

Pancetta Restaurant Management System

**Diploma in Computer System Design
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“The project is submitted in partial fulfillment of the requirement of the Diploma of Computer System Design of National Institute of Business Management.”

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Preamble

Abstract

Pancetta PVT (LTD) company's Restaurant Management System is a project designed to initiate the development of a software application that will convert the restaurant's current manual operations to a fully automated system. The purpose of this project is to enhance the performance of all the restaurant's operations ranging from the POS screen to record orders to reservations and online deliveries and making these processes less complicated and more accurate.

Pancetta has the cashier who will be in-charge of accepting and recording orders and managing reservation and private dining room bookings. The restaurant plans to expand to three more outlets and each of these outlets will be managed by a manager whose task is to generate reports to view outlet status, manage orders, bikes assigned for riders for the online delivery process, register new employees, reservation and booking details and cancel them if required. The director of the restaurant can view the status of all the outlets as a whole and generate reports, accordingly, manage the menu items sold by the restaurant. The restaurant has a dispatcher that is tasked with assigning the online orders to the available riders in the restaurant who are either full time or part time riders. The kitchen staff of the restaurant will oversee the main task of preparing the meals provided to them through the KOT system when a cashier receives from a customer.

This project provides diagrams that will interpret the logic behind some of the functions of the restaurant like UML diagrams.

List of Keywords

- Cashier
- Manager
- Director
- Dispatcher
- Table Reservation
- VIP room booking
- Payment
- Order
- Dine in
- Online delivery
- Uber Eats
- Pickup
- Takeaway
- Order category
- Customer

List of Acronyms and Abbreviations

- KOT (Kitchen Order Ticket)
- POS (Point-of Sale)

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Acknowledgements

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We are very thankful to the management and the staff Pancetta PVT (LTD) for their coordination, cooperation, and encouragement which is given to us.

By completing this project, we did not hope to only gain marks but also to obtain a lot of experience to be successful in the I.T industry in the future.

Thank you.

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Chapter 1: Introduction

1.1 Introduction of the Organization

Pancetta PVT LTD is a restaurant specializing in bacon dishes, opened in the Cinnamon Gardens neighborhood of Colombo on December 23.

One of the highlights of Pancetta is its diverse food menu, which offers a fusion of flavours from different cuisines, including Sri Lankan, Mexican, English, Italian, and Chinese, all with a creative twist of bacon. It's a unique concept that sets Pancetta apart from other restaurants in the area.

Pancetta is co-owned by Nadil Dilsara Dela Wijayawardena and Nadun Chiranjaya Dela Wijayawardena, who upon seeing a lack of pork-centric restaurants in the country, decided to fill this niche in the market with Pancetta.

1.2 Organization structure

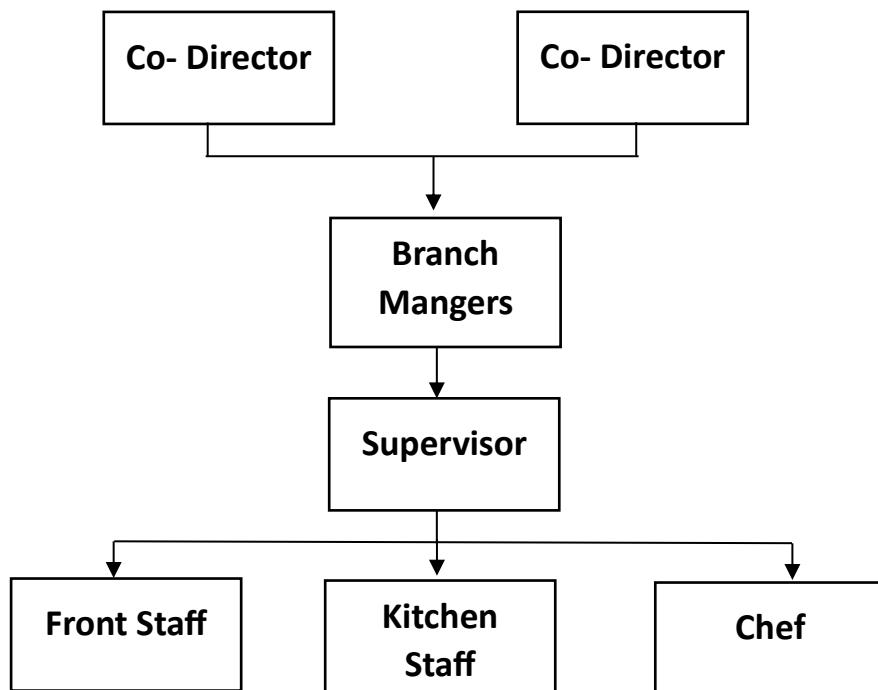


Figure 1 Organization Structure of Pancetta PVT (LTD)

1.3 Current Operations in the Organizations

- POS system:**

Presently, Pancetta PVT LTD operates with a partially implemented restaurant management system. The POS system is Pancetta's main system that is handling a few of the main restaurant operations like taking orders and handling the payment checkout. It can also display the number of tables available in the restaurant and check whether they are reserved or not, same with the rooms. The current POS system can also generate reports.

- Table reservation and Room booking System:**

The restaurant consists of a Reservation process which depends on reservations made via third-party websites like MyTable.com. The restaurant does not have their own reservation system to support reservations and is dependent on these third-party websites to receive reservations from customers and customers can also visit the restaurant to make a reservation. These reservation details are manually added to a diary and are referred to a later date when needed. This same process is also used for room reservations made by customers for private dining.

- Online Delivery System:**

The restaurant also has a similar operation to their online delivery system. The restaurant manages online deliveries by depending on third-party sites like Uber Eats. The restaurant does not have an interface or platform that supports online ordering for customers. Customers must place orders through Uber Eats. To manage orders from Uber Eats, the restaurant records the order details onto a piece of paper and sends the details to the kitchen for preparation and hands over the order to the Uber delivery driver to be delivered to the customer. The reason for the use of pieces of paper is due to the current POS system not being integrated with the Uber orders.

- KOT system:**

The POS system is integrated with the KOT system so when orders arrive to the POS, they will be sent to the Kitchen screen through a KOT. Sometimes, the process is done manually due to system errors that occur often.

1.4 Users and Responsibilities in the Organization

Director: The director can monitor all the functions of the restaurant as a whole by combining all the information from all the outlets the restaurant plans to open, which is considered his main function. In addition, the director also handles certain operations of the restaurant like the Menu item management where he can add, update and delete menu items. The director can also generate reports that will allow him/ her to make effective business decisions.

Manager: The manager will be assigned to an outlet to manage, and the tasks of a manager will be ordering management which will be done through the application. Any cancellations made for the order or reservation will be handled by the manager. Likewise, the manager can also generate reports that are made specific to the outlet the manager operates in. The manager will also oversee handling the bikes that belong to the outlet as well as being outsourced by the riders employed into the restaurant.

Cashier: The cashier will be in-charge of the POS system/ screen. Any order that needs to be made will be taken by the cashier and recorded into the POS system. The cashier, through his application screen, can also view the status of the rooms and tables in the restaurant and make reservations and private dining room books as well.

Dispatcher: The dispatcher will be in- charge of assigning delivery orders to the riders whose status is available to deliver the order to the relevant customer. He handles the entire internal delivery system.

Riders: The riders are assigned to deliver food orders to the customer.

Kitchen Staff: They oversee preparing food orders made. The kitchen staff can interact with their application screen to view the orders that need to be made first and even view the recipe of the menu items they must prepare.

Waiter: They are assigned to serve food to the customers at the tables in the restaurant.

1.5 Problem Definition

The current problems faced by Pancetta PVT LTD are as mentioned below:

Reservation system

The reservation system of Pancetta PVT LTD is currently a manual system. If a customer visits the restaurant to make a reservation, the details are recorded manually on a diary and on the day the reservation was made for, the necessary arrangements are made (having the tables and the seating plan arranged according to the number of guests arriving).

As the system is manual, any physical record of the reservation is likely to be misplaced which would further cause more problems for the restaurant.

Moreover, the restaurant does not currently have its own platform to allow customers to make reservations online. The restaurant receives reservations from third-party websites like MyTable.com. Any reservation made online on these sites will only be notified to the account of the restaurant on the website and not to the restaurant management system.

In addition, apart from reserving tables, customers can also reserve VIP rooms for private dining. Pancetta PVT LTD currently doesn't have a proper reservation system that supports reserving VIP rooms. The restaurant will record the private dining reservations into a diary. The payments made for these private dining and table reservations are handled manually by the restaurant and don't include the involvement of the system. In the result, the income earned by the reservations must be manually calculated which affects accuracy and it will be difficult for the restaurant to keep track of these payments.

Online Ordering and Delivering Process

Pancetta PVT LTD currently doesn't have an web-interface nor a system of their own to support online deliveries and online orders. Customers are unable to view the menu offered by the restaurant and make any online payment for the food ordered.

The restaurant depends on third party sites like Uber Eats to collect online orders from customers. The main problem in this is that the restaurant will have to pay commission to Uber or any other third-party delivery website and further, these sites will make it very costly for Pancetta's customers so it will greatly disadvantage the restaurant and the customers.

Moreover, any order that the restaurant receives from Uber Eats is notified to the Uber Eats account of Pancetta. Uber orders are manually maintained and there is no integration with the internal system. The staff must write down the details of the order manually on to a piece of paper and provide it to the kitchen for the meal to be prepared.

POS system

The POS system of Pancetta is a partially implemented computerized system which means that it tries to manage all the restaurant operations but there are limitations with data management, entering and retrieving order information and report generation.

The POS system has existed for around 6 months but due to a power failure that occurred 2 months ago, the entire system reset which led to database errors and system failure. As of now, the restaurant's POS system does not have a method to restore its previous data.

Due to this power failure, the POS system now has issues when generating bills. The name and address of the restaurant doesn't get printed on the bill along with some other issues like not automatically being able to add the service charge. In their current system, the service charge had to be manually added from the screen and then generated to the bill.

Furthermore, the POS screen also displays the tables available in the restaurant along with its status however, after a system failure that occurred recently, the arrangement of the tables changed and their unique identification number for each table has

changed. Example: The table which had an identification number A10 had changed to B01 which never existed before.

The POS system also has an issue with properly connecting with the KOT system which is also a result of the power failure. Orders entered to the POS are not integrated properly into the KOT. Not all, but some of the orders are not shown in the KOT and for this reason, the staff notes down the order on a piece of paper and sends it to the kitchen.

Scalability issues

Pancetta PVT LTD has a big customer base and to accommodate this, they plan to open a new outlet. The problem is that the existing system situated in the current restaurant is not able to manage the new data and information from the other outlets as it will cause further data errors and crashes. The database links and connections need to be remade to support the expansion of the restaurant to a new outlet.

Moreover, the processes that are performed manually like reservations and booking will be more complicated when newer outlets are introduced. and the maintenance and management of these manual documents and data from multiple outlets will be very costly and difficult.

Customer Relations System

Pancetta PVT LTD is a restaurant with a large customer base but the restaurant misses out on managing all their customers. The restaurant does not manage customer information manually or digitally. This is a big issue because they miss out on monitoring their customer behavior, buying patterns and identifying the customer base. With this reason, the restaurant is unable to find loyal customers and give out loyal promotions and discounts. Inability to observe the customer behavior leads to a loss of gaining customer experience and feedback which results in not being able to offer a better service for customers, personalized marketing will be impossible as the restaurant cannot tailor their food items to specific individuals.

1.6 Project Objectives

Efficient Order management: By creating a POS system that will be fully functional, order processing and management will be efficient. An order from the customer can be placed within a short period of time and order details can be retrieved later for efficient management. Orders can be sent to the Kitchen screen through the KOT without any errors.

Accurate and efficient way to keep track of payments: With a proper database structure, payments can be stored more efficiently allowing the managers and directors to track which payments were made for which order or reservation, how much was earned and how the payment was made.

Improve scalability: As the restaurant plans to expand to three new outlets, a proper database architecture will allow for all the outlets to perform its operations efficiently.

Increased Accuracy and Reliability: When the manual system converts to a fully automated system, data errors will be limited. Physical storage and usage of papers and notes to store details (file-based data storages) will lead to more inaccuracies than a fully automated system.

1.7 Proposed Solution

To solve the issues mentioned above, we propose to totally remove all existing systems and make a new restaurant management system including a few enhancements to the old system and introducing newer functionalities to the restaurant system through a web application. This web application will perform and support all the functions that take place in a restaurant. Monitoring, report generation, online delivery, ordering, reservation, table management, POS and KOT system will all take place in this web application. The web application will have logins for various users like cashier, manager, customer etc. Our proposed solution will support multiple outlets and all of the data from the operations in these outlets are stored into one database which is hosted on the cloud. Since the data is in the cloud, it will not be affected by any power failures and shortages. Finally, the new solution that we proposed will overcome the difficulties of the existing system.

Below, we have highlighted the problems mentioned above and briefly pointed out and explained what we propose to solve those issues.

Reservation System Enhancements:

We propose to implement and enhance the reservation system which can support both walk-in reservations and online reservations.

To support online reservations, we propose implementing a web-based reservation platform for the restaurant to allow customers to make reservations, book tables and book private dining rooms.

This removes the requirement of the diary as the details from these reservations are virtually entered and stored to the databases through the web-application. This also eliminates risks like misplaced reservation details because now that the data for these reservations are stored online, data about a reservation can be retrieved easily rather than manually searching for a reservation detail through a diary.

The system we propose will also provide an SMS or Email confirmation to the customer when his reservation has been confirmed. Our solution also includes a centralized database in the cloud so the restaurant can improve their customer service and manage the data of the reservations without any errors or losses.

Proposed New Delivery System:

We proposed creating an online web-platform on the restaurant management system which will manage online deliveries.

With this, the service of online deliveries will be provided by the restaurant, which reduces the reliance on third-party delivery services but, in our old system, the Uber deliveries had not been integrated however, in our new system, Uber orders is integrated with the POS system. The way this works is, when the restaurant receives an order from Uber, the cashier can select the Uber category under the Order type and place the order through the POS system. With this new solution, the new system can handle both online delivery orders from Uber and online orders made directly to the restaurant through the website.

Since the internal online delivery platform has been introduced, the restaurant is now not fully dependent on third-party websites which also eliminates commissions on third-party websites and a better cost will be provided to the customers which benefits the restaurant as well.

Proposed New Online Ordering System:

We propose to implement a website to support online ordering by providing the restaurant menu so customers can view the menu items and prices online. The customer will also be able to order items through this website.

Customers can also choose whether they would prefer to have their food delivered or pick them up once the order is ready. This web application's online ordering process is directly linked with the restaurant's KOT system so the kitchen staff can easily view the order details and prepare the meal.

Through the online ordering system, the customer has the option to choose whether the payments can be made using debit/ credit card, cash on delivery or a pickup order. The proposed system will generate an E-bill once the payment has been made for online orders.

Since this proposed solution is made for the restaurant, the dependency for third party sites will be reduced and the management of Pancetta PVT LTD will be able to easily manage and analyse statistics and generate reports from online orders with more details.

POS System Enhancements:

The proposed solution will make the POS system available inside the web application and will be fully integrated and enhanced, allowing it to handle almost all the restaurant operations.

Address database errors and implement data recovery mechanisms in case of system failures. Since a recovery method is now available, it is possible for the restaurant to protect their old data.

We provide the solution to properly generate the printed bill with the restaurant's name and address. The system will also generate the service charge and add it automatically without needing to add the service charge manually.

The POS system will be integrated with the KOT system which will prevent manual written orders that are sent from the waiter to kitchen. Orders received by the POS will be sent to the Kitchen display.

Expand Scalability of the system:

Pancetta PVT LTD management plans to expand their business to a new outlet, however their current database does not support this operation. To support expansion decisions of the restaurant, we propose to rebuild the architecture of the database and its related systems to a scalable framework. This can handle and support multiple orders and data from multiple outlets in synchronization.

The database we propose to develop must be established in a centralized location and for further security and backup purposes, the database will be pushed to the cloud, so it is accessible by any outlet. Directors of the restaurant will be able to check the statistics of each outlet and the whole restaurant chain.

Proposed New Customer Relations System:

The solution we propose will consist of a customer relationship management system to manage customer information. The reason for proposing this solution is because it is a major disadvantage for Pancetta if they don't maintain customer details and information.

The information can be gathered from multiple systems from the restaurant management system like the reservation system, online ordering system and normal dining in orders and this information is stored in the relevant table of the database.

This information can be used to promote loyalty programs to the customer and retain loyal customers. Customer behavior can be tracked which will lead to enhance the customer experience and feedback can be gathered resulting in being able to offer a better service for customers. Personalized marketing is possible as the restaurant can now tailor their food items to specific individuals.

1.8 Chapter Summary

In conclusion, Pancetta PVT (LTD) is a restaurant that is based in Colombo, Sri Lanka as mentioned in the introduction of this report. The restaurant offers its best to satisfy customers by delivering an extensive cuisine of international and local dishes, all under reasonable prices. Their organization structure has also been highlighted showing the hierarchy of each employee within the organization.

The restaurant had issues with its systems like the inability to send an order to the kitchen through the KOT, bill not being processed accurately, reservations and room booking information stored manually, information currently stored in the databases is corrupted or destroyed. The restaurant does not store any information related to customers thus, they are unable to provide any promotion schemes and loyalty promotions to their customers.

To tackle these problems, a set of solutions have been highlighted above, like providing a new database structure to support their need for multiple outlets, and to assist in storing customer information. POS enhancements so orders can be stored efficiently in a meaningful way and the details can be sent straight to the kitchen. The restaurant supports table reservations and private dining room bookings and an internal delivery system so the restaurant does not need its customers to depend on third party sites like Uber Eats for online deliveries, the restaurant with this addition can track the customer's preferences from various order types in the restaurant.

By implementing these strategies, Pancetta PVT (LTD) will be able to remove the problems it faced before, reduce human error, improve order management, Resource management like Bikes for internal deliveries, reservation handling, customer relation handling and promotion handling.

Overall, the proposed software solution has the potential to significantly benefit Pancetta PVT LTD by providing an integrated system that addresses the identified challenges and helps the restaurant operate more efficiently and effectively in the restaurant industry of Sri Lanka.

2 Methodology

2.1 Introduction

This chapter will give a thorough idea as to how data was gathered from Pancetta PVT LTD to find solutions and requirements for their existing problem, Software process models, Software development tools, testing and implementation techniques that will be used to reach the solution to the existing problems. This will be a road map which will clearly define the methods and practices used to reach the solution.

2.2 Data collection methods

It is essential to gather data before trying to solve any underlying problem. To understand and solve the problem of Pancetta, multiple visits to the restaurant took place and interviews were conducted with the Director and the manager of the restaurant. A tour of the existing system was requested and once permission was granted, we were able to identify how the system operated and how an individual system ran from start to finish. The outcome of this was then decided to be converted to a solution for the restaurant.

2.3 Software Process Model

Agile Development is an incremental and iterative approach to software development which does not follow a linear approach unlike Waterfall Method. Agile Method is more flexible due to it being iterative. One task does not have to be fully completed to move on to the next, if any changes are required, the process can loop back to the point of changing and already developed part of the system.

2.4 Software Development Tools

2.4.1 Hyper Text Markup Language (HTML)

This is used to create and design web pages and applications. This language provides the base to link 2 or more webpages together and at the same time, create layouts to place text and other HTML elements within the page/ text document.



2.4.2 Cascading Style Sheets (CSS)

Cascading style sheets provide a better look and feel to the web page. It is used to adjust layouts and provide formatting to a web page consisting of only hypertext languages.



2.4.3 JavaScript

This is a lightweight object-oriented programming and scripting language that is used to provide a dynamic feel to a web application. This is a case sensitive language, and it is supported by almost all operating systems.



2.4.4 PHP

PHP is an object-oriented Server-side scripting language that is used in web applications. This is closely related to the server-end and database programming which can be used to offer dynamic web pages that is suited for an individual user.



that

2.4.5 MySQL

MySQL is one of the commonly used database management software that can support relational database designs and management. The language used can be used to manipulate data to and from the web application.



2.4.6 Visual Studio Code

Visual Studio code is an Integrated Development Environment (IDE) that is used to write codes like HTML, CSS, JS and PHP in a human readable format and convert it to machine code that can be interpreted by the machine. Visual Studio code supports multiple languages like HTML and Java. This is a Microsoft owned software.



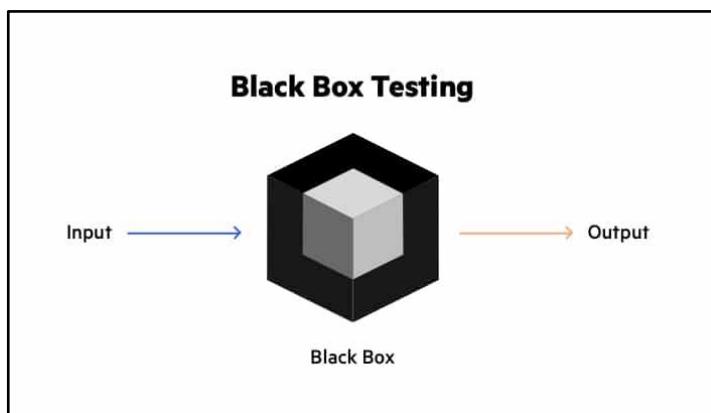
2.4.7 XAAMP Control Panel

This is one of the widely used cross-platform web servers which is used by developers to test and run applications on their dedicated local machine which acts as a local webserver. It was developed by Apache Friends, and it supports MariaDB, PHP and MySQL languages.



2.5 Testing Strategies

Black box testing is a suitable testing strategy when designing and building a restaurant management system. Black box means that the knowledge of the internal logic and code of the system is unknown and that it is primarily used to ensure that the outputs produced during the test phase behave according to the expected output. This testing focuses mostly on the usability of the system, which is the main target when implementing a restaurant management system.



2.6 Implementation Plan

At this stage, both the manual and the computerized system are running parallel at the same time. With further testing and gradual pushes and updates to the newer, proposed system, the system will be expected to be completed and pushed according to the owners preferences within a period of three months.

2.7 Chapter Summary

This chapter focuses on the methods that can be used to implement and push our software at its launch date. At first, we explored the data gathering techniques where the director, manager and the system were interviewed and analyzed to retrieve outputs from them to move on to the next stage of deciding the development model and the tools that are needed to implement this. Later on, the chapter focuses on the testing strategies which is black box testing which is essential as testing is done prior to any knowledge known of the internal system and this makes it useful to test the usability and evaluate the overall performance of the system.

3 Analysis

3.1 Introduction

This section covers the way of analyzing the problem. It mainly covers the UML Diagrams. Under the UML Diagrams, this section covers the Use case diagram of the existing system and the proposed system. In addition, it further covers the Class diagram of proposed system, Sequence Diagrams for each use cases for the Proposed System and ER Diagram of the Proposed System.

3.2 UML Diagram

3.2.1 Use case diagram of Current System

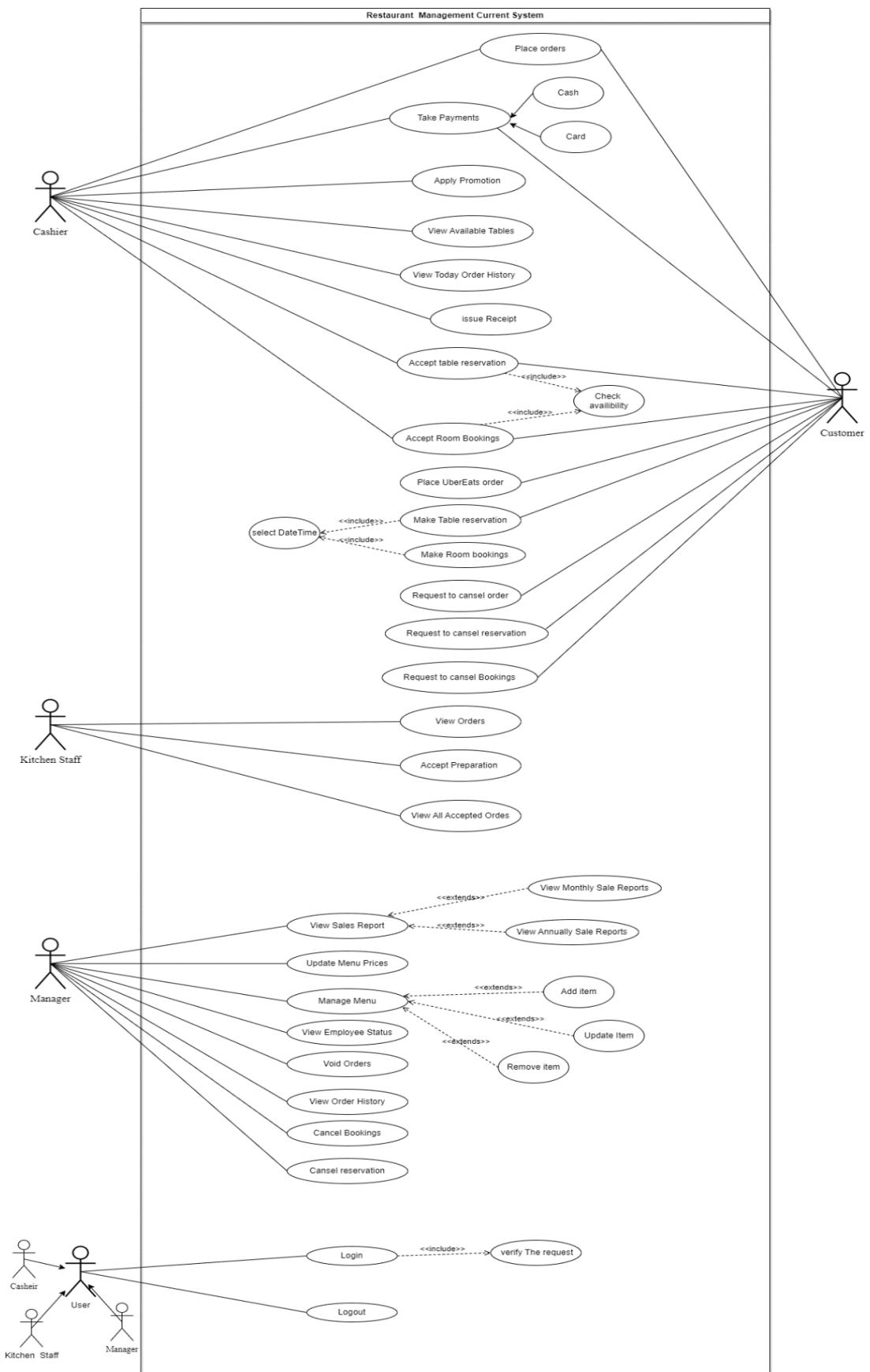


Figure 2 Existing use case diagram

3.2.2 Use case diagram of Proposed System

3.2.3 Class diagram

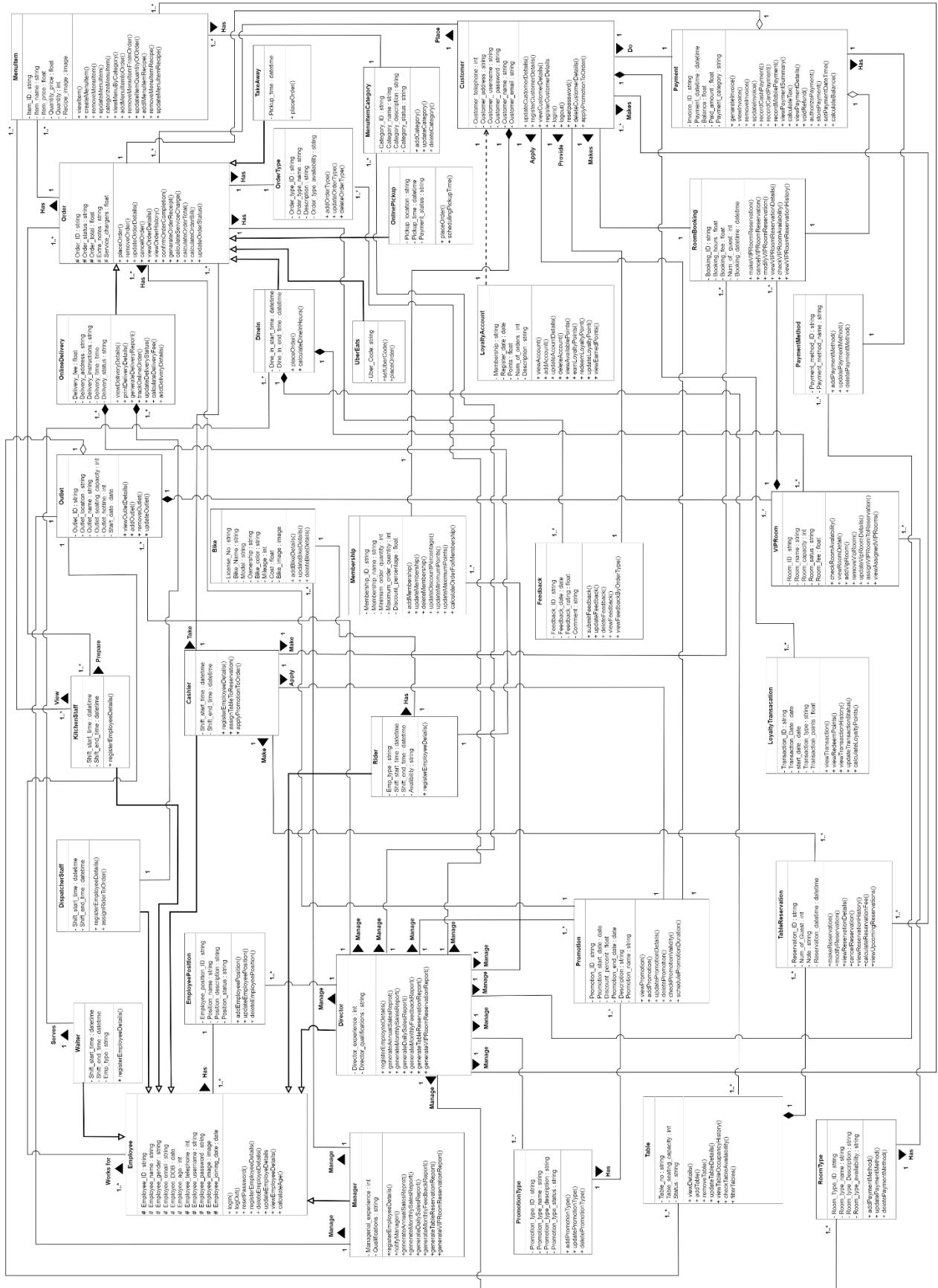
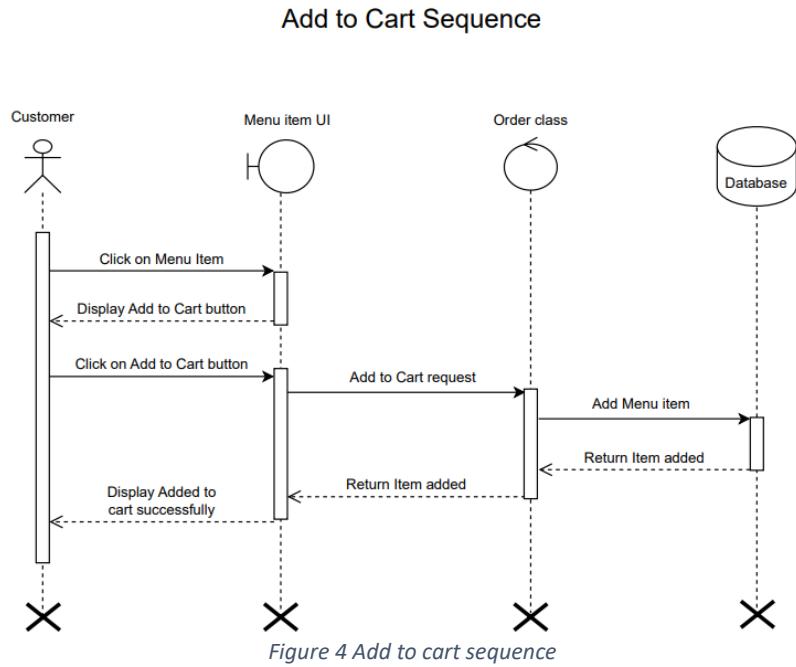
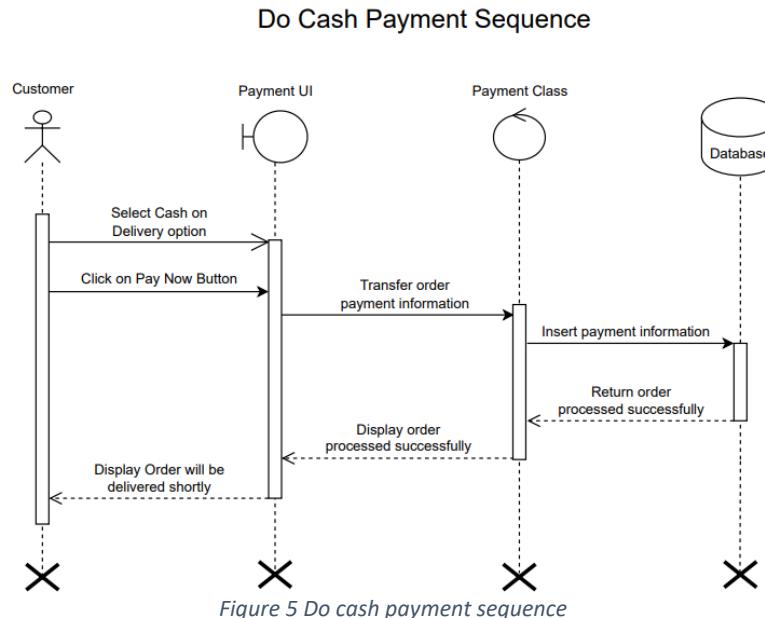


Figure 3 Proposed system class diagram

3.2.4 Sequence diagram for each use case



In this process, when the customer selects a menu item, the add to cart button will be displayed. Once this button is clicked, it will be added to the cart.



The customer can select on the cash on delivery option which will continue to process the online delivery order. The cash payment record will be saved when delivery is completed.

Cancel Reservation Sequence

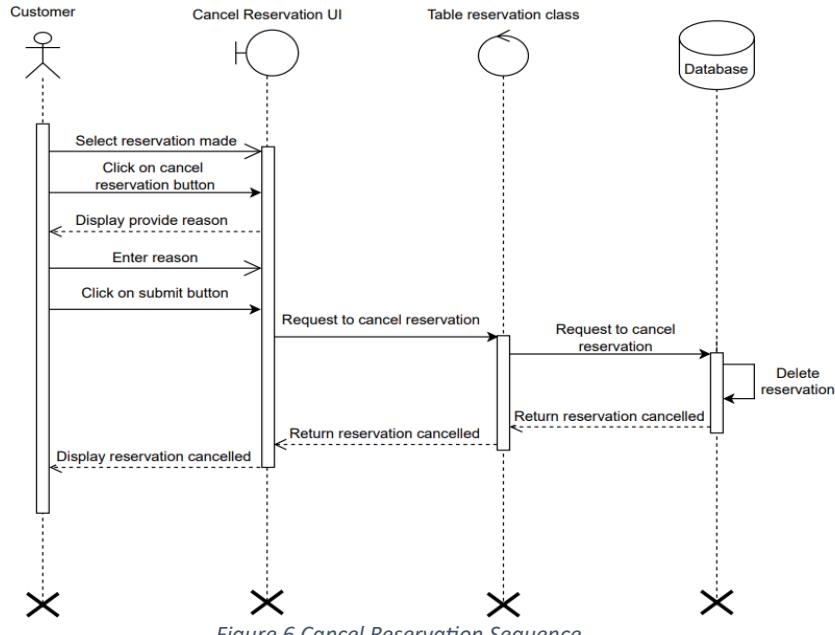


Figure 6 Cancel Reservation Sequence

Customer can select on the reservation he made and click on the cancel reservation button. Reason needs to be entered and when te submit button is clicked, the reservation will be cancelled.

Modify Order Quantity Sequence

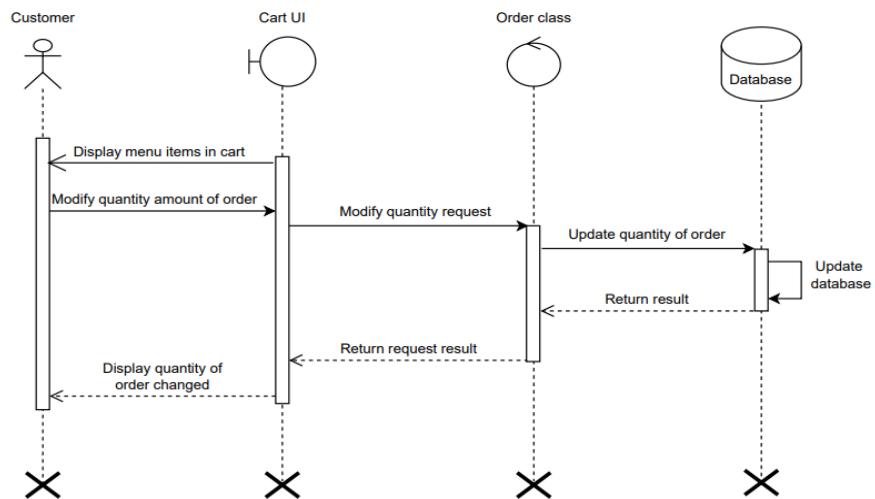


Figure 7 Modify Order Quantity Sequence

The customer can select the menu item on the cart and modify the order quantity by pressing the plus and minus buttons on the UI.

Give Feedback Sequence

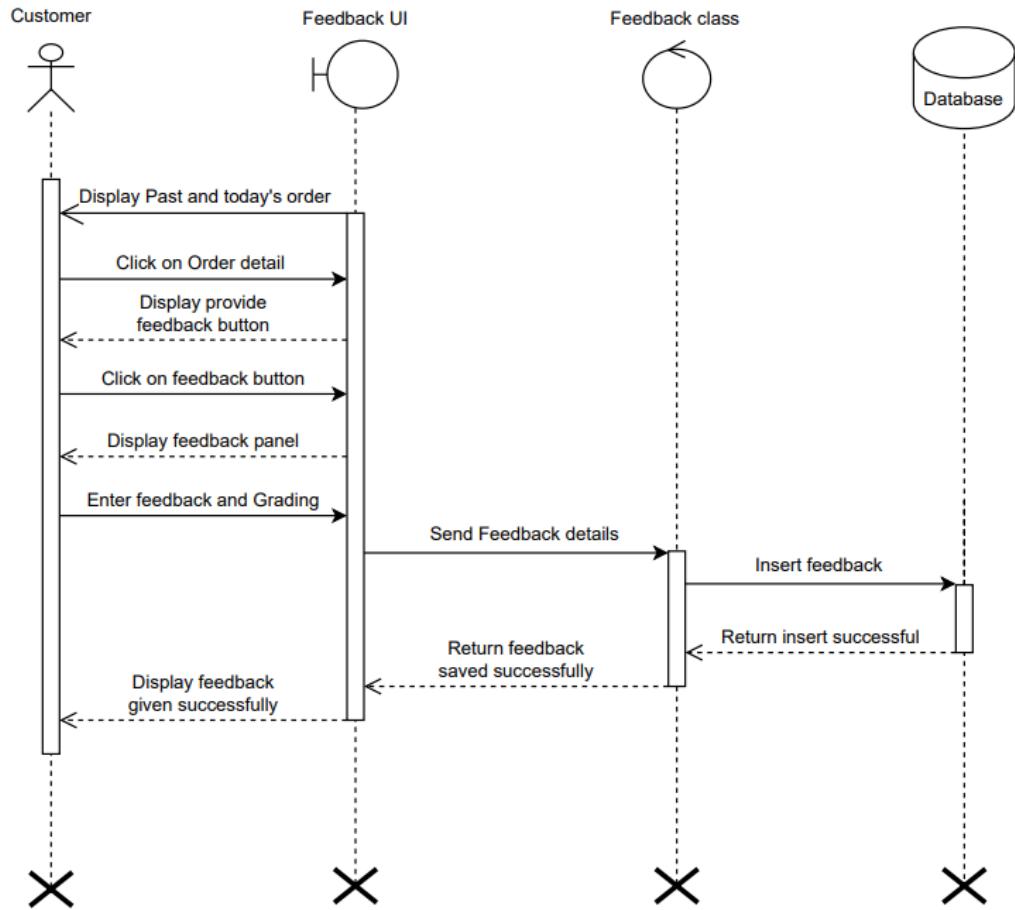


Figure 8 Give Feedback Sequence

The customer can view the past and today's orders. The customer will click on an already completed order. The customer will click on the provide feedback button and enter the feedback (comment) and must enter the grading (good, bad, average) and these feedback details will be saved to the database and will display back to the customer mentioning that the feedback was submitted.

Remove Items from Cart Sequence

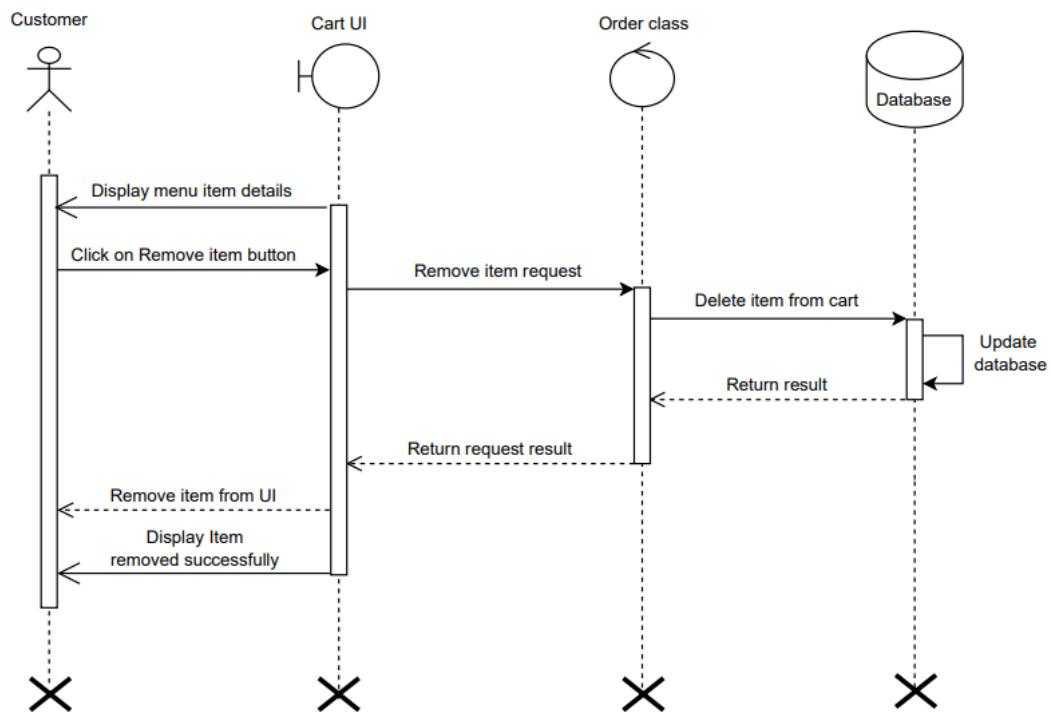


Figure 9 Remove Items from Cart sequence

The customer will be able to view the items in the cart. If the customer wants to remove the item in the cart, the customer can click on the remove from cart button and the item in the cart will be removed. The customer will also receive a message displaying that the item has been removed successfully.

Book VIP Rooms Online Sequence

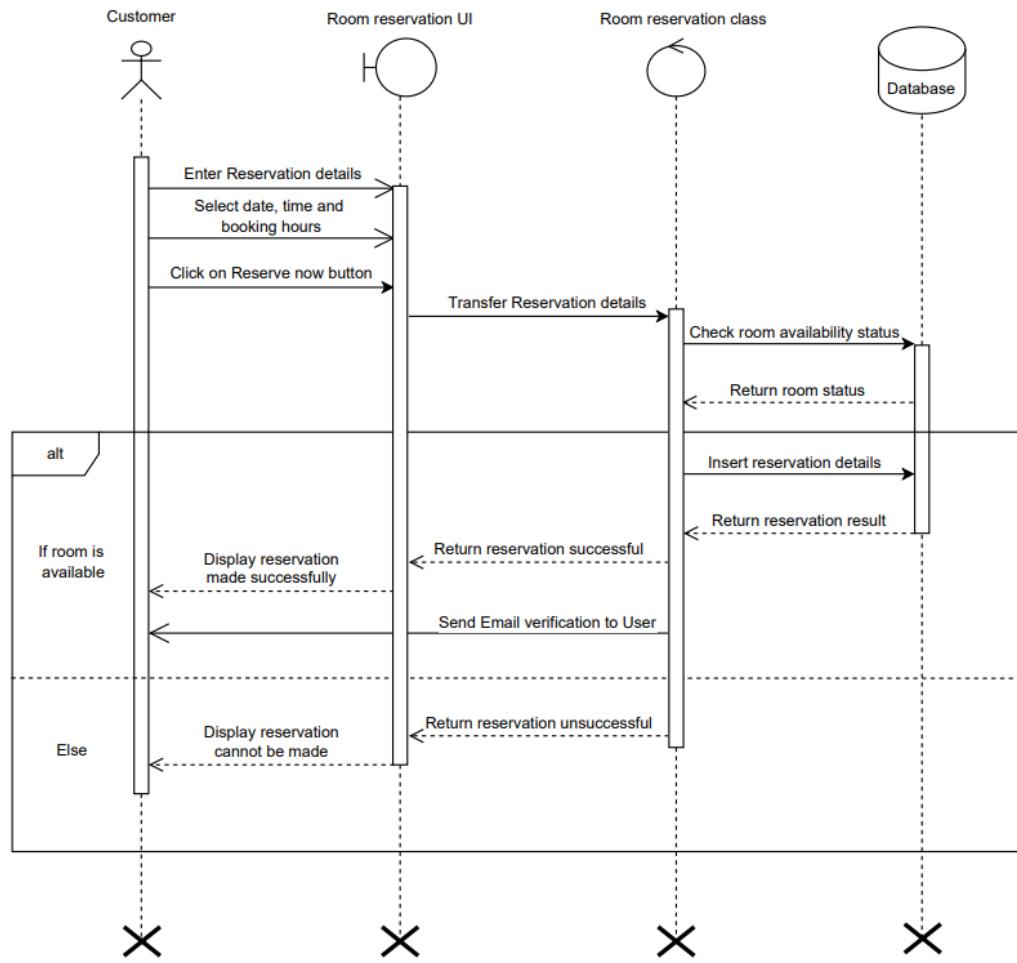


Figure 10 Book VIP rooms online

Customer can enter the room booking details, the date and the check in and check out date and when the customer clicks on the reserve now button, the booking details will be checked whether the room is booked or not. If the room is booked, the customer will receive a message displaying that the room is currently unavailable and if it is not booked, the reservation details will be saved and will be displayed to the customer mentioning that the booking is successful.

Get Seasonal Promotion Sequence

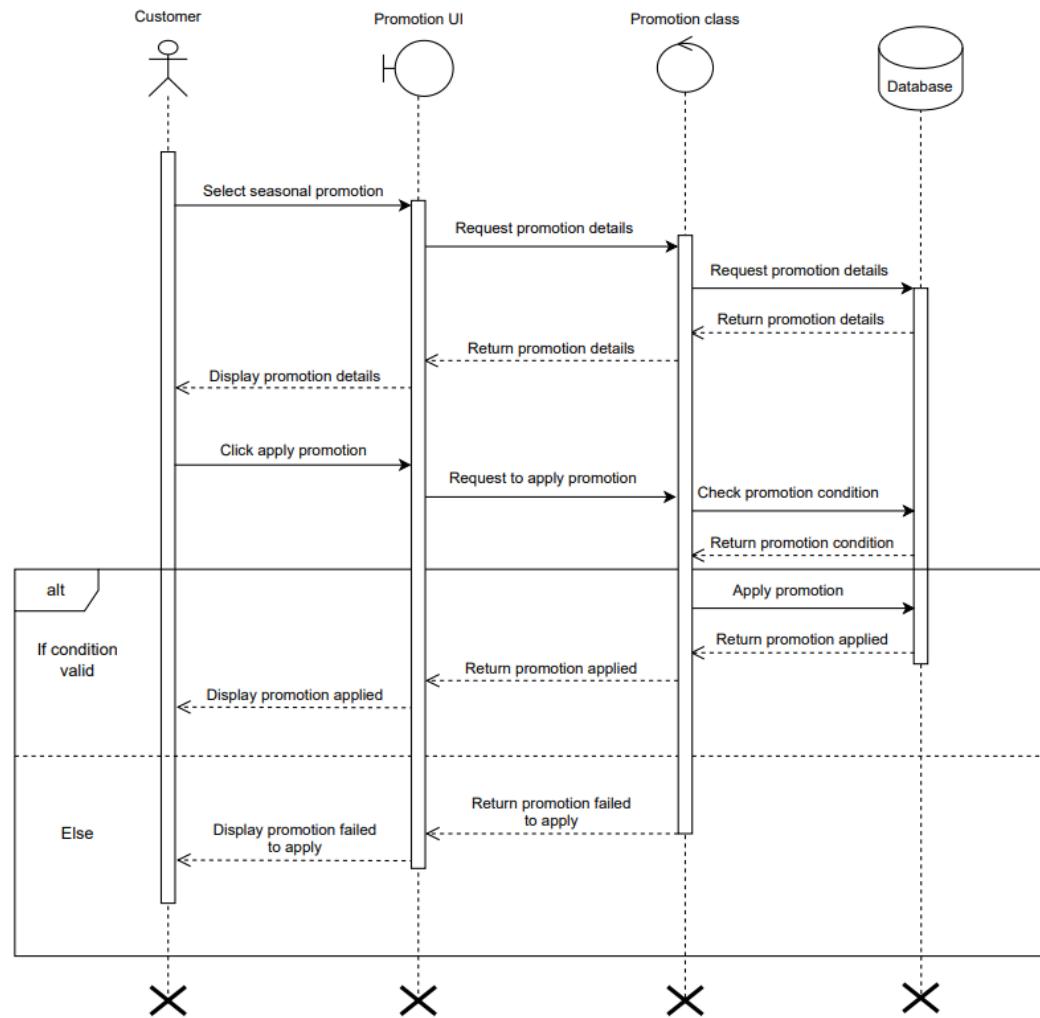


Figure 11 Get Seasonal promotion sequence

Customers can select seasonal promotions and the details of the promotion can be displayed to the customer. When the customer applies the promotion, the condition of the promotion needs to be checked first and if it is valid, the promotion will be applied to the order as a promotional order and if it is not valid, then the system will display that the promotion failed to apply to the order.

Earn Loyalty Points Sequence

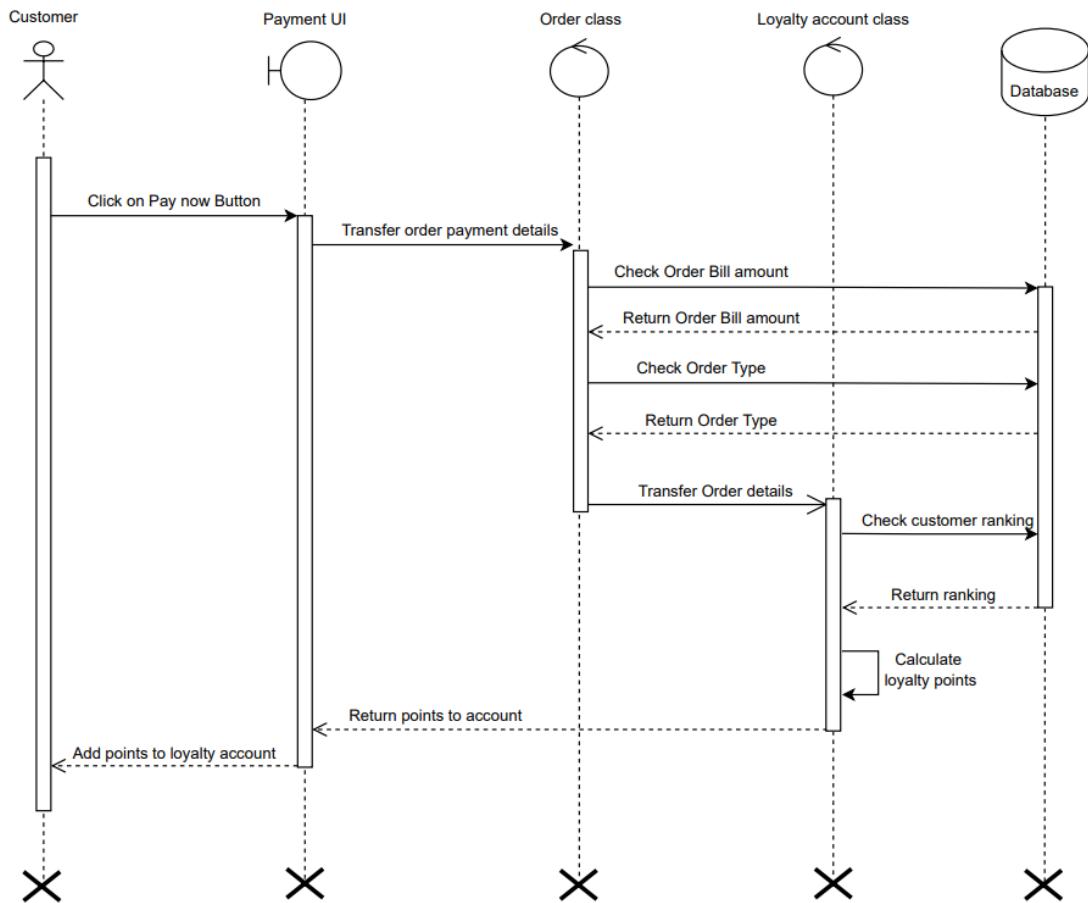


Figure 12 Earn Loyalty Points sequence

A customer can earn loyalty points during the ordering process. If the customer is a loyal customer, when he clicks on the pay now button, the order bill will be retrieved and based on the total of the order, the customer will earn loyalty points based on the membership ranking

Get Loyalty Promotion Sequence

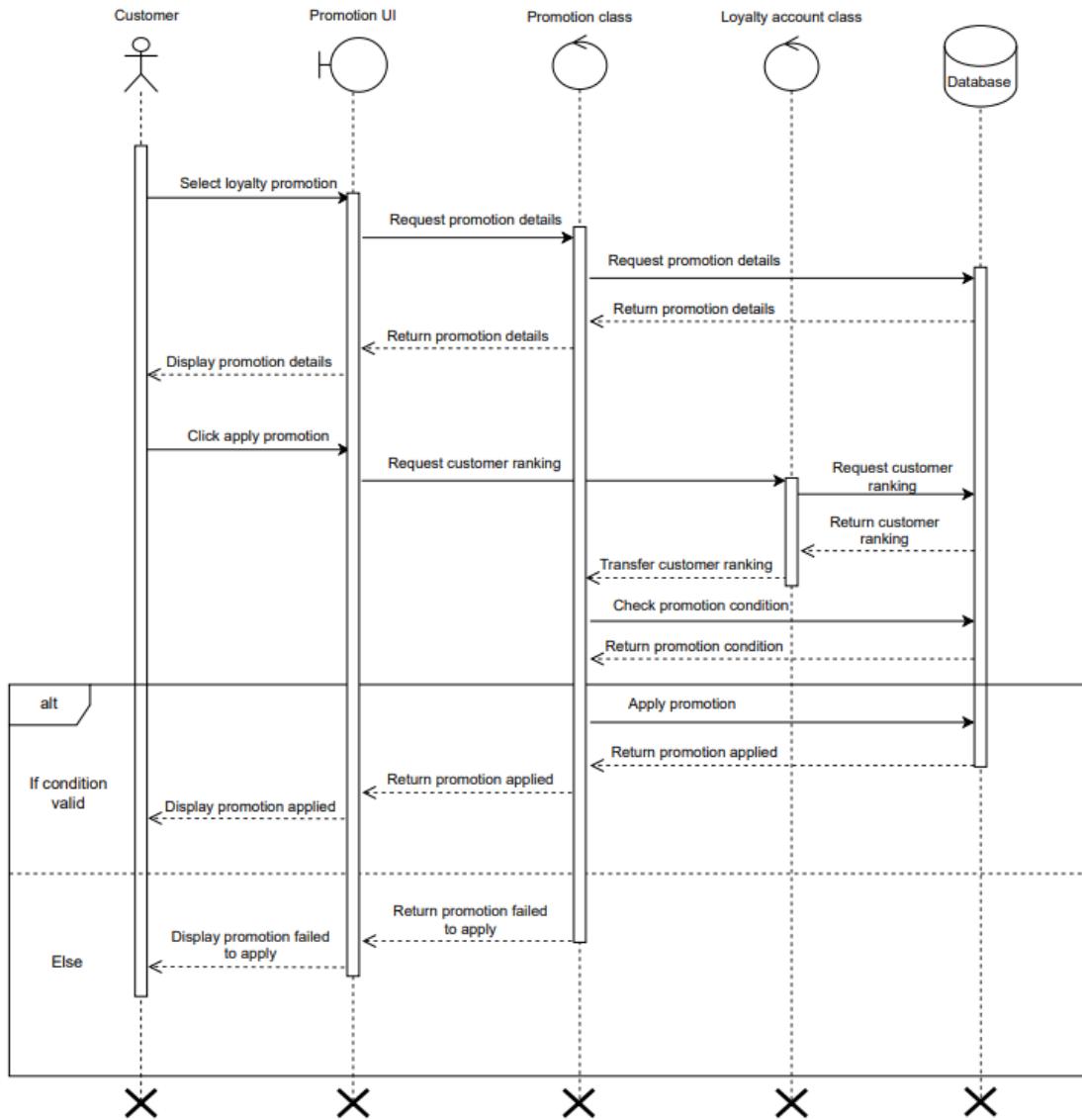


Figure 13 Get loyalty Promotion sequence

Customers can select loyalty promotions and the details of the promotion can be displayed to the customer. When the customer applies the promotion, the condition of the promotion needs to be checked first and if it is valid, the promotion will be applied to the order and if it is not valid, then the system will display that the promotion failed to apply to the order. The discount applied to the order total depends on the membership ranking of the customer.

Do Card Payment Sequence

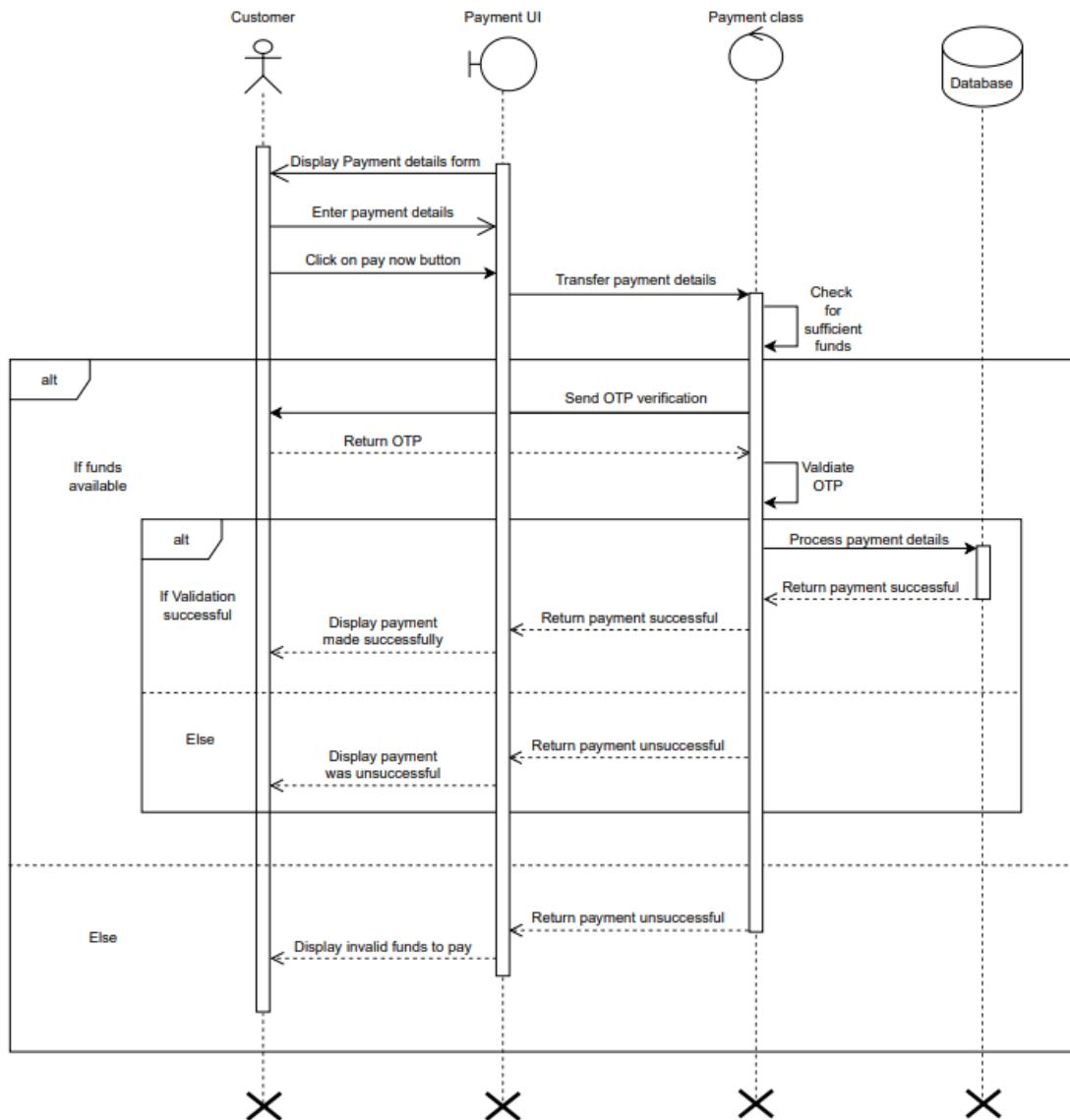


Figure 14 Do card payment sequence

The customer will enter the payment details of the card and click on the pay now button and transfer it to the database and will check whether the card has sufficient funds to pay for the order. If there are sufficient funds, an OTP will be sent and if the OTP validation is invalid, the payment will not be made. Else, the payment will be successful. If funds are not available, the system will display that funds are not enough to pay for the order.

Make Payment Sequence

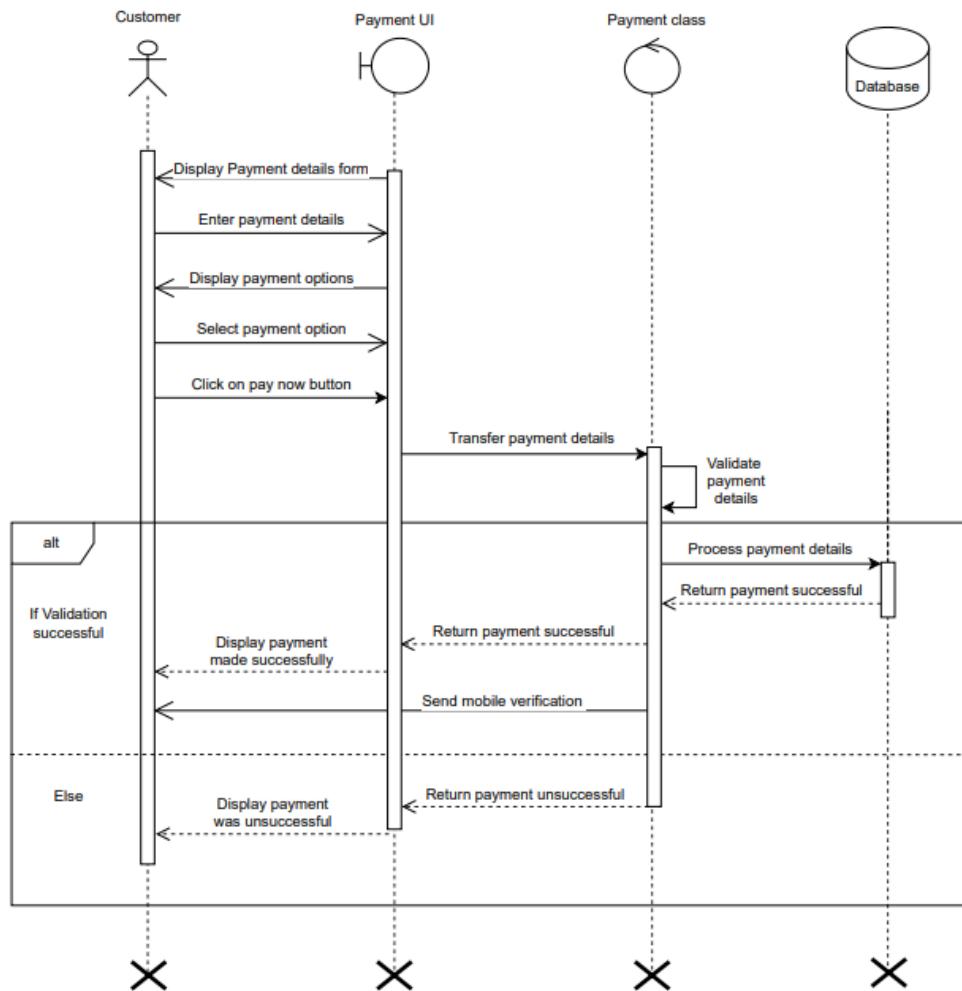


Figure 15 Make payment sequence

The customer can make payments by either filling in the card details or providing cash. When the pay now button is clicked, the payment details will be sent and validated. If validation is successful, the payment details will be saved otherwise, it won't be saved.

Make Online Table Reservation Sequence

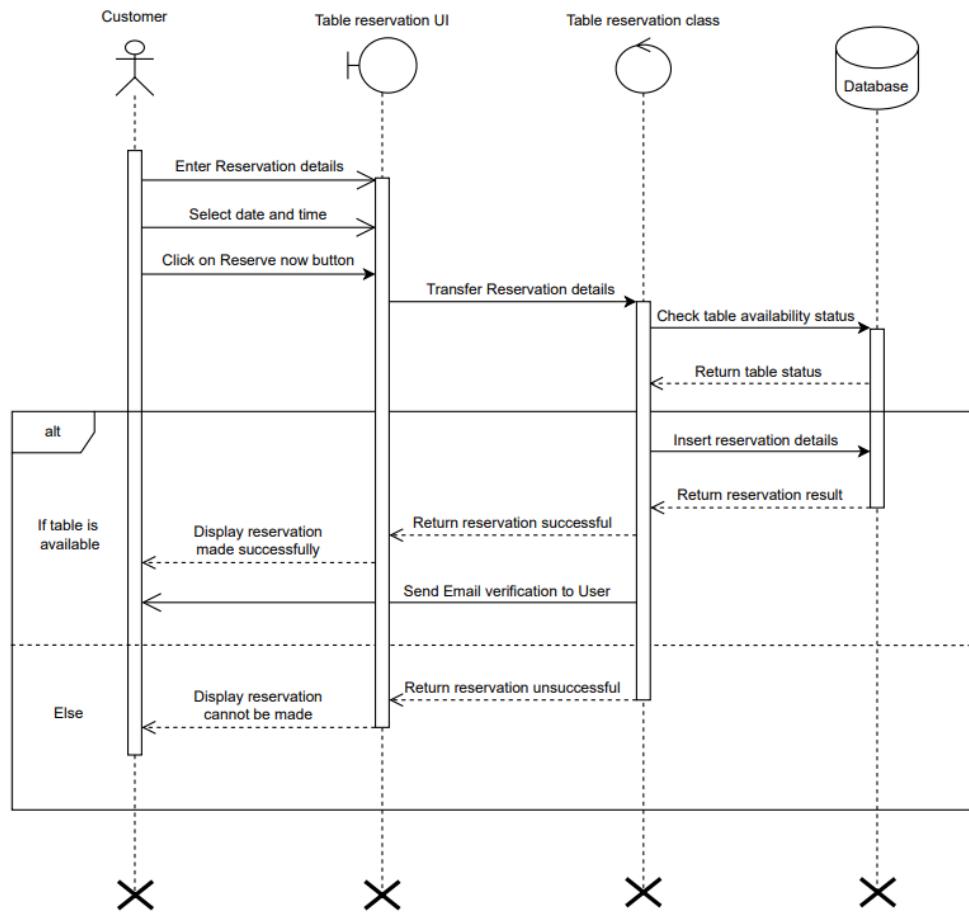


Figure 16 Make online table reservation sequence

Customer will enter the reservation details and when the customer clicks the reserve now button, those reservation details will be checked to see if the tables are available. If not available, customer cannot reserve that table else, the customer will successfully make the reservation.

Place Online Delivery Order Sequence

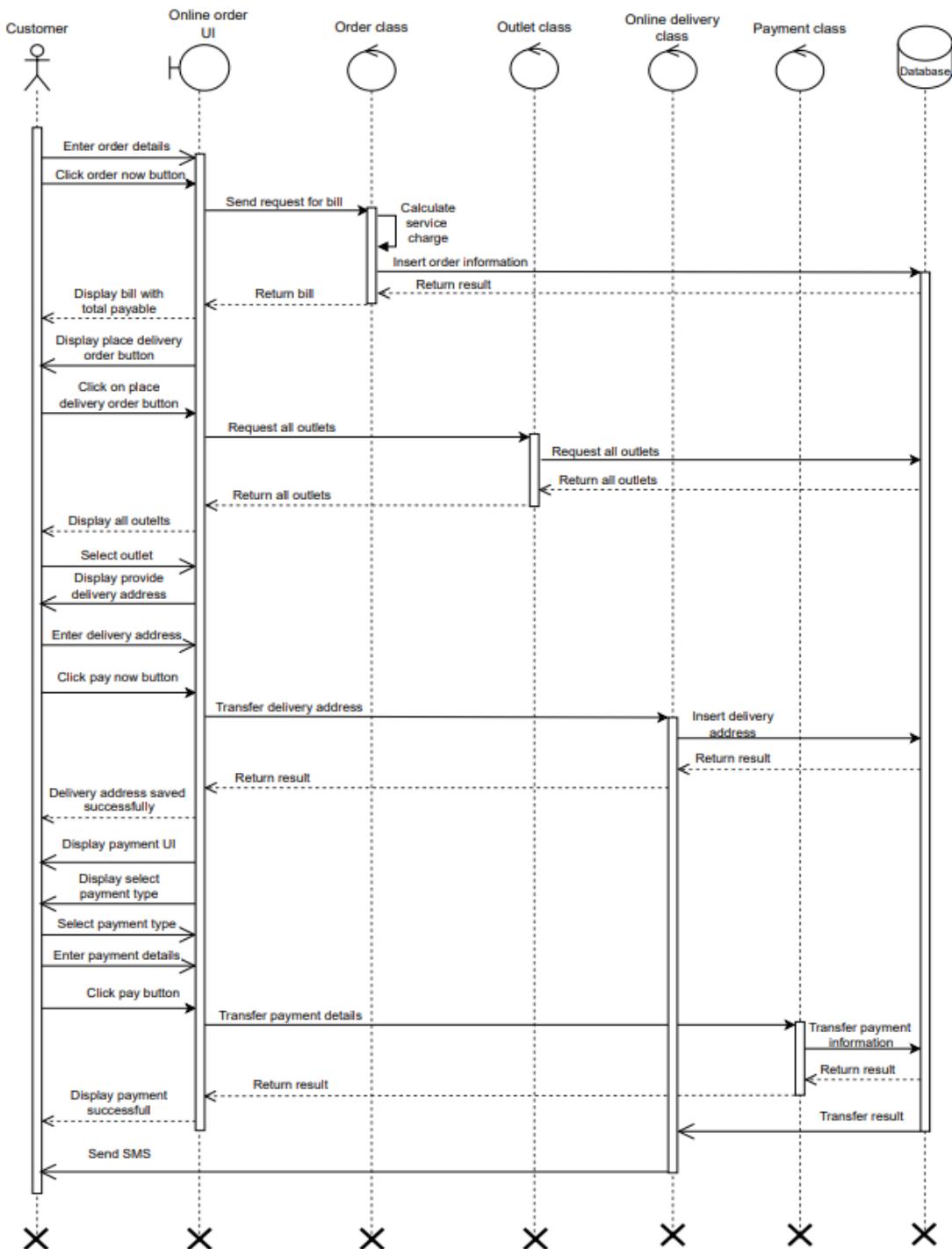


Figure 17 Place Online delivery order sequence

The customer must select the outlet where the order is going to be delivered and the customer must enter their address so the order can be delivered to the customer.

Place Online Pickup Order Sequence

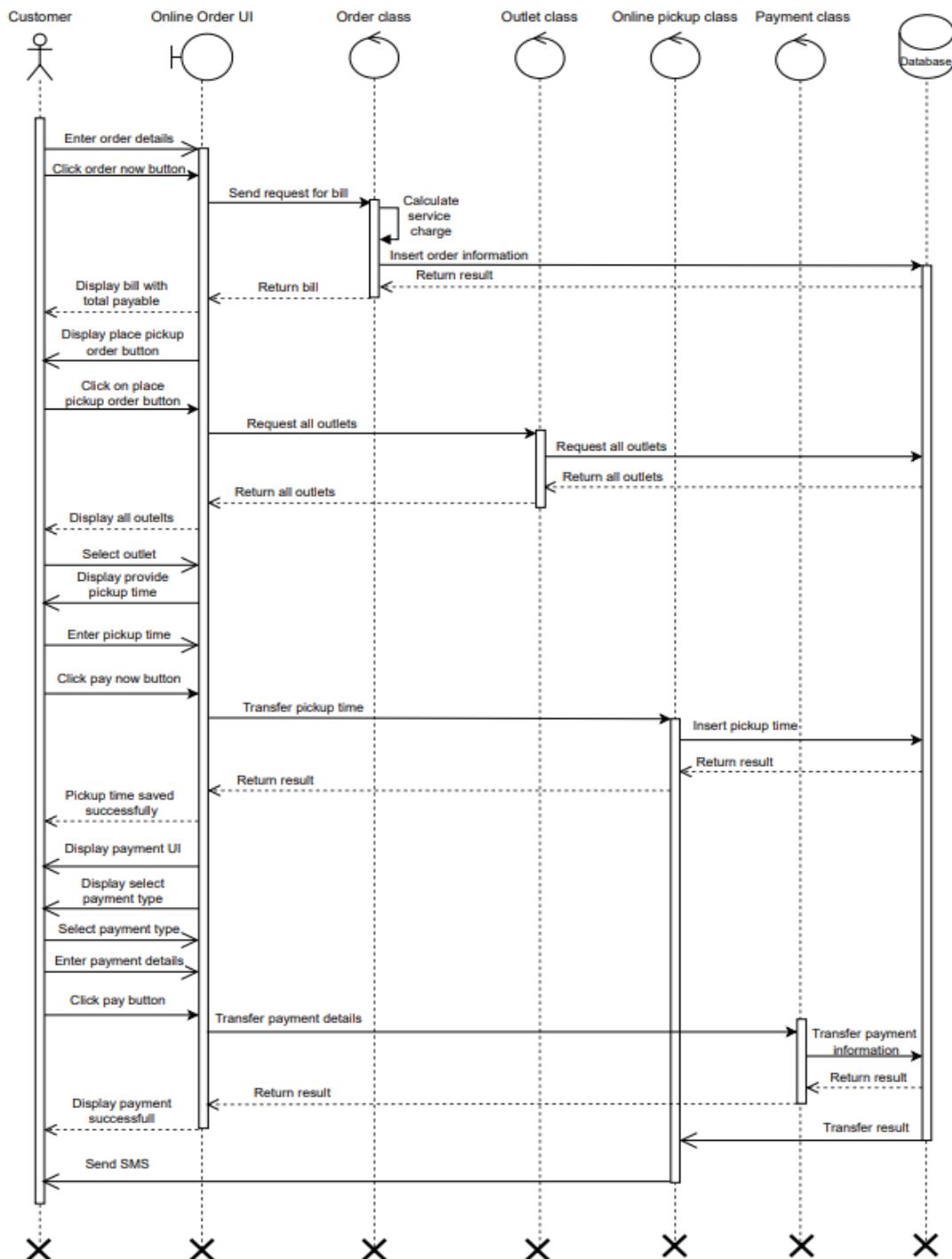


Figure 18 Place online pickup order sequence

The customer must select the outlet where the order is going to be picked up and the customer must enter their pickup time so the order can be picked by the customer.

Redeem Loyalty Points Sequence

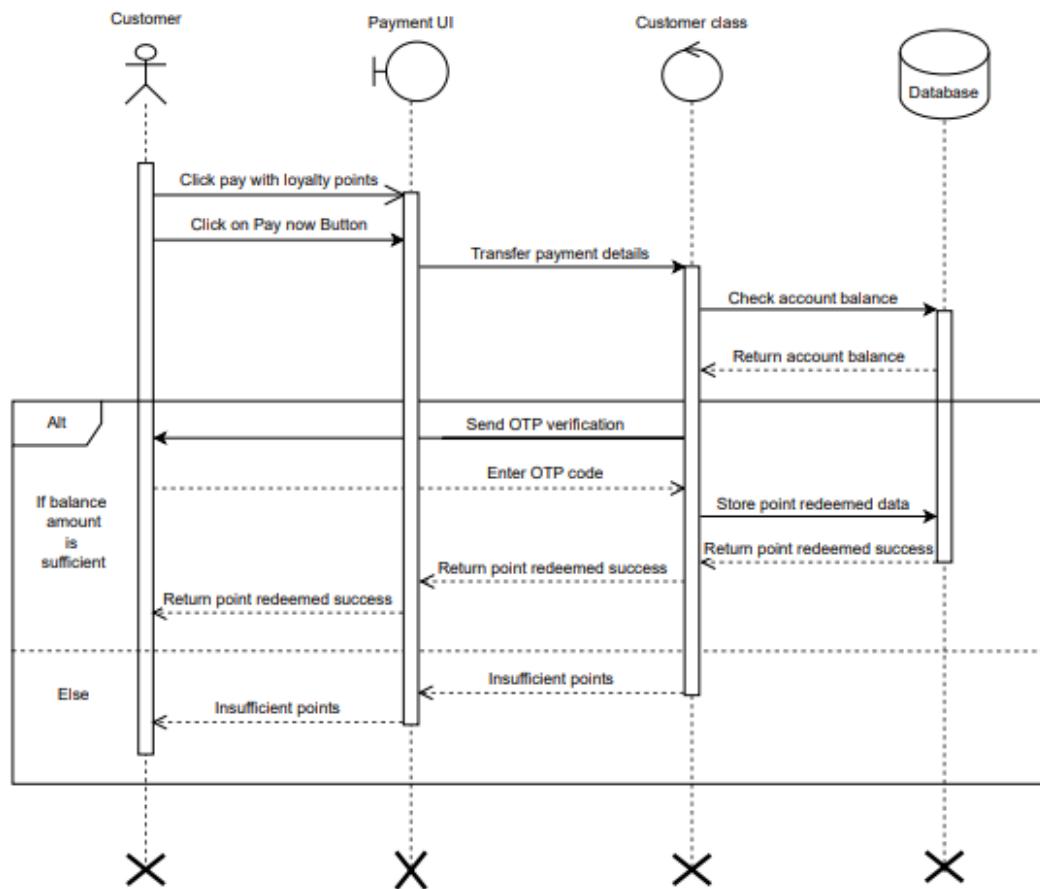


Figure 19 Redeem Loyalty Points sequence

The customer can click on the pay now button and if he is a loyal customer can enter the number of points he wants to redeem. If the points he wants to redeem are greater than the available balance, then the payment cannot be made with the points and will display insufficient points.

Customer Registration Sequence

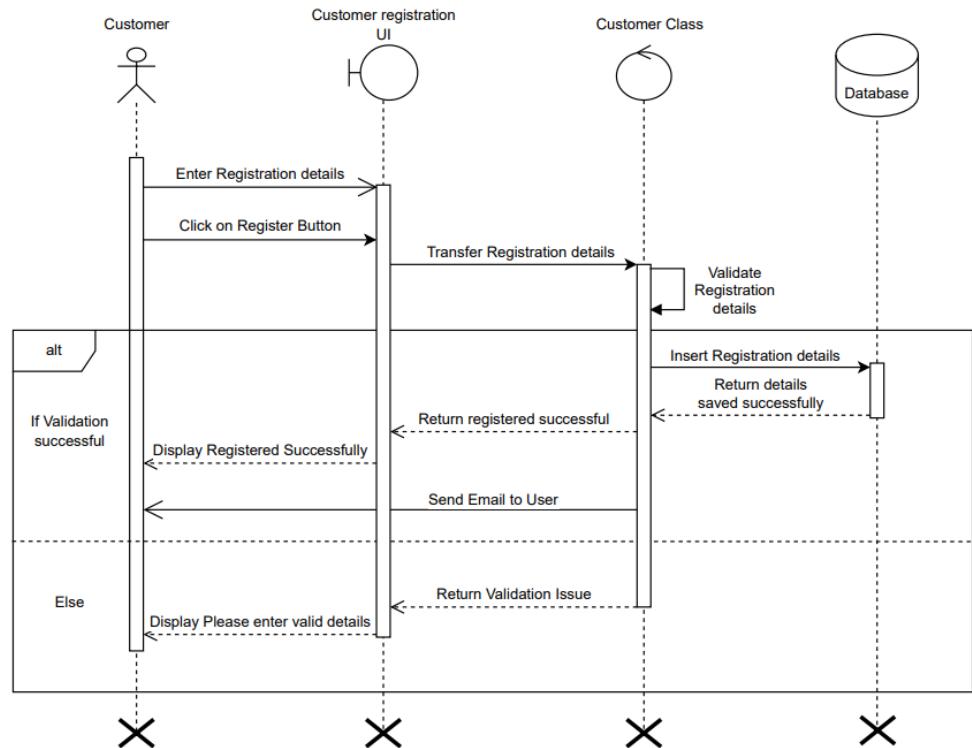


Figure 20 Customer Registration sequence

View Order History Sequence

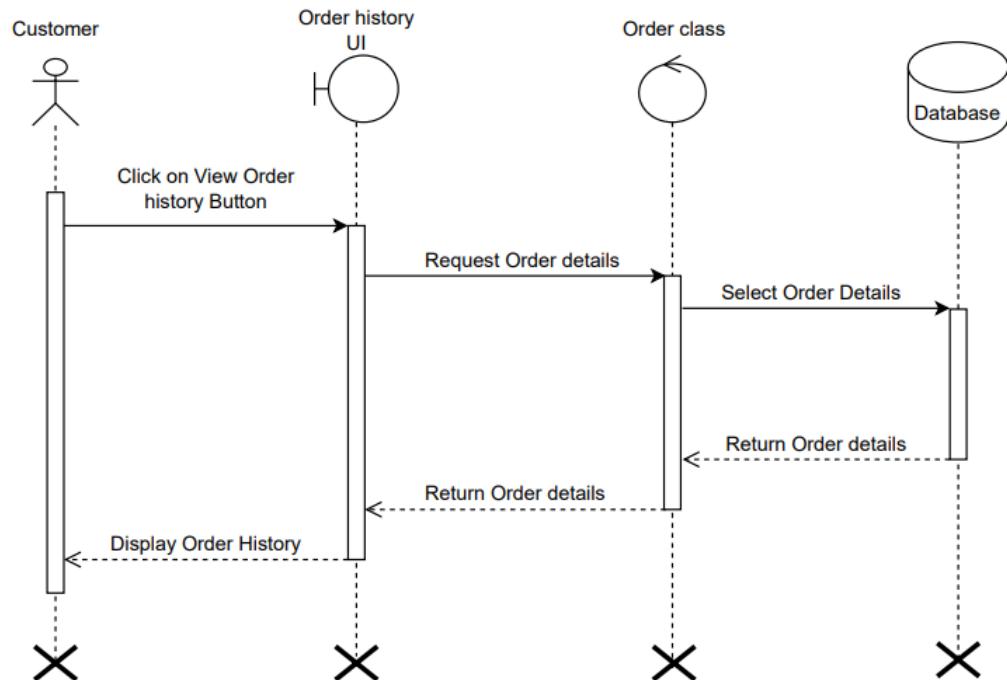


Figure 21 View Order history sequence

Register Loyalty Program Sequence

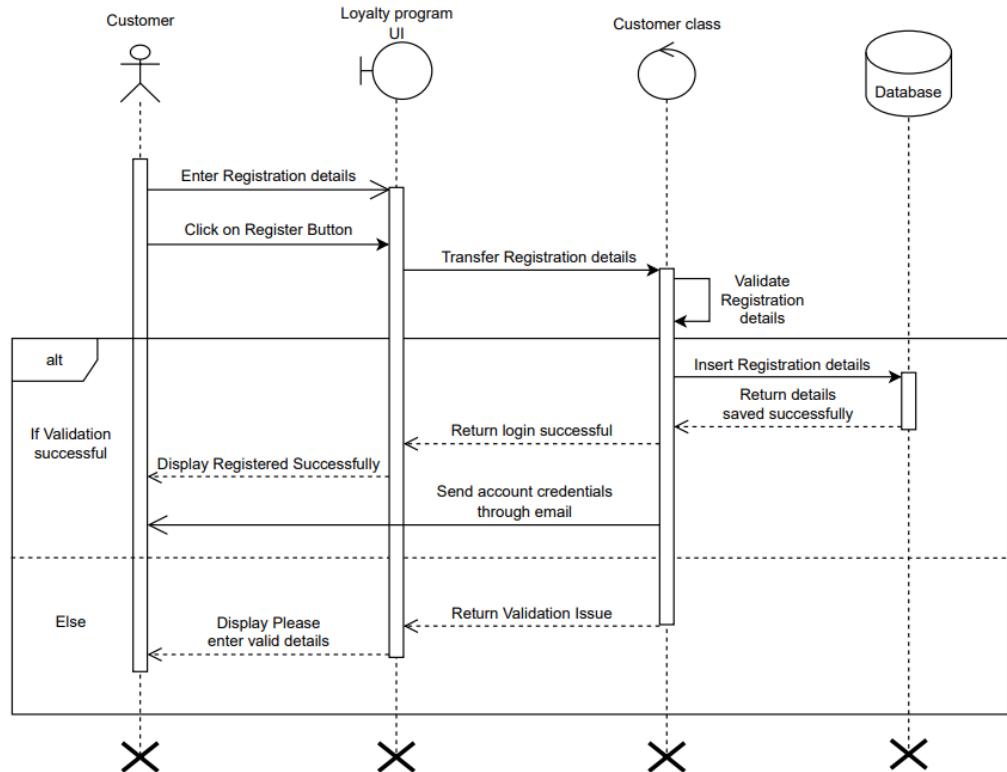


Figure 22 Register Loyalty program sequence

Search Room Availability Sequence

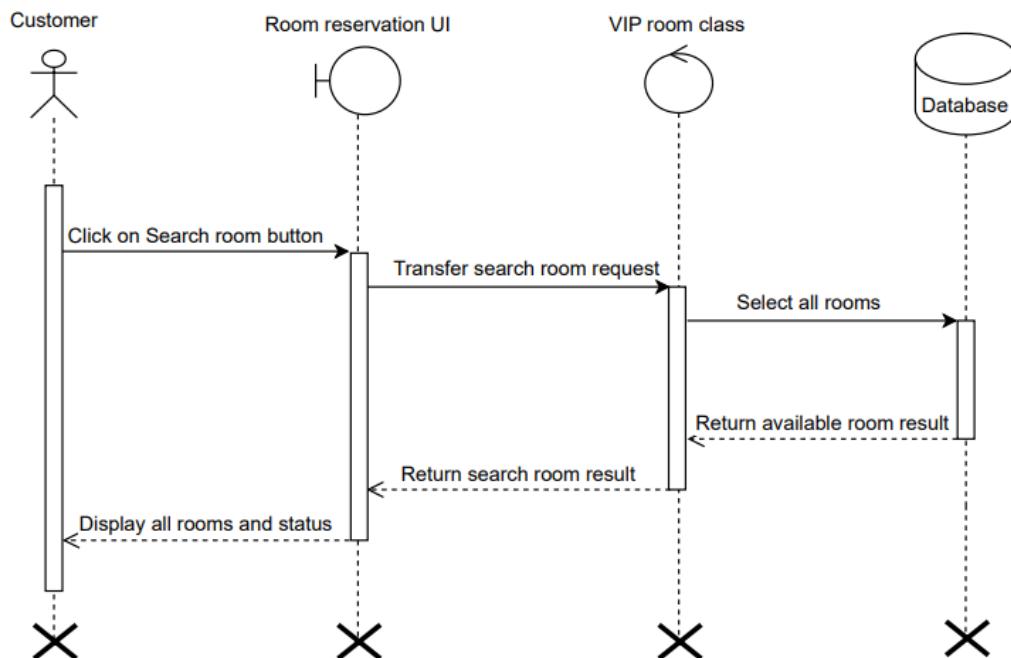


Figure 23 Search room availability Sequence

Request to Cancel Order Sequence

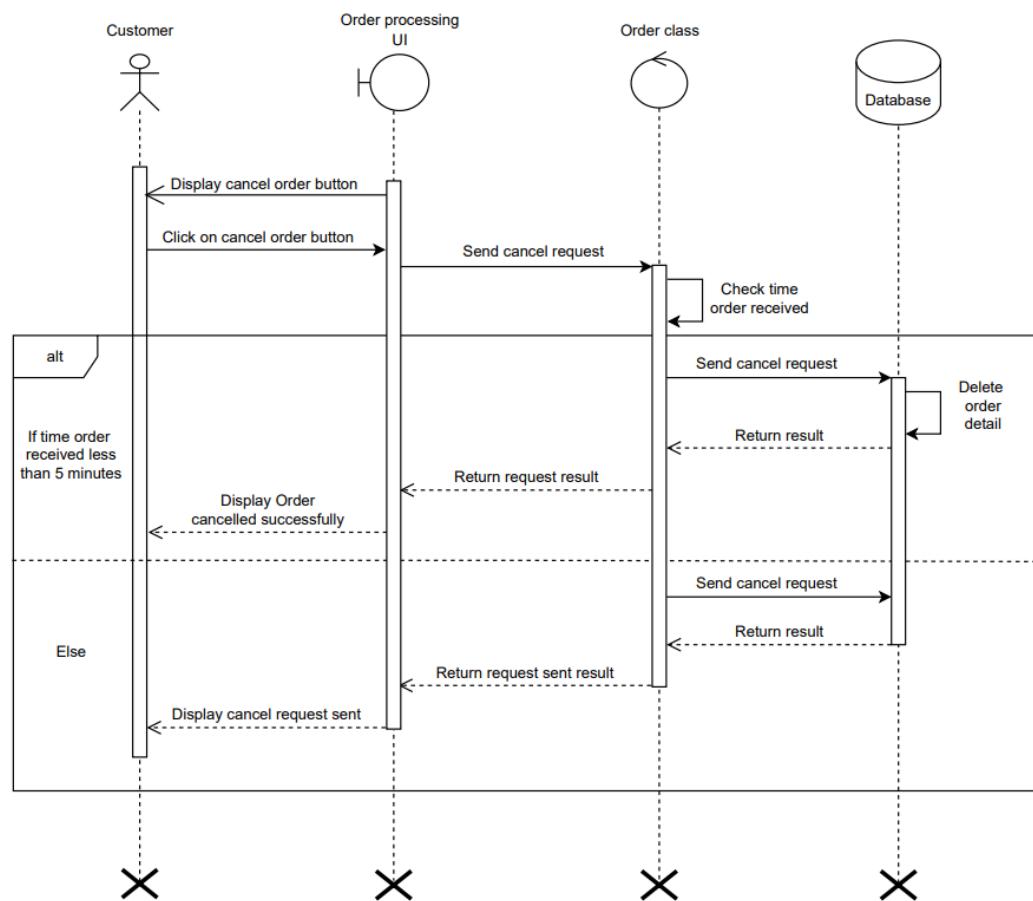


Figure 24 Request to cancel order sequence

Search Menu Items Sequence

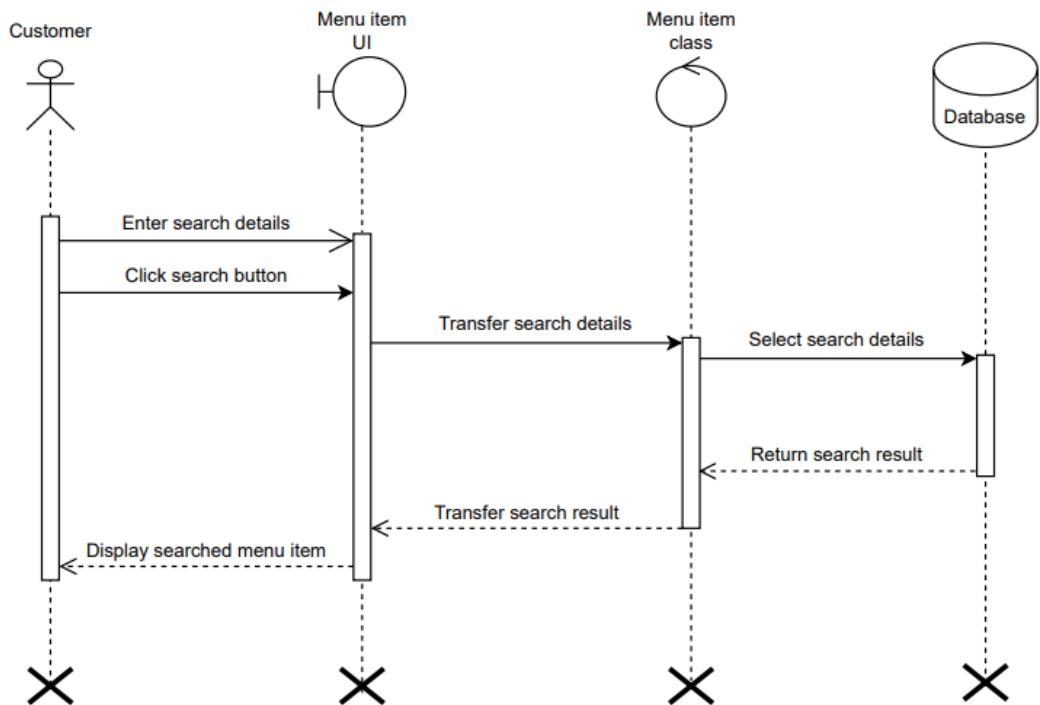


Figure 25 Search menu item sequence

Search Table Availability Sequence

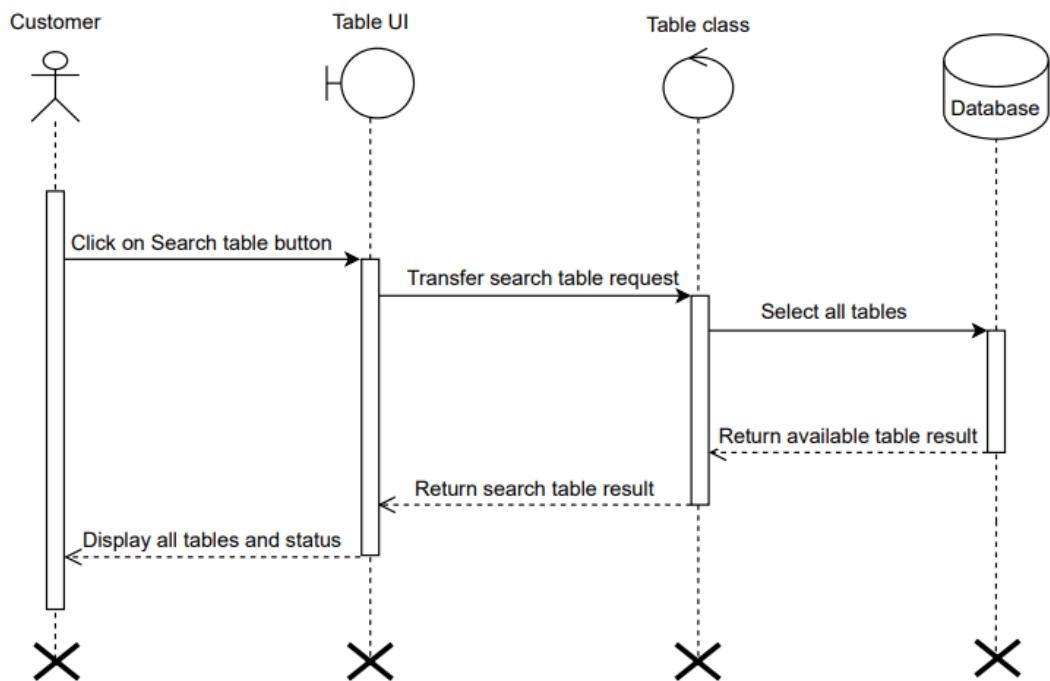


Figure 26 Search table availability sequence

View Reservation History Sequence

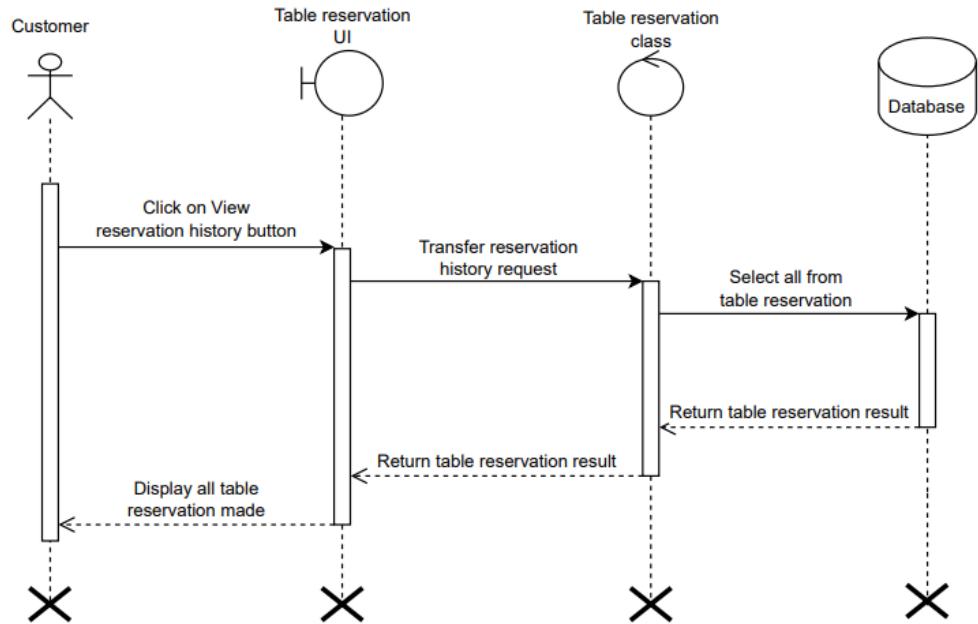


Figure 27 View reservation history sequence

View Menu Sequence

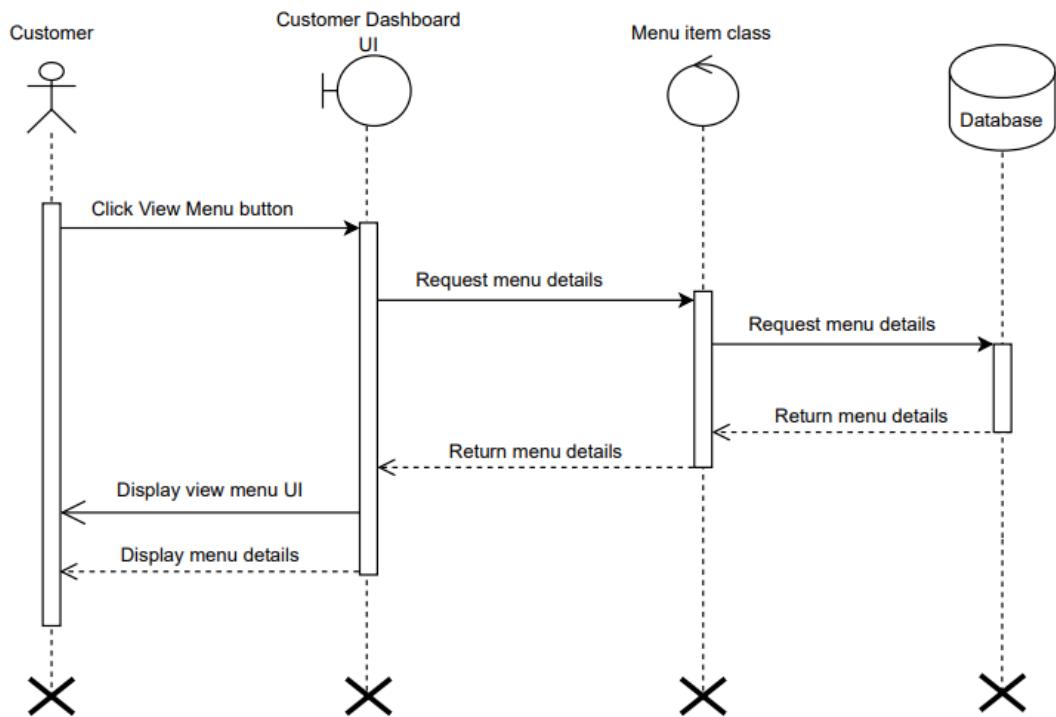


Figure 28 View Menu sequence

View Point Balance Sequence

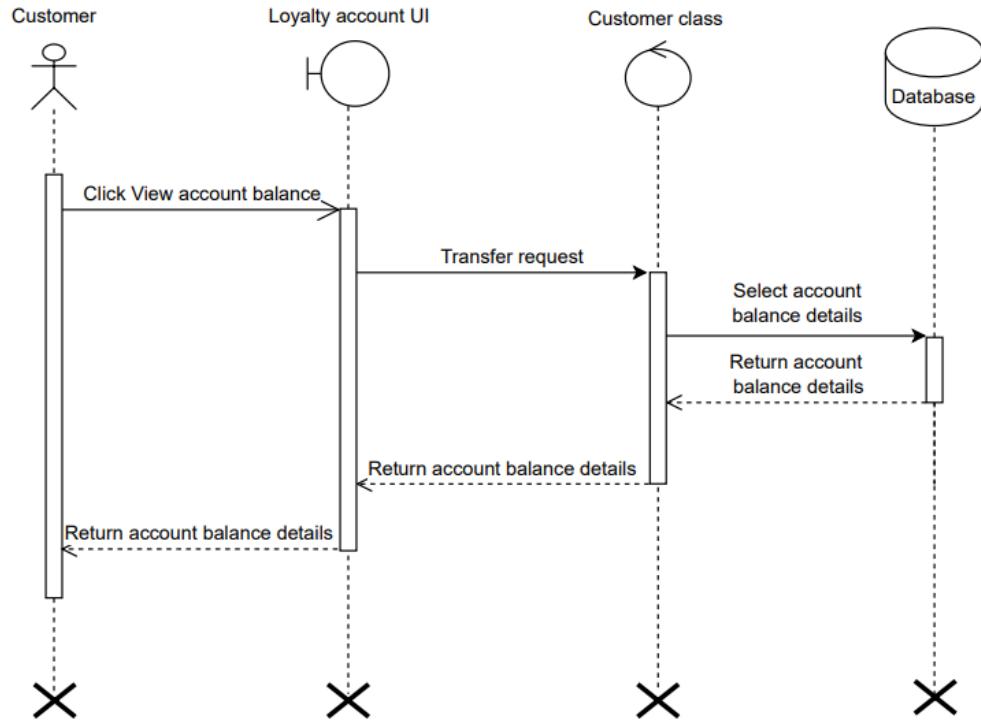


Figure 29 View loyalty point balance sequence

View Booking History Sequence

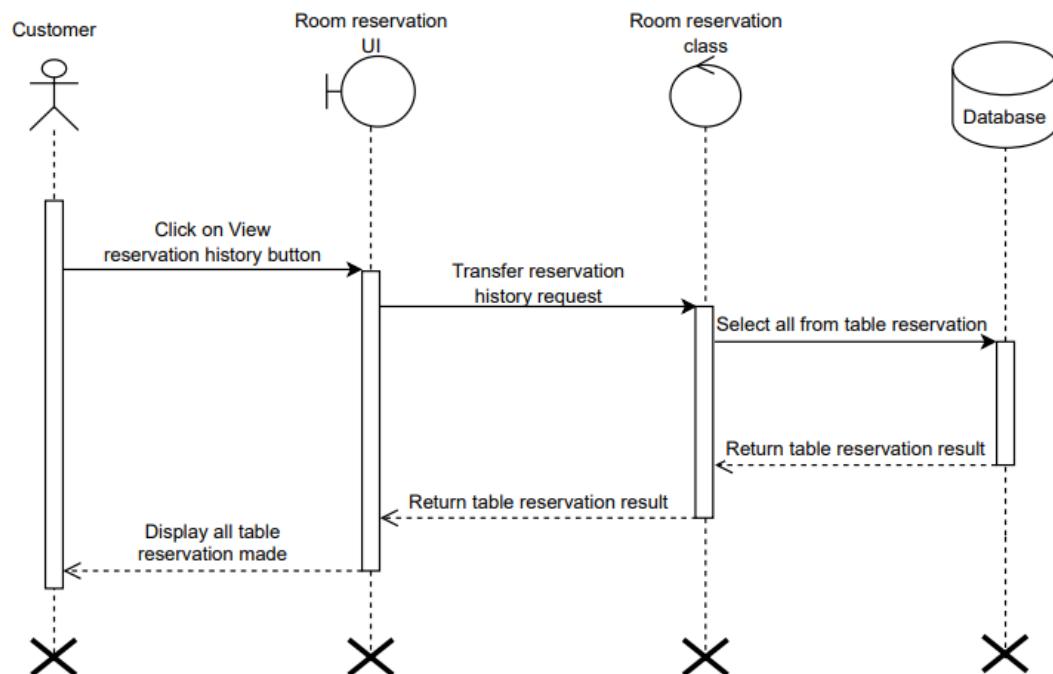


Figure 30 View booking history sequence

Track Orders Sequence

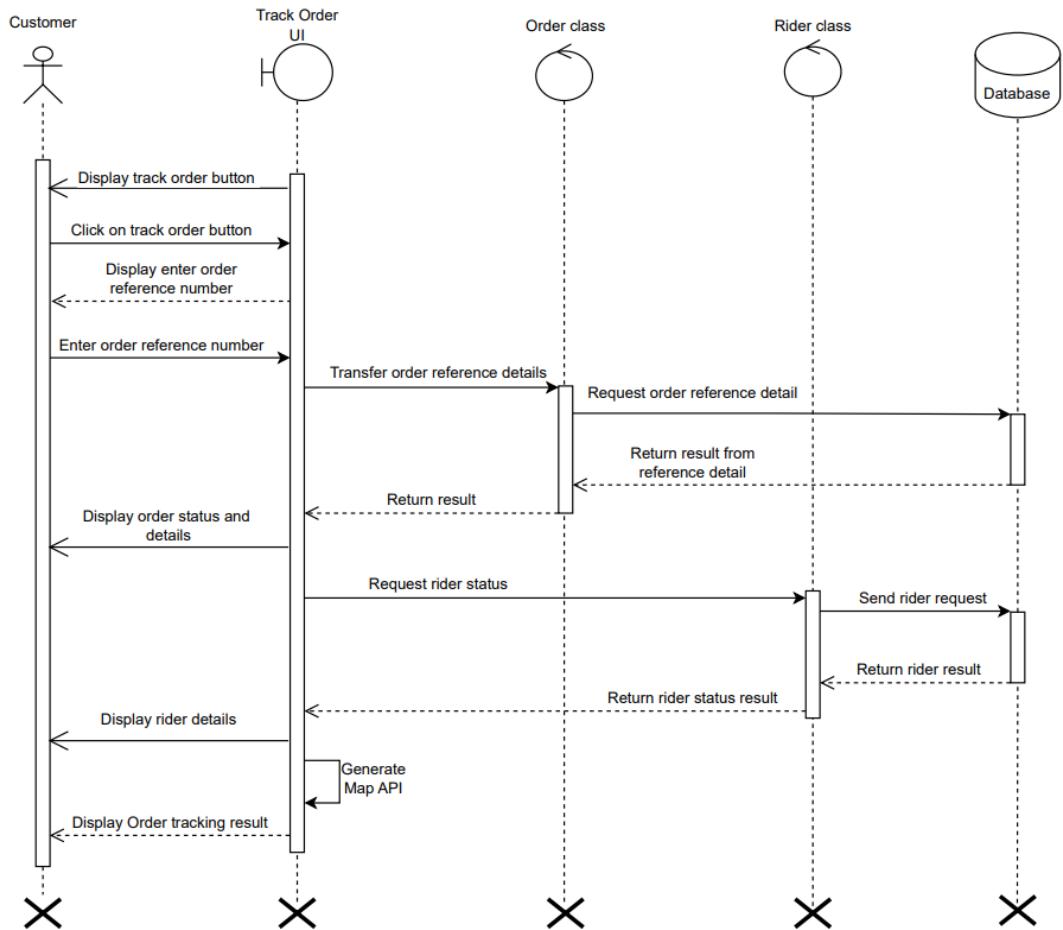


Figure 31 Track orders sequence

Add Items to Order Sequence

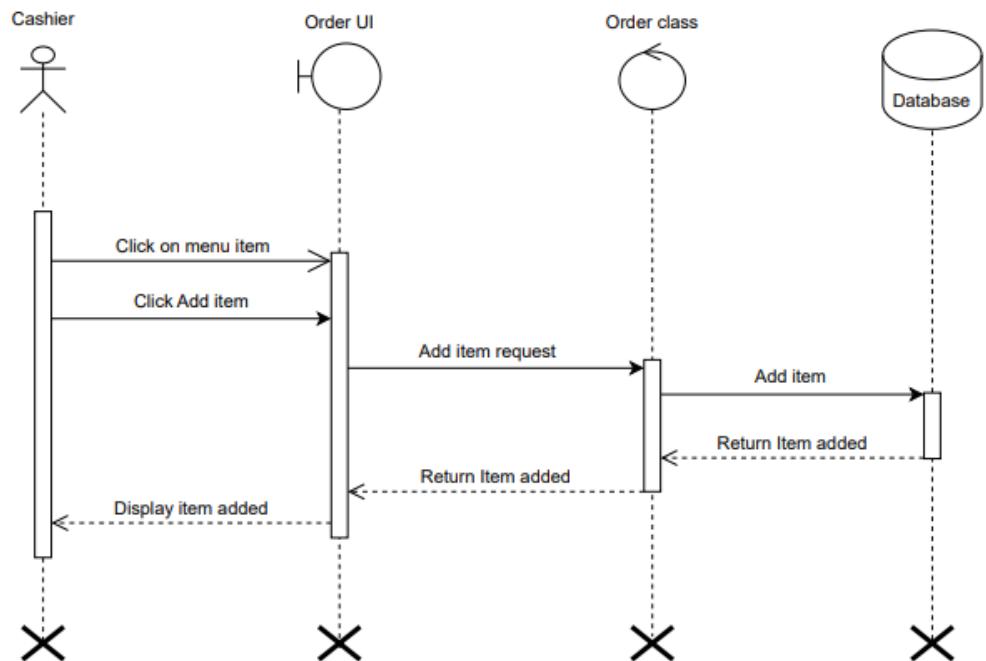


Figure 32 Add items to order sequence

View Customer Point Balance Sequence

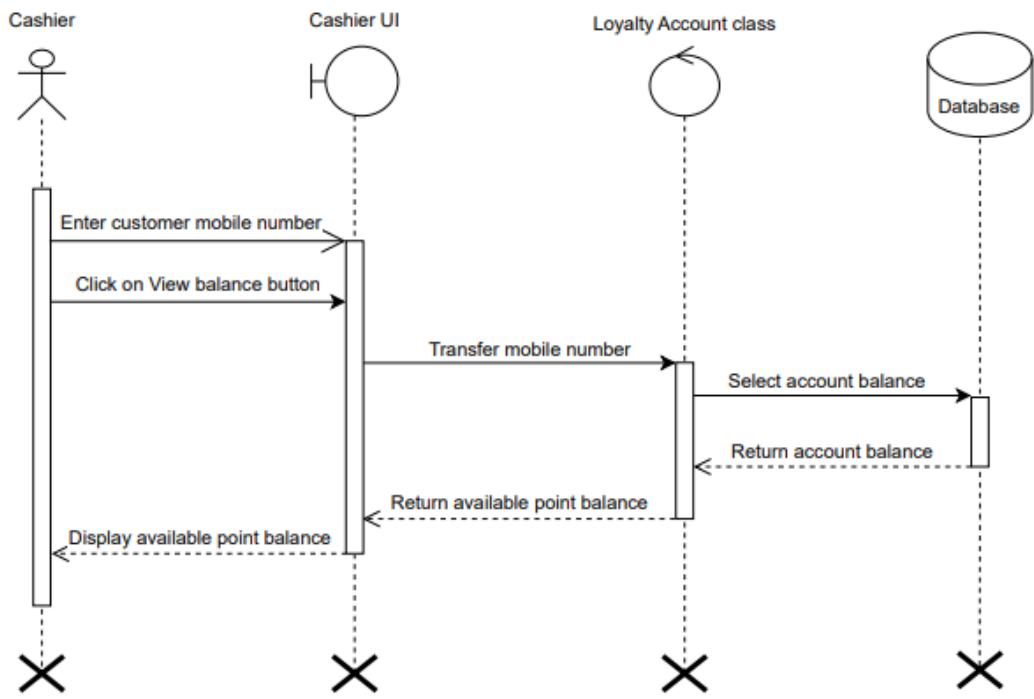


Figure 33 View customer point balance sequence

Add Loyalty Points Sequence

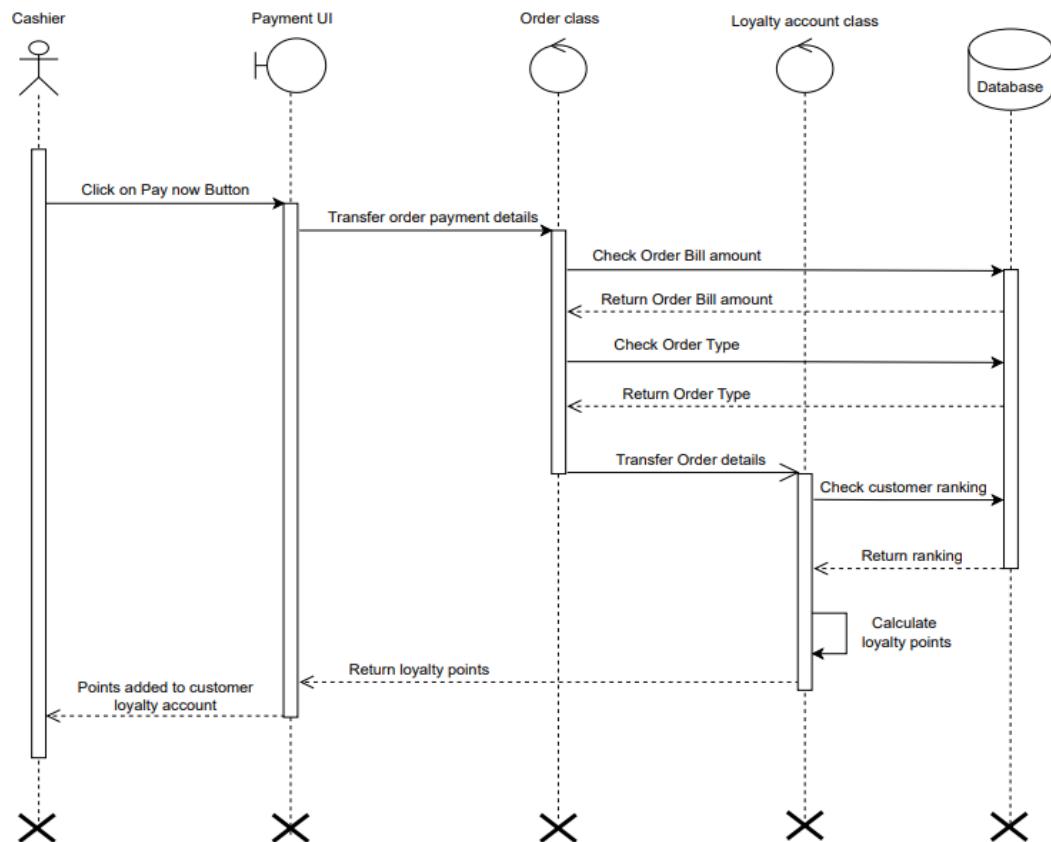


Figure 34 Add loyalty points sequence

Apply Promotion to Order Sequence

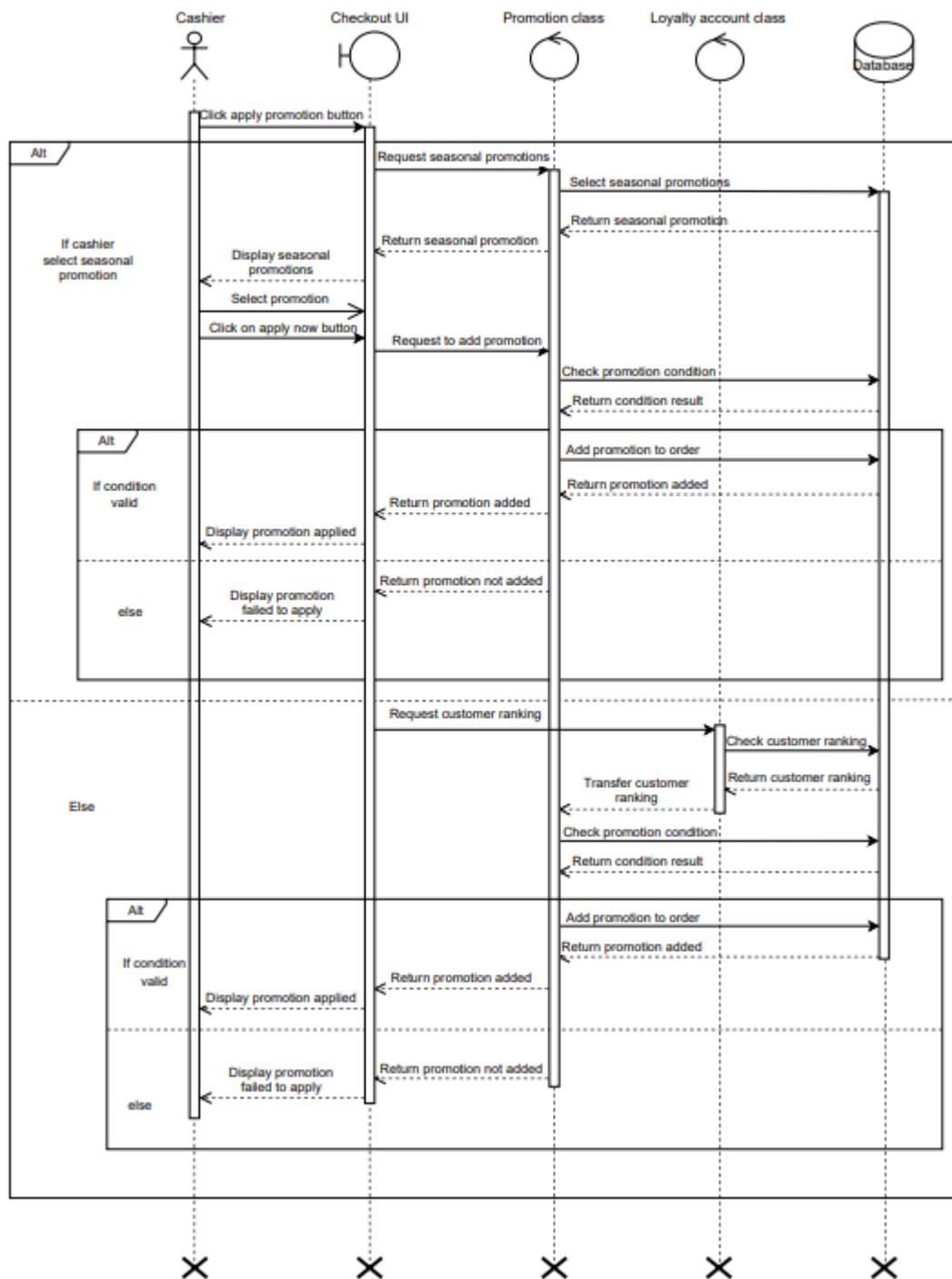


Figure 35 Apply promotion to order sequence

Can Redeem Loyalty Points Sequence

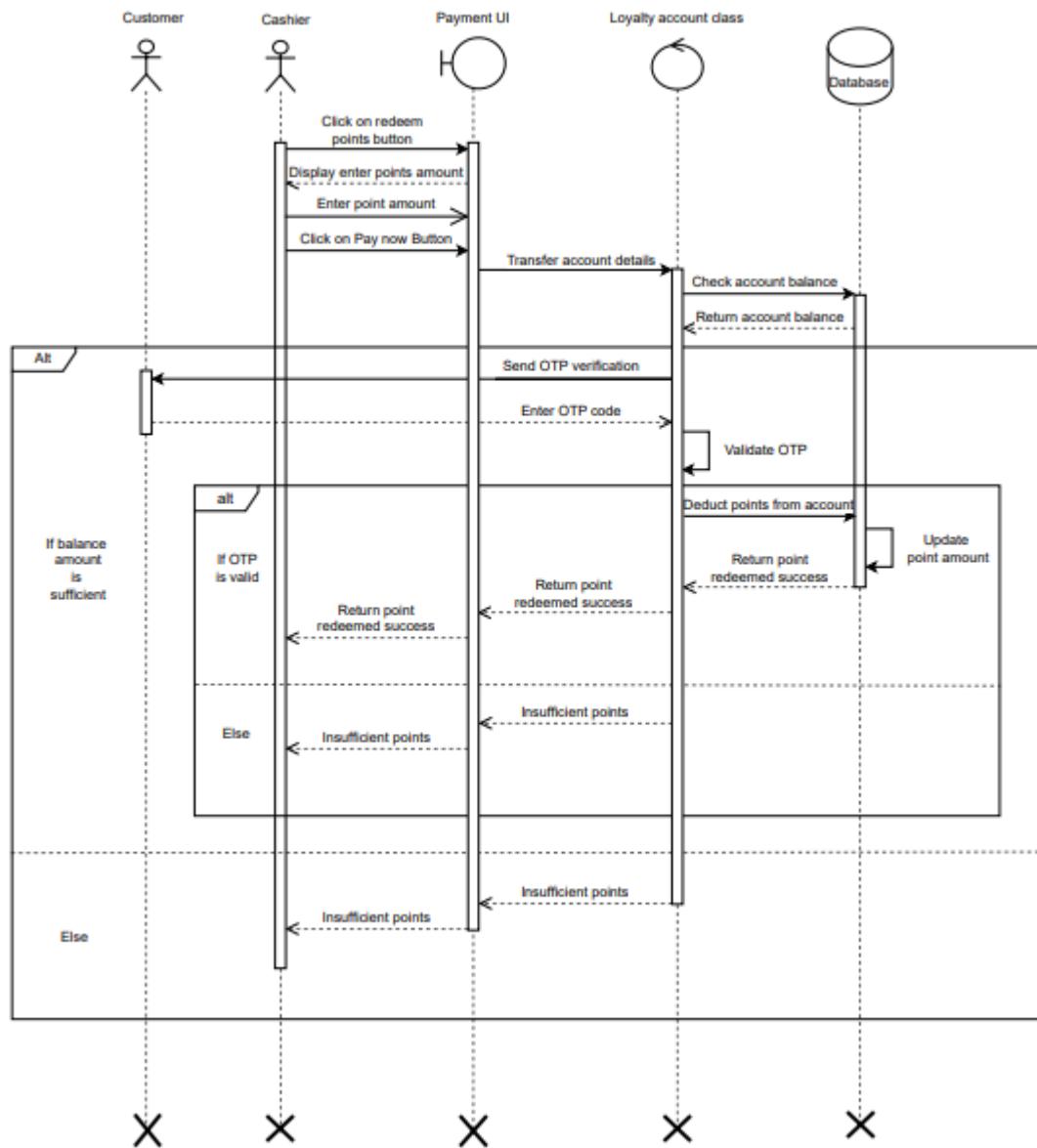


Figure 36 Can redeem loyalty points sequence

Enter Uber Eats Order Sequence

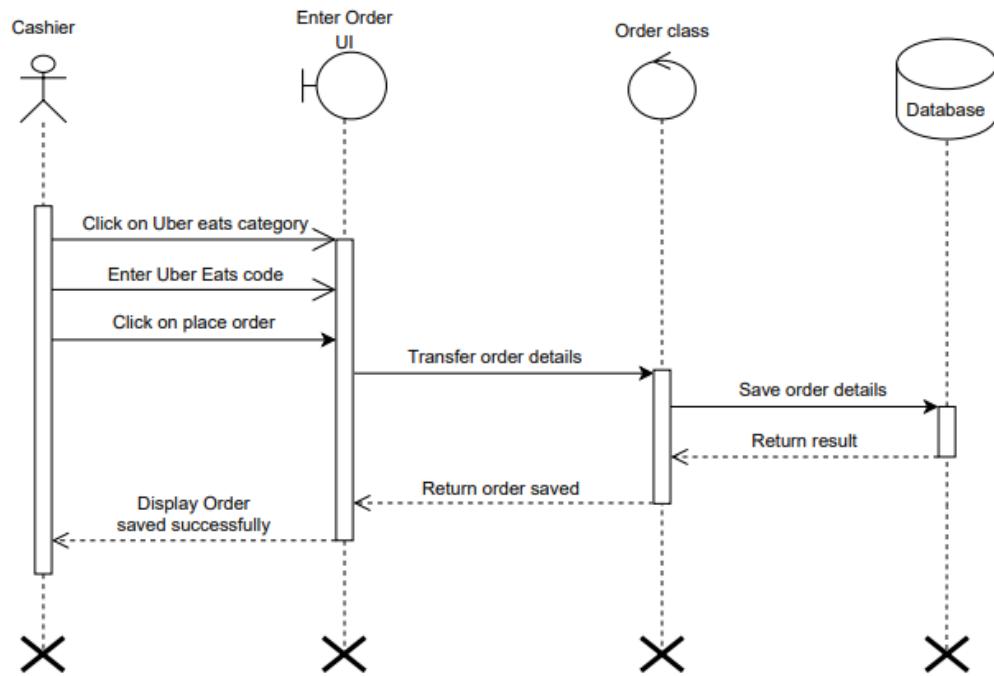


Figure 37 Enter uber eats order sequence

Make Room Bookings Sequence

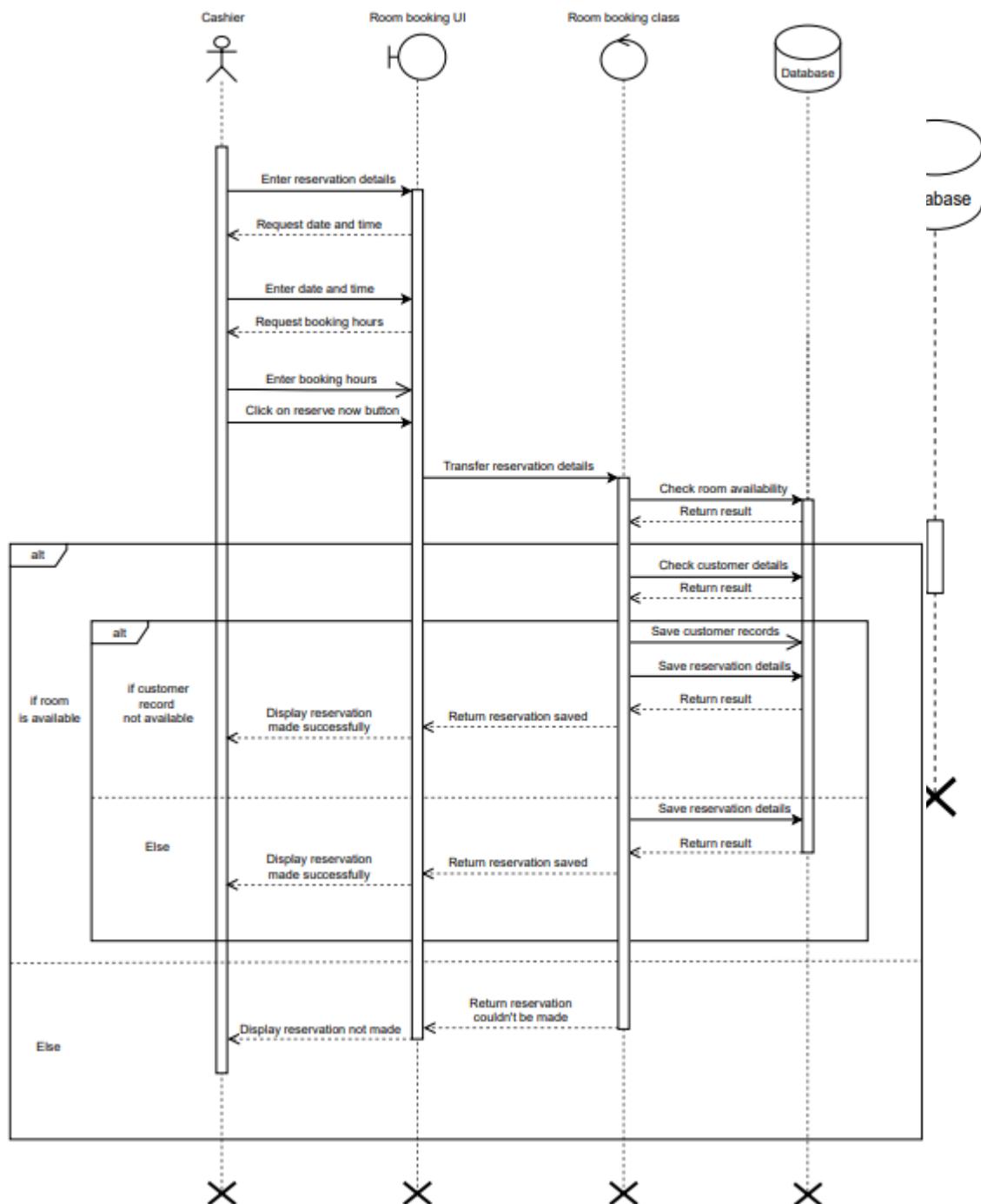


Figure 38 Make room bookings sequence

Figure 39 Modify Order quantity sequence

Register to Customer Loyalty Account Sequence

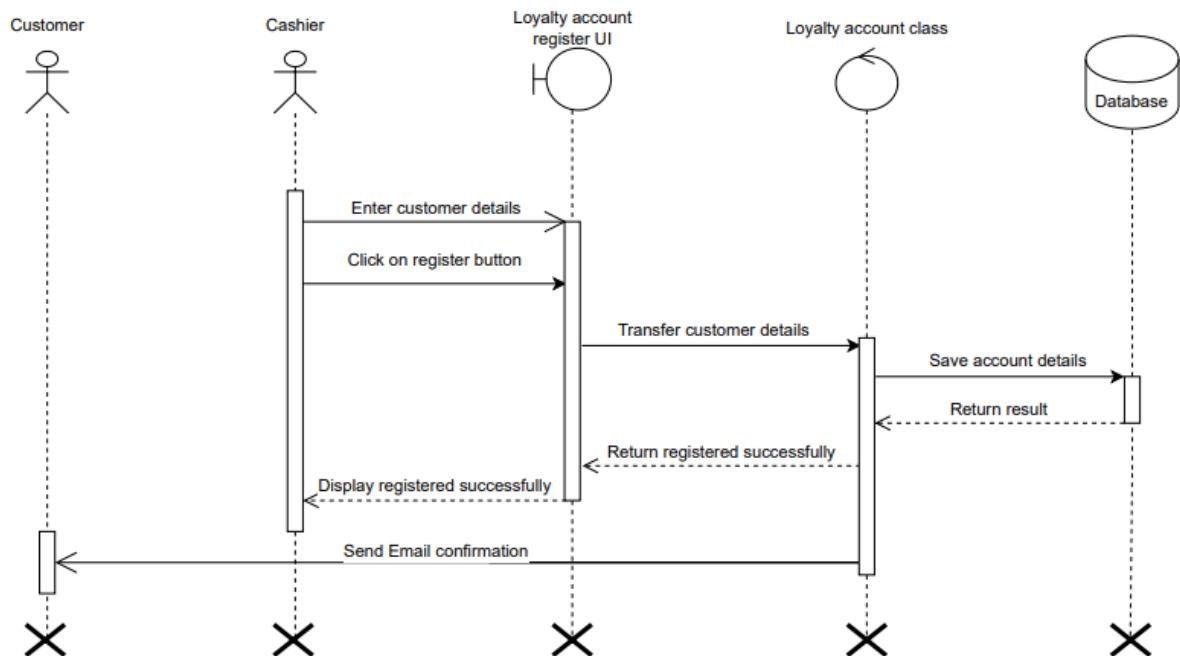


Figure 40 Register customer to loyalty program sequence

Request to Cancel Booking Sequence

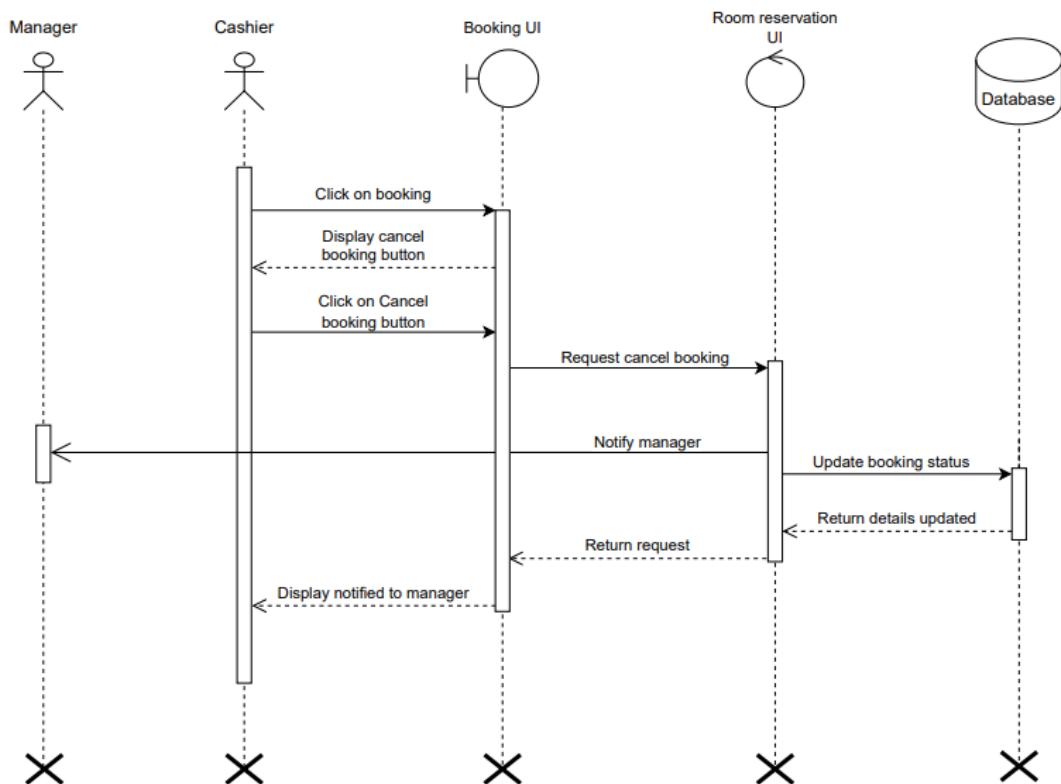


Figure 41 Request to cancel room booking sequence

Request to Cancel Order Sequence

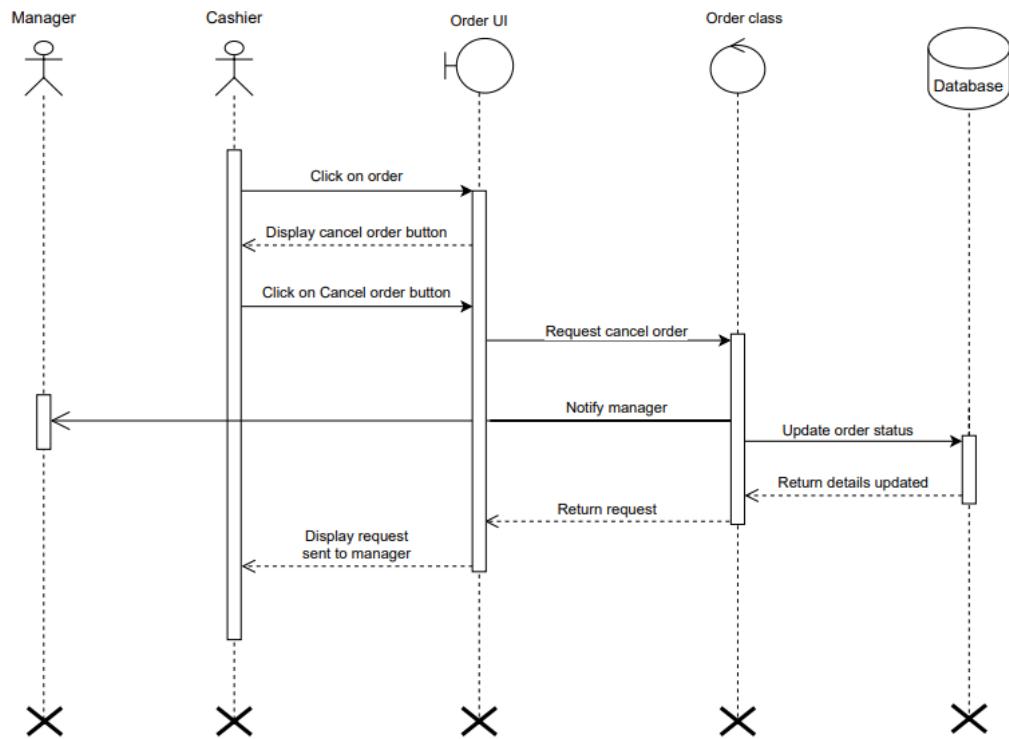


Figure 42 Request to cancel order sequence

Remove Items from Order Sequence

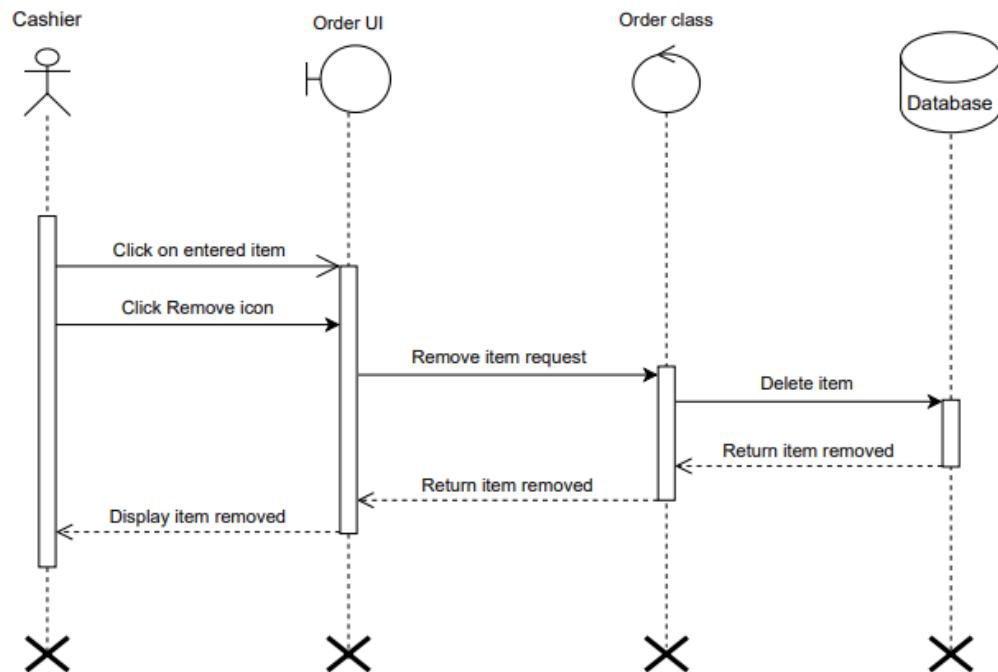


Figure 43 Remove items from order sequence

Request to Cancel Reservation Sequence

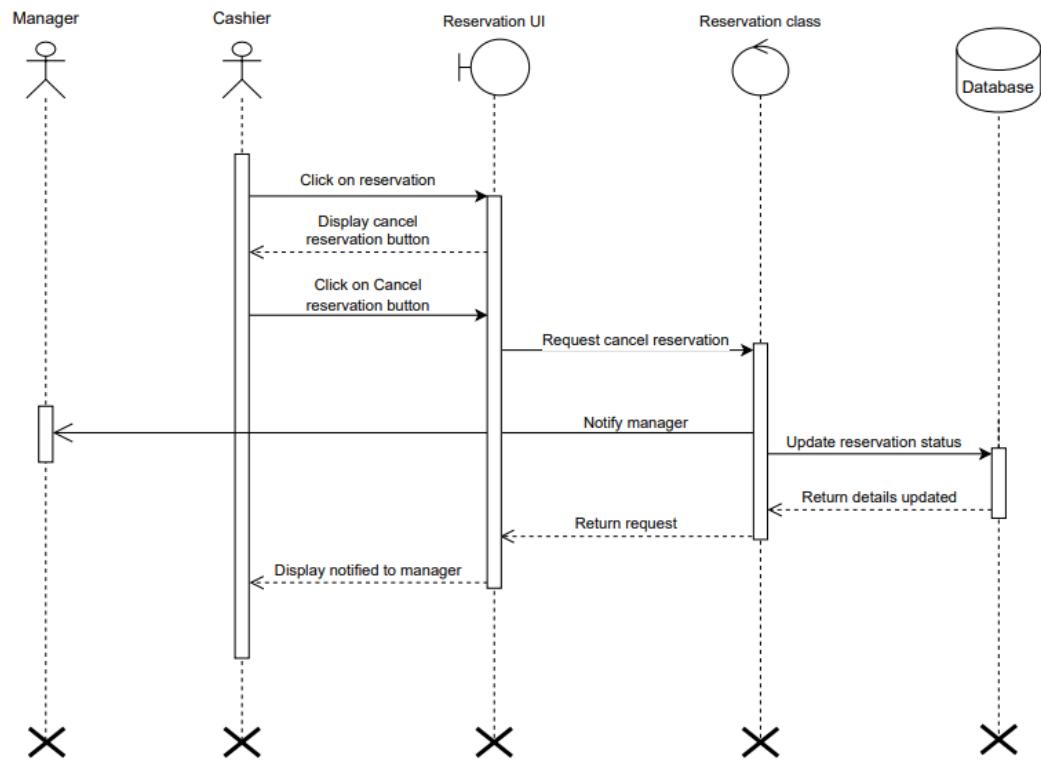


Figure 44 Request to cancel reservation sequence

Take Cash Payments Sequence

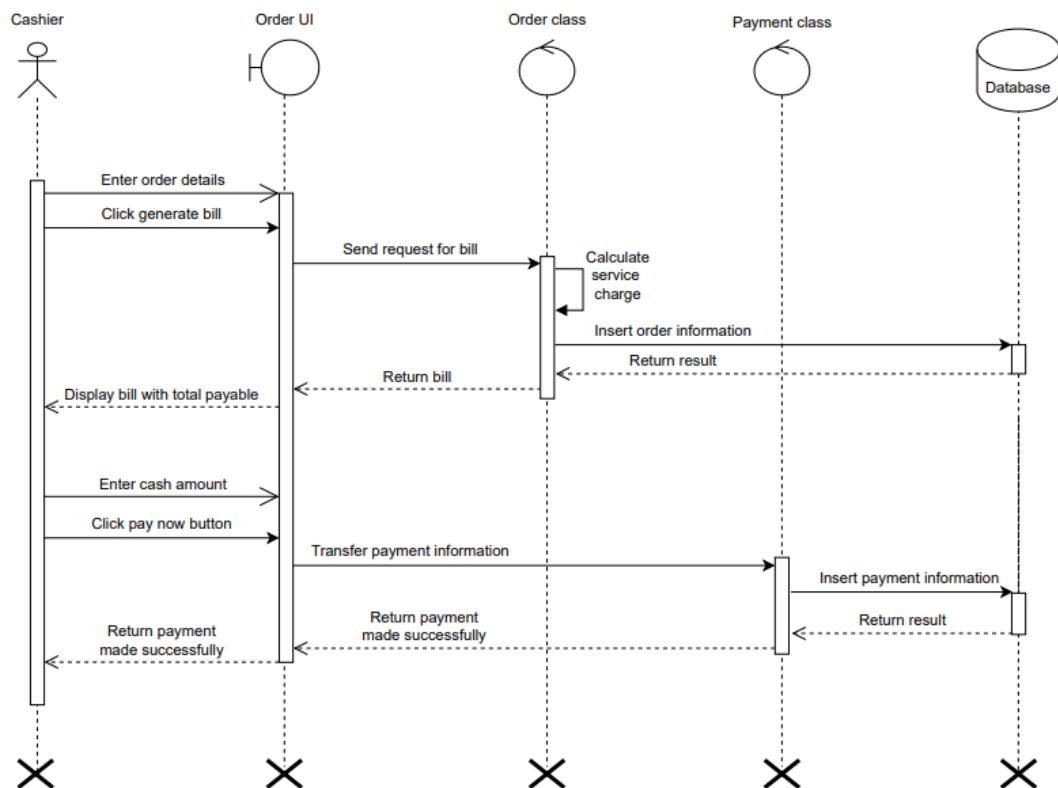


Figure 45 Take cash payment sequence

Take DineIn Orders Sequence

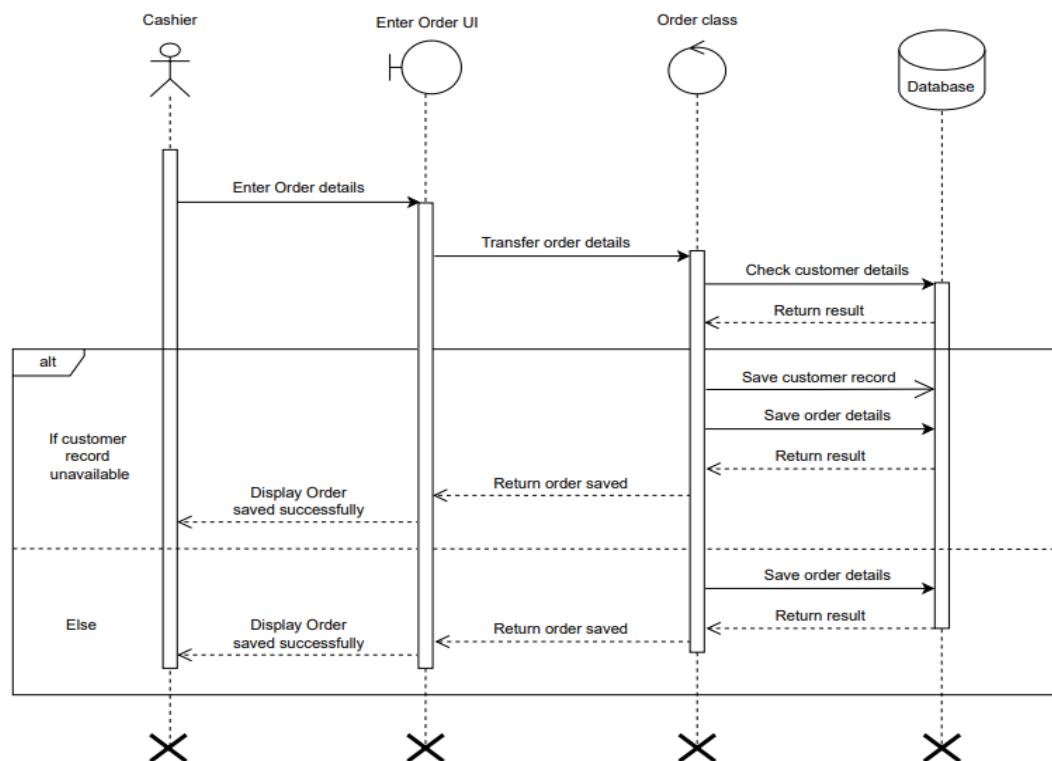


Figure 46 Take dine in order sequence

Take Card Payment Sequence

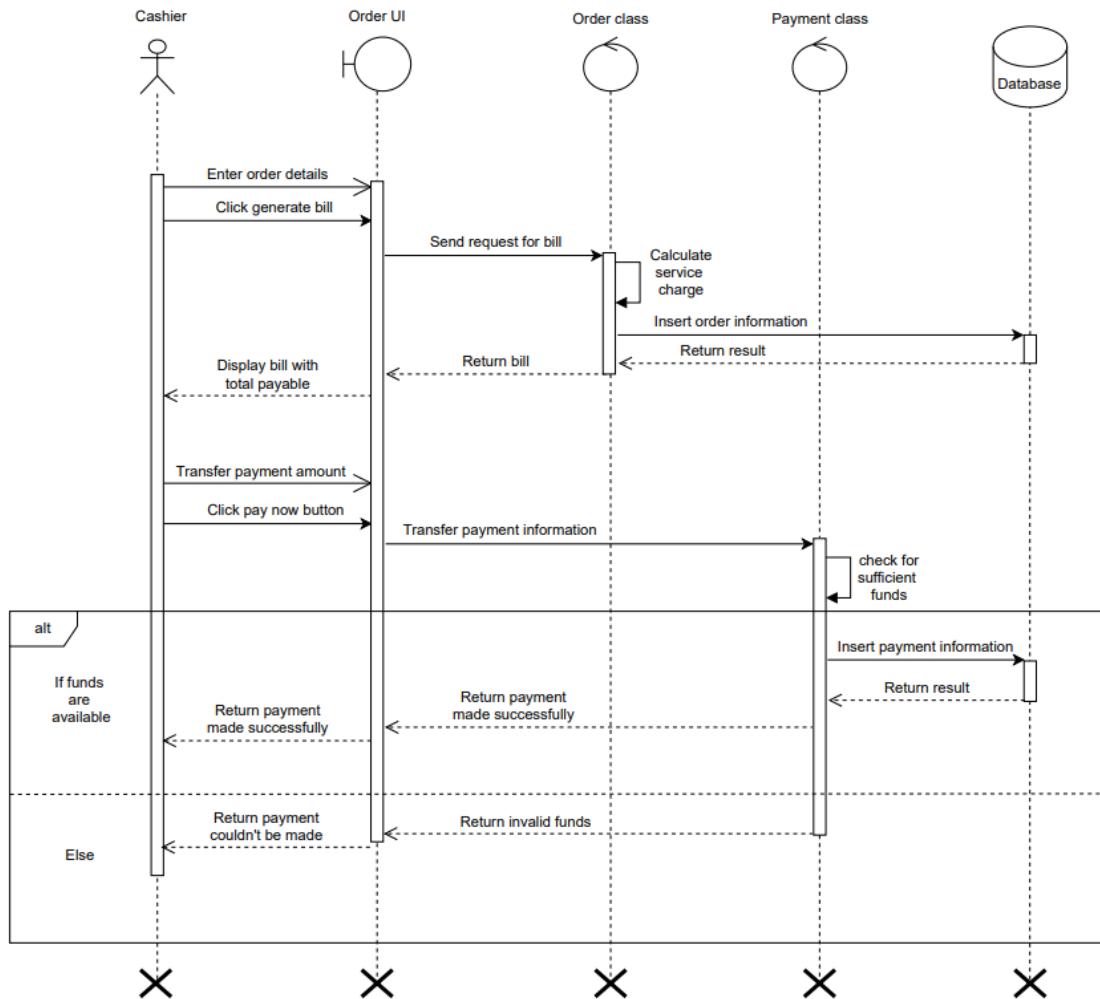


Figure 47 Take card payment sequence

Take Takeaway Order Sequence

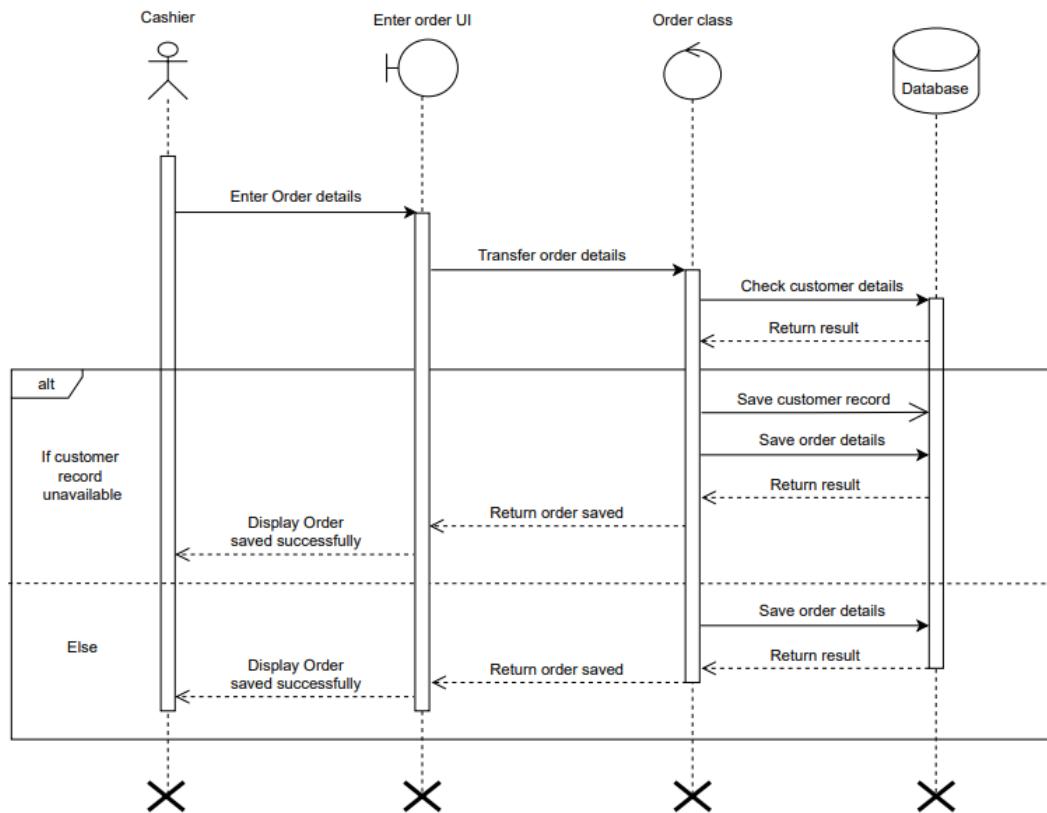


Figure 48 Take takeaway order sequence

Take Payments Sequence

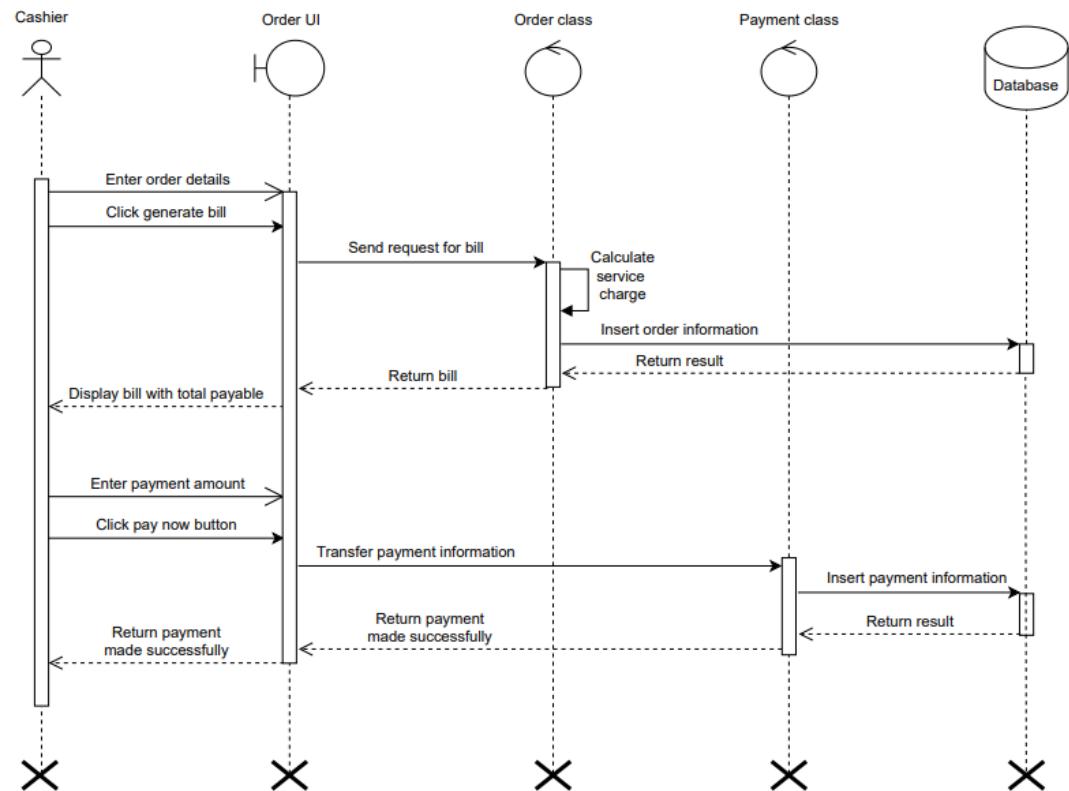


Figure 49 Take payments sequence

Take Orders Sequence

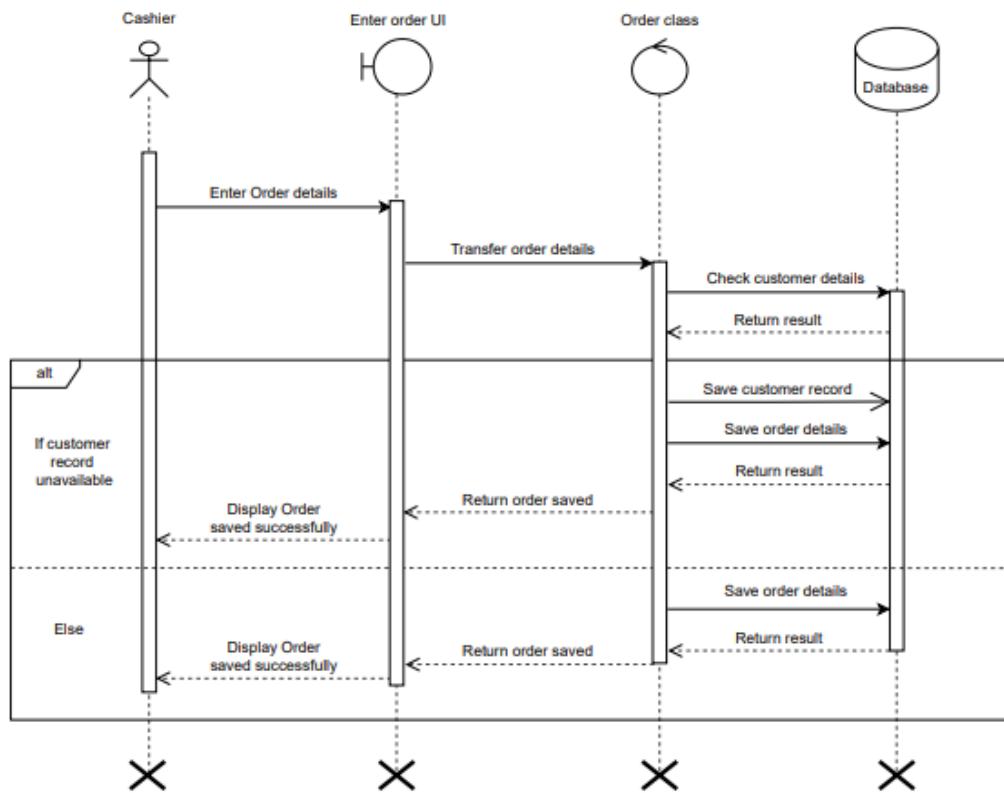


Figure 50 Take orders sequence

Take Table Reservation Sequence

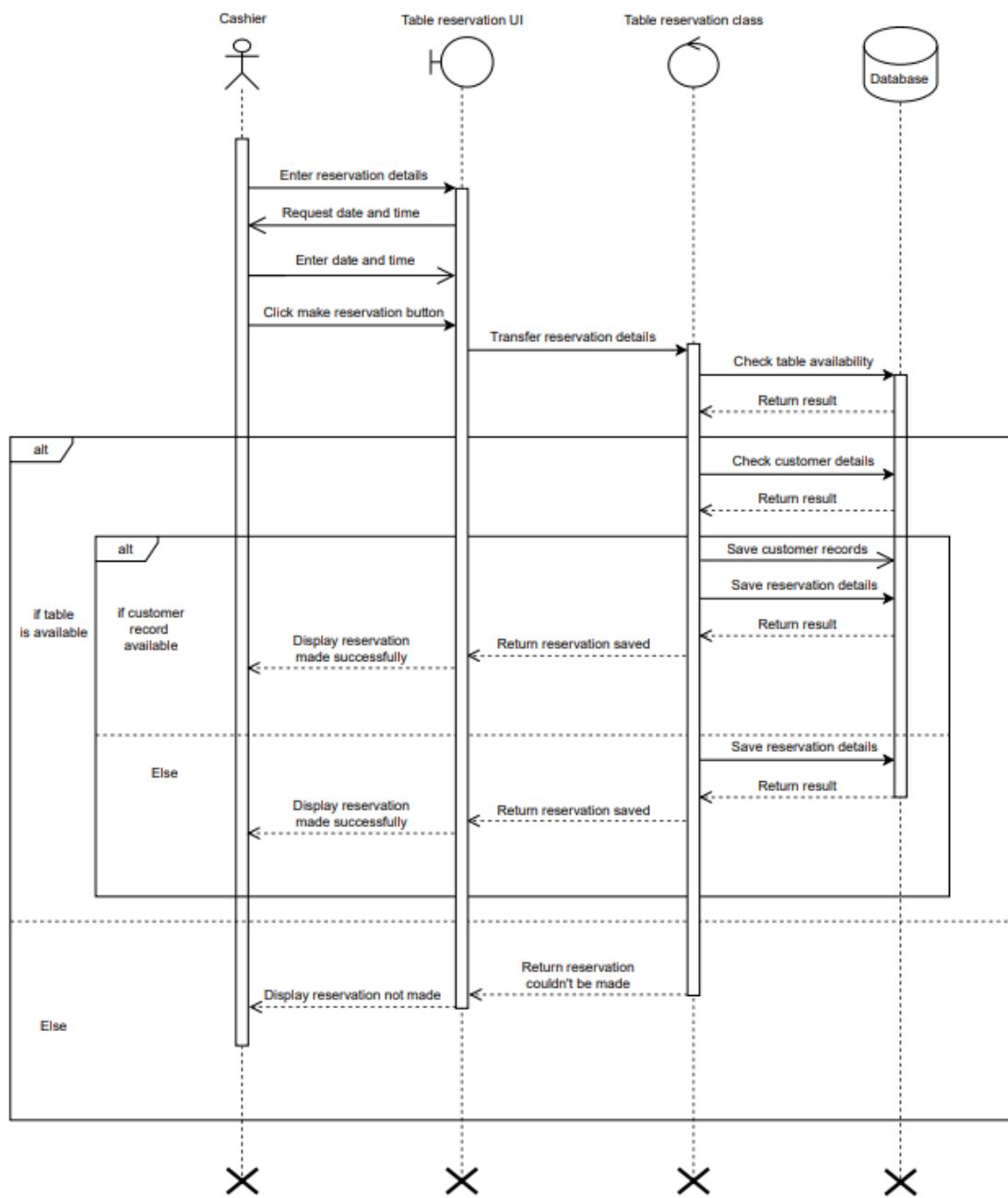


Figure 51 Take table reservation sequence

Update Customer Information Sequence

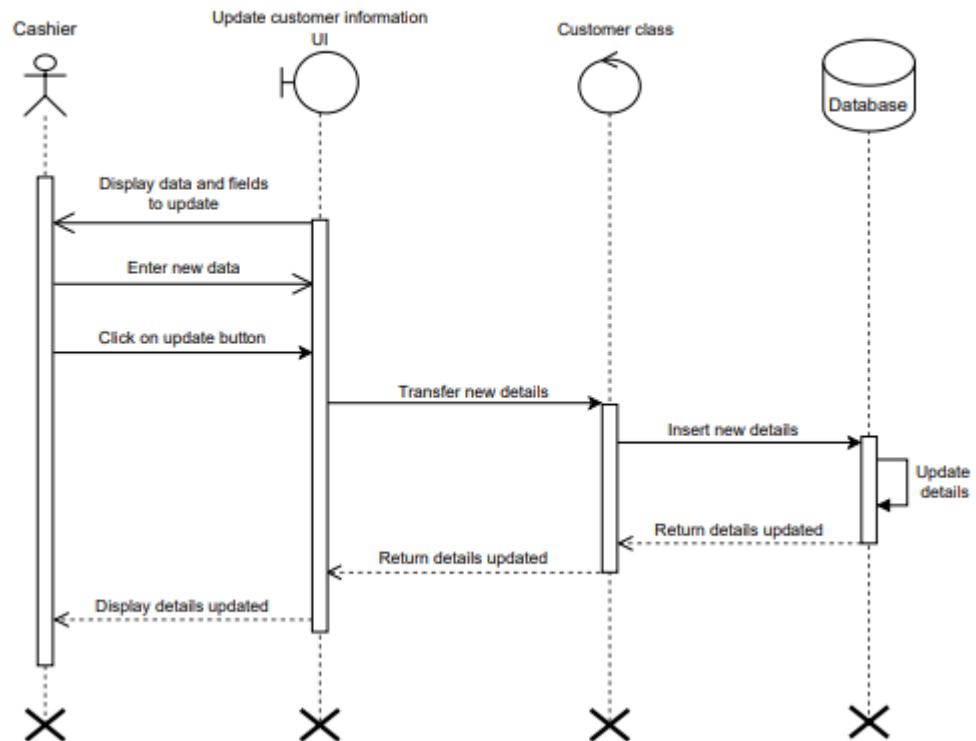


Figure 52 Update customer information sequence

View All Orders Today Sequence

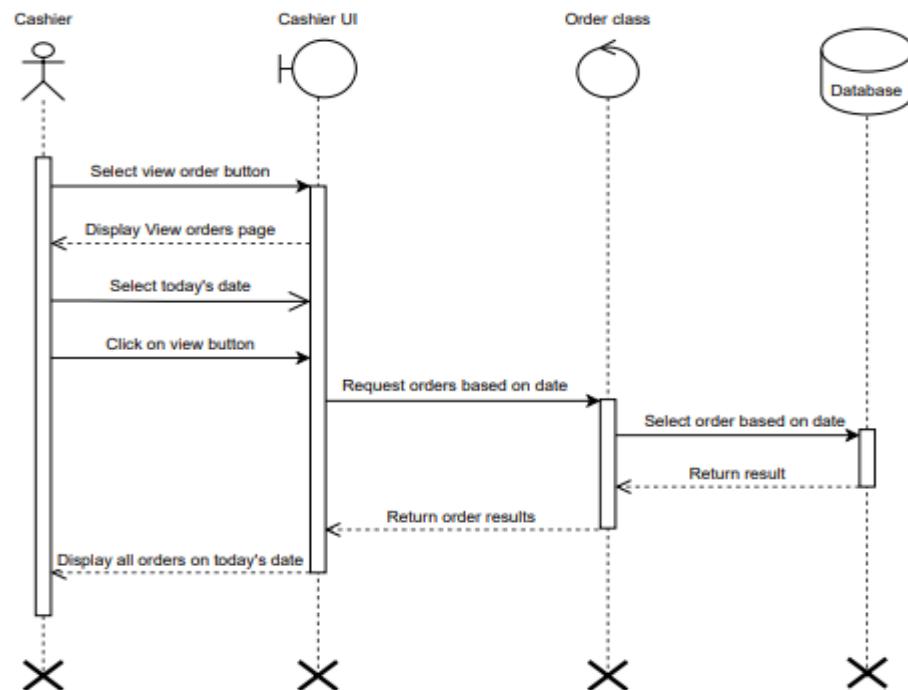


Figure 53 View all orders today sequence

View Available Rooms Sequence

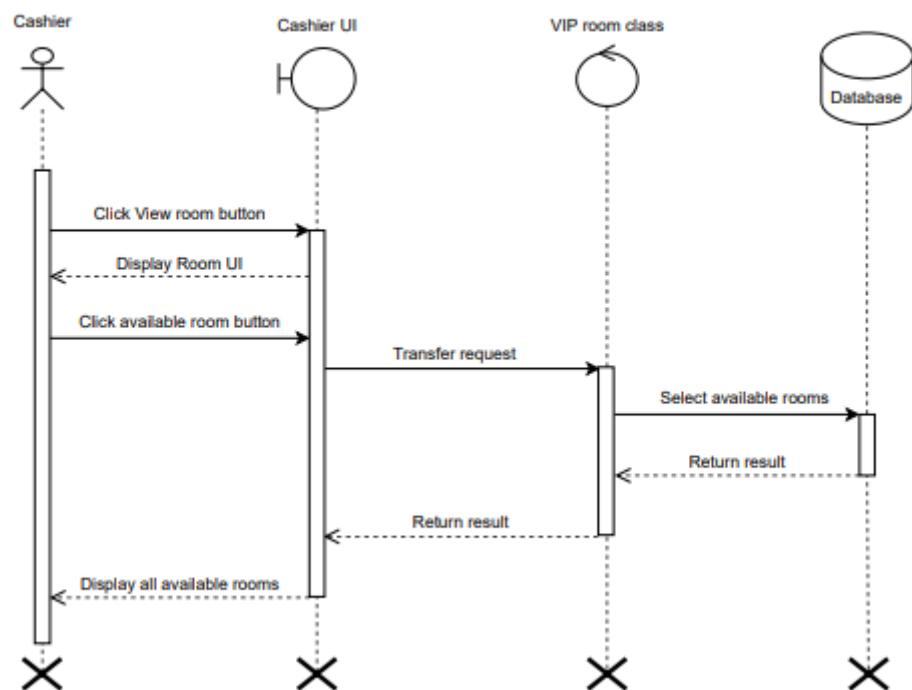


Figure 54 View available rooms sequence

View Available Tables Sequence

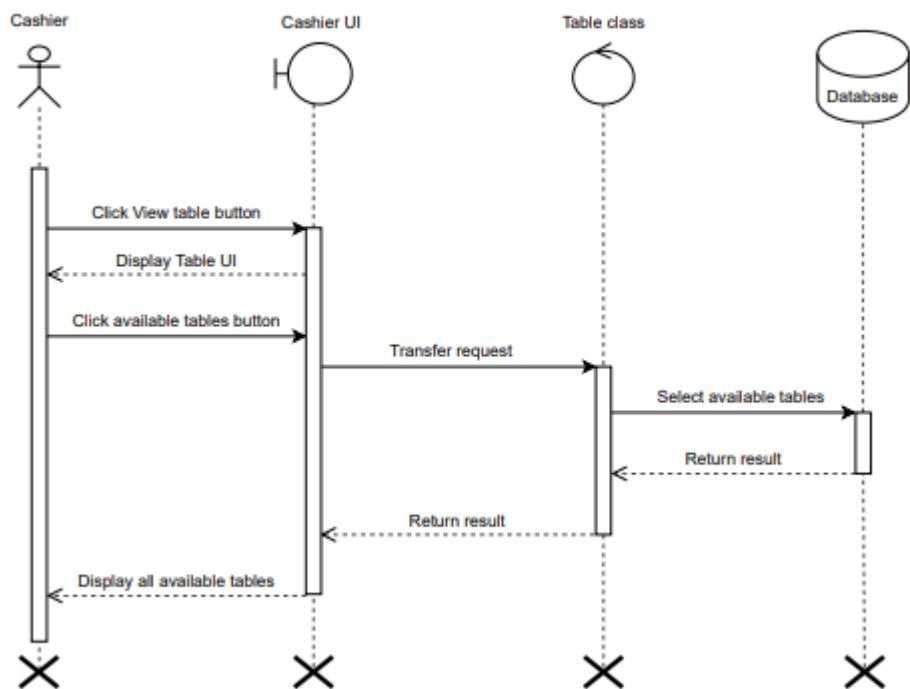


Figure 55 View available tables sequence

Accept Meal Preparation Sequence

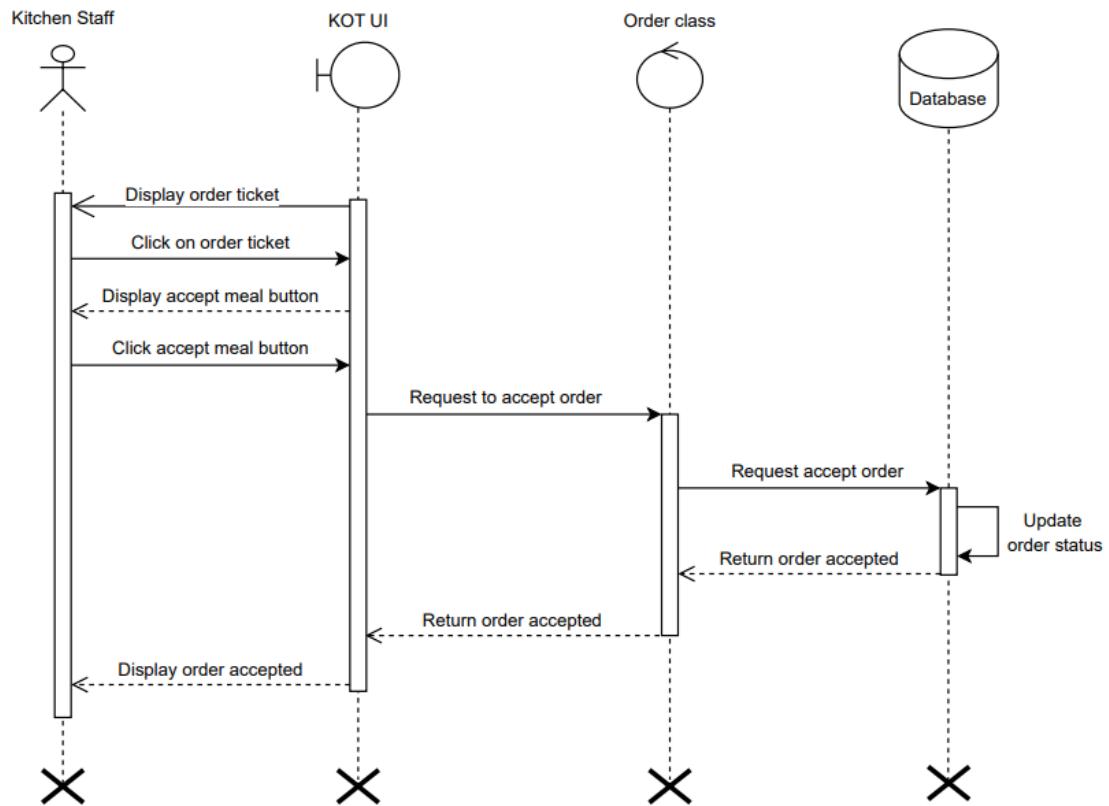


Figure 56 Accept meal preparation sequence

View Orders Sequence

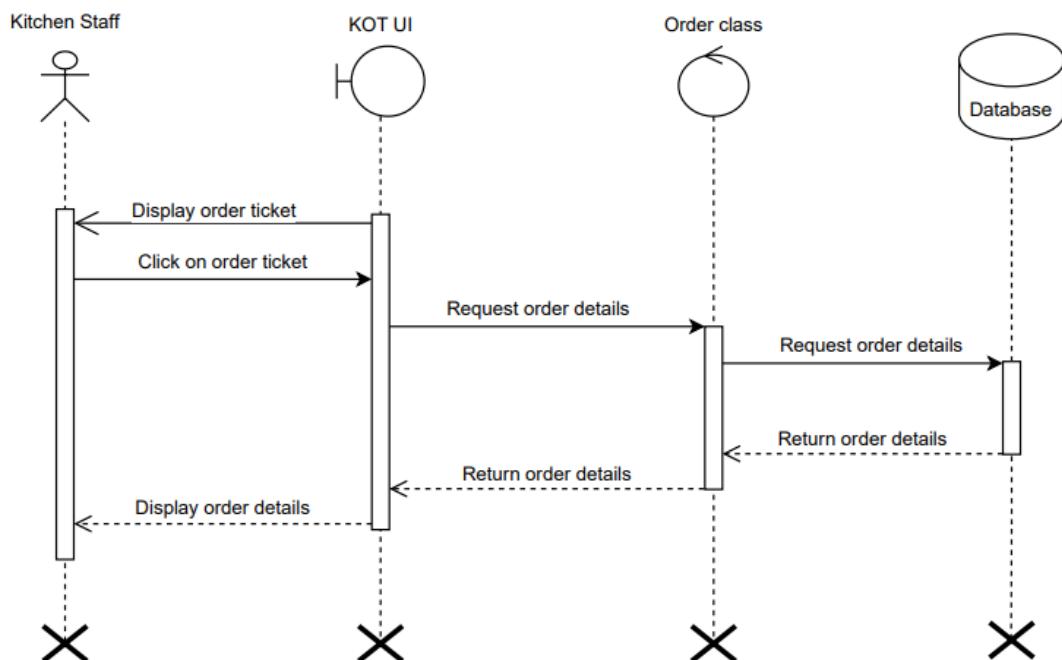


Figure 57 View orders sequence

View All Prepared Orders Sequence

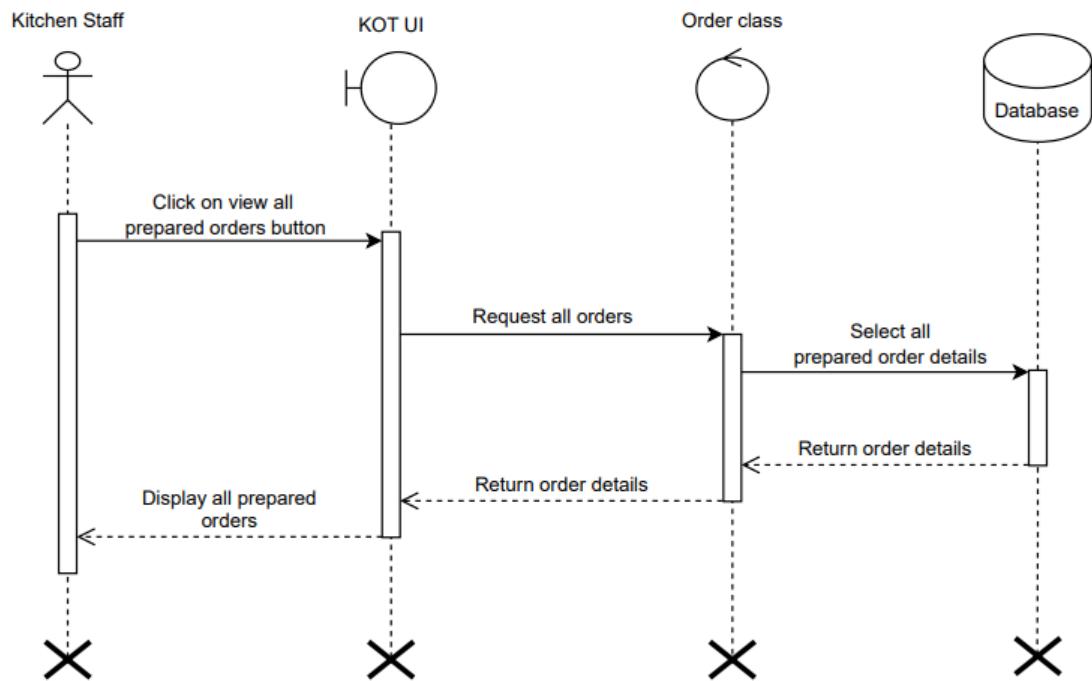


Figure 58 View all prepared orders sequence

View Recipe Sequence

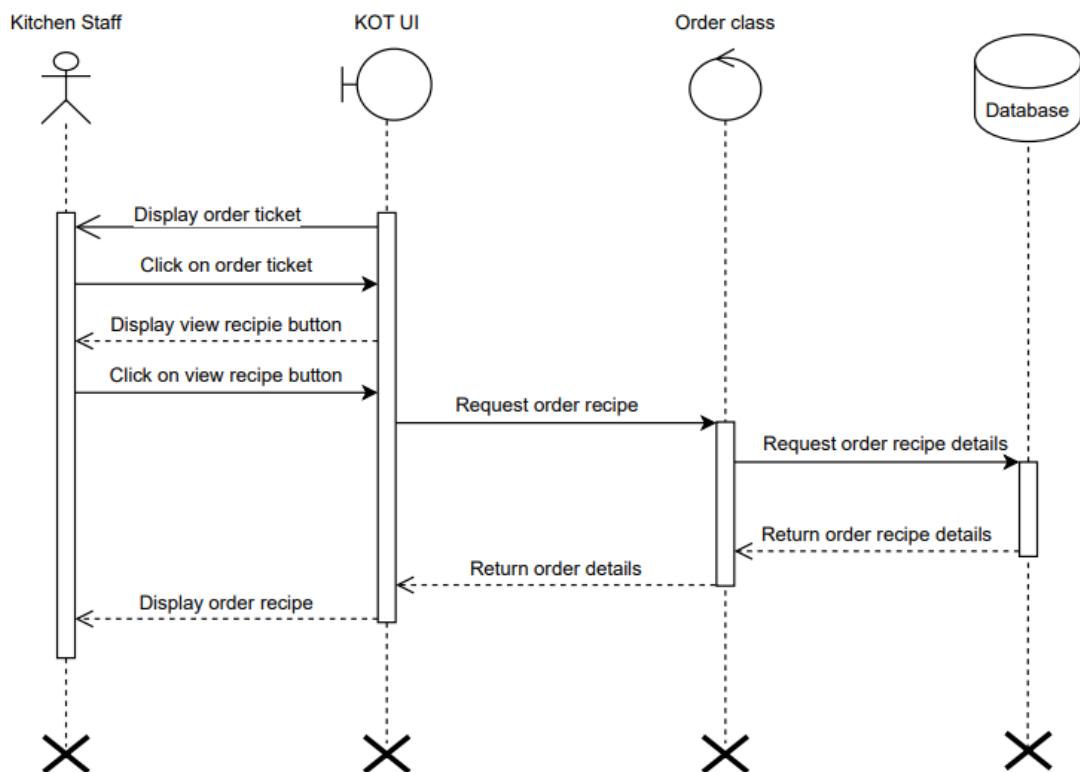


Figure 59 View recipe sequence

Add Employee Sequence

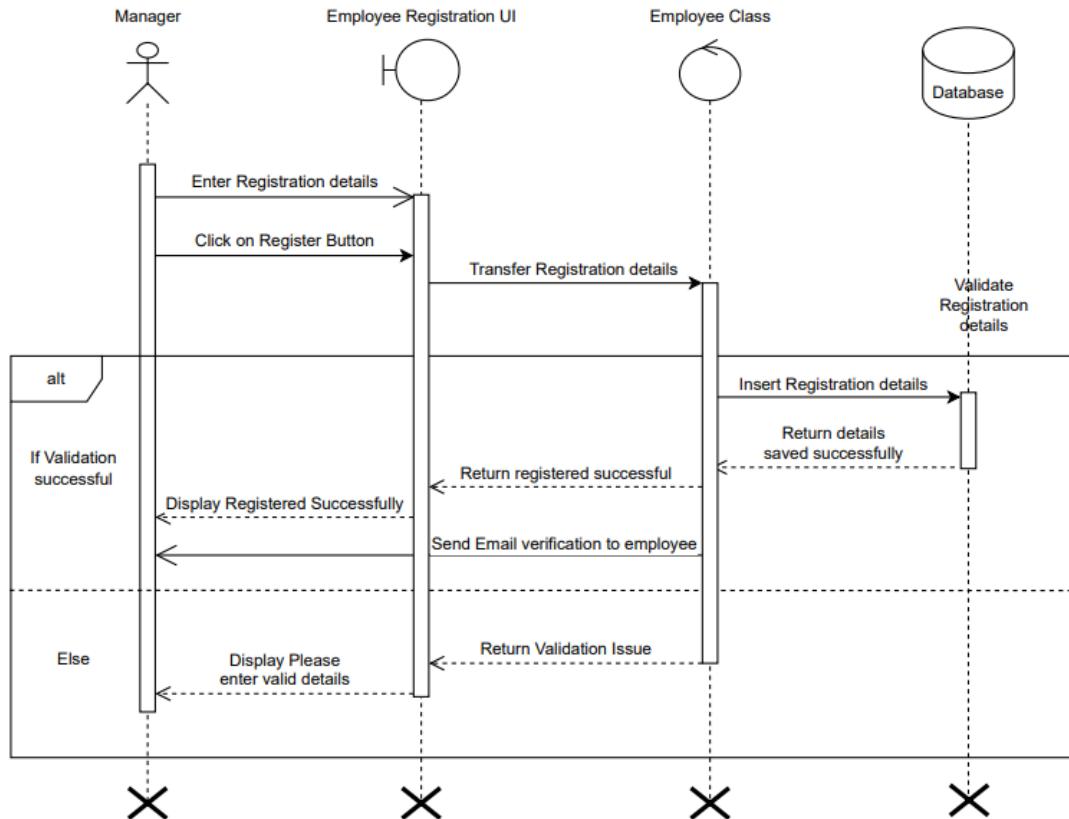


Figure 60 Add employee sequence

Search Order Information Sequence

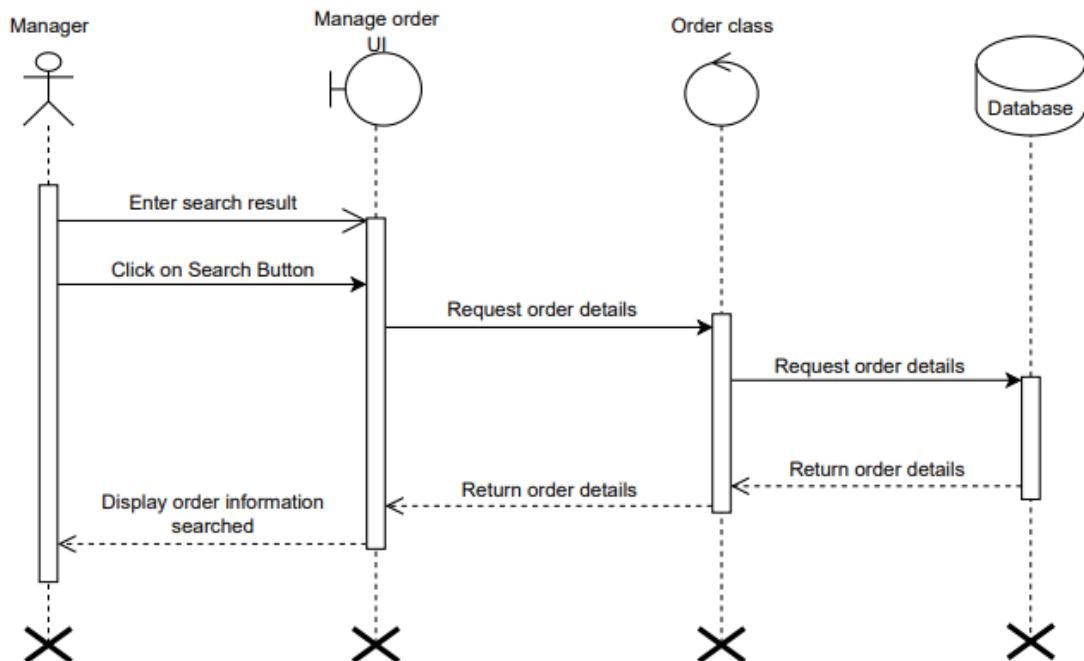


Figure 61 Search order information sequence

Decline Meal Preparation Sequence

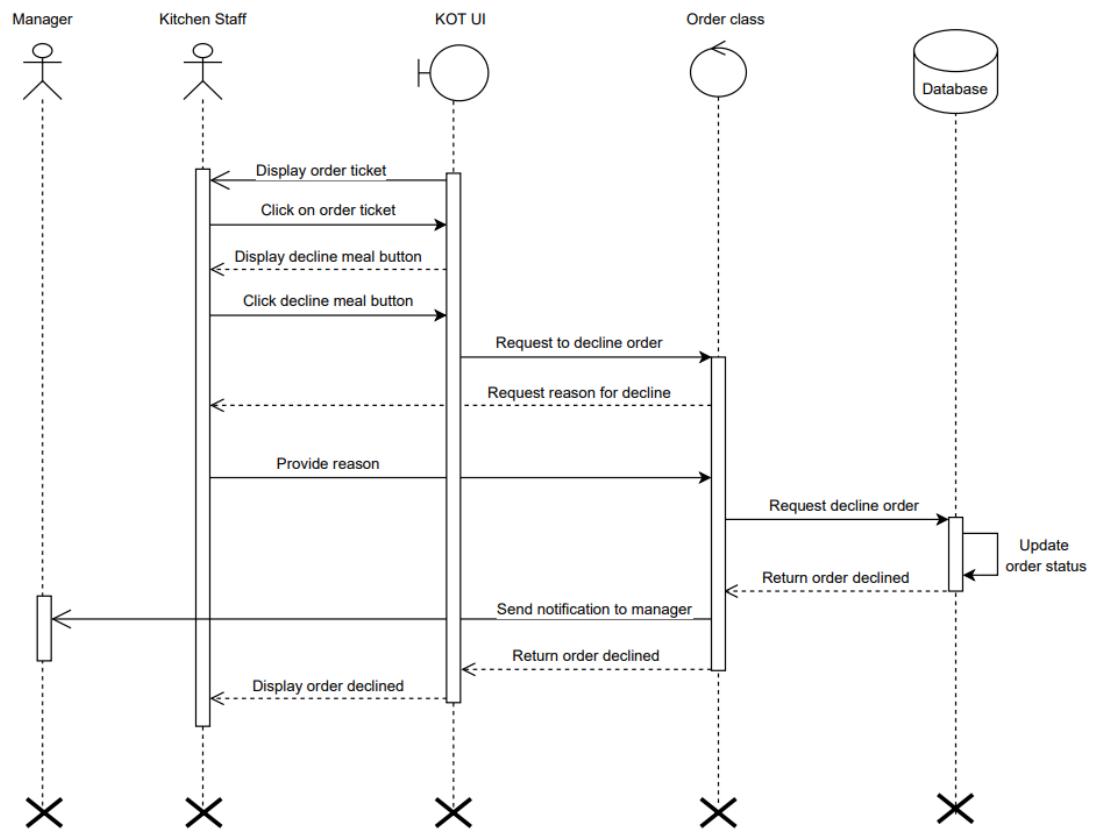


Figure 62 Decline meal preparation sequence

Add Loyalty Account Sequence

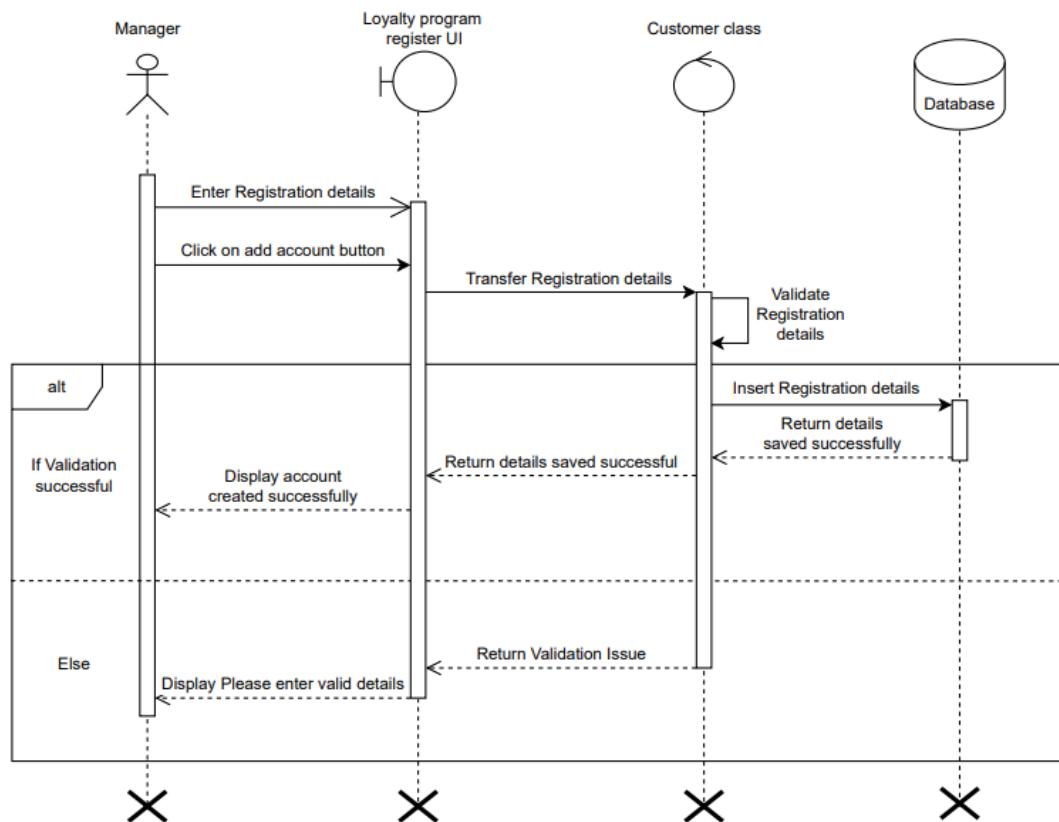


Figure 63 Add loyalty account sequence

Search Booking Information Sequence

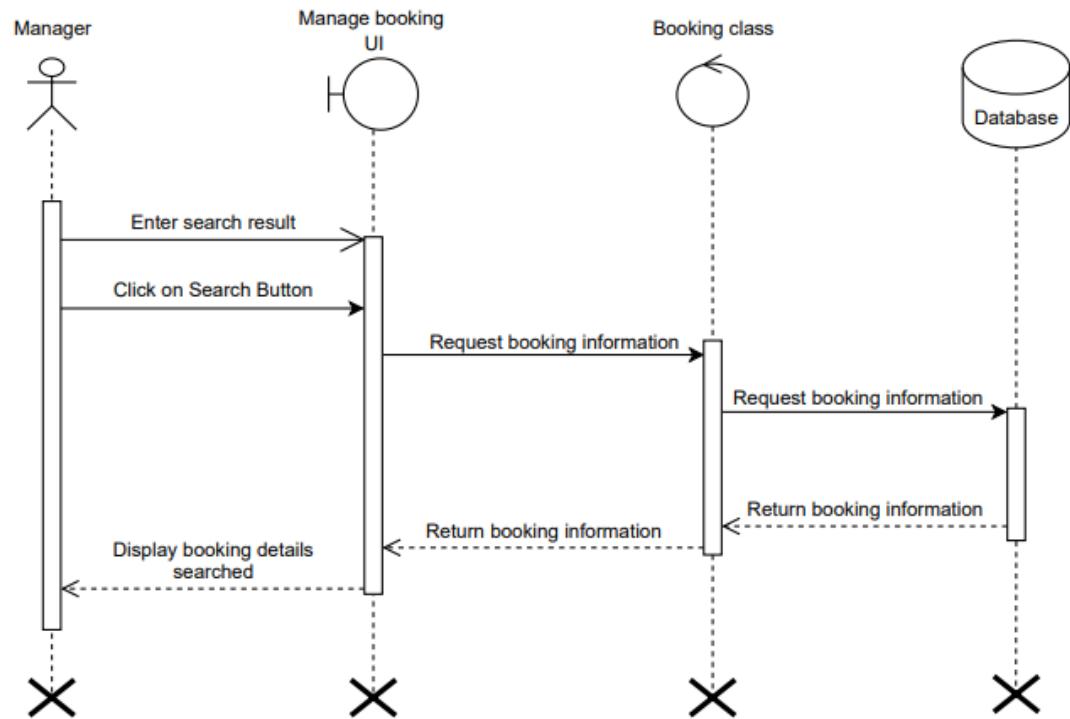


Figure 64 Search booking information sequence

Cancel Orders Sequence

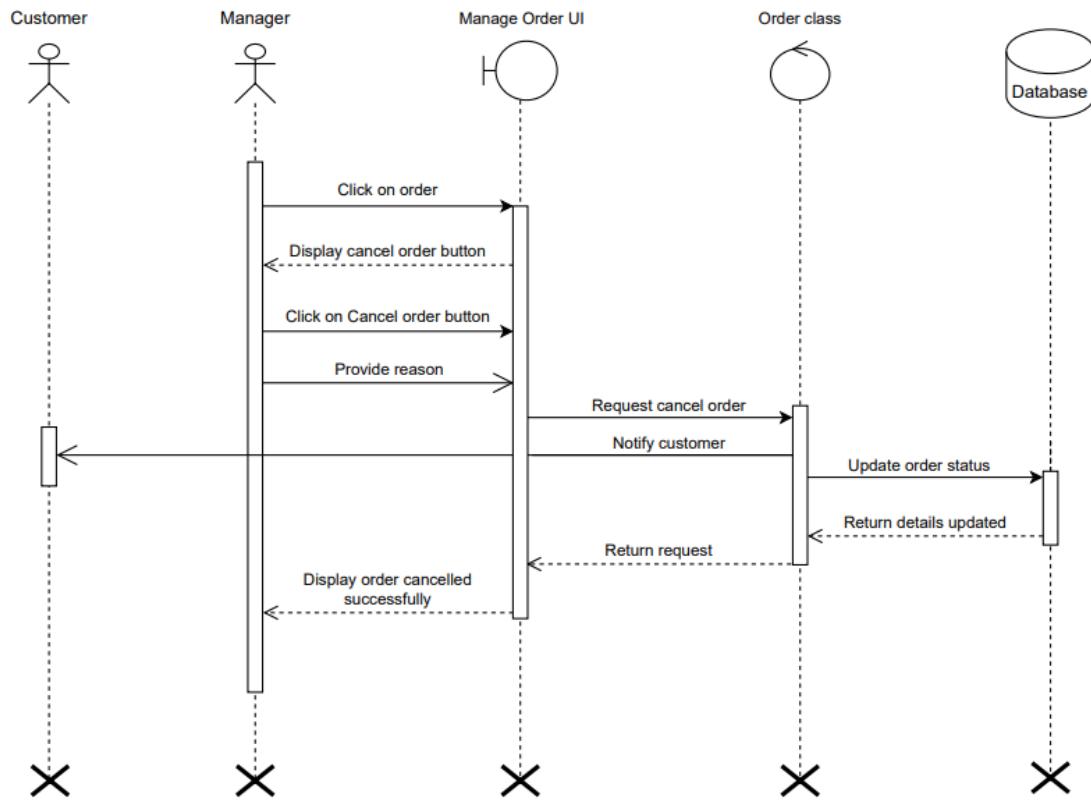


Figure 65 Cancel orders sequence

Cancel Room Booking Sequence

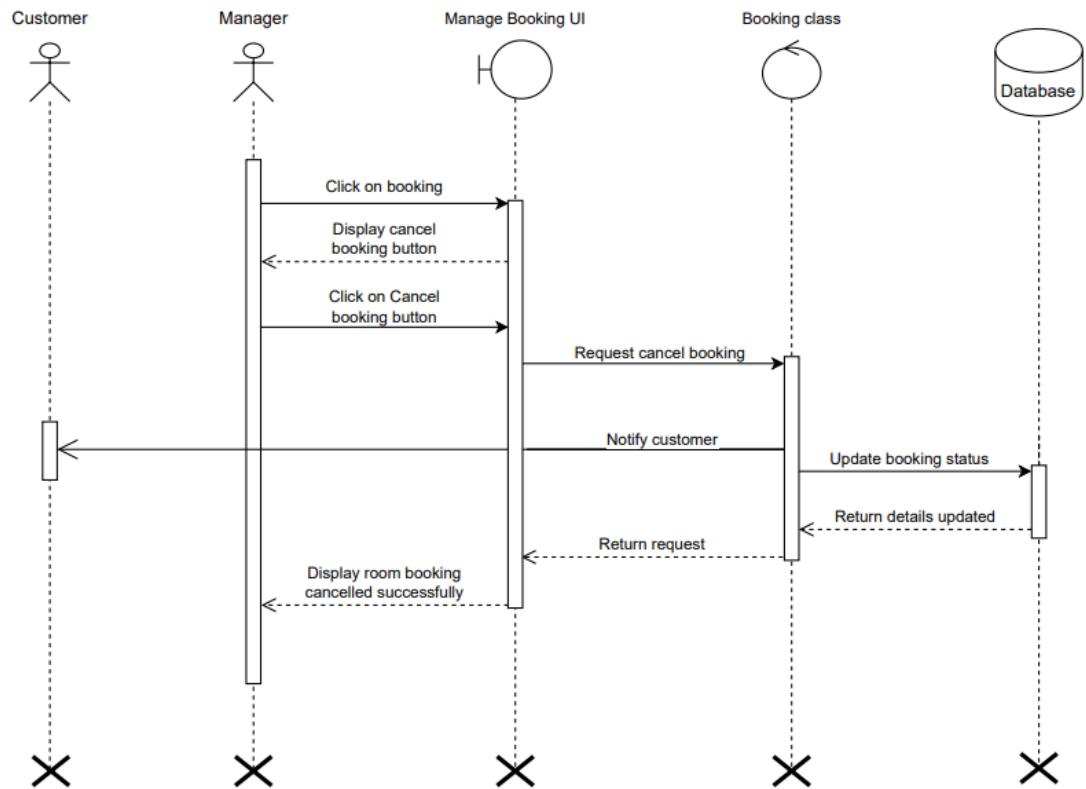


Figure 66 Cancel room booking sequence

Cancel Reservation Sequence

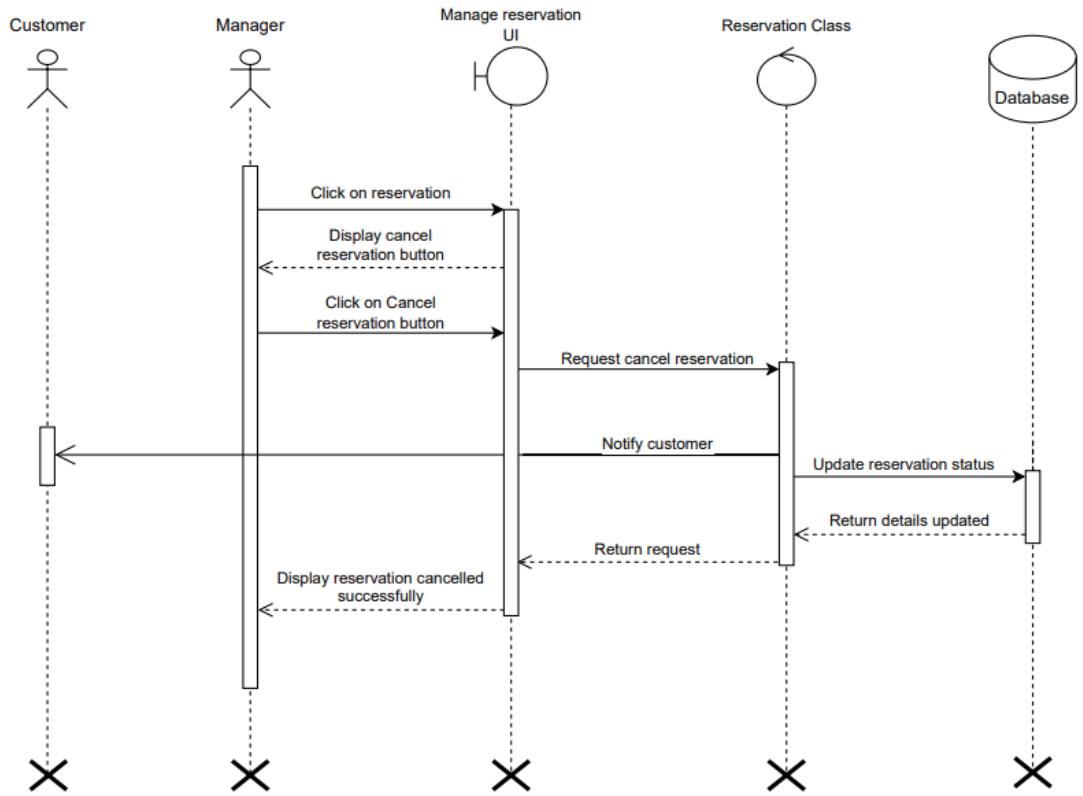


Figure 67 Cancel reservation sequence

Delete Employee Sequence

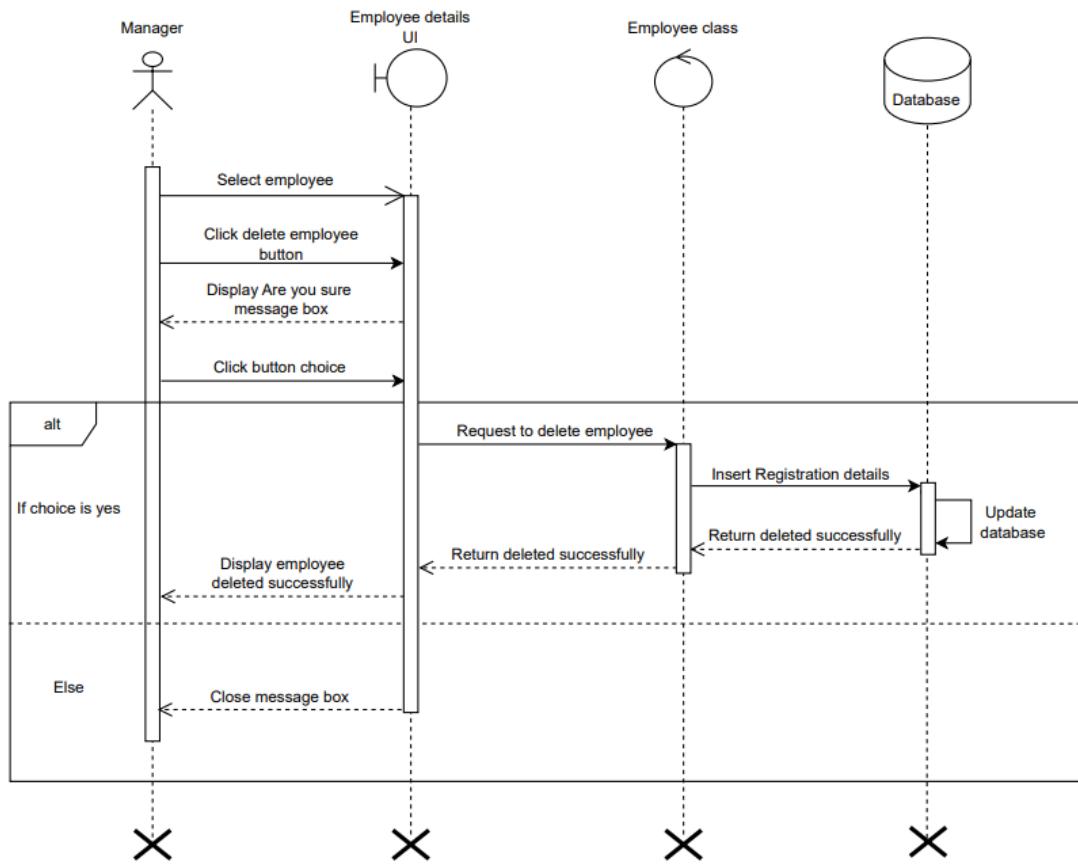


Figure 68 Delete Employee Sequence

Generate Daily Sales Report Sequence

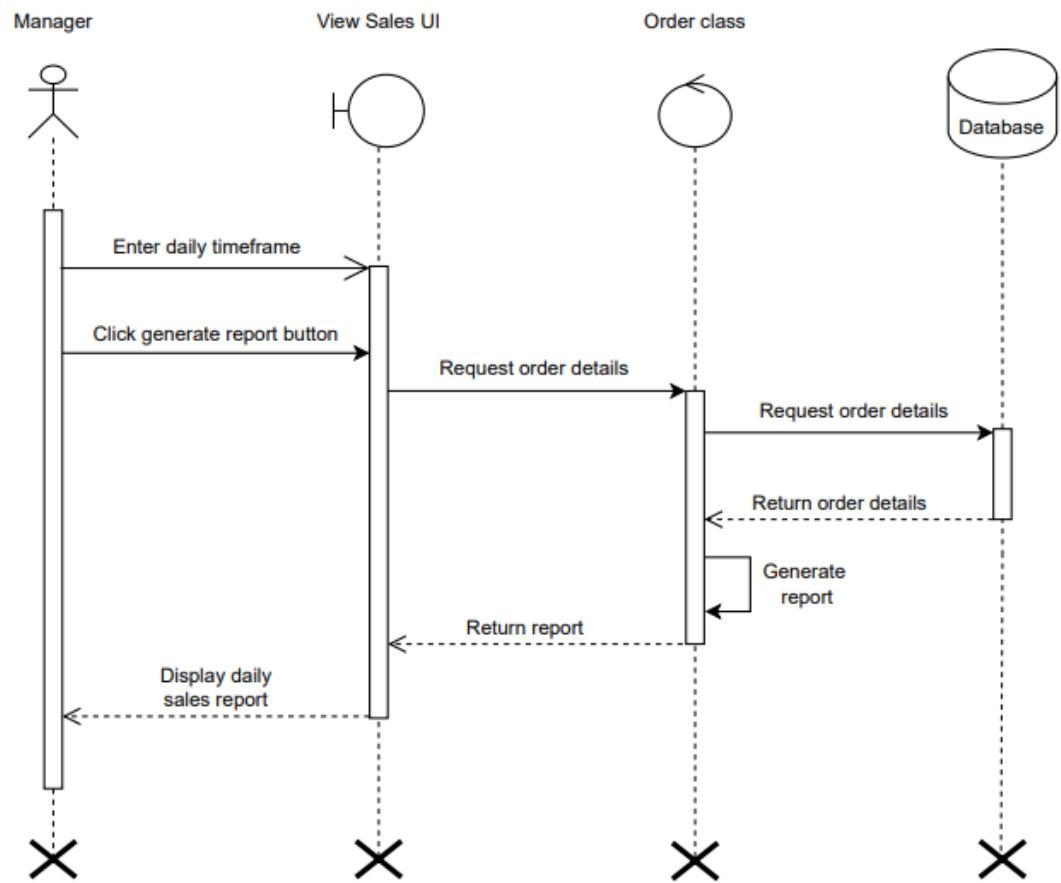


Figure 69 Generate daily sales report sequence

Generate Monthly Sales Report Sequence

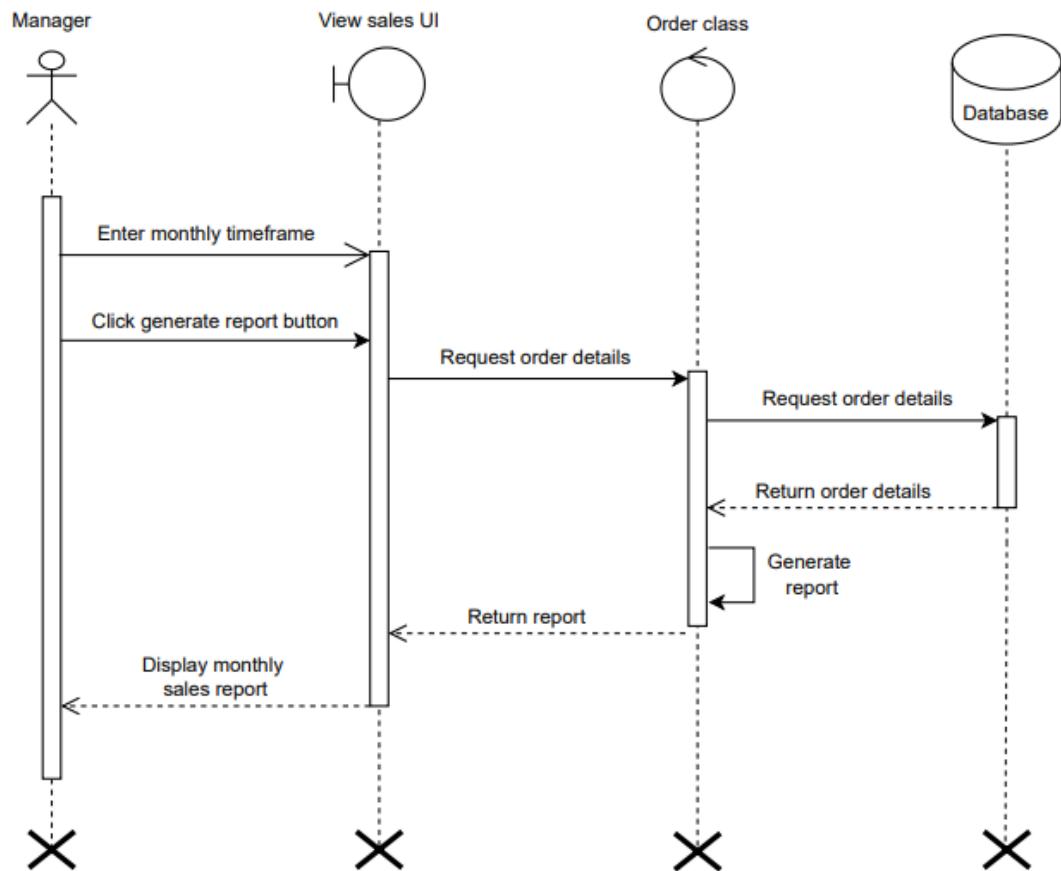


Figure 70 Generate monthly sales report sequence

Generate Monthly Feedback Report Sequence

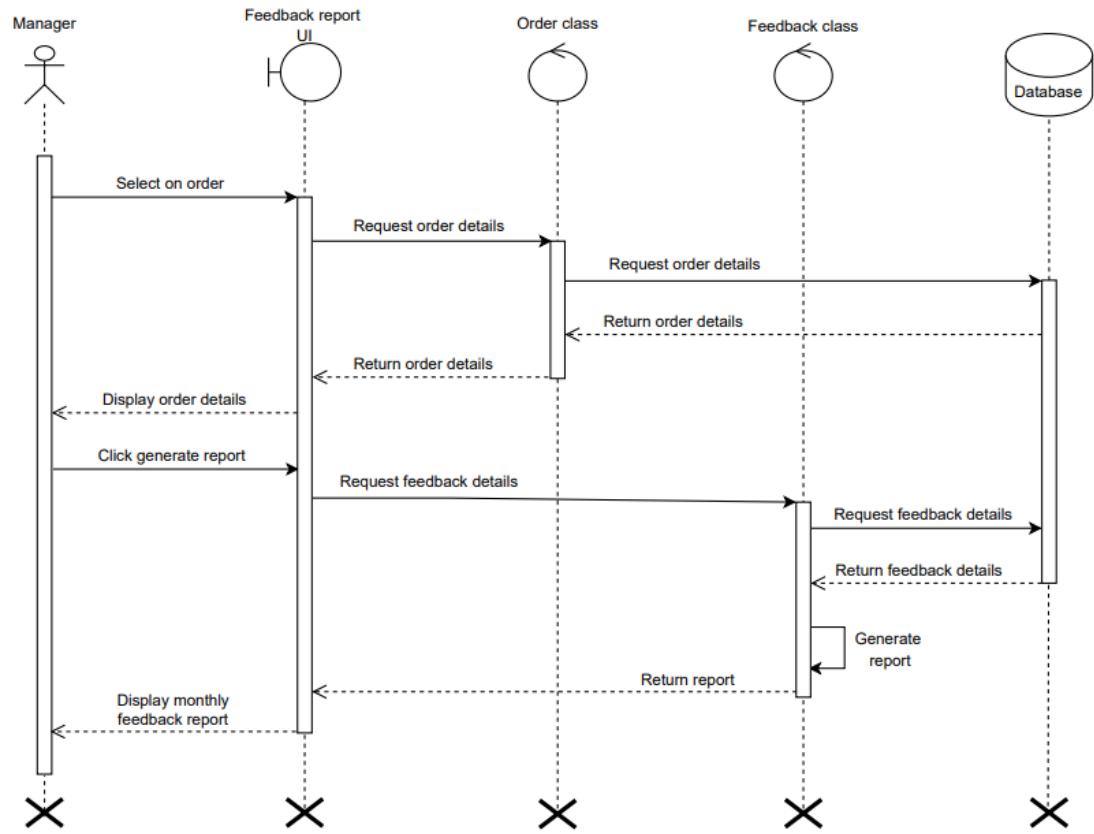


Figure 71 Generate monthly feedback report sequence

Generate Weekly Sales Report Sequence

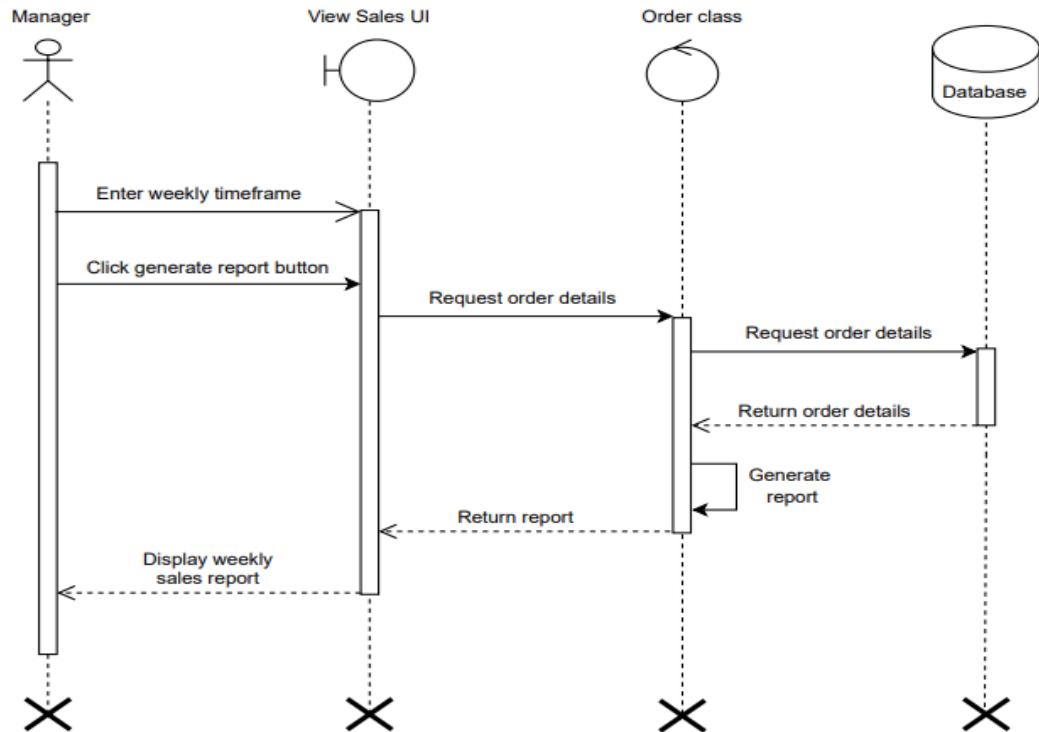


Figure 72 Generate weekly sales report sequence

Search Reservation Information Sequence

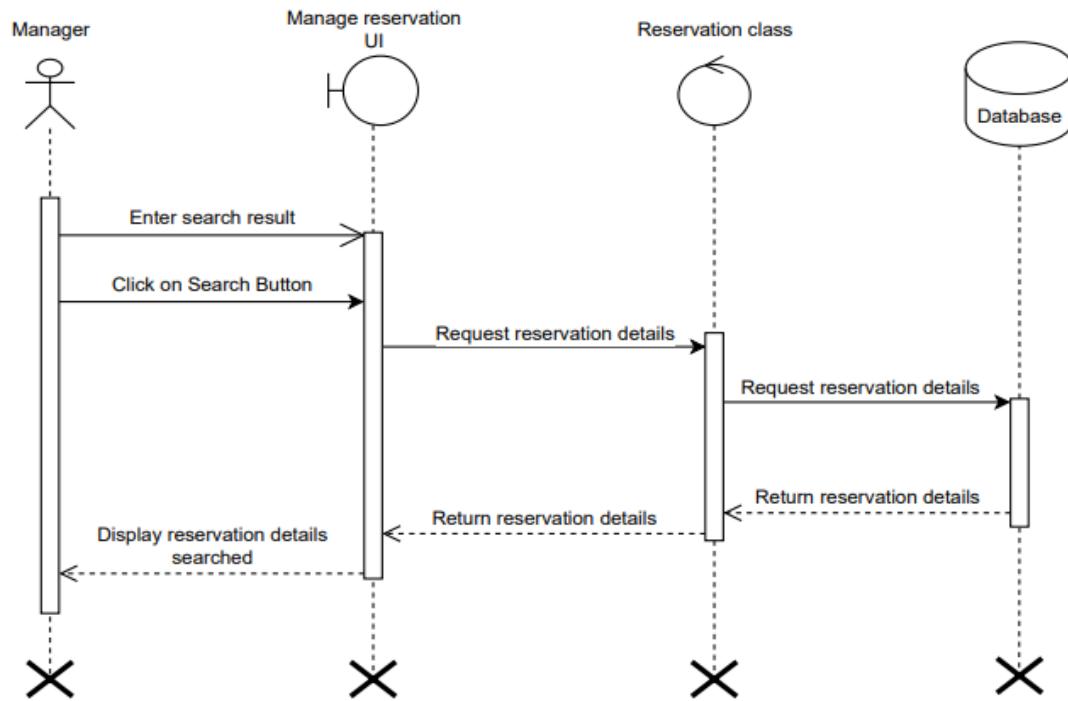


Figure 73 Search reservation information sequence

Hold Loyalty Account Sequence

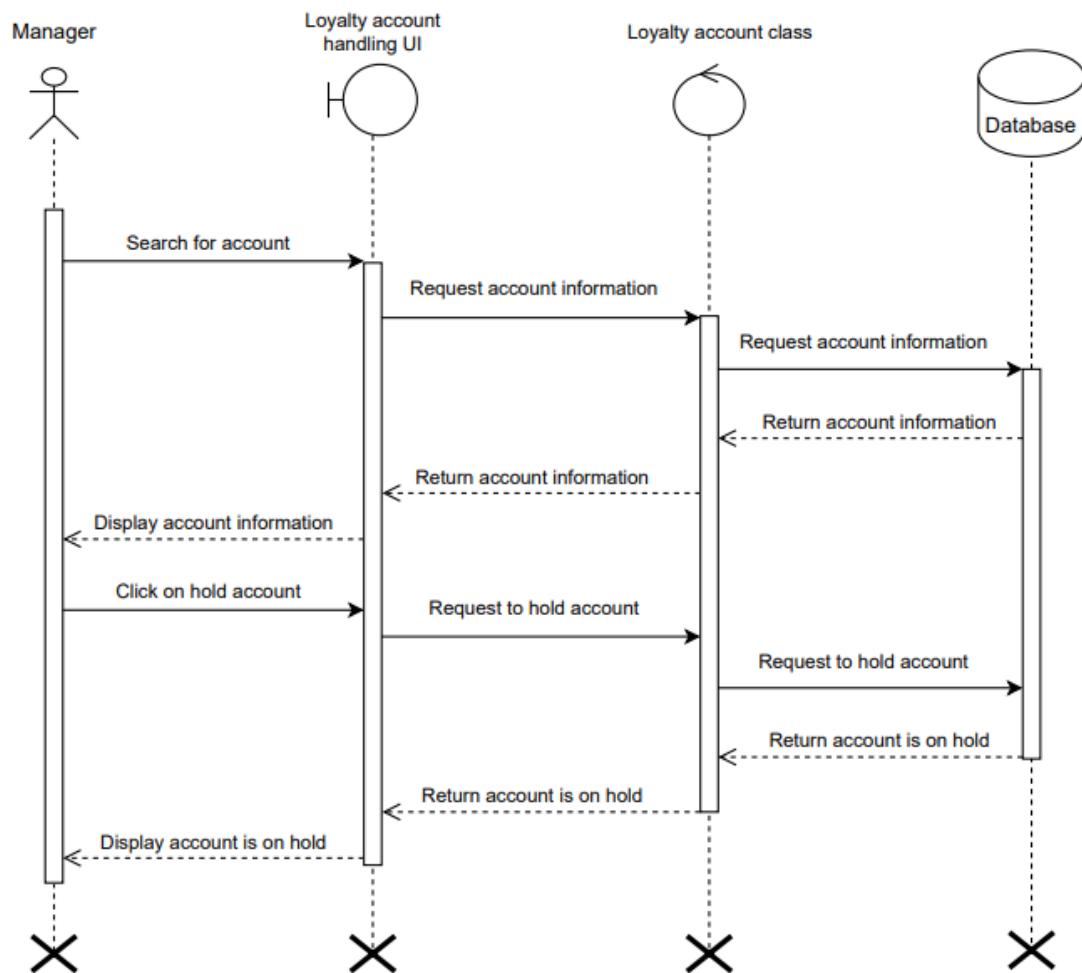


Figure 74 Hold loyalty account sequence

View Feedback Sequence

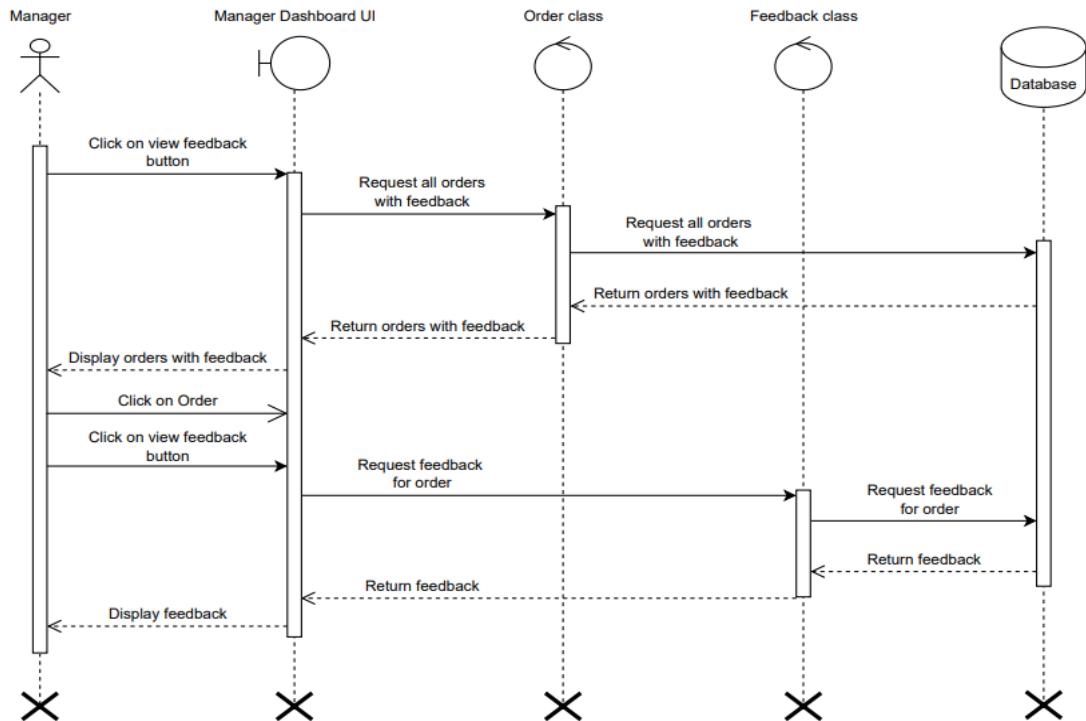


Figure 75 View feedback sequence

View Customer Information Sequence

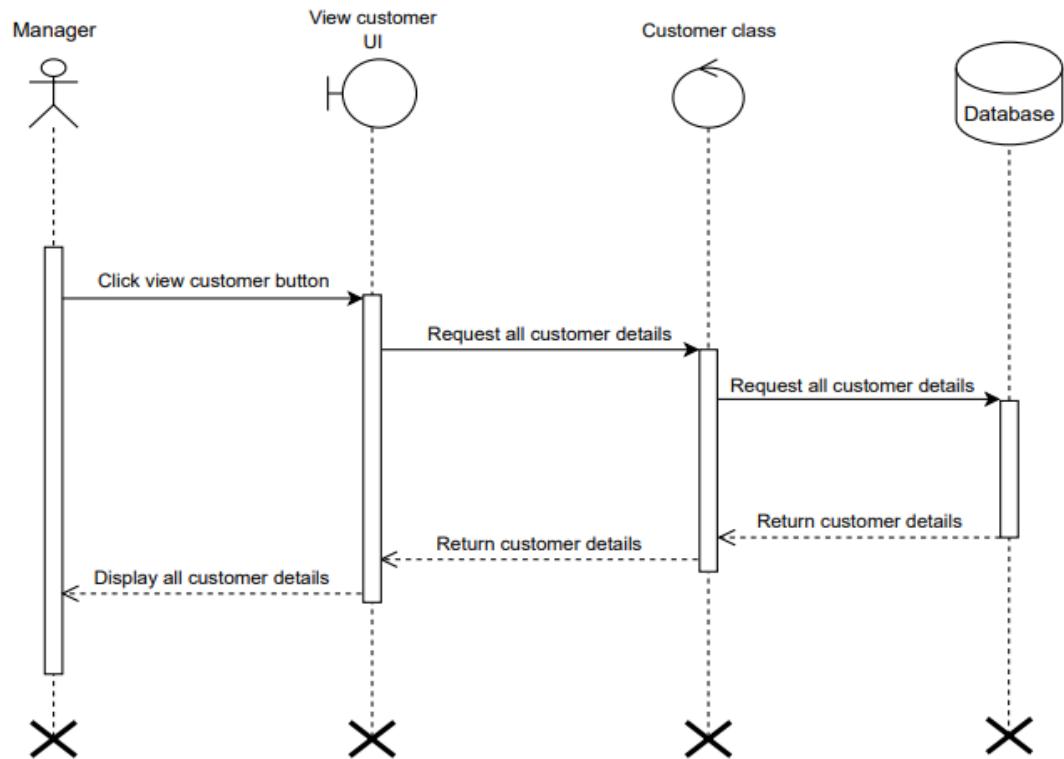


Figure 76 View customer information sequence

Void Orders Sequence

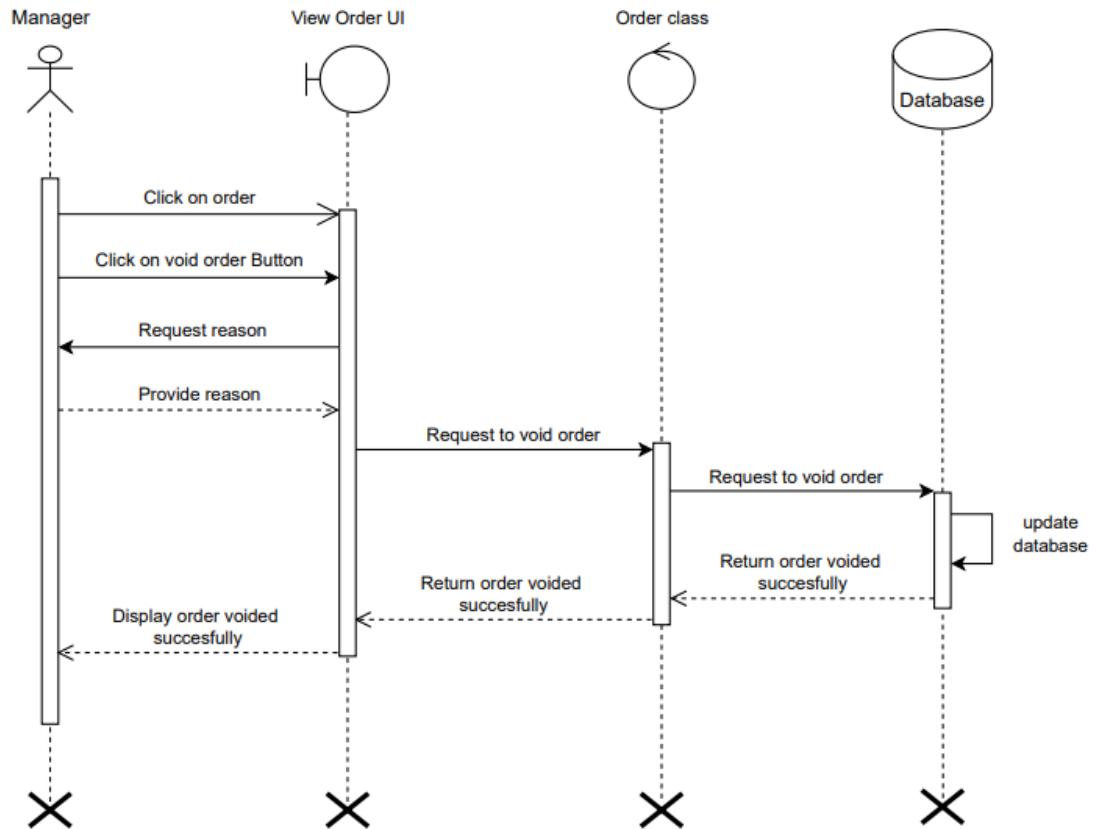


Figure 77 Void orders sequence

View Outlet Booking History Sequence

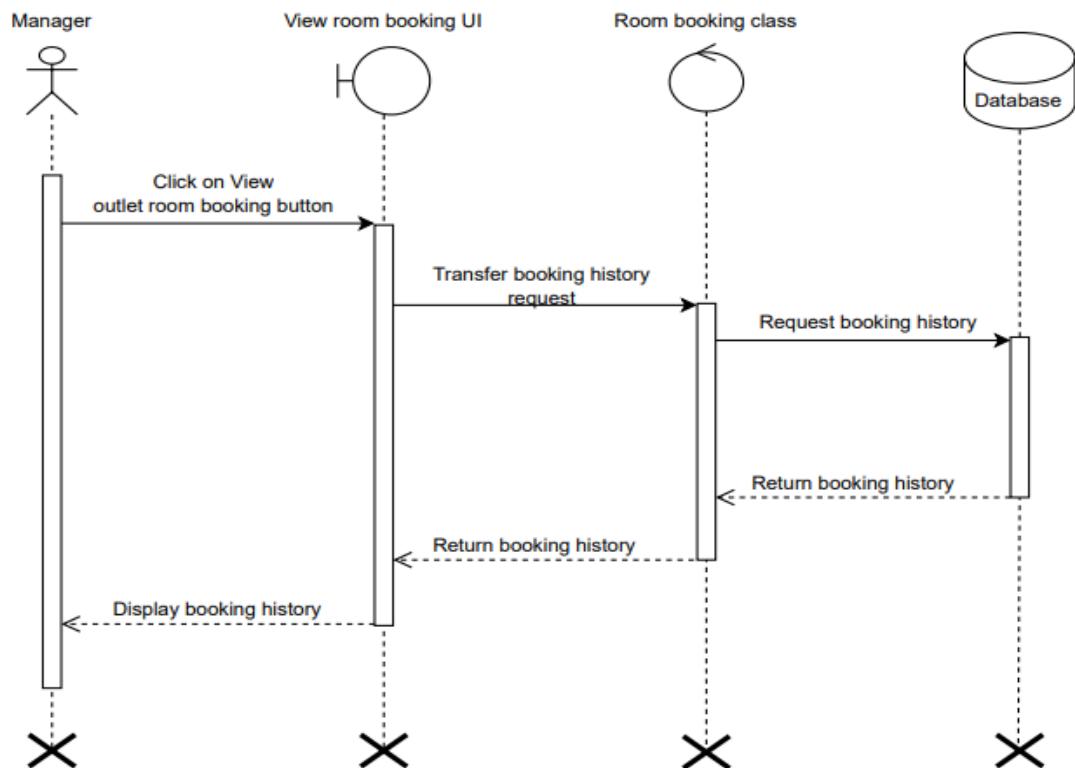


Figure 78 View outlet booking history sequence

View Loyalty Account Transaction History Sequence

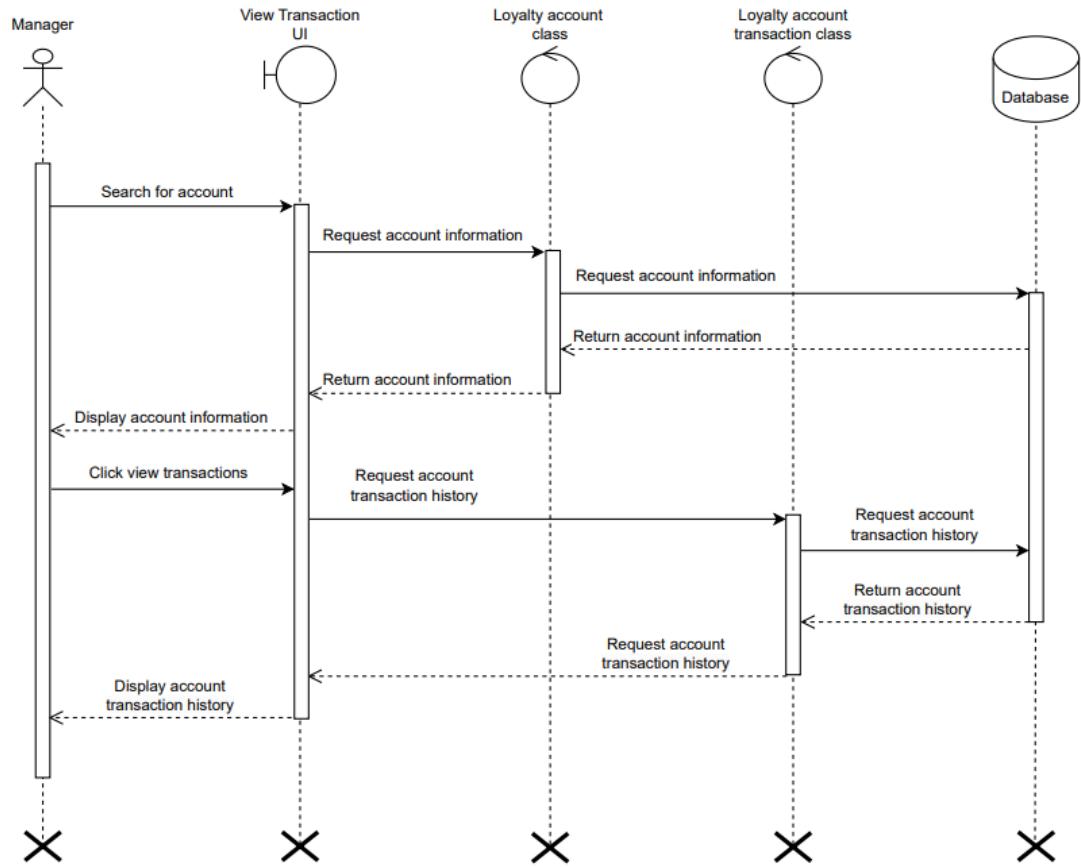


Figure 79 View Loyalty account transaction history sequence

View Outlet Order History Sequence

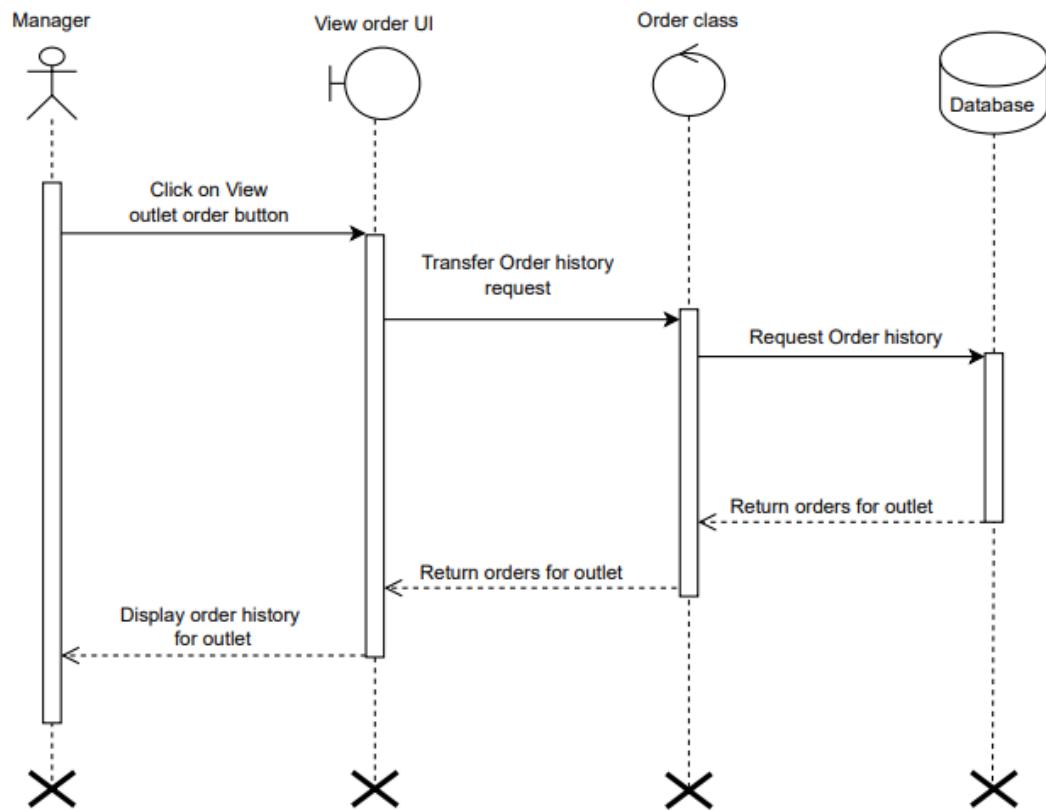


Figure 80 View Oultet history sequence

Add Tables Sequence

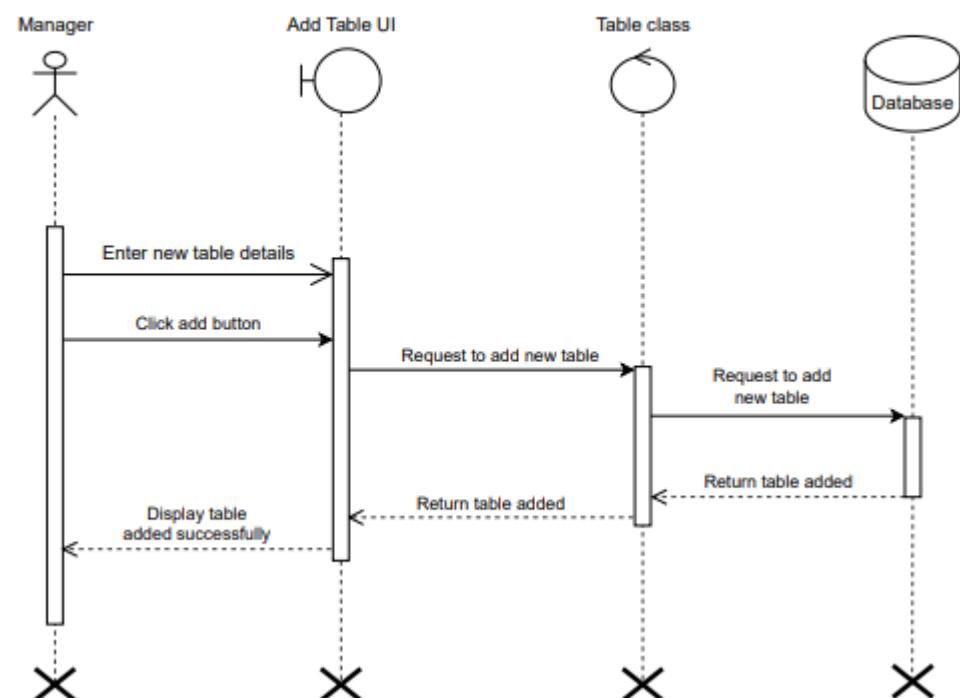


Figure 81 Add tables sequence

View Outlet Reservation History Sequence

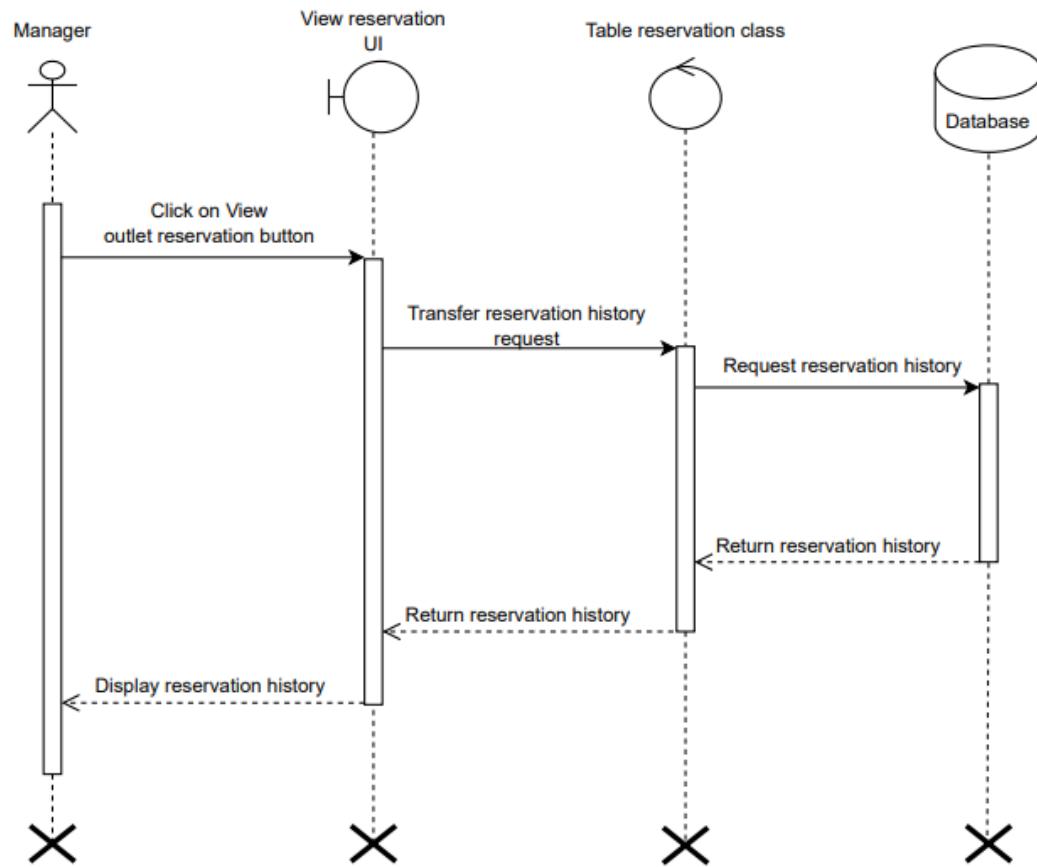


Figure 82 View outlet reservation history sequence

Update Employee Information Sequence

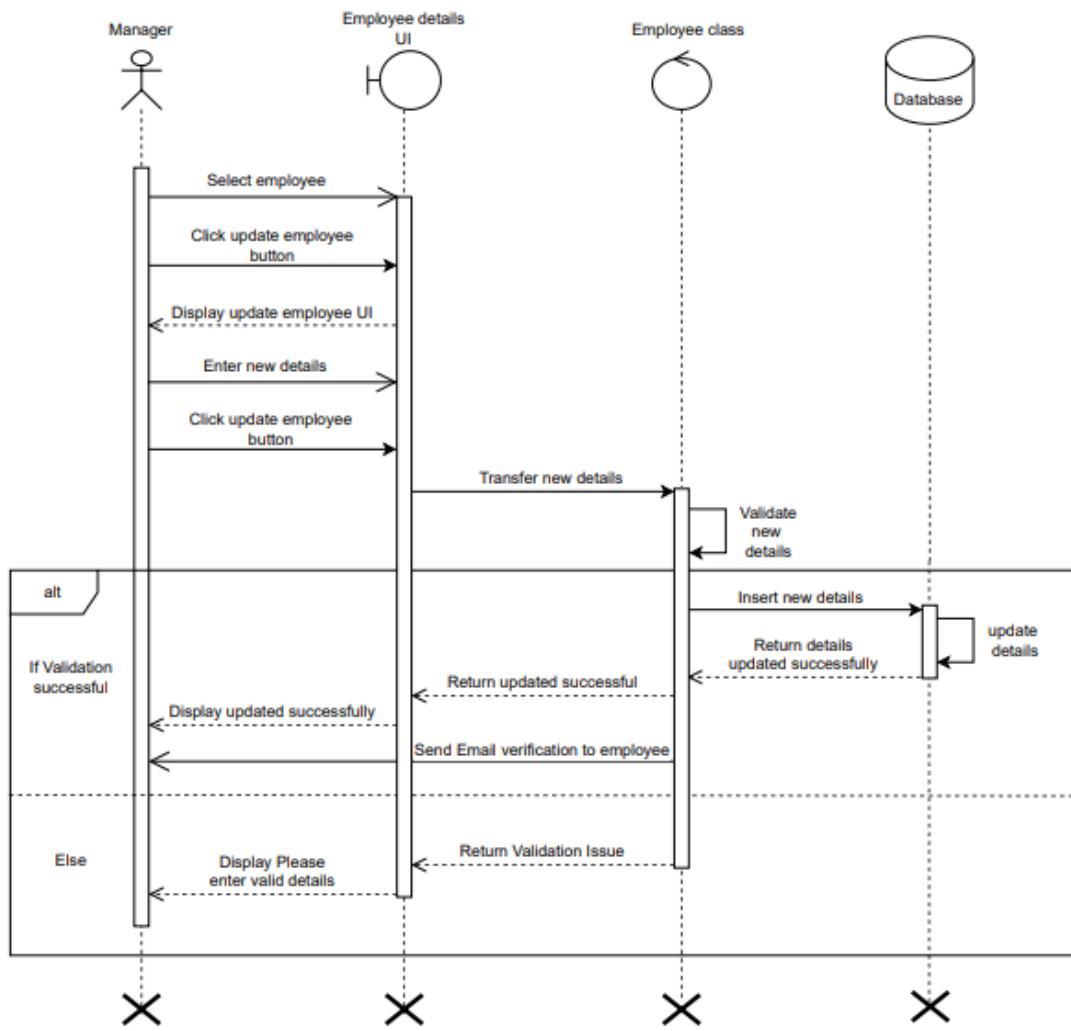


Figure 83 Update Employee information sequence

Delete Tables Sequence

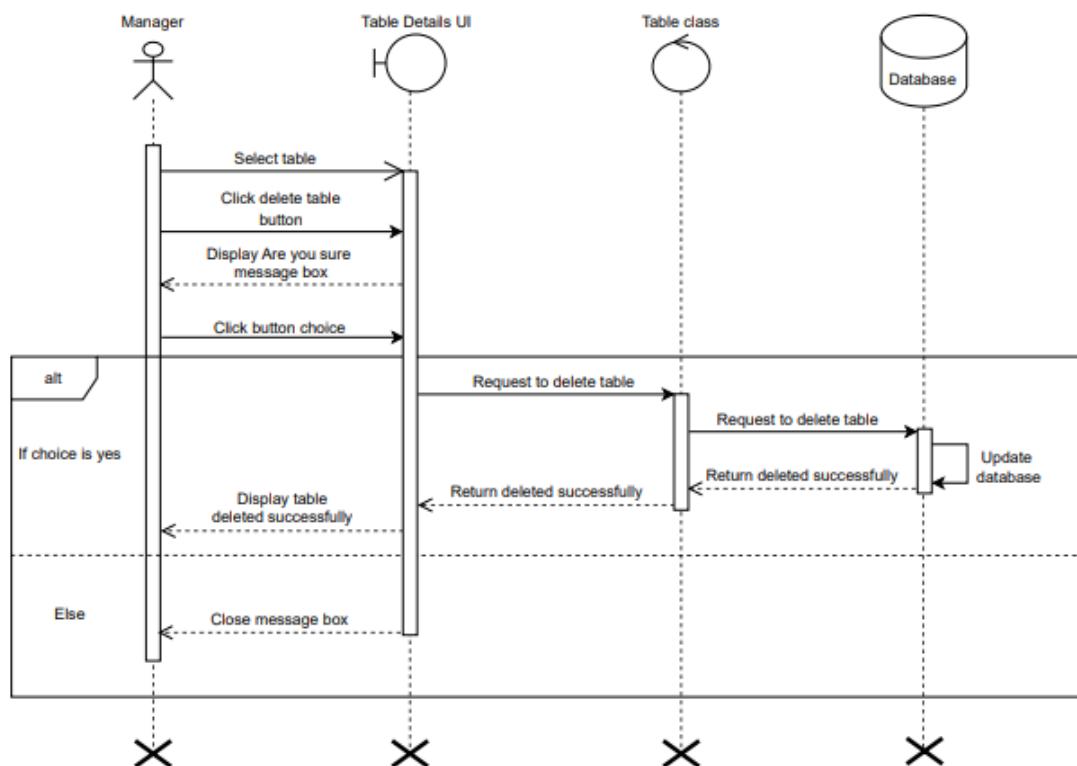


Figure 84 Delete tables sequence

Delete VIP rooms Sequence

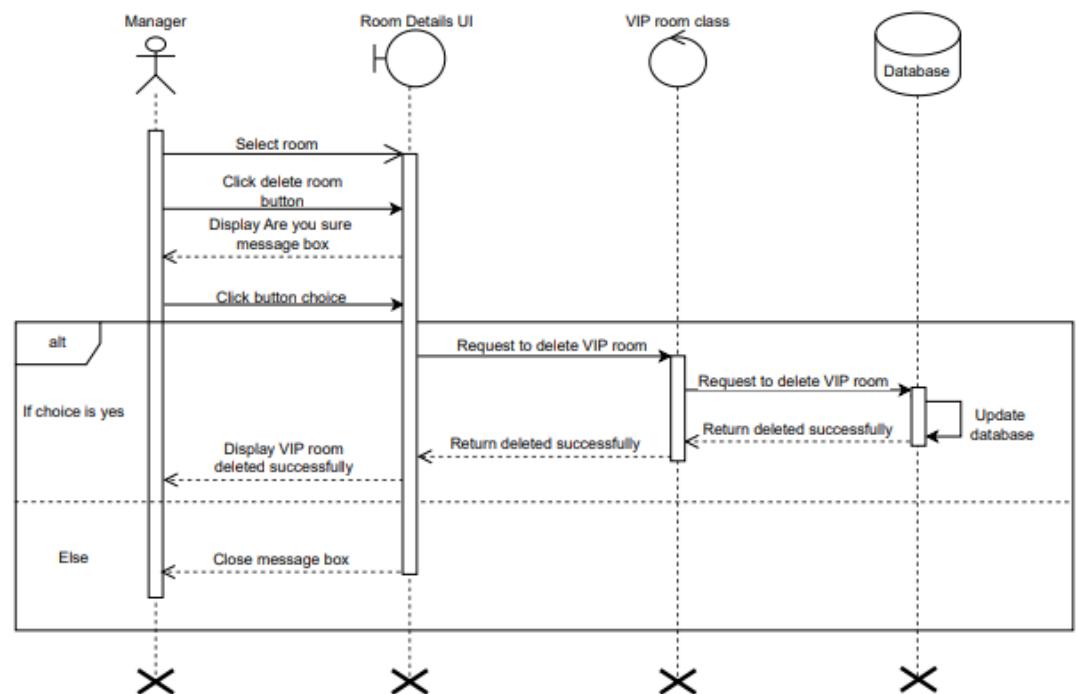


Figure 85 Delete VIP rooms sequence

Update Tables Sequence

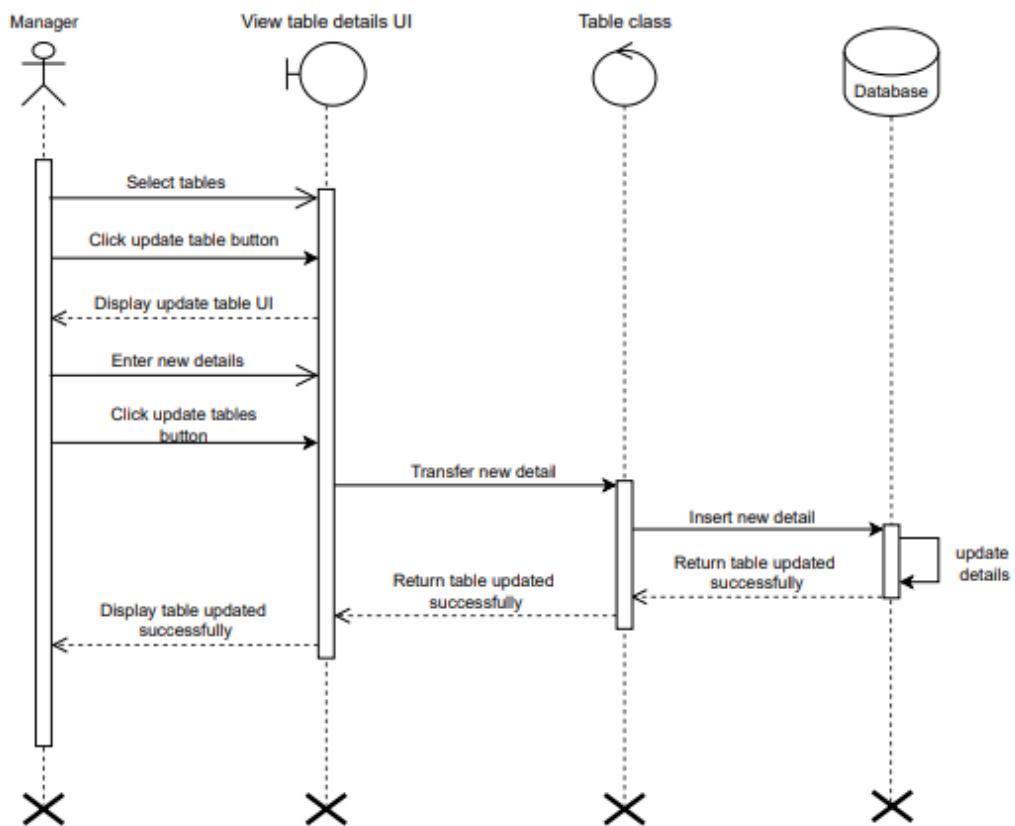


Figure 86 Update table sequence

Add Motor Bikes Sequence

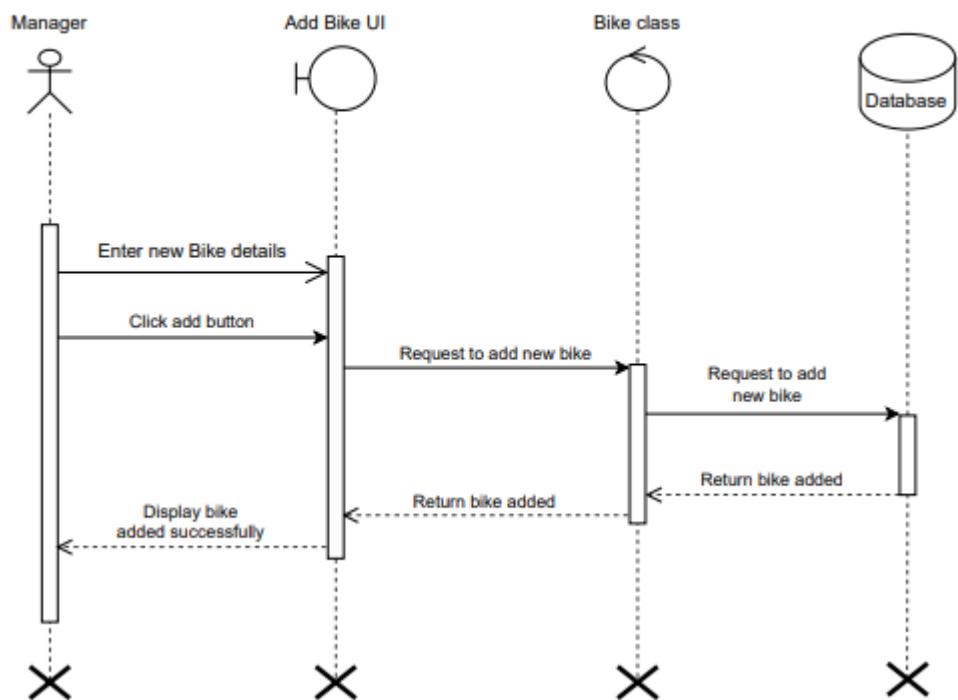


Figure 87 Add motor bike sequence

Delete Motor Bikes Sequence

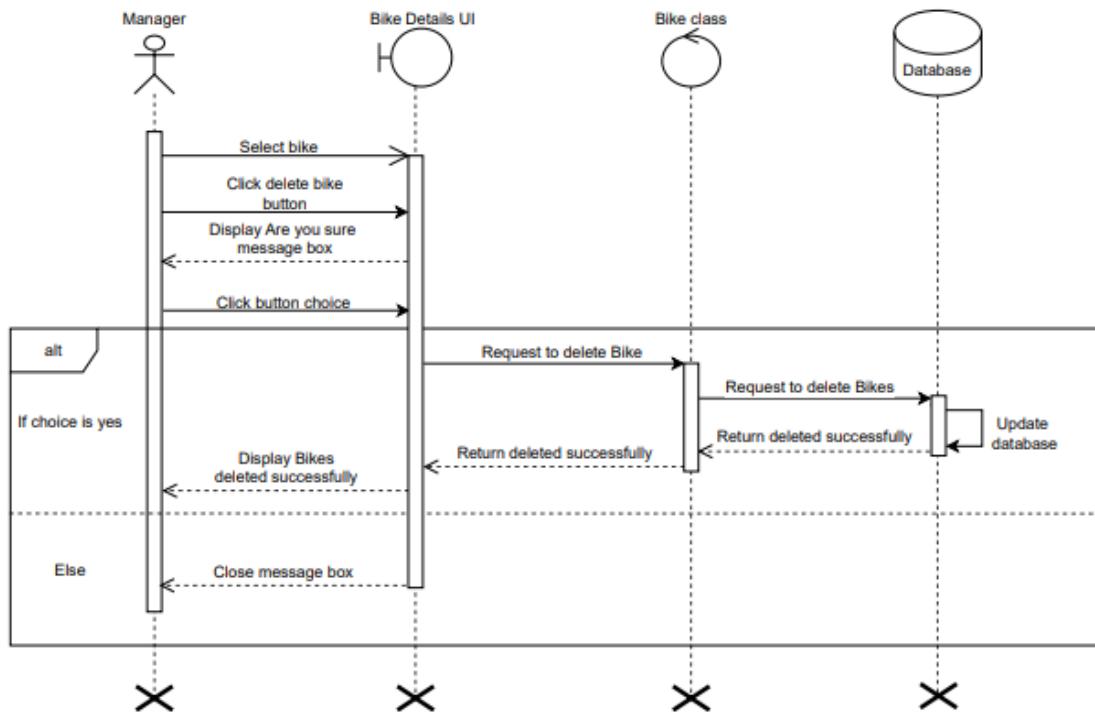


Figure 88 Delete motor bike sequence

Update VIP rooms Sequence

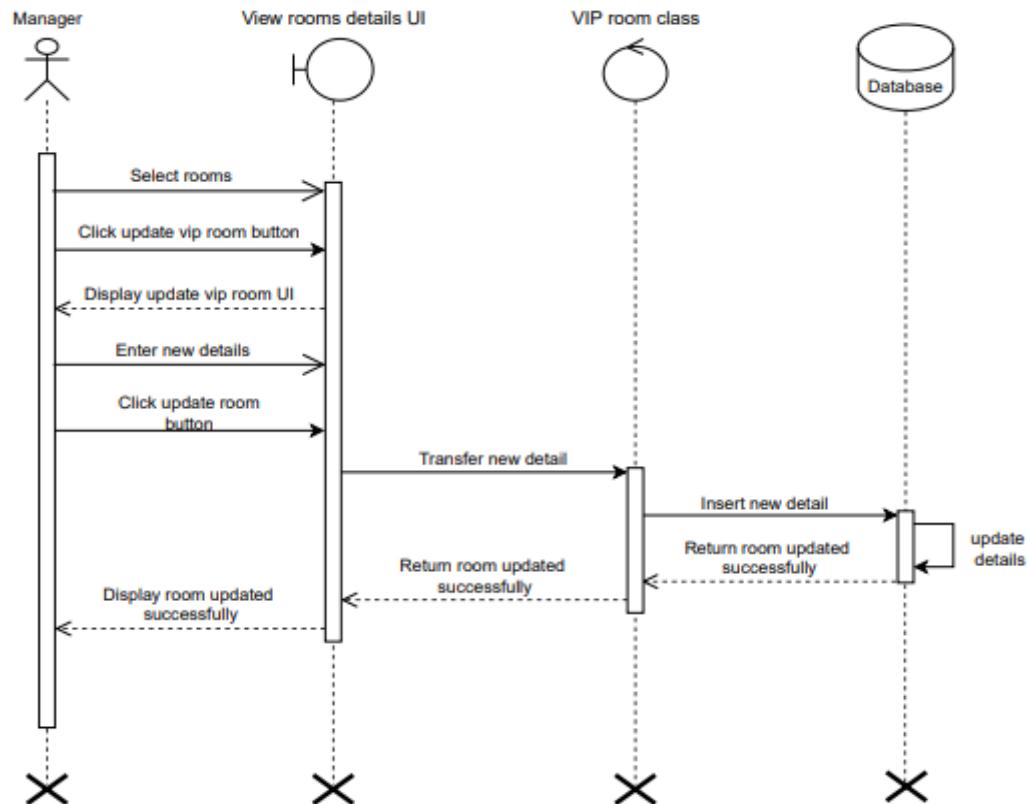


Figure 89 Update VIP rooms sequence

Update Bikes Sequence

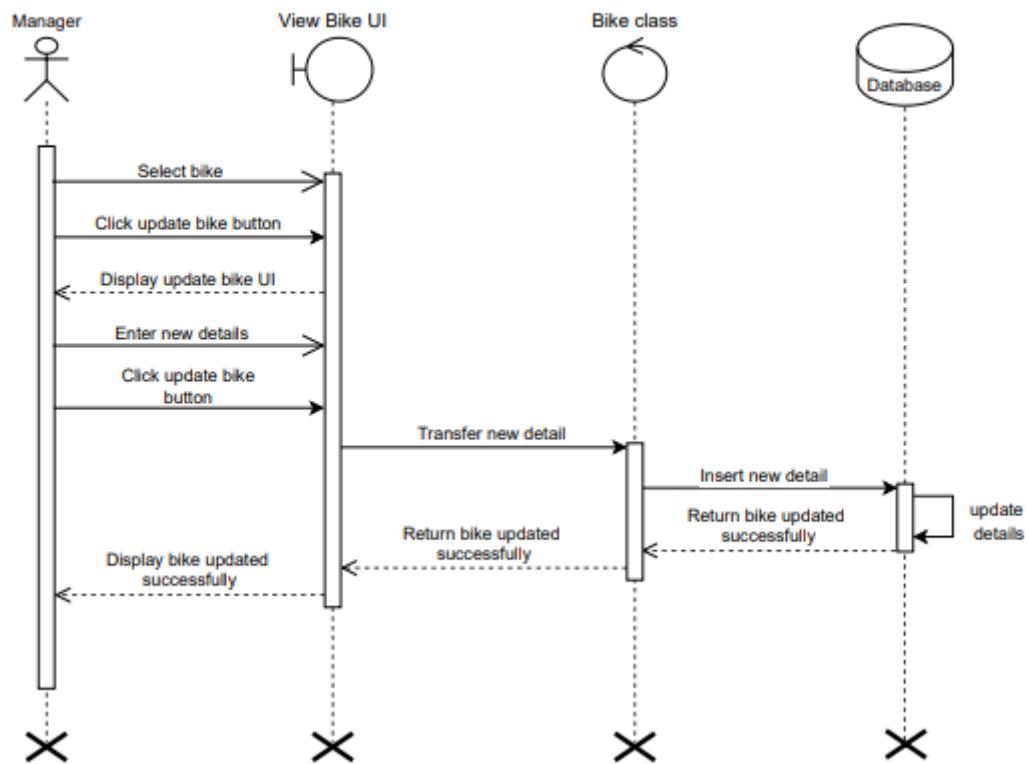


Figure 90 Update motor bike sequence

Assign Order to Rider

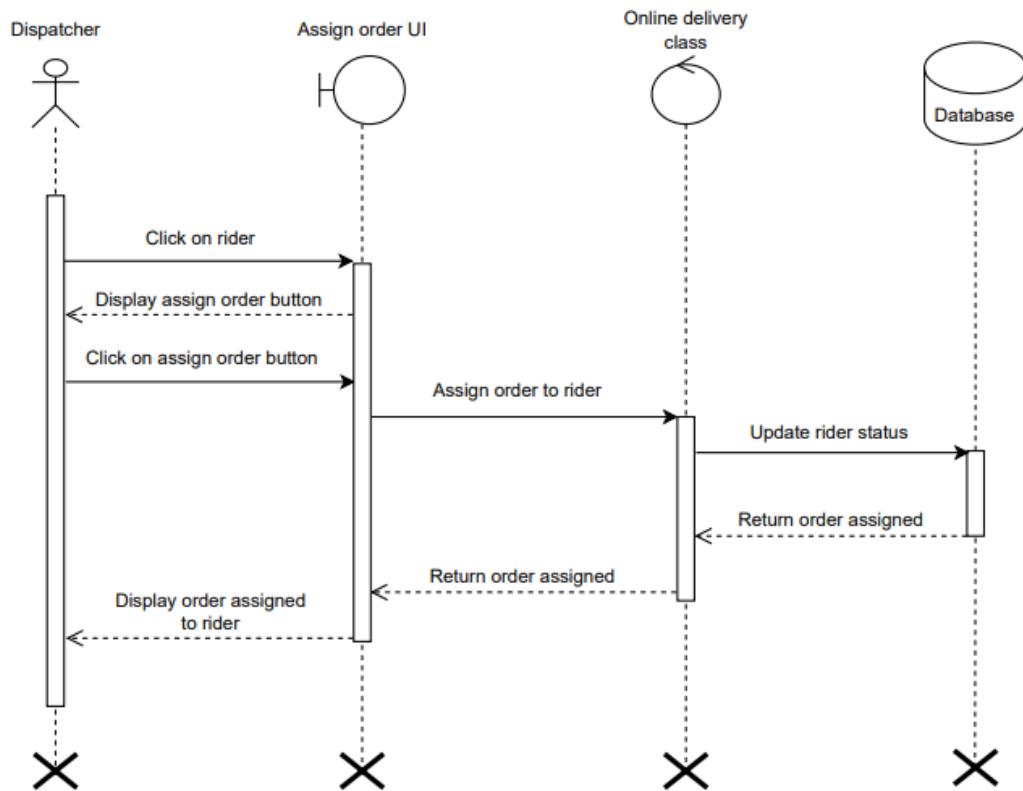


Figure 91 Assign order to rider sequence

Generate Delivery Receipt Sequence

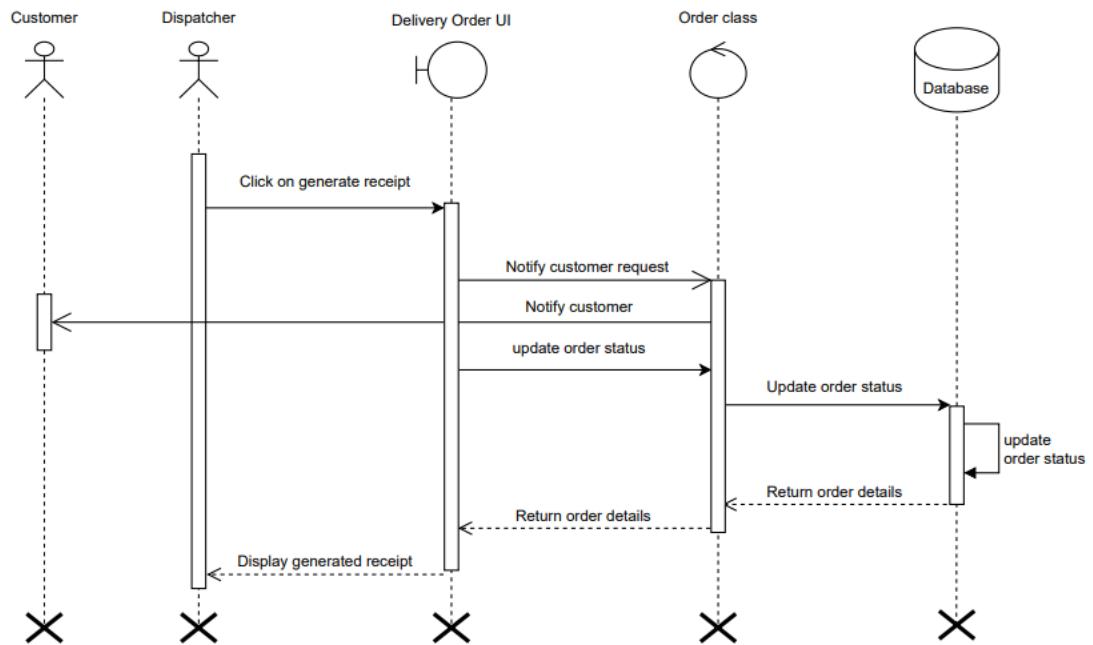


Figure 92 Generate Delivery receipt sequence

Inform Delivery Delays Sequence

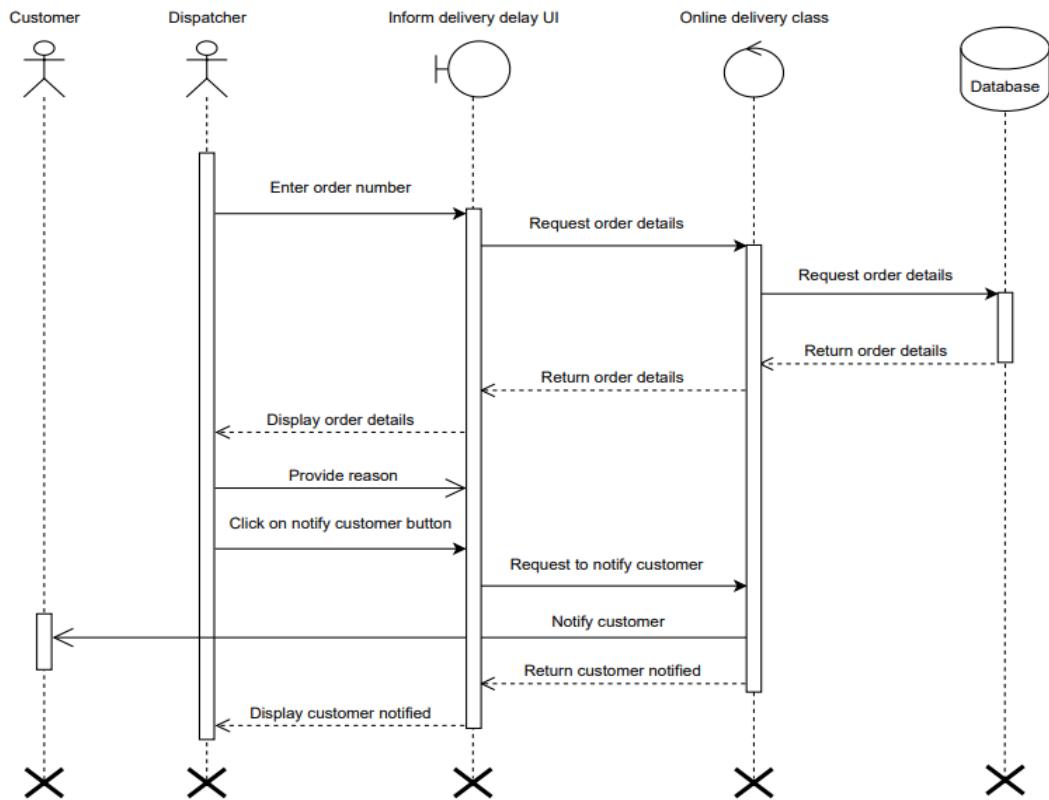


Figure 93 Inform delivery delays sequence

View Available Riders Sequence

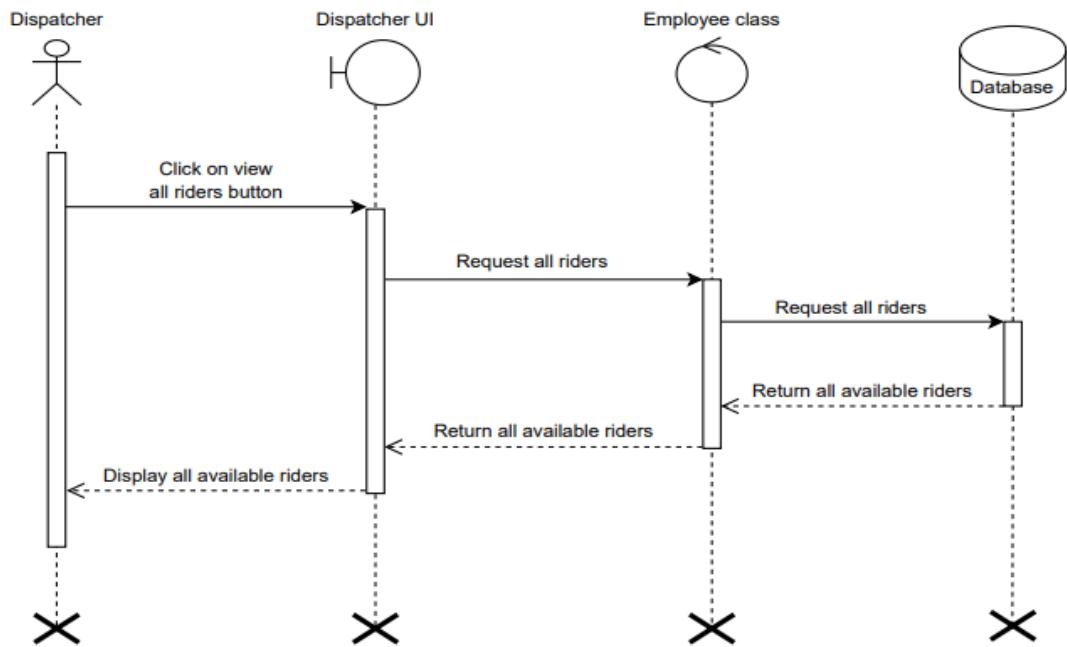


Figure 94 View available riders sequence

View Delivery Orders Sequence

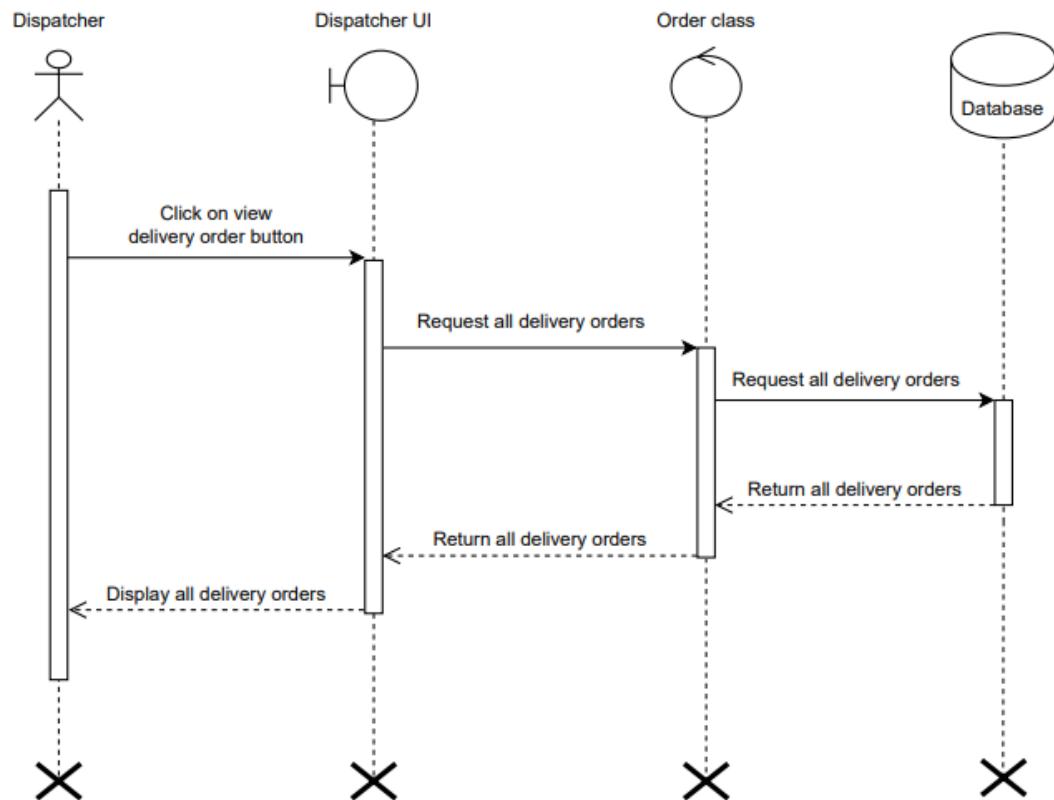


Figure 95 View delivery orders sequence

Request To Cancel Delivery Order Sequence

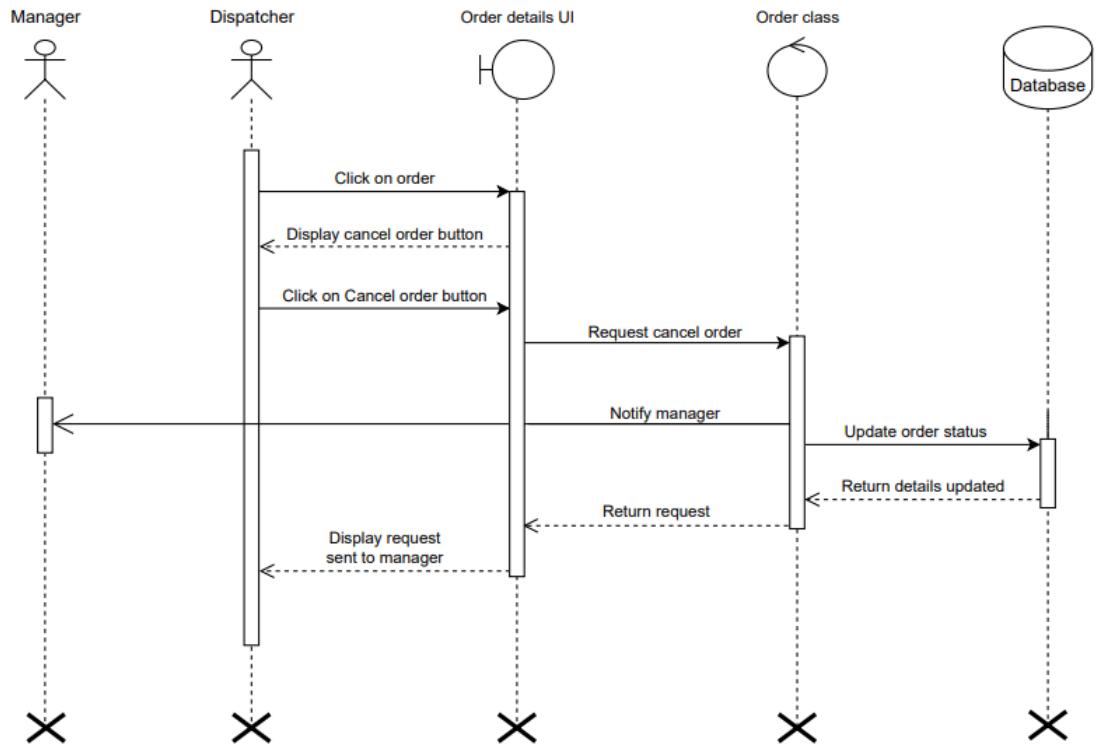


Figure 96 Request to cancel delivery orders sequence

Add Menu Item Sequence

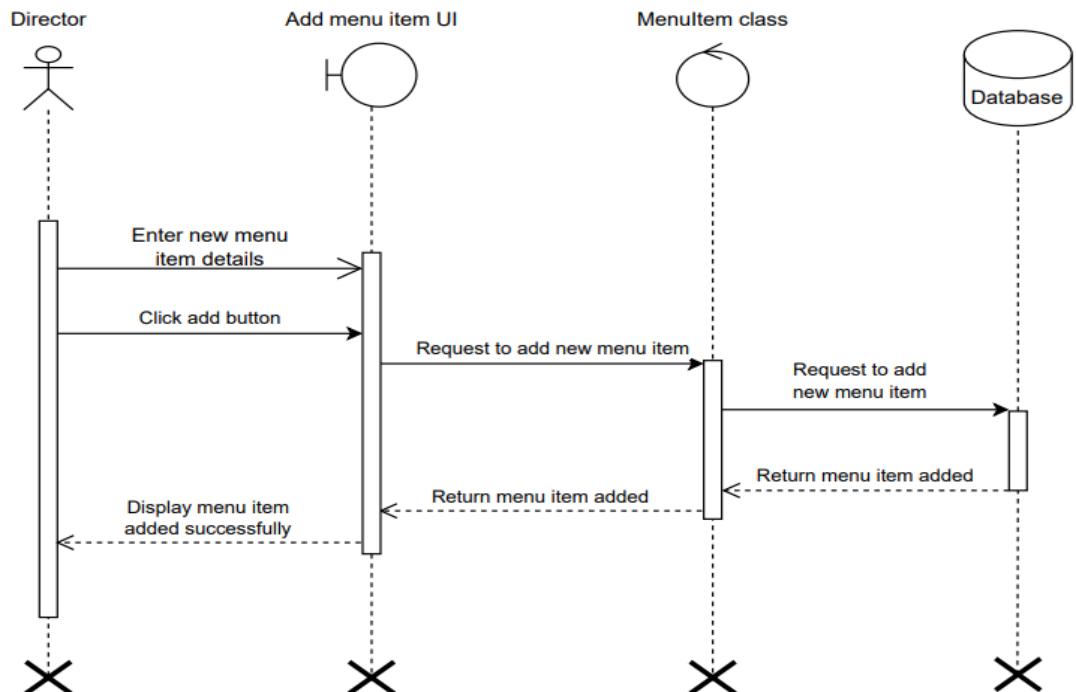


Figure 97 Add menu item sequence

View Order Details Sequence

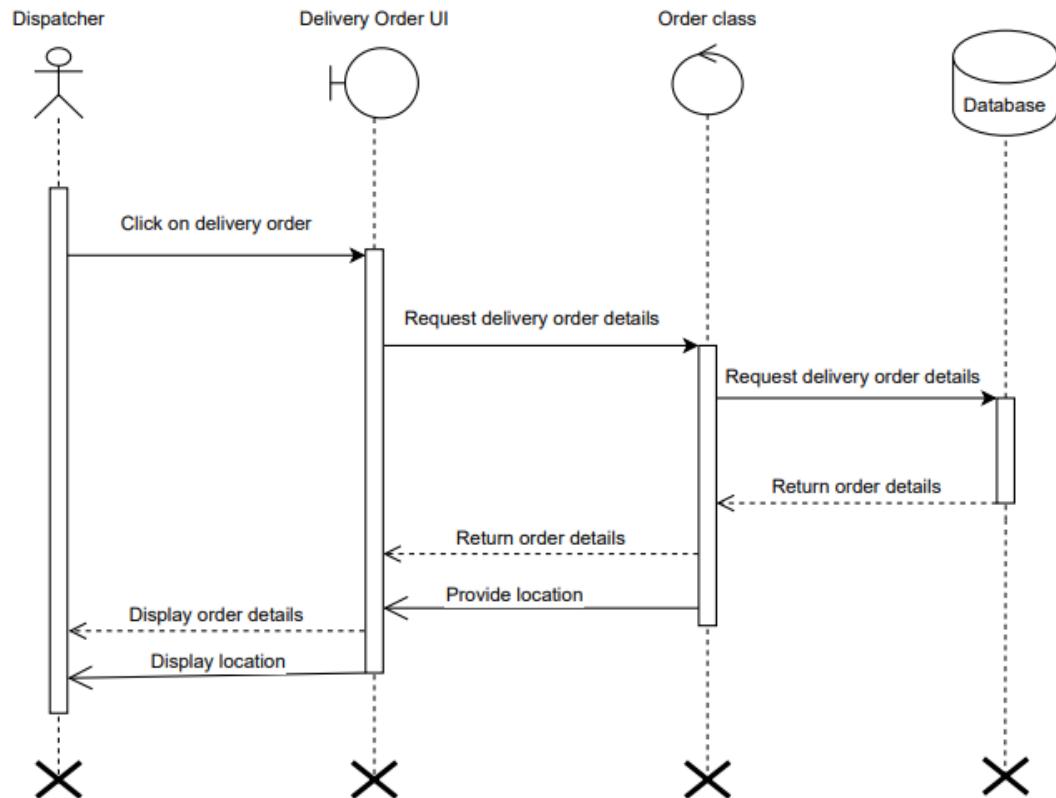


Figure 98 View order details sequence

Delete Employee Sequence

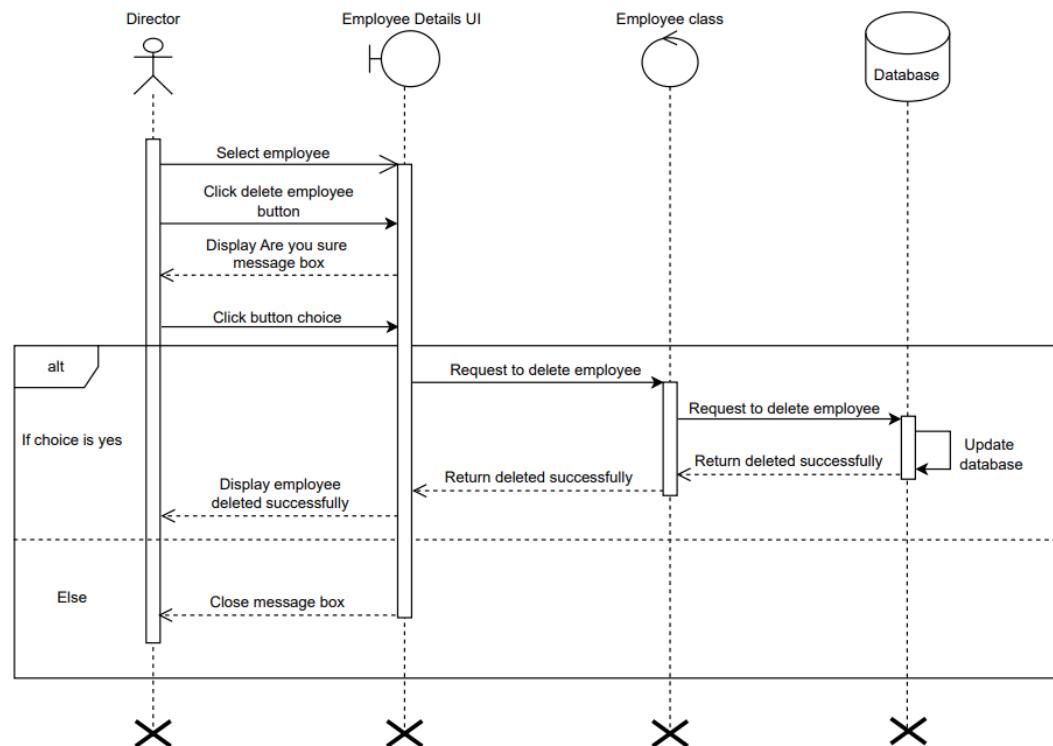


Figure 99 Delete employee sequence

Add Recipe Sequence

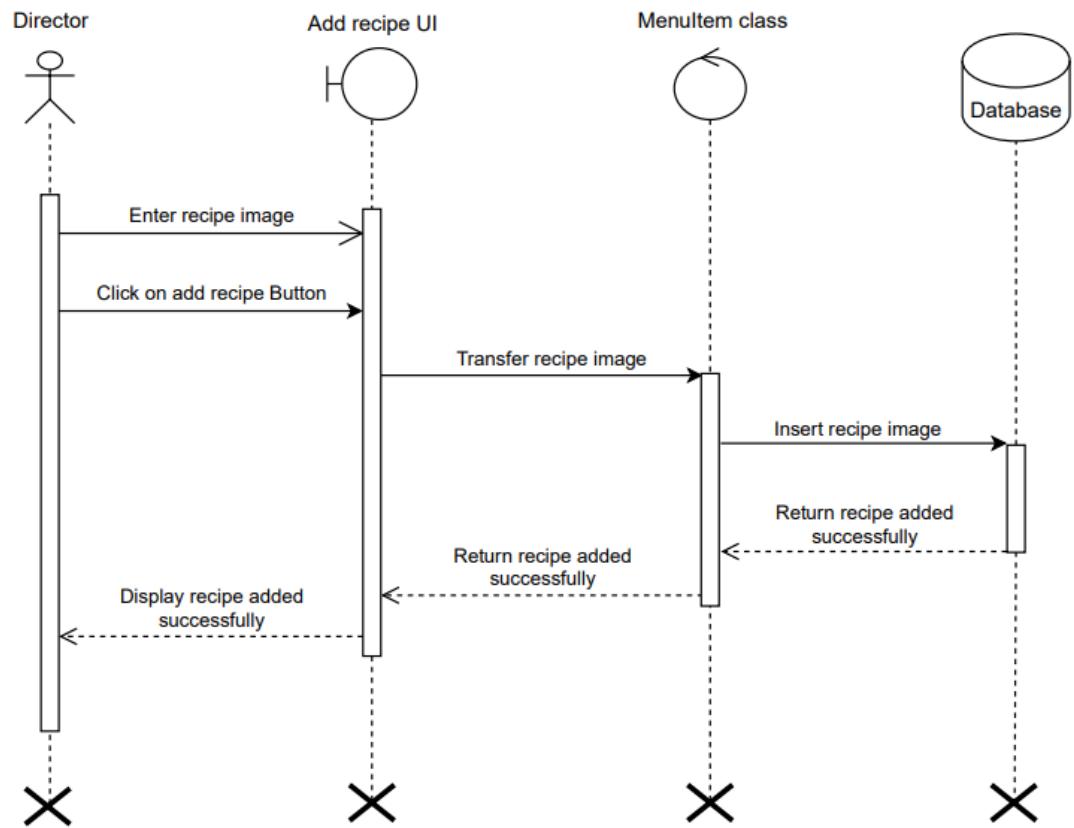


Figure 100 Add recipe sequence

Add Promotions Sequence

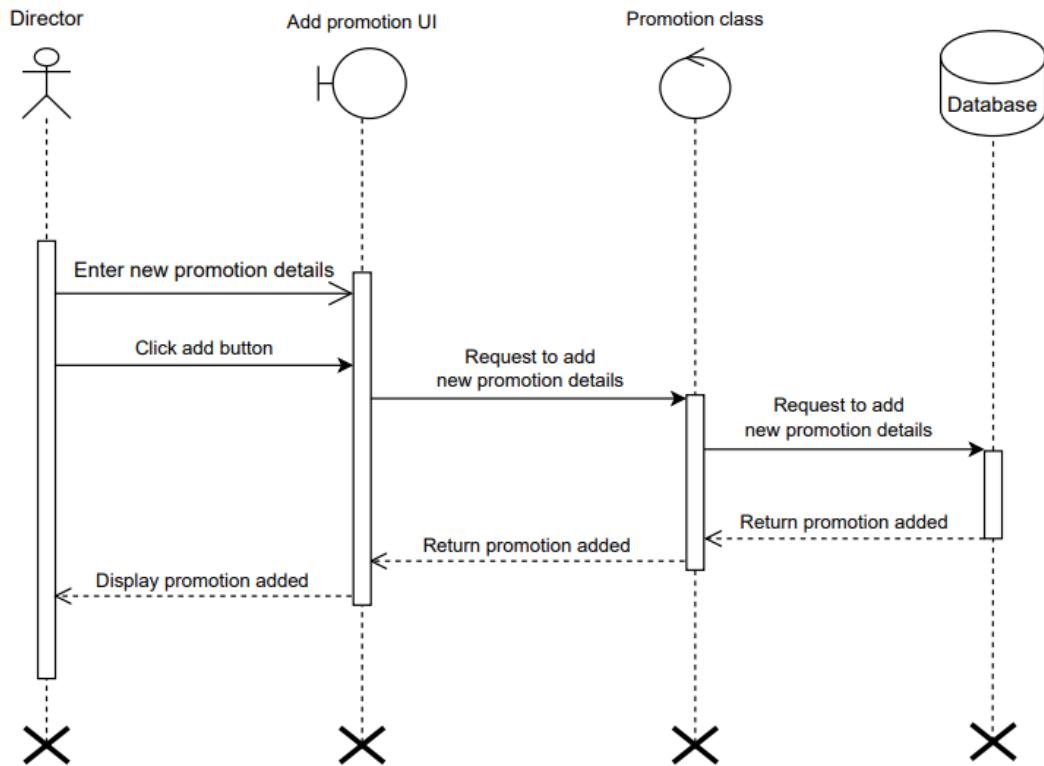


Figure 101 Add promotion sequence

Generate Annual Sales Report Sequence

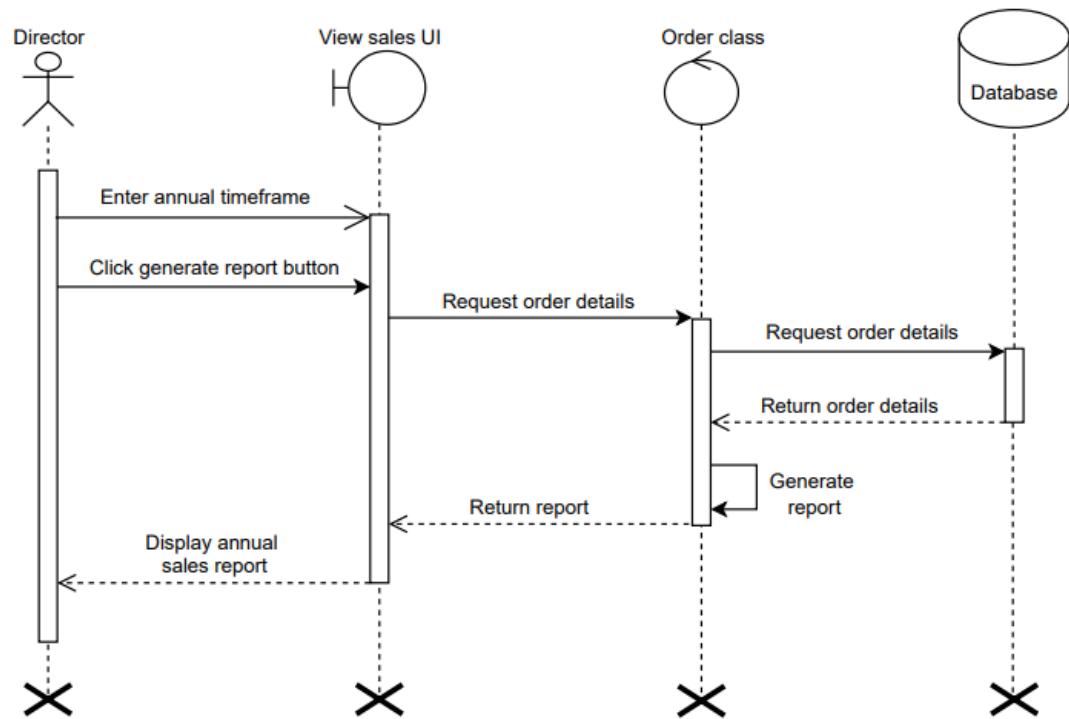


Figure 102 Generate annual sales report sequence

Delete Recipe Sequence

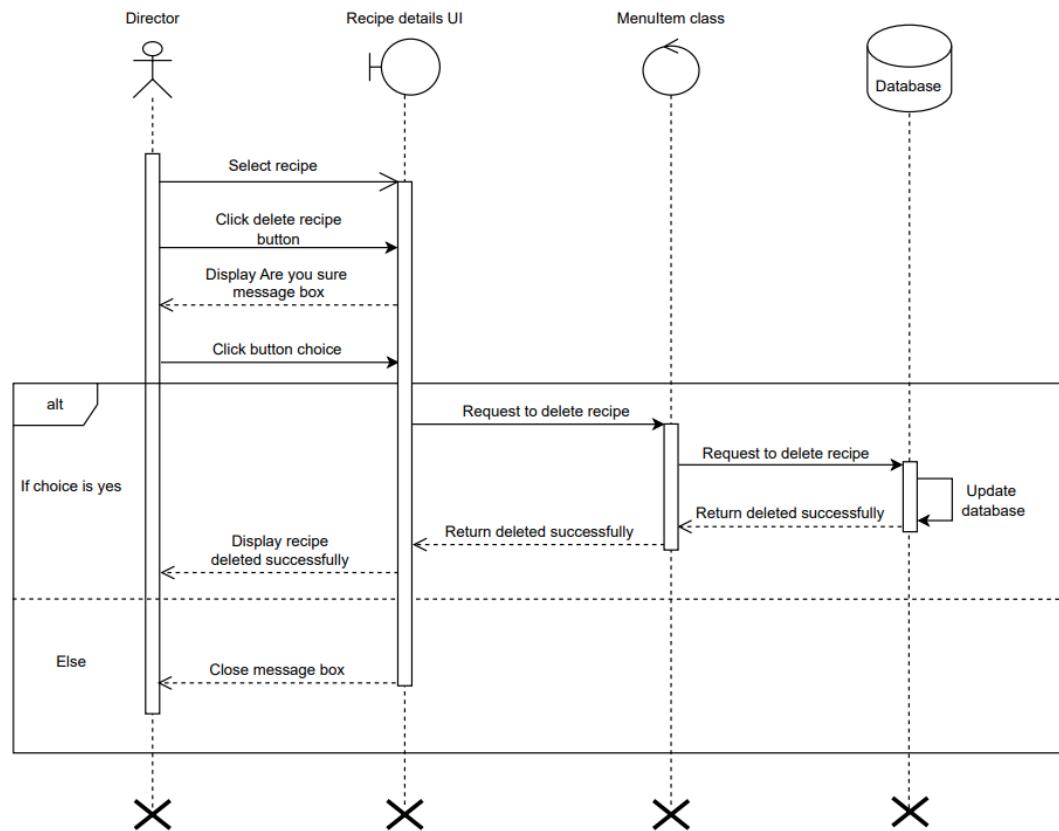


Figure 103 Delete recipe sequence

Generate Daily Sales Report Sequence

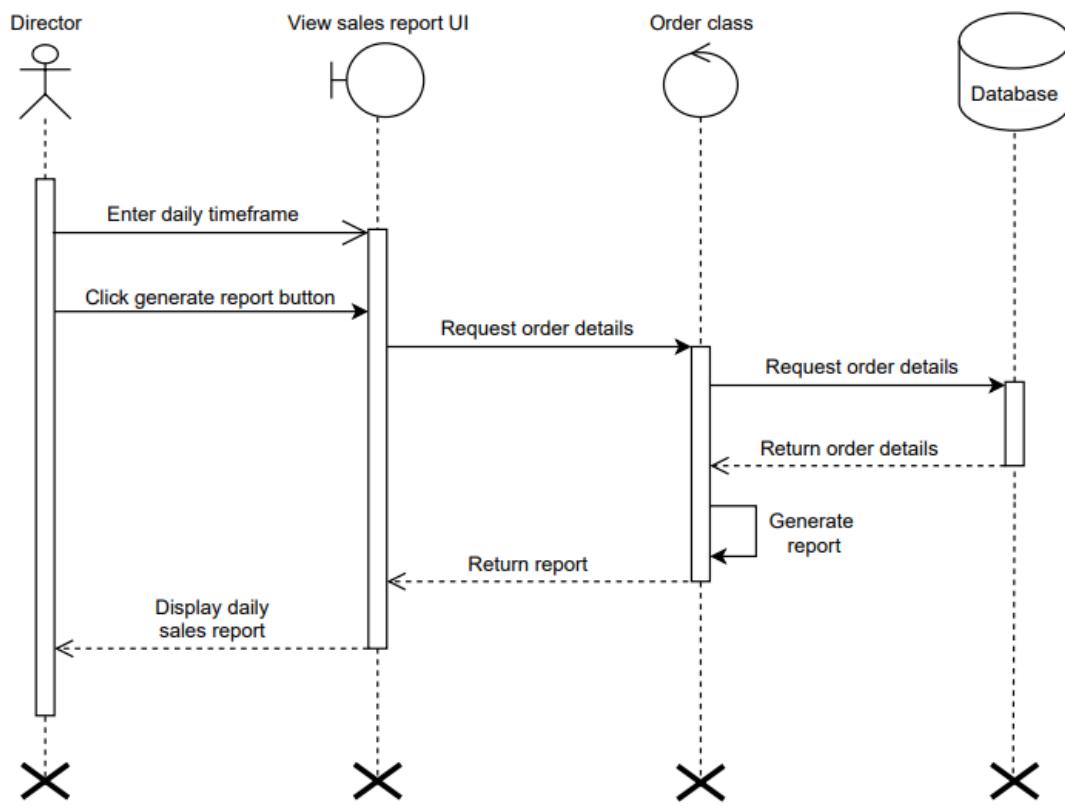


Figure 104 Generate daily sales report sequence

Add Employee Sequence

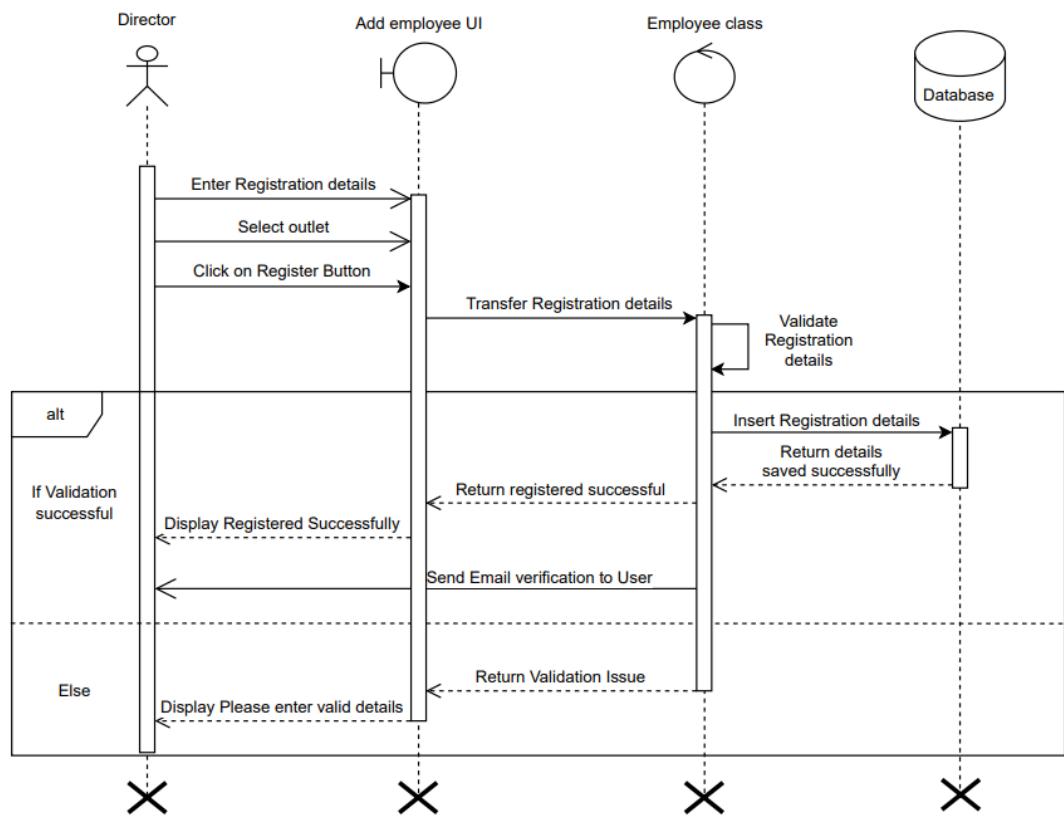


Figure 105 Add employee sequence

Generate Annual Outlet Sales Report Sequence

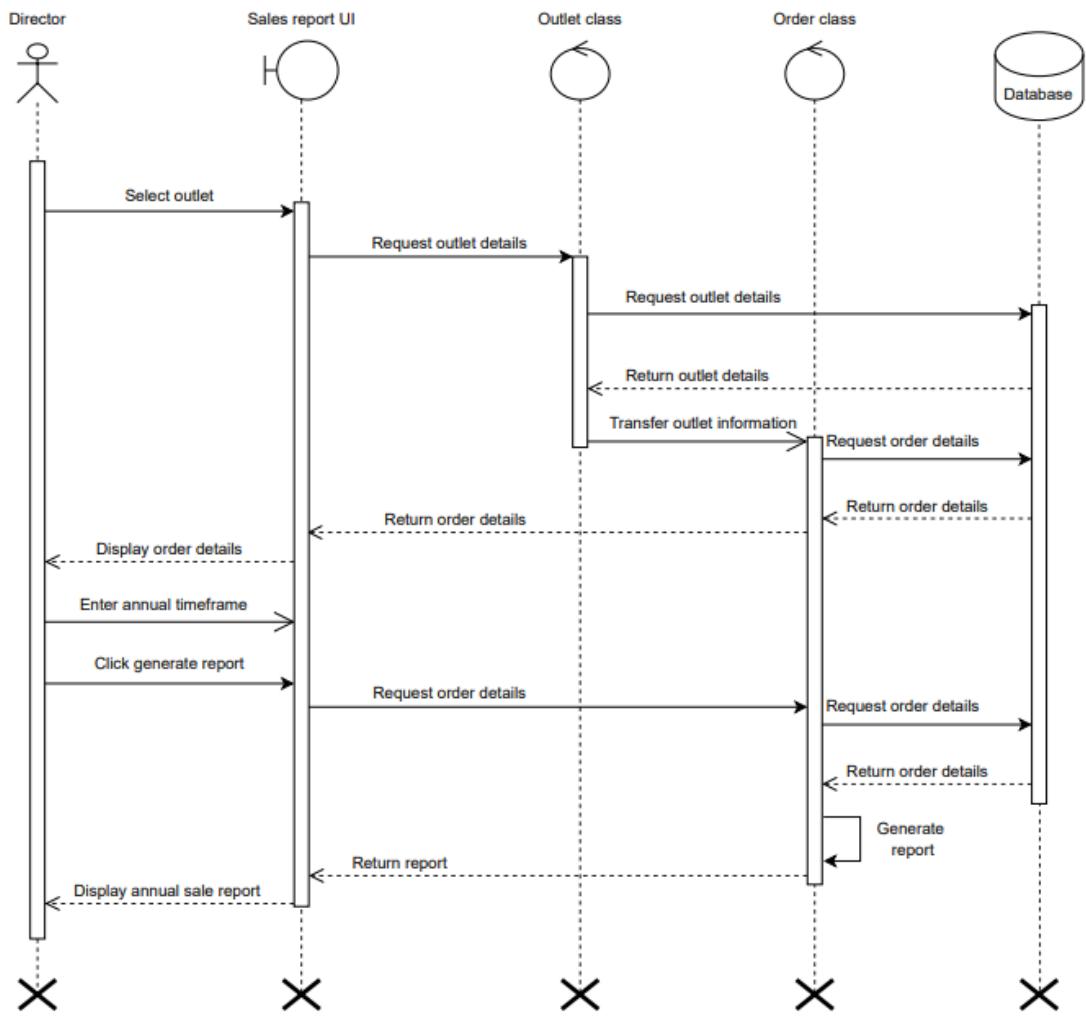


Figure 106 Generate Annual Outlet sale report sequence

Generate Daily Outlet Sales Report Sequence

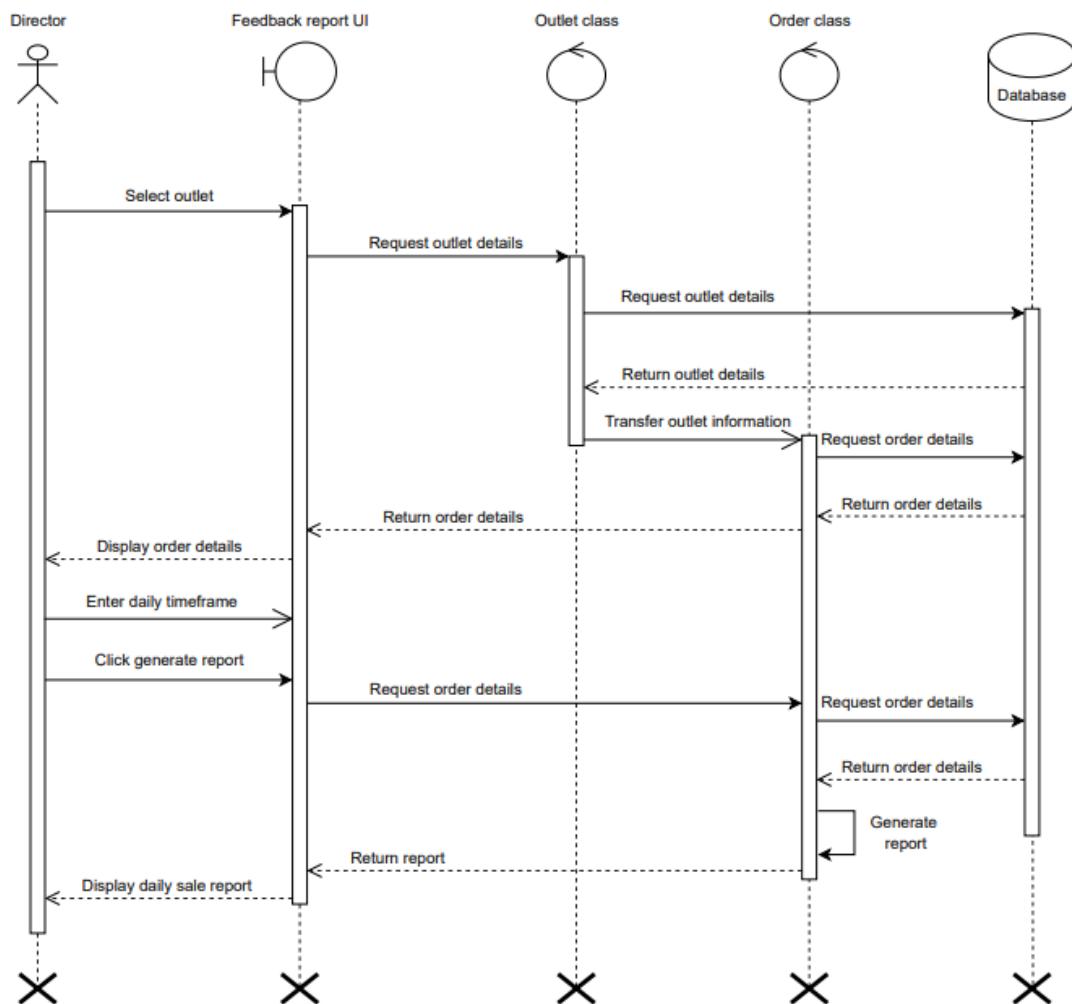


Figure 107 Generate daily outlet sale report sequence

Generate Monthly Feedback Report Sequence

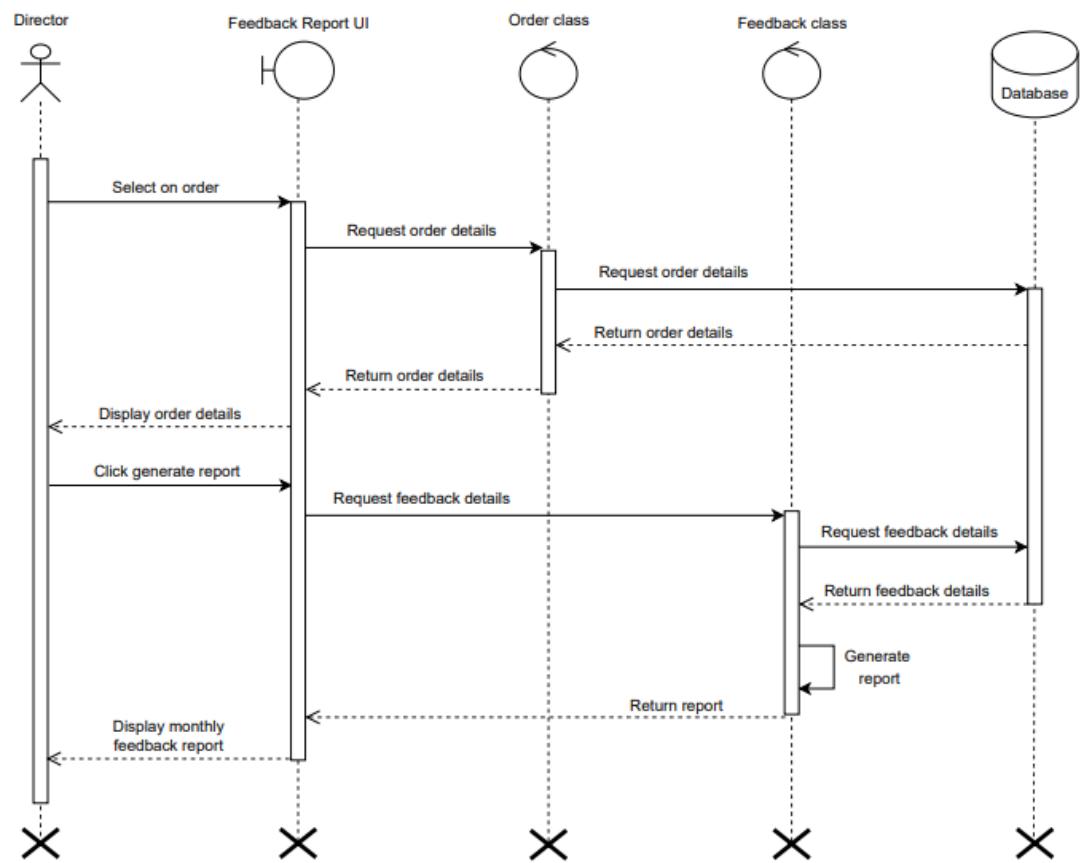


Figure 108 Generate monthly feedback report sequence

Remove Menu Item Sequence

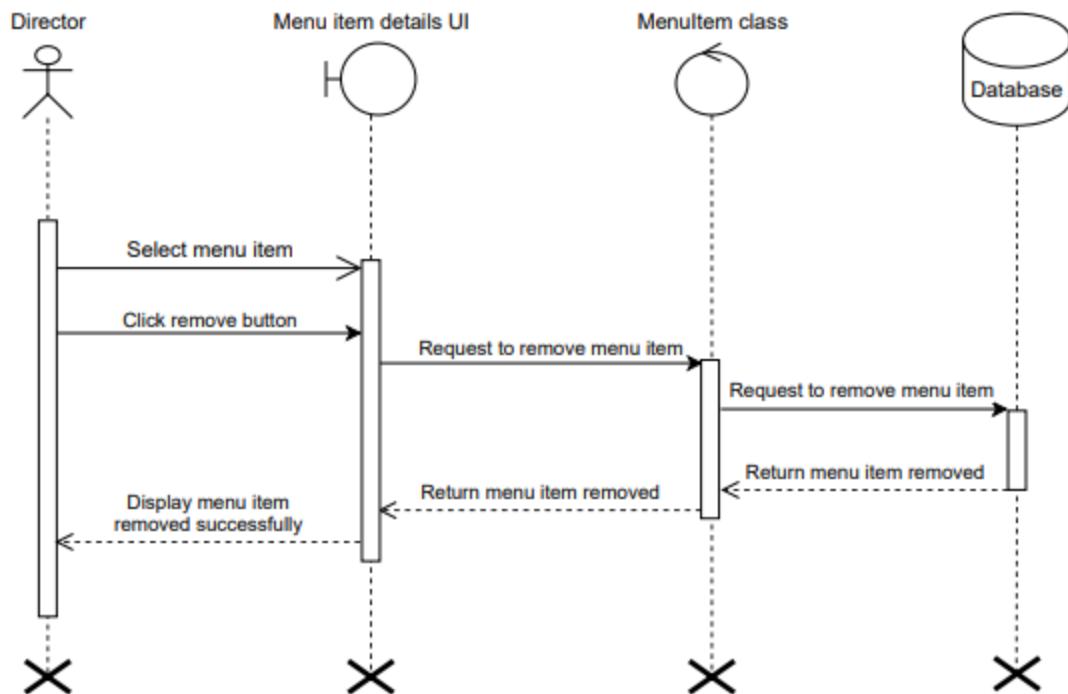


Figure 109 Remove menu item sequence

Generate Monthly Sales Report Sequence

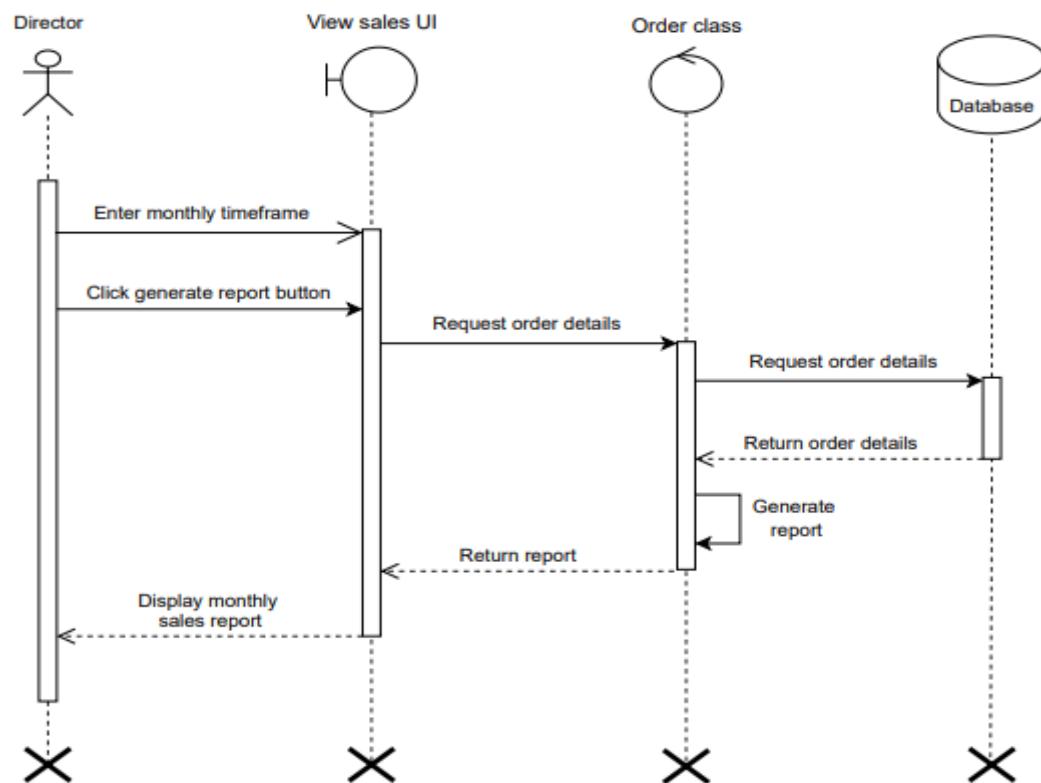


Figure 110 Generate monthly sales report sequence

Generate Weekly Sales Report Sequence

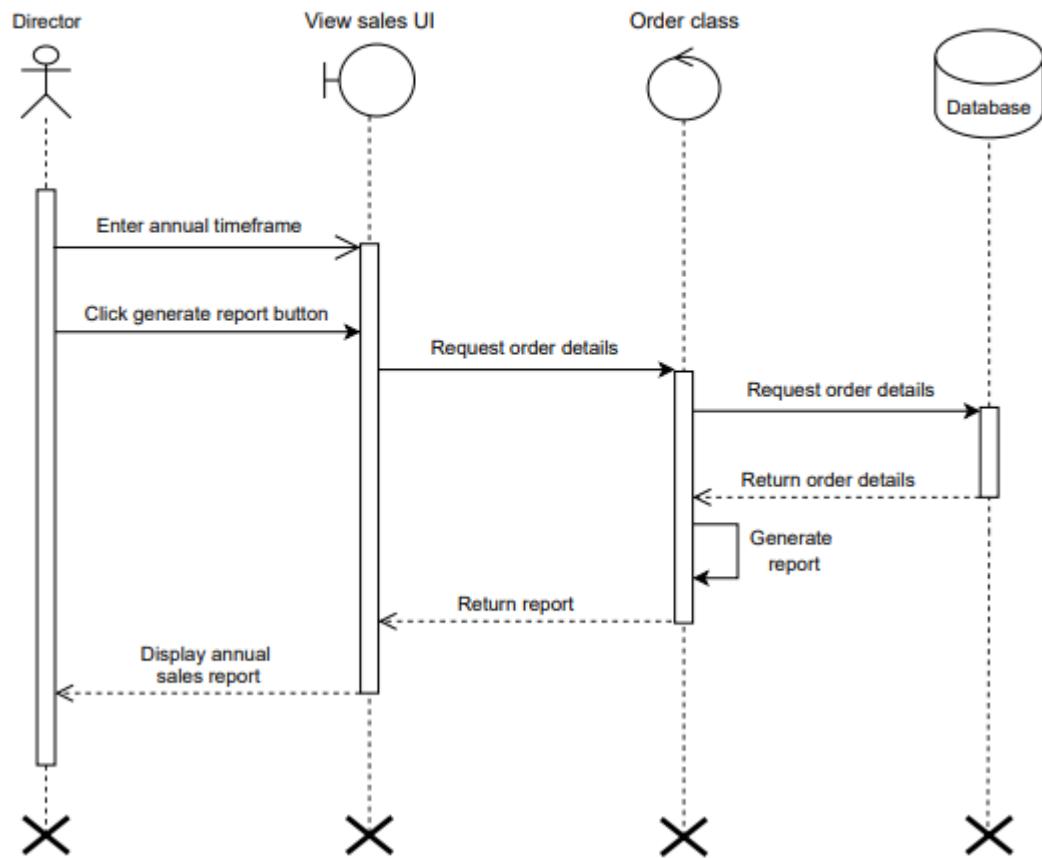


Figure 111 Generate weekly sales report sequence

Generate Monthly Outlet Sales Report Sequence

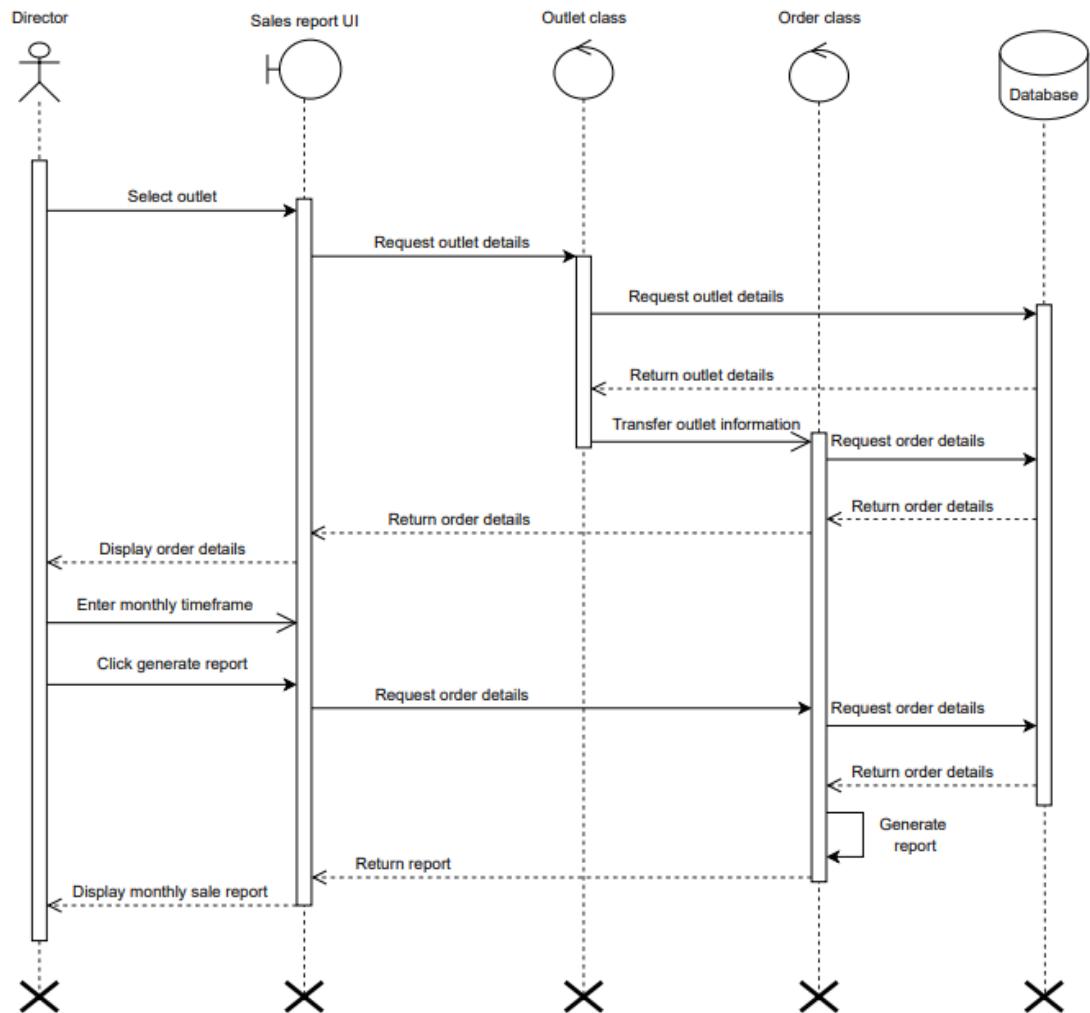


Figure 112 Generate monthly outlet sale report sequence

Remove Promotion Sequence

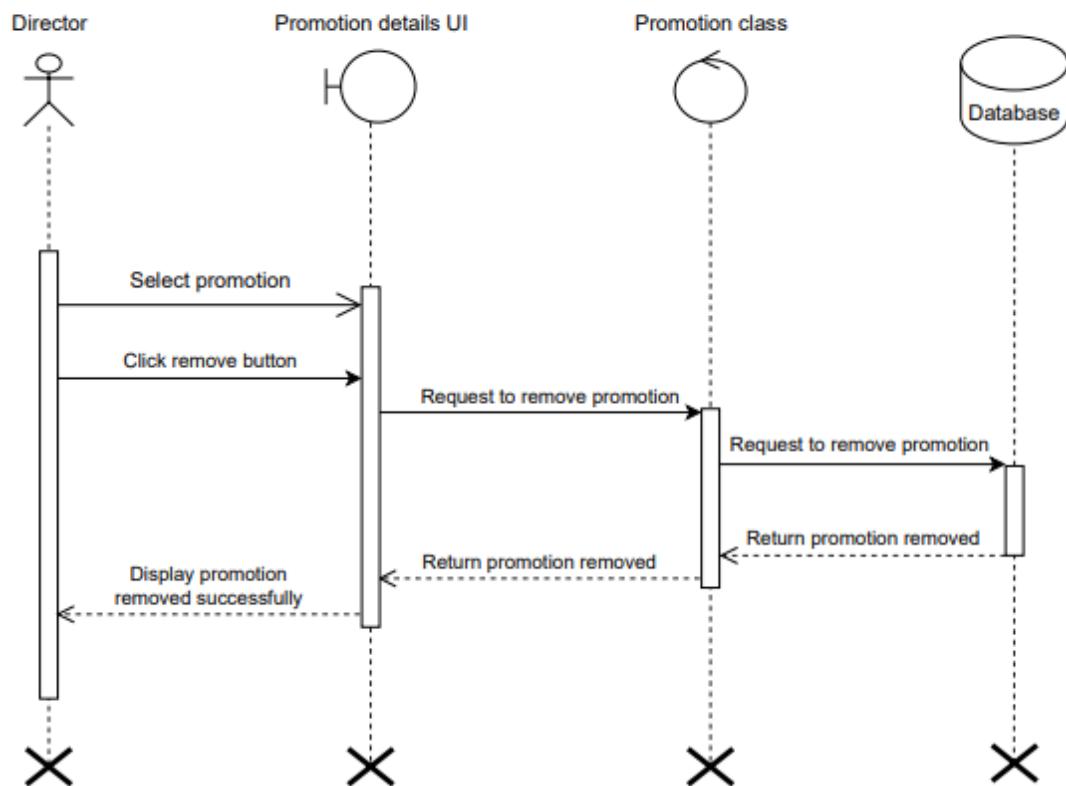


Figure 113 Remove promotion sequence

Update Menu Item Prices Sequence

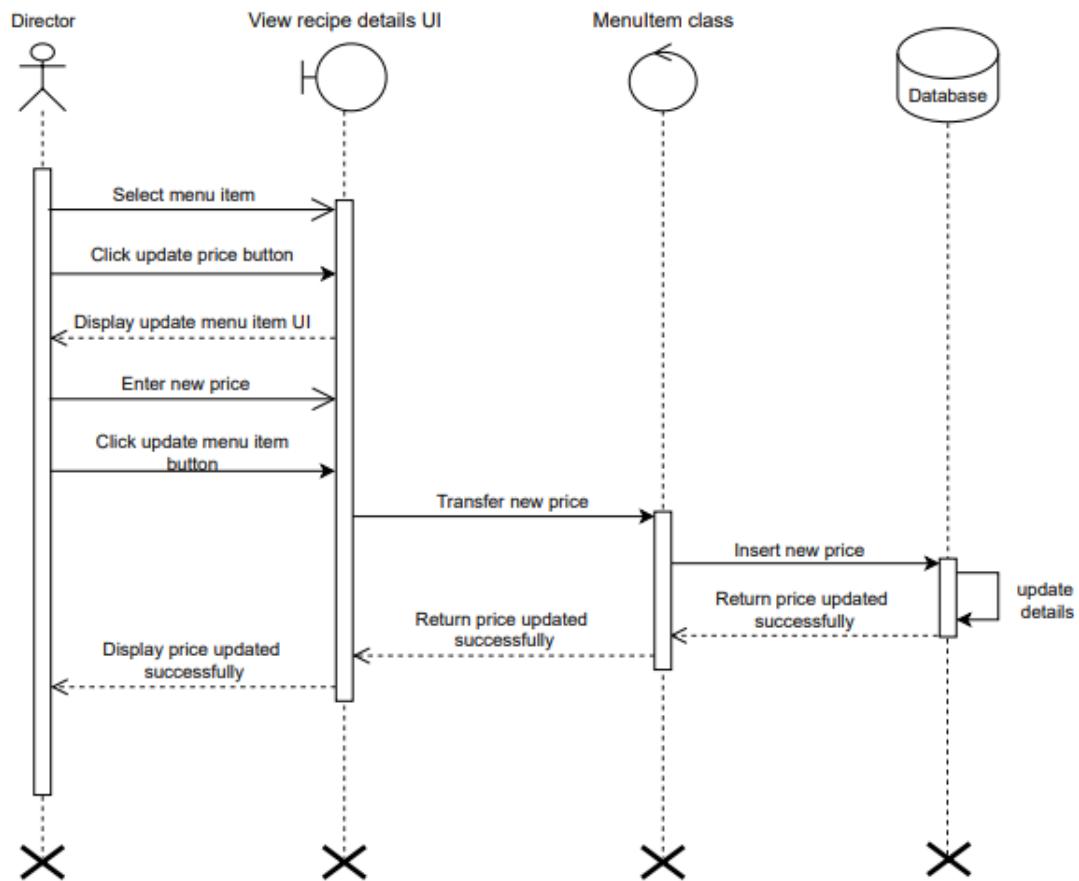


Figure 114 Update menu item prices sequence

Update Promotion Validity Duration Sequence

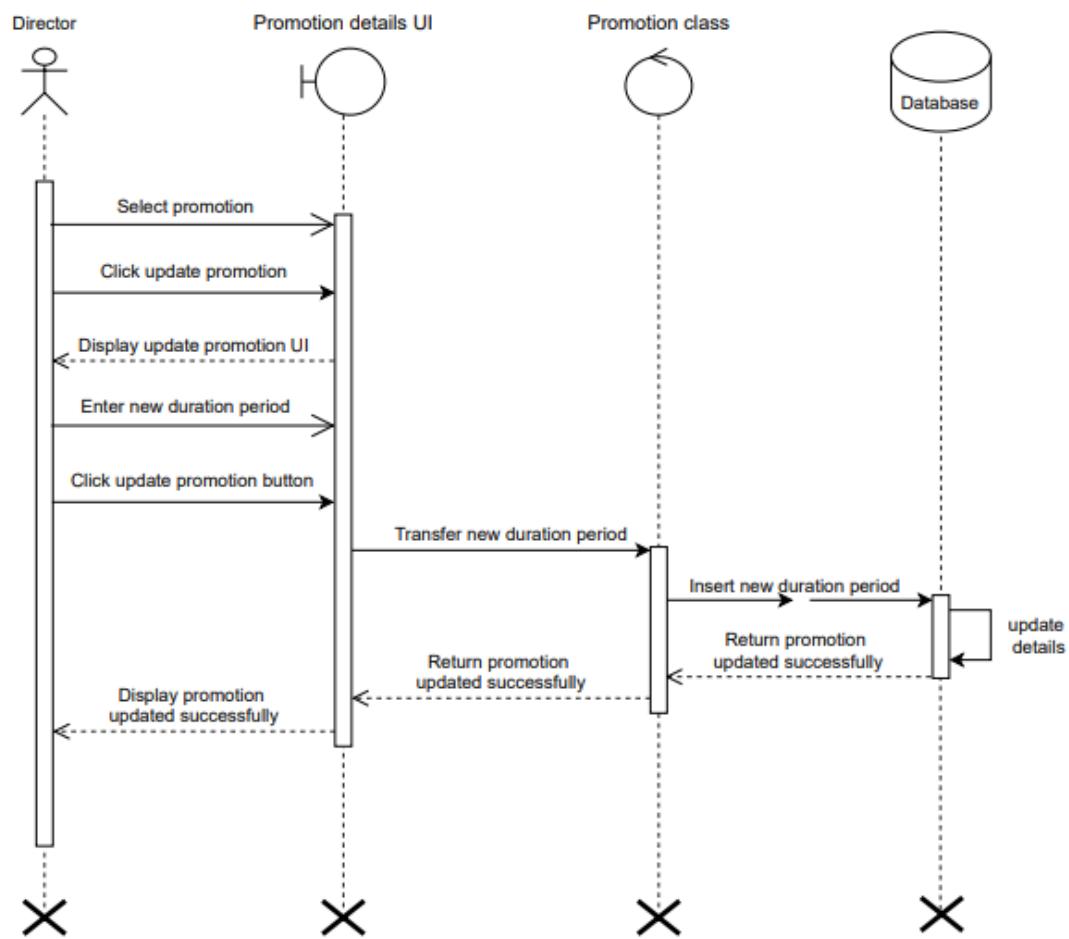


Figure 115 Update promotion validity sequence

View Customer Information Sequence

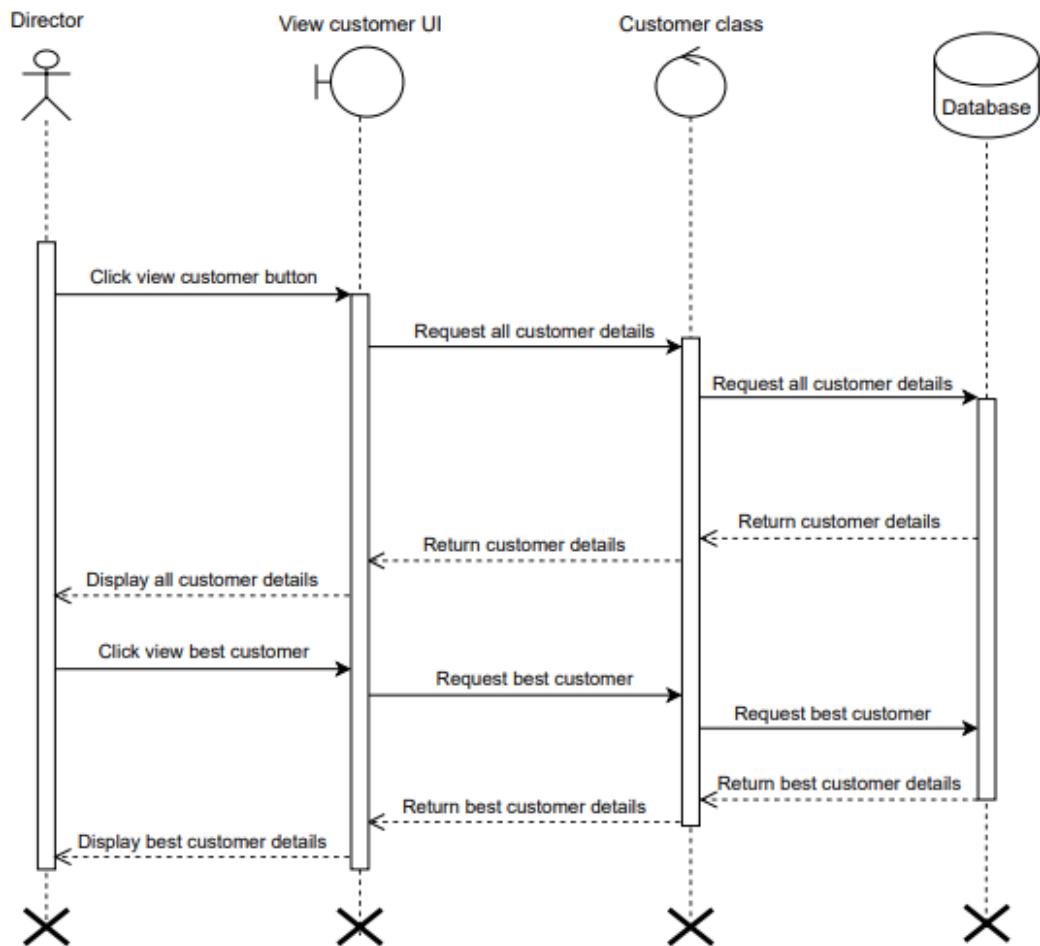


Figure 116 View customer information sequence

View Employee Information Sequence

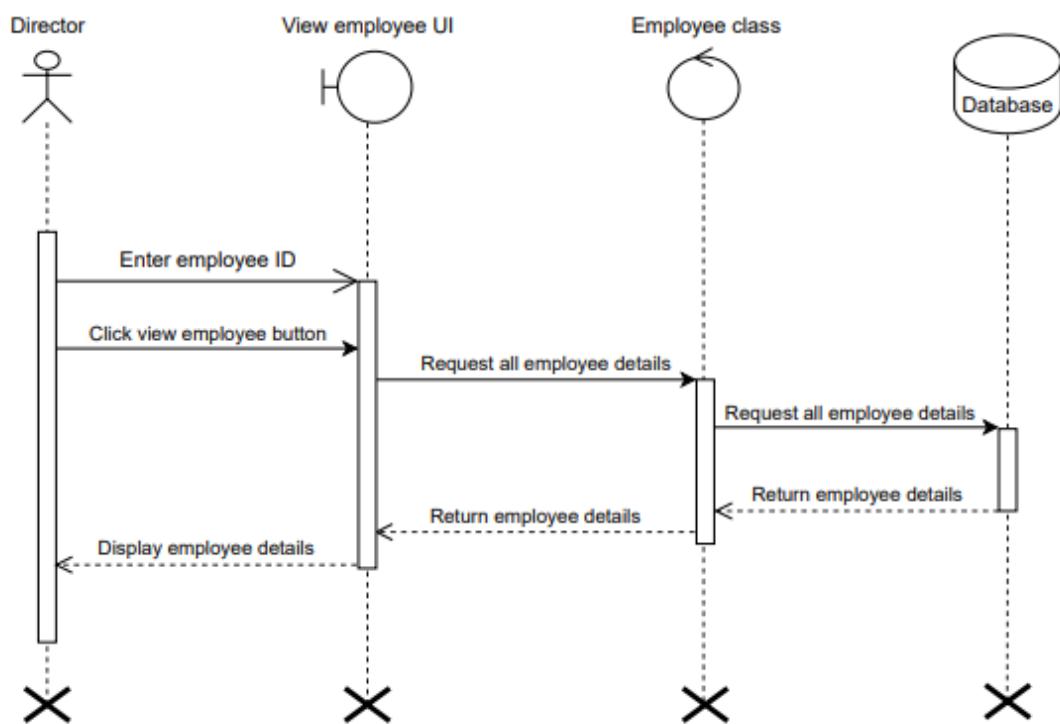


Figure 117 View employee information sequence

Update Recipe Sequence

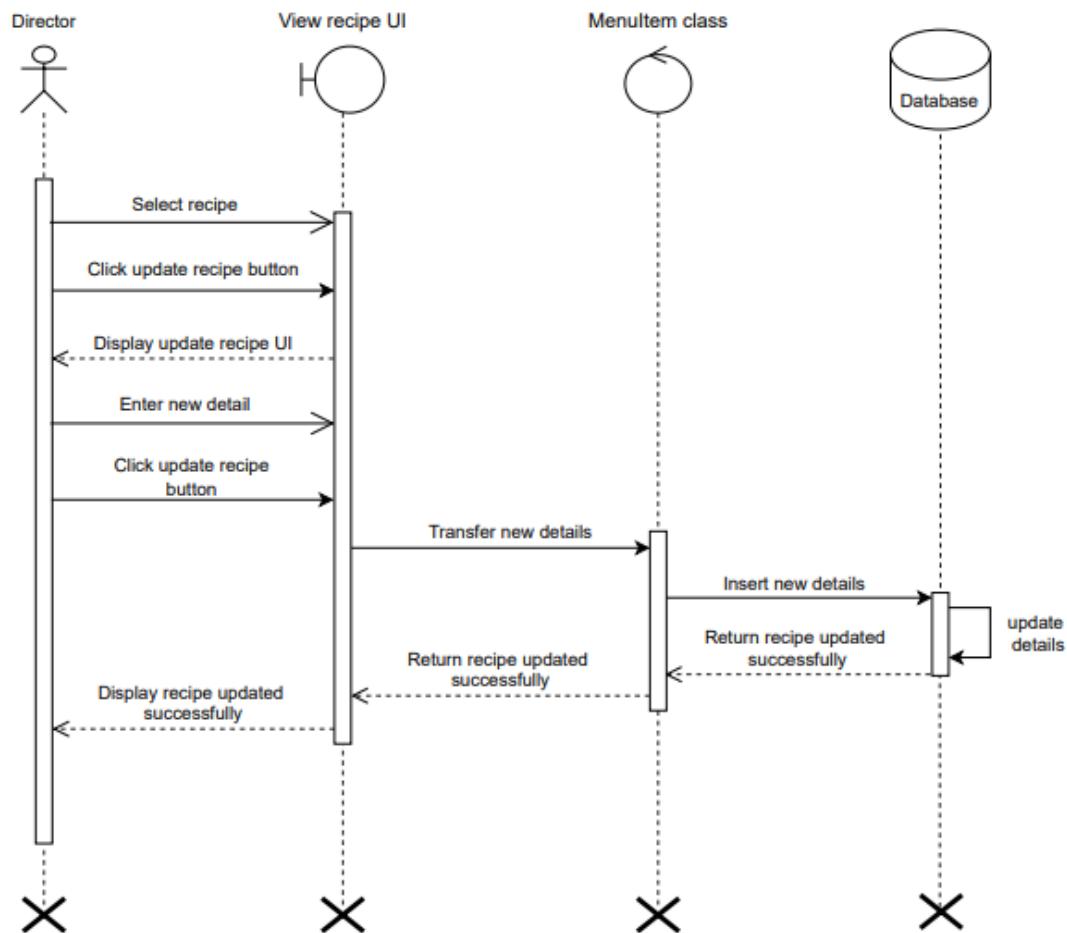


Figure 118 Update recipe Sequence

View Outlet-wise Feedback Sequence

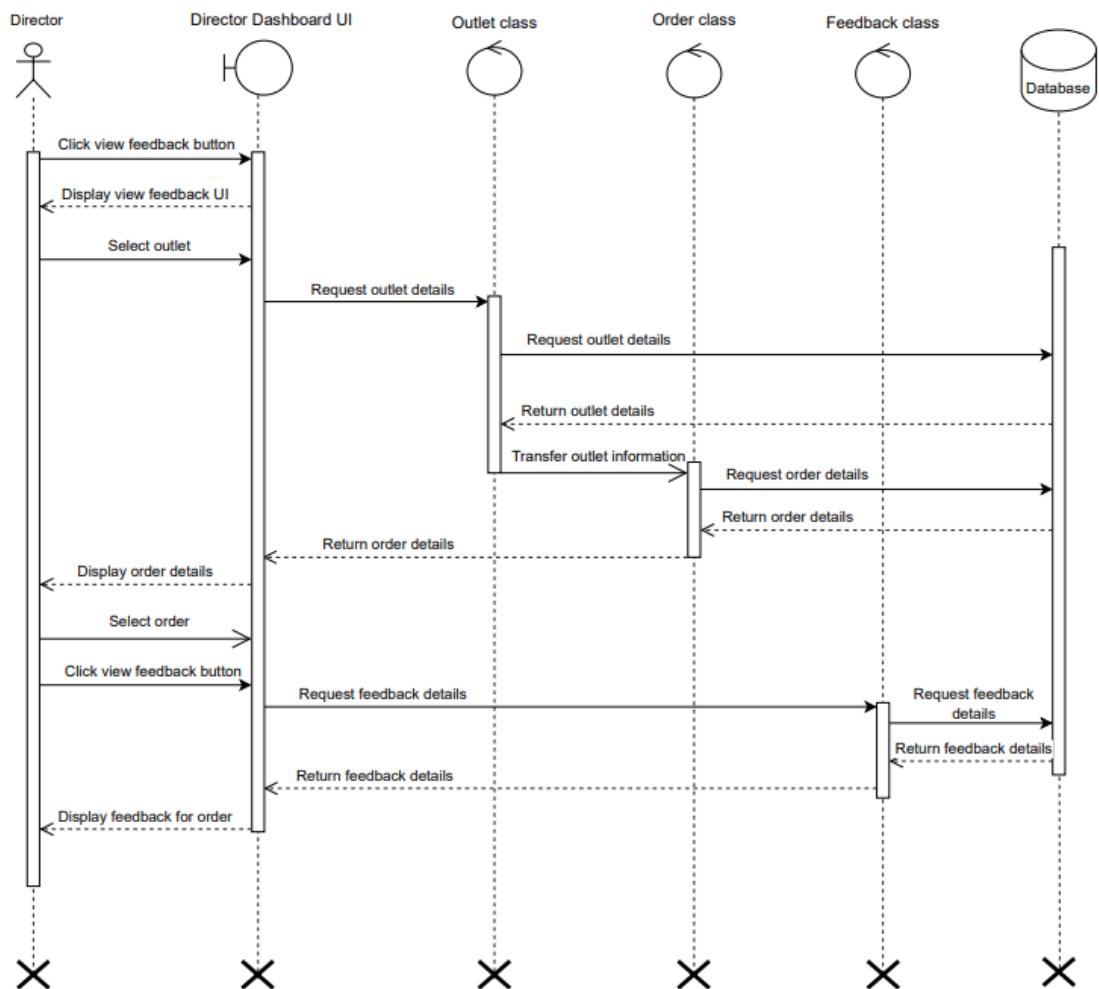


Figure 119 View outlet feedback sequence

View Daily Order Count

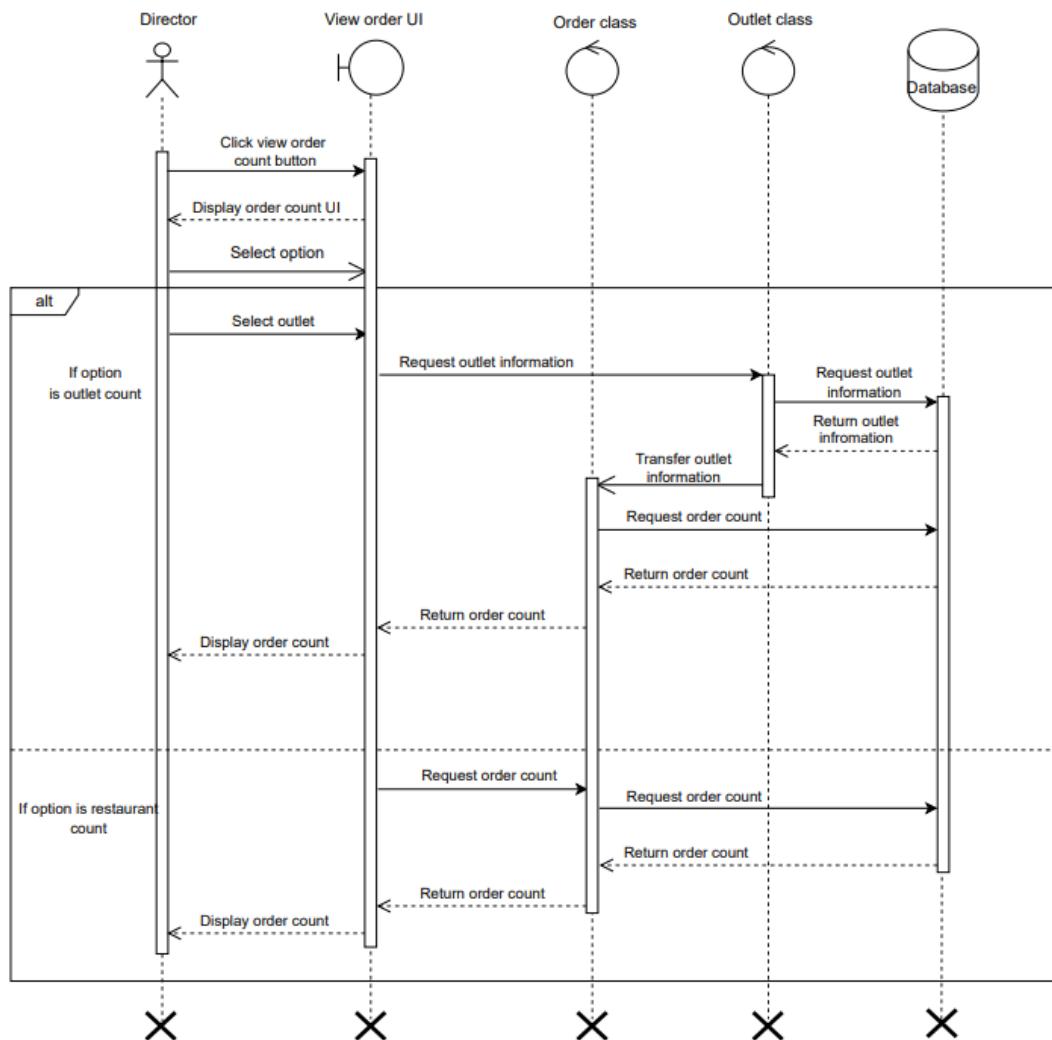


Figure 120 View Daily Order count sequence

View Monthly Sales Sequence

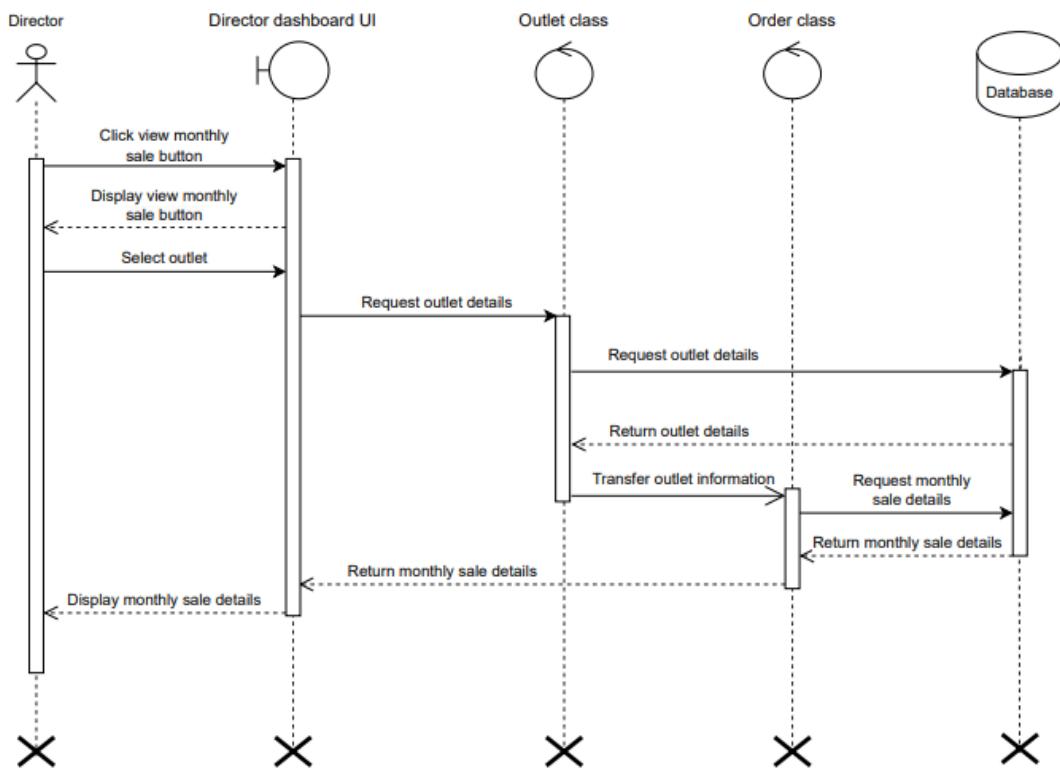


Figure 121 View Monthly sales sequence

Add Outlet Sequence

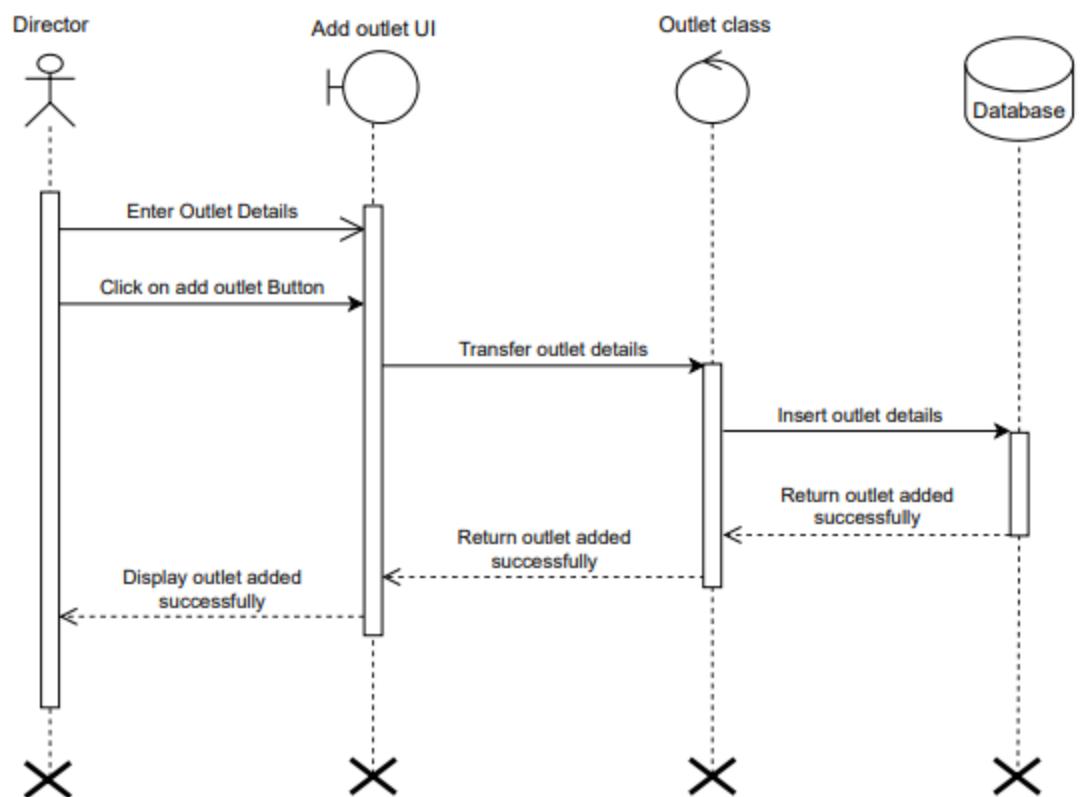


Figure 122 Add outlet sequence

Add New Employee Category Sequence

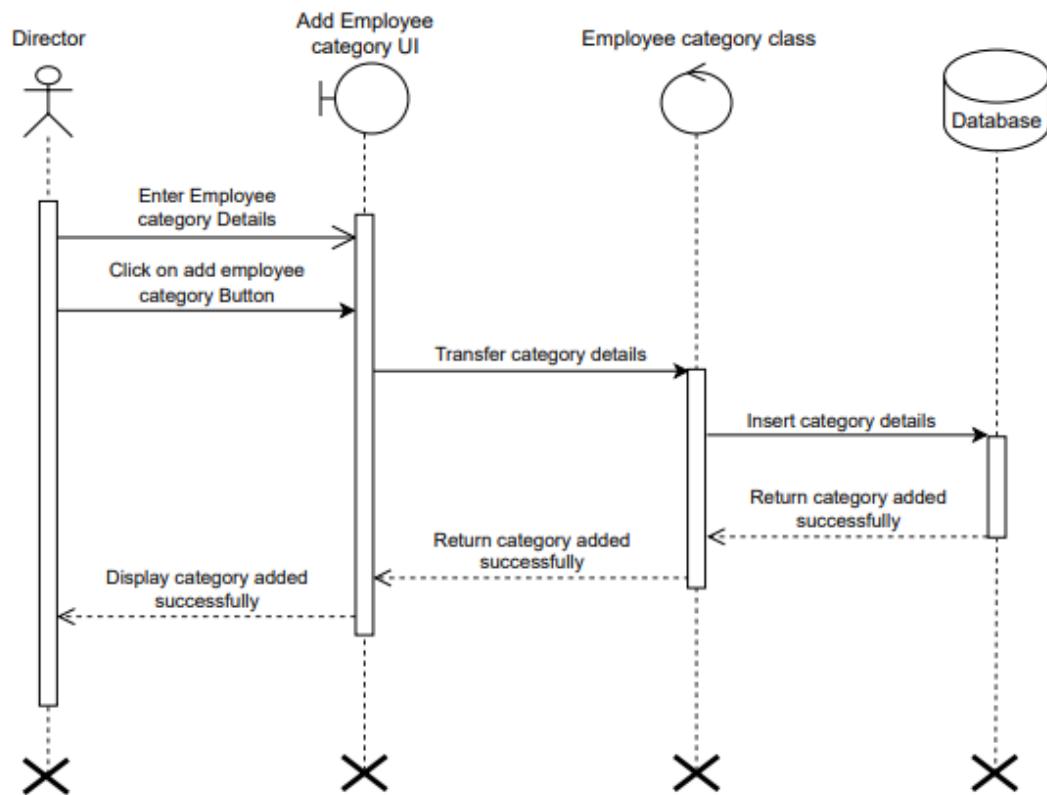


Figure 123 Add new employee category sequence

Add Order category Sequence

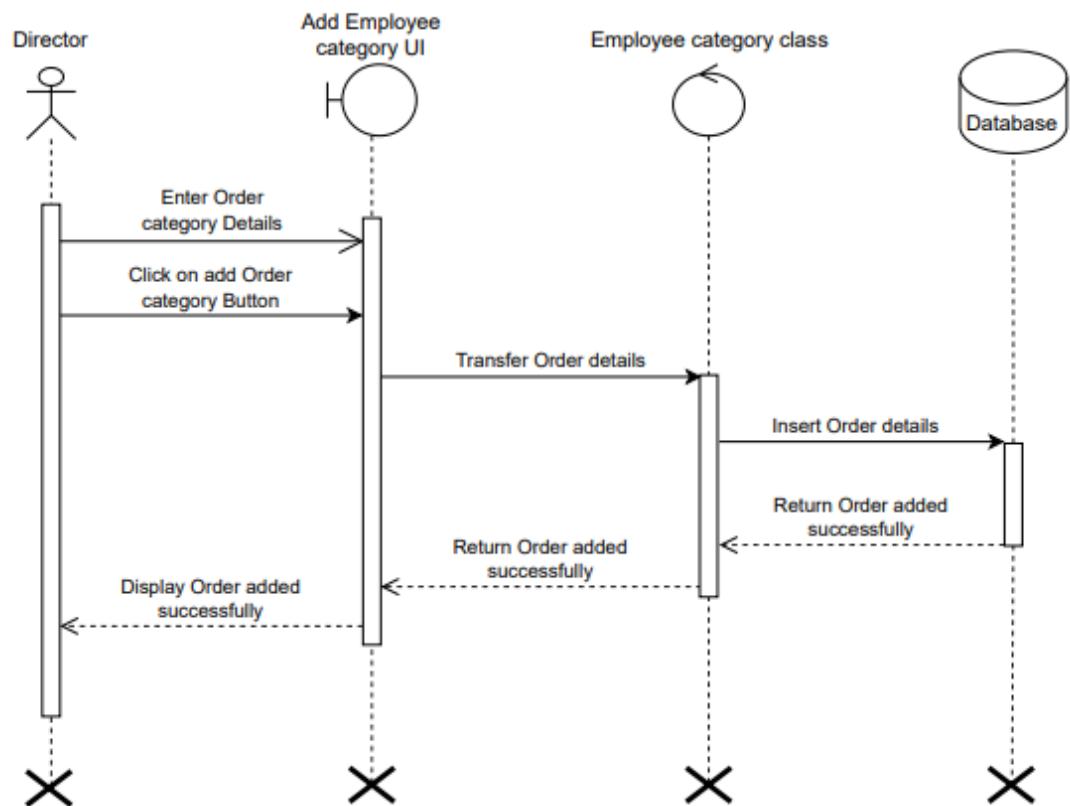


Figure 124 Add order category Sequence

Add New Promotion Type Sequence

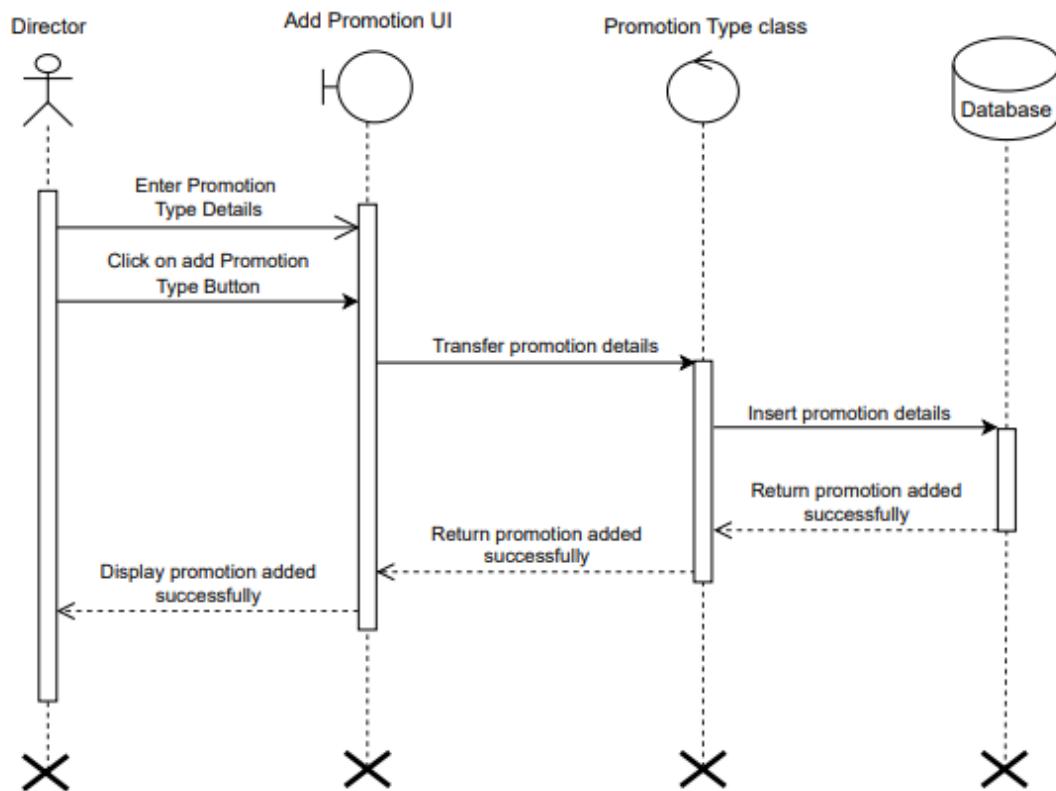


Figure 125 Add new Promotion type sequence

Add New Membership Sequence

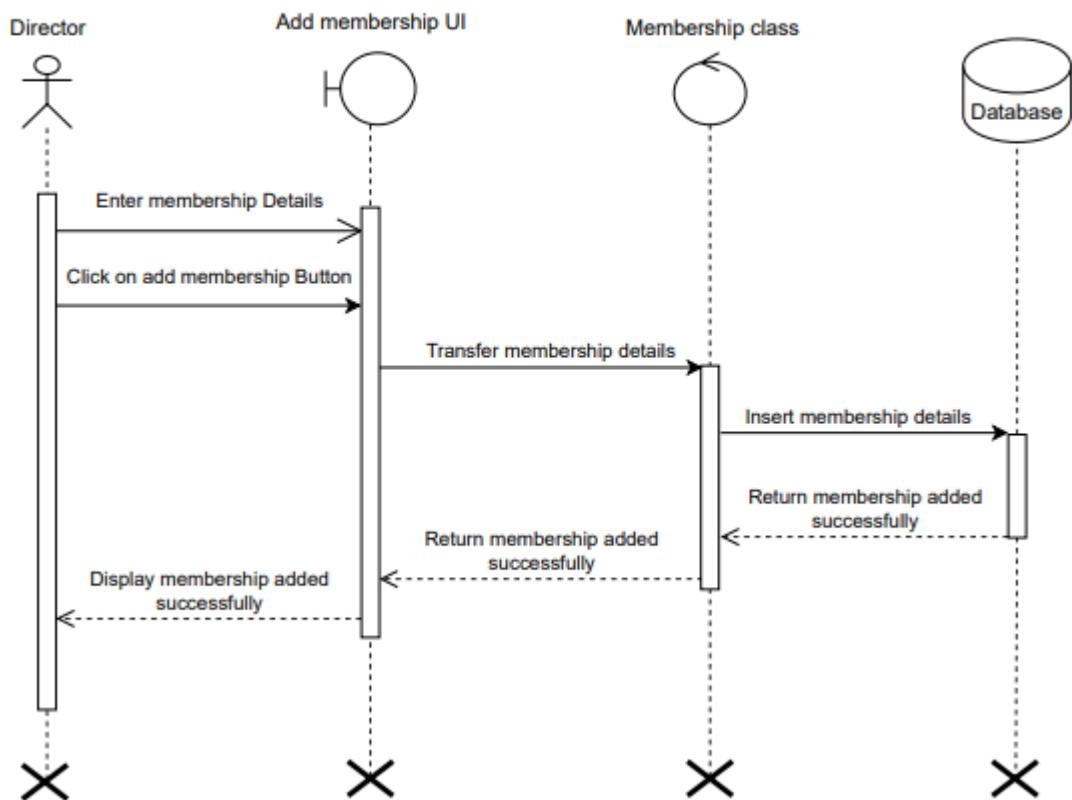


Figure 126 Add new membership sequence

Add Payment Type Sequence

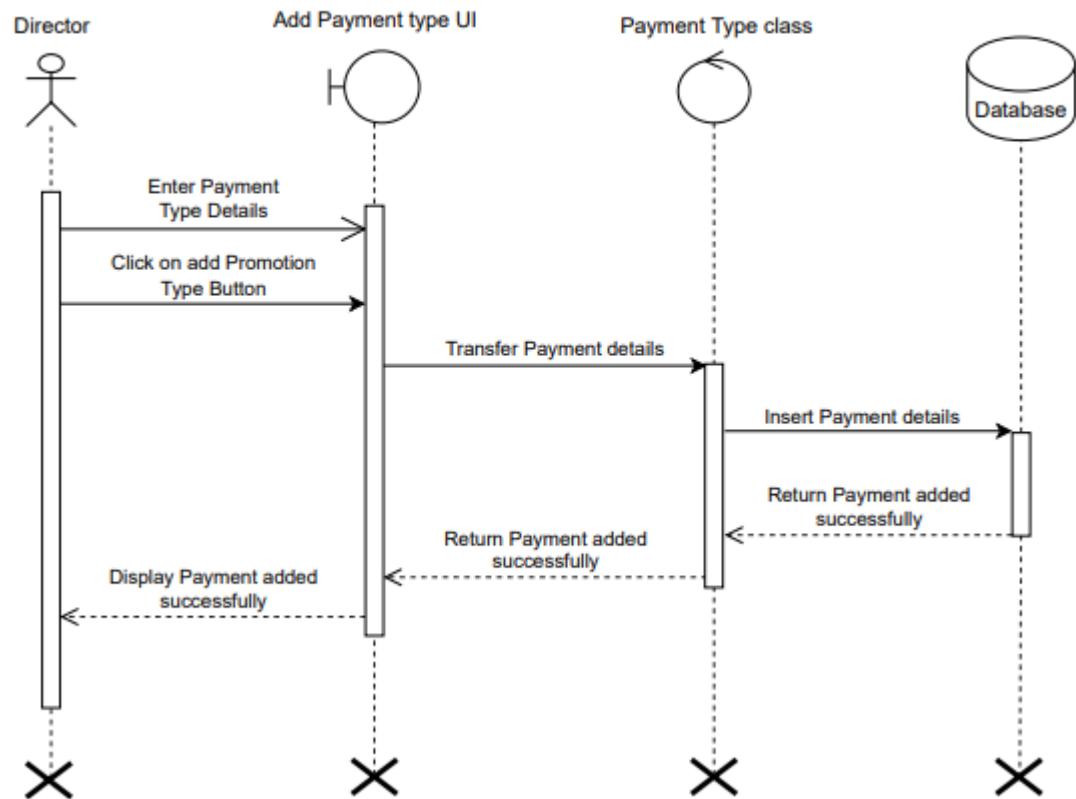


Figure 127 Add payment type sequence

Add Menu Category Sequence

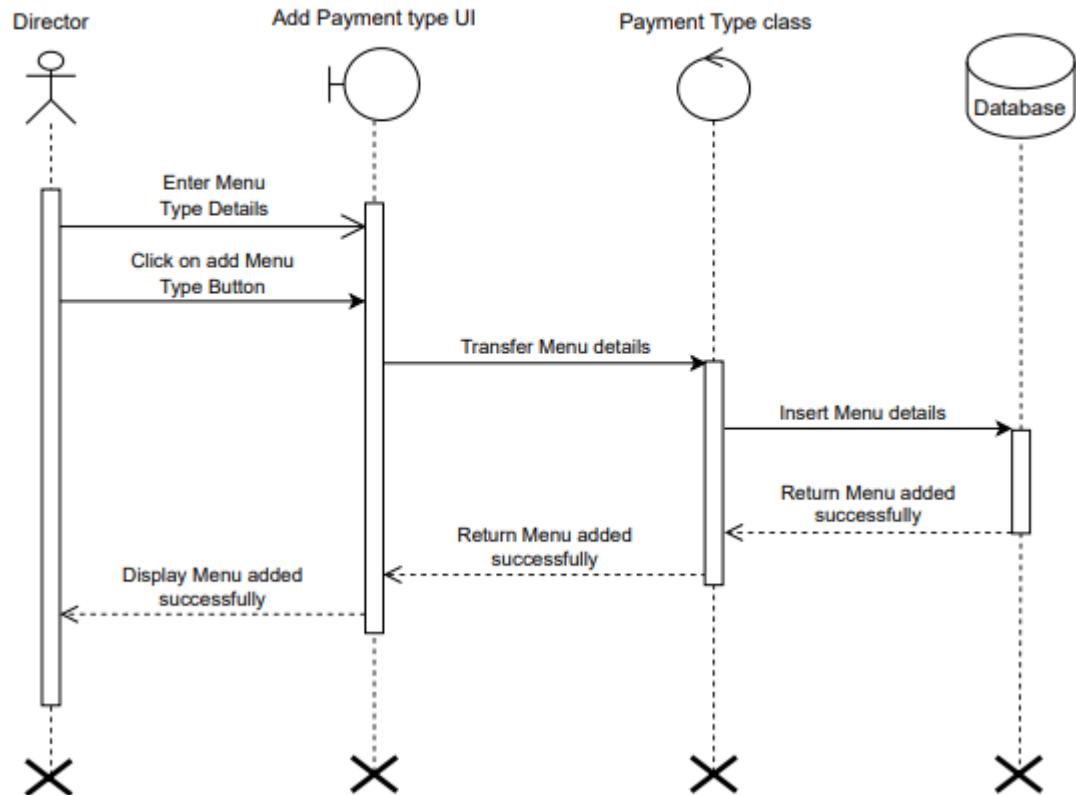


Figure 128 Add menu category sequence

Update Outlet Sequence

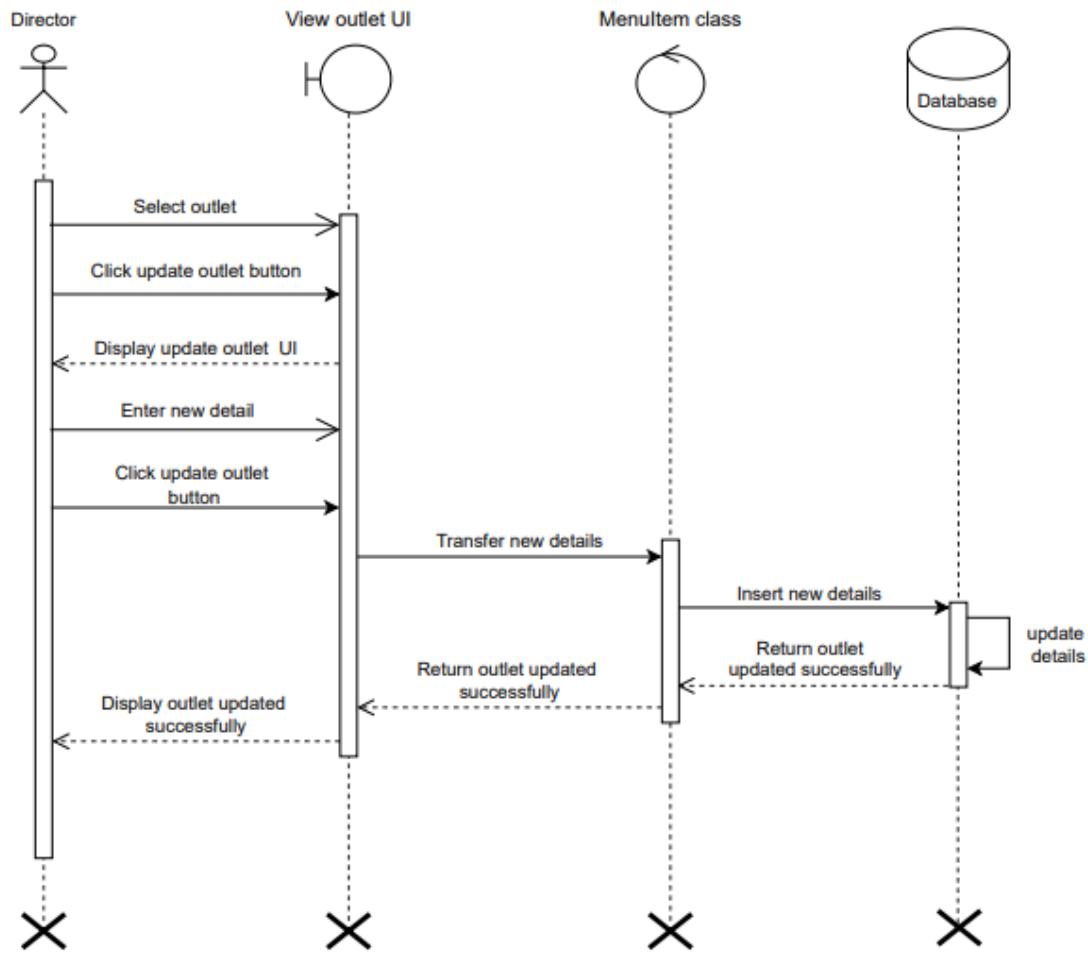
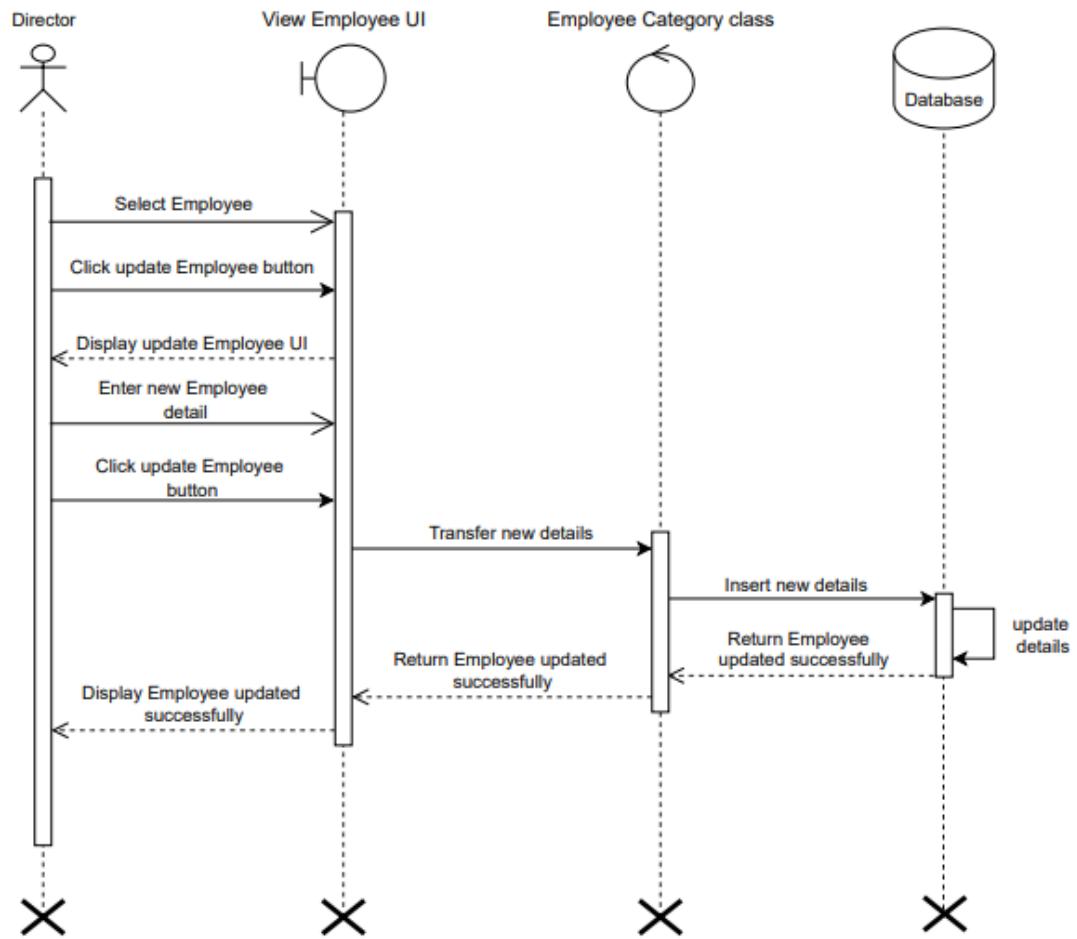


Figure 129 Update Outlet sequence

Update Employee Category Sequence



Update Promotion Types Sequence

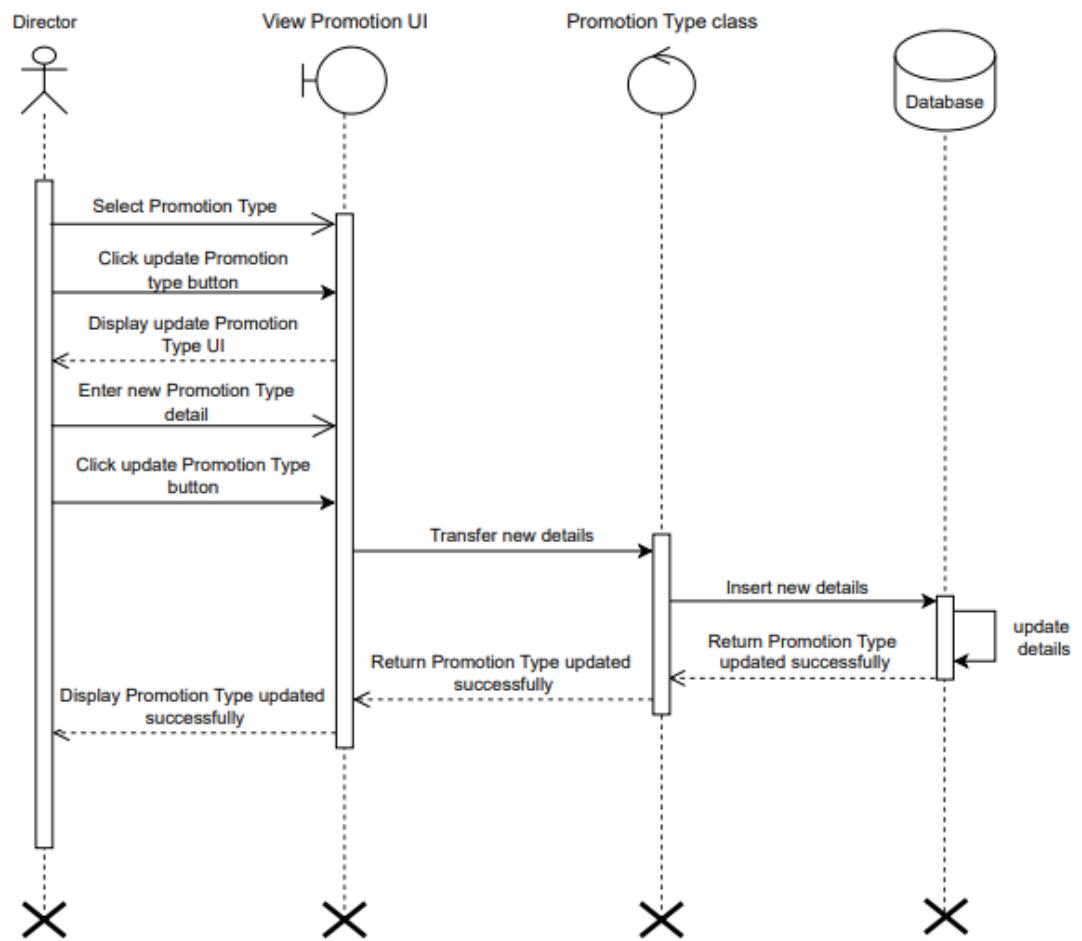


Figure 130 Update promotion type sequence

Update Payment Method Sequence

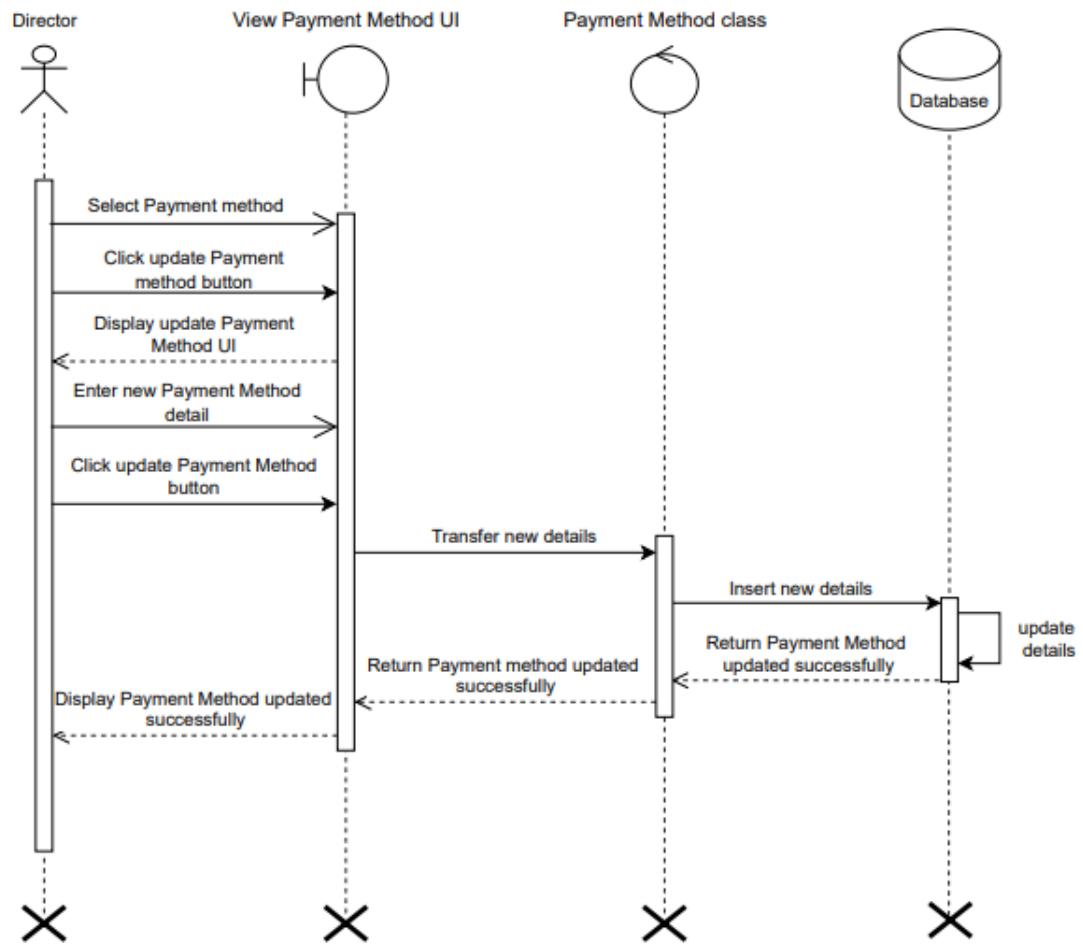


Figure 131 Update payment method sequence

Update Membership Sequence

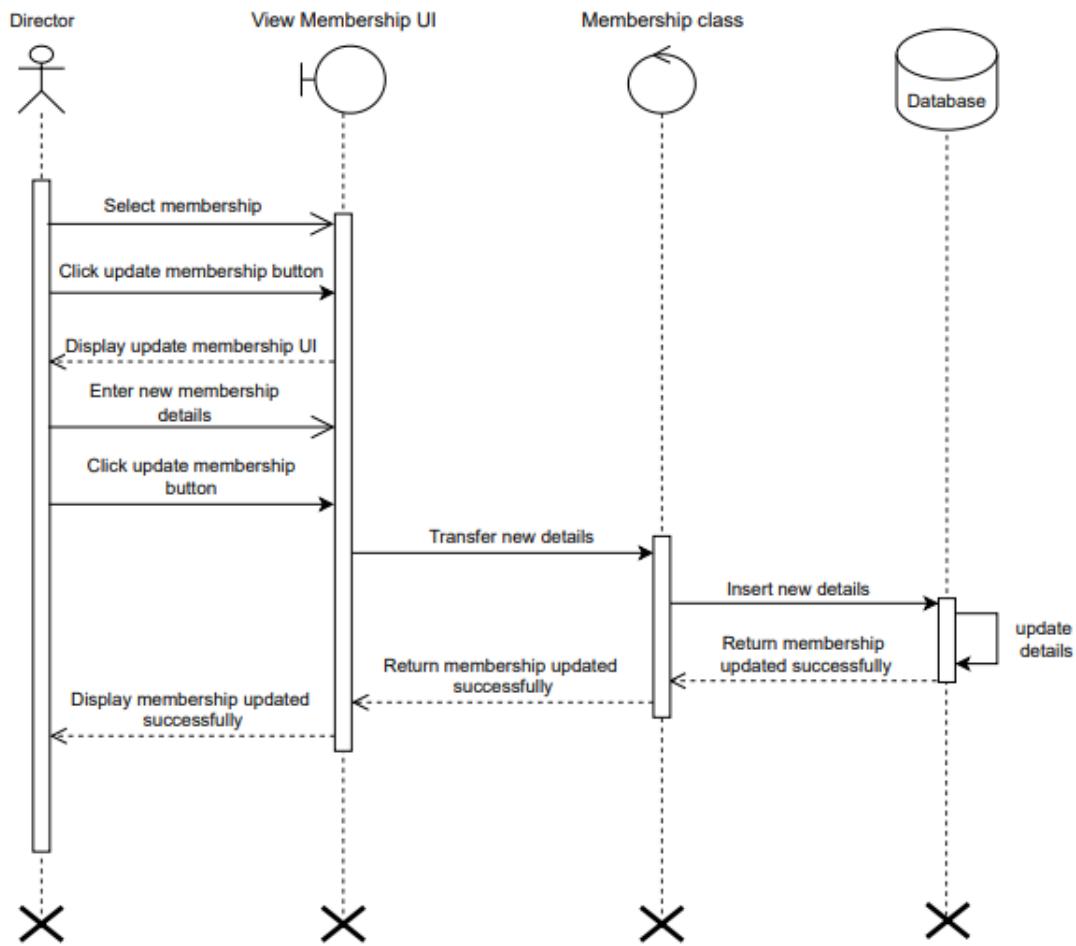


Figure 132 Update membership sequence

Update Menu Category Sequence

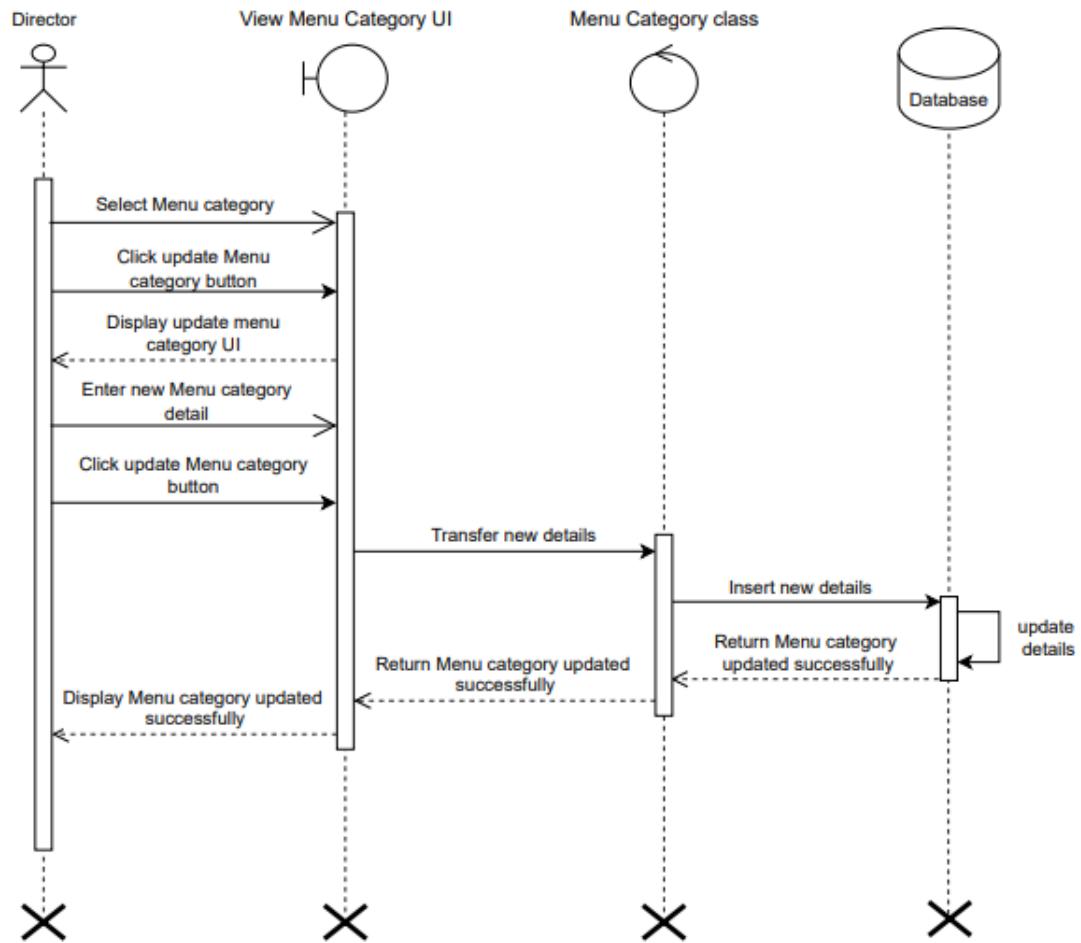


Figure 133 Update menu category sequence

Update Order Type Sequence

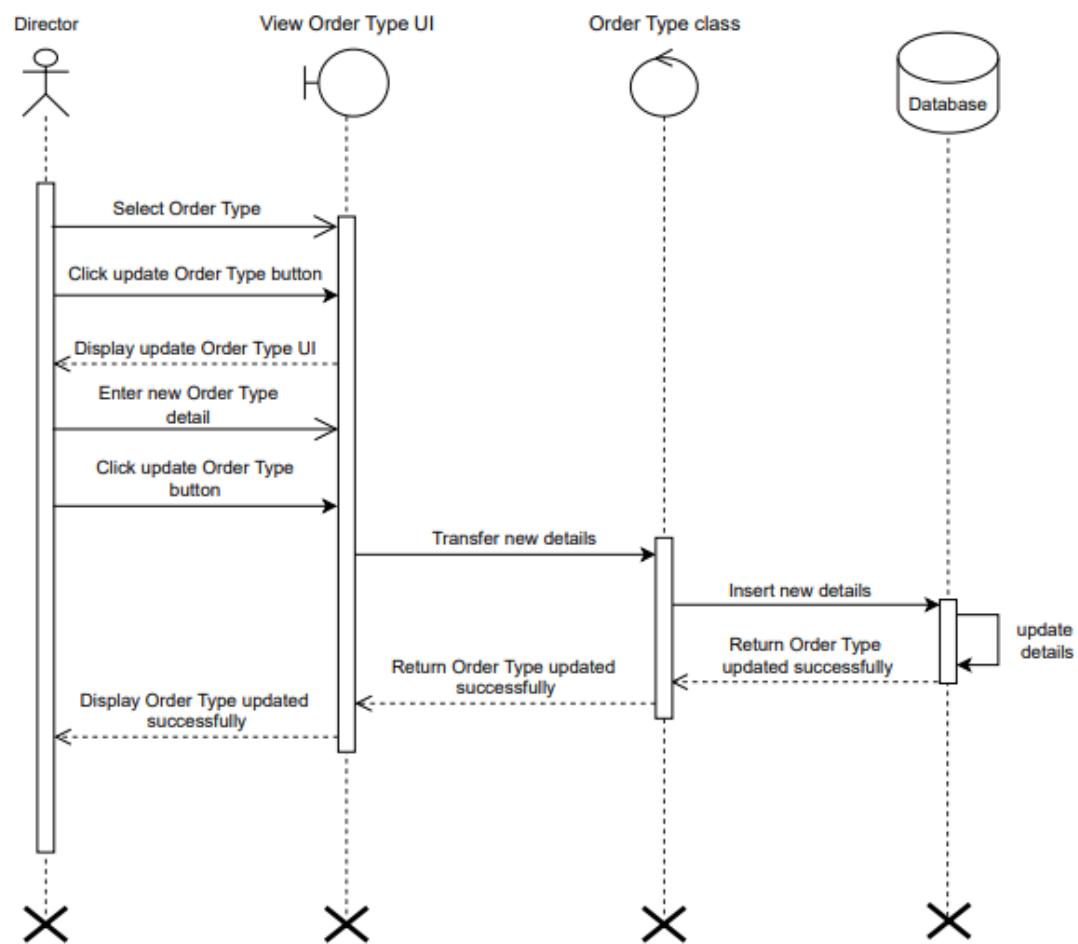


Figure 134 Update Order type sequence

Remove Outlet Sequence

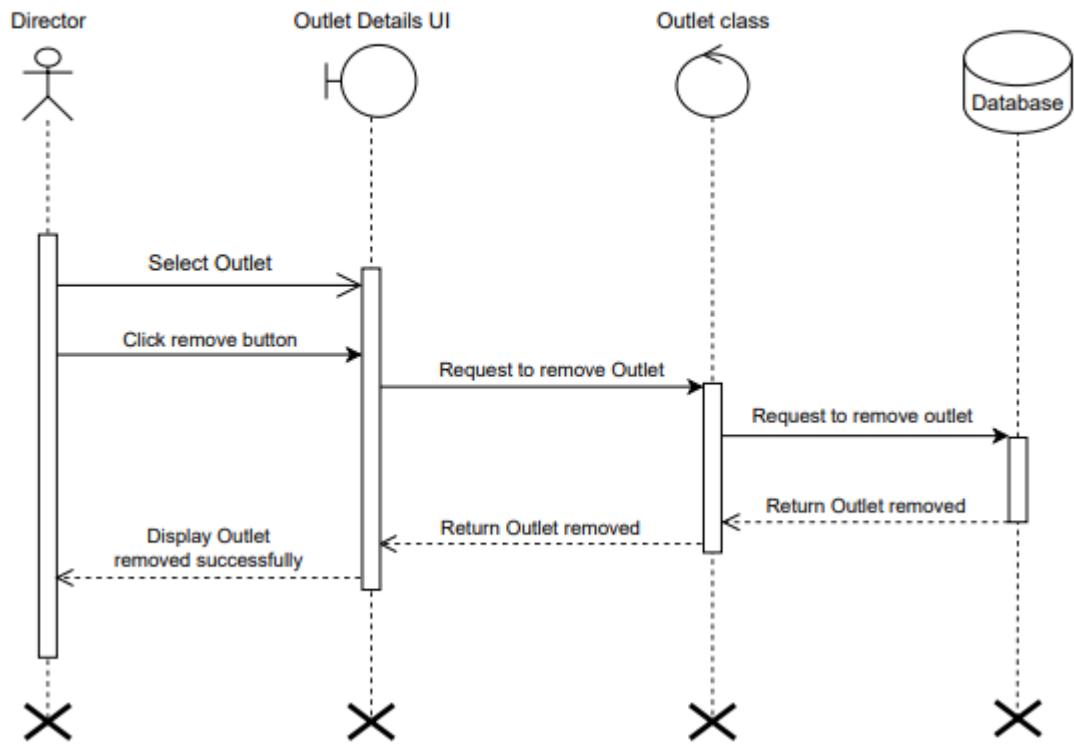


Figure 135 Remove outlet sequence

Remove Employee Category Sequence

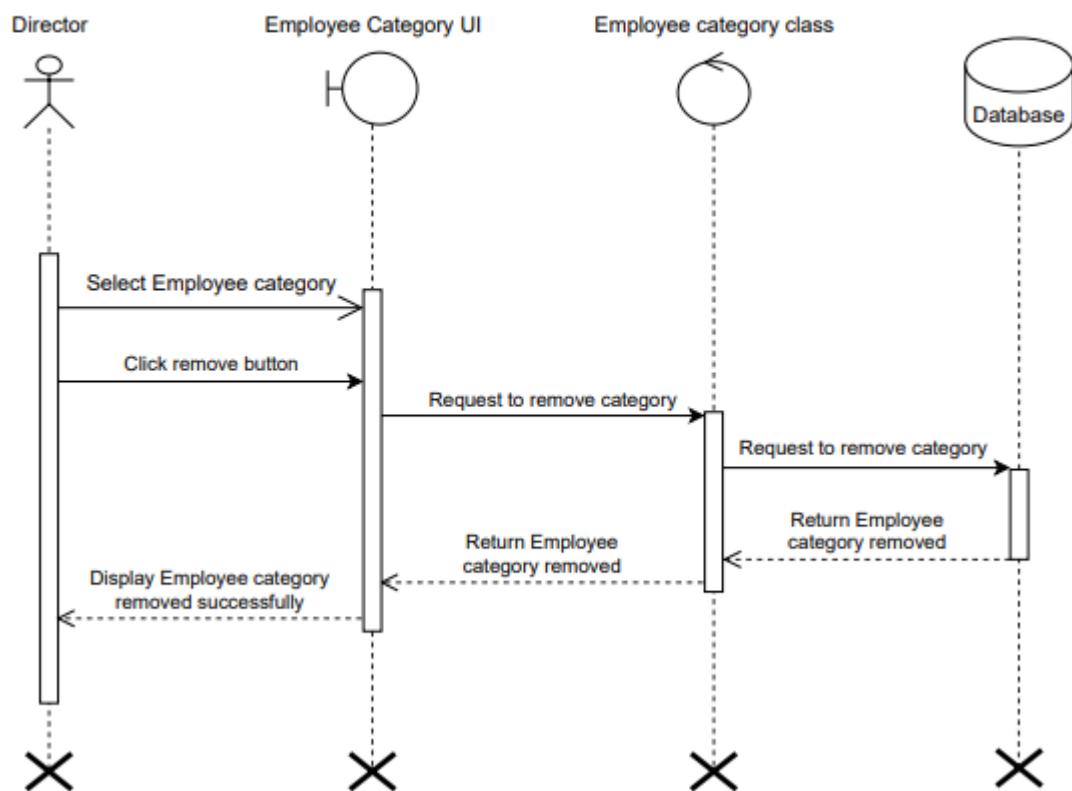


Figure 136 Remove Employee Category sequence

Remove Promotion Type Sequence

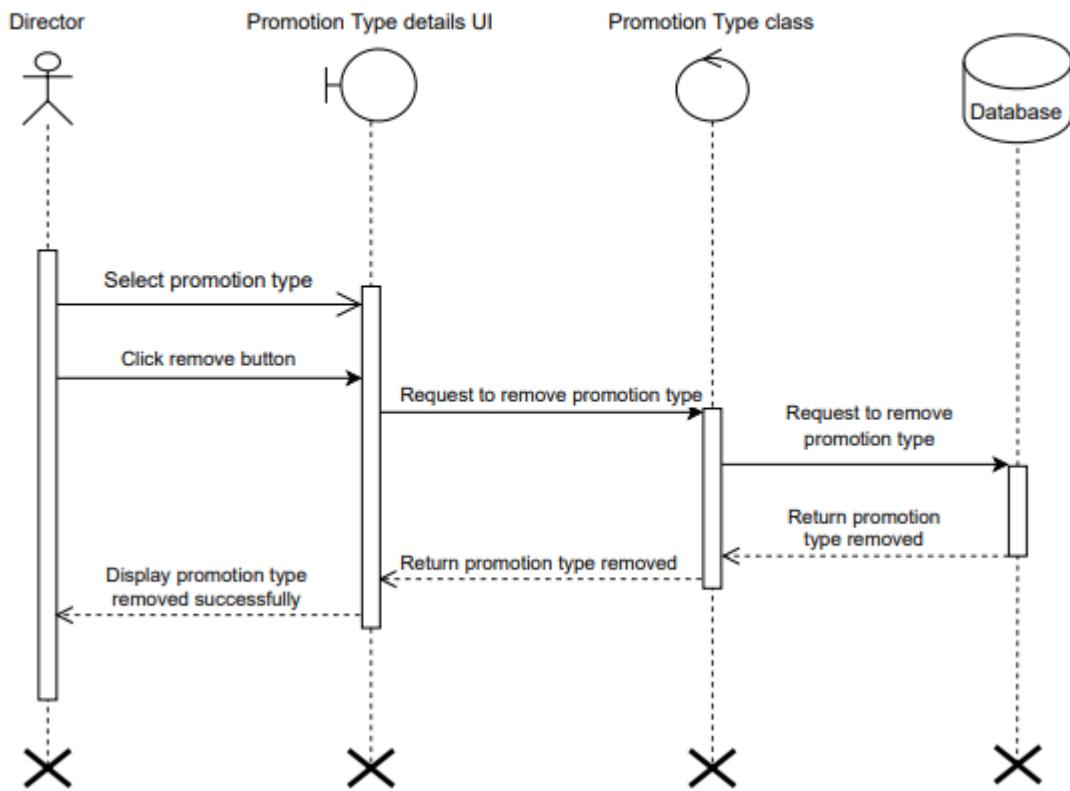


Figure 137 Remove Promotion Type sequence

Remove Payment Method Sequence

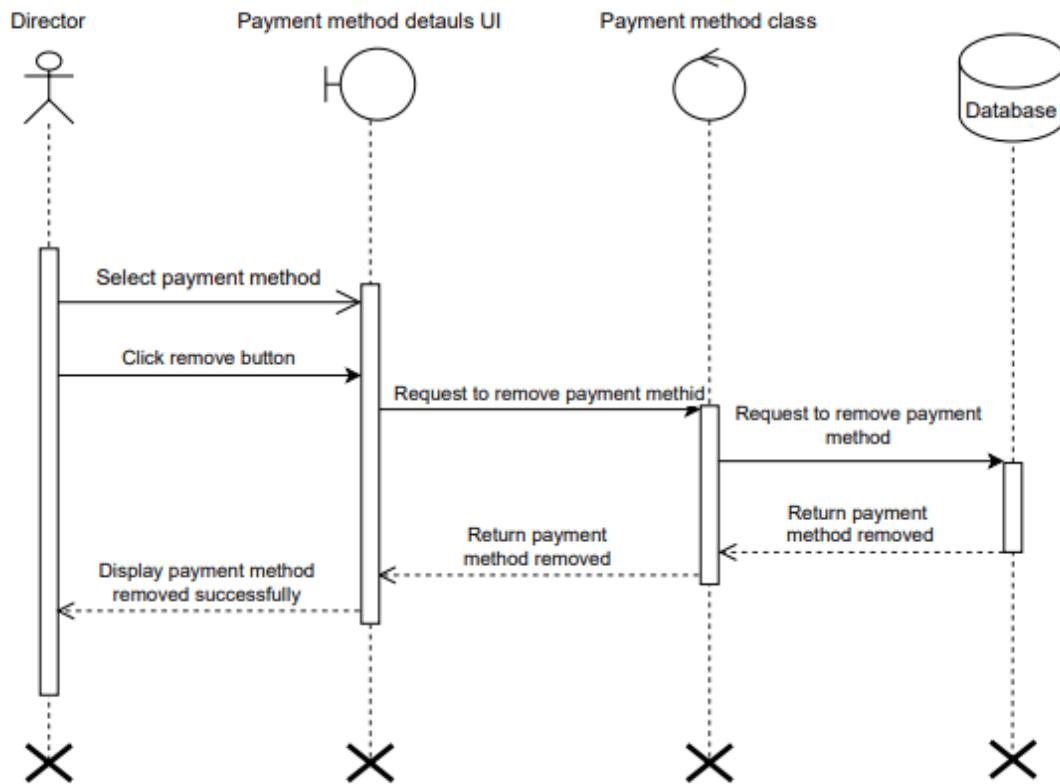


Figure 138 Remove payment method sequence

Remove Membership Sequence

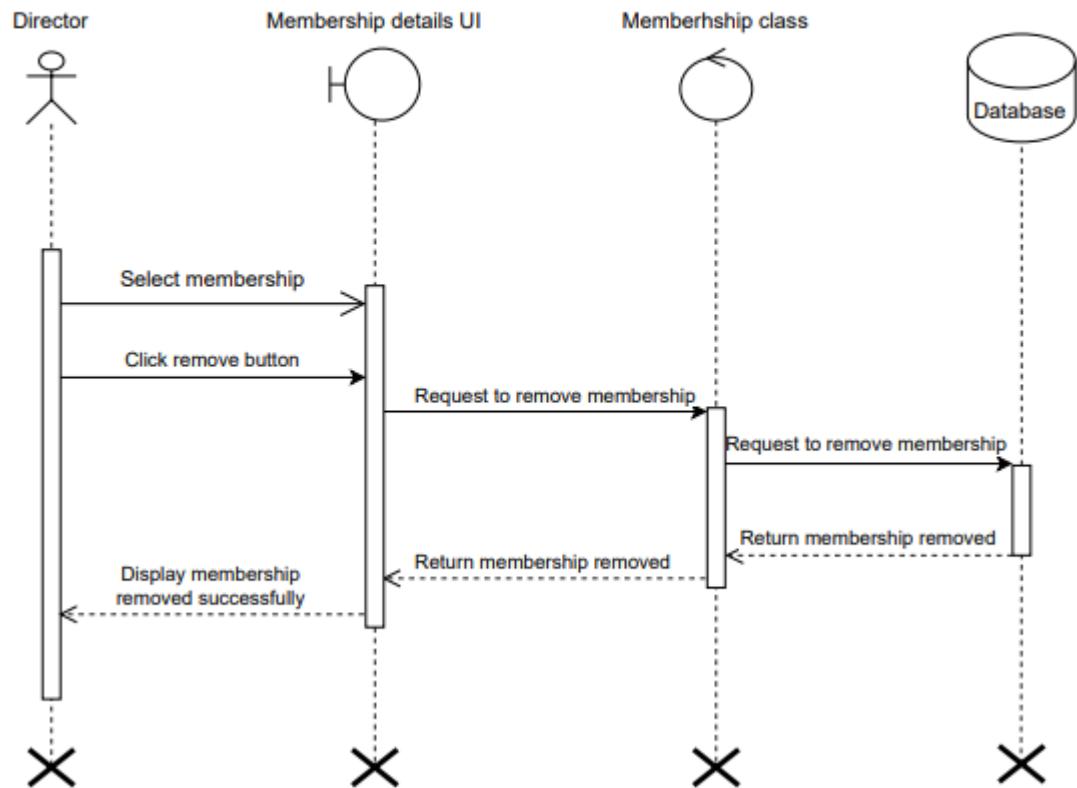


Figure 139 Remove membership sequence

Remove Menu Category Sequence

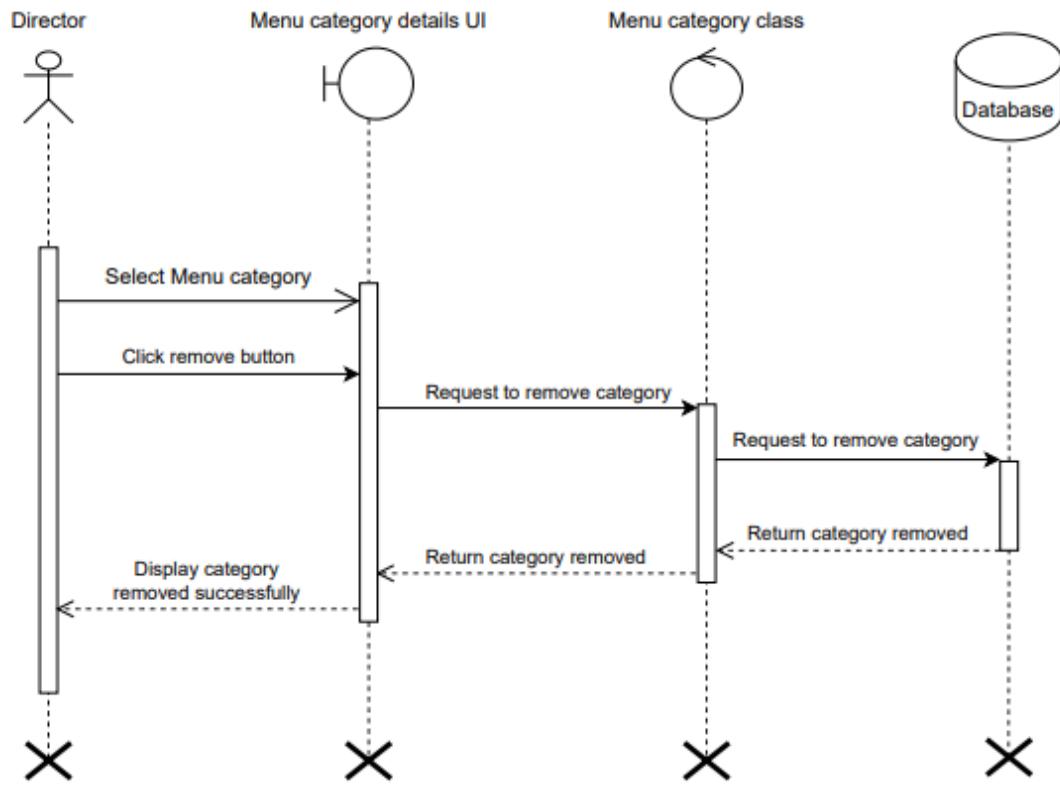


Figure 140 Remove menu category sequence

Remove Order Types Sequence

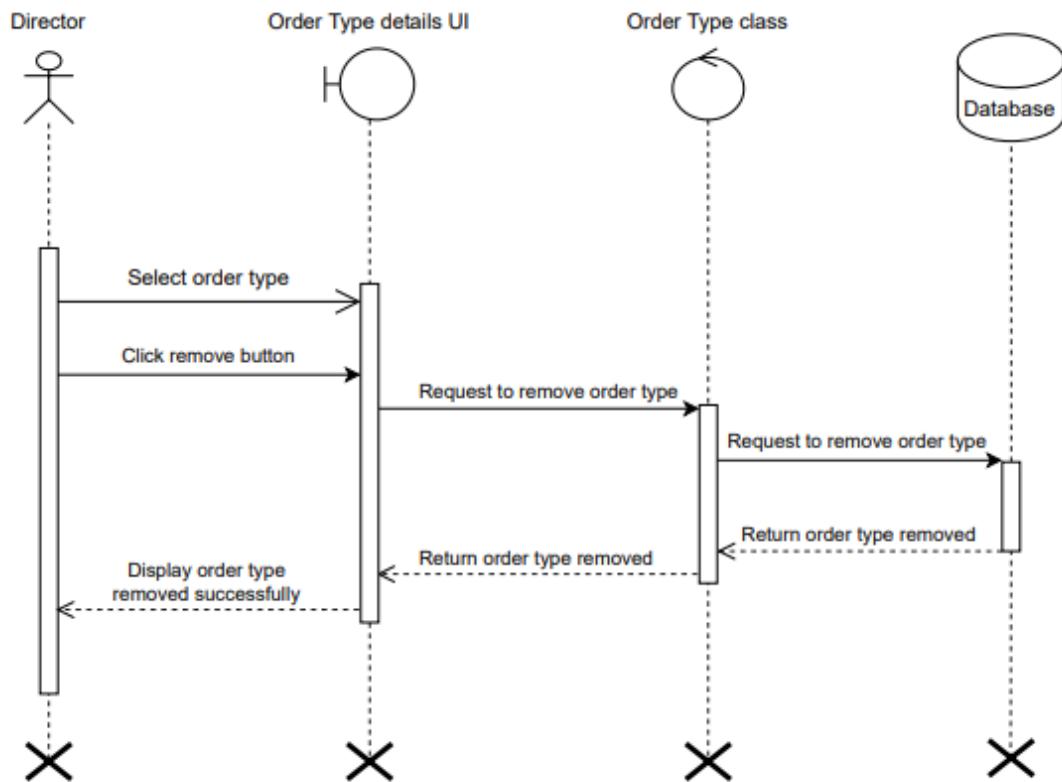


Figure 141 Remove Order type sequence

3.3 ER Diagram of the Proposed System.

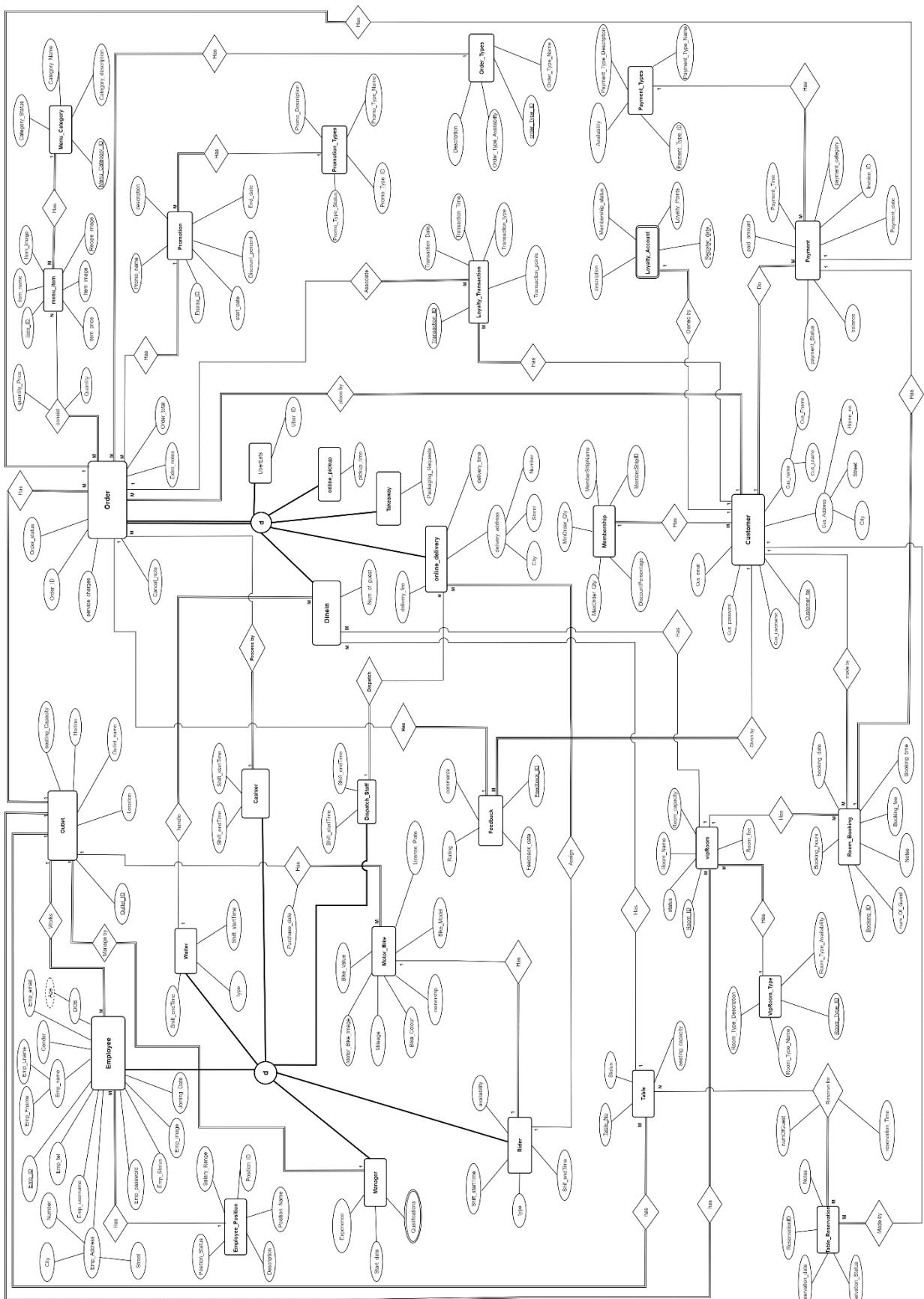


Figure 142 ER diagram

3.4 Chapter Summary

In this chapter, all the diagrams, the use case of the existing and proposed, class diagram, sequence diagrams and ER diagram were drawn according to the scenario of the restaurant. Above shown diagrams will allow you to understand the scope of our project.

4 Solution Design

4.1 Introduction

In the existing system of Pancetta, major actors/ users have been identified, the director, manager, cashier and the dispatcher. For these positions, interfaces, database structure, and report layout have been designed appropriately so that each of these positions are able to perform restaurant operations and tasks effectively.

The interface design provides a visual representation of the system and its components which users interact with align with the human computer interface design principals allowing it to be more convincing to the user to deal with their day-to-day business operations. For instance, the director of the restaurant will need to manage menu items and monitor the status of each outlet belonging to the restaurant. Before designing the database structure, we must elicit the proper business requirements for designing the ER diagram which illustrates the relationship between every entity. Every user interface is required to manipulate the data in some sort of way and store it into the database which helps for future references like back-ups.

With reference to the manual system of the restaurant, some of the reports could be generated and this would impact the future of the restaurant as proper reports are essential in making long-term business plans. In the computerized system all reports are system generated. Report layout has a format which consists of essential components like page no, company name, report name, report date, and report period and report are important for the top-level management to take the different strategic decisions.

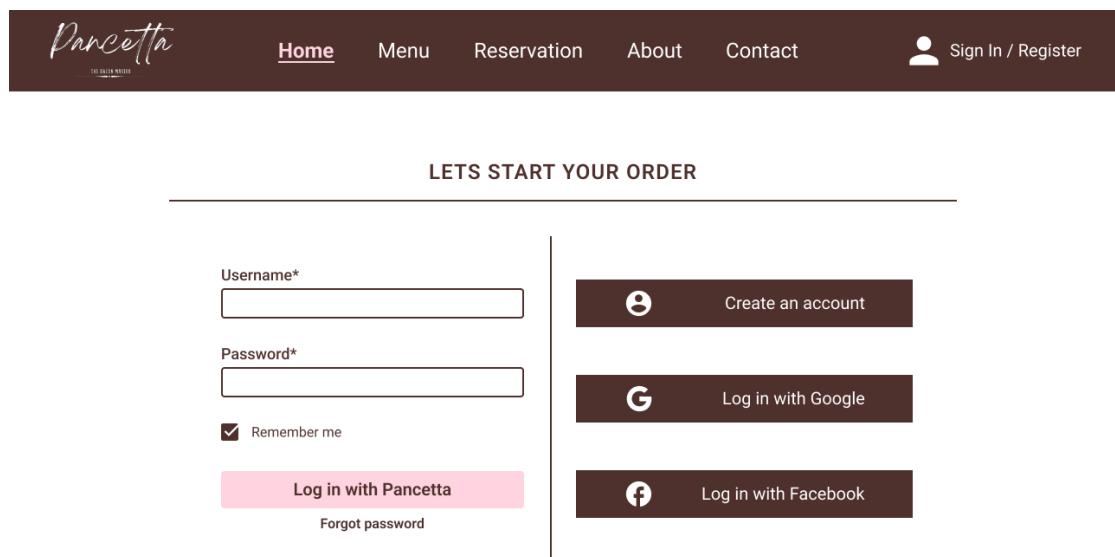
4.2 Interface Design

4.2.1 Login interface

Interface Number: 01

Interface Name: Customer login Screen

Description: This is the interface that allows customers to log into the system.



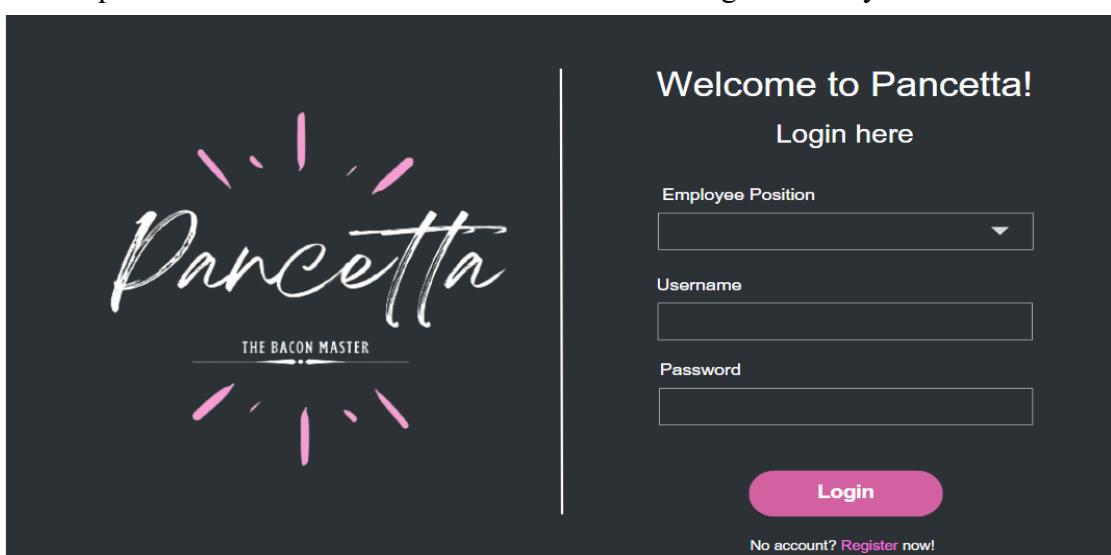
The screenshot shows the customer login screen for Pancetta. At the top, there is a dark header bar with the Pancetta logo on the left and navigation links for Home, Menu, Reservation, About, Contact, and Sign In / Register on the right. Below the header, the main content area has a title "LETS START YOUR ORDER". On the left side, there is a form for entering a username and password, with a "Remember me" checkbox and links for "Log in with Pancetta" and "Forgot password". On the right side, there are three social media login options: "Create an account" (with a user icon), "Log in with Google" (with a G icon), and "Log in with Facebook" (with a F icon).

Figure 143 Customer login screen

Interface Number: 02

Interface Name: System/ user login Screen

Description: This is the interface that allows users to log into the system.



The screenshot shows the user login interface for Pancetta. On the left side, there is a large Pancetta logo with the tagline "THE BACON MASTER". On the right side, there is a form titled "Welcome to Pancetta!" with a "Login here" button. The form includes fields for "Employee Position" (a dropdown menu), "Username", "Password", and a "Login" button. At the bottom of the form, there is a link "No account? Register now!".

Figure 144 User login interface

4.2.2 Customer Interface designs

Interface Number: 03

Interface Name: Customer menu interface

Description: This is the interface where customer can select menu.

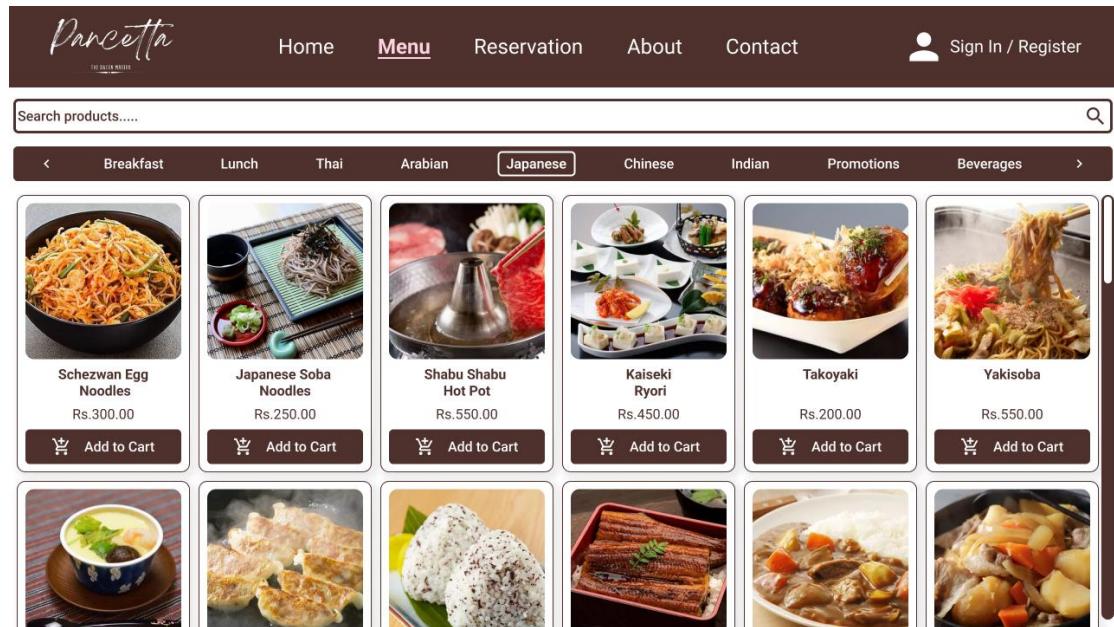


Figure 145 Customer menu interface

Interface Number: 04

Interface Name: Select order type and address

Description: This is the interface where customer can select order type and address.

The screenshot shows the Pancetta website's order selection interface. At the top, there is a navigation bar with the logo "Pancetta" and "THE EATEN MEISTER", followed by links for Home, Menu, Reservation, About, Contact, and a "Sign In / Register" button. Below the navigation bar is a large image of a sandwich. Overlaid on this image is a white callout box containing two tabs: "DELIVERY" (which is selected) and "PICK UP". Below the tabs is a text input field labeled "ENTER YOUR DELIVERY ADDRESS" with a placeholder "USE MY LOCATION" and a "GIVE NEW LOCATION" button. Below the callout box is a section titled "LIMITED TIME OFFER" featuring three food items:

- Smokey Grill** (LKR.2,350) with a "Customize" button.
- Diner's Lounge** (LKR.1,960) with a "Customize" button.
- Harpo's Pizza on Wheels** (LKR.2,500) with a "Customize" button.

At the bottom of the page is a dark footer section with links for Order Now (Thai, Arabian, Japanese, Chinese, Indian, Beverages), About (About Us, Hotline, Contact Us), Legal (Terms & Conditions, Privacy Policy), and a "Find A Pancetta" link. It also includes a "Find Us on Social Media" section with Facebook and Instagram icons, and copyright information: "Copyright © Pancetta Corporation 2022 All Rights Reserved Version 1.15.46".

Figure 146 Select order type and address interface

Interface Number: 05

Interface Name: Customer entering address interface

Description: This is the interface where customer can enter the address.

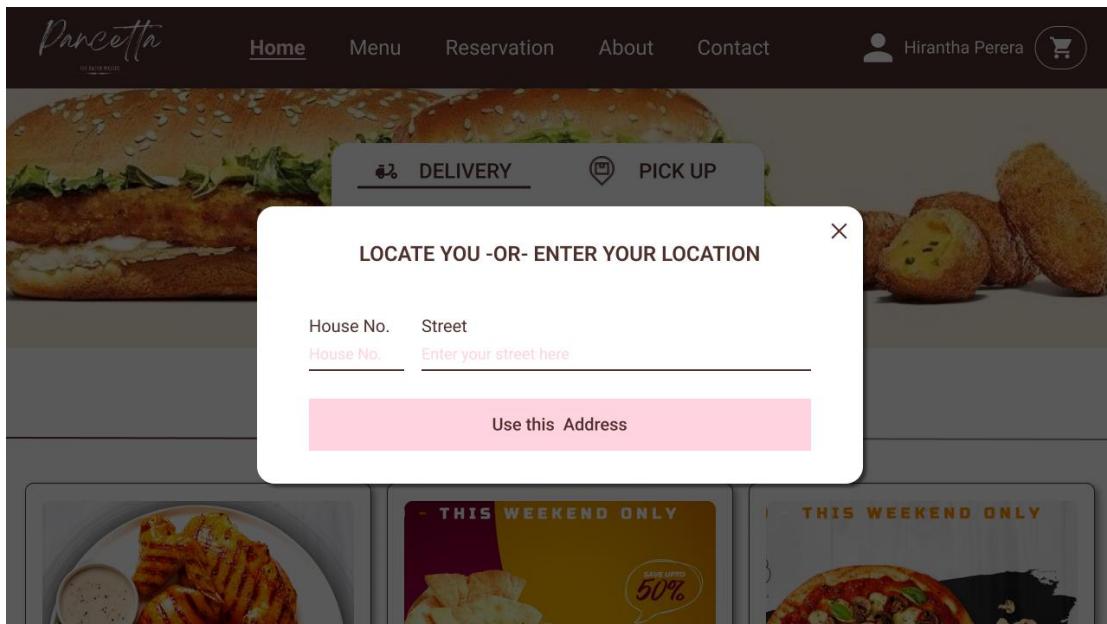


Figure 147 Enter address interface

Interface Number: 06

Interface Name: Customer register interface

Description: This is the interface where customers can register.

A screenshot of the Pancetta website's customer registration interface. At the top, there is a navigation bar with the logo 'Pancetta THE SALAD MASTER', 'Home', 'Menu', 'Reservation', 'About', 'Contact', and a 'Sign In / Register' button. Below the navigation bar is a section titled 'BECOME A MEMBER'. This section contains several form fields: 'Title*' with a dropdown menu showing 'Select a title', 'First Name*' with an input field, 'Email*' with an input field, 'Last Name*' with an input field, 'Password*' with an input field, 'Conform Password*' with an input field, 'City*' with a dropdown menu, 'Code*' with an input field containing '94', 'Phone No.*' with an input field, and two checkboxes: 'Use email as username' and 'Use mobile number as username'. At the bottom of the form is a large brown 'REGISTER' button.

Figure 148 Customer register interface

Interface Number: 07

Interface Name: Customer menu and add to cart interface

Description: This is the interface where customers can add menu to cart.

The screenshot shows the Pancetta restaurant website. At the top, there's a navigation bar with links for Home, Menu (which is currently selected), Reservation, About, and Contact. A user profile for 'Hirantha Perera' is shown with a shopping cart icon containing '2' items. Below the navigation, there's a search bar labeled 'Search products.....'. Underneath it, a category menu includes Breakfast, Lunch, Thai, Arabian, Japanese (selected), Chinese, Indian, Promotions, and Beverages. The main content area displays a grid of eight food items with images, names, prices, and 'Add to Cart' buttons:

Item	Price
Schezwan Egg Noodles	Rs.300.00
Japanese Soba Noodles	Rs.250.00
Shabu Shabu Hot Pot	Rs.550.00
Kaiseki Ryori	Rs.450.00
(Hidden Item 1)	(Hidden Price)
(Hidden Item 2)	(Hidden Price)
(Hidden Item 3)	(Hidden Price)
(Hidden Item 4)	(Hidden Price)

To the right, a sidebar shows the shopping cart with two items: Schezwan Egg Noodles at Rs.300.00 and Japanese Soba Noodles at Rs.250.00, both set to quantity 1. The sidebar also displays the Subtotal (Rs.550.00), Service Charges (Rs.50.00), Delivery Fee (Rs.200.00), and Payable Amount (Rs.600.00). Buttons for 'Proceed' and 'Clear All' are at the bottom.

Figure 149 Add to cart interface

Interface Number: 08

Interface Name: Loyalty promotion applied interface

Description: This is the interface where customer can know that promotion is applied

This screenshot is similar to Figure 149 but includes a modal dialog titled 'Add Loyalty Promotion'. The dialog lists the following information:

Parameter	Value
Total Amount	Rs.550.00
Service Chargers	Rs.50.00
Delivery Fee	Rs.200.00
Loyalty promos 10%	Rs.55.00
Payable Amount	Rs.745.00

At the bottom of the dialog are 'Okay' and 'Cancel' buttons. The background shows the same restaurant menu and shopping cart interface as Figure 149.

Figure 150 Loyalty promotion applied interface

Interface Number: 09

Interface Name: Customer payment checkout interface

Description: This is the interface where customer can check payment summary.

The screenshot shows a dark-themed web interface for a restaurant named 'Pancetta'. At the top, there's a navigation bar with links for Home, Menu (which is underlined to indicate it's the active page), Reservation, About, and Contact. On the right side of the nav bar, there's a user profile for 'Hirantha Perera' and a shopping cart icon showing '2' items. Below the navigation, the main content area is divided into two sections: 'Your Basket' on the left and 'Order Summary' on the right. The 'Your Basket' section displays a table with two items: 'Schezwan Egg Noodles' and 'Japanese Soba Noodles', along with their prices, quantities, and subtotal. It also shows a 'Total Amount' of 550. The 'Order Summary' section on the right lists various charges and discounts, such as 'Total Amount' (Rs.550.00), 'Service Chargers' (Rs.50.00), 'Delivery Fee' (Rs.200.00), 'Loyalty promos 10%' (Rs.55.00), and 'Payable Amount' (Rs.745.00). There are also sections for 'Earning Points' (2.40) and 'Redeem Points'. At the bottom, there are buttons for 'Continue Shopping' and 'Continue to payment >'. The overall design is clean and modern, with a focus on readability and user interaction.

Figure 151 Payment checkout interface

Interface Number: 10

Interface Name: Customer mobile verification interface

Description: This is the interface where customer has to enter telephone number to verify for loyalty redeem points.

This screenshot shows the same dark-themed interface as Figure 151, but with a modal dialog box overlaid on the 'Your Basket' section. The modal is titled 'Loyalty Member Verification' and contains a text input field with placeholder text 'Add your phone number to Verify'. Below the input field are two buttons: 'Okay' and 'Cancel'. The rest of the interface, including the 'Order Summary' section on the right, remains visible in the background. The 'Continue Shopping' and 'Continue to payment >' buttons are also present at the bottom.

Figure 152 Mobile verification interface

Interface Number: 11

Interface Name: Customer points redeeming interface

Description: This is the interface where customer can redeem loyalty points.

The screenshot shows a web application for 'Pancetta'. At the top, there's a navigation bar with links for Home, Menu (which is currently selected), Reservation, About, and Contact. A user profile icon for 'Hirantha Perera' is shown with a notification badge indicating 2 items in the cart. The main content area has two sections: 'Your Basket' on the left and 'Order Summary' on the right. 'Your Basket' lists items: 'Schezwan Egg Noodles' at 300 and 'Japanese Soba Noodles' at 250. 'Order Summary' details the total amount (Rs.550.00), service charges (Rs.50.00), delivery fee (Rs.200.00), loyalty promos (10% off, Rs.55.00), and payable amount (Rs.745.00). A central modal window titled 'Redeem Points You Need' appears, stating 'Available points: 100.01 (can not add more than available points)'. It contains a dropdown menu set to '45' and two buttons: 'Okay' (pink) and 'Cancel' (white). Below the modal, a button labeled 'Continue Shopping <' is visible.

Figure 153 Point redeeming interface

Interface Number: 12

Interface Name: Customer payment checkout with redeem points applied interface

Description: This is the interface where customer can see the payment summary with points redeemed.

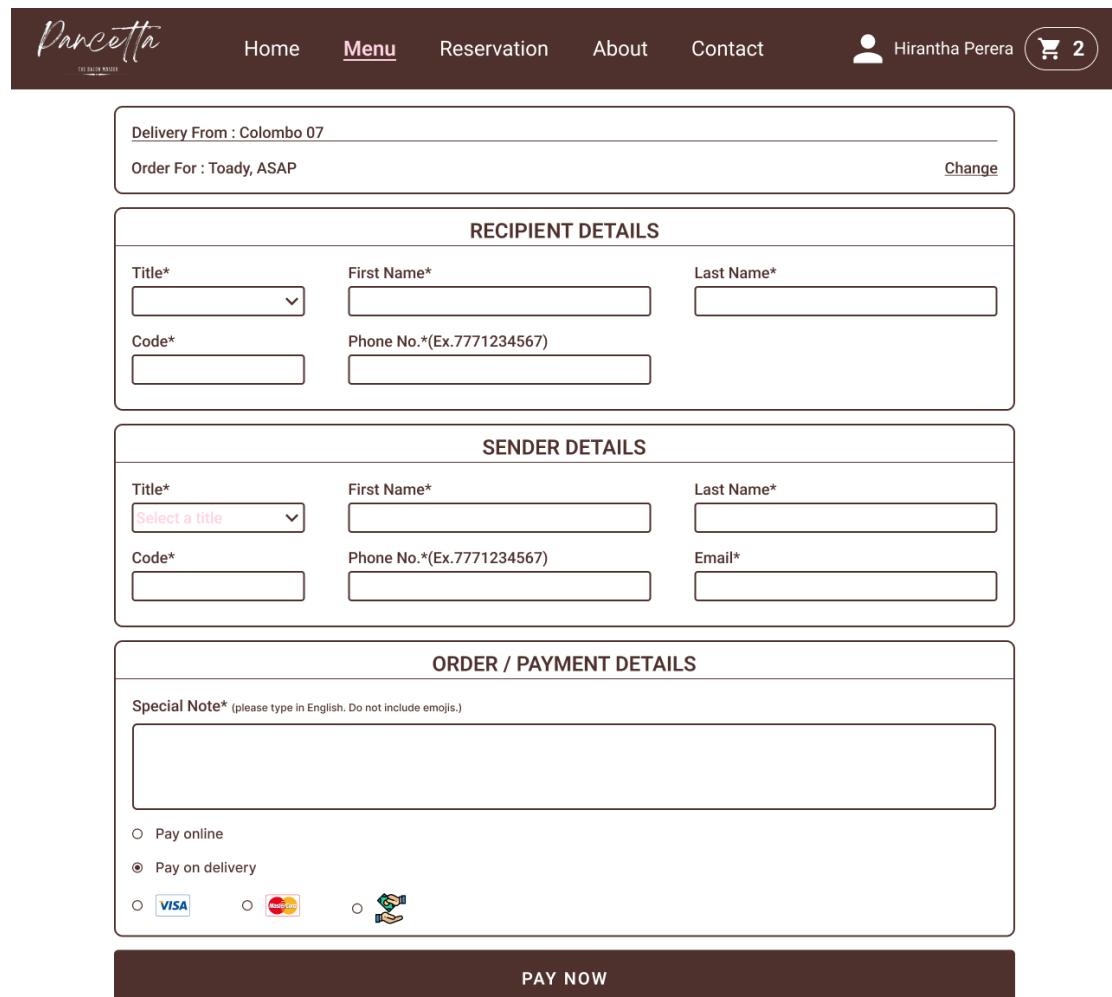
This screenshot shows the same 'Pancetta' application interface as Figure 153, but with the 'Redeem Points' applied. The 'Order Summary' section now includes a row for 'Redeem Points' (Rs.45.00) and a final 'Payable Amount' of Rs.700.00. The rest of the interface remains consistent with Figure 153, including the basket contents, the 'Continue Shopping' button, and the overall layout.

Figure 154 Payment checkout interface with points applied

Interface Number: 13

Interface Name: Customer payment information and delivery information interface

Description: This is the interface where customer can enter extra details for delivery/pickup and payment information.



The image shows a web-based form for customer payment and delivery information. At the top, there is a dark header bar with the logo 'Pancetta' on the left and navigation links for Home, Menu, Reservation, About, and Contact. On the right, there is a user profile icon labeled 'Hirantha Perera' and a shopping cart icon showing '2' items. Below the header, the main form area is divided into several sections:

- Delivery Information:** Fields for 'Delivery From : Colombo 07' and 'Order For : Toady, ASAP' with a 'Change' link.
- Recipient Details:** Fields for Title*, First Name*, Last Name*, Code*, and Phone No. (Ex. 7771234567).
- Sender Details:** Fields for Title*, First Name*, Last Name*, Code*, Phone No. (Ex. 7771234567), and Email*.
- Order / Payment Details:** A note about Special Note* (please type in English. Do not include emojis). Payment options include radio buttons for 'Pay online' and 'Pay on delivery', and checkboxes for payment methods like VISA, Mastercard, and others.
- PAY NOW:** A large, dark brown button at the bottom.

Figure 155 Customer payment information and delivery information interface

Interface Number: 14

Interface Name: Select outlet interface

Description: This is the interface where customer can select the outlet and change address even after processing the order until the payment checkout.

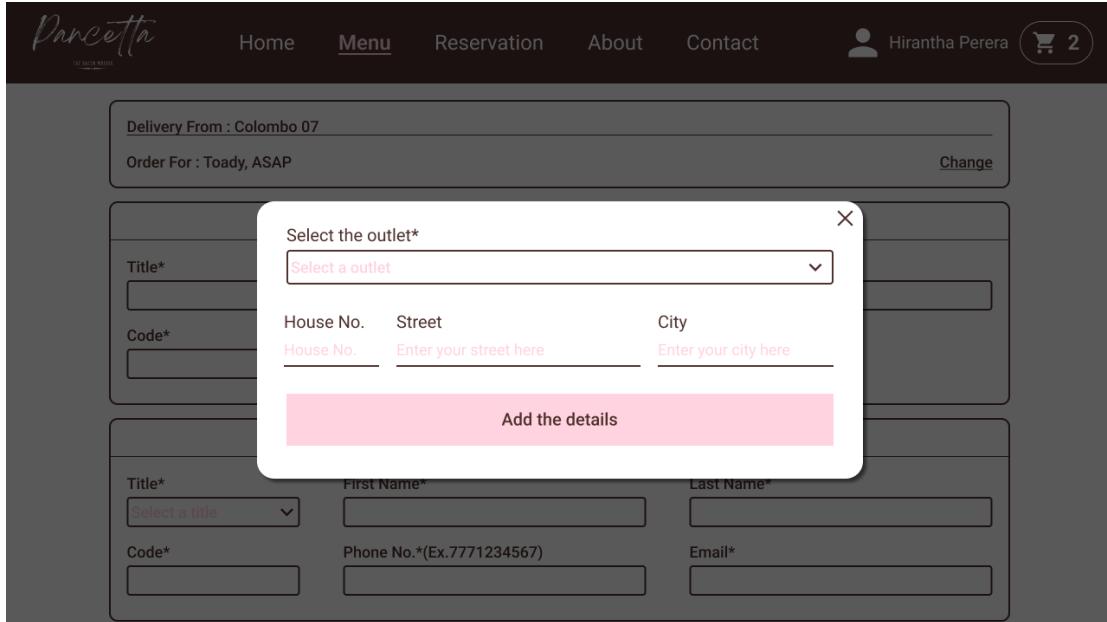


Figure 156 Select outlet interface

Interface Number: 15

Interface Name: Pay Online interface

Description: This is the interface where customer can enter card details for online payment.

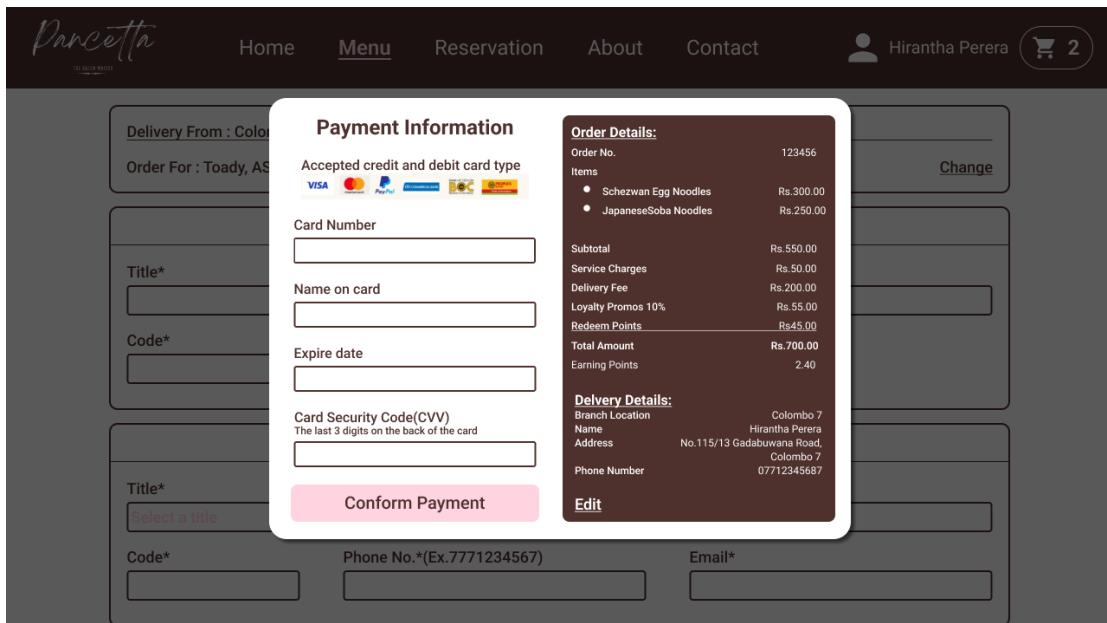


Figure 157 Online payment interface

Interface Number: 16

Interface Name: Thank you for order interface

Description: This is the interface where customers receive thank you/confirmation messages.

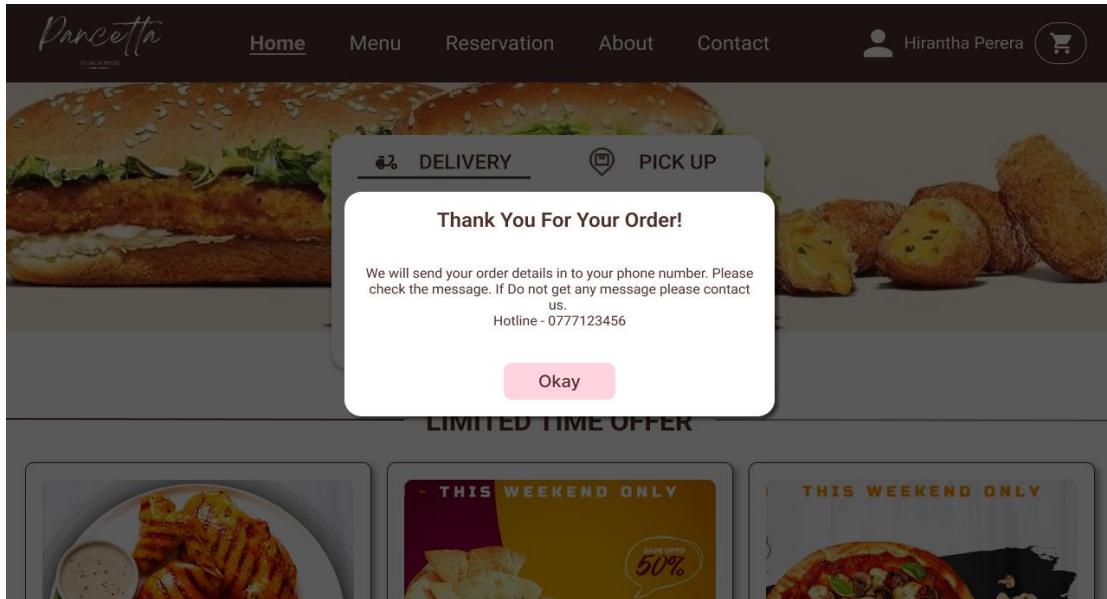


Figure 158 Thank you message interface

Interface Number: 17

Interface Name: Customer pickup option interface

Description: This is the interface where customer can select the pickup section.

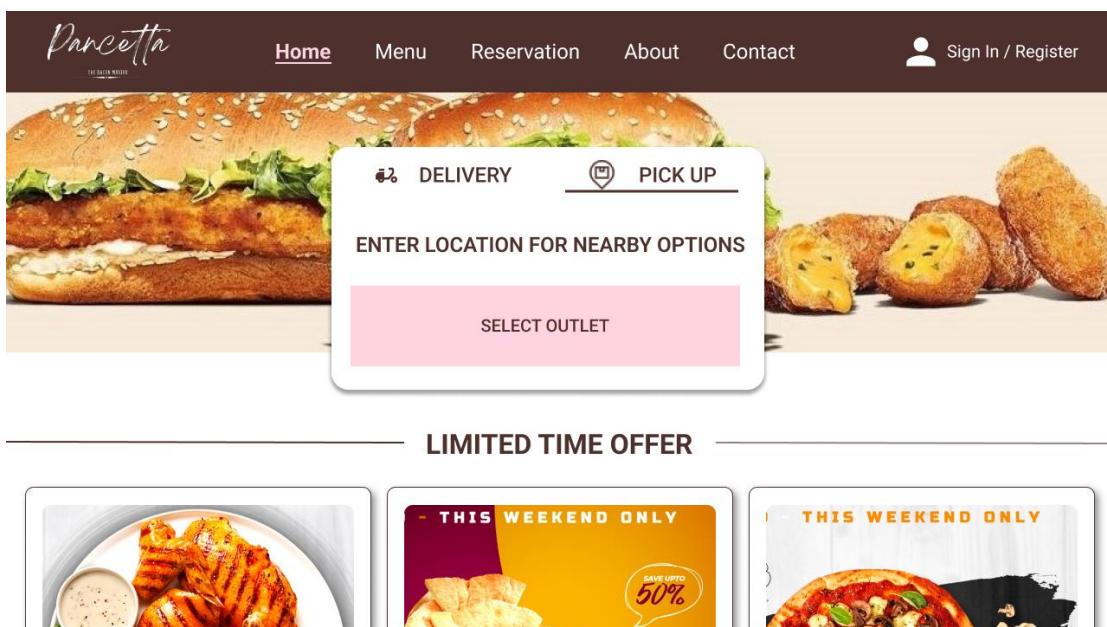


Figure 159 Pickup option interface in home page

Interface Number: 18

Interface Name: Pickup options interface

Description: This is the interface where customer can select which outlet the order can be picked up from.

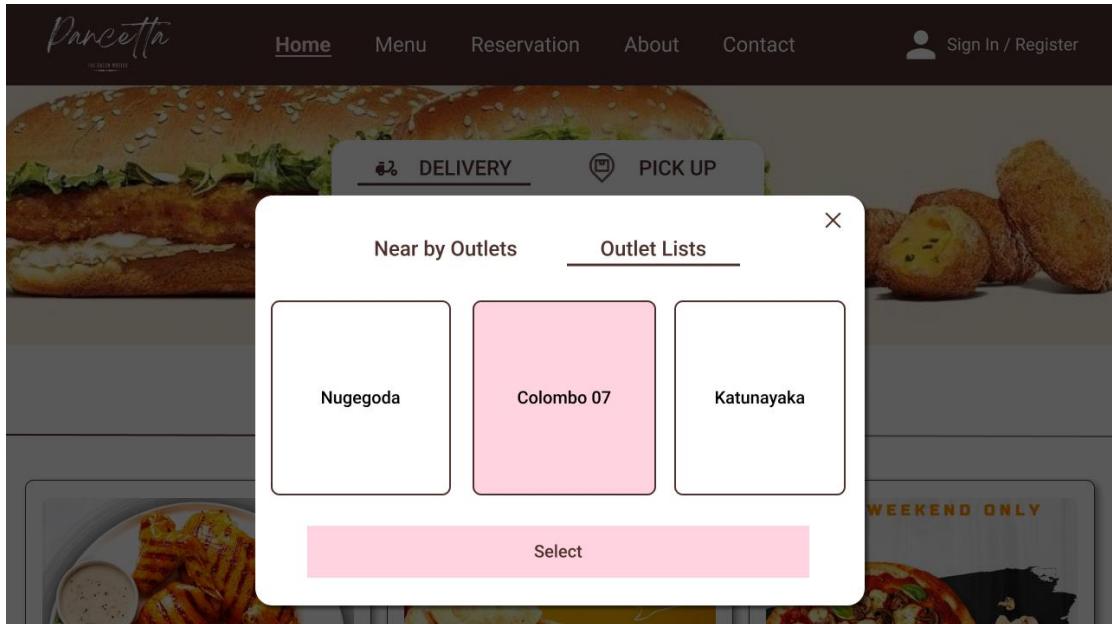


Figure 160 Pickup options interface

Interface Number: 19

Interface Name: Outlet selection interface

Description: This is the interface where customer can select the outlet again, even after processing the order before confirming payment.

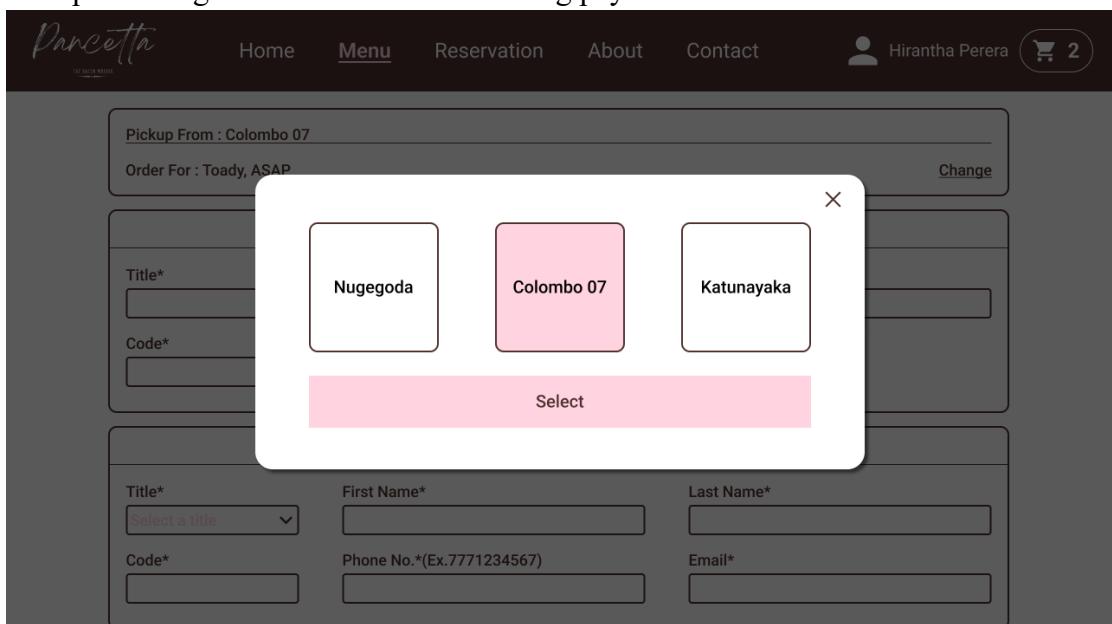


Figure 161 Outlet selection interface

Interface Number: 20

Interface Name: Customer promotions interface

Description: This is the interface where customer can select seasonal promotions.

The screenshot shows a web-based menu interface for 'Pancetta'. At the top, there's a navigation bar with links for Home, Menu (which is underlined), Reservation, About, and Contact. On the right, there's a 'Sign In / Register' button. Below the navigation is a search bar with placeholder text 'Search products.....' and a magnifying glass icon. Underneath the search bar is a horizontal navigation menu with categories: Breakfast, Lunch, Thai, Arabian, Japanese, Chinese, Indian, Promotions (which is highlighted in a blue box), and Beverages. A back arrow and a forward arrow are also present. The main content area is titled 'Harpo's Pizza on wheels'. It displays two promotional options:

- 1ST OPTION**: Maximum of 1 item(s) allowed from this option. An item labeled 'BBQ Chicken-Selected' is listed.
- 2ND OPTION**: Maximum of 1 item(s) allowed from this option. It lists two pizza options:
 - Pollo Pizza (REG 9" - 6 pieces)**: Rs.1000.00. Buttons: 'Remove from Cart' (pink) and 'Add to Cart' (dark grey).
 - Margherita Pizza (REG 9" - 6 pieces)**: Rs.1500.00. Buttons: 'Add to Cart' (dark grey).

At the bottom of the promotional section is a large dark grey button with a white crown icon and the text 'Add to Cart'.

To the right of the promotional section, a message says 'Your Cart looks a little empty.' Below this, a summary table shows the cart items:

Subtotal	Rs.0.00
Service Charges	Rs.0.00
Payable Amount	Rs.0.00

Buttons for 'Proceed' (pink) and 'Clear All' (white) are located at the bottom right of the cart summary.

Figure 162 Promotion list interfaces

Interface Number: 21

Interface Name: Customer promotion interface with cart

Description: This is the interface where customer can select promotion and gets added to the cart as a promotional order.

This screenshot shows the same 'Pancetta' interface as Figure 162, but it includes a shopping cart summary on the right side. The cart summary table is as follows:

Subtotal	Rs.2500.00
Service Charges	Rs.50.00
Delivery Fee	Rs.200.00
Payable Amount	Rs.2750.00

Below the cart summary are 'Proceed' and 'Clear All' buttons. The rest of the interface is identical to Figure 162, including the promotional options and the 'Add to Cart' button at the bottom.

Figure 163 Promotion interface with cart

Interface Number: 22

Interface Name: Customer room booking interface

Description: This is the interface where customer can select either room booking or table reservation.

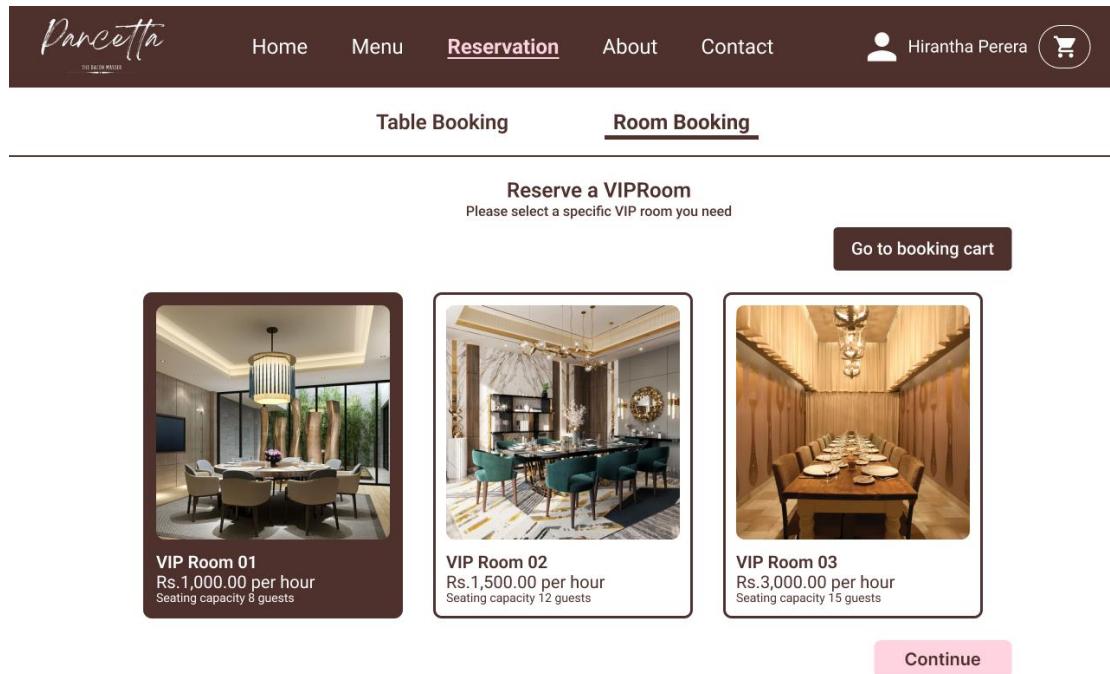


Figure 164 Customer room booking interface

Interface Number: 23

Interface Name: Room booking details interface

Description: This is the interface where customer can enter the details of the room booking.

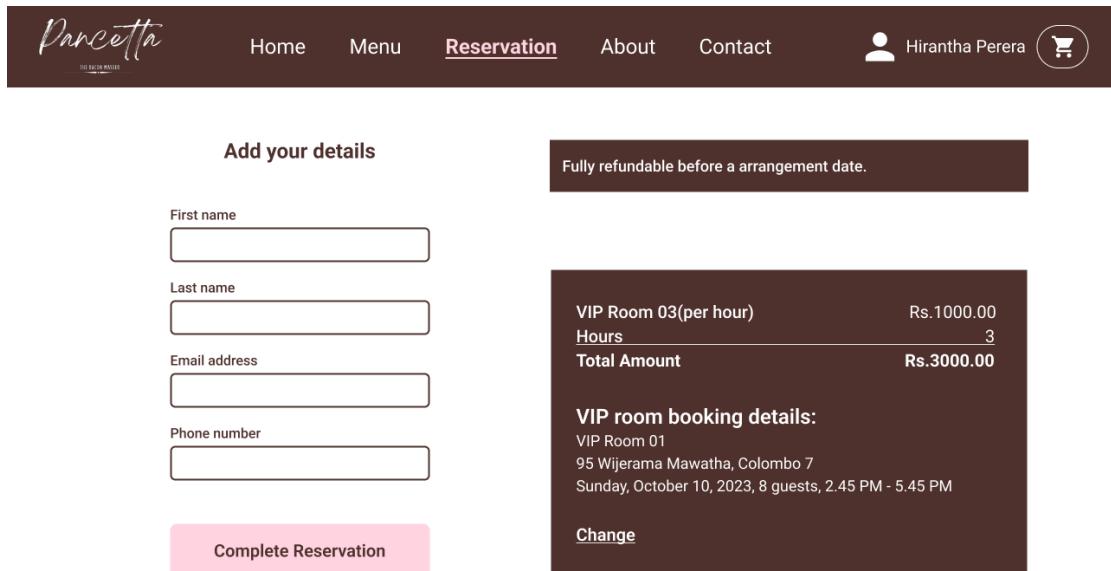
A screenshot of a room booking details interface. The top navigation bar is identical to Figure 164, with 'Reservation' being the active tab. Below the header, there's a section titled 'Reserve a VIP Room' with the sub-instruction 'To help us find the best VIP room for you and please Book a VIP room before two days in your arrangement day.' On the left, there are dropdown menus for 'Outlet' (set to 'Colombo 7') and 'Number of Guest' (set to '8'). On the right, there's a 'Time Duration' section with a dropdown for 'Time' (set to '2:45 PM') and another for 'Hours' (set to '3'). At the bottom, there are buttons for 'Continue' and 'Clear All', and a date input field showing '10/10/2023' with a calendar icon.

Figure 165 Room booking details interface

Interface Number: 24

Interface Name: Customer details interface

Description: This is the interface where customer must enter his details for the room booking



The screenshot shows a web page for 'Pancetta' with a navigation bar including Home, Menu, Reservation, About, Contact, a user profile for Hirantha Perera, and a shopping cart icon. The main content area has a header 'Add your details' and a note 'Fully refundable before a arrangement date.' Below are input fields for First name, Last name, Email address, and Phone number. A pink button labeled 'Complete Reservation' is at the bottom left. To the right, there's a summary table for a VIP Room booking:

VIP Room 03(per hour)	Rs.1000.00
Hours	3
Total Amount	Rs.3000.00

VIP room booking details:
VIP Room 01
95 Wijerama Mawatha, Colombo 7
Sunday, October 10, 2023, 8 guests, 2.45 PM - 5.45 PM

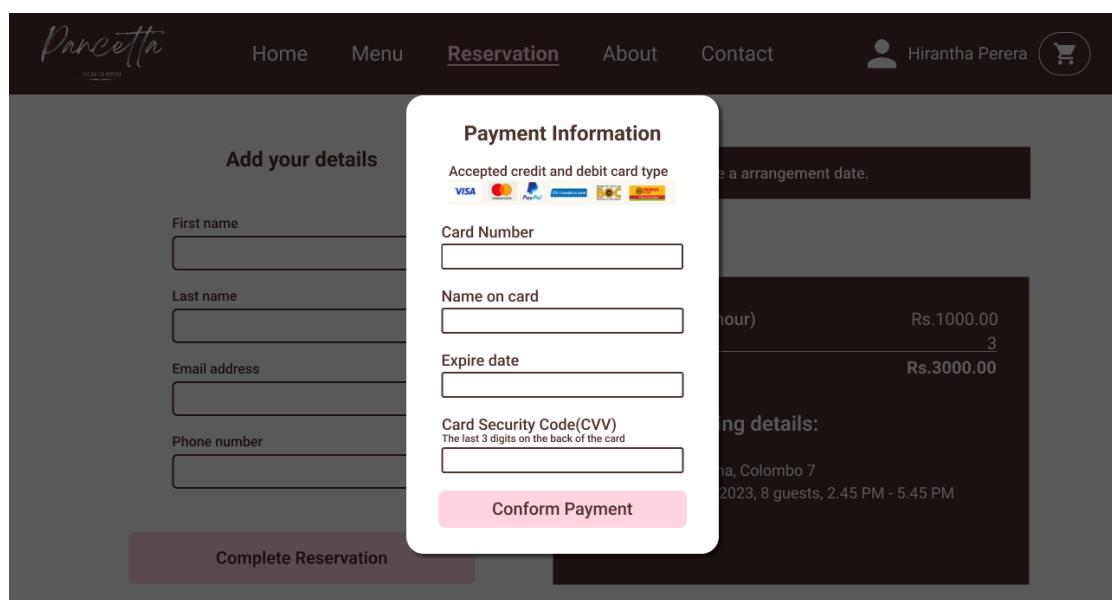
[Change](#)

Figure 166 Customer details from room booking interface

Interface Number: 25

Interface Name: Customer online payment information interface

Description: This is the interface where customer must enter his online payment details to book the room.



The screenshot shows the same 'Pancetta' interface as Figure 166, but with a modal window titled 'Payment Information' overlaid. The modal contains fields for Card Number, Name on card, Expire date, and Card Security Code (CVV). It also lists accepted credit and debit card types: VISA, MasterCard, American Express, and others. A pink button labeled 'Conform Payment' is at the bottom of the modal. The background page shows the same room booking summary as Figure 166.

Figure 167 Customer online room booking payment information interface

Interface Number: 26

Interface Name: Customer Thank you/ confirmation message interface

Description: This is the interface where customer receives a message displaying that the payment and the booking was successful.

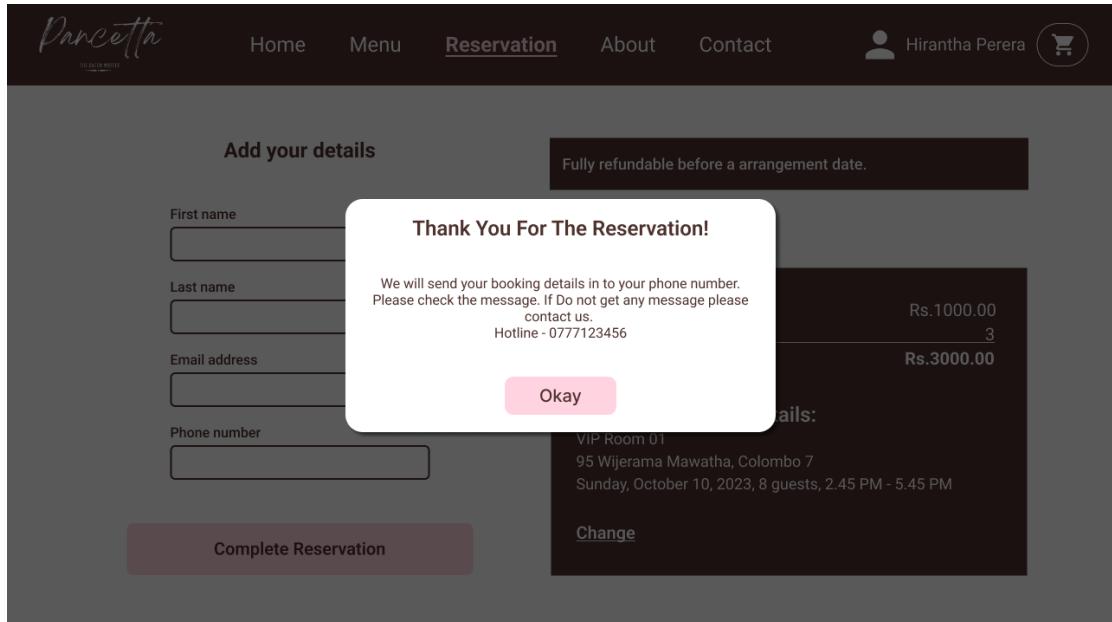


Figure 168 Thank you message interface

Interface Number: 27

Interface Name: Customer booking/ reservation list interface

Description: This is the interface where customer can view the upcoming reservations or bookings made for the restaurant.

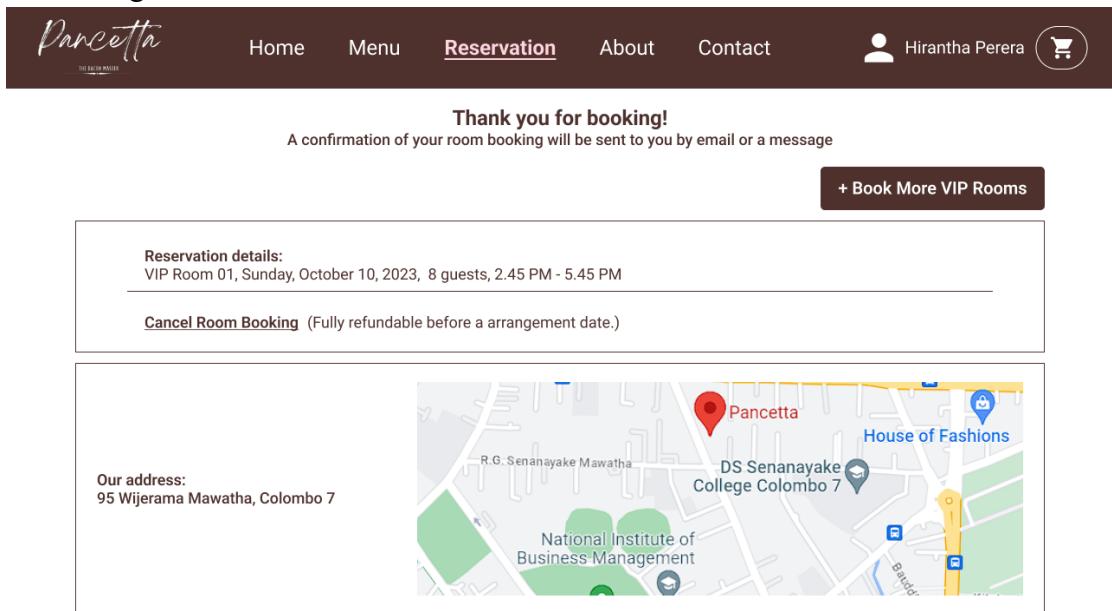


Figure 169 Customer room booking list

Interface Number: 28

Interface Name: Cancel reservation interface

Description: This is the interface where the customer can cancel a reservation and must provide a reason for cancellation.

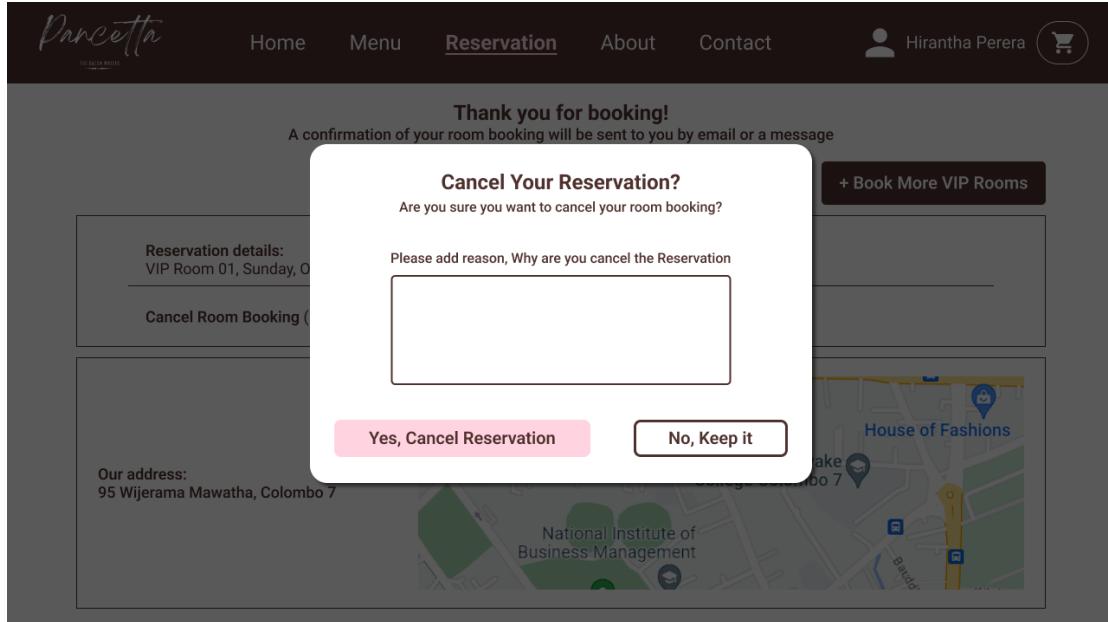


Figure 170 Cancel room booking interface

Interface Number: 29

Interface Name: Customer table reservation interface

Description: This is the interface where customers must enter the details of the table reservation.

A screenshot of a web page for 'Pancetta'. The navigation bar is identical to Figure 170. Below it, there are two tabs: 'Table Booking' (underlined) and 'Room Booking'. The main form starts with a section 'Reserve a Table' with a note: 'To help us find the best table for you, select the preferred number of guest, date and time of your reservation.' It includes dropdown menus for 'Outlet' (Colombo 7), 'Number of Guest' (Maximum 50 guest only, set to 8), and a date input field (11/10/2023). To the right is a grid of 'Available time slots' from 11:30 AM to 5:00 PM. Further right is a grid of 'Available tables' labeled A01 through A12, with some tables shaded in different colors. At the bottom are 'Continue' and 'Clear All' buttons.

Figure 171 Customer table reservation interface

Interface Number: 30

Interface Name: Customer booking/reservation list interface

Description: This is the interface where customers can view upcoming table reservations or bookings made for the restaurant.

The screenshot shows a web interface for a restaurant named 'Pancetta'. At the top, there is a dark navigation bar with the restaurant's logo on the left, followed by links for Home, Menu, Reservation (which is highlighted in red), About, Contact, and a user profile icon for 'Hirantha Perera' on the right. Below the navigation bar, a message 'Thank you for booking!' is displayed in bold, with a smaller note below it stating 'A confirmation of your room booking will be sent to you by email or a message'. A button labeled '+ Book More Reservations' is located in the top right corner of this message area. The main content area contains two sections: one for 'Reservation details' (Sunday, October 11, 2023, 4:00 PM, 8 guests) with a 'Cancel Table Reservation' link, and another showing a map of the area around the restaurant, marking its location and nearby landmarks like 'House of Fashions' and 'National Institute of Business Management'. The map also includes a green shaded area representing a park.

Figure 172 Customer table reservation list interface

Interface Number: 31

Interface Name: Customers cancel reservation interface

Description: This is the interface where the customer can cancel a reservation and must provide a reason for cancellation.

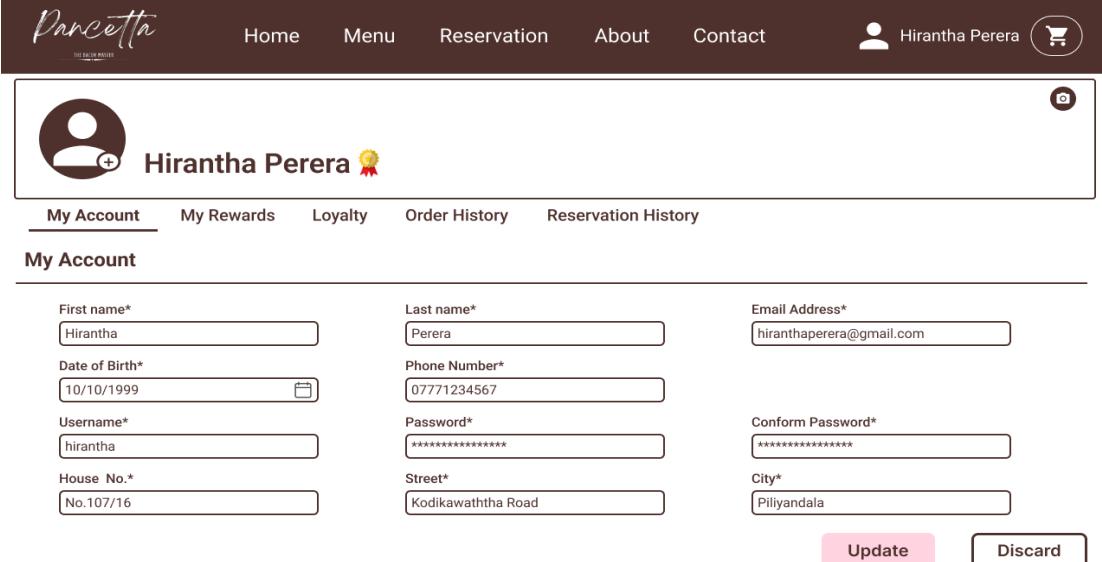
The screenshot shows the same restaurant interface as Figure 172, but with a modal dialog box centered over the content. The dialog box has a header 'Cancel Your Reservation?' and a sub-header 'Are you sure you want to cancel your table booking?'. It contains a text input field asking 'Please add reason, Why are you cancel the Reservation' and two buttons at the bottom: 'Yes, Cancel Reservation' (in pink) and 'No, Keep it'. The background of the page is dimmed to indicate the modal is active. The map and other reservation details from Figure 172 are visible in the background.

Figure 173 Cancel reservation interface

Interface Number: 32

Interface Name: Customer account interface

Description: This is the interface where customers can view the account details.



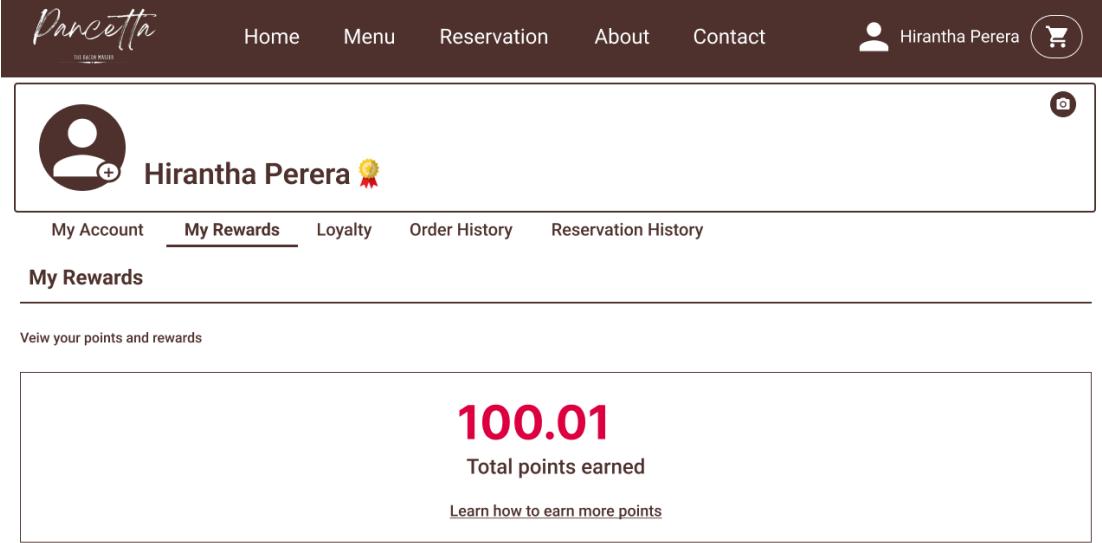
The screenshot shows the 'My Account' section of the Pancetta website. At the top, there's a navigation bar with links for Home, Menu, Reservation, About, Contact, and a user profile for Hirantha Perera. Below the navigation is a user profile icon with the name 'Hirantha Perera' and a yellow ribbon badge. A camera icon is in the top right corner. The main content area has tabs for My Account, My Rewards, Loyalty, Order History, and Reservation History, with 'My Account' being the active tab. It contains form fields for First name*, Last name*, Email Address*, Date of Birth*, Phone Number*, Username*, Password*, Conform Password*, House No.*, Street*, and City*. There are 'Update' and 'Discard' buttons at the bottom right.

Figure 174 Customer account interface

Interface Number: 33

Interface Name: Customer rewards interface

Description: This is the interface where a customer can view his rewards and points earned.



The screenshot shows the 'My Rewards' section of the Pancetta website. The top navigation bar and user profile are identical to the previous screenshot. The main content area has tabs for My Account, My Rewards, Loyalty, Order History, and Reservation History, with 'My Rewards' being the active tab. Below the tabs, it says 'View your points and rewards'. In the center, it displays a large red '100.01' followed by 'Total points earned' and a link 'Learn how to earn more points'. At the bottom left, there's a note about 'Order Discount' and 'Redeem 1 point represent LKR 1 and save your bill amounts.'

Figure 175 Customer rewards interface

Interface Number: 34

Interface Name: Customer loyalty interface

Description: This is the interface where customers can view the loyalty benefits and discounts.

The screenshot shows a dark-themed web application for a customer loyalty account. At the top, there is a navigation bar with the logo 'Pancetta' (THE BACON MASTERS), followed by links for Home, Menu, Reservation, About, and Contact. On the right side of the top bar, there is a user profile icon for 'Hirantha Perera' and a shopping cart icon. Below the navigation bar, there is a large header area featuring a user profile picture of 'Hirantha Perera' with a plus sign, indicating they are logged in. The header also displays the name 'Hirantha Perera' and a small gold medal icon. Below the header, there is a navigation menu with tabs: My Account, My Rewards, Loyalty (which is underlined to indicate it is the active tab), Order History, and Reservation History. The main content area is titled 'Loyalty'. It contains a callout box with the text 'Learn more about the loyalty ranks and level up your ranks.' and a link 'Click Learn more for more details about Loyalty ranking.' There is also a 'Learn More' button. Below this, there is a section titled 'Available Loyalty Promotions' with a box containing '20% Off (Up to LKR 6000)' and a note: 'Your total bill amount should be more than LKR6000 to add this promotion.' It includes 'Add Promo' and 'Learn More' buttons. Finally, there is a table titled 'Last 30 Days Transaction' showing two rows of transaction data:

Transaction ID	Transaction Outlet	Bill Amount	Earned Points	Redeemed Points	Transaction Date	Transaction Time
98745	Colombo 07	Rs.500.00	2.40	45.00	12-11-2023	12:54:28 PM
98785	Colombo 07	Rs.700.00	2.40	45.00	10-11-2023	01:39:25 PM

Figure 176 Customer loyalty account interface

Interface Number: 35

Interface Name: Customer order history interface

Description: This is the interface where customers can view the order history.

The screenshot shows the Pancetta customer order history interface. At the top, there is a dark header bar with the logo 'Pancetta' and the subtitle 'THE BACON RESTAURANT'. Below the logo are navigation links: Home, Menu, Reservation, About, Contact, and a user profile section for 'Hirantha Perera' which includes a photo icon and a shopping cart icon. Below the header, there is a large profile picture of a person with a plus sign and the name 'Hirantha Perera' followed by a yellow star icon. A navigation bar below the profile picture includes links: My Account, My Rewards, Loyalty, Order History (which is underlined), and Reservation History. The main content area is titled 'Order History' and displays two sections: 'Delivery Order' and 'Pickup Order'. Each section contains a table with order details and a summary table. At the bottom of each section are 'Add Feedback' and 'View Feedback' buttons.

Order Type: Delivery Order		Delivery details:		Order details:	
Branch Location	Colombo 7	Order No.	123456		
Name	Hirantha Perera	Items			
Address	No.115/13 Gadabuwana Road, Colombo 7	• Schezwan Egg Noodles	Rs.300.00		
Phone Number	07712345687	• JapaneseSoba Noodles	Rs.250.00		
		Subtotal	Rs.550.00		
		Tax	Rs.50.00		
		Discount	Rs.50.00		
		Delivery Fee	Rs.200.00		
		Loyalty Promos 10%	Rs.55.00		
		Redeem Points	Rs.45.00		
		Total Amount	Rs.700.00		
		Earning Points	2.40		

Order Type: Pickup Order		Pickup details:		Order details:	
Branch Location	Colombo 7	Order No.	123456		
Name	Hirantha Perera	Items			
Phone Number	07712345687	• Schezwan Egg Noodles	Rs.300.00		
		• JapaneseSoba Noodles	Rs.250.00		
		Subtotal	Rs.550.00		
		Tax	Rs.50.00		
		Discount	Rs.50.00		
		Loyalty Promos 10%	Rs.55.00		
		Redeem Points	Rs.45.00		
		Total Amount	Rs.500.00		
		Earning Points	2.40		

Figure 177 Customer order history interface

Interface Number: 36

Interface Name: Customers add feedback interface

Description: This is the interface where customers can add feedback to an order.

Order Type:Delivery Order Delivery details: Order details:

Add Feedback View Feedback

Excellent Very Good Good Bad Very Bad

Your Comment

Add Details

View Feedback

Order Type:Pickup Order

Branch Location	Colombo 7	Order No.	123456
Name	Hirantha Perera	Items	Rs.300.00
Phone Number	07712345687	Schezwan Egg Noodles	Rs.250.00
		Japanese Soba Noodles	Rs.550.00
		Subtotal	Rs.550.00

Figure 178 Add customer feedback interface

Interface Number: 37

Interface Name: Customers add comment interface

Description: This is the interface where customers can type in comments for feedback.

Order Type:Delivery Order Delivery details: Order details:

Add Feedback View Feedback

Feedback Type : Excellent

Your Comment

The restaurant's service is truly exceptional, creating a welcoming and enjoyable dining experience. The staff goes above and beyond to ensure customer satisfaction, demonstrating attentiveness and professionalism. Additionally, their loyalty promotions add a delightful touch, fostering a sense of appreciation for returning patrons. The combination of outstanding service and enticing loyalty programs makes this restaurant a standout choice for both first-time visitors and loyal customers alike.

Update Details

View Feedback

Order Type:Pickup Order

Branch Location	Colombo 7	Order No.	123456
Name	Hirantha Perera	Items	Rs.300.00
Phone Number	07712345687	Schezwan Egg Noodles	Rs.250.00
		Japanese Soba Noodles	Rs.550.00
		Subtotal	Rs.550.00

Figure 179 Add customer comments interface

Interface Number: 38

Interface Name: Customer reservation history interface

Description: This is the interface where customers can view the reservation/ booking history.

The screenshot shows a dark-themed web interface for a restaurant named 'Pancetta'. At the top, there's a navigation bar with links for Home, Menu, Reservation, About, and Contact. On the right side of the top bar is a user profile for 'Hirantha Perera' with a shopping cart icon. Below the navigation is a header section featuring a user icon and the name 'Hirantha Perera' with a yellow star icon. A camera icon is in the top right corner of this header. Below the header, there's a navigation menu with tabs: My Account, My Rewards, Loyalty, Order History, and Reservation History, with 'Reservation History' being the active tab. The main content area is titled 'Reservation History' and displays two reservation entries in a table format. Each entry includes 'Reservation Type', 'Reservation details', and 'Our address'. The first entry is for 'Table Booking' on Sunday, October 10, 2023, at 6:00 PM for 8 guests. The second entry is for 'Room Booking' on Sunday, October 10, 2023, from 2:45 PM to 5:45 PM.

Reservation Type:	Reservation details:	Our address:
Table Booking	Sunday, October 10, 2023, 6:00 PM, 8 guests	95 Wijerama Mawatha, Colombo 7.
Room Booking	VIP Room, Sunday, October 10, 2023, 8 guests , 2:45 PM - 5:45 PM	95 Wijerama Mawatha, Colombo 7.

Figure 180 Reservation history interface

Interface Number: 39

Interface Name: Customer loyalty interface

Description: This is the interface where customers who don't have a loyalty account, can register once they are eligible.

The screenshot shows a dark-themed web interface for a restaurant named 'Pancetta'. At the top, there's a navigation bar with links for Home, Menu, Reservation, About, and Contact. On the right side of the top bar is a user profile for 'Hirantha Perera' with a shopping cart icon. Below the navigation is a header section featuring a user icon and the name 'Hirantha Perera'. A camera icon is in the top right corner of this header. Below the header, there's a navigation menu with tabs: My Account, My Rewards, Loyalty, Order History, and Reservation History, with 'Loyalty' being the active tab. The main content area is titled 'My Account' and contains a form for registration. The form fields include: First name* (Hirantha), Last name* (Perera), Email Address* (hiranthaperera@gmail.com), Phone Number* (0777123456), Username* (hirantha), Password* (*****), House No.* (No.107/16), Street* (Kodikawaththa Road), City* (Piliyandala), Membership* (Bronze), and Number of Orders* (51). At the bottom right of the form are 'Apply' and 'Clear' buttons.

First name*	Last name*
Hirantha	Perera
Email Address*	Phone Number*
hiranthaperera@gmail.com	0777123456
Username*	Password*
hirantha	*****
House No.*	Street*
No.107/16	Kodikawaththa Road
Membership*	Number of Orders*
Bronze	51

Figure 181 Loyalty transaction history interface

Interface Number: 40

Interface Name: Customer payment for loyalty membership interface

Description: This is the interface where customers must pay a fee to become a member of the restaurant.

The screenshot shows a web-based application for a restaurant named "Hirantha Perera". The main menu includes Home, Menu, Reservation, About, Contact, and a user profile icon. A sidebar on the left is titled "My Account" and contains fields for First name*, Email Address*, Username*, House No.*, and Membership*. The main content area displays a "Payment Information" form. This form includes a section for accepted credit and debit card types (VISA, MasterCard, PayPal, American Express, Diners Club, and others) and fields for Card Number, Name on card, Expire date, and Card Security Code(CVV). A brown box on the right lists "Customer details": Customer Name : Hirantha Perera, Customer Phone No. : 0777123456, Number of Orders : 51, and Membership : Bronze. It also shows the amount "Rs.2000.00" and a "Change" button. At the bottom of the form is a pink "Conform Payment" button.

Figure 182 Payment for loyalty membership interface

4.2.3 Cashier Interface designs

Interface Number: 41

Interface Name: Cashier Home screen

Description: This is the interface where cashier can view today's orders, reservations and bookings and can select to place and order reservation.

Order ID	Customer Telephone	Order Type	Cashier ID	Promotion	Status	Order Total (Rs.)	Order Date	Order Time	Extra Note	Service Charges (Rs.)	Action
0123	0777123456	Dinein	0012	Extra Deal	Confirmed	3000.00	2023-11-26	09.30 a.m.		300.00	
0124	0777987456	Uber	0012	Extra Deal	Confirmed	2000.00	2023-11-26	10.00 a.m.		200.00	
0125	0767987456	Takeaway	0012	Extra Deal	Confirmed	1500.00	2023-11-26	10.10 a.m.	No Spices	150.00	
0126	0728987456	Uber	0012	Extra Deal	Confirmed	9000.00	2023-11-26	10.15 a.m.		900.00	
0127	0727321456	Uber	0012	Extra Deal	Confirmed	4500.00	2023-11-26	10.35 a.m.		450.00	
0128	0741321456	Takeaway	0012	Extra Deal	Cancelled	1500.00	2023-11-26	10.45 a.m.		150.00	
0129	0777987412	Dinein	0012	Extra Deal	Cancelled	9000.00	2023-11-26	11.00 a.m.	No spices too much	900.00	
0130	0767987321	Dinein	0012	Extra Deal	Confirmed	6000.00	2023-11-26	11.30 a.m.		600.00	
0131	0777654328	Takeaway	0012	Extra Deal	Confirmed	1000.00	2023-11-26	12.00 p.m.	Too spicy	100.00	
0132	0724123654	Takeaway	0012	Extra Deal	Confirmed	3000.00	2023-11-26	01.30 p.m.		300.00	
0133	0784258963	Dinein	0012	Extra Deal	Confirmed	3000.00	2023-11-26	02.30 p.m.		300.00	
0134	0767321789	Dinein	0012	Extra Deal	Confirmed	9000.00	2023-11-26	04.20 p.m.	Too spicy	900.00	
0135	0732897654	Dinein	0012	Extra Deal	Confirmed	3000.00	2023-11-26	06.20 p.m.		300.00	
0136	0797325698	Dinein	0012	Extra Deal	Confirmed	1500.00	2023-11-26	07.00 p.m.		150.00	
0137	0787369852	Dinein	0012	Extra Deal	Confirmed	9000.00	2023-11-26	07.20 p.m.	Extra Cheese	900.00	
0138	0787147852	Dinein	0012	Extra Deal	Confirmed	9000.00	2023-11-26	07.30 p.m.		900.00	

Figure 183 Cashier home screen

Interface Number: 42

Interface Name: Cashier main POS interface

Description: This is the interface where the cashier can select menu item and it will be added to the cart in the corner.

Item	Price	Qty	Total	Act
Pizza	1580.00	- 1 +	1580.00	
bugers	1200.00	- 2 +	2400.00	
Ramen	1350.00	- 1 +	1350.00	

Subtotal
Service Charges
Loyalty Silver 10%

Total

Rs.5750.00

Save

Pay Now

Figure 184 POS interface

Interface Number: 43

Interface Name: Cashier POS screen with Uber Orders interface

Description: This is the interface where the cashier can select the order type as Uber and allow him to add the uber code.

Item	Price	Qty	Total	Act
Pizza	1580.00	- 1 +	1580.00	
bugers	1200.00	- 2 +	2400.00	
Ramen	1350.00	- 1 +	1350.00	

Subtotal	5500.00
Service Charges	250.00
Loyalty Silver 10%	500.00
Total	Rs.5750.00

Figure 185 POS interface with Ubereats

Interface Number: 44

Interface Name: POS payment interface

Description: This is the interface where the total bill is displayed on the screen.

Add Balance	Balance	250.00
	Earning Points	5.00

Figure 186 POS payment interface

Interface Number: 45

Interface Name: Verify mobile number for loyalty redeem interface

Description: This is the interface where the customer mobile number is needed to verify.

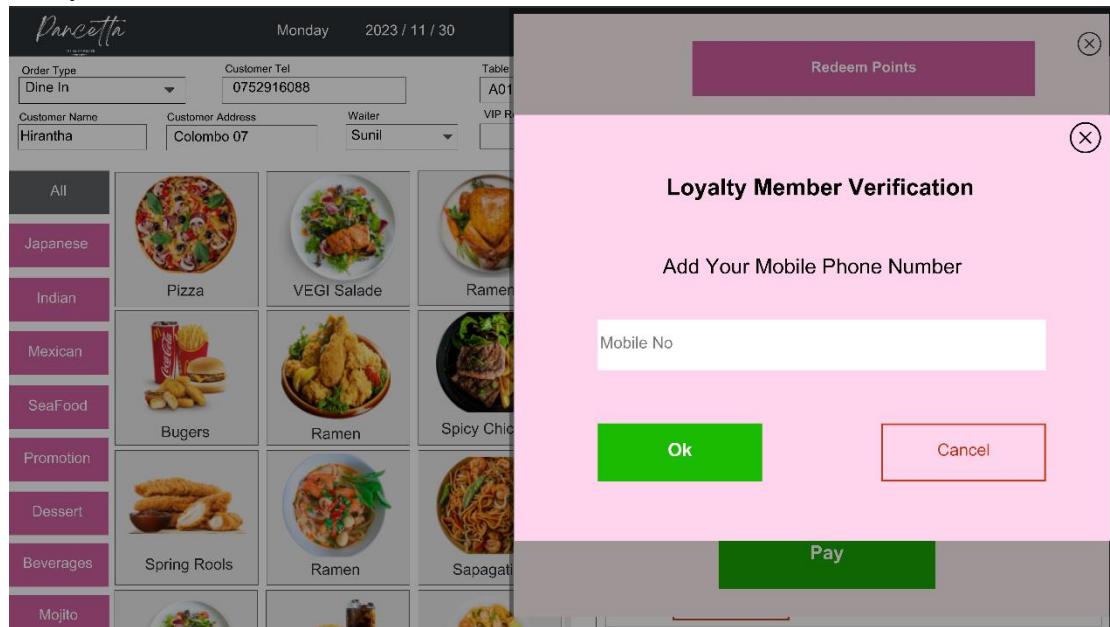


Figure 187 Verify mobile number for loyalty points redeem interface

Interface Number: 46

Interface Name: Redeem loyalty points interface

Description: This is the interface where the cashier can redeem points.

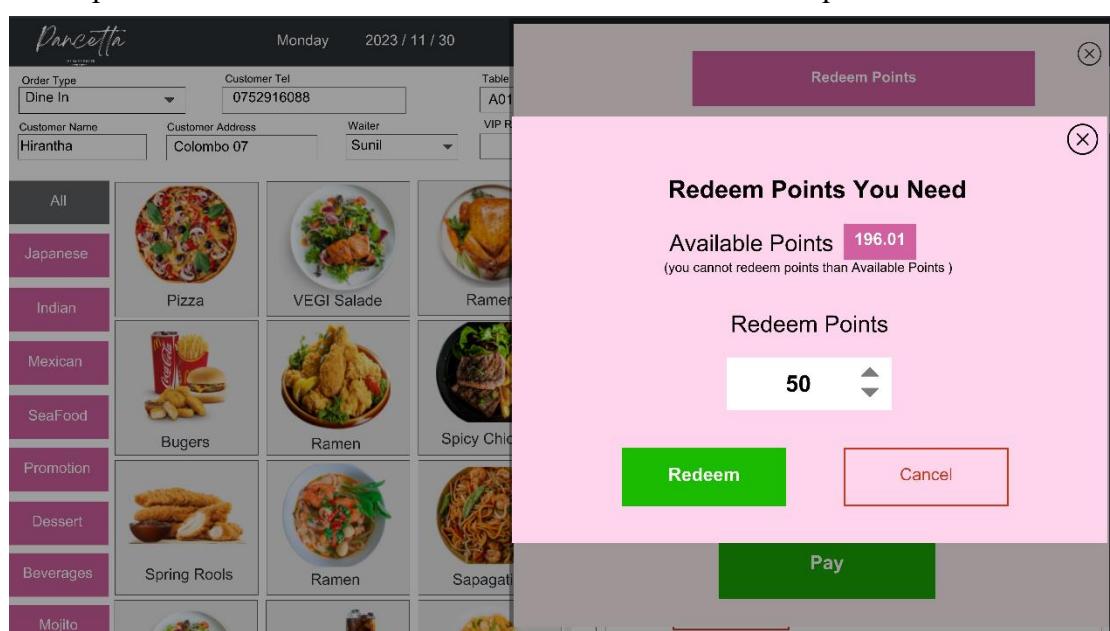


Figure 188 Redeem loyalty points interface

Interface Number: 47

Interface Name: Add loyalty promotion interface

Description: This is where loyalty promotion is added to the total.

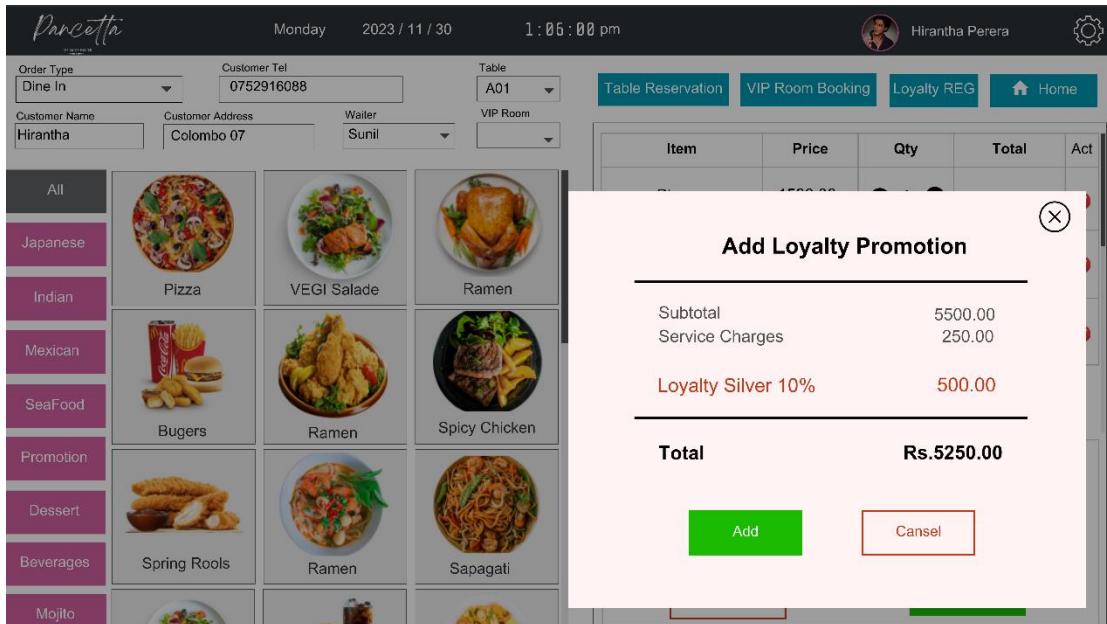


Figure 189 Add loyalty promotions interface

Interface Number: 48

Interface Name: Loyalty membership payment interface

Description: This is the interface where the payment has to be made for membership account.

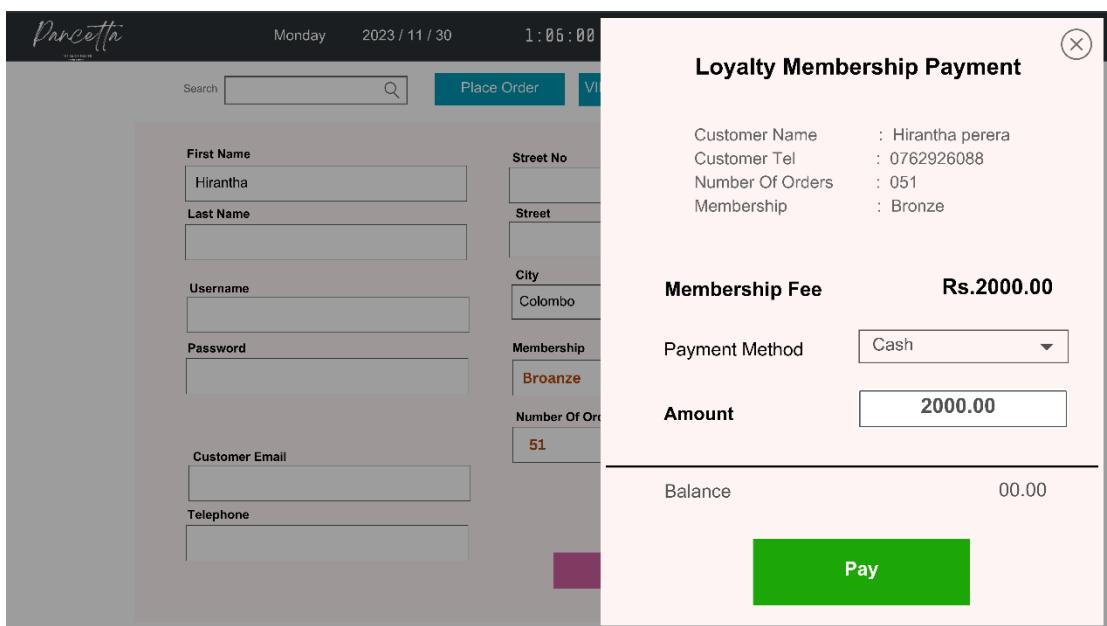


Figure 190 Loyalty membership payment interface

Interface Number: 49

Interface Name: Loyalty transaction interface

Description: This is the interface where cashiers can view the loyalty transaction.

The screenshot shows a web-based application for managing loyalty transactions. At the top, there is a header with the logo 'Pancetta', the date 'Monday 2023 / 11 / 30', the time '1:06:00 pm', a user profile picture of 'Hirantha Perera', and a gear icon for settings. Below the header is a navigation bar with buttons for 'Place Order', 'VIP Room Booking', 'Table Reservation', 'Loyalty REG' (which is highlighted in pink), and 'Home'. A search bar is also present. The main content area displays a table of transaction history. The table has columns for Transaction ID, Customer Telephone, Order ID, Transaction Date, Transaction Type, Transaction Time, and Transaction Points. The data shows 10 transactions from November 2023, with points ranging from 20 to 140. Above the table, it says 'Available Loyalty Points as at 2023/11/27: 196.03'.

Transaction ID	Customer Telephone	Order ID	Transaction Date	Transaction Type	Transaction Time	Transaction Points
0023	0777123456	0123	2023-11-26	Cash	11.00 a.m.	45
0024	0777987456	0124	2023-11-26	Online	03.30 p.m.	30
0025	0767987456	0125	2023-11-27	Online	10.30 a.m.	50
0026	0728987456	0126	2023-11-27	Online	04.00 p.m.	20
0027	0727321456	0127	2023-11-28	Online	09.30 a.m.	85
0028	0741321456	0128	2023-11-28	Cash	07.00 p.m.	95
0029	0777987412	0129	2023-11-29	Cash	12.00 p.m.	89
0030	0767987321	0130	2023-12-03	Online	11.00 a.m.	140

Figure 191 Loyalty transaction interface

Interface Number: 50

Interface Name: Loyalty account registration interface

Description: This is the interface where cashiers can register customer to loyalty account.

The screenshot shows a web-based application for registering a new loyalty account. At the top, there is a header with the logo 'Pancetta', the date 'Monday 2023 / 11 / 30', the time '1:06:00 pm', a user profile picture of 'Hirantha Perera', and a gear icon for settings. Below the header is a navigation bar with buttons for 'Place Order', 'VIP Room Booking', 'Table Reservation', 'Loyalty REG' (which is highlighted in pink), and 'Home'. A search bar is also present. The main content area contains a form for entering customer information. The form includes fields for First Name (Hirantha), Last Name, Street No, Street, City (Colombo), Username, Password, Membership (Bronze), Number Of Orders (51), Customer Email, Telephone, and a file upload field for a profile picture. There are three buttons at the bottom: 'Loyalty Transaction' (pink), 'Apply' (green), and 'Clear' (blue).

Figure 192 Loyalty account registration interface

Interface Number: 51

Interface Name: Table reservation interface

Description: This is the interface where cashier can make table reservations for customer.

The screenshot shows the 'Table Reservation' section of the Pancetta website. At the top, there are input fields for 'Customer Tel', 'Customer Name', and 'Customer Address'. Below these are fields for 'Date', 'Time', and 'People'. A 'Notes' field is also present. On the right, a 'Table Availability' section displays six tables labeled A01 through A06. Table A01 and A03 have a green 'Select' button at the bottom. Table A02 has a red 'Unavailable' button. Tables A04, A05, and A06 have a grey 'A' icon above them. A large pink 'Reserve' button is located at the bottom left. The top navigation bar includes links for Book a Table, Place Order, VIP Room Booking, Table Reservation (which is highlighted in pink), Loyalty REG, Home, Hirantha Perera, and a gear icon.

Figure 193 Table reservation interface

Interface Number: 52

Interface Name: VIP room booking interface

Description: This is the interface where cashier can make vip room bookings for customer.

The screenshot shows the 'VIP Room Booking' section of the Pancetta website. It features input fields for 'Customer Tel', 'Customer Name', and 'Email'. Below these are fields for 'Date', 'Time', 'People', and 'Hours'. A 'Notes' field is also present. On the right, a 'Room Availability' section displays three rooms labeled A01, A02, and A03. Room A02 has a green 'Select' button at the bottom. Rooms A01 and A03 have a red 'Unavailable' button. Each room has a small image showing its interior and a label indicating the number of seats (e.g., Seats 8 people). A large pink 'Book Now' button is located at the bottom left. The top navigation bar includes links for Book a VIP, Place Order, VIP Room Booking (which is highlighted in pink), Table Reservation, Loyalty REG, Home, Hirantha Perera, and a gear icon.

Figure 194 VIP room booking interface

Interface Number: 53

Interface Name: Room booking payment interface

Description: This interface is where the cashier can enter the payment details for the room booking.

The screenshot shows a mobile application interface for room booking and payment. At the top, it displays the restaurant name "Pancetta", the date "Monday 2023 / 11 / 30", and the time "1:06:00". Below this, there are input fields for "Customer Tel", "Customer Name", "Email", and "Customer Address". To the right, there is a "Place Order" button and a "VIP" badge. A modal window titled "Book a VIP" is open, showing fields for "Date" (with a calendar icon) and "Time" (with a clock icon). The main content area shows a "Room Availability" section with an image of a room labeled "Room A01" which "Seats 8 people" and is currently "Unavailable". To the right, a summary table shows a booking for "Room A02" at a cost of "1500.00" per hour for "3" hours, totaling "4500.00". The payment section includes a "Payment Method" dropdown set to "Cash", an "Amount" field showing "5000.00", and a "Balance" of "500.00". A large green "Pay" button is at the bottom.

Room A02	1500.00
hours	×3
Total	4500.00
Payment Method	Cash
Amount	5000.00
Balance	500.00

Figure 195 Room booking payment interface

4.2.4 Dispatcher Interface designs

Interface Number: 54

Interface Name: Dispatcher main interface

Description: This is the interface where dispatcher can assign riders to delivery order.

The screenshot shows the Dispatcher main interface. At the top, it displays the date (Monday, 2023 / 11 / 30), time (1:06:00 pm), user profile (Hirantha Perera), and a gear icon for settings. Below the header, there are two main sections: "Pending Delivery Orders" and "Dispatch Delivery Orders".

Pending Delivery Orders:

Order ID	Customer name	Customer Tel	Rider	Order Address	Order Status	Order Value (Rs.)
ORD00023	Liviru Navarathna	0777123456	Ometh	Colombo 07	Pending	1500.00
ORD00015	Shahrukh Perera	0777987453	Hiranth	Piliyandala	Pending	6254.36
ORD00014	Kumara fonseka	0767987456	Pradeesha	Moratuwa	Pending	5698.26
ORD00010	Dilhara nilasooriya	0727987412	Mevin	Boralla	Pending	2568.36
ORD00005	Sarith Ranasingha	0781123654	Malisha	Colombo 07	Pending	3216.36

Dispatch Delivery Orders:

Order ID	Customer name	Customer Telephone	Rider Name	Order Address	Order Status	Order Value (Rs.)
3210	Sanaka Navarathna	0777129876	Malisha	Piliyandala	Dispatched	1500.00
7480	Liviru Perera	0777987448	Ometh	Colombo 07	Dispatched	500.00
9870	Kumara fonseka	0767987456	Hiranth	Moratuwa	Dispatched	2500.00
8520	Hasanja nilasoriya	0727987421	Mevin	Boralla	Dispatched	1000.00
0124	Madura Ranasingha	0781123614	Malisha	Panadura	Dispatched	5695.00

Sidebar:

- Order ID: ORD00023
- Customer Tel: 0777123456
- Address: Colombo 07
- Available Riders: Saman
- Buttons: Rider Availability, Cancellation, Inform Delay, Generate Receipt
- Logout button

Figure 196 Dispatcher main interface

Interface Number: 55

Interface Name: Cancel online delivery interface

Description: This is the interface where dispatcher can cancel online delivery and provide a reason.

The screenshot shows the Cancel online delivery interface. At the top, it displays the date (Monday, 2023 / 11 / 30), time (1:06:00 pm), user profile (Hirantha Perera), and a gear icon for settings. Below the header, there are two main sections: "Pending Delivery Orders" and "Dispatch Delivery Orders".

Pending Delivery Orders:

Order ID	Customer name	Customer Tel	Rider	Order Address	Order Status	Order Value (Rs.)
0123	Liviru Navarathna	0777123456	Ometh	Colombo 07	Pending	1500.00
0147	Shahrukh Perera	0777987453	Hiranth	Piliyandala	Pending	6254.36
1258	Kumara fonseka	0767987456	Pradeesha	Moratuwa	Pending	5698.26
3256	Dilhara nilasoriya	0727987412	Mevin	Boralla	Pending	2568.36
4581	Sarith Ranasingha	0781123654	Malisha	Colombo 07	Pending	3216.36

Dispatch Delivery Orders:

Order ID	Customer name	Customer Telephone	Rider Name	Order Address	Order Status	Order Value (Rs.)
3210	Sanaka Navarathna	0777129876	Malisha	Piliyandala	Dispatched	1500.00
7480	Liviru Perera	0777987448	Ometh	Colombo 07	Dispatched	500.00
9870	Kumara fonseka	0767987456	Hiranth	Moratuwa	Dispatched	2500.00
8520	Hasanja nilasoriya	0727987421	Mevin	Boralla	Dispatched	1000.00
0124	Madura Ranasingha	0781123614	Malisha	Panadura	Dispatched	5695.00

Sidebar:

- Order ID: 0123
- Provide Reason: (Empty text area)
- Request Cancel button
- Logout button

Figure 197 Cancel online delivery interface

Interface Number: 56

Interface Name: Rider availability interface.

Description: This is the interface where cashier can check the availability of the rider.

The screenshot shows a dashboard for 'Pancetta' with the date Monday 2023 / 11 / 30 and time 1:05:00. It displays two tables: 'Pending Delivery Orders' and 'Dispatch Delivery Orders'. The 'Pending Delivery Orders' table lists 5 rows with columns: Order ID, Customer name, Customer Tel, Rider, Order Address, Order Status, and Order Value (Rs.). The 'Dispatch Delivery Orders' table lists 6 rows with the same columns. On the right, a sidebar titled 'All Riders' has dropdown menus for 'Status' and a pink 'Update' button. A gear icon is at the top right.

Order ID	Customer name	Customer Tel	Rider	Order Address	Order Status	Order Value (Rs.)
0123	Liviru Navarathna	0777123456	Ometh	Colombo 07	Pending	1500.00
0147	Shahrukh Perera	0777987453	Hiranth	Piliyandala	Pending	6254.36
1258	Kumara fonseka	0767987456	Pradeesha	Moratuwa	Pending	5698.26
3256	Dilhara nilasoriya	0727987412	Mevin	Boralla	Pending	2568.36
4581	Sarith Ranasingha	0781123654	Malisha	Colombo 07	Pending	3216.36

Order ID	Customer name	Customer Telephone	Rider Name	Order Address	Order Status	Order Value (Rs.)
3210	Sanaka Navarathna	0777129876	Malisha	Piliyandala	Dispatched	1500.00
7480	Liviru Perera	0777987448	Ometh	Colombo 07	Dispatched	500.00
9870	Kumara fonseka	0767987456	Hiranth	Moratuwa	Dispatched	2500.00
8520	Hasanja nilasoriya	0727987421	Mevin	Boralla	Dispatched	1000.00
0124	Madura Ranasingha	0781123614	Malisha	Panadura	Dispatched	5695.00

Figure 198 Rider availability interface

Interface Number: 57

Interface Name: Send delay notice interface

Description: This is the interface where cashier can send a delay notice and send SMS.

The screenshot shows a dashboard for 'Pancetta' with the date Monday 2023 / 11 / 30 and time 1:05:00 pm. It displays two tables: 'Pending Delivery Orders' and 'Dispatch Delivery Orders'. On the right, a sidebar titled 'Delay Notice' contains a large empty text area. Below it is a red 'Send SMS' button. At the bottom right are 'Logout' and a gear icon. The top right shows a user profile for Hirantha Perera.

Order ID	Customer name	Customer Tel	Rider	Order Address	Order Status	Order Value (Rs.)
0123	Liviru Navarathna	0777123456	Ometh	Colombo 07	Pending	1500.00
0147	Shahrukh Perera	0777987453	Hiranth	Piliyandala	Pending	6254.36
1258	Kumara fonseka	0767987456	Pradeesha	Moratuwa	Pending	5698.26
3256	Dilhara nilasoriya	0727987412	Mevin	Boralla	Pending	2568.36
4581	Sarith Ranasingha	0781123654	Malisha	Colombo 07	Pending	3216.36

Order ID	Customer name	Customer Telephone	Rider Name	Order Address	Order Status	Order Value (Rs.)
3210	Sanaka Navarathna	0777129876	Malisha	Piliyandala	Dispatched	1500.00
7480	Liviru Perera	0777987448	Ometh	Colombo 07	Dispatched	500.00
9870	Kumara fonseka	0767987456	Hiranth	Moratuwa	Dispatched	2500.00
8520	Hasanja nilasoriya	0727987421	Mevin	Boralla	Dispatched	1000.00
0124	Madura Ranasingha	0781123614	Malisha	Panadura	Dispatched	5695.00

Figure 199 Send delay notice interface

4.2.5 Manager Interface designs

Interface Number: 58

Interface Name: Manager dashboard interface.

Description: This is the dashboard of the manager.

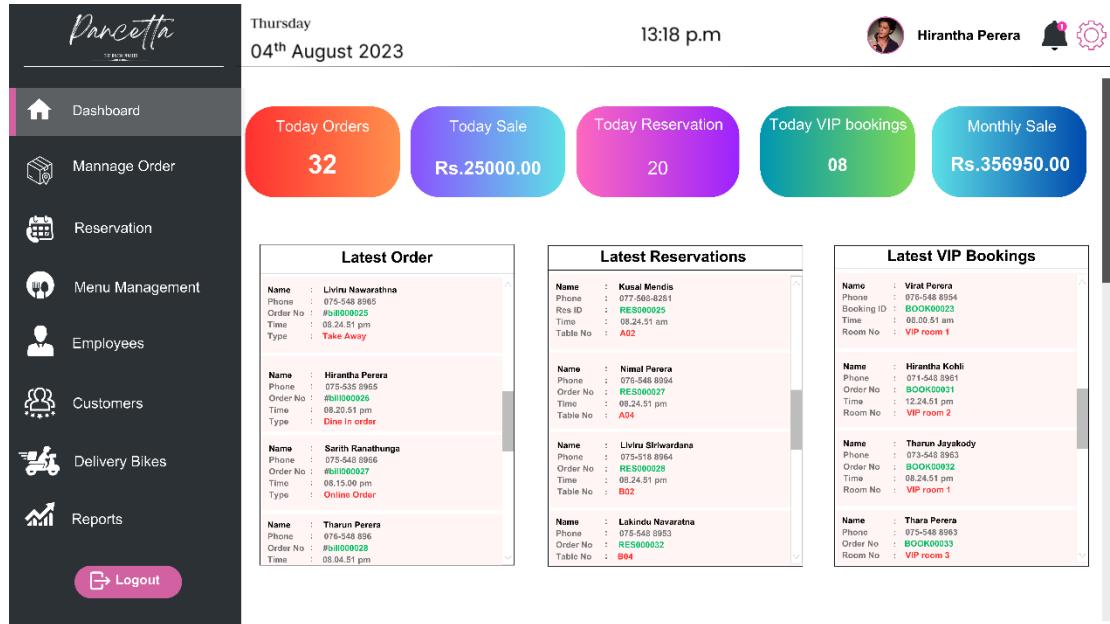


Figure 200 Manager dashboard

Interface Number: 59

Interface Name: Manager dashboard interface.

Description: This is the dashboard of the manager.

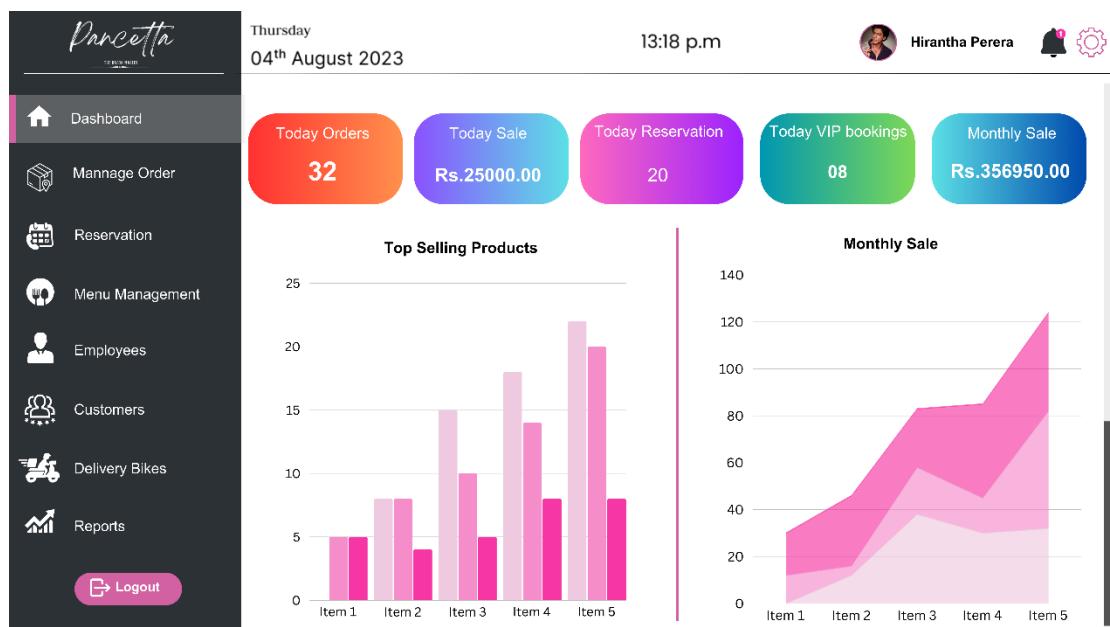


Figure 201 Manager dashboard 2

Interface Number: 60

Interface Name: Bike management interface

Description: This is where the manager can add, update and delete bikes.

The screenshot shows the 'Bike Management' interface. On the left is a dark sidebar with icons and labels: Dashboard, Manage Order, Reservation, Menu Management, Employees, Customers, Delivery Bikes (highlighted in pink), and Reports. At the top, it says 'Thursday 04th August 2023' and '13:18 p.m.'. On the right, there's a user profile for 'Hirantha Perera' and notification icons. The main area has tabs 'Bike Management' (selected) and 'Bike Assign To Rider'. It includes input fields for 'License Plate', 'Mileage', 'Bike Colour', 'Ownership' (with a dropdown menu for 'Rider'), 'Enter Rider ID', and 'Bike Model'. There's also a placeholder image of a person on a bike. Below the fields are buttons for 'Save' (green), 'Update' (orange), 'Delete' (red), and 'Reset' (blue).

Figure 202 Add bike interface

Interface Number: 61

Interface Name: Add table interface

Description: This is the interface where the manager can add a bike

The screenshot shows the 'Table Reservation' interface. The sidebar and top bar are identical to Figure 202. The main area has tabs 'Table Reservation' (selected) and 'VIP Room Booking'. It includes input fields for 'Table No' (containing 'A010'), 'Outlet ID' (containing 'OUT0002'), 'Table Capacity' (containing '4'), and 'Table Status' (containing 'Available'). To the right is a table of available tables:

Table No	Capacity	Status
A01	4	Available
A02	4	Available
A03	4	Available
A04	4	Unavailable
A05	4	Unavailable
A06	4	Available
A07	4	Available
A08	4	Available
A09	4	Available
A10	4	Available

Below the table are buttons for 'Save' (green), 'Update' (orange), 'Delete' (red), and 'Clear' (blue).

Figure 203 Add table interface

Interface Number: 62

Interface Name: Add vip room interface

Description: This is the interface where the manager can add a new vip room

Pancetta

Thursday
04th August 2023 13:18 p.m. Hirantha Perera

Table Reservation VIP Room Booking

Room ID: ROM00010

Outlet ID: OUT0002

Room Type: VIP Room 3

Room Status: Available

Upload

Save Update Delete Reset

Figure 204 Add vip room interface

Interface Number: 63

Interface Name: Manage employee interface

Description: This is the interface where the manager can add, update and delete employees

Pancetta

Thursday
04th August 2023 13:18 p.m. Hirantha Perera

Employee List Add Employee

Employee ID:

First Name: Hirantha

Last Name: Jayaweera

Employee Address: 54/1, Wellampitiya, Matara Road

Employee Email: 8hiranthai@gmail.com

Username: user_hirantha_1

Password: *****

Telephone: 077-098-6545

Position: Rider

Date of Birth: 2002-08-07

Age: 21

Street No: 54/1

Street: Wellampitiya

City: Colombo

Outlet: Colombo

Rider Type: Experience 01

Availability:

Shift Start Time:

Shift End Time:

Upload

Save Update Delete Clear

Figure 205 Manage employees interface

Interface Number: 64

Interface Name: Assign bike to rider interface

Description: This is the interface where the manager can click on the bike and assign to rider.

Thursday
04th August 2023 13:18 p.m.

Hirantha Perera

Bike Management Bike Assign To Rider

Rider ID: EMP00005

Bike No: TP - 9941

Rider Status: Available

Save

Figure 206 Assign bike to rider

Interface Number: 65

Interface Name: Bike list interface.

Description: This is the interface where the manager can view the bikes in the outlet.

Thursday
04th August 2023 13:18 p.m.

Hirantha Perera

Bike Management Bike Assign To Rider

Add New Bike

Outlet ID	License Plate	Mileage (Km)	Bike Color	Ownership	Model	Cost (Rs.)	Motor Bike Image	Action
0001	ASD-6542	1500	Red	Hirantha Perera	CBR	123,369.00		
0002	QWE-3265	100	White	Liviru Sinwardana	CB	321,456.00		
0003	ERT-3255	500	Red	Lakindu Ranathunga	CBR	123,369.00		
0004	ERW-6548	1100	Red	Sarith Navaralna	CBR	123,369.00		
0005	SDF-6548	1200	Red	Shaheen Induwara	CBR	123,369.00		
0006	ASD-6548	1583	Red	Outlet-0001	CB	658,369.00		

Figure 207 Bike list interface

Interface Number: 66

Interface Name: Cancelled orders interface

Description: This is the interface where the manager can view the cancelled orders in the outlet.

Invoice No	Customer name	OrderDate	Order Type	Payment Type	Promotion Name	Amount	Action
#bill000009	Kusal Mendis	2023-11-25	Take Away	Card	-	Rs.1500.00	
#bill000010	Nadil Pancetta	2023-11-25	Online Delivery	Card	Loyal Bonanza	Rs.2000.00	
#bill000013	Tiger Sharoff	2023-11-24	Take Away	Card	-	Rs.2500.00	
#bill000015	Shubman Gill	2023-11-24	Online Delivery	Card	-	Rs.2500.00	
#bill000025	Tiger Sharoff	2023-11-24	Online Delivery	Card	-	Rs.7000.00	
#bill000026	Tharun Perera	2023-11-24	Online Delivery	Card	-	Rs.2500.00	
#bill000037	Jacob Timothy	2023-11-24	Online Delivery	Card	-	Rs.2500.00	
#bill000048	Jacob Timothy	2023-11-24	Online Delivery	Card	-	Rs.1500.00	
#bill000049	Sarith Ranathunge	2023-11-24	Online Pickup	Card	-	Rs.7500.00	
#bill000050	Tiger Sharoff	2023-11-24	Take Away	Card	-	Rs.2500.00	
#bill000061	Tharun Perera	2023-11-24	Online Pickup	Card	-	Rs.1500.00	
#bill000062	Shubman Gill	2023-11-24	Take Away	Card	-	Rs.12500.00	
#bill000073	Kusal Mendis	2023-11-24	Online Pickup	Card	-	Rs.7500.00	
#bill000074	Shubman Gill	2023-11-23	Take Away	Card	-	Rs.13458.00	

Figure 208 Cancelled orders interface

Interface Number: 67

Interface Name: Cancel order interface

Description: This is where the manager can cancel any order and provide a note.

Invoice No	Customer name	OrderDate	Order Type	Payment Type	Promotion Name	Amount	Action	
#bill000001	Liviru	2023-11-25	Take Away	Card	-	Rs.1500.00		
#bill000002	Hirantha	2023-11-25	Online Delivery	Card	Loyal Bonanza	Rs.2500.00		
#bill000003	Sarith	2023-11-24	Take Away	Card	-	Rs.2000.00		
#bill000004	Tharun	2023-11-24	Online Delivery	Card	-	Rs.4000.00		
#bill000005	Pradip	2023-11-24	Take Away	Card	-	Rs.4000.00		
#bill000006	Romesh	2023-11-24	Online Delivery	Card	Executive Lunch offer	Rs.2000.00		
#bill000007	Thim	2023-11-24	Take Away	Card	-	Rs.1500.00		
#bill000008	Thara	2023-11-24	Online Delivery	Card	-	Rs.4000.00		
#bill000009	Kusal Mendis	2023-11-25	Cancelled	Take Away	Card	-	Rs.10500.00	
#bill000010	Nadil Pancetta	2023-11-25	Cancelled	Online Delivery	Card	Loyal Bonanza	Rs.2000.00	
#bill000011	Nimal Perera	2023-11-24	Completed	Online Delivery	Card	-	Rs.4000.00	
#bill000012	Alan Desilva	2023-11-24	Completed	Dine In	Cash	Weekend offer	Rs.1500.00	
#bill000013	Tiger Sharoff	2023-11-24	Cancelled	Take Away	Card	-	Rs.2500.00	
#bill000014	Jacob Timothy	2023-11-24	Completed	Online Delivery	Card	November offer	Rs.4000.00	

Figure 209 Cancel order interface

Interface Number: 68

Interface Name: Completed orders interface.

Description: This is the interface where the manager can view completed orders.

The screenshot shows a dark-themed web application for 'Pancetta'. At the top, it displays the date 'Thursday 04th August 2023' and time '13:18 p.m.'. On the right, there's a user profile for 'Hirantha Perera' with a gear icon for settings. The left sidebar contains navigation links: Dashboard, Manage Order (selected), Reservation, Menu Management, Employees, Customers, Delivery Bikes, Reports, and Logout. The main content area has tabs for 'Order List', 'Canceled Orders', and 'Completed Orders' (which is active). Below the tabs are search fields for 'From' and 'To' dates, a 'Search' button, and a magnifying glass icon. A table lists completed orders with columns: Invoice No, Customer name, OrderDate, Order Type, Payment Type, Promotion Name, Amount, and Action. Each row includes a green circular icon with a white arrow and a blue circular icon with a white gear.

Invoice No	Customer name	OrderDate	Order Type	Payment Type	Promotion Name	Amount	Action
#bill000001	Liviru navarathna	2023-11-26	Take Away	Card	Loyal Bonanza	Rs.1500.00	
#bill000002	Hirantha Perera	2023-11-26	Dine In	Cash	Loyal Bonanza	Rs.2500.00	
#bill000003	Sarith Ranathunge	2023-11-26	Dine In	Card	-	Rs.2000.00	
#bill000004	Tharun Perera	2023-11-26	Online Pickup	Card	Executive Lunch offer	Rs.4000.00	
#bill000005	Pradeesha Hettiarachi	2023-11-25	Dine In	Cash	-	Rs.4000.00	
#bill000006	Romaine Hana	2023-11-25	Online Pickup	Card	November offer	Rs.2000.00	
#bill000007	Thimani Samaraweera	2023-11-25	Take Away	Card	-	Rs.1500.00	
#bill000008	Thara Yaddehige	2023-11-25	Dine In	Cash	-	Rs.4000.00	
#bill000011	Nimal Perera	2023-11-24	Online Delivery	Card	-	Rs.4000.00	
#bill000012	Alan Desilva	2023-11-24	Dine In	Cash	Weekend offer	Rs.1500.00	
#bill000014	Jacob Timothy	2023-11-24	Online Delivery	Card	November offer	Rs.4000.00	
#bill000024	Gayan Siriwardana	2023-11-24	Dine In	Cash	-	Rs.1500.00	
#bill000025	Virat Perera	2023-11-24	Online Delivery	Cash	-	Rs.4000.00	
#bill000026	Hirantha Kohli	2023-11-23	Dine In	Card	November offer	Rs.4000.00	

Figure 210 Completed orders interface

Interface Number: 69

Interface Name: Generate report interface

Description: This is the interface where the manager can generate reports.

The screenshot shows a dark-themed web application for 'Pancetta'. At the top, it displays the date 'Thursday 04th August 2023' and time '13:18 p.m.'. On the right, there's a user profile for 'Hirantha Perera' with a gear icon for settings. The left sidebar contains navigation links: Dashboard, Manage Order, Reservation, Menu Management, Employees, Customers, Delivery Bikes, Reports (selected), and Logout. The main content area features a 'Sale Report' section with a dropdown menu for selecting '01' or '02' and buttons for 'Year', 'Month', and 'Date'. Below this is a detailed 'Outlet Annual Sales Report' for the year 2022. The report includes a header with the company details: 'Pancetta (PVT).LTD', address 'No 95 wijerama mawatha Colombo 07, Sri Lanka.', and phone number 'Tel : 011 310 5456'. The report table has columns: Product ID, Product Name, Unit Price (Rs.), Quantity Sold, and Sale (Rs.). The data shows various food items and their sales figures for the year 2022.

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	120	180,000.00
PRO00002	Mexican Tacos	1550.00	120	186,000.00
PRO00003	Mexican Quesdila	1400.00	70	98,000.00
PRO00004	English Breakfast	1300.00	150	195,000.00
PRO00005	Sri Lanka Lunch	1000.00	90	90,000.00
PRO00006	Sri Lankan Breakfast	1200.00	100	12,000.00
PRO00007	Japanese Fried Rice	800.00	120	96,000.00
PRO00008	Chinese Fried Rice	1100.00	150	165,000.00

Figure 211 Generate reports interface

Interface Number: 70

Interface Name: Manage order list interface

Description: This is the interface where the manager can view order list and manage it

The screenshot shows a web-based management interface for a restaurant named 'Pancetta'. The top header displays the date as 'Thursday 04th August 2023' and the time as '13:18 p.m.'. On the right, there is a user profile for 'Hirantha Perera' and icons for notifications and settings. Below the header, a navigation bar includes links for Dashboard, Manage Order (which is currently selected), Reservation, Menu Management, Employees, Customers, Delivery Bikes, Reports, and Logout. The main content area is titled 'Order List' and contains a table of order details. The table has columns for Invoice No, Customer name, OrderDate, Order Status, Order Type, Payment Type, Promotion Name, Amount, and Action. Each row in the table represents an order with specific details like customer name, order date, status (e.g., Completed, Cancelled), type (e.g., Take Away, Dine In, Online Pickup), payment method (Card, Cash), promotion (Loyal Bonanza, Executive Lunch offer, November offer), amount (e.g., Rs.1500.00, Rs.2500.00), and actions (e.g., Edit, Delete). A search bar and filter options are also present at the top of the table.

Figure 212 Manage order list interface

Interface Number: 71

Interface Name: Notification interface

Description: This is the interface where the manager can view notifications.

The screenshot shows a web-based notification interface. The left side of the screen displays a dashboard with sections for 'Today Orders' (32) and 'Today Sale' (Rs.25000.00). Below this is a 'Latest Order' section showing four recent orders with details like name, phone number, order number, time, and type. The right side of the screen features two overlapping modal windows from a 'Cashier'. The top window is titled '#bill000005 Order Cancellation Request' and contains a message: 'Provide Reason : Unable to full fill this order because Customer wants to cancel this Order'. It includes 'View More' and 'Ok' (green) and 'Cancel' (red) buttons. The bottom window is titled '#RIS00015 VIP Room Booking Cancellation Request' and contains a message: 'Provide Reason : Customer wants to change the booking dates and make the booking later, this one request cancel'. It also includes 'View More' and 'Ok' (green) and 'Cancel' (red) buttons. Both windows have a close button (X) and a gear icon for settings.

Figure 213 Notifications interface

Interface Number: 72

Interface Name: Print document interface

Description: This is the interface where the manager can print documents.

The screenshot shows a restaurant management system interface. On the left is a dark sidebar with icons for Dashboard, Manage Order, Reservation, Menu Management, Employees, Customers, Others, and Reports. The main area displays a table of orders with columns for Sl, Invoice No, Customer name, Waiter, Table, and State. A modal window titled 'Print' is open over the table, showing options for Destination (Microsoft Print to PDF), Pages (All), Layout (Portrait), Color (Color), and a preview of the two pages to be printed. Buttons for 'Print' and 'Cancel' are at the bottom of the modal.

Figure 214 Print document interface

Interface Number: 73

Interface Name: Reports dashboard interface

Description: This is the interface where managers can pick any report to generate.

The screenshot shows a reports dashboard. The sidebar includes icons for Dashboard, Manage Order, Reservation, Menu Management, Employees, Customers, Delivery Bikes, Reports, and Logout. The main area contains six dark rectangular boxes, each representing a different report type: Sales Reports, Best Selling Product Report, Feedback Reports, Feedback Overview Report, sales Trend Report, and VIP Room Booking Earning Report. Below these boxes are three empty light gray boxes.

Figure 215 Reports dashboard interface

Interface Number: 74

Interface Name: Table reservation list interface

Description: This is the interface where the manager can view the table reservation list.

The screenshot shows a web-based application for managing table reservations. At the top, it displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. On the right, there is a user profile for Hirantha Perera with icons for notifications and settings. The main header includes tabs for 'Table Reservation' (which is selected) and 'VIP Room Booking'. Below the header is a search bar with fields for 'From' and 'To' dates, and buttons for 'Search' and 'Reset'. A large table lists 14 table reservations with columns for Res ID, Customer name, Table No., No. of Guests, Reservation Date, Reservation Time, Status, Notes, and Action. The table rows contain data such as RES00001 (Liviru navarathna, A01, 4 guests, 2023-11-28, 11:30 a.m., Confirmed, -), RES00002 (Sarith Ranathunge, A02, 4 guests, 2023-11-28, 11:30 a.m., Confirmed, Not next to Air conditioner), and RES00014 (Kumara fonska, R02, 4 guests, 2023-11-30, 01:00 p.m., Confirmed, -). An 'Add New Table' button is located at the top right of the table area.

Figure 216 Table reservation list interface

Interface Number: 75

Interface Name: Update reservation interface

Description: This is the interface where the manager can update reservation details.

The screenshot shows the 'Update' screen for a specific table reservation. The left sidebar is identical to the previous screenshot, showing navigation options like Dashboard, Manage Order, Reservation, etc. The main content area has a title 'Table R' and a sub-section 'Update'. It displays form fields for updating a reservation: Table No.* (Table-3), No. of People* (1), Date * (2023-05-26), Start Time * (13:05:00), End Time * (13:35:00), Name* (danny dan), Mobile * (0705757944), Email Address* (25harrybara@gmail.com), Customer Notes* (am will), and a Status dropdown set to Free. To the right of the form is a table of 14 reservations, similar to the one in Figure 216, with an 'Update' button positioned below it.

Figure 217 Update reservation interface

Interface Number: 76

Interface Name: View customer account interface

Description: This is the interface where manager can view the customer account.

The screenshot shows a web-based application interface for managing customer accounts. The header displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. A user profile for Hirantha Perera is shown, along with a gear icon for settings. The main content area has tabs for 'Customer List' and 'Customer Account'. The 'Customer Account' tab is active, showing a form with fields for First Name (Liviru), Last Name (Navarathna), Username (liviru), Password (avgafvaf16), Street No (82/1), Street (Kahatagaha Road), City (Colombo), Membership (Bronze), Customer Email (Sample1@gmail.com), Number Of Orders (51), and Telephone (0777123456). To the right of the form is a circular profile picture of a man standing next to a red car. Below the form are buttons for Loyalty Transaction, Reset, and Update. On the left side, there is a sidebar with various menu items: Dashboard, Manage Order, Reservation, Menu Management, Employees, Customers (which is selected and highlighted in pink), Delivery Bikes, and Reports. At the bottom of the sidebar is a Logout button.

Figure 218 View customer account interface

Interface Number: 77

Interface Name: Customer list interface

Description: This is the interface where manager can view registered customers.

The screenshot shows a web-based application interface for viewing a list of registered customers. The header displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. A user profile for Hirantha Perera is shown, along with a gear icon for settings. The main content area has tabs for 'Customer List' and 'Customer Account'. The 'Customer List' tab is active, showing a table with columns: Telephone, Membership ID, First Name, Last Name, Customer Email, City, Street, Home Number, Username, Password, and Action. The table contains 20 rows of sample customer data. Each row includes a set of icons for edit, delete, and other actions. On the left side, there is a sidebar with various menu items: Dashboard, Manage Order, Reservation, Menu Management, Employees, Customers (selected and highlighted in pink), Delivery Bikes, and Reports. At the bottom of the sidebar is a Logout button.

Telephone	Membership ID	First Name	Last Name	Customer Email	City	Street	Home Number	Username	Password	Action
0777123456	Bronze	Liviru	Navarathna	Sample1@gmail.com	Colombo	Kahatagaha Road	82/1	liviru	avgafvaf16	
0777987456	Bronze	Shahrukh	Perera	Sample2@gmail.com	Piliyanadala	Mawatha Road	36/8	shahrukh	vrvfva25	
0767987456	Gold	Kumara	fonska	Sample3@gmail.com	Boralla	Wathu Para Road	25/9	kumara	varfafv25	
0728987456	Silver	Dileepa	Jayaweera	Sample4@gmail.com	Piliyanadala	Watthela Road	107	dileepa	bgffsd14	
0727321466	Silver	Dilhara	nilasooriya	Sample5@gmail.com	Piliyanadala	Gadabada Road	108	dilhara	bsfgbs256	
0741321456	Gold	Sarith	Ranasingha	Sample6@gmail.com	Boralla	Watthla Road	18/9	satirth	avgafv2511	
0777987412	Silver	Tharun	perera	Sample7@gmail.com	Boralla	Wijerama Road	78/2	tharun	bagbspb25	
0767987321	Bronze	Ravindu	Kumar	Sample8@gmail.com	Boralla	1st lane	12/5	ravindu	bsfgbbs20	
0777654328	Bronze	Nimeshi	Madu	Sample9@gmail.com	Piliyanadala	Hansa Road	32	nimeshi	dy216djdd	
0724123654	Bronze	Thara	Yadhe	Sample10@gmail.com	Colombo 07	2nd lane	25	thara	asvasfd266	
0784258963	Bronze	Oshanda	singh	Sample11@gmail.com	Colombo 07	Panathara Road	58	oshandha	ergqe1646	
0767321789	Bronze	Charith	Asalanika	Sample12@gmail.com	Colombo 07	Gadabada Road	78/1	charith	rfa12854	
0732897654	Bronze	Buddika	Perera	Sample13@gmail.com	Colombo 07	2nd lane	18	buddika	fvafvfv2	
0797325698	Bronze	Heshani	Kure	Sample14@gmail.com	Colombo 07	Gayan Road	16/2	heshani	fvbgtjy158	
0787369852	Silver	Tharushi	Gamage	Sample15@gmail.com	Colombo 07	1st lane	107/5	tharushi	wijiyagart2	
0787147852	Bronze	Supun	Perera	Sample16@gmail.com	Colombo 07	3rd lane	104/8	supun	gfnsfgns12	
0777123456	Bronze	Madawa	Kure	Sample17@gmail.com	Piliyanadala	2nd lane	105	madawa	frgfgasf17	
0777987456	Bronze	Kusum	Perera	Sample18@gmail.com	Piliyanadala	1st lane	10/7	kusum	dfd6954d	

Figure 219 Customer list interface

Interface Number: 78

Interface Name: Employee list interface

Description: This is the interface where manager can view existing employees.

The screenshot shows a web-based application interface for managing employees. At the top, there's a header with the date 'Thursday 04th August 2023' and time '13:18 p.m.'. On the right, there's a user profile for 'Hirantha Perera' and icons for notifications and settings. Below the header, a navigation bar includes links for Dashboard, Manage Order, Reservation, Menu Management, Employees (which is highlighted in pink), Customers, Delivery Bikes, Reports, and Logout. The main content area has tabs for 'Employee List' (selected) and 'Add Employee'. Below these are buttons for Copy, CSV, Excel, PDF, Print, and a large pink button for 'Add New Employee'. A search bar is also present. The central part of the screen is a table listing six employees:

Employee ID	Employee Name	Employee Tel	Status	Employee Image	Employee Position	Action
EMP0001	Hirantha Perera	077-236-9807	Active		Manager	
EMP0002	Liviru Siriwardana	075-908-2826	Active		Cashier	
EMP0003	Lakindu Ranathunga	077-010-1004	Active		Cashier	
EMP0004	Sarith Navaratna	071-104-7585	Active		Waiter	
EMP0005	Shahein Induwara	077-5088-2963	Active		Dispatcher	
EMP0006	Ockerz De silva	071-030-4371	Inactive		Rider	

Figure 220 Employee list interface

Interface Number: 79

Interface Name: Menu category interface

Description: This is the interface where manager can view menu category.

The screenshot shows a web-based application interface for managing menu categories. The layout is similar to the employee list interface, with a header showing the date 'Thursday 04th August 2023' and time '13:18 p.m.', and a user profile for 'Hirantha Perera' on the right. The left sidebar includes links for Dashboard, Manage Order, Reservation, Menu Management (highlighted in pink), Employees, Customers, Delivery Bikes, Reports, and Logout. The main content area has tabs for 'Menu Category' (selected) and 'Menu Items'. Below these are buttons for Copy, CSV, Excel, PDF, Print, and a large pink button for 'Add New Category'. A search bar is also present. The central part of the screen is a table listing six menu categories:

Category ID	Category Name	Status	Category Image	Action
CAT0001	Salads	Available		
CAT0002	Chinese	Available		
CAT0003	Indian	Available		
CAT0004	Vegetarian	Available		
CAT0005	English	Available		
CAT0006	Mexican	Unavailable		

Figure 221 View menu categories interface

Interface Number: 80

Interface Name: View points transaction interface

Description: This is the interface where manager can view transactions of a customer account.

The screenshot shows a web-based application interface for managing customer transactions. At the top, it displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. On the right, there is a user profile for Hirantha Perera with icons for notifications and settings. The main content area has tabs for 'Customer List' and 'Customer Account'. The 'Customer Account' tab is active, showing a summary section with a back arrow, 'Customer No :', 'Customer Name :', and a pink box indicating 'Available Loyalty Points as at 2023/11/27 : 196.03'. Below this is a table listing 14 transactions with columns for Transaction ID, Customer Telephone, Order ID, Transaction Date, Transaction Type, Transaction Time, and Transaction Points. The transactions are as follows:

Transaction ID	Customer Telephone	Order ID	Transaction Date	Transaction Type	Transaction Time	Transaction Points
0023	0777123456	0123	2023-11-26	Cash	11.00 a.m.	45
0024	0777987456	0124	2023-11-26	Online	03.30 p.m.	30
0025	0767987456	0125	2023-11-27	Online	10.30 a.m.	50
0026	0728987456	0126	2023-11-27	Online	04.00 p.m.	20
0027	0727321456	0127	2023-11-28	Online	09.30 a.m.	85
0028	0741321456	0128	2023-11-28	Cash	07.00 p.m.	95
0029	0777987412	0129	2023-11-29	Cash	12.00 p.m.	89
0030	0767987321	0130	2023-12-03	Online	11.00 a.m.	140
0031	0767321789	0134	2023-11-27	Cash	03.30 p.m.	259
0032	0732897654	0135	2023-11-29	Cash	10.30 a.m.	32
0033	0797325698	0136	2023-11-26	Online	04.00 p.m.	75

Figure 222 View points transaction interface

Interface Number: 81

Interface Name: VIP room bookings interface

Description: This is the interface where manager can view room bookings made.

The screenshot shows a web-based application interface for managing room bookings. At the top, it displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. On the right, there is a user profile for Hirantha Perera with icons for notifications and settings. The main content area has tabs for 'Table Reservation' and 'VIP Room Booking'. The 'VIP Room Booking' tab is active, showing a search bar with fields for 'From' and 'To' dates, 'Search', and 'Reset', along with a green button for 'Add New VIP Room'. Below this is a table listing 15 room bookings with columns for Booking ID, Customer name, Room Name, Booking date, Booking time, Booking hours, No.of Guests, Status, Booking fee, and Action. The bookings are as follows:

Booking ID	Customer name	Room Name	Booking date	Booking time	Booking hours	No.of Guests	Status	Booking fee	Action
BOOK00001	Liviru navarathna	VIProom 1	2023-11-26	11.00 a.m.	3	3	Confirmed	Rs.3000.00	
BOOK00002	Shahrukh Perera	VIProom 1	2023-11-26	03.30 p.m.	2	6	Confirmed	Rs.2000.00	
BOOK00003	Kumara fonsuka	VIProom 2	2023-11-27	10.30 a.m.	1	5	Confirmed	Rs.1500.00	
BOOK00004	Dileepa Jayaweera	VIProom 3	2023-11-27	04.00 p.m.	3	7	Confirmed	Rs.9000.00	
BOOK00005	Dilhara nilasooriya	VIProom 2	2023-11-28	09.30 a.m.	3	5	Confirmed	Rs.4500.00	
BOOK00006	Sarith Ranasingha	VIProom 2	2023-11-28	07.00 p.m.	1	3	Cancelled	Rs.1500.00	
BOOK00007	Tharun perera	VIProom 3	2023-11-28	03.30 p.m.	3	2	Cancelled	Rs.9000.00	
BOOK00008	Ravindu Kumar	VIProom 1	2023-11-29	12.00 p.m.	6	5	Confirmed	Rs.6000.00	
BOOK00009	Nimeshi madu	VIProom 1	2023-11-29	10.00 a.m.	1	7	Confirmed	Rs.1000.00	
BOOK00010	Thara Yadthe	VIProom 1	2023-11-30	11.30 a.m.	3	5	Confirmed	Rs.3000.00	
BOOK00011	Oshanda singh	VIProom 2	2023-12-02	02.30 p.m.	2	4	Confirmed	Rs.3000.00	
BOOK00012	Charith Asalanka	VIProom 3	2023-12-02	04.20 p.m.	3	3	Confirmed	Rs.9000.00	
BOOK00013	Nimal jayakody	VIProom 1	2023-12-03	11.00 a.m.	4	5	Confirmed	Rs.4000.00	
BOOK00014	Kulasoranya john	VIProom 3	2023-12-03	07.30 p.m.	3	3	Confirmed	Rs.9000.00	

Figure 223 VIP room bookings interface

4.2.6 Director Interface designs

Interface Number: 82

Interface Name: Add Menu category interface

Description: This is the interface where director can add new menu category.

Thursday
04th August 2023 13:18 p.m.

Hirantha Perera

Dashboard Mange Promotion Outlets Management Menu Management Employees Customers Others Reports Logout

Search

Menu Category Menu Items

Menu Category ID

Category Name

Category Status

Save Update Delete Reset

Category Description

Figure 224 Add menu category interface

Interface Number: 83

Interface Name: Add menu interface

Description: This is the interface where director can add menus to the system.

Thursday
04th August 2023 13:18 p.m.

Hirantha Perera

Dashboard Mange Promotion Outlets Management Menu Management Employees Customers Others Reports Logout

Search

Menu Category Menu Items

itemID

Item Name

Menu Category

Item Price

Save Update Delete Clear

Item Image

Recipe Image

Upload

Figure 225 Add menu items interface

Interface Number: 84

Interface Name: Add outlet interface

Description: This is the interface where director can add outlets.

The screenshot shows a web-based application interface for adding outlets. The header displays the date (Thursday, 04th August 2023), time (13:18 p.m.), user (Hirantha Perera), and a notification bell icon. The left sidebar contains navigation links for Dashboard, Manage Promotion (highlighted in pink), Outlets Management, Menu Management, Employees, Customers, Others, Reports, and Logout. The main content area has tabs for 'All Outlet' and 'Add Outlet' (selected). It includes input fields for 'Outlet ID', 'Manager ID' (a dropdown menu), 'Outlet Name', 'Outlet Hotline Number', and 'Seating Capacity' (a dropdown menu). Below the form are four buttons: 'Save' (green), 'Update' (orange), 'Delete' (red), and 'Reset' (blue).

Figure 226 Add outlets interface

Interface Number: 85

Interface Name: Add promotion category interface

Description: This is the interface where the director can add promotion categories.

The screenshot shows a web-based application interface for adding promotion categories. The header displays the date (Thursday, 04th August 2023), time (13:18 p.m.), user (Hirantha Perera), and a notification bell icon. The left sidebar contains navigation links for Dashboard, Manage Promotion (highlighted in pink), Outlets Management, Menu Management, Employees, Customers, Others, Reports, and Logout. The main content area has tabs for 'Promo List' and 'Add Promo Category' (selected). It includes input fields for 'Promotion Type ID', 'Promotion Description' (a large text area), 'Promotion Type Name', and 'Promotion Type Status' (a dropdown menu). Below the form are four buttons: 'Save' (green), 'Update' (orange), 'Delete' (red), and 'Reset' (blue).

Figure 227 Add promotion category interface

Interface Number: 86

Interface Name: Add promotion interface

Description: This is the interface where the director can add promotions

Pancetta

Thursday
04th August 2023 13:18 p.m.

Hirantha Perera

Promo List Add Promo Category

Promotion Type

Promotion ID

Promotion Name

Discount Percentage

Promotion Description

Promotion Start Date

Promotion End Date

Save Update Delete Reset

Figure 228 Add promotions interface

Interface Number: 87

Interface Name: Manage employee interface

Description: This is the interface where the director can manage employees.

Pancetta

Thursday
04th August 2023 13:18 p.m.

Hirantha Perera

Employee List Add Employee

Employee ID

Position

First Name

Last Name

Employee Address

Employee Email

Username

Password

Telephone

Date of Birth

Age

Street No

Street

City

Outlet

Manager Experience

Experience 01

Experience 02

Experience 03

Upload

Save Update Delete Clear

Figure 229 Manage employees interface

Interface Number: 88

Interface Name: Outlet list interface

Description: This is the interface where the director can view the list of outlets

Outlet ID	Manager ID	Location	Seating Capacity	Outlet Name	Hotline	Action
OUT01	EMP0010	95 Wijerama Mawatha, Colombo 07	50	Wijerama	0777123658	
OUT02	EMP0024	10 Kadawatha, Colombo.	45	Kadawatha	0777987452	
OUT03	EMP0005	15 Moratuwa, Colombo.	55	Moratuwa	0777654785	

Figure 230 View all outlets interface

Interface Number: 89

Interface Name: Customer list interface

Description: This is the interface where the director can view all the customers.

Telephone	Membership ID	First Name	Last Name	Customer Email	City	Street	Home Number	Username	Password	Action
0777123456	Bronze	Liviru	Navarathna	Sample1@gmail.com	Colombo	Kahatagaha Road	82/1	liviru	avgafvaf16	
0777987456	Bronze	Shahrukh	Perera	Sample2@gmail.com	Piliyanadala	Mawatha Road	36/8	shahrukh	vrfafvf25	
0767987456	Gold	Kumara	fonseka	Sample3@gmail.com	Boralla	Wathu Para Road	25/9	kumara	varfafvv25	
0728987456	Silver	Dileepa	Jayewera	Sample4@gmail.com	Piliyanadala	Wathihala Road	107	dileepa	bgfscdf14	
0727321456	Silver	Dilhara	nilasooriya	Sample5@gmail.com	Piliyanadala	Gadabada Road	108	dilhara	bsfgbbs256	
0741321456	Gold	Sarith	Ranasingha	Sample6@gmail.com	Boralla	Wathihala Road	18/9	srith	avgafv2511	
0777987412	Silver	Tharun	perera	Sample7@gmail.com	Boralla	Wijerama Road	78/2	tharun	bsgbgpb25	
0767987321	Bronze	Ravindu	Kumar	Sample8@gmail.com	Boralla	1st lane	12/5	ravindu	bslgbbbs20	
0777654328	Bronze	Nimeshi	Madu	Sample9@gmail.com	Piliyanadala	Hansa Road	32	nimeshi	dy216jjdd	
0724123654	Bronze	Thara	Yaddhe	Sample10@gmail.com	Colombo 07	2nd lane	25	thara	asvasfd266	
0784255963	Bronze	Oshanda	singh	Sample11@gmail.com	Colombo 07	Panathara Road	58	oshanda	ergoe1646	
0767321789	Bronze	Charith	Asalanika	Sample12@gmail.com	Colombo 07	Gadabada Road	78/1	charith	rfa12854	
0732897654	Bronze	Buddika	Perera	Sample13@gmail.com	Colombo 07	2nd lane	18	buddika	fvafvfvf2	
0797325698	Bronze	Heshani	Kure	Sample14@gmail.com	Colombo 07	Gayan Road	16/2	heshani	fvbgtjy158	
0787369852	Silver	Tharushi	Gamage	Sample15@gmail.com	Colombo 07	1st lane	107/5	tharushi	wyjyagar2	
0787147852	Bronze	Supun	Perera	Sample16@gmail.com	Colombo 07	3rd lane	104/8	supun	gfnsfgnst2	
0777123456	Bronze	Madawa	Kure	Sample17@gmail.com	Piliyanadala	2nd lane	105	madawa	frfgasf17	
0777987456	Bronze	Kusum	Perera	Sample18@gmail.com	Piliyanadala	1st lane	10/7	kusum	dfd6954d	

Figure 231 View all customers interface

Interface Number: 90

Interface Name: Director dashboard interface

Description: This is the interface where the director can view his dashboard.



Figure 232 Director dashboard 1

Interface Number: 91

Interface Name: Director dashboard interface

Description: This is the interface where the director can view his dashboard.

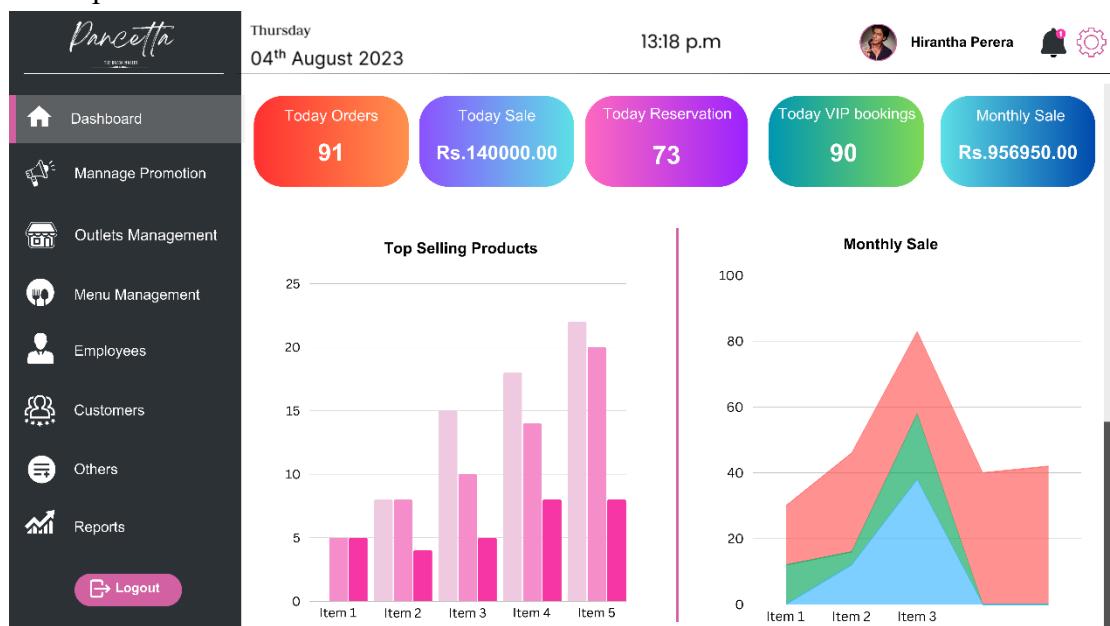


Figure 233 Director dashboard 2

Interface Number: 92

Interface Name: Employee list interface

Description: This is the interface where the director can view all the employees.

The screenshot shows a web-based application interface for managing employees. The top navigation bar displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. A user profile for Hirantha Perera is shown along with notification and settings icons. The main content area has tabs for "Employee List" (selected) and "Add Employee". Below these are buttons for Copy, CSV, Excel, PDF, and Print. On the right, there's a pink button for "Add New Employee" and a search bar. The central part of the screen is a table listing six employees:

Employee ID	Employee Name	Employee Tel	Status	Employee Image	Employee Position	Action
EMP0001	Hirantha Perera	077-236-9807	Active		Manager	
EMP0002	Liviru Siriwardana	075-908-2826	Active		Cashier	
EMP0003	Lakindu Ranathunga	077-010-1004	Active		Cashier	
EMP0004	Sarith Navaratna	071-104-7585	Active		Waiter	
EMP0005	Shaheen Induwara	077-5088-2963	Active		Dispatcher	
EMP0006	Ockerz De silva	071-030-4371	Inactive		Rider	

Figure 234 View all employees interface

Interface Number: 93

Interface Name: Menu category list interface

Description: This is the interface where the director can view the menu categories.

The screenshot shows a web-based application interface for managing menu categories. The top navigation bar displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. A user profile for Hirantha Perera is shown along with notification and settings icons. The main content area has tabs for "Menu Category" (selected) and "Menu Items". Below these are buttons for Copy, CSV, Excel, PDF, and Print. On the right, there's a pink button for "Add New Menu Category" and a search bar. The central part of the screen is a table listing eight menu categories:

Menu Category ID	Name	Status	Description	Action
MC0001	Breakfast	Available	Local food types	
MC0002	Lunch	Available	Local food types	
MC003	Thai	Available	Thai famous food types	
MC004	Japanese	Available	Japanese famous food types	
MC005	Chinese	Unavailable	Chinese famous food types	
MC006	Indian	Confirmed	Indian famous food types	
MC007	Mexican	Available	Mexican Foods	
MC008	Beverages	Available	---	

Figure 235 View menu category list interface

Interface Number: 94

Interface Name: Menu item list interface

Description: This is the interface where the director can view the menu items.

The screenshot shows a web-based application interface for managing menu items. The header includes the date (Thursday, 04th August 2023), time (13:18 p.m.), user (Hirantha Perera), and navigation icons. On the left, a sidebar lists various management functions: Dashboard, Manage Promotion, Outlets Management, Menu Management (selected), Employees, Customers, Others, and Reports. A pink 'Logout' button is at the bottom. The main content area has tabs for 'Menu Category' and 'Menu Items'. Below are buttons for Copy, CSV, Excel, PDF, and Print. A pink bar at the top right contains a plus sign and the text 'Add New Menu Item'. A search bar with a magnifying glass icon is also present. The central part of the screen displays a table of menu items:

Item ID	Category Name	Name	Price (Rs.)	Status	Image	Action
ITID0001	Thai	Salads	250.00	Available		
ITID0002	Indian	Vegi Salads	550.00	Available		
ITID0003	Indain	Those	750.00	Available		
ITID0004	Mexican	Vegetarian	450.00	Available		
ITID0005	English	Burger	100.00	Unavailable		

Figure 236 View menu items interface

Interface Number: 95

Interface Name: Others interface

Description: This is the interface where the director can view other functions.

The screenshot shows a web-based application interface for viewing other functions. The header includes the date (Thursday, 04th August 2023), time (13:18 p.m.), user (Hirantha Perera), and navigation icons. On the left, a sidebar lists various management functions: Dashboard, Manage Promotion, Outlets Management, Menu Management, Employees, Customers, Others (selected), and Reports. A pink 'Logout' button is at the bottom. The main content area displays a grid of six cards:

- Payment Method (Icon: credit card)
- Loyalty Membership (Icon: crown)
- Add Rmployee Category (Icon: person with plus)
- Add VIP Room Type (Icon: tray with food)
- (Empty card)
- (Empty card)
- (Empty card)

Figure 237 View other functions interface

Interface Number: 96

Interface Name: Promotion list interface

Description: This is the interface where the director can view the promotion lists.

Promotion ID	Promo Category Name	Status	Name	Discount Percentage	Description	Start date	End date	Action
PRO00001	Loyalty Promotion	Active	Loyalty Bonanza	10.00	Earn more points when purchasing from Mexican meal	2023-11-01	2023-11-30	
PRO00002	Seasonal Promotion	Active	New Year festive sale	15.00	Seasonal discount during new year	2023-12-01	2023-12-31	
PRO00003	Loyalty Promotion	Active	Loyal discount rush	12.00	Points earned will increase every day within this week	2023-12-01	2023-12-07	
PRO00004	Seasonal Promotion	Active	Christmas Rush	25.00	Christmas season sales	2023-12-20	2023-12-31	
PRO00005	Loyalty Promotion	Active	Loyalty Offer	30.00	Discounts for all Loyalty account holders	2023-12-10	2023-12-31	

Figure 238 View promotion lists interface

Interface Number: 97

Interface Name: Generate reports interface

Description: This is the interface where the director can generate reports.

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	120	180,000.00
PRO00002	Mexican Tacos	1550.00	120	186,000.00
PRO00003	Mexican Quesadilla	1400.00	70	98,000.00
PRO00004	English Breakfast	1300.00	150	195,000.00
PRO00005	Sri Lankan Lunch	1000.00	90	90,000.00
PRO00006	Sri Lankan Breakfast	1200.00	100	12,000.00
PRO00007	Japanese Fried Rice	800.00	120	96,000.00

Figure 239 Report generation 1 interface

Interface Number: 98

Interface Name: Report generation interface

Description: This is the interface where the director can generate reports

The screenshot shows the 'Sale Report' interface for Pancetta (PVT).LTD. The report displays annual sales data for the year 2022. The data is presented in a table with the following columns: Product ID, Product Name, Unit Price (Rs.), Quantity Sold, and Sale (Rs.). The products listed include Japanese Soba, Mexican Tacos, Mexican Quesadilla, English Breakfast, Sri Lanka Lunch, Sri Lankan Breakfast, Japanese Fried Rice, and Chinese Fried Rice.

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	120	180,000.00
PRO00002	Mexican Tacos	1550.00	120	186,000.00
PRO00003	Mexican Quesadilla	1400.00	70	98,000.00
PRO00004	English Breakfast	1300.00	150	195,000.00
PRO00005	Sri Lanka Lunch	1000.00	90	90,000.00
PRO00006	Sri Lankan Breakfast	1200.00	100	12,000.00
PRO00007	Japanese Fried Rice	800.00	120	96,000.00
PRO00008	Chinese Fried Rice	1400.00	150	210,000.00

Figure 240 Generate reports 2 interface

Interface Number: 99

Interface Name: Reports option interface

Description: This is the interface where the director can see the reports he can generate.

The screenshot shows the 'Reports' dashboard interface for Pancetta (PVT).LTD. The dashboard features a grid of six report cards, each with a title and a brief description. The reports are: Sales Reports, Best Selling Product Report, Feedback Reports, Feedback Overview Report, Sales Trend Report, and VIP Room Booking Earning Report.

Figure 241 Reports dashboard interface

Interface Number: 100

Interface Name: View customer information interface

Description: This is the interface where the director can view customer information.

The screenshot shows a web-based application interface for managing customer information. The header displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. A user profile for Hirantha Perera is shown, along with notification and settings icons. The main content area has tabs for 'Customer List' and 'Customer Account'. The 'Customer Account' tab is active, showing a form with fields for First Name (Liviru), Last Name (Navarathna), Street No (82/1), Street (Kahatagaha Road), City (Colombo), Username (liviru), Password (avgafvaf16), Membership (Bronze), and Number Of Orders (51). There is also a 'Customer Email' field (Sample1@gmail.com) and a 'Telephone' field (0777123456). A circular profile picture of a man standing next to a red car is displayed. Below the form are buttons for Loyalty Transaction, Reset, and Update. On the left side, a vertical navigation menu lists: Dashboard, Manage Promotion, Outlets Management, Menu Management, Employees, Customers (which is selected and highlighted in pink), Others, Reports, and Logout.

Figure 242 View customer information interface

Interface Number: 101

Interface Name: View loyal customer information interface

Description: This is the interface where the director can view loyal customer information.

The screenshot shows a web-based application interface for viewing loyal customer information. The header displays the date as Thursday, 04th August 2023, and the time as 13:18 p.m. A user profile for Hirantha Perera is shown, along with notification and settings icons. The main content area has tabs for 'Customer List' and 'Customer Account'. The 'Customer Account' tab is active, showing a table of transaction history. The table includes columns for Transaction ID, Customer Telephone, Order ID, Transaction Date, Transaction Type, Transaction Time, and Transaction Points. The data in the table is as follows:

Transaction ID	Customer Telephone	Order ID	Transaction Date	Transaction Type	Transaction Time	Transaction Points
0023	0777123456	0123	2023-11-26	Cash	11.00 a.m.	45
0024	0777987456	0124	2023-11-26	Online	03.30 p.m.	30
0025	0767987456	0125	2023-11-27	Online	10.30 a.m.	50
0026	0728987456	0126	2023-11-27	Online	04.00 p.m.	20
0027	0727321456	0127	2023-11-28	Online	09.30 a.m.	85
0028	0741321456	0128	2023-11-28	Cash	07.00 p.m.	95
0029	0777987412	0129	2023-11-29	Cash	12.00 p.m.	89
0030	0767987321	0130	2023-12-03	Online	11.00 a.m.	140
0031	0767321789	0134	2023-11-27	Cash	03.30 p.m.	259
0032	0732897654	0135	2023-11-29	Cash	10.30 a.m.	32
0033	0797325698	0136	2023-11-26	Online	04.00 p.m.	75

On the left side, a vertical navigation menu lists: Dashboard, Manage Promotion, Outlets Management, Menu Management, Employees, Customers (selected), Others, Reports, and Logout. A pink button with a back arrow icon is also visible.

Figure 243 View loyal customer information interface

4.2.7 Kitchen Interface designs

Interface Number: 102

Interface Name: Kitchen Main interface

Description: This is the interface where Kitchen staff can view details on the screen.

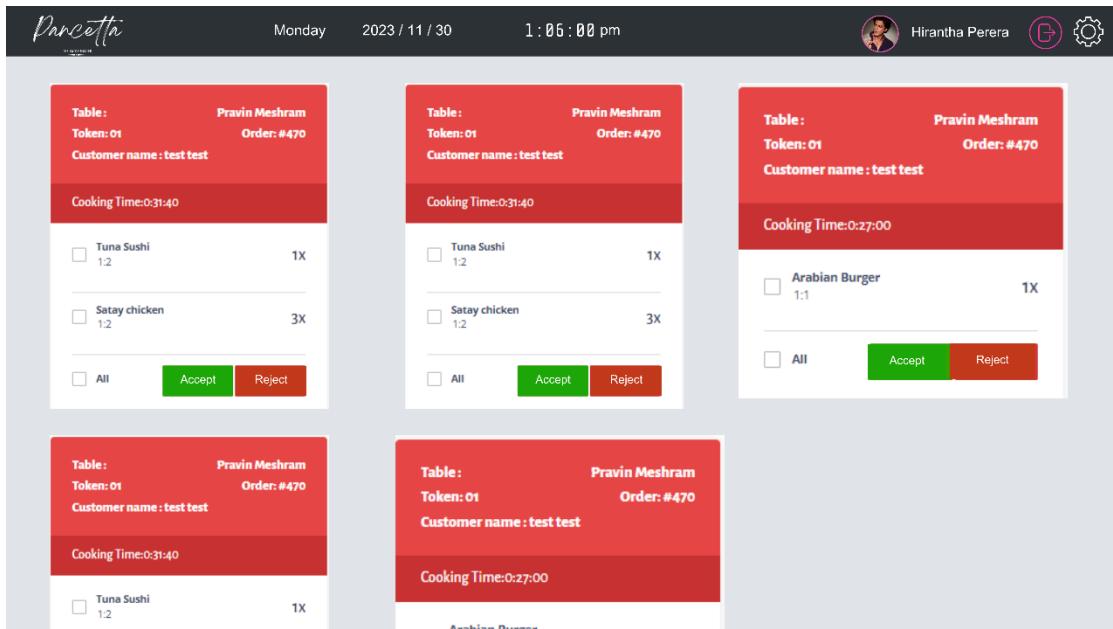


Figure 244 KOT screen interface

4.3 Database Design

Table Number : 01
 Table Name : Customer
 Primary Key : Customer_tel
 Foreign Keys : Membership_ID

Attribute	Data Type	Description	Data Size
Customer_tel	Number	Unique identifier for the Customer	10
MemberShipID	Text	Unique identifier for the Membership	15
Cus_fname	Text	Customer first name	20
Cus_lname	Text	Customer last name	20
Cus_email	Text	Customer Email	30
City	Text	Customer City	20
Street	Text	Customer Street	20
Home Number	Text	Customer Home number	07
Cus_username	Text	Customer Username	15
Cus_password	Text	Customer Password	12
Record Size			169

Table 1 Customer table

Table Number 02
 Table Name : Menu_Item
 Primary Key : Item_ID
 Foreign Keys : MenuCategory_ID

Attribute	Data Type	Description	Data Size
Item_ID	Text	Unique identifier for the item	15
MenuCategory_ID	Text	Unique identifier for the Menu Category	15
Item_name	Text	Name of the menu item	20
Item_price	Number	Price of the menu item	
Item_image	image	Image of the menu Item	
Recipe_Image	image	Image of the item recipe	
Record Size			50

Table 2 Menu Item table

Table Number : 03
 Table Name : Payment
 Primary Key : Invoice_ID
 Foreign Keys : Customer_tel, PaymentType_ID, Booking_ID, Order_ID

Attribute	Data Type	Description	Data Size
Invoice_ID	Text	Primary Key for Payments	15
Customer_tel	Number	Unique identifier for the Customer	10
Booking_ID	Text	Unique identifier for bookings	15
Order_ID	Text	Primary Key for order	50
PaymentType_ID	Text	Unique identifier for the Payment Types	15
Payment_Status	Text	Status of Payment	12
Payment_Date	Date	Date of payment	
Payment_Time	Time	Time of payment	
Paid_amount	Number	Amount paid	
Balance	Number	Remaining balance	
Payment_category	Text	Category of the payment	20
Record Size		137	

Table 3 Payment table

Table Number : 04
 Table Name : Order
 Primary Key : Order_ID
 Foreign Keys : OrderType_ID,,Emp_ID,Outlet_ID,Promo_ID,Customer_tel

Attribute	Data Type	Description	Data Size
Order_ID	Text	Primary Key for order	15
Customer_tel	Number	Foreign Key to customers	10
OrderType_ID	Text	Unique identifier for the Order Type	15
Cashier_ID	Text	Unique identifier for the Employee	15
Outlet_ID	Text	Unique identifier for the Outlet	15
Promo_ID	Text	Unique identifier for the Promotion	15
Order_status	Text	Status of the order	12
Order_total	Number	Total cost of the order	
OrderDate	Date	Date the order was made	
OrderTime	Time	The time the order was made	
Extra Notes	Text	Additional notes	50
CanselNote	Text	Order Cancel Note	50
Service charges	Number	Service charge per order	
Record Size		147	

Table 4 Order Table

Table Number : 05
 Table Name : Dinein_Order
 Primary Key : Order_ID
 Foreign Keys : Table_No,Room_ID,Emp_ID

Attribute	Data Type	Description	Data Size
Order_ID	Text	Unique identifier for the Dinein Order	15
Table_No	Text	Unique identifier for the Table	15
Room_ID	Text	Unique identifier for the VIP Room	15
Waiter_ID	Text	Unique identifier for the Waiter	15
Num_of_guest	Number	Number of guests in Dinein Order	03
Record Size			63

Table 6 Dinein Order Table

Table Number : 06
 Table Name : takeaway_order
 Primary Key : Order_ID
 Foreign Keys :

Attribute	Data Type	Description	Data Size
Order_ID	Text	Unique identifier for the takeaway Order	15
Packaging request	Text	Packaging request for takeaway order	30
Record Size			45

Table 5 Takeaway Order table

Table Number : 07
 Table Name : Online_delivery
 Primary Key : Order_ID
 Foreign Keys : Rider_ID,DispatcherID

Attribute	Data Type	Description	Data Size
Order_ID	Text	Unique identifier for the Online Delivery Order	15
Rider_ID	Text	Unique identifier for the Rider and Dispatch staff	15
Dispatcher_ID	Text	Unique identifier for the Rider and Dispatch staff	15
Delivery Fee	Number	Delivery free of online delivery order	
City	Text	To store Delivery location of customer's City	20
Street	Text	To store Delivery location of customer's Street	20
Home Number	Text	To store Delivery location of customer's Home Number	07
Delivery_time	time	To store Delivery time for Online Delivery Order	
Record Size			92

Table 7 Online delivery table

Table Number : 08
 Table Name : Online_pickup
 Primary Key : Order_ID
 Foreign Keys :

Attribute	Data Type	Description	Data Size
Order_ID	Text	Unique identifier for the Online pickup Order	15
Pickuptime	time	To store Pick Up time for Online Pickup Order	
Record Size			15

Table 8 Online pickup table

Table Number : 09
 Table Name : Order item
 Primary Key : Item_ID,Order_ID
 Foreign Keys :

Attribute	Data Type	Description	Data Size
Item_ID	Text	Unique identifier for the Order Item	15
Order_ID	Text	Unique identifier for the Orders	15
Quantity	Number	To store Quantity of item in the order	
Quantity_Price	Number	To store Price of the item per unit	
Record Size			30

Table 9 Order_item table

Table Number : 10
 Table Name : Employee
 Primary Key : Emp_ID
 Foreign Keys : Position_ID,Outlet_ID

Attribute	Data Type	Description	Data Size
Emp_ID	Text	Unique identifier for the Employee	15
Outlet_ID	Text	Unique identifier for the Outlet	15
Position_ID	Text	Unique identifier for the Employee Position	15
Emp_Fname	Text	To store first name of employee	20
Emp_Lname	Text	To store last name of employee	20
Gender	Text	To store Gender of employee	07
Emp_Email	Text	To store Email address of employee	30
Emp_tel	Number	To store Telephone number of employee	10
DOB	Date	To store date of birth of employee	
Emp_username	Text	To store Username of employee	15
Emp_password	Text	To store Password of employee	12
Emp_image	Image	To store image of employee	
Emp_status	Text	To store Employee Status	15
City	Text	To store the location of the city	20
Street	Text	To store the location of the Street	20
Home Number	Text	To store the location of the Number	07
Joining_Date	Date	To store join in date of employee	
Record Size	206		

Table 11 Employee table

Table Number : 11
 Table Name : Waiter
 Primary Key : Emp_ID
 Foreign Keys :

Attribute	Data Type	Description	Data Size
Emp_ID	Text	Unique identifier for the Waiter	15
Type	Text	To store type of Waiter	15
Shift_startTime	Time	To store shift start time of waiter	
Shift_endTime	Time	To store shift end time of waiter	
Record Size	30		

Table 10 Waiter table

Table Number : 12
 Table Name : Rider
 Primary Key : Emp_ID
 Foreign Keys : License_plate

Attribute	Data Type	Description	Data Size
Emp_ID	Text	Unique identifier for the Rider	15
License_plate	Text	To store License plate of Motor Bike	10
Type	Text	To store type of Rider	15
Shift_startTime	Time	To store shift start time of waiter	
Shift_endTime	Time	To store shift end time of waiter	
Availability	Text	To store availability of waiter	12
Record Size			52

Table 12 Rider table

Table Number : 13
 Table Name : Table
 Primary Key : Table_no
 Foreign Keys : Outlet_ID

Attribute	Data Type	Description	Data Size
Table_No	Text	Unique identifier for table	15
Outlet_ID	Text	Unique identifier for Outlet	15
Seating_Capacity	Number	To store Seating Capacity of table	
status	Text	To store status of table	12
Record Size			42

Table 13 Table table

Table Number : 14
 Table Name : Promotion
 Primary Key : Promo_ID
 Foreign Keys : PromoType_ID

Attribute	Data Type	Description	Data Size
Promo_ID	Text	Unique identifier for promotions	15
PromoType_ID	Text	Unique identifier for promotions Types	15
Promo_name	Text	To store Name of the promotion	25
Promo_description	Text	To store description of the promotion	50
Discount_Percentage	Number	To store Discount Percentage of the promotion	
StartDate	Date	To store Promotion valid days start	
EndDate	Date	To store Promotion valid days end	
Record Size			105

Table 14 Promotion table

Table Number : 15
 Table Name : Feedback
 Primary Key : Feedback_ID
 Foreign Keys : Customer_tel, Order_ID

Attribute	Data Type	Description	Data Size
Feedback_ID	Text	Unique identifier for feedback	15
Customer_Tel	Number	Unique identifier Customer	10
Order_ID	Text	Unique identifier for Order	15
Rating	Text	Store Ratings for order	15
Comments	Text	Store Comments for order and service	50
Feedback_date	Date	Store Feedback given date	
Record Size			105

Table 15 Feedback table

Table Number : 16
 Table Name : Outlet
 Primary Key : Outlet_ID
 Foreign Keys : ManagerID

Attribute	Data Type	Description	Data Size
Outlet_ID	Text	Unique identifier for outlet	15
Emp_ID	Text	Unique identifier for the Employee	15
Location	Text	Location of the outlet	45
Seating_capacity	Number	To store Capacity of the outlet	
Outlet_name	Text	To store name of the outlet	20
Hotline	Number	To store Outlet contact number of the Outlet	10
Record Size			90

Table 16 Outlet table

Table Number : 17
 Table Name : VIP_room
 Primary Key : Room_ID
 Foreign Keys : Outlet_ID

Attribute	Data Type	Description	Data Size
Room_ID	Text	Unique identifier for room	15
Outlet_ID	Text	Unique identifier for outlet	15
Room_Name	Text	To store Type of room	25
Room_capacity	Number	To store Room Capacity for a room	
Status	Text	To store Status of the room	12
RoomFee	Number	To store Fee of the room	
Note	text	To store customer extra Notes	60
Record Size			127

Table 17 VIP room table

Table Number : 18
 Table Name : Room_Booking
 Primary Key : Booking_ID
 Foreign Keys : Customer_Tel, Room_ID

Attribute	Data Type	Description	Data Size
Booking_ID	Text	Unique identifier for bookings	15
Customer_Tel	Number	Customer telephone number	10
Room_ID	Text	Unique identifier for rooms	15
NumOfGuest	Number	To store Number of guests of the room	
BookingTime	Time	To store booking times	
BookingHours	Number	To store Booking hours	
BookingFee	Number	To store Fee for booking	
BookingDate	Date	To store Booking date	
Record Size			40

Table 18 Room booking table

Table Number : 19
 Table Name : Loyalty_account
 Primary Key : Customer_tel ,Register_date
 Foreign Keys : Customer_te

Attribute	Data Type	Description	Data Size
Customer_tel	Number	Unique identifier for Customer	10
Register_date	Date	Unique identifier for bookings	
Loyalty_Points	Number	To store Loyalty Points	
Membership_status	Text	To store Membership status	12
Description	Text	To store description of loyalty account	40
Record Size			62

Table 19 Loyalty account table

Table Number : 20
 Table Name : loyalty_transaction
 Primary Key : Transaction_ID
 Foreign Keys : Customer_tel, Order_ID

Attribute	Data Type	Description	Data Size
Transaction_ID	Text	Unique identifier for loyalty transaction	15
Customer_tel	Number	Unique identifier for customer	10
Order_ID	Text	Unique identifier for orders	15
TransactionDate	Date	To store Loyalty Points Transaction Date of loyalty transaction	
TransactionType	Text	To store Loyalty Points Transaction Type of loyalty transaction	10
TransactionTime	Time	To store Loyalty Points Transaction Time of loyalty transaction	
TransactionPoints	Number	To store Loyalty Points Transaction Points of loyalty transaction	
Record Size		50	

Table 20 loyalty transaction table

Table Number : 21
 Table Name : MotorBike
 Primary Key : LicensePlate
 Foreign Keys : Outlet_ID

Attribute	Data Type	Description	Data Size
OutletID	Text	Unique identifier for MotorBike	15
License_plate	Text	To store License_plate of MotorBike	10
Mileage	Number	To store mileage of motobike	
BikeColour	Text	To store color of MotorBike	10
Ownership	Text	To store ownership of MotorBike	10
BikeModel	Text	To store model of MotorBike	15
BilkeValue	Number	To store cost of MotorBike	
MotoBike_Image	image	To store image of MotorBike	
Record Size		60	

Table 21 Motor bike table

Table Number : 22
 Table Name : Employee_Position
 Primary Key : Position_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
Position_ID	Text	Unique identifier for Positions	15
PositionStatus	Text	To store Position Status of Employee Position	12
Description	Text	To store Description of Employee Position	50
Position Name	Text	To store Position Name of Employee Position	20
Salary Range	Number	To store Salary Range of Employee Position	
Record Size		97	

Table 22 Employee position table

Table Number : 23
 Table Name : Manager
 Primary Key : Emp_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
Emp_ID	Text	Unique identifier for Managers	15
Experience	Number	To store Position Name of Employee Position	
Start date	date	To store Start date of Employee Position	
Record Size		15	

Table 23 Manager table

Table Number : 24
 Table Name : Cashier
 Primary Key : Emp_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
Emp_ID	Text	Unique identifier for Cashier	15
Shift Start Time	Time	To store shift start time of Cashier	
Shift End Time	Time	To store shift End time of Cashier	
Record Size		15	

Table 24 Cashier table

Table Number : 25
 Table Name : Dispatch staff
 Primary Key : Emp_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
Emp_ID	Text	Unique identifier for Dispatch staff	15
Shift Start Time	Time	To store shift start time of Dispatch staff	
Shift End Time	Time	To store shift End time of Dispatch staff	
Record Size		15	

Table 25 Dispatcher table

Table Number : 26
Table Name : UberEats
Primary Key : Order_ID
Foreign Keys : _

Attribute	Data Type	Description	Data Size
Order_ID	Text	Unique identifier for Order	15
Uber_ID	Text	To store uber item id	15
Record Size		30	

Table 26 Uber Eats table

Table Number : 27
Table Name : Table Reservation
Primary Key : Reservation_ID
Foreign Keys : Table_No, customer_tel

Attribute	Data Type	Description	Data Size
Reservation_ID	Text	To Unique identifier for reservation	15
customer_tel	Number	To Unique identifier for customer	10
Notes	Text	To store notes of table reservation	50
Reservation_date	Date	To store Reservation_date of table reservation	
Record Size		110	

Table 27 Table reservation table

Table Number : 28
 Table Name : Reserve_Table
 Primary Key : Reservation_ID, Table_No
 Foreign Keys : Reservation_ID, Table_No

Attribute	Data Type	Description	Data Size
Reservation_ID	Text	To Unique identifier for reservation	15
Table_No	Text	To Unique identifier for Order	10
NumofGuest	Number	To store number of guest of table reservation	
Reservation_Time	Time	To store Reservation_time of table reservation	
Record Size		35	

Table 28 Reserve Table table

Table Number : 29
 Table Name : Membership
 Primary Key : Membership_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
Membership_ID	Text	Unique identifier for Membership	15
Membership_Name	Text	To store Membership Name of Membership	15
MinOrder_Qty	Number	To store Minimum Order Quantity of Membership	
MaxOrder_Qty	Number	To store Maximum Order Quantity of Membership	
DiscountPercentage	Number	To store Discount Percentage of Membership	
Record Size		30	

Table 29 Membership table

Table Number : 30
 Table Name : Menu_Category
 Primary Key : MenuCategory_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
MenuCategory_ID	Text	Unique identifier for Menu Category	15
CategoryName	Text	To store Category Name of Menu Category	15
CategoryStatus	Text	To store Category Status of Menu Category	12
Category_Description	Text	To store Category Description of Menu Category	30
Record Size		72	

Table 30 Menu category table

Table Number : 31
 Table Name : Promotion_Type
 Primary Key : PromoType_ID
 Foreign Keys :

Attribute	Data Type	Description	Data Size
PromoType_ID	Text	Unique identifier for Promotion Category	15
PromoDescription	Text	To store Promotion Description of Promotion Category	30
PromoTypeStatus	Text	To store Promotion Type Status of Promotion Category	12
PromoTypeName	Text	To store Promotion Type Name of Promotion Category	20
Record Size		77	

Table 31 Promotion type table

Table Number : 32
 Table Name : Order_Type
 Primary Key : OrderType_ID
 Foreign Keys :

Attribute	Data Type	Description	Data Size
OrderType_ID	Text	Unique identifier for Order Type	15
OrderType_Description	Text	To store Order Type Description of Order type	20
OrderType_Availability	Text	To store Order Type Availability of Order type	12
OrderType_Name	Text	To store Order Type Name of Order type	15
Record Size		62	

Table 32 Order type table

Table Number : 33
 Table Name : Payment_Type
 Primary Key : PaymentType_ID
 Foreign Keys : _

Attribute	Data Type	Description	Data Size
Payment_Type_ID	Text	Unique identifier for Payment Type	15
Payment_Type_Description	Text	To store Payment Type Description of Payment type	20
Payment_Type_Availability	Text	To store Payment Type Availability of Payment type	12
Payment_Type_Name	Text	To store Payment Type Name of Payment type	20
Record Size			67

Table 33 Payment type table

Table Number : 34
 Table Name : ManagerQualification
 Primary Key : EmpID,qualification
 Foreign Key : EmpID

Attribute	Data Type	Description	Data Size
ManagerID	Text	Unique identifier for ManagerQualification	15
Qualifiacation	Text	Unique identifier for ManagerQualification	30
Record Size			45

Table 34 Manager qualification table

4.4 Report Layout and Design

Report layout Number: 01

Report Name: Restaurant feedback overview report

Description: Generates feedback report.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Restaurant Annual Feedback Report



Start Date : 2022/01/01 End Date : 2022/12/31

Year : 2022

Total Number of feedbacks: 616

Summary of all orders with feedback:

Order Number	Outlet Name	Order Type	Feedback	Comments
ODR0001	Wijerama	Dine In	Very good	Best order I have had
ODR0002	Kadawatha	Online Delivery	Good	This is a very good meal
ODR0003	Wijerama	Takeaway	Very good	Best order I have had
ODR0004	Kadawatha	Online Delivery	Good	This is a very good meal
ODR0005	Kadawatha	Dine In	Very good	Best order I have had
ODR0006	Wijerama	Takeaway	Good	This is a very good meal
ODR0007	Kadawatha	Dine In	Very good	Best order I have had
ODR0008	Moratuwa	Online Delivery	Good	This is a very good meal
ODR0009	Wijerama	Dine In	Very Bad	Not good order! The meal was undercooked and it was not fresh. The texture of the meat was bad and it smelled very bad like spoilt meat.
ODR0010	Moratuwa	Pickup	Good	This is a very good meal
ODR0011	Wijerama	Dine In	Very good	Best order I have had
ODR0012	Wijerama	Online Delivery	Good	This is a very good meal
ODR0013	Moratuwa	Takeaway	Very good	Not good order
ODR0014	Moratuwa	Online Delivery	Good	This is a very good meal
ODR0015	Wijerama	Dine In	Very good	Best order I have had

Report layout Number: 02

Report Name: Restaurant sales trend report

Description: Generate 5-year sales trend report

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

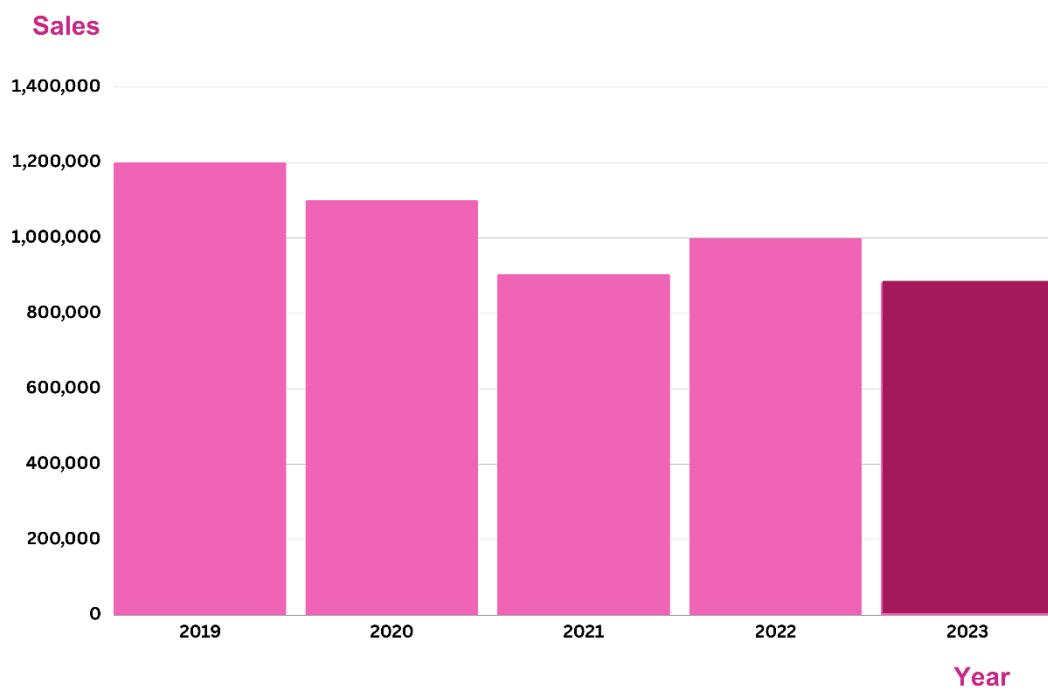
Restaurant Sales Trend Report



For: 5 years

Sales Trends for the past 5 years

	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023
Total Sales	1,200,500	1,100,250	905,000	1,000,000	884,500



Report layout Number: 03

Report Name: Outlet annual feedback report

Description: Generates feedback report annually for outlet

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Outlet Annual Feedback Report



Start Date : 2022/01/01 End Date : 2022/12/31 Outlet : Wijerama Year : 2022

Total Number of feedbacks: 200

Summary of all orders with feedback:

Order Number	Outlet Name	Order Type	Feedback	Comments
ODR0001	Wijerama	Dine In	Very good	Best order I have had
ODR0002	Kadawatha	Online Delivery	Good	This is a very good meal
ODR0003	Wijerama	Takeaway	Very good	Best order I have had
ODR0004	Kadawatha	Online Delivery	Good	This is a very good meal
ODR0005	Kadawatha	Dine In	Very good	Best order I have had
ODR0006	Wijerama	Takeaway	Good	This is a very good meal
ODR0007	Kadawatha	Dine In	Very good	Best order I have had
ODR0008	Moratuwa	Online Delivery	Good	This is a very good meal
ODR0009	Wijerama	Dine In	Very Bad	Not good order! The meal was undercooked and it was not fresh. The texture of the meat was bad and it smelled very bad like spoilt meat.
ODR0010	Moratuwa	Pickup	Good	This is a very good meal
ODR0011	Wijerama	Dine In	Very good	Best order I have had
ODR0012	Wijerama	Online Delivery	Good	This is a very good meal
ODR0013	Moratuwa	Takeaway	Very good	Not good order
ODR0014	Moratuwa	Online Delivery	Good	This is a very good meal
ODR0015	Wijerama	Dine In	Very good	Best order I have had

Report layout Number: 04

Report Name: Outlet annual sale report

Description: Generates sales report annually for outlet

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

The Outlet Annual Sales Report



Start Date : 2022/01/01 End Date : 2022/12/31 Outlet : Vijerama Year : 2022

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	120	180,000.00
PRO00002	Mexican Tacos	1550.00	120	186,000.00
PRO00003	Mexican Quesdila	1400.00	70	98,000.00
PRO00004	English Breakfast	1300.00	150	195,000.00
PRO00005	Sri Lanka Lunch	1000.00	90	90,000.00
PRO00006	Sri Lankan Breakfast	1200.00	100	12,000.00
PRO00007	Japanese Fried Rice	800.00	120	96,000.00
PRO00008	Chinese Fried Rice	1400.00	150	96,000.00
PRO00009	Chinese Soup	500.00	150	75,000.00
PRO00010	Japanese Sushi	2500.00	100	25,000.00
PRO00011	Sushi with Chicken	350.00	100	35,000.00
PRO00012	Chicken Lasagna	800.00	120	96,000.00
PRO00013	Japanese Puff pastry	2500.00	120	300,000.00
PRO00014	Chinese Rolls	800.00	100	80,000.00
PRO00015	Spring rolls	800.00	90	72,000.00
PRO00016	Sri Lankan fried rice	1000.00	80	80,000.00
PRO00017	Italian Pizza	2500.00	70	175,000.00

Total Sale 1,879,000.00

Report layout Number: 05

Report Name: Outlet monthly sale report

Description: Generates sales report monthly for outlet.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

The Outlet Monthly Sales Report



Start Date : 2022/11/01 End Date : 2022/11/30 Outlet : Vijerama Month : November

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	50	75,000.00
PRO00002	Mexican Tacos	1550.00	70	108,500.00
PRO00003	Mexican Quesdila	1400.00	40	56,000.00
PRO00004	English Breakfast	1300.00	50	65,000.00
PRO00005	Sri Lanka Lunch	1000.00	60	60,000.00
PRO00006	Sri Lankan Breakfast	1200.00	40	48,000.00
PRO00007	Japanese Fried Rice	800.00	30	24,000.00
PRO00008	Chinese Fried Rice	1400.00	50	70,000.00
PRO00009	Chinese Soup	500.00	50	25,000.00
PRO00010	Japanese Sushi	2500.00	30	75,000.00
PRO00011	Sushi with Chicken	350.00	35	12,250.00
PRO00012	Chicken Lasagna	800.00	55	44,000.00
PRO00013	Japanese Puff pastry	2500.00	30	75,000.00
PRO00014	Chinese Rolls	800.00	40	32,000.00
PRO00015	Spring rolls	800.00	45	36,000.00
PRO00016	Sri Lankan fried rice	1000.00	40	40,000.00
PRO00017	Italian Pizza	2500.00	35	87,500.00

Total Sale 933,250.00

Report layout Number: 06

Report Name: Outlet daily sale report

Description: Generates sales report daily for outlet

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

The Outlet Daily Sales Report



Outlet : Vijerama

Date : 2022/12/04

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	12	18,000.00
PRO00002	Mexican Tacos	1550.00	12	18,600.00
PRO00003	Mexican Quesdila	1400.00	7	9,800.00
PRO00004	English Breakfast	1300.00	15	19,500.00
PRO00005	Sri Lanka Lunch	1000.00	9	9,000.00
PRO00006	Sri Lankan Breakfast	1200.00	10	12,000.00
PRO00007	Japanese Fried Rice	800.00	12	9,600.00
PRO00008	Chinese Fried Rice	1400.00	15	21,000.00
PRO00009	Chinese Soup	500.00	15	7,500.00
PRO00010	Japanese Sushi	2500.00	10	25,000.00
PRO00011	Sushi with Chicken	350.00	10	3,500.00
PRO00012	Chicken Lasagna	800.00	12	9,600.00
PRO00013	Japanese Puff pastry	2500.00	12	30,000.00
PRO00014	Chinese Rolls	800.00	10	8,000.00
PRO00015	Spring rolls	800.00	9	7,200.00
PRO00016	Sri Lankan fried rice	1000.00	8	8,000.00
PRO00017	Italian Pizza	2500.00	7	17,500.00

Total Sale 233,800.00

Report layout Number: 07

Report Name: Restaurant best sold product report

Description: Generates top 5 product report.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

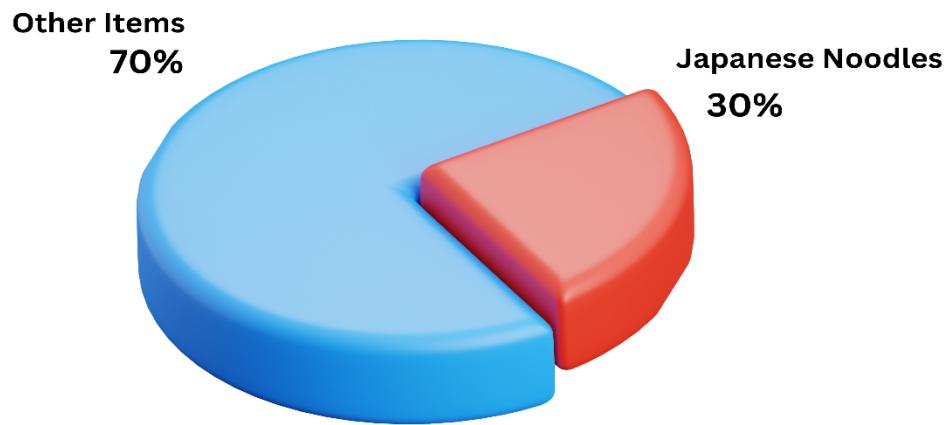
Restaurant Annual Best Selling Products



Start Date : 2022/01/01 End Date : 2022/12/31

Year : 2022

Rank	Best Sold Product	Unit Price (Rs.)	Total number of orders sold	Sale (Rs.)
1	Japanese Noodels	1500.00	245	367,500.00
2	Thosai	2000.00	240	480,000.00
3	Mexican Rice	1400.00	136	190,400.00
4	Taco	1000.00	50	50,000.00
5	Fried rice	2500.00	40	100,000.00



Sale from Top 5 Products 1,187,000.00

Figure 251 Restaurant best sold product report

Report layout Number: 08

Report Name: Restaurant annual sales report

Description: Generates sales report annually for restaurant.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Restaurant Annual Sales Report



Start Date : 2022/01/01 End Date : 2022/12/31

Year : 2022

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	120	180,000.00
PRO00002	Mexican Tacos	1550.00	120	186,000.00
PRO00003	Mexican Quesdila	1400.00	70	98,000.00
PRO00004	English Breakfast	1300.00	150	195,000.00
PRO00005	Sri Lanka Lunch	1000.00	90	90,000.00
PRO00006	Sri Lankan Breakfast	1200.00	100	12,000.00
PRO00007	Japanese Fried Rice	800.00	120	96,000.00
PRO00008	Chinese Fried Rice	1400.00	150	210,000.00
PRO00009	Chinese Soup	500.00	150	75,000.00
PRO00010	Japanese Sushi	2500.00	100	25,000.00
PRO00011	Sushi with Chicken	350.00	100	35,000.00
PRO00012	Chicken Lasagna	800.00	120	96,000.00
PRO00013	Japanese Puff pastry	2500.00	120	300,000.00
PRO00014	Chinese Rolls	800.00	100	80,000.00
PRO00015	Spring rolls	800.00	90	72,000.00
PRO00016	Sri Lankan fried rice	1000.00	80	80,000.00
PRO00017	Italian Pizza	2500.00	70	175,000.00

Total Sale 2,005,000.00

Report layout Number: 09

Report Name Restaurant monthly sales report

Description: Generates sales report monthly for restaurant.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Restaurant Monthly Sales Report



Start Date : 2022/11/01 End Date : 2022/11/30

Month : November

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	49	73,500.00
PRO00002	Mexican Tacos	1550.00	55	85,250.00
PRO00003	Mexican Quesdila	1400.00	54	75,600.00
PRO00004	English Breakfast	1300.00	50	65,000.00
PRO00005	Sri Lanka Lunch	1000.00	25	25,000.00
PRO00006	Sri Lankan Breakfast	1200.00	39	12,000.00
PRO00007	Japanese Fried Rice	800.00	36	28,800.00
PRO00008	Chinese Fried Rice	1400.00	33	46,200.00
PRO00009	Chinese Soup	500.00	35	17,500.00
PRO00010	Japanese Sushi	2500.00	24	60,000.00
PRO00011	Sushi with Chicken	350.00	54	18,900.00
PRO00012	Chicken Lasagna	800.00	31	24,800.00
PRO00013	Japanese Puff pastry	2500.00	48	120,000.00
PRO00014	Chinese Rolls	800.00	26	20,800.00
PRO00015	Spring rolls	800.00	24	19,200.00
PRO00016	Sri Lankan fried rice	1000.00	30	30,000.00
PRO00017	Italian Pizza	2500.00	25	62,500.00

Total Sale **785,050.00**

Report layout Number: 10

Report Name: Restaurant daily sales report

Description: Generates sales report daily for restaurant.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Restaurant Daily Sales Report



Date : 2022/12/04

Product ID	Product Name	Unit Price (Rs.)	Quantity Sold	Sale (Rs.)
PRO00001	Japanese Soba	1500.00	9	13,500.00
PRO00002	Mexican Tacos	1550.00	15	23,250.00
PRO00003	Mexican Quesdila	1400.00	14	19,600.00
PRO00004	English Breakfast	1300.00	12	15,600.00
PRO00005	Sri Lanka Lunch	1000.00	25	25,000.00
PRO00006	Sri Lankan Breakfast	1200.00	20	24,000.00
PRO00007	Japanese Fried Rice	800.00	16	12,800.00
PRO00008	Chinese Fried Rice	1400.00	15	21,000.00
PRO00009	Chinese Soup	500.00	15	7,500.00
PRO00010	Japanese Sushi	2500.00	14	35,000.00
PRO00011	Sushi with Chicken	350.00	24	8,400.00
PRO00012	Chicken Lasagna	800.00	21	24,800.00
PRO00013	Japanese Puff pastry	2500.00	18	16,800.00
PRO00014	Chinese Rolls	800.00	20	16,000.00
PRO00015	Spring rolls	800.00	14	11,200.00
PRO00016	Sri Lankan fried rice	1000.00	20	20,000.00
PRO00017	Italian Pizza	2500.00	20	50,000.00

Total Sale 344,450.00

Report layout Number: 11

Report Name: Restaurant annual feedback summary report

Description: Generates feedback summary report for restaurant.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Restaurant Annual Feedback Overview Report



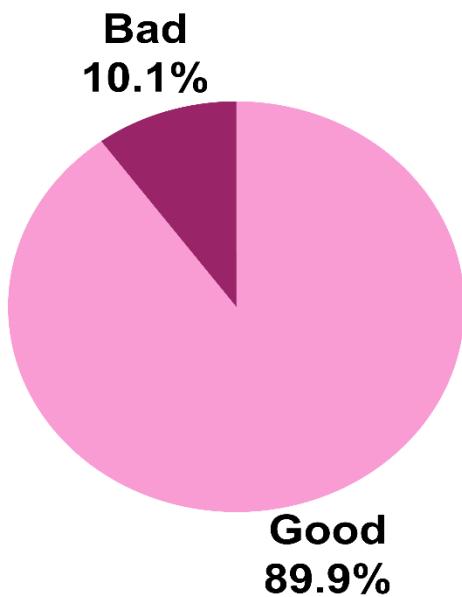
Start Date : 2022/01/01 End Date : 2022/12/31

Year : 2022

Total Number of feedbacks: 616

Number of feedback per feedback type

Feedback	Number of feedback given	Percentage (%)
Very Good	234	39.00%
Good	230	38.33%
Average	100	16.67%
Bad	32	5.33%
Very Bad	20	0.66%



Positive feedbacks : 464

Negative feedbacks : 52

Report layout Number: 12

Report Name: Restaurant vip room earning report

Description: Generates restaurant vip room earnings

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

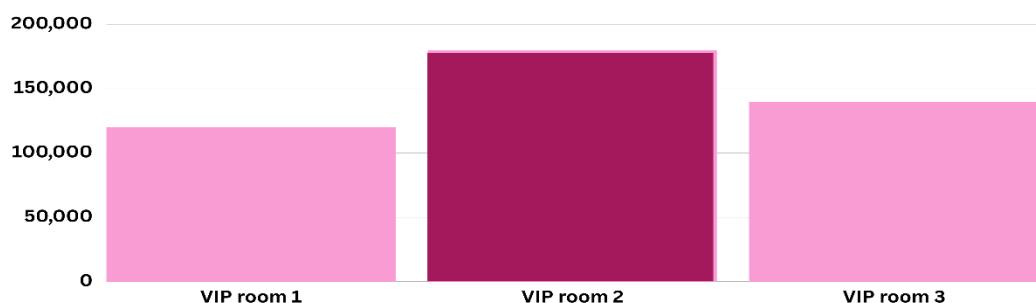
Restaurant VIP Room Booking Earning Report



Start Date : 2022/01/01 End Date : 2022/12/31

Year : 2022

VIP Room Type	No.of Bookings	Room Price (Rs.)	Total Booking hours	Earning (Rs.)
VIP Room 1	30	1000.00	120	120,000.00
VIP Room 2	40	1500.00	120	180,000.00
VIP Room 3	20	2000.00	70	140,000.00



Total Earning 440,000.00

Report layout Number: 13

Report Name: Outlet vip room earning report

Description: Generates outlet vip room earnings.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Outlet VIP Room Booking Earning Report



Start Date : 2022/01/01

End Date : 2022/12/31

Outlet : Wijerama

Year : 2022

VIP Room Type	No.of Bookings	Room Price (Rs.)	Total Booking hours	Earning (Rs.)
VIP Room 1	30	1000.00	60	60,000.00
VIP Room 2	40	1500.00	100	150,000.00
VIP Room 3	20	2000.00	40	80,000.00



Total Earning 290,000.00

Report layout Number: 14

Report Name: Outlet annual feedback summary report

Description: Generates feedback summary report for outlet.

Pancetta (PVT).LTD
No 95 wijerama mawatha
Colombo 07, Sri Lanka.
Tel : 011 310 8456

Outlet Annual Feedback Overview Report



Start Date : 2022/01/01

End Date : 2022/12/31

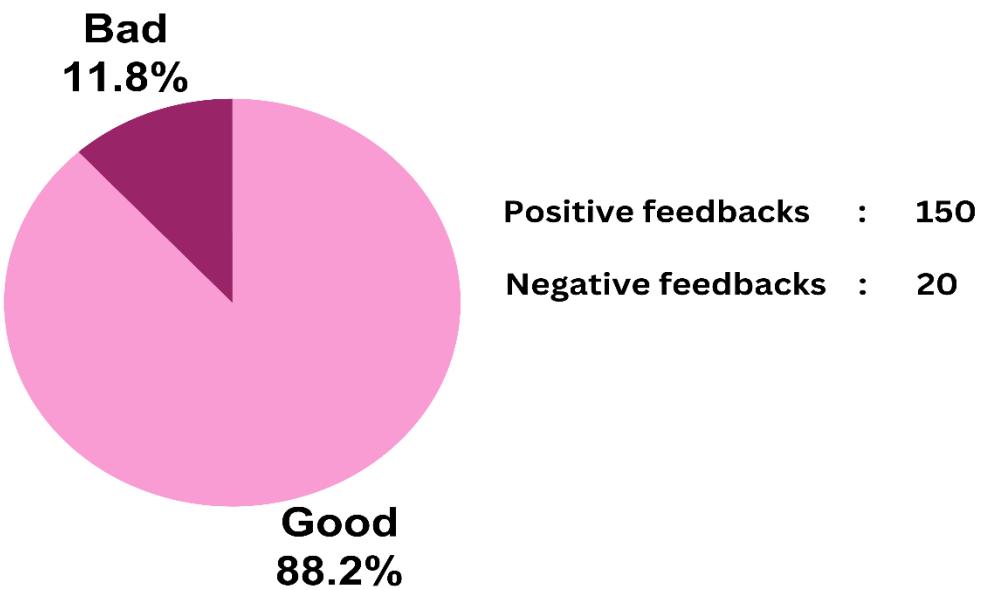
Outlet : Wijerama

Year : 2022

Total Number of feedbacks: 200

Number of feedback per feedback type

Feedback	Number of feedback given	Percentage (%)
Very Good	100	50.00%
Good	50	25.00%
Average	30	15.00%
Bad	15	07.50%
Very Bad	5	02.50%



Report layout Number: 15

Report Name: Bill report

Description: Generates bill report



Take Away

Invoice No : Bill0000015

Cashier : Sarith

Date : 2023/11/30

Time : 11.28.33pm

Item Name	Unit Price	Qty	Amount
Paneer Masala	1500.00	1	1500.00
Coke 400ml	250.00	2	500.00
Japanese Noodels	2000.00	1	2000.00
Vegi Salade	800.00	1	800.00

Total Bill	:	5100.00
Service Chargers	:	300.00

Payment Method	:	Cash
Paid Amount	:	5500.00
Balance	:	400.00

Thank You For Choosing Us

.....Come Again.....



Figure 259 Bill report

5 Conclusion

In this project, interfaces, implementation strategies, UML diagrams and database designs have been drawn, illustrated and provided for all the employees in the restaurant that support multiple outlets. The development of this system will move the restaurant to a new step forward through the computerized system as this will provide optimal solutions through technology instead of paper materials. Any user of the restaurant can manipulate, use and gather data and information when required at any time for effective restaurant management at Pancetta PVT LTD.

6 References

(JavaTpoint, JavaTpoint, 2011)

References (JavaTpoint, JavaTpoint, 2011)

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7 Appendices



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✉️ Pancettacolombo7@gmail.com
📍 95 wijerama Mawatha, Colombo 07



The Course Director,
School of Computing,
National Institute of Business Management,
No 120/3,
Wijerama Mawatha,
Colombo 07.

28/08/2023.

Dear Sir/Madam,

Restaurant Management System

This is to inform you that our company has approved the solution which was given to our restaurant management system by the four students of NIBM.

1. CODCSD22.2F-055
2. CODCSD22.2F-003
3. CODCSD22.2F-018
4. CODCSD22.2F-042

The current system is a partially implemented computerized system which was mainly focused on POS (Point-Of-Sale) which was a huge problem to manage the overall restaurant system. Our company appreciated and approved the computerized system which was proposed by the students. They have often visited our restaurant, gathered information and had discussions with us about our current system.

Collaborating with students marks a fresh venture for our company, and we are genuinely content to offer our support throughout the entirety of the project.

Your Sincerely,
PANCETTA (PVT) LTD.
PV.00266995

.....
Director

N.D. Wijayawardena
Director
Pancetta (pvt) LTD