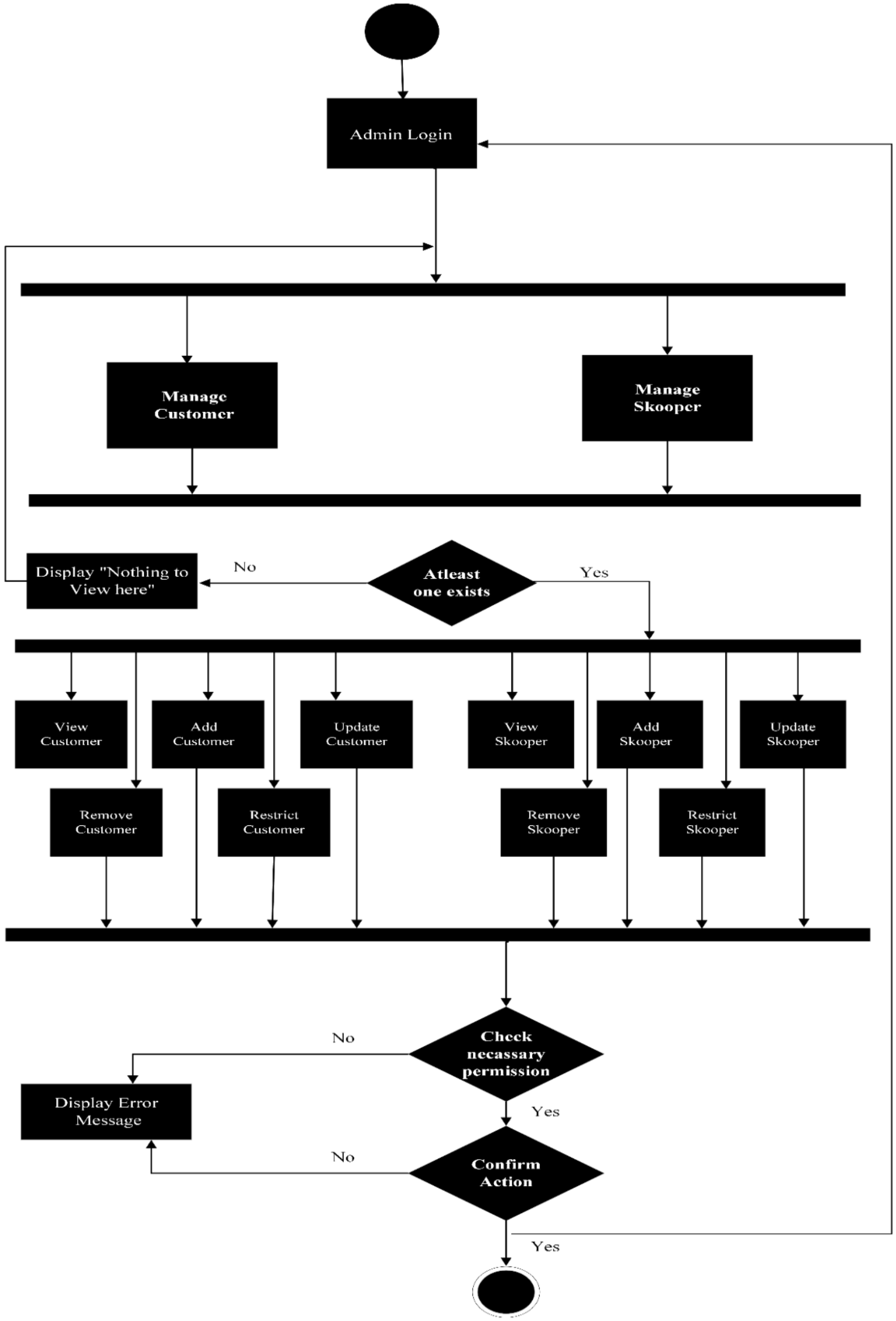

Figure 16 Activity Diagram for Admin Management-I

Admin Management-II

Following Activity Diagram is of admin managing the Restaurant and Vendor.

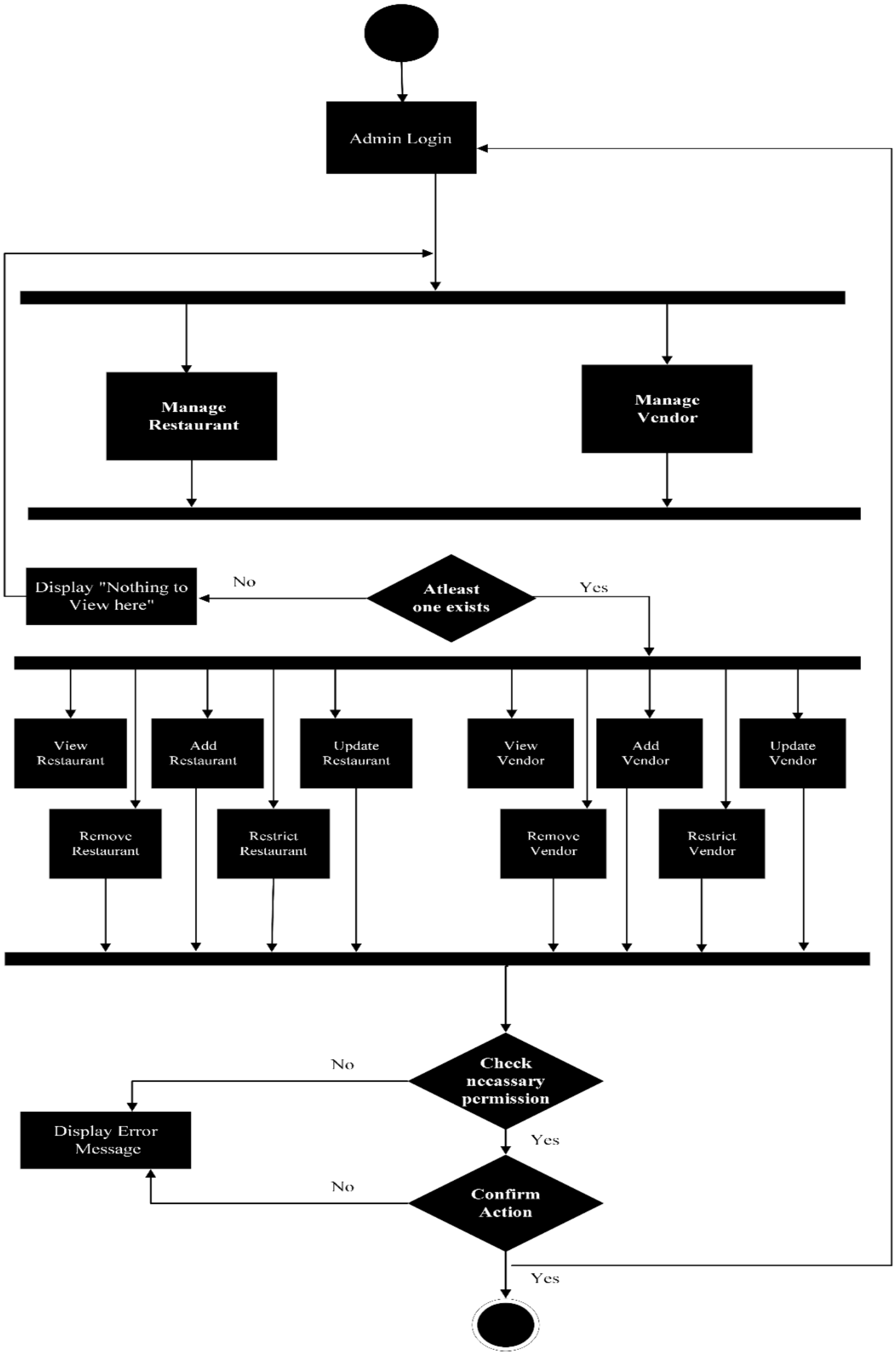

Figure 17 Activity Diagram for Admin Management-II

Customer Panel

Following activity diagram is the way how customer will interact.

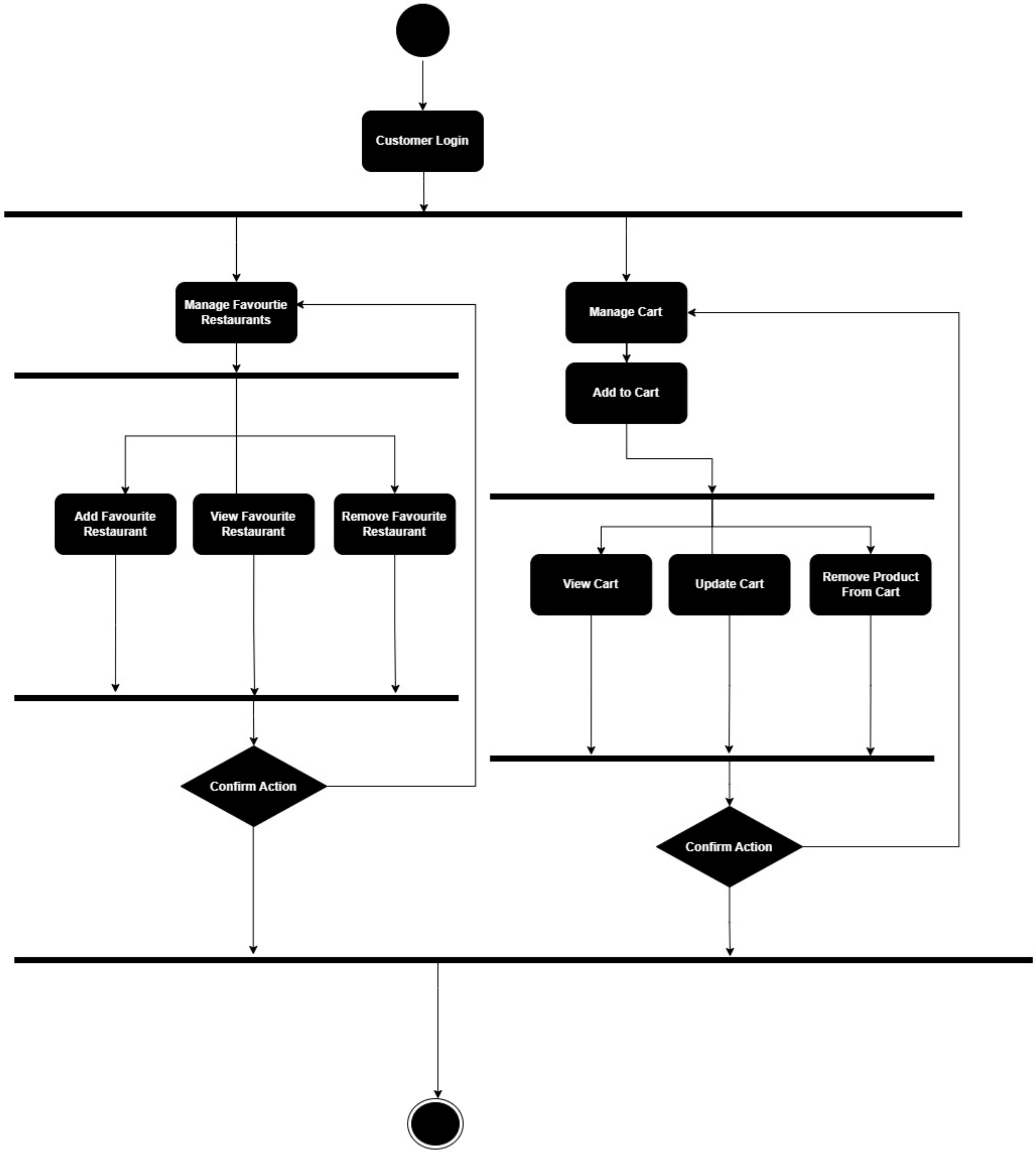

Figure 18 Activity Diagram for Customer Panel

Skooper

Following activity diagram is the way how skooper will interact.

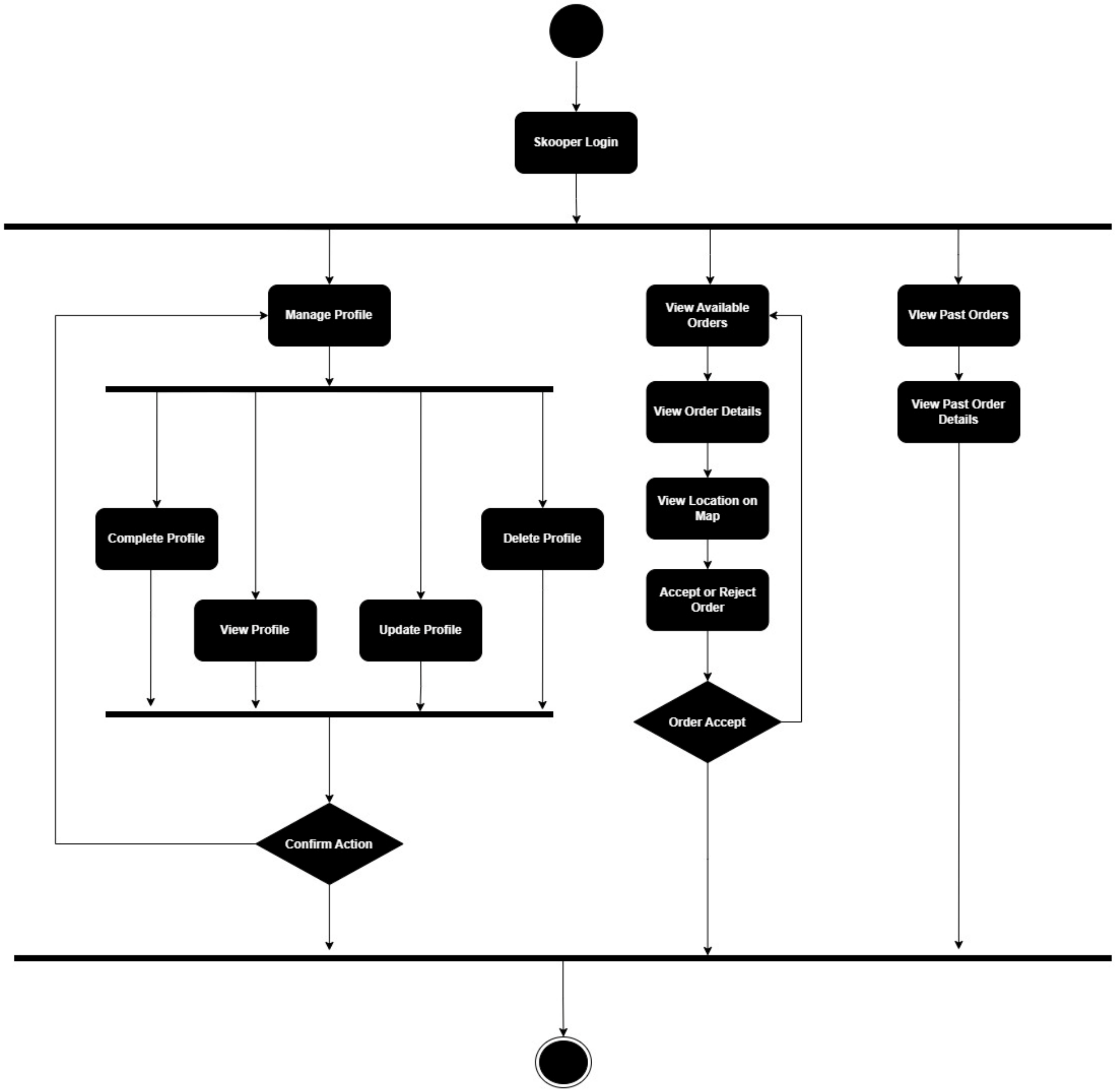

Figure 19 Activity Diagram for Skooper

Restaurant Panel

Following activity diagram is the way how restaurant will interact.

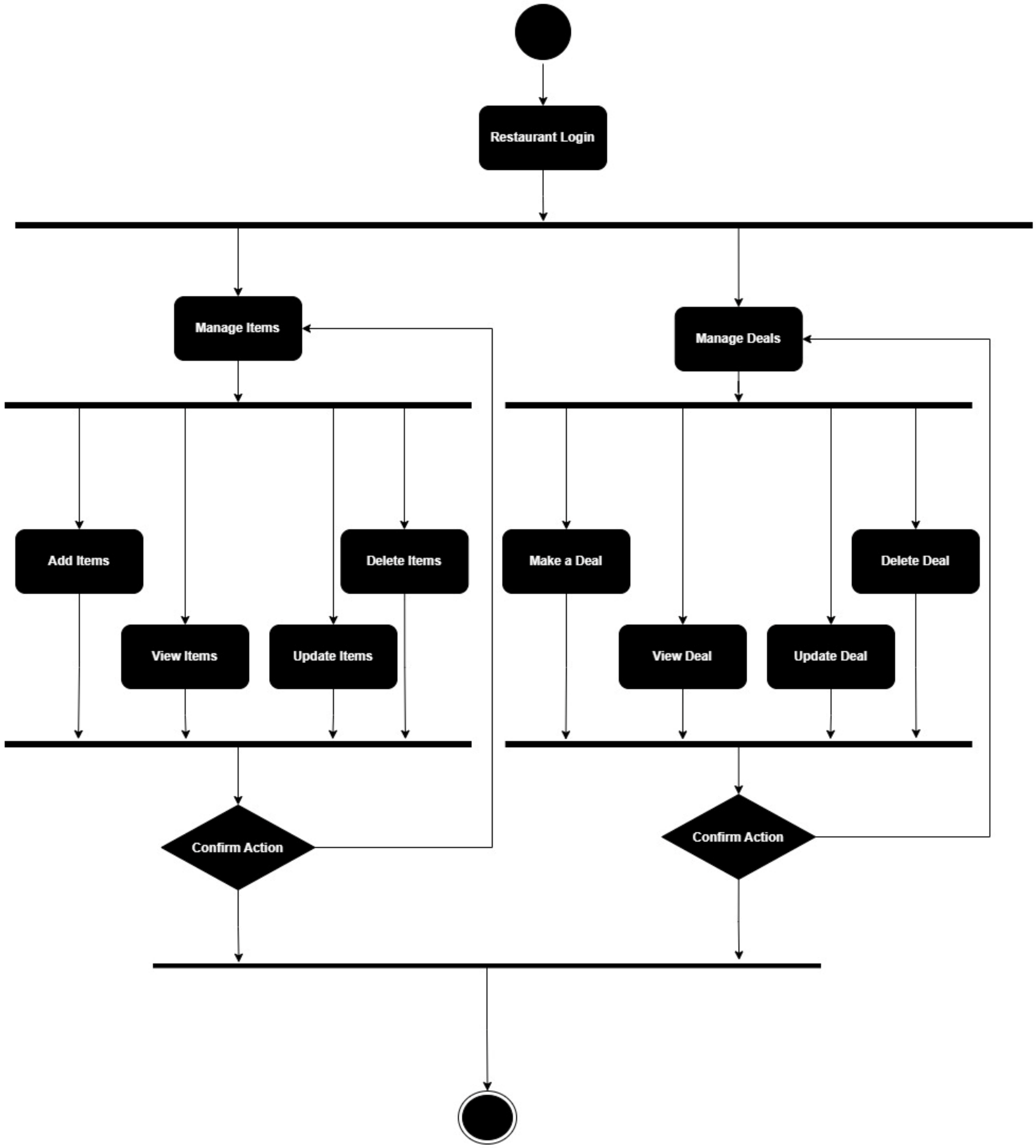

Figure 20 Activity Diagram for Restaurant Panel-1

Restaurant Panel-2

Following activity diagram is the way how restaurant will interact.

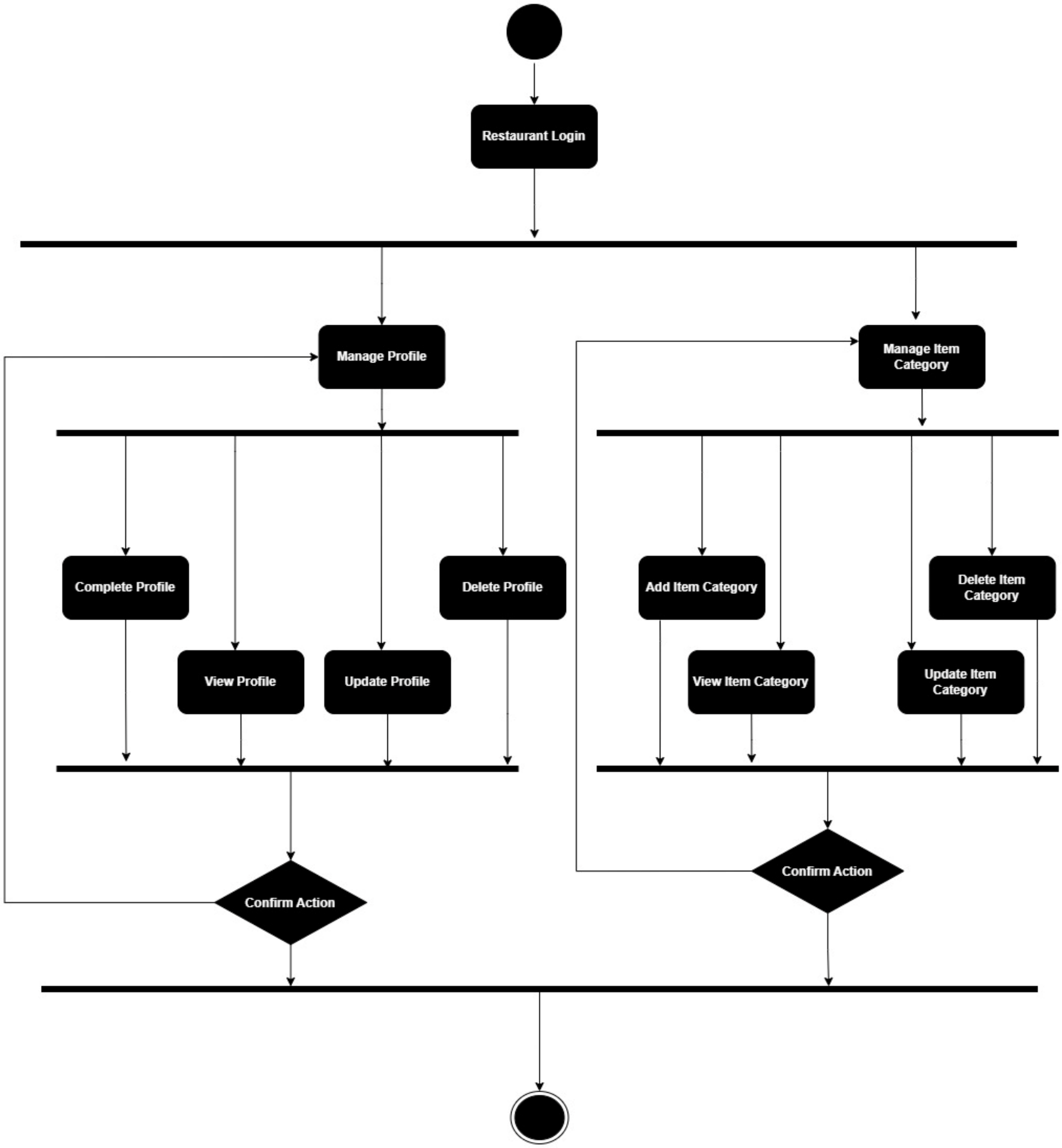

Figure 21 Activity Diagram for Restaurant Panel-2

Restaurant Panel-3

Following activity diagram is the way how restaurant will interact.

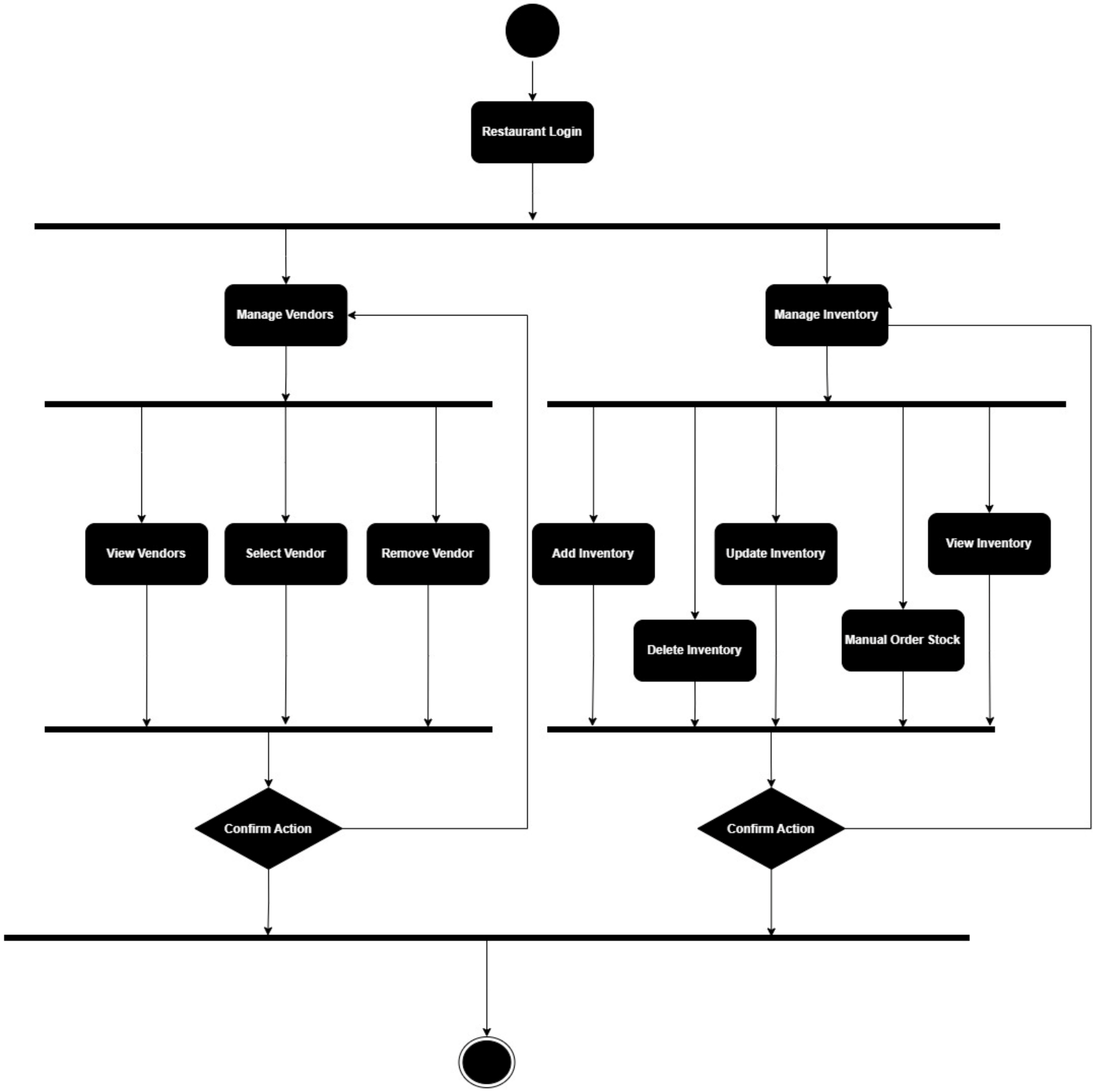

Figure 22 Activity Diagram for Restaurant Panel-3

Add Restaurant

Following activity diagram is the way how Restaurant will be added in the system.

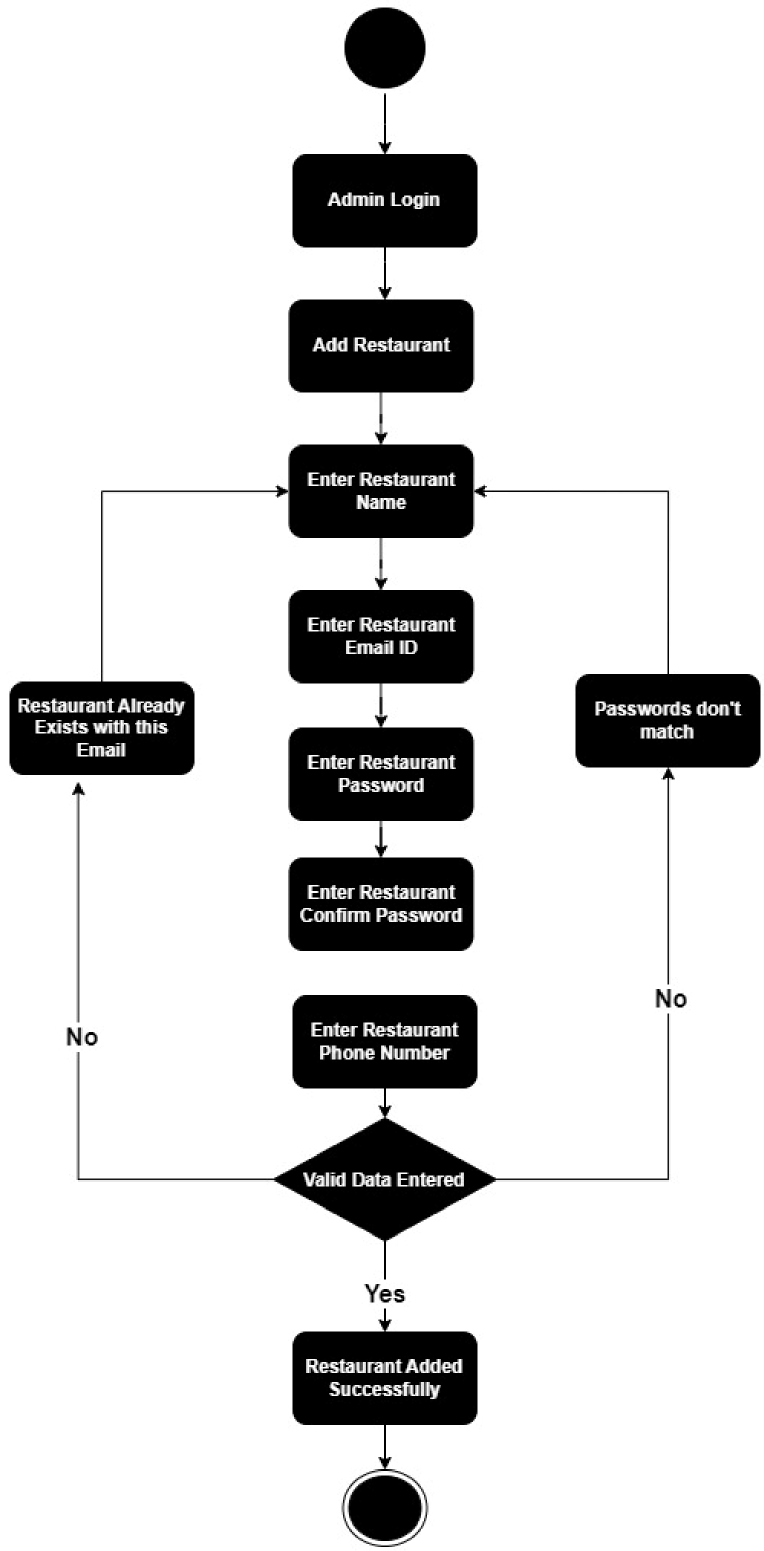

Figure 23 Activity Diagram for Add Restaurant

Vendor Panel

Following activity diagram is the way how vendor will interact.

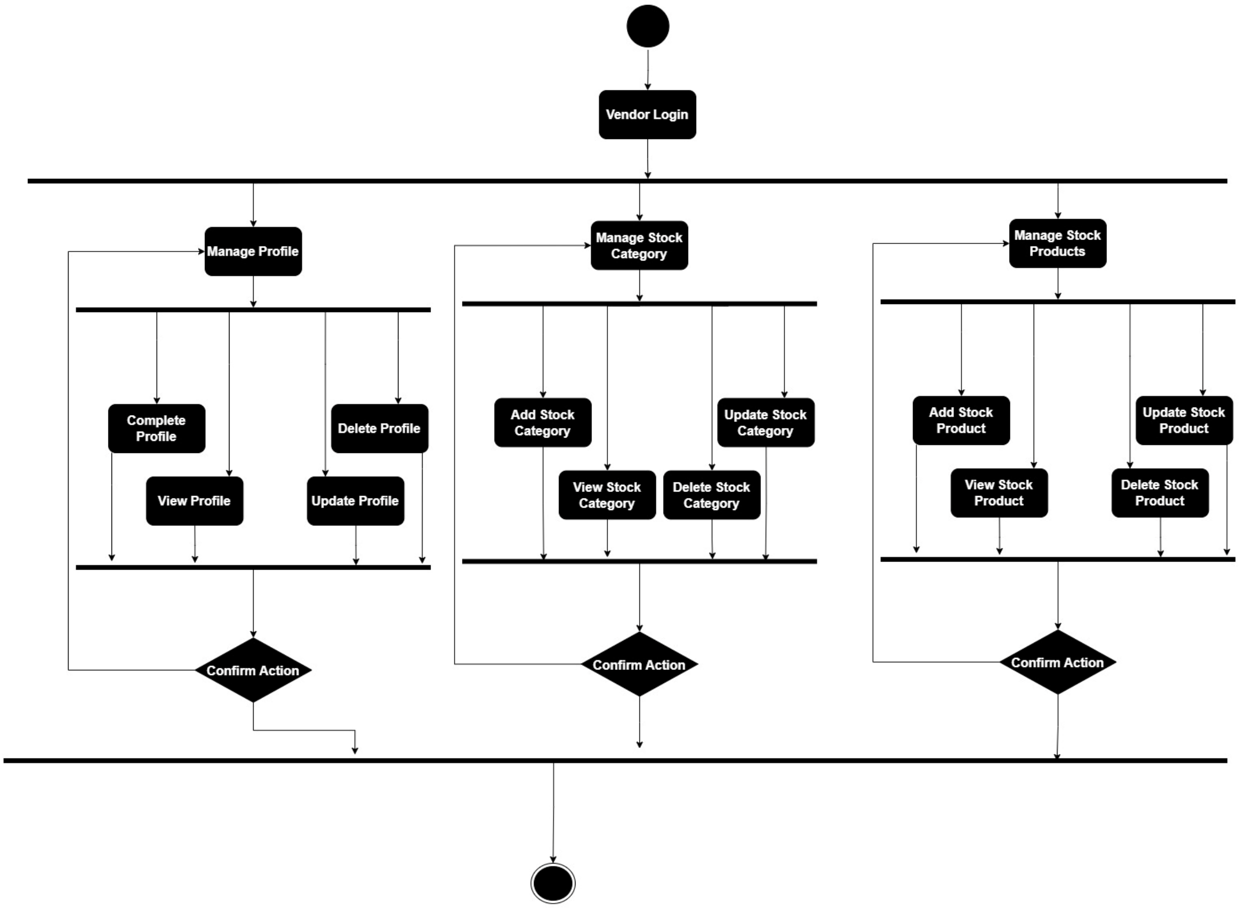

Figure 24 Activity Diagram for Vendor Panel

Place Order

Following activity diagram is the way how the user will place order.

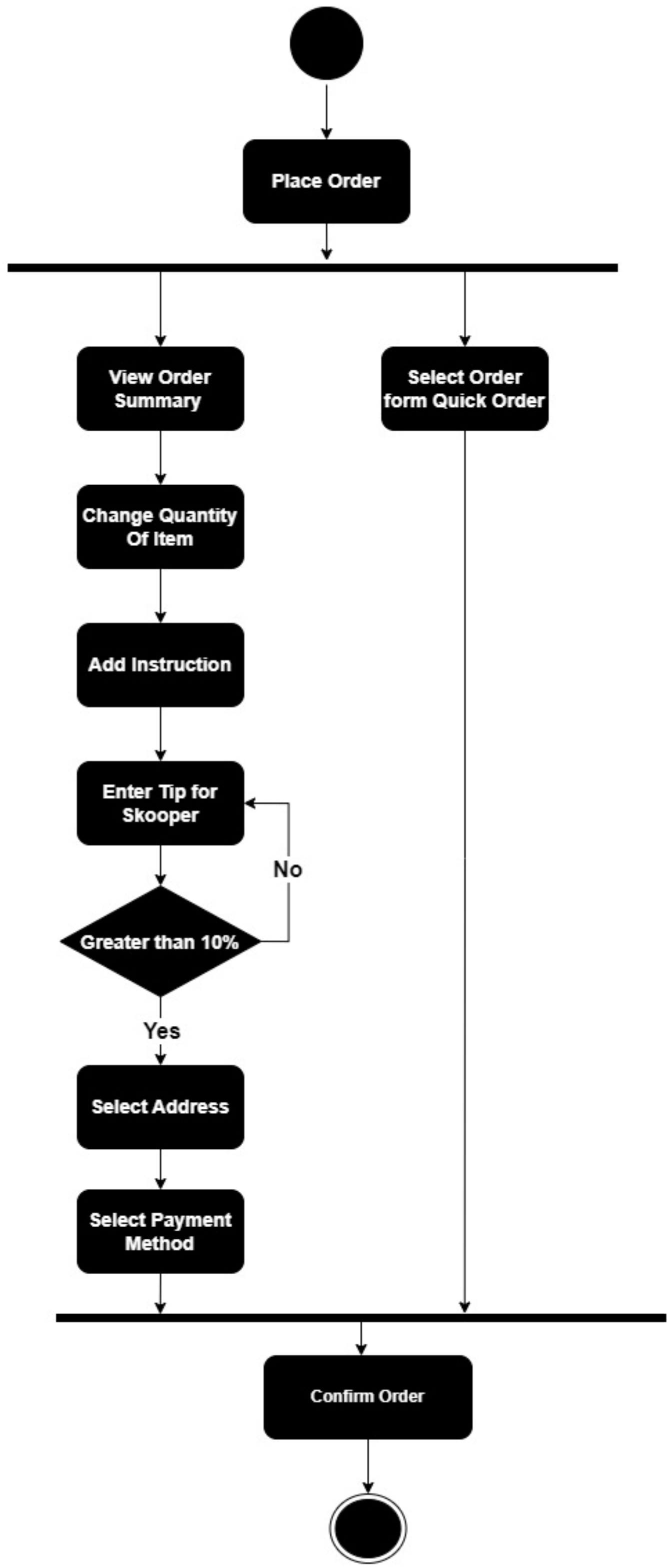

Figure 25 Activity Diagram for Place Order

Receive Order
Following activity diagram is for restaurant when they will receive order.

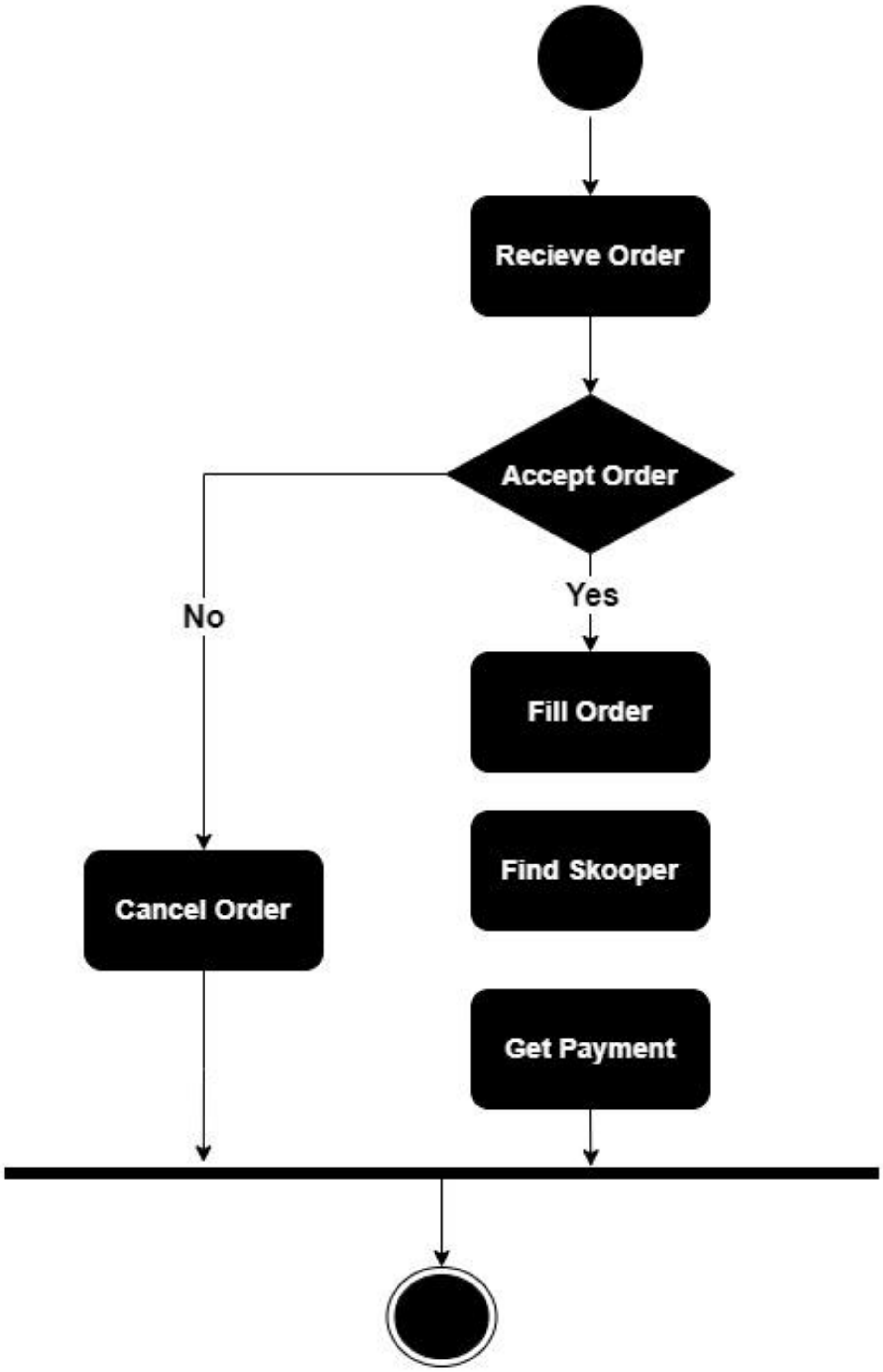

Figure 26 Activity Diagram for Receive Order

Payment Method

Following activity diagram is for payment method integrations and wallet topup

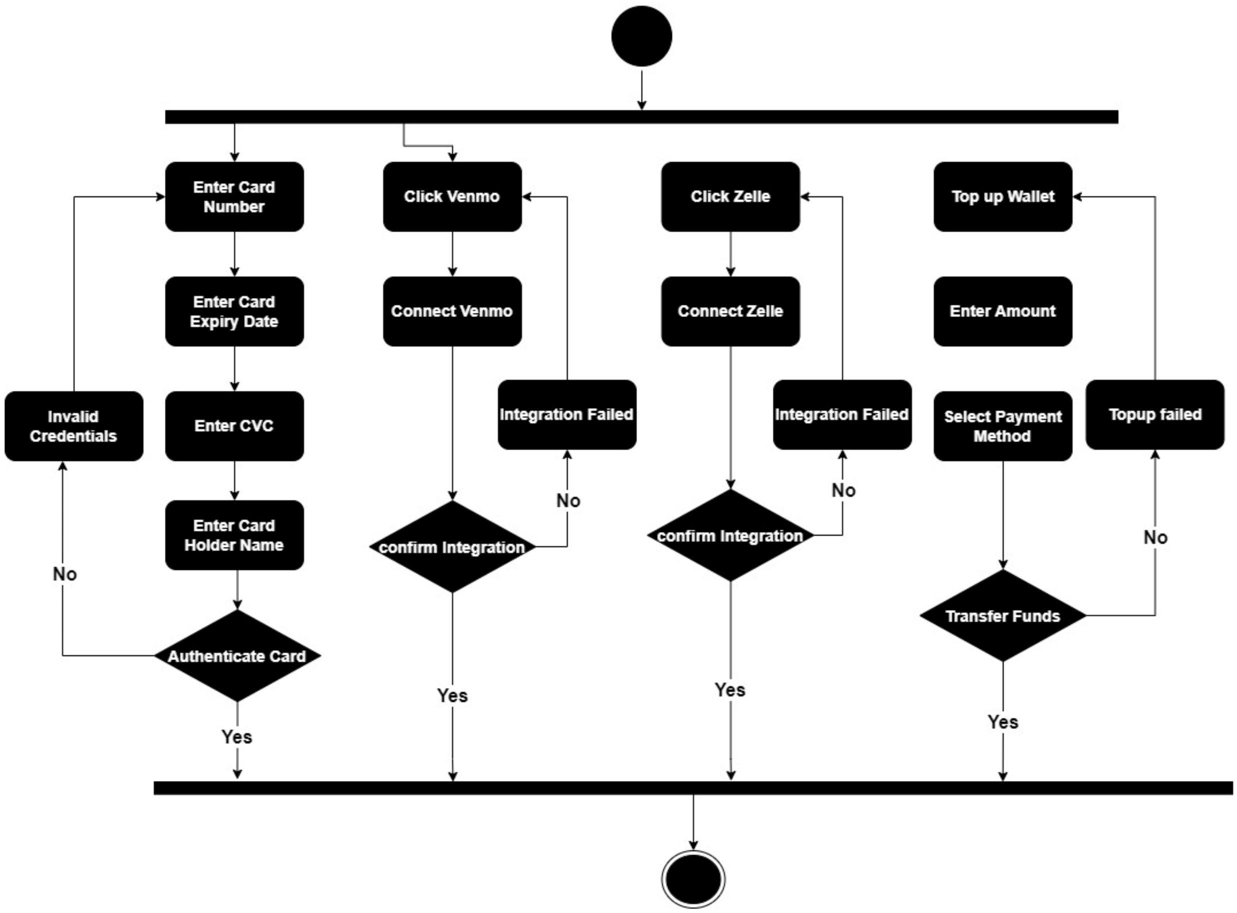

Figure 27 Activity Diagram for Payment Methods

Get Paid
Following Activity Diagram represents the process of getting amount in bank account which will be accessible to vendor, restaurant, customer and skooper.

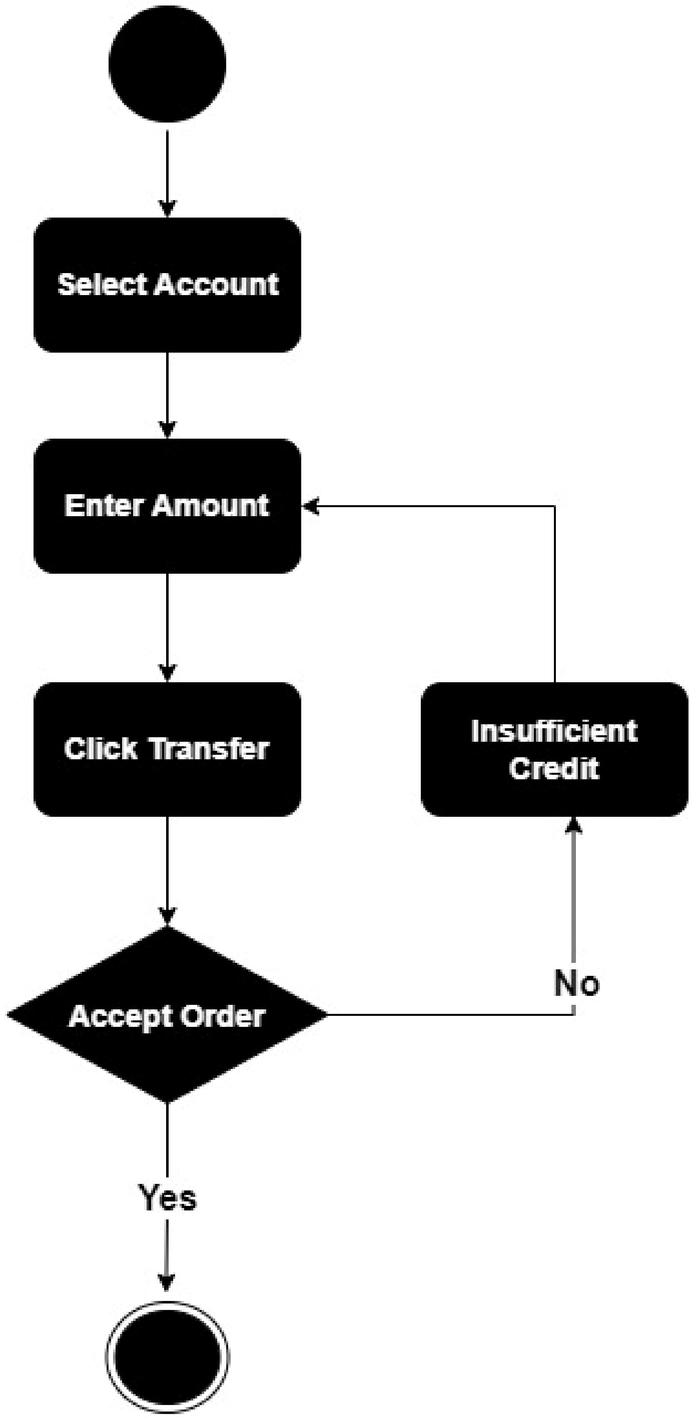

Figure 28 Activity Diagram for Get Paid

Give Rating

Following Activity Diagram if for the customer that after he receives the order, he will give feedback to the restaurant and skooper.

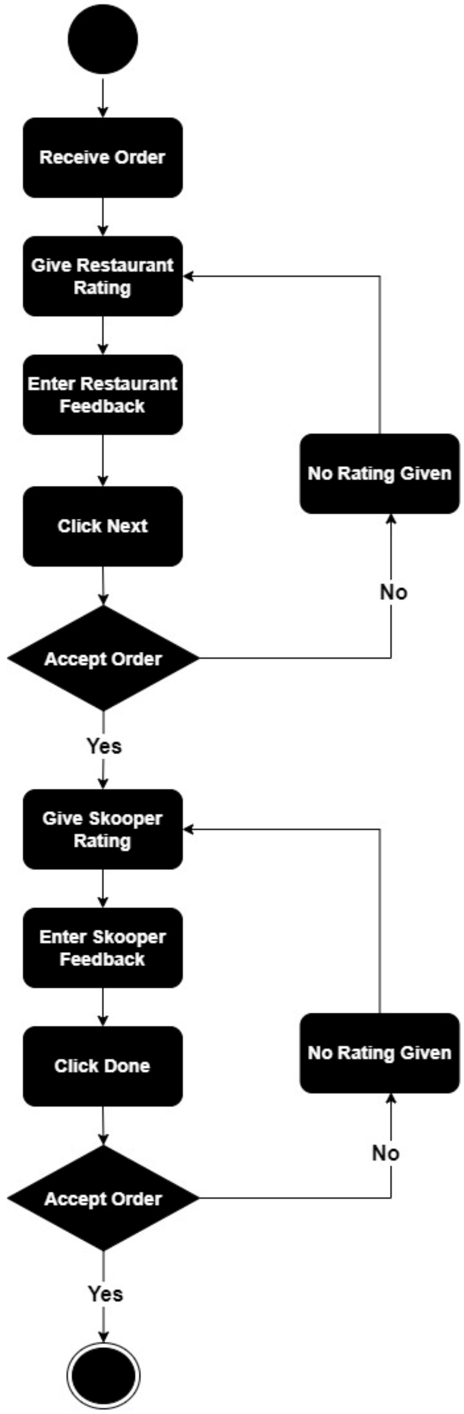

Figure 29 Activity Diagram for Give Rating

4.2.2 Sequence Diagrams

Following are the sequence diagrams of the system.

User Signup

Following sequence diagram is for user signup

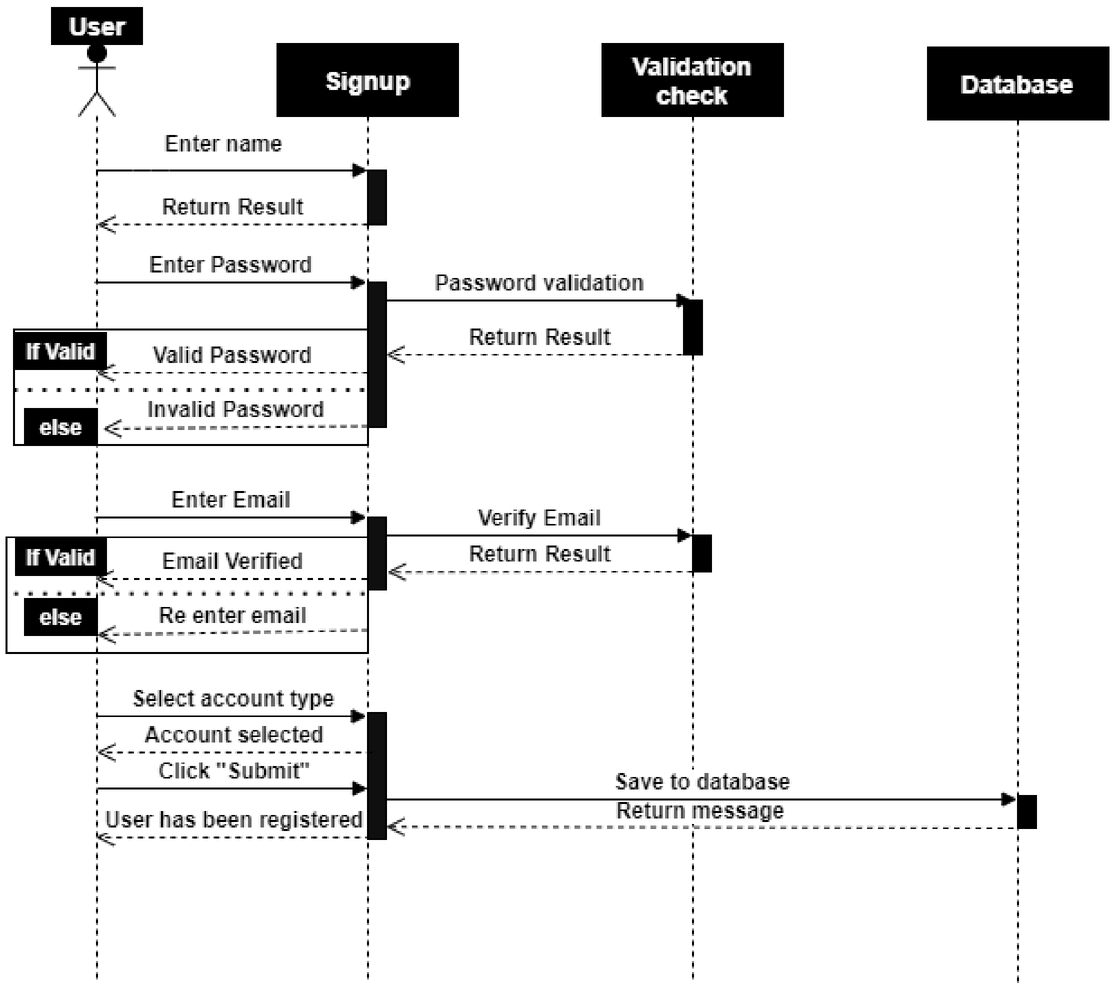

Figure 30 Sequence Diagram for User Signup

User Login
Following sequence diagram is for User Login.

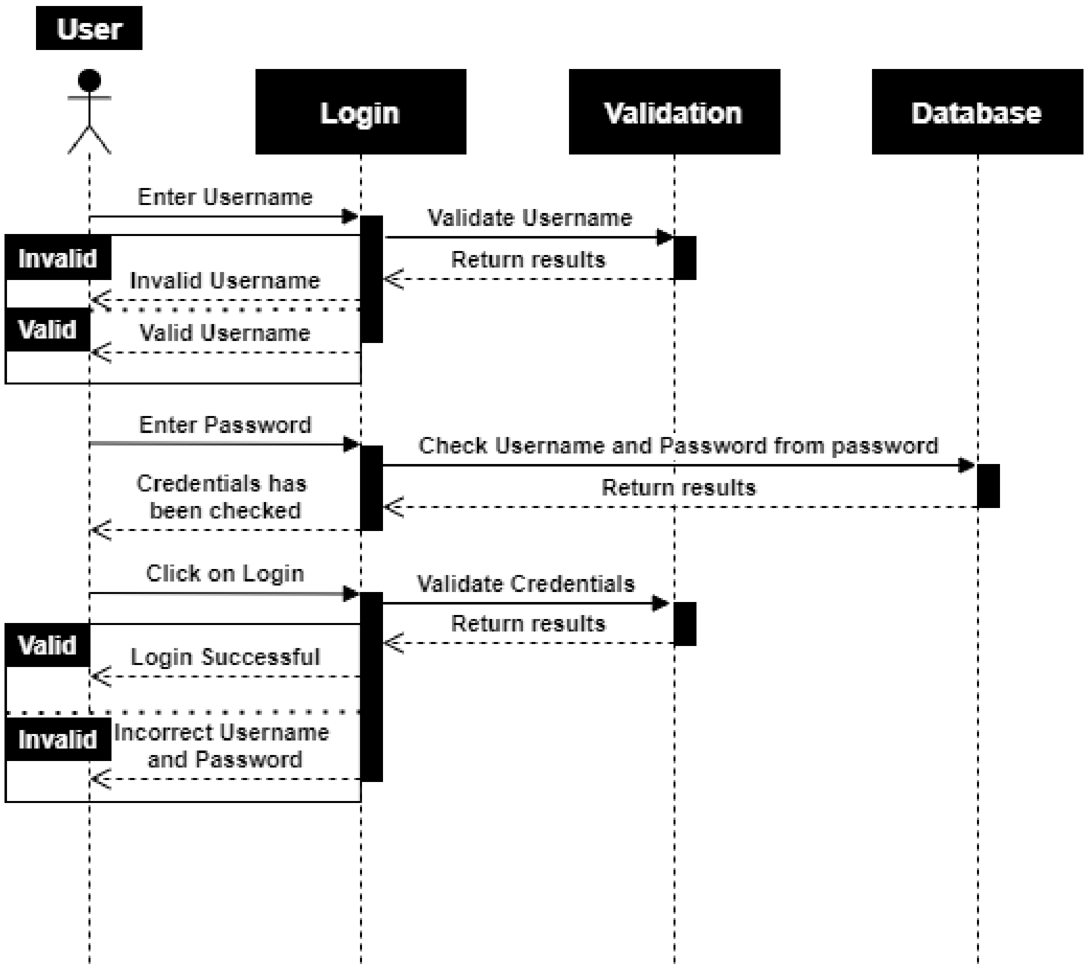

Figure 31 Sequence Diagram for User Login

Delete Account
Following sequence diagram is for User Delete Account.

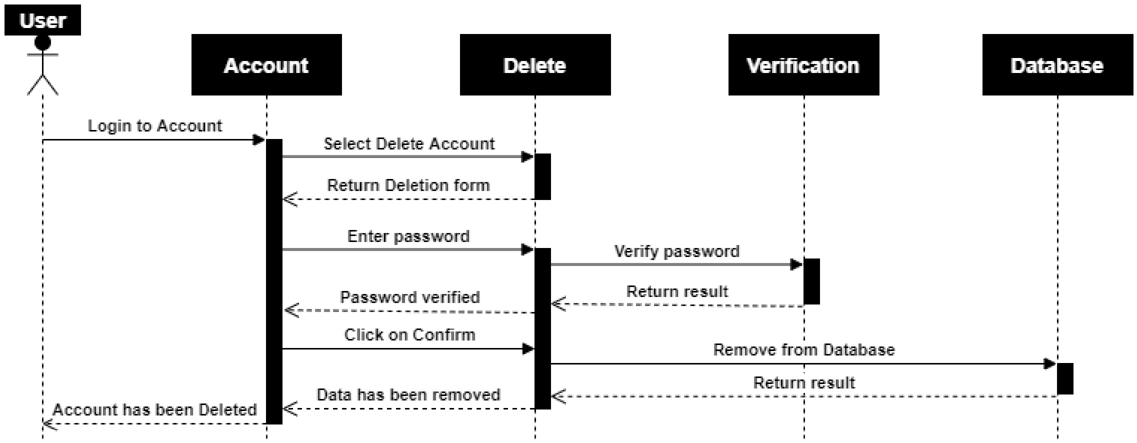

Figure 32 Sequence Diagram for User Delete Account

Complete Profile
Following sequence diagram is for User Complete Profile.

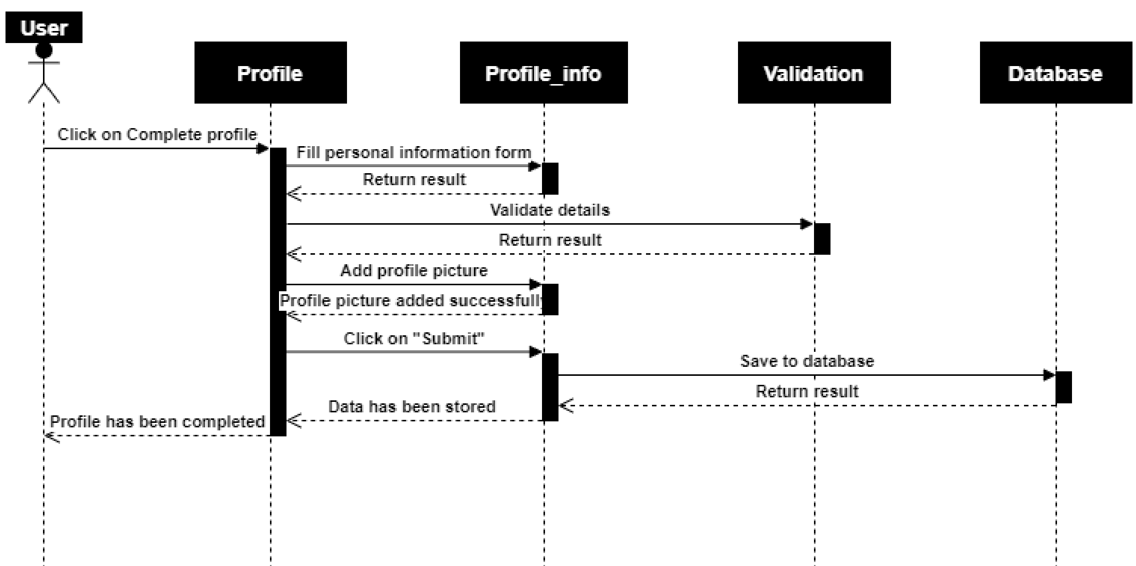

Figure 33 Sequence Diagram for User Complete Profile

Restaurant Analysis
Following sequence diagram is for Restaurant Analysis.

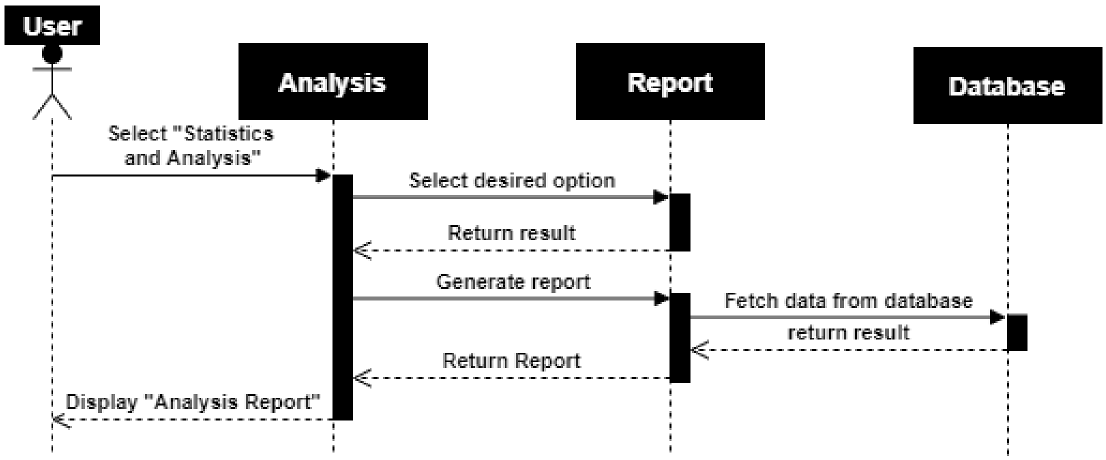

Figure 34 Sequence Diagram for Restaurant Analysis

Place Order
Following sequence diagram is for Place Order.

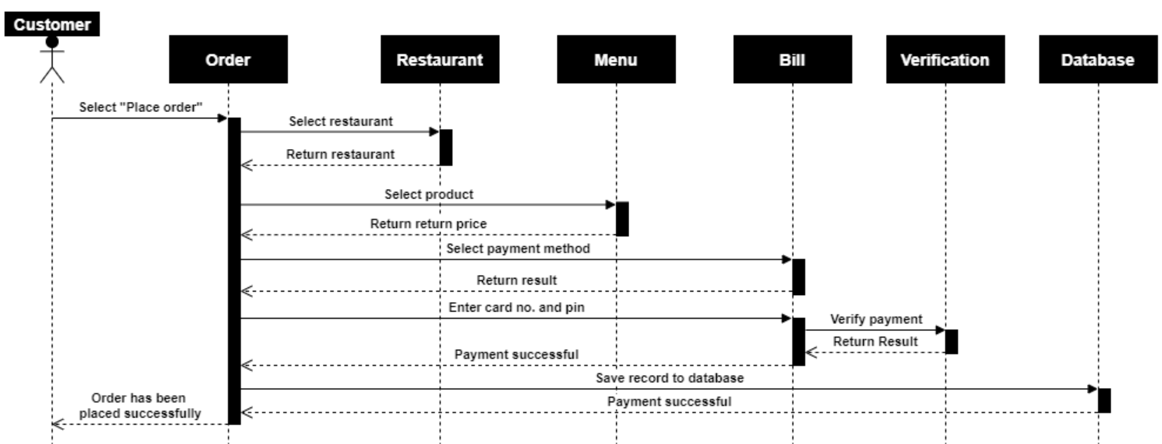

Figure 35 Sequence Diagram for Place Order

Add to Cart

Following sequence diagram is for add to cart.

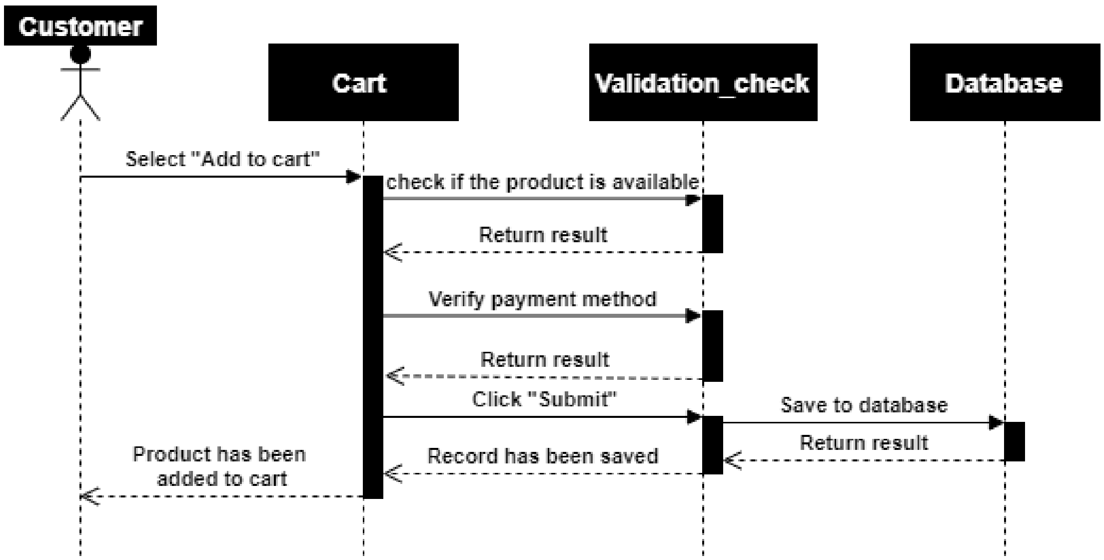

Figure 36 Sequence Diagram for Add to Cart

Pay Order Bill

Following sequence diagram is for Pay Order Bill.

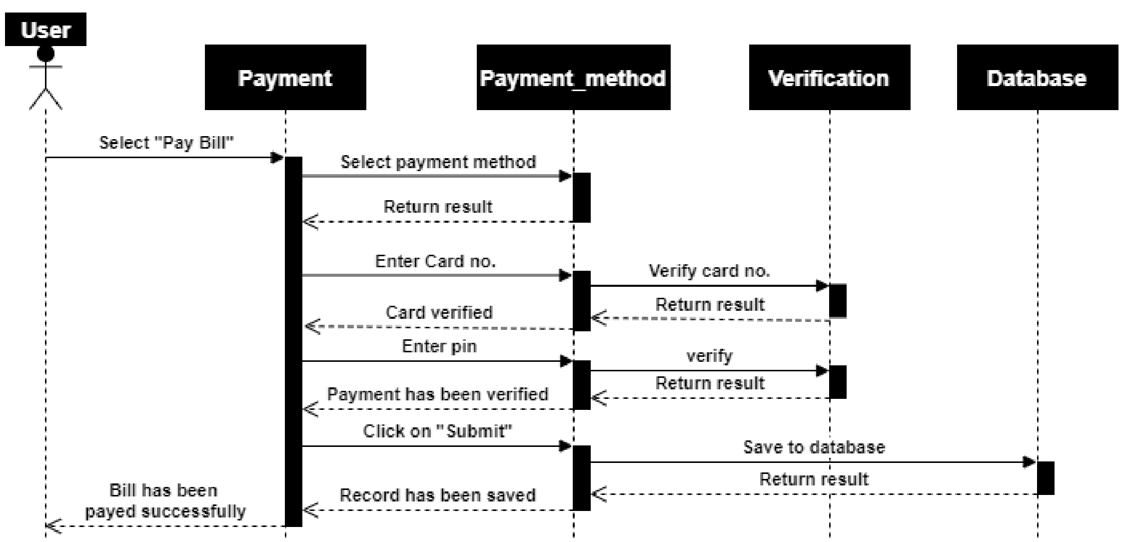

Figure 37 Sequence Diagram for Pay Order Bill

Feedback

Following sequence diagram is for Feedback.

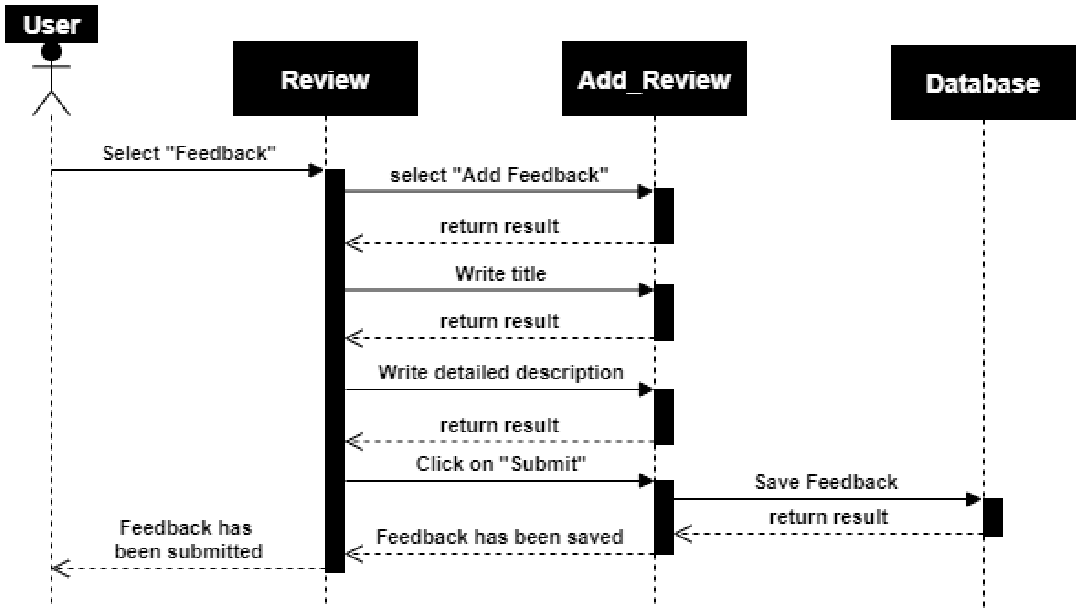

Figure 38 Sequence Diagram for Feedback

Add Customer

Following sequence diagram is for Admin Add Customer.

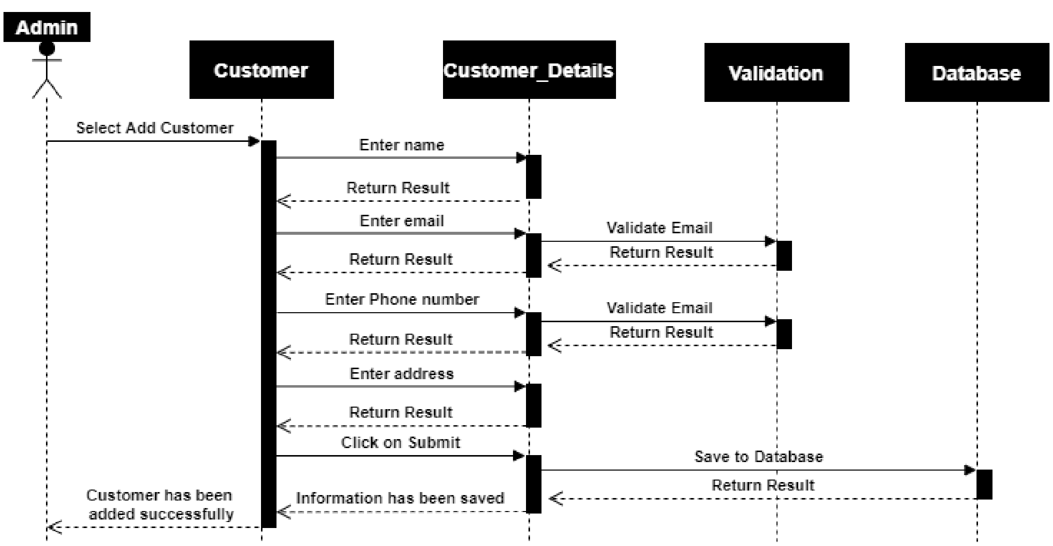

Figure 39 Sequence Diagram for Add Customer

4.2.3 Class Diagram

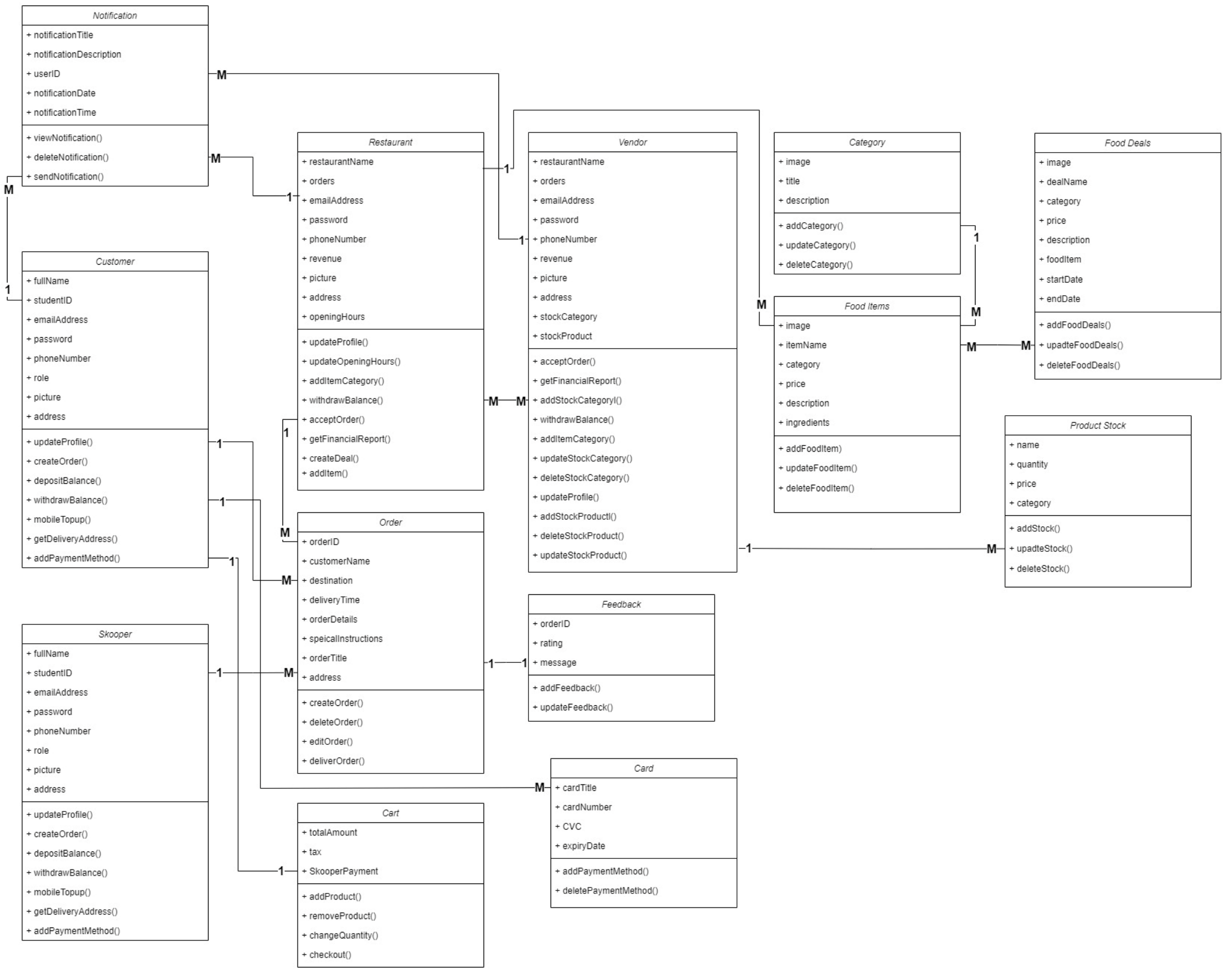

Figure 40 Class Diagram

4.3 Data Design

Following are the Data Design of the system.

.

4.3.1 Data Dictionary

The following table shows the data dictionary of Skoop.

Table 388:Data Dictionary

Name	Data Type	Description
Name	String	Used for storing the names and titles
Student ID	Integer	Used to store the student ID of the customers and skoopers.
Phone number	String	Used to store the phone numbers of the users
Image	Buffer	Used to store the image of the users
Password	String	Used to store the password of the users
Email	String	Used to store the email of the users
Role	String	Used to store between the roles i.e. customer or skooper
Address	String	Used to store the address of the user.
Restaurant Name	String	Used to store the name of the restaurant,
Revenue	Integer	Used to store the revenue of the restaurant
Opening Hours	Time	Used to store the opening hours of the restaurant
Orders	Integer	Used to store the number of orders of a restaurant
Order ID	Integer	Used to store the ID of a particular order
Destination	String	Used to store the delivery destination of an order
Delivery Time	Time	Used to store the delivery time of an order
Order Details	String	Used to store the order details of an order

Special Instructions	String	Used to store the special instructions regarding an order
Total Amount	Integer	Used to store the total amount of the order
Tax	Integer	Used to store the tax on an order
Skooper Payment	Integer	Used to store the amount to be paid to the skooper on an order
Card Title	String	Used to store the name of the card owner
Card Number	String	Used to store the number of the card
CVC	String	Used to store the CVC of the card
Expiry Date	Date	Used to store the expiry date of the card
Item Name	String	Used to store the name of the food
Category	String	Used to store the category of the food
Price	Integer	Used to store the price.
Ingredients	String	Used to store the ingerdients used in the food
Deal Name	String	Used to store the deal name created by the restaurant
Deal Category	String	Used to store the category of the deal
Start Date	Date	Used to store the start date of a deal
End Date	Date	Used to store the end date of a deal

4.3.2 Schema

Schemas used in Skoop are shown below.

Customer Schema

```
var mongoose = require('mongoose');
var passportLocalMongoose = require('passport-local-mongoose');
var Schema = mongoose.Schema;

var Customer = new Schema({
	student_id: {
```

```
			type: String,
			default: '',
		},
		role: {
			type: String,
			default: 'customer',
		},
		email: { type: String, default: '' },
		phone_number: {
			type: String,
			default: '',
		},
		balance: {
			type: Number,
			default: 0,
		},
		fcm: {
			type: String,
			default: '',
		},
		full_name: { type: String },
		picture: { type: String, default: '' },
		tips: { type: Number, default: 0 },
		rides: { type: Number, default: 0 },
		rating: { type: Number, default: 0 },
		reviews: { type: Number, default: 0 },
		latitude: { type: 'String', default: '' },
		longitude: { type: 'String', default: '' },
});

Customer.plugin(passportLocalMongoose, {
		usernameField: 'email',
});

module.exports = mongoose.model('Customer', Customer);
```

Food Categories Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var FoodCategory = new Schema({
		title: { type: String, default: '' },
		descroption: { type: String, default: '' },
		image: { type: String, default: null },
		restuarant: { type: mongoose.Types.ObjectId, ref: 'Restaurant' },
});
```

```
module.exports = mongoose.model('FoodCategory', FoodCategory);
```

Food Deals Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var FoodDeals = new Schema(
	{
		title: { type: String, defualt: '' },
		price: { type: Number },
		description: { type: String, defualt: '' },
		images: [String],
		food_items: {
			type: [
				{
					item: {
						type: mongoose.Types.ObjectId,
						ref: 'FoodItem',
					},
				},
			],
		},
		starting_date: { type: Date, default: Date.now },
		ending_date: { type: Date, default: null },
	},
	{ timestamps: true }
);

module.exports = mongoose.model('FoodDeals', FoodDeals);
```

Food Items Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var FoodItem = new Schema({
	name: { type: String, defualt: '' },
	price: { type: Number },
	ingredient: { type: String, defualt: '' },
	description: { type: String, defualt: '' },
	food_category: {
		type: mongoose.Types.ObjectId,
		ref: 'FoodCategory',
	},
	images: [String],
```

```
	restaurant: { type: mongoose.Types.ObjectId, ref: 'Restaurant' },
});

module.exports = mongoose.model('FoodItem', FoodItem);
```

Notifications Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var NotificationCustomer = new Schema(
	{
		user: {
			type: mongoose.Types.ObjectId,
			ref: 'Customer',
		},
		message: {
			type: String,
		},
		read: {
			type: Boolean,
			default: false,
		},
	},
	{ timestamps: true }
);

module.exports = mongoose.model('NotificationCustomer', NotificationCustomer);
```

Order Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var Order = new Schema({
	restaurant: { type: mongoose.Types.ObjectId, ref: 'Restaurant' },
	scooper: { type: mongoose.Types.ObjectId, ref: 'Customer' },
	customer: { type: mongoose.Types.ObjectId, ref: 'Customer' },
	address: { type: mongoose.Types.ObjectId, ref: 'DeliveryAddress' },
	amount: { type: Number, default: 0 },
	status: { type: Number, default: 0 },
	delivery_charges: { type: Number, default: 0 },
	type: { type: String, default: 0 },
	tip: { type: Number, default: 0 },
	payment_method: { type: String },
	special_instructions: [String],
});
```

```
module.exports = mongoose.model('Order', Order);
```

OTP Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var Otp = new Schema(
	{
		token: { type: String },
		email: { type: String, default: '' },
	},
	{ timestamps: true }
);

Otp.index({ createdAt: 1 }, { expireAfterSeconds: 3600 });
module.exports = mongoose.model('Otp', Otp);
```

Payment Method Schema

```
var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var Payment_Method = new Schema({
	card_title: {
		type: 'String',
	},
	card_number: { type: Number },
	cvc: { type: Number },
	expiry_date: {
		type: 'String',
	},
	user: {
		type: mongoose.Types.ObjectId,
		ref: 'Customer',
	},
});

module.exports = mongoose.model('Payment_Method', Payment_Method);
```

Restaurant Schema

```
var mongoose = require('mongoose');
var passportLocalMongoose = require('passport-local-mongoose');
var Schema = mongoose.Schema;
```

```
var Restaurant = new Schema({
	restaurant_name: {
		type: String,
		default: '',
	},
	email: { type: String, default: '' },
	phone_number: {
		type: String,
		default: '',
	},
	description: {
		type: String,
		default: '',
	},
	balance: {
		type: Number,
		default: 0,
	},
	food_categories: [String],
	fcm: {
		type: String,
		default: '',
	},
	opening_hours: {
		type: [
			{
				day: {
					type: 'String',
				},
				time: {
					type: 'String',
				},
				availability: {
					type: Boolean,
					default: false,
				},
			},
		],
	},
	address: { type: String, default: '' },
	picture: { type: String, default: '' },
	cover_photo: { type: String, default: '' },
	open: { type: Boolean, default: false },
	latitude: { type: 'String', default: '' },
	longitude: { type: 'String', default: '' },
	orders: { type: Number, default: 0 },
```

```
    sales: { type: Number, default: 0 },
    plan: { type: 'String', default: '' },
    plan_ending_date: { type: Date, default: null },
});

Restaurant.plugin(passportLocalMongoose, {
    usernameField: 'email',
});

module.exports = mongoose.model('Restaurant', Restaurant);
```

4.4 User Interface

Following are the functionality of the system from the user's perspective.

4.4.1 Screen Images

Admin Dashboard

This screen shows the main screen the admin will see, admin have a left sidebar to navigate other screens, a notification button a search bar which will search any component and users, then there are some major statistics and new users who joined the system.

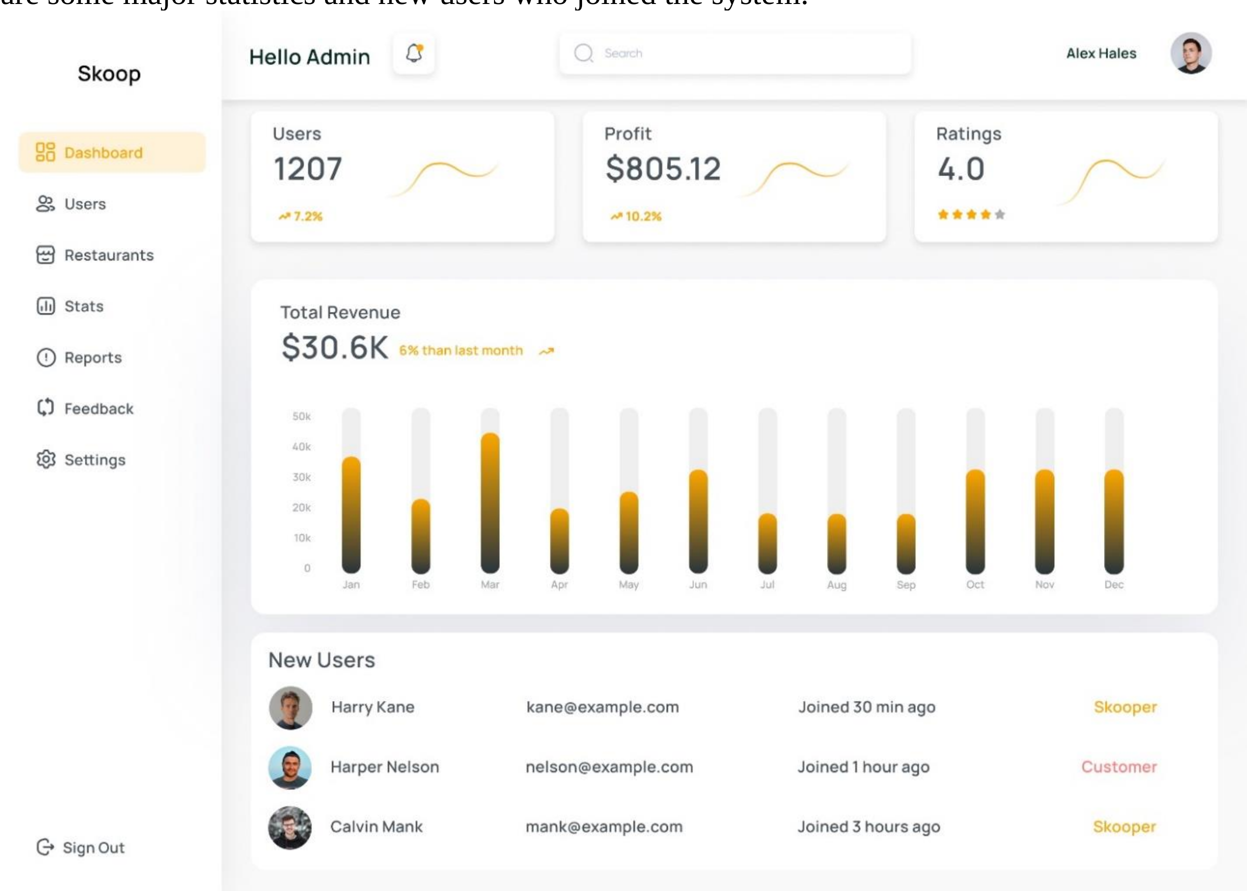

Figure 40 Admin Dashboard Screen

Customer Cart Screen
This screen will be the first screen the user will see after logging into the system, he have a cart button, notification button and featured restaurants at the top and then the Restaurants based on their category, which will be swiped right or left to view more and then he has a bottom navigation bar.

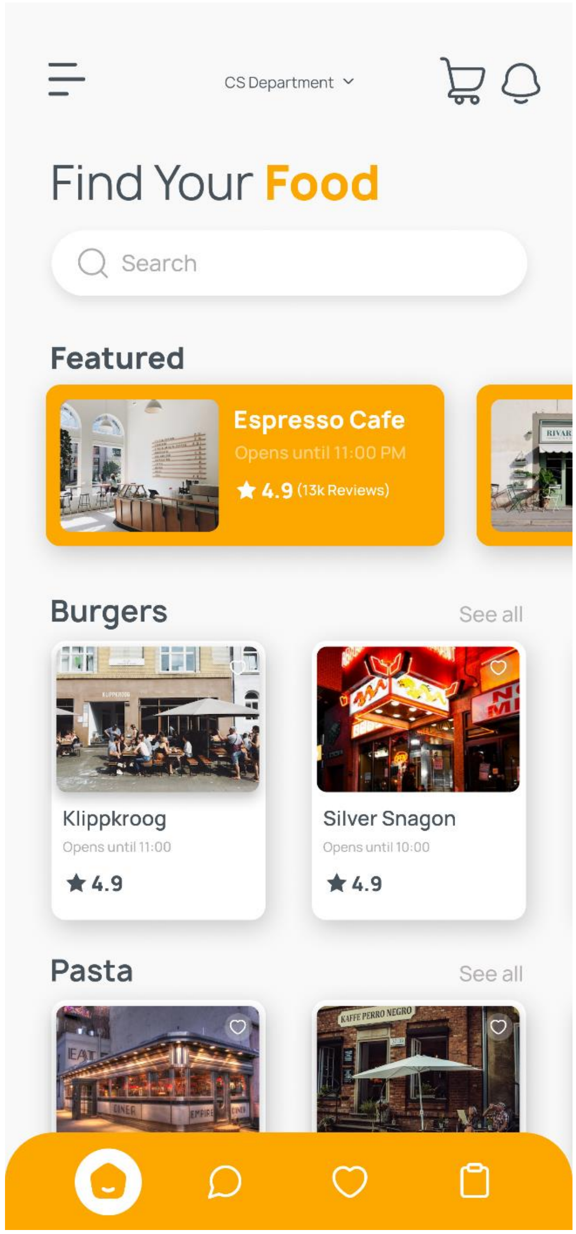

Figure 41 Customer Dashboard Screen

Customer Checkout Screen
This screen contains the delivery and self pickup sub-options and on delivery first the user will select the address than a text field to enter special instructions for food or about delivery. A Payment Method will be selected by the customer, he can see the total amount along tax and can increase the tip for the skooper and press pay button to confirm the order.

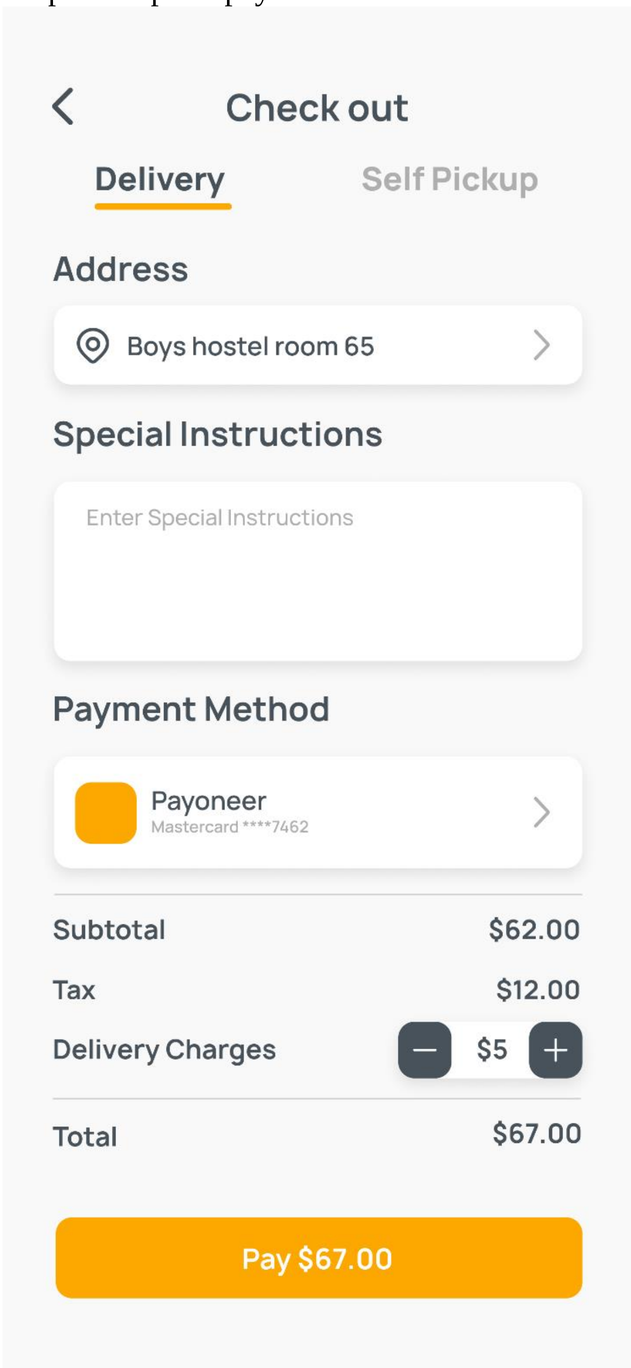

Figure 42 Customer Checkout Screen

Restaurant Dashboard Screen

The first screen restaurant will be after logging in where he have a burger icon to open the side drawer, a notification button to see the notifications, than statistics based on different time(eg: daily, weekly, monthly, etc.) and latest orders from the customers. A navigation bottom bar to navigate to other screens.

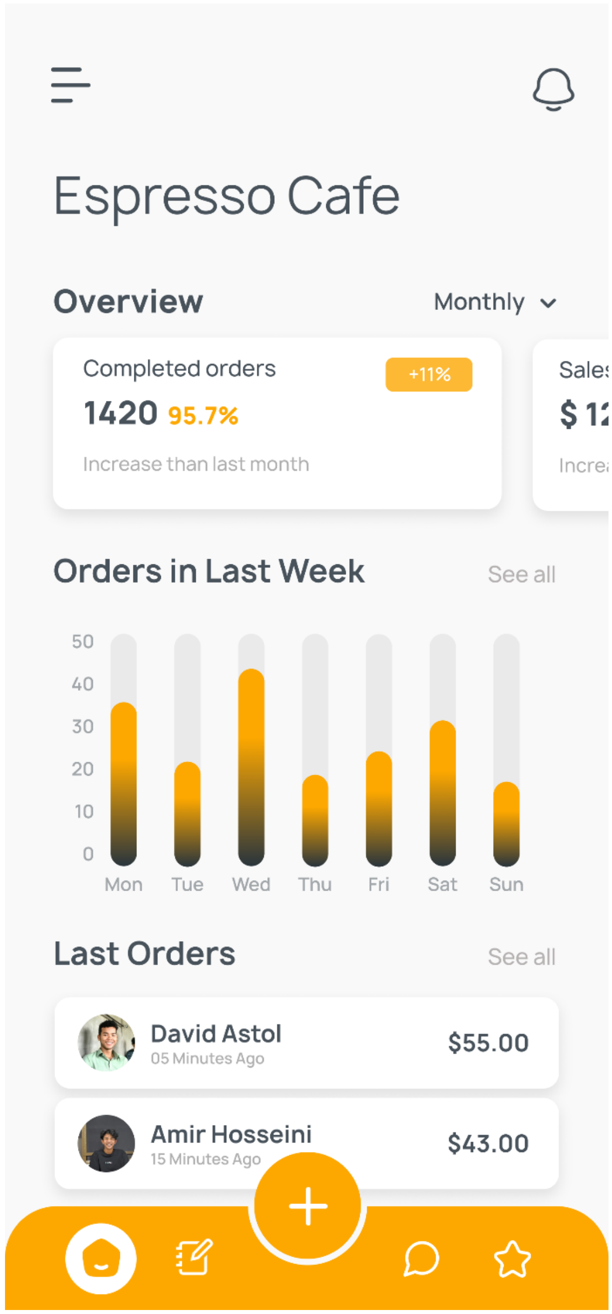

Figure 43 Restaurant Dashboard Screen

Add Item Screen

The restaurant will be able to add the food item here, first add a picture from the gallery, then enter the name of the item, select its category, enter price, description and ingredients of the item and lastly the item will be added by clicking the add button.

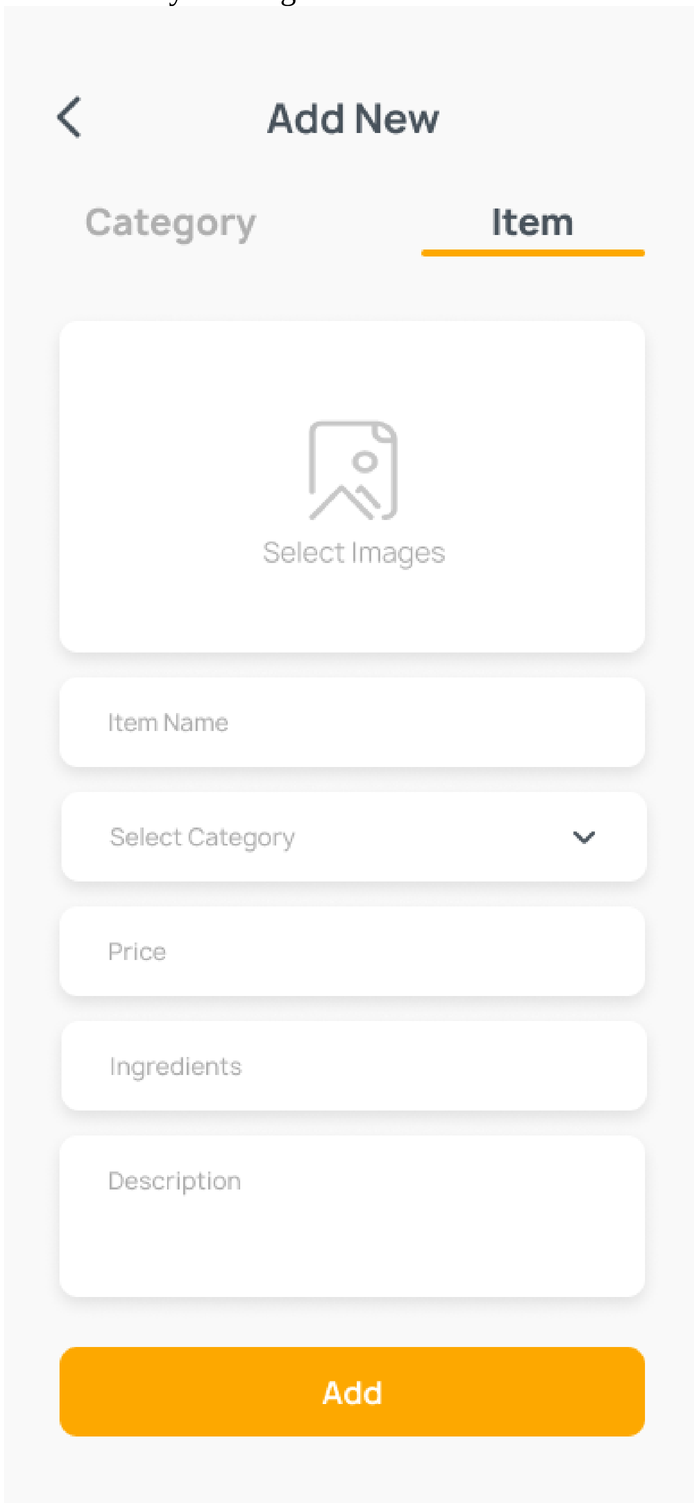

Figure 44 Add Item Screen

Ride Request Screen

When the skooper turns on his availability, he will start getting offers from different restaurants near him and he will see this screen where he can see the details related order and pickup and dropoff location. He will be able to accept or decline the offer.

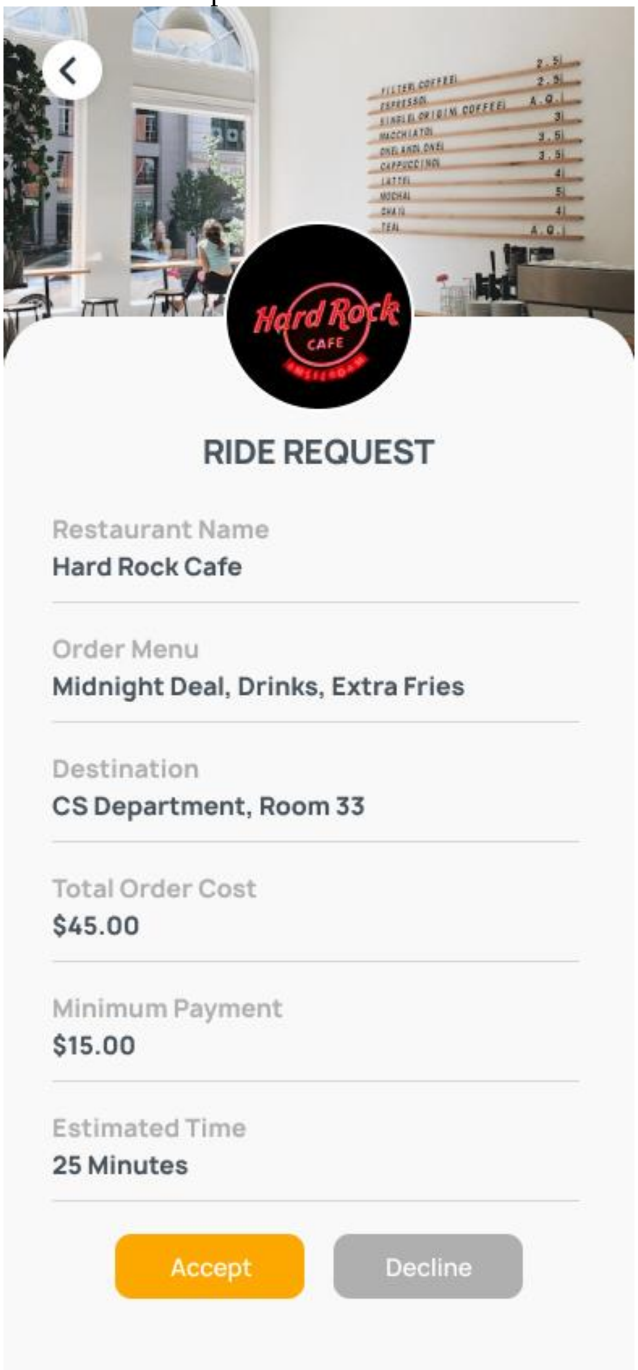

Figure 45 Ride Request Screen

4.5 Screen Objects and Actions

Following are the Screen Objects that will have specific actions:

Login Button:
Login button is used to login to the user to the application.

Bell Button:
All users will be able to see their notifications.

Add to Cart Button:
This button will add the product in the cart of the customer.

Checkout Button:
Check button will navigate the screen to the billing screen.

Pay Button:
By pressing the pay button the user's credit will be deducted and the order will be placed.

Search Button:
The users will be able to search through this button.

Profile Icon:
With this button the users will be able to customize their profiles and settings.

Add Address Button:
The new Address of the customer will be added against his account by this button.

Accept Order Button:
The Restaurant will accept the order by this button.

Order Prepared Button:
The Restaurant will complete the order and the skooper will be informed.

Order Picked Button
The skooper will press this button after picking the order and the customer will be notified that his order is picked by the skooper.

Give Rating Button:
The customer will press this button after receiving the order to give rating to restaurant and skooper.

Report Button:
Any user can report the bug or the issue in the system by pressing this button.

Feedback Button:
The feedback button will open a form for system feedback.

Message Button:
The user will be able to send a direct message with this button.

Delete Button:
The restaurant will be able to delete a product or a category with this button.

Scroll:
Users can scroll up and down.

Close Button:
User will close the forms.

Back Button:
The user will be able to navigate to the previous screen.

Calendar Icon:
The restaurant will be able to Add the date and time of their deals.

Select File Button:
Restaurant can select the file form their device.

5 Implementation

The algorithms, SDKs and APIs used in the development of Skoop are listed down and explained as follows:

5.1 Algorithm

Following are the algorithms used in Skoop:

Linear Regression:

```
# Step 1: Load the dataset
data = load_dataset()

# Step 2: Separate the features and target variable
X = data[:, :num_features]
y = data[:, target_variable_index]

# Step 3: Split the data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2)

# Step 4: Initialize the model parameters
num_iterations = 1000
learning_rate = 0.01
weights = initialize_weights(num_features)

# Step 5: Perform gradient descent
for iteration in range(num_iterations):
    # Step 5.1: Calculate predictions
    y_pred = predict(X_train, weights)

    # Step 5.2: Calculate the error
    error = y_pred - y_train

    # Step 5.3: Update the weights
    weights = update_weights(X_train, error, learning_rate, weights)

# Step 6: Evaluate the model
y_pred_test = predict(X_test, weights)
mse = mean_squared_error(y_test, y_pred_test)

# Step 7: Make predictions on new data
new_data = load_new_data()
new_predictions = predict(new_data, weights)
```

5.2 External APIs/SDKs

Following are the APIs we will be using in the proposed system.

Table 389:External APIs

Name of API and version	**Description of API**	**Purpose of usage**	**List down the API endpoint/function/class in which it is used**
Stripe (version 2022-11-15)	Credit Card payment integration	Will be used for the credit transferring	stripe.paymentMethods.create
Venmo API (v2)	Venmo integration	To enable customer to pay via Venmo	Paypal.Buttons(fundingSource = Venmo)
Zelle API ()	Zelle Integration	To enable customer to pay via Zelle	Will ask for API.
Google Route API (Version 3.53)	Map and Direction and distance from 2 points	To integrate in the Skoopeer app.	computeRouteMatrix() computeRoutes()
DiningDollar	Interuniversity Currency	To let users, pay through DiningDollar	Client will provide the API.

5.3 User Interface

The user interface screens for our system are as follows:

5.3.1 Login Screen for Web

The admin will login into his panel from this screen by providing his credentials.

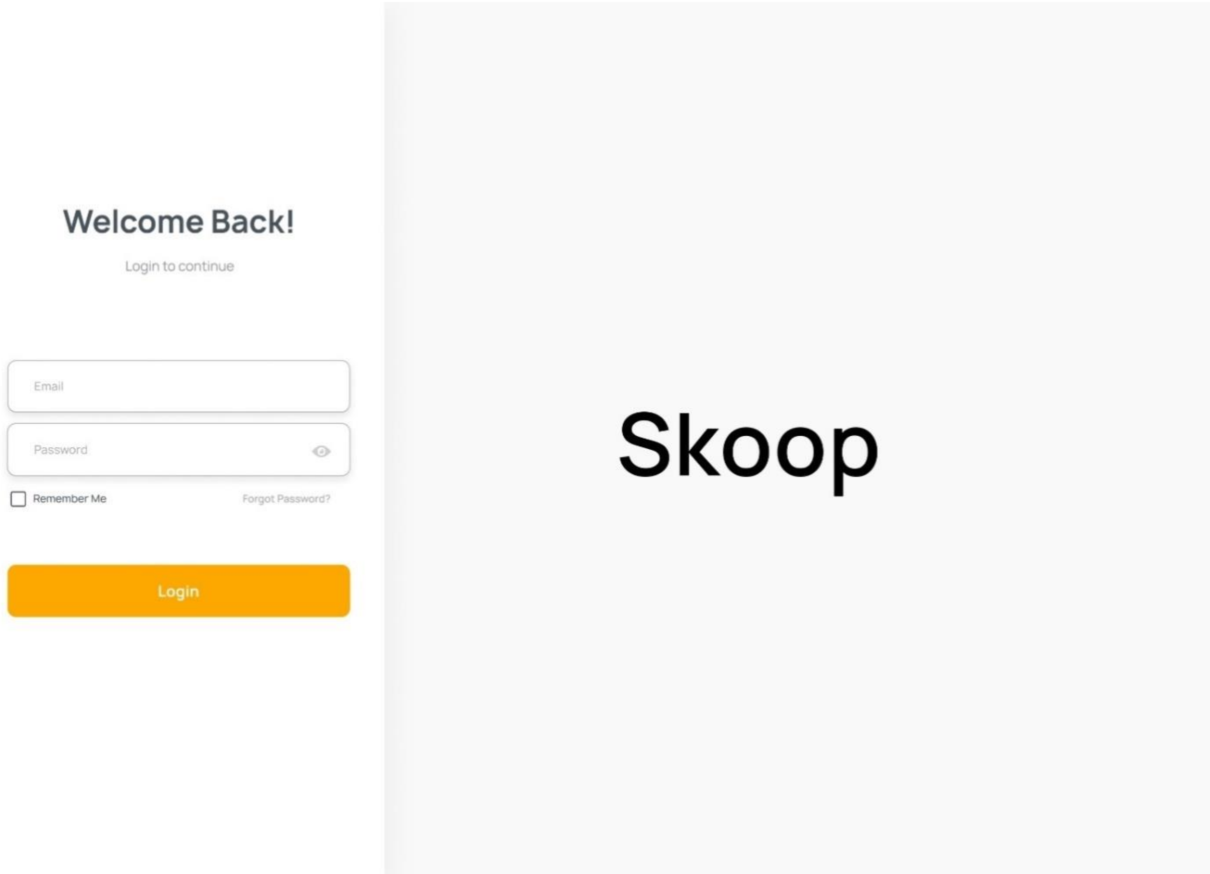

Figure 46 Admin Login Screen

5.3.2 Admin Dashboard

The Admin will see the major graphs and new users in this screen. And it's the first screen the admin will see after logging in.

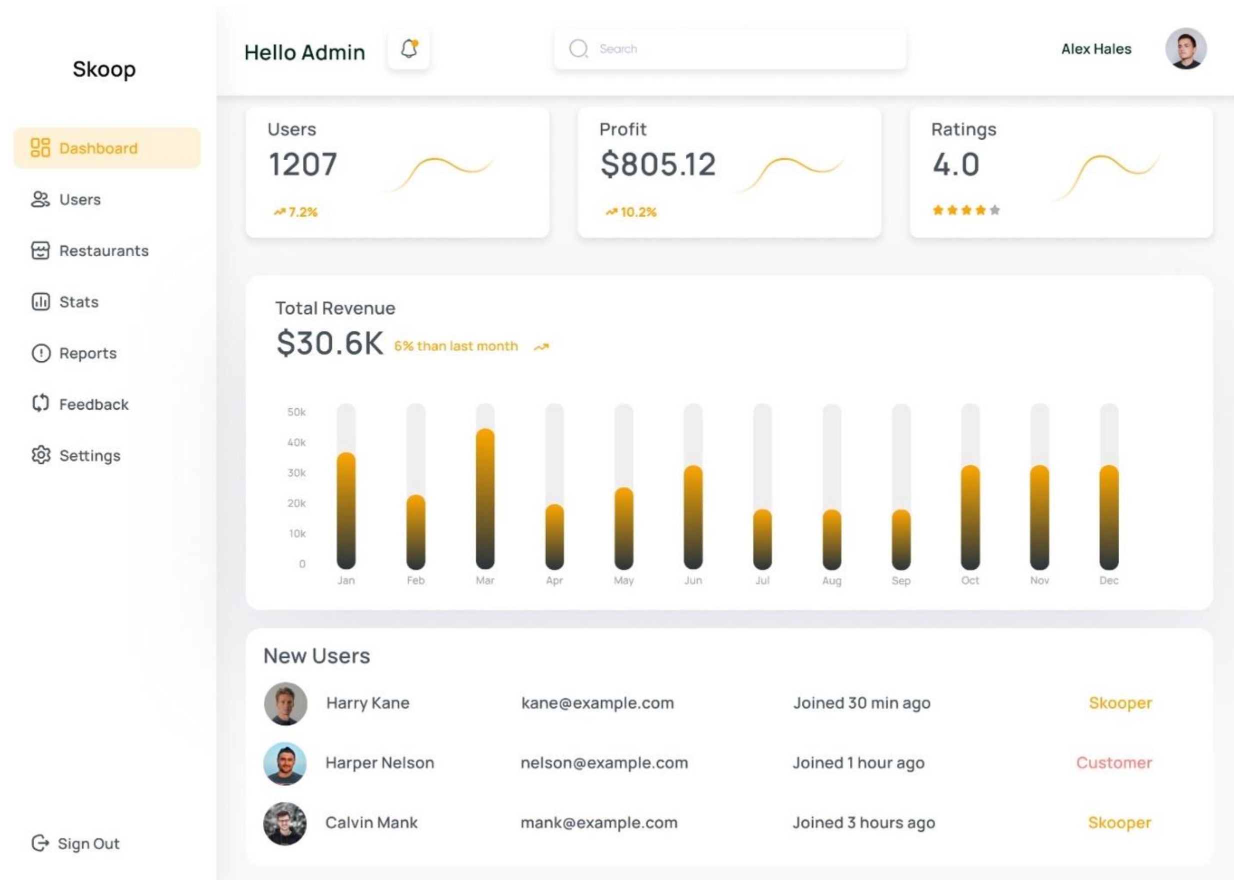

Figure 47 Admin Dashboard Screen

5.3.3 Statistics Screen

The admin will be able to view the statistics of the system from here, and on different basis by selecting form the accordion of the sidebar.

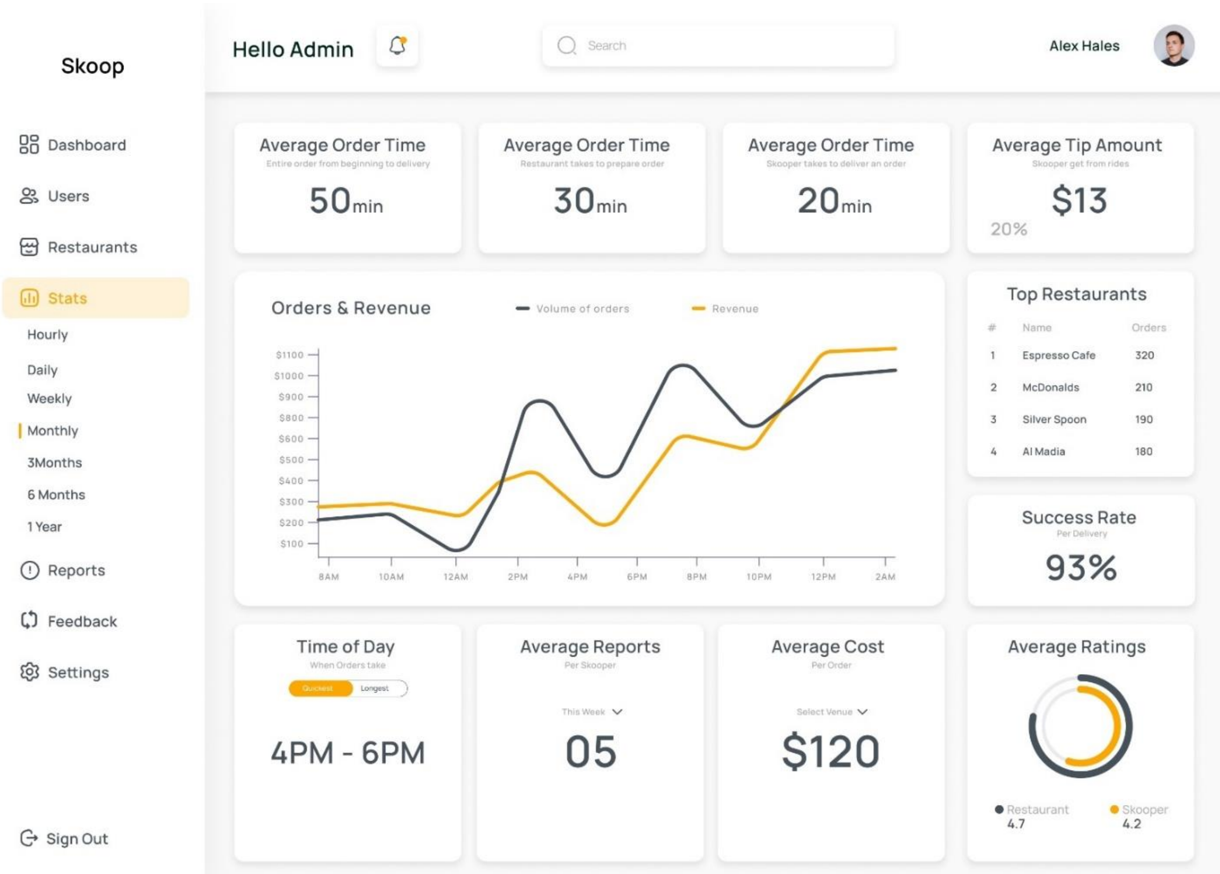

Figure 48 Admin Statistics Screen

5.3.4 Customer Details Screen

The admin will be able to view the details of the customer form here. The basic information and the Past orders of the customer.

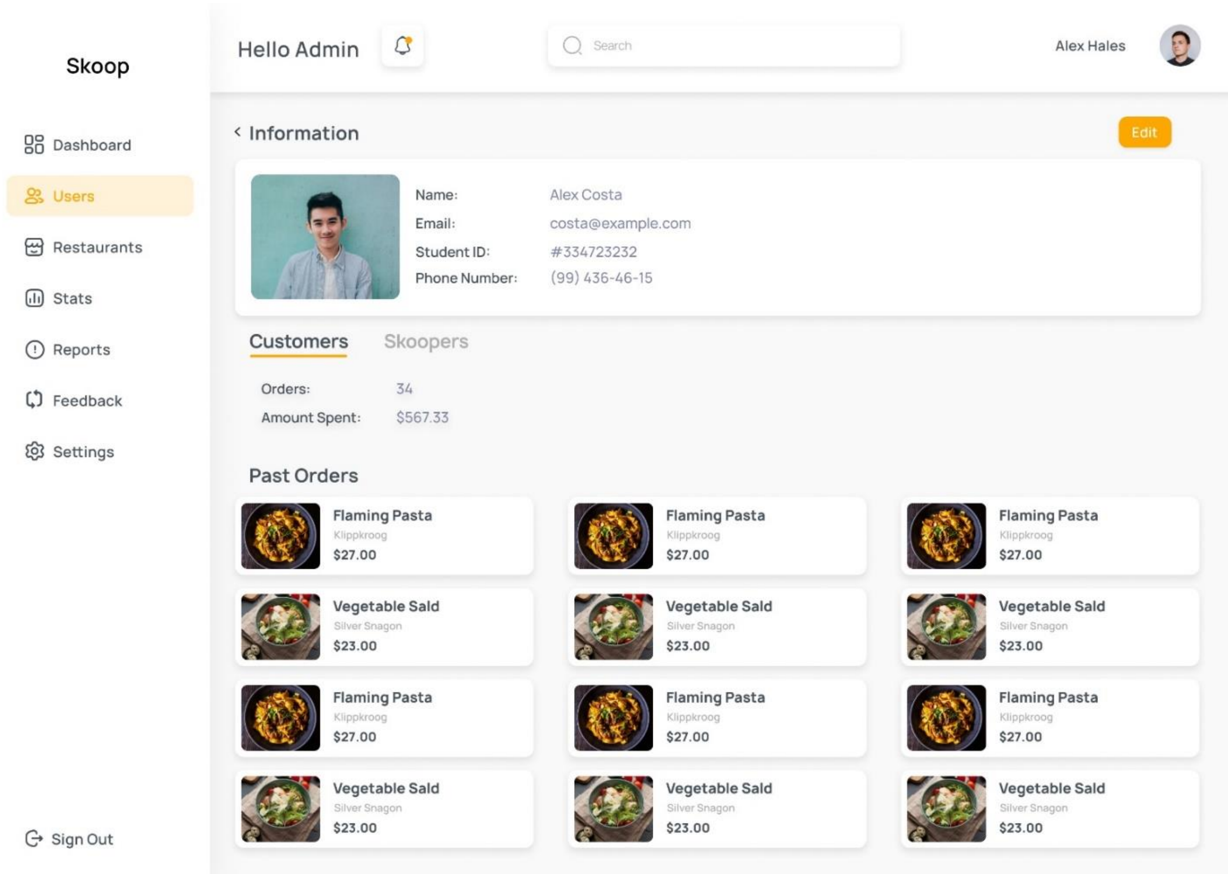

Figure 49 Customer Detail Screen

5.3.5 Customer Dashboard

The customer dashboard contains the featured restaurants at the top and all the restaurants available on the system.

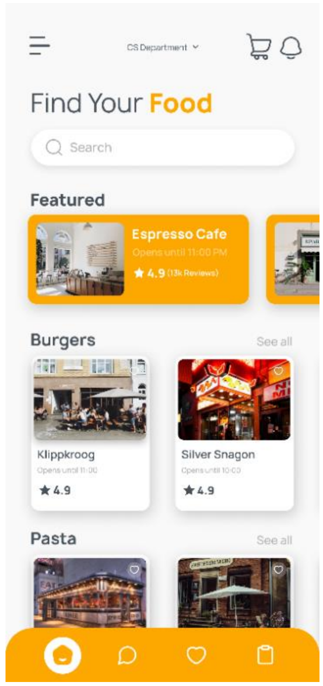

Figure 50 Customer Dashboard Screen

5.3.6 Cart Screen

The customer cart contains the food items added by the customer and on long press the user can select the items and delete it from the cart and it gets highlighted.

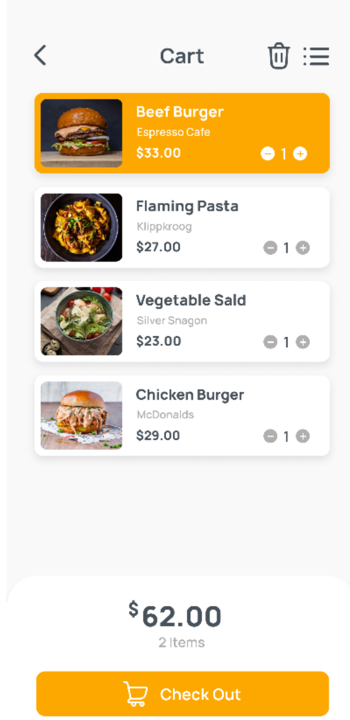

Figure 51 Cart Screen

5.3.7 Customer Dashboard

The customer dashboard contains the featured restaurants at the top and all the restaurants available on the system.

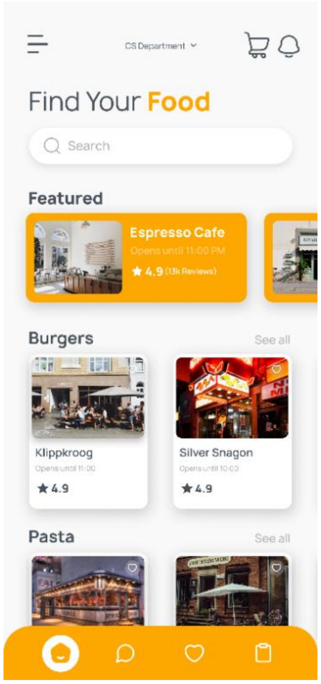

Figure 52 Customer Dashboard Screen

5.3.8 Cart Screen

The customer cart contains the food items added by the customer and on long press the user can select the items and delete it from the cart and it gets highlighted.

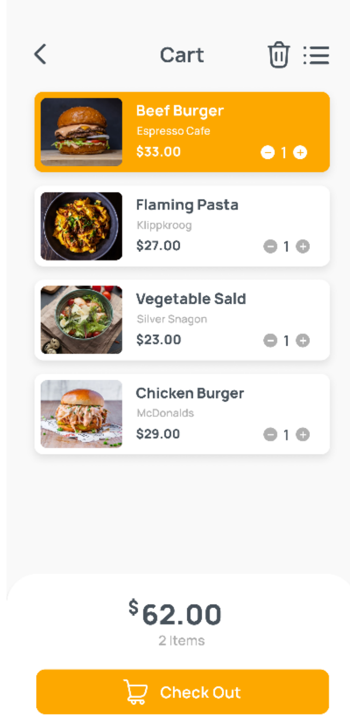

Figure 53 Cart Screen

5.3.9 Customer Checkout Screen

The customer checkout screen contains the total items, total price, tax and the tip for the skooper.

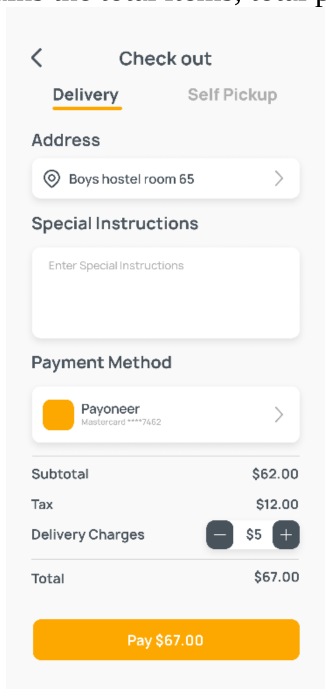

Figure 54 Customer Checkout

5.3.10 Chat Screen

The customer can message the restaurant and skooper after the order to get information.

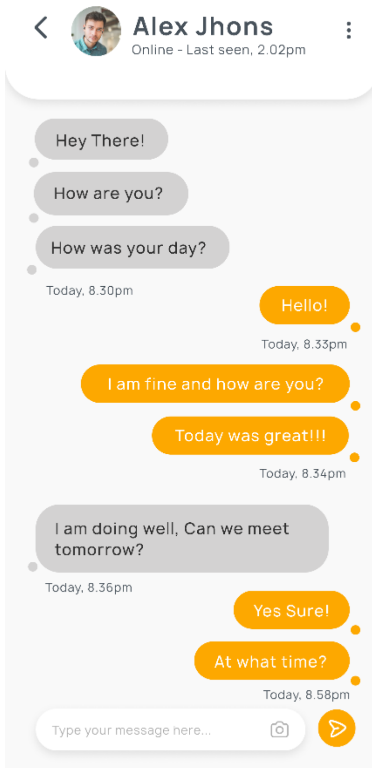

Figure 55 Chat Screen

5.3.11 Restaurant Menu Screen

The customer can see the food items of the restaurant form this screen

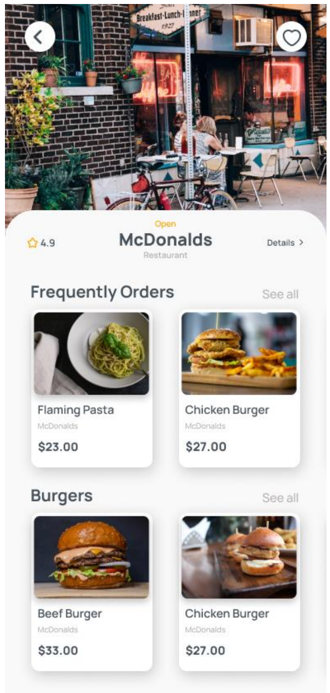

Figure 56 Restaurant Menu Screen

5.3.12 Restaurant Details Screen

The customer can see the details of the restaurant along the reviews about the restaurant.

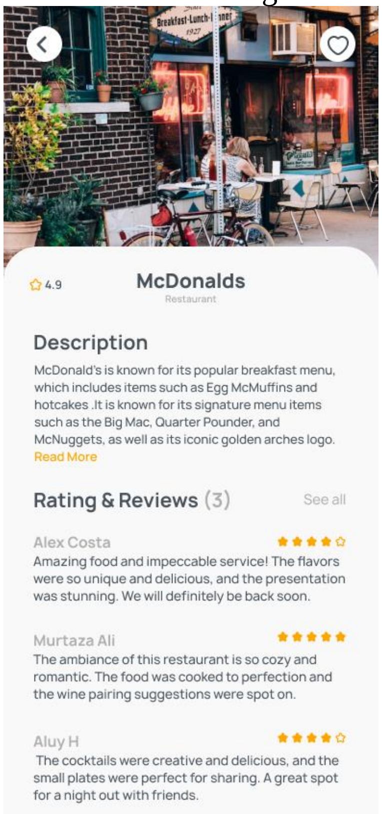

Figure 57 Restaurant Details Screen

5.3.13 Notification Screen

The Users can see the notifications of the system by clicking the notification icon.

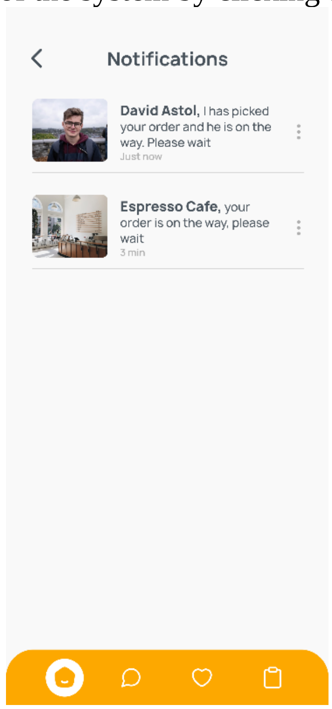

Figure 58 Notification Screen

5.3.14 Wallet Screen

The customer can view the past transactions and the remaining balance here.

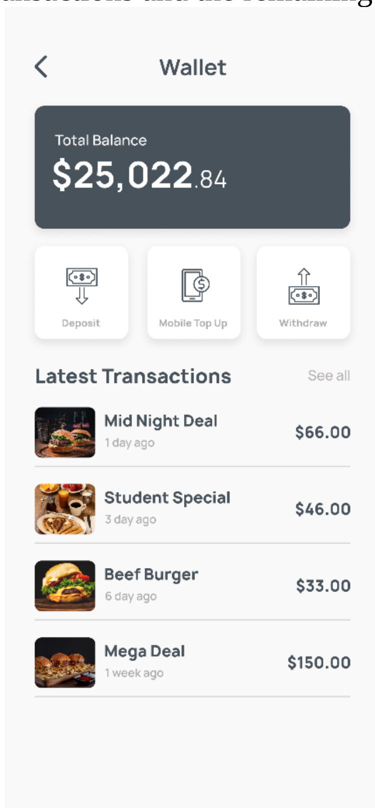

Figure 59 Wallet Screen

5.4 Deployment

Node JS Server: Used Vercel as a deployment service for the backend of our project.

Mongo DB Atlas: UsedMongo DB Atlas as a database deployment service for deploying database of our project.

6 Testing and Evaluation

Once the system has been successfully developed, testing has to be performed to ensure that the system working as intended. This is also to check that the system meets the requirements stated earlier. Besides that, system testing will help in finding the errors that may be hidden from the user. The testing must be completed before it is deployed for use.

6.1 Unit Testing

Following are the unit tests that were performed by us on our system.

Unit Testing 1: Customer Sign In

Testing Objective: To verify the successful customer sign-in functionality.

Table 390:Unit Testing 1

Serial Number	Test Case/Test Script	Attribute and value	Expected Result	Results
1	Enter valid username and password	Username: "johndoe", Password: "password123"	User should be successfully logged in	Pass
2	Enter invalid username and password	Username: "johndoe", Password: "wrongpassword"	Error message should be displayed "Invalid username or password"	Pass
3	Enter invalid username	Username: "johndoe123" Password: "password123"	Error message should be displayed "Invalid username or password"	Pass
4	Enter invalid password	Username: "johndoe", Password: "wrongpassword123"	Error message should be displayed "Invalid username or password"	Pass

Unit Testing 2: Forgot Password

Testing Objective: To verify the successful password reset functionality.

Table 391:Unit Testing 2

Serial Number	Test Case/Test Script	Attribute and value	Expected Result	Result
1	Click on "Forgot password" link	-	The user should be redirected to the password reset page	Pass
2	Enter an invalid email address	Email: "johndoe@example"	Error message should be displayed "Invalid email address"	Pass
3	Enter a valid email address	Email: "johndoe@example.com"	A password reset link should be sent to the user's email address	Pass

Unit Testing 3: Add to cart.
Testing Objective: To verify the successful addition of items to the cart.

Table 392:Unit Testing 3

Serial Number	Test Case/Test Script	Attribute and value	Expected Result	Result
1	Select an item from the menu and click on "Add to cart" button	Item: "Margherita pizza"	The item should be added to the cart	Pass
2	Select an item that is out of stock	Item: "Vegetable biryani"	Error message should be displayed "Sorry, this item is currently out of stock"	Pass
3	Select an item with a quantity greater than available	Item: "Garlic bread", Quantity: 15	Error message should be displayed "Sorry, we only have 10 units available"	Pass

Unit Testing 4: Place Order

Testing Objective: To verify the successful placement of an order.

Table 393:Unit Testing 4

Serial Number	Test Case/Test Script	Attribute and value	Expected Result	Results
1	Select items from the cart and click on "Place order" button	Items: "Margherita pizza, Garlic bread"	The order should be placed successfully, and the user should receive an order confirmation	Pass
2	Click on "Place order" button without selecting any items	-	An error message should be displayed "Your cart is empty. Please add items to your cart before placing an order"	Pass
3	Select an item that is out of stock	Item: "Vegetable biryani"	Error message should be displayed "Sorry, this item is currently out of stock"	Pass
4	Select an item with a quantity greater than available	Item: "Garlic bread", Quantity: 15	Error message should be displayed "Sorry, we only have 10 units available"	Pass

Unit Testing 5: Order tracking

Testing Objective: To verify that the app provides accurate and timely updates on the status of the customer's order throughout the delivery process.

Table 394:Unit Testing 5

Serial Number	Test Case/Test Script	Attribute and Value	Expected Result	Result
1	Confirm order status updates correctly	Order status: confirmed, Delivery time: 30 mins, Delivery partner: John Doe	App displays correct order status and delivery time, assigns correct delivery partner	Pass
2	Test order tracking during delivery	Order status: Out for delivery, Delivery time: 15 mins, Delivery partner: John Doe	App displays correct delivery partner location, updates delivery time accurately	Pass
3	Test order tracking after delivery	Order status: Delivered, Delivery time: 0 mins, Delivery partner: John Doe	App displays order as delivered, provides option to rate and provide feedback	Pass

Unit Testing 6: Payment gateway integration

Testing Objective: To verify that the app can securely and reliably process customer payments using the integrated payment gateway.

Table 395:Unit Testing 6

Serial Number	Test Case/Test Script	Attribute and Value	Expected Result	Results
1	Test payment gateway API	Payment amount: $25.00, Payment method: Credit Card, Card number: 4111 1111 1111 1111, Expiry: 12/25, CVV: 123	Payment gateway API returns success message, payment is processed	Pass

2	Test payment error message	Payment amount: $50.00, Payment method: Credit Card, Card number: 4111 1111 1111 1111, Expiry: 12/25, CVV: 123	Payment gateway API returns error message, payment is declined	Pass

Unit Testing 7: Restaurant management

Testing Objective: To verify that the app allows restaurant owners to manage their menu, prices, availability, and order fulfillment accurately and efficiently.

Table 396:Unit Testing 7

Serial Number	Test Case/Test Script	Attribute and Value	Expected Result	Result
1	Test menu update	Menu item: Margherita Pizza, Price: $12.00, Availability: Yes	App displays updated menu with correct item, price and availability	Pass
2	Test order fulfillment	Order: Margherita Pizza, Quantity: 2, Delivery time: 30 mins, Delivery partner: John Doe	App displays order as confirmed, assigns correct delivery partner, and updates status	Pass
3	Test order cancellation	Order: Margherita Pizza, Quantity: 2, Reason for cancellation: Change of plans	App cancels order, removes from order list, provides option to provide feedback	Pass

Unit Testing 8: Delivery partner management

Testing Objective: To verify that the app allows delivery partners to accept, pick up, and deliver orders efficiently and accurately while providing customers with real-time delivery updates.

Table 397:Unit Testing 8

Serial Number	Test Case/Test Script	Attribute and Value	Expected Result	Result
1	Test order acceptance by delivery	Order: Margherita Pizza, Quantity: 2, Delivery time: 30 mins	App assigns order to delivery partner, displays order details and delivery time	Pass
2	Test order pickup by delivery	Order: Margherita Pizza, Quantity: 2, Delivery time: 30 mins	App displays pickup location and updates delivery partner location	Pass
3	Test order delivery by delivery	Order: Margherita Pizza, Quantity: 2, Delivery time: 30 mins	App displays drop-off location and updates delivery partner location	Pass
4	Test delivery partner earnings	Delivery partner earnings: $50.00	App displays correct earnings for the delivery partner	Pass

Unit Testing 9: Rating and feedback

Testing Objective: To verify that the app allows customers to rate their experience with the restaurant, delivery partner, and overall app service, and provide feedback and suggestions effectively.

Table 398:Unit Testing 9

Serial Number	Test Case/Test Script	Attribute and Value	Expected Result	Result
1	Verify that a user can give a rating between 1 and 5 stars for a restaurant	Rating value: 3 stars	The rating is saved successfully for the restaurant	Pass
2	Verify that a user can leave a feedback comment for a restaurant	Feedback comment: "The food was delicious"	The feedback comment is saved successfully for the restaurant	Pass

3	Verify that the overall rating for a restaurant is calculated correctly based on all user ratings	User ratings: 4 stars, 5 stars, 3 stars, 2 stars	The overall rating for the restaurant is calculated correctly and displayed to the user	Pass
4	Verify that the feedback comments for a restaurant are displayed to the user	Feedback comments: "The food was delicious", "The service was slow"	The feedback comments are displayed correctly to the user	Pass

Unit Testing 10: Promotions and discounts
Testing Objective: To verify that the app provides accurate and reliable promotional offers, personalized recommendations, and discount codes to customers based on their preferences and past orders.

Table 399:Unit Testing 10

Serial Number	Test Case/Test Script	Attribute and Value	Expected Result	Result
1	Verify that a user can apply a promo code to their order	Promo code: "SAVE10"	The promo code is applied successfully and the discount is reflected in the order total	Pass
2	Verify that a user cannot apply an invalid promo code to their order	Promo code: "INVALIDCODE"	An error message is displayed indicating that the promo code is invalid	Pass
3	Verify that a user can view all available promotions and discounts		The user can view all available promotions and discounts in a list or grid view	Pass
4	Verify that a user can subscribe to receive promotional emails and push notifications		The user can successfully subscribe to receive promotional emails and push notifications	Pass

6.2 Functional Testing

Following are the Functional Tests of Skoop.

6.2.1 Functional testing 1: Place order

Testing objective:

To ensure that the place order functionality is working accurately.

Table 400: Functional Testing - 1

Serial No.	Test case/Test script	Attribute and value	Expected result	Result
1	Verify that the user can select items from the menu	Click on "Menu" tab	The user should be able to see the list of items available for order	Pass
2	Verify that the user can add items to the cart	Select an item and click on "Add to Cart" button	The item should be added to the cart	Pass
3	Verify that the user can view the cart	Click on "Cart" icon	The user should be able to see the list of items added to the cart	Pass
4	Verify that the user can modify the items in the cart	Click on "Edit" button next to an item in the cart	The user should be able to modify the quantity or remove the item from the cart	Pass
5	Verify that the user can place an order	Click on "Place Order" button	The user should be redirected to the order confirmation page	Pass
6	Verify that the user can select a delivery address	Enter a valid delivery address	The address should be saved for the order	Pass
7	Verify that the user can select a	Select a payment method	The payment information	Pass

	payment method	(e.g.credit card, PayPal)	should be saved for the order	
8	Verify that the user can confirm the order	Click on "Confirm Order" button	The user should receive an order confirmation with an estimated delivery time	Pass
9	Verify that the user can track the delivery	Click on "Track Delivery" button	The user should be able to see the real-time location of the delivery driver and estimated arrival time	Pass
10	Verify that the user can provide feedback on the order	Click on "Rate Order" button	The user should be able to rate the order and provide feedback	Pass

6.3 Business Rules Testing

Testing Objective:

The testing objective here is to ensure that the food delivery app meets the business rules and requirements specified for placing and fulfilling orders, including constraints on order placement time, item availability and delivery area, minimum order amount, coupon code usage, and order cancellation policies. The tests aim to verify that the app provides accurate and informative error messages and notifications to users when business rules are violated, and that it enforces the rules consistently and reliably to ensure a smooth and satisfactory user experience.

Table 401: Business Testing - 1

Serial Number	Test Case	Business Rule	Attribute and Value	Expected Result	Result
1	Verify that the user cannot place an order outside of	Orders cannot be placed before 11:00 AM or after 9:00 PM	Order placed at 10:00 AM or 10:00 PM	Error message should be displayed "Orders can only be placed	Pass

	business hours			between 11:00 AM and 9:00 PM"	
2	Verify that the user cannot order items that are out of stock	Items that are out of stock should not be available for order	User selects an item that is out of stock	Error message should be displayed "Sorry, this item is currently out of stock"	Pass
3	Verify that the user cannot order items that are not available in their delivery area	Items that are not available in the delivery area should not be available for order	User selects an item that is not available in their delivery area	Error message should be displayed "Sorry, this item is not available for delivery in your area"	Pass
4	Verify that the user cannot place an order below the minimum order amount	There should be a minimum order amount that the user needs to meet to place an order	User tries to place an order below the minimum amount	Error message should be displayed "The minimum order amount is $XX"	Pass
5	Verify that the user can apply only one coupon code per order	Only one coupon code can be applied per order	User tries to apply multiple coupon codes	Error message should be displayed "Only one coupon code can be applied per order"	Pass
6	Verify that the user cannot use an expired	Coupon codes should	User tries to apply an expired	Error message should be displayed	Pass

	coupon code	have an expiry date	coupon code	"Sorry, this coupon code has expired"	
7	Verify that the user can cancel an order within a certain time frame	There should be a time frame within which the user can cancel an order	User tries to cancel an order after the time frame has passed	Error message should be displayed "Sorry, it is too late to cancel this order"	Pass

6.4 Integration Testing

6.4.1 Integration testing 1: Place Order

Testing objective:

The testing objective of the integration testing of a food delivery app is to ensure that all the modules of the app work seamlessly together, meet the requirements, and provide a smooth and seamless user experience while performing various tasks such as adding items to the cart, placing an order, and making payments.

Table 402: Integration Testing - 1

Serial No.	Test case/Test script	Attribute and value	Expected result	Results
1	Verify successful addition of items to the cart	Select an item from the menu and click on "Add to cart" button	Item: "Margherita pizza"	Pass
2	Verify successful placement of an order	Select items from the cart and click on "Place order" button	Items: "Margherita pizza, Garlic bread"	Pass
3	Verify error message for an empty cart	Click on "Place order" button without selecting any items	-	Pass

4	Verify successful integration with payment gateway	Select items from the cart and click on "Place order" button, enter valid payment details	Payment details: Credit card number, Expiration date, CVV	Pass
5	Verify error message for invalid payment details	Select items from the cart and click on "Place order" button, enter invalid payment details	Payment details: Invalid credit card number, Expiration date, CVV	Pass

7 Conclusion and Future Work

7.1 Conclusion

The SKOOP application is a multi-role and multi-user platform designed to streamline the food delivery process on campus while providing an opportunity for students to earn extra income. The system consists of an admin, restaurants, customers, vendors, and Skoopers (delivery persons), each playing a specific role in the ordering and delivery process. The SKOOP application offers a convenient and efficient solution for on-campus food delivery, reducing costs and saving time for both customers and restaurants. By involving students as Skoopers, the app also provides a means for them to earn extra income. With its user-friendly interface and seamless order management process, SKOOP aims to enhance the food delivery experience on campus while promoting customer satisfaction and operational effectiveness. SKOOP aims to enhance the food delivery experience on campus while promoting customer satisfaction and operational effectiveness.

7.2 Future Work

In the future, SKOOP can explore paths for expansion into various areas within the food delivery industry. It can offer enhanced educational resources for Skoopers to improve their delivery skills, potentially integrating with international food delivery platforms for broader reach. Implementing advanced data analytics can further optimize the delivery process, ensuring more efficient and timely service. Collaborating with government entities to promote entrepreneurship in the food industry can also be a promising avenue. These future endeavors will allow SKOOP to continually adapt and play a significant role in shaping a brighter and more efficient food delivery landscape on campus.

8. References

Following are the References for our proposed system.

[1] https://www.grubhub.com
[2] https://www.doordash.com
[3] https://www.foodpanda.pk

9. Plagiarism Report

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