



Beauty Craft

REDEFINING YOUR BEAUTY

Integrated Salon Management System

Final Report

By CS group 30

Details of the Group

CS Group 30

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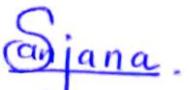
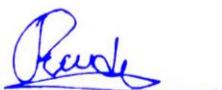
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1. System Overview

Beauty Craft is an integrated management system for beauty salons. System mainly focuses on efficient and user-friendly reservation management as well as managing organizational work of the salon requiring minimum user effort and time. The ultimate goal is to maximize the customer satisfaction and increase the revenue by that. The system consists of a set of functionalities apart from the core functionality reservation management.

- Service management
- Resources management
- Salary calculation
- Leaves handling
- Report generation

There are six users who'll be interacting with the system at different user levels.

- Customer
- Receptionist
- Service provider
- Manager
- Owner
- System admin

2. Use Case Diagram and Descriptions

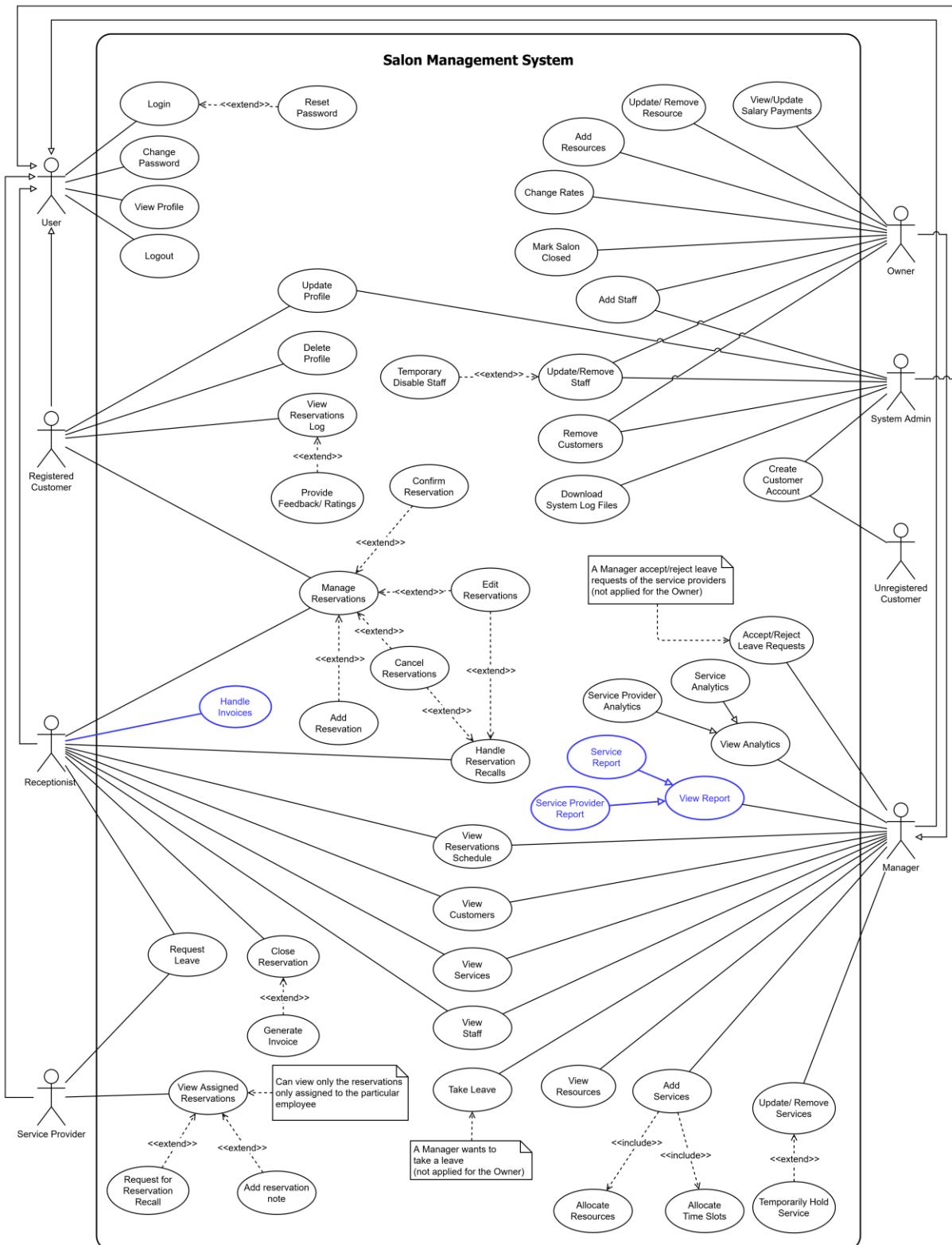


Figure 1: Use Case Diagram

Link to the Use Case Diagram: https://bit.ly/Use_Case_Diagram_CS30_Updated

Use Case	Create Customer Account
Use Case ID	1
Actors	Unregistered Customer, System Admin
Description	Unregistered customers and System Admin can create a customer account.
Precondition	Customer is not registered in the system before.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Register” option. 2. Enter registration details. 3. Verify contact number. 4. System updates the database and notifies.
Post Condition	Customer Account created.
Alternative Flows	<p>Entered invalid data</p> <ul style="list-style-type: none"> • System displays an error • Customer can enter data again <p>Incorrect contact no</p> <ul style="list-style-type: none"> • PIN is not received • Customer can enter data again <p>Incorrect PIN</p> <ul style="list-style-type: none"> • PIN verification fails <p>Customer can resend PIN again</p>

Table 1: Create Customer Account (Use Case Description)

Use Case	Login
Use Case ID	2
Actors	Registered customer, Service provider, Manager, Owner, Receptionist, System Admin
Description	All users excluding unregistered customers can log in to the system.
Precondition	Users should be registered in the system before login.
Main Flow	<ol style="list-style-type: none"> 1. Users enter their contact numbers and password. 2. The system validates the contact number and password. 3. System display “Login successfully”
Post Condition	The user is logged into the system.
Alternative Flows	<p>Provided contact number or password is invalid</p> <ul style="list-style-type: none"> • An error message is displayed. • Users can re-enter credentials or reset passwords. • Passwords must be reset when the user enters an invalid password four times consecutively.

Table 2: Login (Use Case Description)

Use Case	Change Password
Use Case ID	3
Actors	Registered Customer, Employee, Manager, Owner, Receptionist, System Admin
Description	User can change their current password.
Precondition	Logged in through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. The user clicks the “Change password” option. 2. System asks for the current password. 3. The user enters the current password. 4. The system validates the current password. 5. System asks for the new password two times. 6. The system validates and updates the new password. 7. System display “Password Changed Successfully”
Post Condition	Password has been changed.
Alternative Flows	<p>Entered current password is invalid.</p> <ul style="list-style-type: none"> • The system displays an error message, and cannot change the password. The user can try again. <p>If the two entries of the new password are not identical an error message is displayed.</p> <ul style="list-style-type: none"> • The user/System Admin can re-enter the new password.

Table 3: Change Password (Use Case Description)

Use Case	View profile
Use Case ID	4
Actors	Registered Customer, Employee, Manager, Owner, Receptionist, System Admin
Description	User/System Admin can view their profiles and check their profile details.
Precondition	Logged in through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. User/System Admin click the “profile” option. 2. System displays their profile details.
Post Condition	None
Alternative Flows	None

Table 4: View Profile (Use Case Description)

Use Case	Logout
Use Case ID	5
Actors	Registered Customer, Employee, Manager, Owner, Receptionist, System Admin
Description	User/System admin can log out their accounts.
Precondition	Logged in through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. User/System admin can click the “Logout” option. 2. User/System Admin logout by the system. 3. Display “Log out successfully”
Post Condition	User/System admin is log out by the system.
Alternative Flows	None

Table 5: Logout (Use Case Description)

Use Case	Update Profile
Use Case ID	6
Actors	Registered Customer, System Admin
Description	Already registered customer/System Admin can update profile details which were entered in the initial registration process
Precondition	Already registered as a customer in the system. Logged in as a registered customer or System Admin.
Main Flow	<ol style="list-style-type: none"> 1. Reg. Customer/Admin selects the “Update Profile” option. 2. Reg. Customer/Admin makes necessary changes and proceeds. 3. System validates the changes. 4. If the contact number is changed it is verified by an SMS pin. 5. System updates the database and notifies.
Post Condition	Profile data has been updated.
Alternative Flows	Data entered are invalid <ul style="list-style-type: none"> • Error message is displayed. Reg. Customer/system Admin can re-enter or cancel.

Table 6: Update Profile (Use Case Description)

Use Case	Delete Profile
Use Case ID	7
Actors	Registered Customer
Description	Registered customer can delete their profile
Precondition	Customer is logged in to the system.
Main Flow	<ol style="list-style-type: none"> 1. Reg. Customer selects the “Delete Profile” option. 2. System gets a confirmation from the Reg. Customer. 3. System checks whether the customer does not have any upcoming reservations. 4. If not, Reg. Customer’s password is verified. 5. System updates the database and notifies.
Post Condition	Reg. Customer’s profile is removed.
Alternative Flows	<p>The Customer has upcoming reservations.</p> <ul style="list-style-type: none"> • Error is displayed and the process is aborted. <p>Entered invalid password.</p> <ul style="list-style-type: none"> • Error message is displayed. <p>Reg. Customer can re-enter or cancel.</p>

Table 7: Delete Profile (Use Case Description)

Use Case	View Reservations Log
Use Case ID	8
Actors	Registered Customer
Description	Registered customer can view their history of reservations.
Precondition	Customer is logged in to the system.
Main Flow	<ol style="list-style-type: none"> 1. Reg. Customer selects the “Reservations Log” option. 2. System retrieves and displays Reg. Customer’s reservations.
Post Condition	List of reservations is displayed.
Alternative Flows	<p>Provide feedback to the salon.</p> <p>Provide ratings for the employee.</p>

Table 8: View Reservations Log (Use Case Description)

Use Case	Add Reservation
Use Case ID	9
Actors	Registered Customer, Unregistered Customer, Receptionist
Description	A reservation is placed to get a service for the customer.
Precondition	Logged in as a receptionist/ a registered customer or, Not logged in. (Placing reservation as an unregistered customer)
Main Flow	<ol style="list-style-type: none"> 1. Select the “Add Reservation” option. 2. <ol style="list-style-type: none"> a. Receptionist enter customer details or, b. Registered Customer proceeds or, c. Unregistered Customer proceeds 3. Select Category and Service. 4. Select an employee if required. 5. Select Date and Time. 6. The reservation is placed. 8. Confirm & proceed.
Post Condition	Reservation is placed and notifications are sent to the customer and employee.
Alternative Flows	If unregistered customers contact no is invalid <ul style="list-style-type: none"> • An error message is displayed and can re-enter again.

Table 9: Add Reservation (Use Case Description)

Use Case	Edit Reservation
Use Case ID	10
Actors	Registered Customer, Unregistered Customer, Receptionist
Description	A previously placed reservation can be edited
Precondition	Logged in as a receptionist/ a registered customer or, Not logged in. (Editing the reservation as an unregistered customer)
Main Flow	<p>Either of the following 3 can be followed set of activities.</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Receptionist selects a reservation. b. Make changes in the reservation. c. Confirm and proceed. 2. <ol style="list-style-type: none"> a. Reg. Customer selects the reservation from his/her reservation list. b. Make changes in the reservation. c. Confirm and proceed. 3. <ol style="list-style-type: none"> a. Unregistered customer enters ReservationID and contact number to access the reservation. b. Make changes in the reservation. c. Confirm and proceed.
Post Condition	The reservation is modified. Employee is informed about the changes.
Alternative Flows	<p>If unregistered customer enters invalid ReservationID and contact no</p> <p>An error message is displayed and can re-enter again.</p>

Table 10: Edit Reservation (Use Case Description)

Use Case	Cancel Reservation
Use Case ID	11
Actors	Registered Customer, Unregistered Customer, Receptionist
Description	A previously placed reservation is getting cancelled.
Precondition	Logged in as a receptionist/ a registered customer or, Not logged in. (Cancelling reservation as a unregistered customer)
Main Flow	<p>Either of the following 3 can be the followed set of activities.</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Receptionist selects a reservation. b. Mark cancellation. c. Confirm and proceed. 2. <ol style="list-style-type: none"> a. Reg. Customer selects the reservation from his/her reservation list. b. Mark cancellation. c. Confirm and proceed. 3. <ol style="list-style-type: none"> a. Unregistered customer enters ReservationID and contact number to access the reservation. b. Mark cancellation. c. Confirm and proceed.
Post Condition	The reservation is cancelled. The Employee is informed about the cancellation.
Alternative Flows	If unregistered customer enters invalid ReservationID and contact no. <ul style="list-style-type: none"> • An error message is displayed and can re-enter again.

Table 11: Cancel Reservation (Use Case Description)

Use Case	Confirm Reservation
Use Case ID	12
Actors	Registered Customer, Unregistered Customer, Receptionist
Description	Confirmation of reservations which have been placed more than 7 days prior.
Precondition	Logged in as a receptionist or Customer has received the confirmation link
Main Flow	<p>Either of the following 3 can be the followed set of activities.</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Receptionist selects a reservation. b. Customer is contacted. c. Reservation is marked as confirmed or cancelled. 2. <ol style="list-style-type: none"> a. Customer contacts the receptionist. b. Receptionist selects the reservation. c. Reservation is marked as confirmed or cancelled. 3. <ol style="list-style-type: none"> a. Customer selects the received link and visits the site. b. Reservation is marked, confirmed or cancelled by the customer.
Post Condition	Reservation is marked, confirmed or cancelled. The employee is informed if cancelled.
Alternative Flows	None

Table 12: Confirm Reservation (Use Case Description)

Use Case	View Assigned Reservations
Use Case ID	13
Actors	Service provider
Description	Service provider can check both upcoming and past reservation details.
Precondition	Logged in through a service provider account.
Main Flow	<ol style="list-style-type: none"> 1. Service provider click the “Reservations” option. 2. Service provider select the date. 3. System displays the reservation list. 4. Service provider can select one for check the In-detail view of the reservation or service provider can Cancel the process. 5. Then service provider can recall that reservation, edit the reservation note or cancel the process. <ol style="list-style-type: none"> a. If recall <ol style="list-style-type: none"> i. Service provider select “Recall” option. ii. System checks the remaining days. iii. If remaining days are greater than two, Employee can mention the reason. iv. System record request details and display “Request sent successfully” b. If edit reservation note <ol style="list-style-type: none"> i. Service provider add or edit the note. ii. Service provider mark as save. iii. System saves the changes and displays reservation note added successfully.
Post Condition	None
Alternative Flows	When recall the reservation is in less than two days Display “Cannot remove the reservation”

Table 13: View Upcoming Reservations (Use Case Description)

Use Case	Request a leave
Use Case ID	14
Actors	Service provider, Receptionist
Description	Service provider and receptionists can request leave through the system.
Precondition	Logged in through an Employee or Receptionist Account.
Main Flow	<ol style="list-style-type: none"> 3. Service provider/receptionists select “Request leave option”. 4. Service provider/receptionists select a date. 5. System checks the ability to request that day. 6. Service provider/receptionists select a leave type. 7. System checks the ability to request that leave request. 8. If it is possible to request leave, Service provider/Receptionists can mention the reason. 9. System record leaves details. 10. System display “Leave request successfully”
Post Condition	Leave request is sent.
Alternative Flows	<p>Requested day already has reservations.</p> <ul style="list-style-type: none"> • Cannot request that day

Table 14: Request a Leave (Use Case Description)

Use Case	Handle Invoices
Use Case ID	15
Actors	Receptionist
Description	Receptionist can create refund invoices and void existing invoices.
Precondition	Logged in through an Receptionist Account.
Main Flow	<ol style="list-style-type: none"> 1. If refund invoice. <ol style="list-style-type: none"> a. Select the invoice to refund. b. Select “Refund invoice” option. 2. If void existing invoice <ol style="list-style-type: none"> a. Select the invoice to void. b. Select “Void invoice” option.
Post Condition	Refund invoice is created or the invoices is voided.
Alternative Flows	

Table 15: Handle Invoices (Use Case Description)

Use Case	Handle Reservation Recall
Use Case ID	16
Actors	Receptionist
Description	Edit or Cancel Reservations depending on the customers response, if the assigned employee has requested for a recall.
Precondition	Logged in as a receptionist. A Reservation Recall has been requested.
Main Flow	<ol style="list-style-type: none"> 1. Receptionist selects a request. 2. System displays the in-detail request made by the employee. 3. Receptionist decides whether to consider. 4. If considered, the receptionist contacts the customer to check his/her decision. 5. Receptionist proceeds with the reservation edit or cancellation.
Post Condition	Recall request response is informed to the employee.
Alternative Flows	<ul style="list-style-type: none"> • Request is rejected if the receptionist decides not to consider.

Table 16: Handle Reservation Recall (Use Case Description)

Use Case	Close Reservation
Use Case ID	17
Actors	Receptionist
Description	Reservation is marked as closed. It can be completed or incomplete.
Precondition	Logged in as a receptionist A Reservation is required to be closed.
Main Flow	<ol style="list-style-type: none"> 1. Receptionist selects the reservation. 2. System retrieves and displays the reservation information 3. <ul style="list-style-type: none"> a. Mark as incomplete. b. Mark as complete. 4. Invoice is generated if marked as complete.
Post Condition	Reservation is closed and marked as completed or incomplete.
Alternative Flows	None

Table 17: Close Reservation (Use Case Description)

Use Case	View Reservations
Use Case ID	18
Actors	Manager/Owner/Receptionist
Description	Manager/Owner/Receptionist can view reservation schedule of the system
Precondition	Logged into the system through Manager/Owner/Receptionist account
Main Flow	<ol style="list-style-type: none"> 1. Select the “Reservations” option. 2. Display all reservations details. 3. Search and select a Reservations. 4. Display the reservation details.
Post Condition	None
Alternative Flows	None

Table 18: View Reservations (Use Case Description)

Use Case	View Customer
Use Case ID	19
Actors	Manager/Owner/Receptionist
Description	Manager/Owner/Receptionist can view customers of the system
Precondition	Logged into the system through Manager/Owner/Receptionist account
Main Flow	<ol style="list-style-type: none"> 1. Select the “Customers” option. 2. Display all customer details 3. Search and select the customer. 4. Display customer details.
Post Condition	None
Alternative Flows	None

Table 19: View Customer (Use Case Description)

Use Case	View Staff
Use Case ID	20
Actors	Manager/Owner/Receptionist
Description	Manager/Owner/Receptionist can view the staff of the system
Precondition	Logged into the system through Manager/Owner/Receptionist account
Main Flow	<ol style="list-style-type: none"> 1. Select the “Staff Members” option. 2. Display all staff details. 3. Search and select the staff member. 4. Display staff member details.
Post Condition	None
Alternative Flows	None

Table 20: View Staff (Use Case Description)

Use Case	View Services
Use Case ID	21
Actors	Manager/Owner/Receptionist
Description	Manager/Owner/Receptionist can view services of the system
Precondition	Logged into the system through Manager/Owner/Receptionist account
Main Flow	<ol style="list-style-type: none"> 1. Select the “Services” option. 2. Display all service details. 3. Search and select the service. 4. Display service details.
Post Condition	None
Alternative Flows	None

Table 21: View Services (Use Case Description)

Use Case	View Resources
Use Case ID	22
Actors	Manager/Owner
Description	Manager/Owner can view resources of the system
Precondition	Logged into the system through Manager/Owner/Receptionist account
Main Flow	<ol style="list-style-type: none"> 1. Select the “View Resources” option. 2. Display all resource details. 3. Search and select the resource. 4. Display resource records.
Post Condition	None
Alternative Flows	None

Table 22: View Resources (Use Case Description)

Use Case	Accept/Reject Leave Requests
Use Case ID	23
Actors	Manager
Description	Manager can grant leave of the Receptionist
Precondition	Receptionist has requested a leave. The Manager should log into the system through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Leave Request” option. 2. If evidence time > 5 of medical leaves, change the state and leave type 3. Display requested leaves. 4. Select a leave request. 5. Display leave records and leave counts. 6. Manager accept or reject the leave and mark as an accepted or rejected leave. 7. Update leave records.
Post Condition	Update the leave records of the system.
Alternative Flows	None

Table 23: Accept/Reject Leave Request (Use Case Description)

Use Case	View Analysis
Use Case ID	24
Actors	Manager/Owner
Description	Manager/Owner can view analytical details of the system.
Precondition	Manager/Owner should log into the system through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Analytics” option. 2. Select “Overall analysis” or “Service analysis” or “Employee analysis” option. 3. Display the analytical details.
Post Condition	None
Alternative Flows	None

Table 24: View Analysis (Use Case Description)

Use Case	View Overall Analysis Details Parent 24	
Use Case ID	25	
Actors	Manager/Owner	
Description	Manager/Owner can view overall analytical details of the system.	
Precondition	Manager/Owner should log into the system through their accounts.	
Main Flow	<ol style="list-style-type: none"> 1. Select the “Overall Analysis” option. 2. Display overall analytical details of the system. 	
Post Condition	None	
Alternative Flows	None	

Table 25: View Overall Analysis Details Parent 24 (Use Case Description)

Use Case	View Service Analysis Details Parent 24	
Use Case ID	26	
Actors	Manager/Owner	
Description	Manager/Owner can view analytical details of the services.	
Precondition	Manager/Owner should log into the system through their accounts.	
Main Flow	<ol style="list-style-type: none"> 1. Select the “Service Analysis” option. 2. Select the service and month range. 3. Display details regarding the service. 	
Post Condition	None	
Alternative Flows	None	

Table 26: View Service Analysis Details Parent 24 (Use Case Description)

Use Case	View Employee Analysis Details Parent 24	
Use Case ID	27	
Actors	Manager/Owner	
Description	Manager/Owner can view analytical details of the employees.	
Precondition	Manager/Owner should log into the system through their accounts.	
Main Flow	<ol style="list-style-type: none"> 1. Select the “Employee Analysis” option. 2. Select the employee, service and month range. 3. Display the details regarding the employee. 	
Post Condition	None	
Alternative Flows	None	

Table 27: View Employee Analysis Details Parent 24 (Use Case Description)

Use Case	View Reports
Use Case ID	28
Actors	Manager/Owner
Description	Manager/Owner can view reports of the system.
Precondition	Manager/Owner should log into the system through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Analytics” option. 2. Select “Service Report” or “Service Provider Report” option. 3. Display the report details.
Post Condition	None
Alternative Flows	None

Table 28:View Reports (Use Case Description)

Use Case	View Service Report Parent 28
Use Case ID	29
Actors	Manager/Owner
Description	Manager/Owner can view service report.
Precondition	Manager/Owner should log into the system through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Service Report” option. 2. Select the month. 3. Display the service report details.
Post Condition	None
Alternative Flows	None

Table 29: View Service Report Parent 28 (Use Case Description)

Use Case	View Service Provider Report Parent 28
Use Case ID	30
Actors	Manager/Owner
Description	Manager/Owner can view service provider report.
Precondition	Manager/Owner should log into the system through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Service Provider Report” option. 2. Select the month. 3. Display the service provider report details.
Post Condition	None
Alternative Flows	None

Table 30:View Service Provider Report Parent 28 (Use Case Description)

Use Case	Add Services
Use Case ID	31
Actors	Manager/Owner
Description	Manager/Owner can add services to the system
Precondition	Logged into the system through Manager/Owner account
Main Flow	<ol style="list-style-type: none"> 1. Select the “New Service” option. 2. Add service name, customer category, type, price. 3. Select employees. 4. Add durations, resources and quantity to each slot and intervals. 5. Validate entered data. 6. Add the service to the system.
Post Condition	New service is added to the system.
Alternative Flows	<p>Invalid details are added</p> <ul style="list-style-type: none"> • Display an error message • Give a chance to reenter the details.

Table 31: Add Services (Use Case Description)

Use Case	Update/Remove Services
Use Case ID	32
Actors	Manager/Owner
Description	Manager/Owner can update, hold, disable and remove services of the system
Precondition	Logged into the system through Manager/Owner account
Main Flow	<ol style="list-style-type: none"> 1. Select the “Services” option. 2. Select the service. 3. If the manager/owner wants to Update the service. <ol style="list-style-type: none"> a. Update the selected service details. b. Validate updated details. c. Update the system. 4. Else. <ol style="list-style-type: none"> a. If the manager/owner wants to Hold the service. <ol style="list-style-type: none"> i. Select “Hold” option. b. If the manager/owner wants to Delete the service <ol style="list-style-type: none"> i. Select “Delete” option c. Confirm and proceed. 5. Update database.
Post Condition	Update the system after update.
Alternative Flows	<p>Invalid modification is done</p> <ul style="list-style-type: none"> • Display an error message • Give a chance to update the details.

Table 32: Update/Remove Services (Use Case Description)

Use Case	Take Leave
Use Case ID	33
Actors	Manager
Description	Manager can take leaves from the system
Precondition	Manager wants to take a leave. The Manager/Owner should log into the system through their accounts.
Main Flow	<ol style="list-style-type: none"> 1. Select the “Take Leave” option. 2. Display leaves records. 3. If Employee has got leaves more than the limit <ul style="list-style-type: none"> a. Display “Leave limit has exceeded” 4. Else Employee has got leaves less than the limit <ul style="list-style-type: none"> a. Display no of remaining leaves 5. Select the date, type and put a reason. 6. If the date and type are not valid <ul style="list-style-type: none"> a. Display “error messages” 7. Else <ul style="list-style-type: none"> a. Mark as a leave. b. Update the no of leaves.
Post Condition	Update the leave records in the system.
Alternative Flows	None

Table 33: Take Leave (Use Case Description)

Use Case	Add staff
Use Case ID	34
Actors	Owner, System Admin
Description	Adding new staff members
Precondition	Logged into the system as owner or System Admin.
Main Flow	<ol style="list-style-type: none"> 1. Select “Add staff” option. 2. Enter staff details and type. 3. Add Staff. 4. Issue the Staff-Id and password.
Post Condition	New staff members were added successfully.
Alternative Flows	Entered invalid data <ul style="list-style-type: none"> • Display an error message • Can enter again

Table 34: Add Staff (Use Case Description)

Use Case	Update/Remove/Disable Staff
Use Case ID	35
Actors	Owner, System Admin
Description	Update staff members' details, remove staff members, Disable staff members.
Precondition	Logged into the system as owner or System Admin
Main Flow	<ol style="list-style-type: none"> 1. Select “Update/Remove/Disable Staff members”. 2. Search and select the staff member. 3. If updating, <ol style="list-style-type: none"> a. Make changes. b. The system validates changes. c. System updates database. 4. Else if removing, <ol style="list-style-type: none"> i. If the service provider has an upcoming reservation denied the request to delete. ii. Else remove the service provider. b. Else remove the staff member. 5. Else if Disable <ol style="list-style-type: none"> a. Disable the staff member
Post Condition	Updated/Removed staff successfully
Alternative Flows	If there are pending works reject the delete request

Table 35: Update/Remove/Disable Staff (Use Case Description)

Use Case	Remove Customer
Use Case ID	36
Actors	Owner, System Admin
Description	Owner and System Admin can remove or view customers.
Precondition	Logged into the system as owner or System Admin.
Main Flow	<ol style="list-style-type: none"> 1. Select the Remove Customer option. 2. Search & select the customer. 3. Check whether the customer has upcoming reservations. <ol style="list-style-type: none"> a. If the removing customer has upcoming reservations then those reservations will be canceled after being removed. 4. Else delete the customer.
Post Condition	Deleted or viewed the customer.
Alternative Flows	Entered invalid data <ul style="list-style-type: none"> • Customer deleting/ viewing failed • Re-enter the details

Table 36: Remove Staff (Use Case Description)

Use Case	View/Update Salary Payments
Use Case ID	37
Actors	Owner
Description	Generating salary reports of the employees
Precondition	Logged into the system as the owner
Main Flow	<ol style="list-style-type: none"> 1. Select the “View/Update Salary Payment” option. 2. The owner can view the last generated salary report. 3. The owner can update salary payment logs and view an in-detailed salary statement.
Post Condition	Viewed/Updated monthly salary reports.
Alternative Flows	None

Table 37: View/Update Salary Payments (Use Case Description)

Use Case	Add Resources
Use Case ID	38
Actors	Owner
Description	Add resources to the salon
Precondition	Logged into the system as the owner
Main Flow	<ol style="list-style-type: none"> 1. Select the “Add resources” option 2. Add resource 3. Enter resource details and add/select a type
Post Condition	Resource added successfully
Alternative Flows	None

Table 38: Add Resources (Use Case Description)

Use Case	Update/Remove Resources
Use Case ID	39
Actors	Owner
Description	Update resources or Remove resources from salon
Precondition	Logged into the system as the owner
Main Flow	<ol style="list-style-type: none"> 1. Select the Resource 2. If updating <ol style="list-style-type: none"> a. Update resource details b. Update resource 3. If removing 1. Remove resource
Post Condition	Resource added successfully
Alternative Flows	None

Table 39: Update/Remove Resources (Use Case Description)

Use Case	Change Rates
Use Case ID	40
Actors	Owner
Description	Change the salary rates, leave rates.
Precondition	Logged into the system as the owner
Main Flow	<ol style="list-style-type: none"> 1. Select the “change rate” option. 2. Select the rate to change. 3. Change the rates. 4. Update.
Post Condition	Changed rates successfully
Alternative Flows	Input incorrect rates <ul style="list-style-type: none"> • Cancel the current process • Reenter details

Table 40: Change Rates (Use Case Description)

Use Case	Salon Close
Use Case ID	41
Actors	Owner
Description	Close the salon
Precondition	Log in
Main Flow	<ol style="list-style-type: none"> 1. Select the close salon option. 2. Select the date. 3. The owner can cancel the decision by considering the number of reservations or depending on any other reasons. 4. The owner can postpone the date or close the salon and recall the already placed appointments on that date.
Post Condition	The salon closed for a specific date.
Alternative Flows	Regarding the number of appointments on that period cancel or postpone the closing date.

Table 41: Salon Close (Use Case Description)

Use Case	View System Logs
Use Case ID	42
Actors	System Admin
Description	System Admin can check system logs.
Precondition	Logged into the system as System Admin.
Main Flow	<ol style="list-style-type: none"> 1. Select the “View System Log” option. 2. Display System logs
Post Condition	None
Alternative Flows	None

Table 42: View System Logs (Use Case Description)

3. Component Diagram and Descriptions

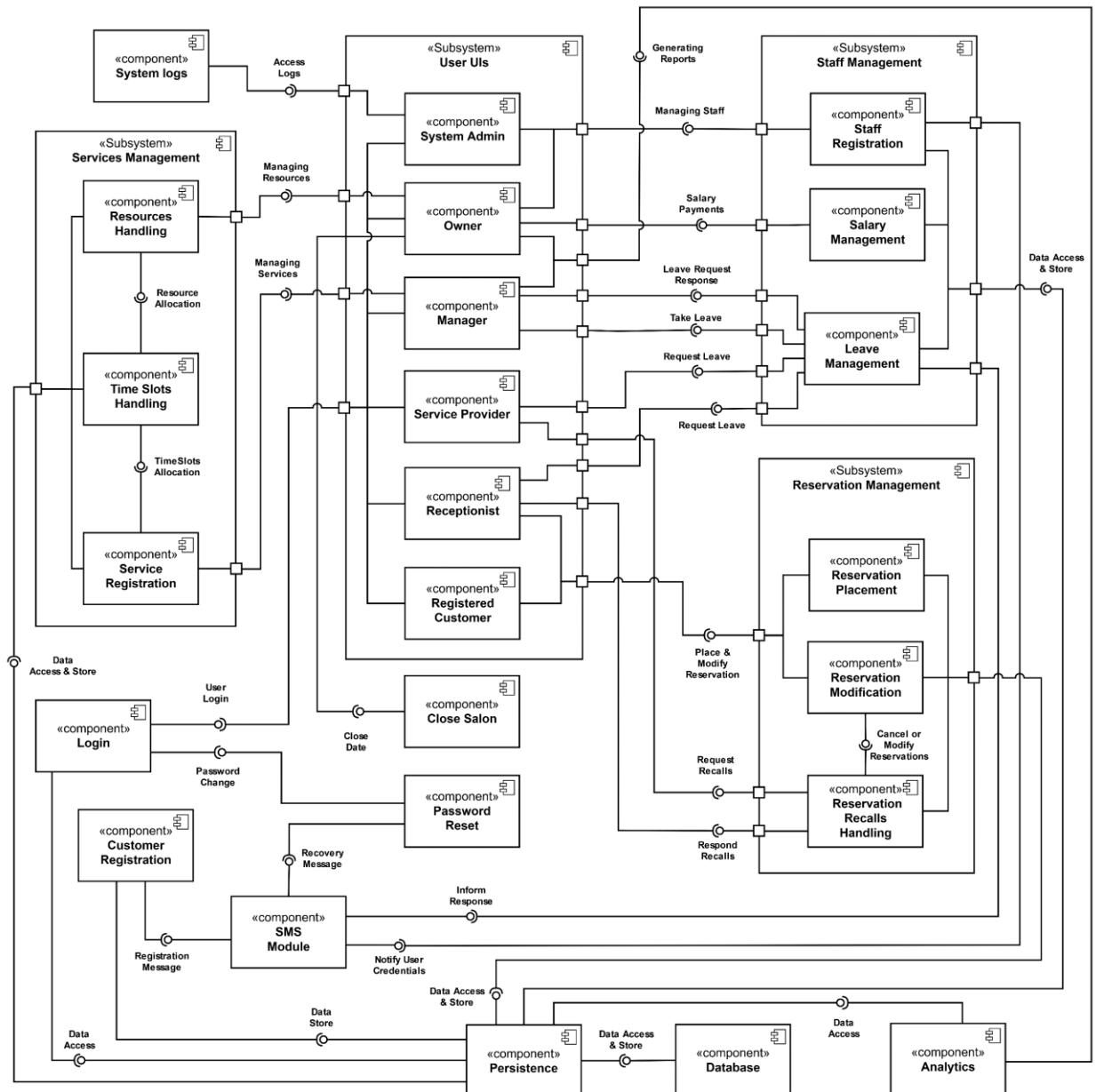
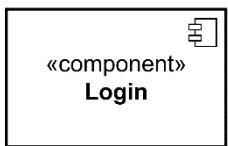


Figure 2: Component Diagram

Link to the Component Diagram: https://bit.ly/Component_Diagram_CS30



Login component is responsible for authenticating the user login credentials (contact number and password) entered by the user. After verification user is redirected to the relevant user interface or provide error messages if the authentication fails.



Password Reset component is responsible for handling password reset process when a user forgets password or requiring to change password. When changing password verification is done using the current password. If user selects forgot password option a pin is generated and sent to the mobile number. Through that verification is completed and password change is allowed.



Customer Registration component handles customer registration process by prompting to enter details. Account details are validated and duplicate contact numbers are restricted by the component. Once registration process is completed a user account for the customer is created.



Registered Customer component provides access to the customers to reservation placement, modification, cancellation, confirmation functionalities. In addition, modification of customer profile details, providing access to reservation history.



Receptionist component provides access to all the operations for the receptionist to manage reservations. In addition, accessing reservation recall requests, invoices handling, requesting leaves is done through this component.



Service Provider component provides details and access to more information for the assigned reservations of the particular service provider and provides access to send recall requests, take leaves, add customer notes.



Reservation Placement component involves in placing reservations. It prompts customer or receptionist to enter date, time, service & service provider. When data is entered it checks the salon opened status, service providers availability and resources availability. If any of the predefined criteria is fails error is displayed. Or else data is passed to place the reservation.



Reservation Modification component provides functionalities to modify previously placed reservations. It checks the possibility of modification by considering reservation's confirmation status and proceeds if modifications are allowed.

«component» 
**Reservation
Recalls
Handling**

Reservation Recalls Handling component enables service providers to send recall requests with a note mentioning the reason for the assigned reservations. Then it provides receptionists the access to these requests and respond to them.

«component» 
Manager

Manager component provides access to the manager for the operations of adding and managing services and handling leave requests. In addition, this component provides access to view data related to services, customers and staff members. It also provides access to in depth analytical data using the separate analytics component.

«component» 
**Service
Registration**

Service Registration component handles registration process of new services and managing them. It prompts to enter basic details of the service and add time slots using the time slots handling component and allocate resources using the resources handling component.

«component» 
**Time Slots
Handling**

Time Slots Handling component provides functionalities to handle time slots data when adding new services and intervals in between time slots. Required resources for each time slot get allocated using the resources handling component.

«component» 
**Resources
Handling**

Resources Handling component is responsible for adding and managing resources. In addition, it provides functionalities to allocate resources for time slots of the services from the available overall counts of resources. Each time slot gets allocated with separate counts of resources.

«component» 
**Leave
Management**

Leave Management component collects leave requests of all service providers and receptionists. It also provides validation required for leave requests. Accept or reject response to each requests is given by the managers using this component.

«component» 
Analytics

Analytics component provides in-depth analytical data related to progress of the salon. It includes analytical data of both services and service providers. Different levels of data filtering are also provided for the data by the component.

«component» 
**SMS
Module**

SMS Module component is responsible for sending all notification messages to the customers and staff members. New reservation notifications, cancellation notifications are some of them.

«component» 
Owner

Owner component provides access to all the operations for the owner to manage staff members and their salaries. It provides access to calculated salaries and previous payment logs. Closing salon, removing customer functionalities are accessed through this component.



Staff Registration component is prompts owner to add staff information and select member type. It creates a separate user account for each staff member with the registration. Modification to the staff details is also carries out within this component.



Salary Management component is responsible for calculating salaries of all the staff members. It considers all the leaves taken. In addition, service providers salary is calculated by considering the services provided. This component also provides functionalities to keep track of paid/ unpaid status of the salaries.



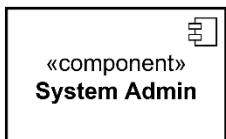
Close Salon component is enables owner to mark closed dates of the salon. It validates the closing with already placed reservations and allows to send recall requests if reservations exist on a particular date.



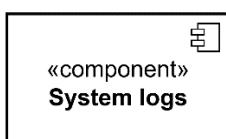
Database component represents the database connected to the system which store data related to all the operations provided by the system.



Persistence component is responsible of connecting the system with database. It acts as the intermediary layer between the system and the database. It contains the logic of storing data passed and retrieving data requested by the other components.



System Admin component enables the admin to create user account with any access level. Also is provides functionalities to the admin to download system log files of the system



System Log component responsible for keeping track of all the important events of the system such as user account creation, deletions, password resets, service modifications, reservation cancelations etc.

4. Class Diagram

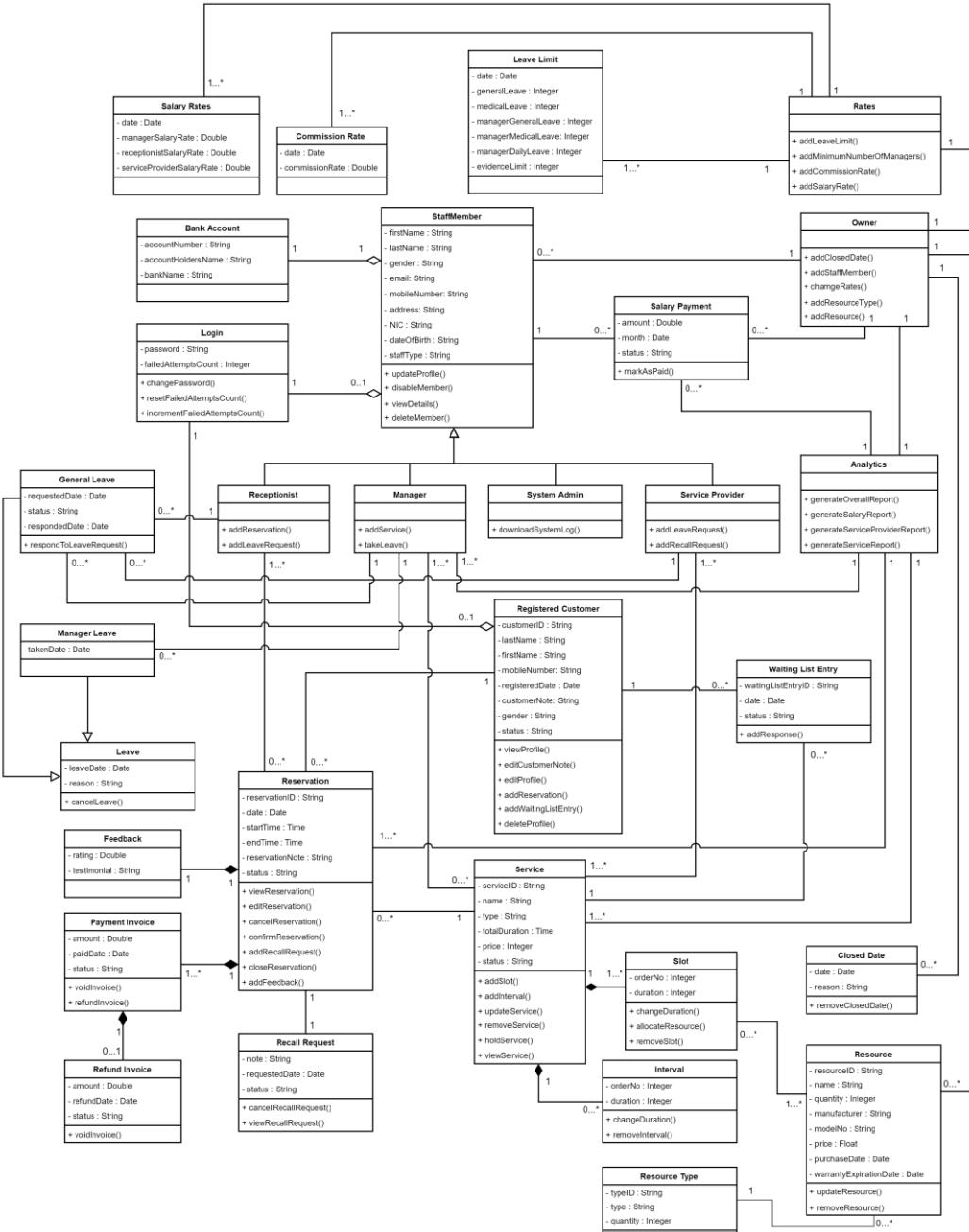


Figure 3: Class Diagram

Link to the Class Diagram: https://bit.ly/Class_Diagram_CS30_Updated

5. ER Diagram

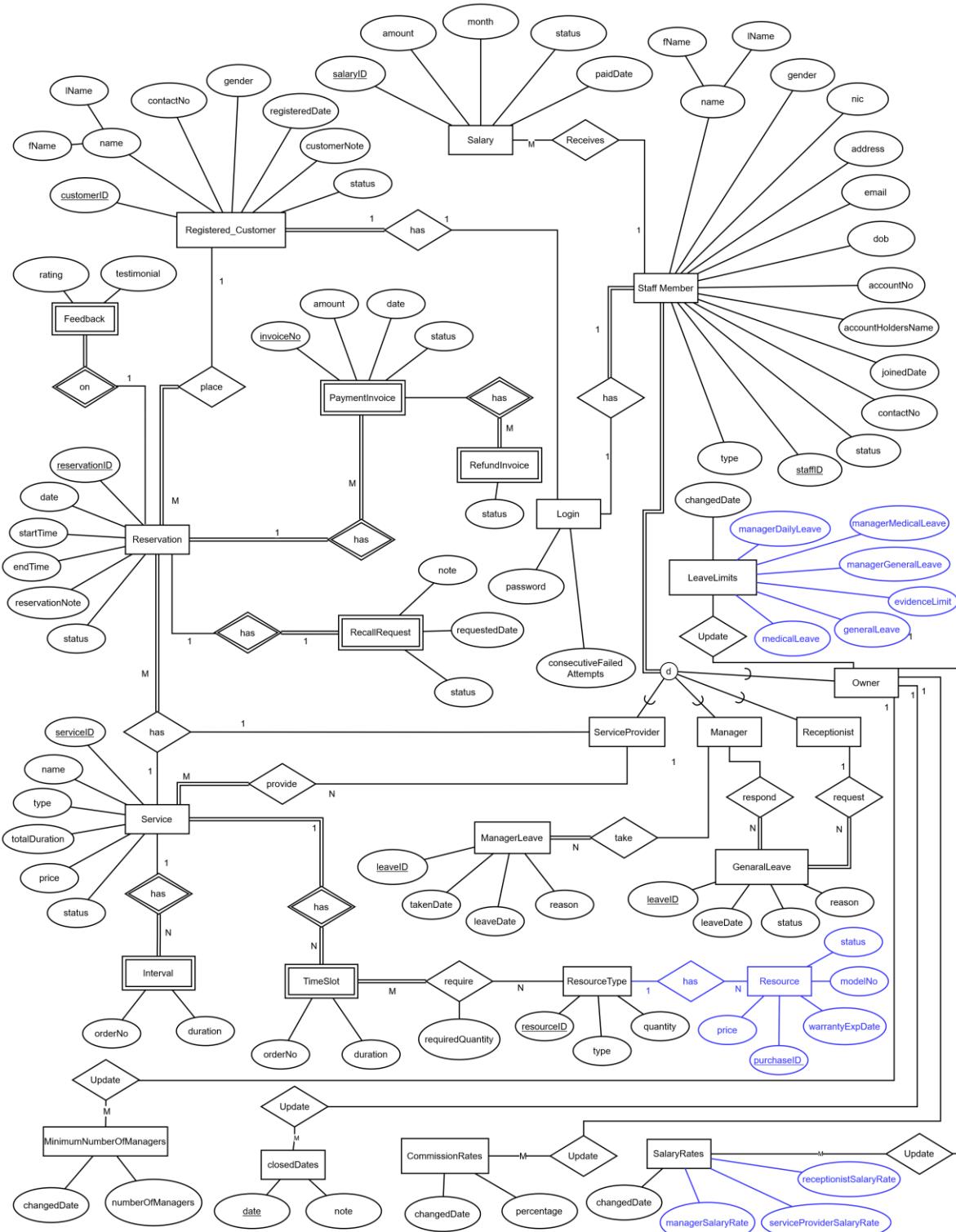


Figure 4: ER Diagram

Link to the ER Diagram: https://bit.ly/ER_Diagram_CS30_Updated

6. Activity Diagrams

Link to Activity Diagrams: https://bit.ly/Activity_Diagrams_CS30

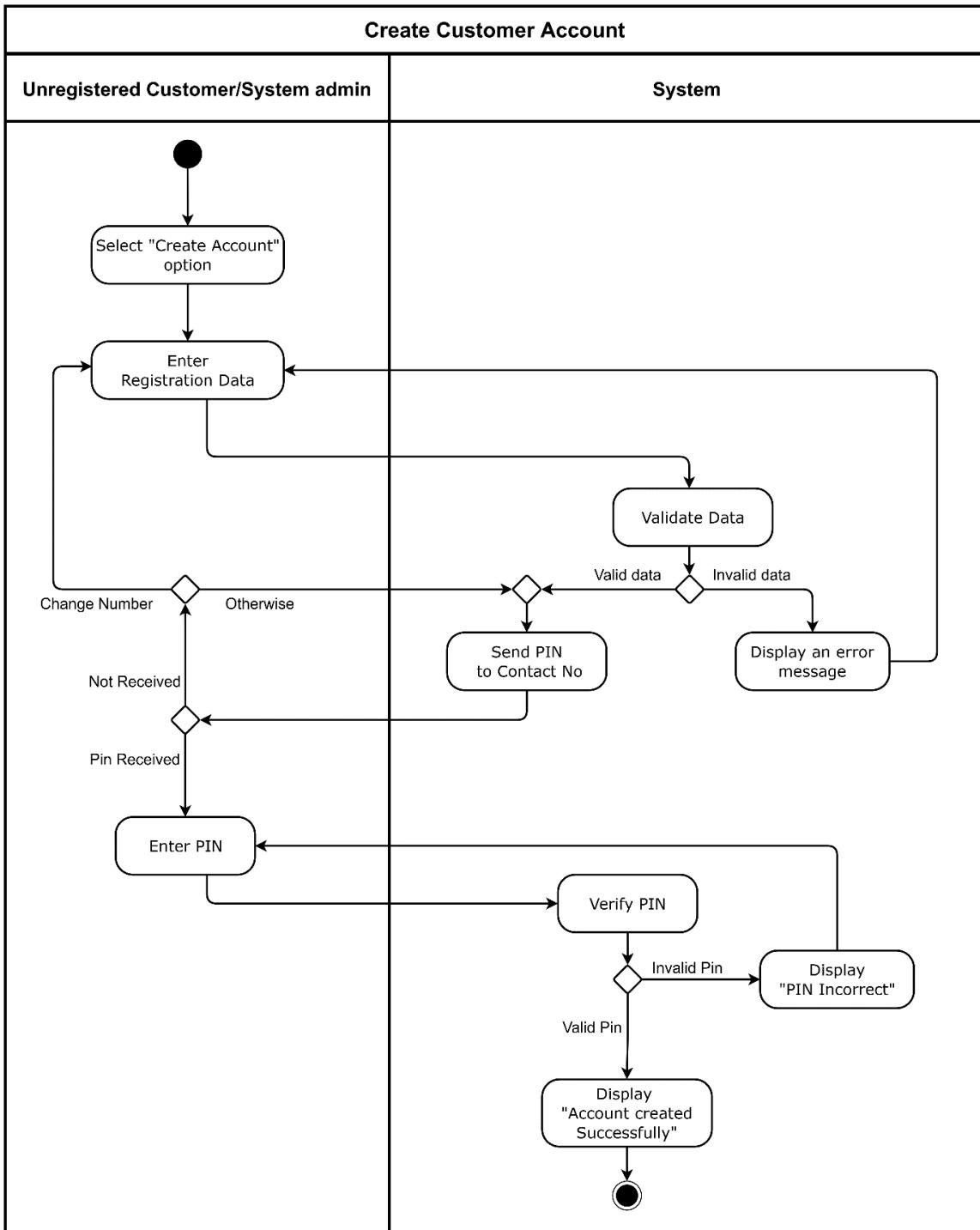


Figure 5: Create Customer Account (Activity Diagram)

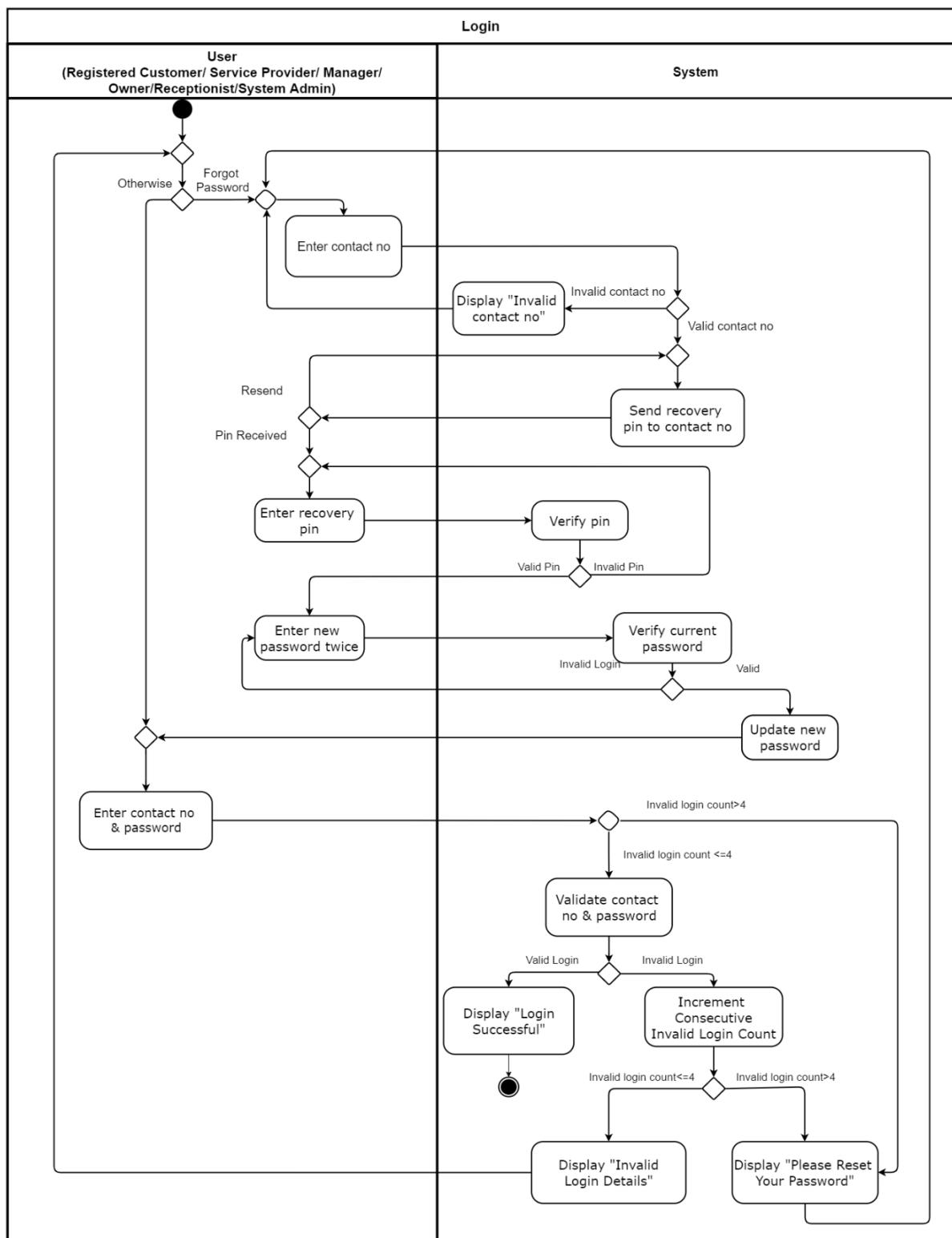


Figure 6: Login (Activity Diagram)

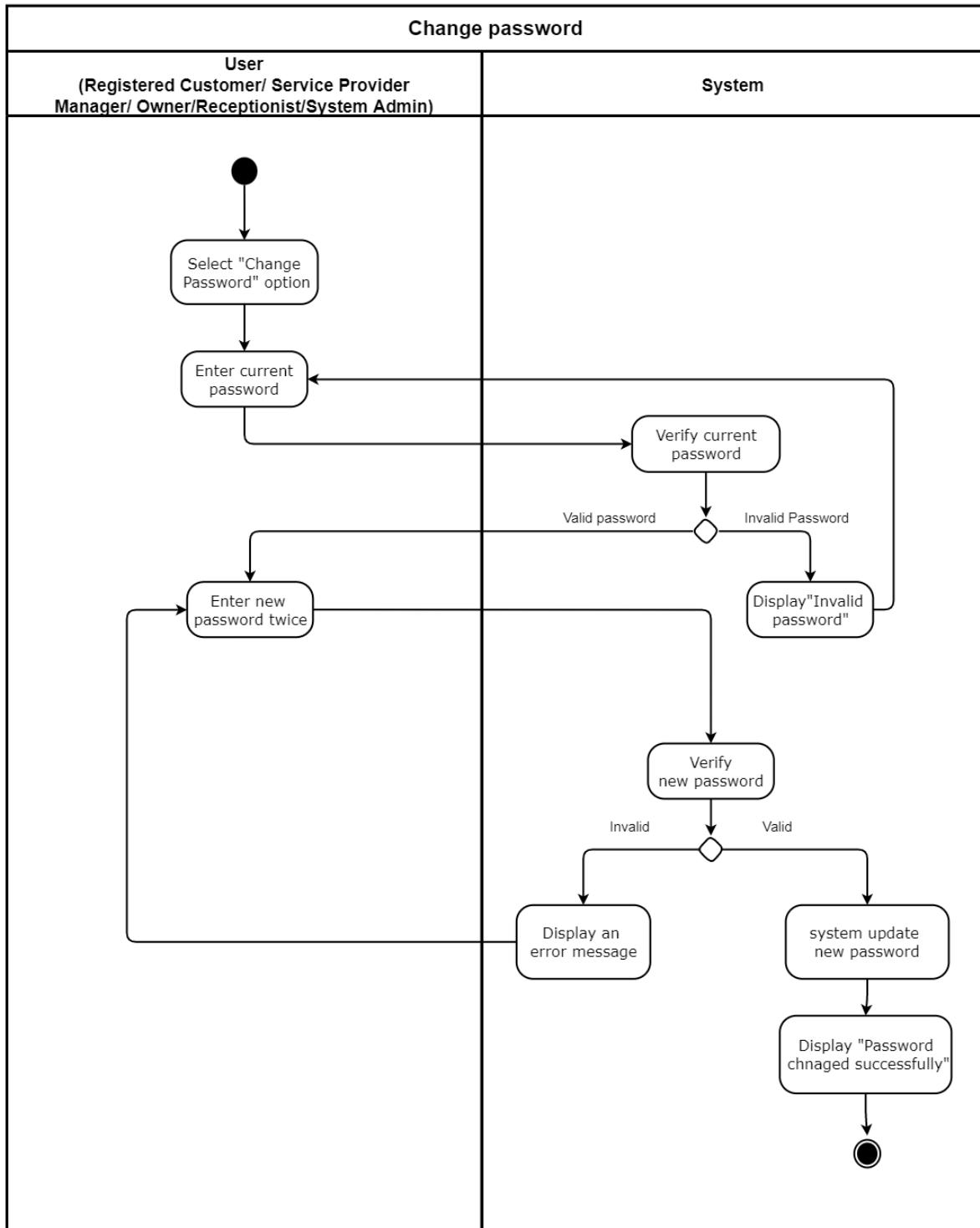


Figure 7: Change Password (Activity Diagram)

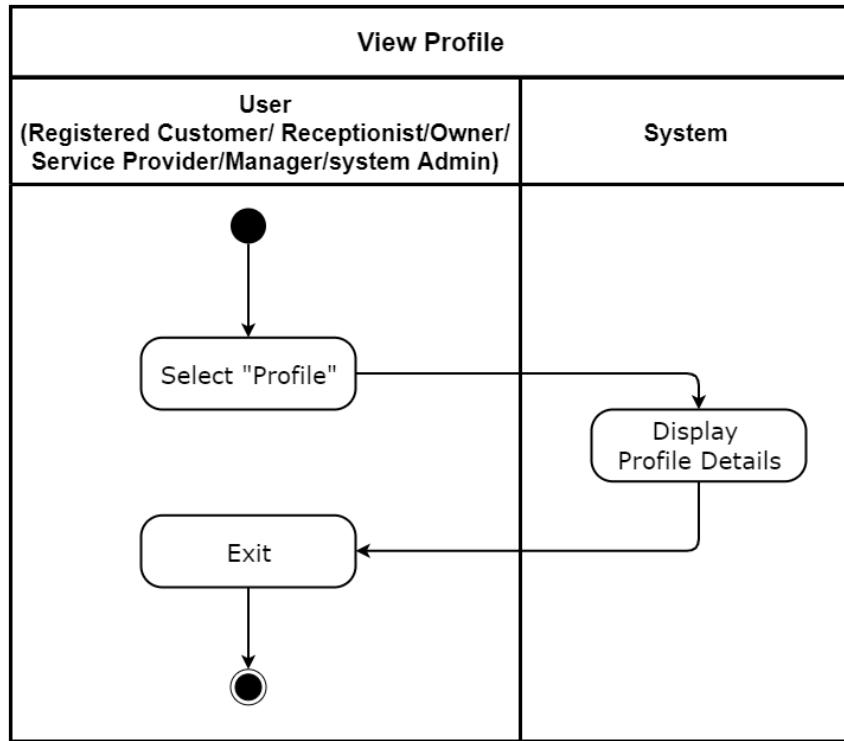


Figure 8: View Profile (Activity Diagram)

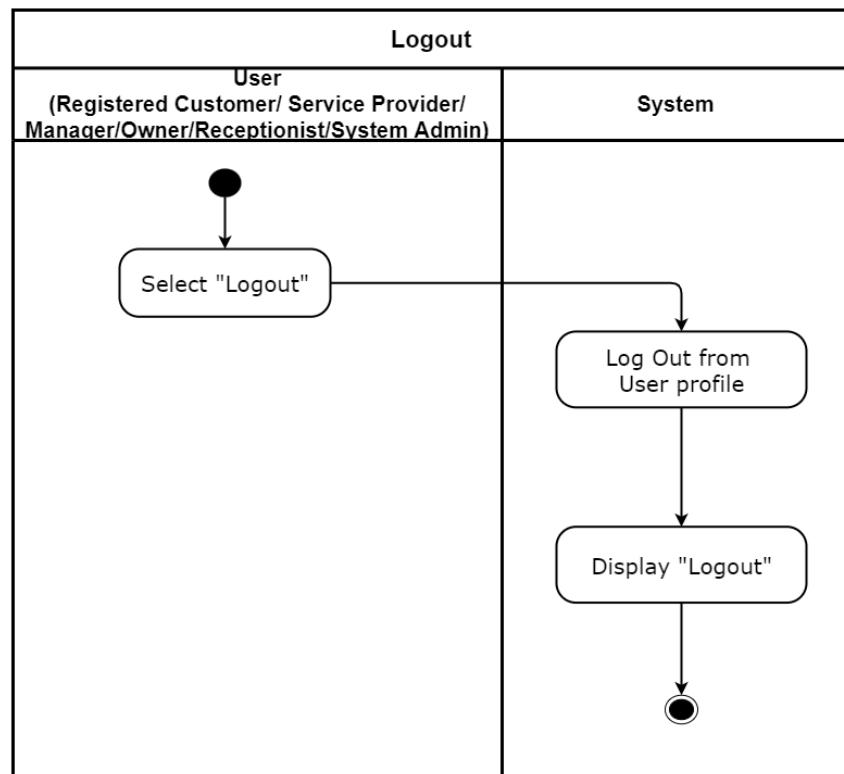


Figure 9: Logout (Activity Diagram)

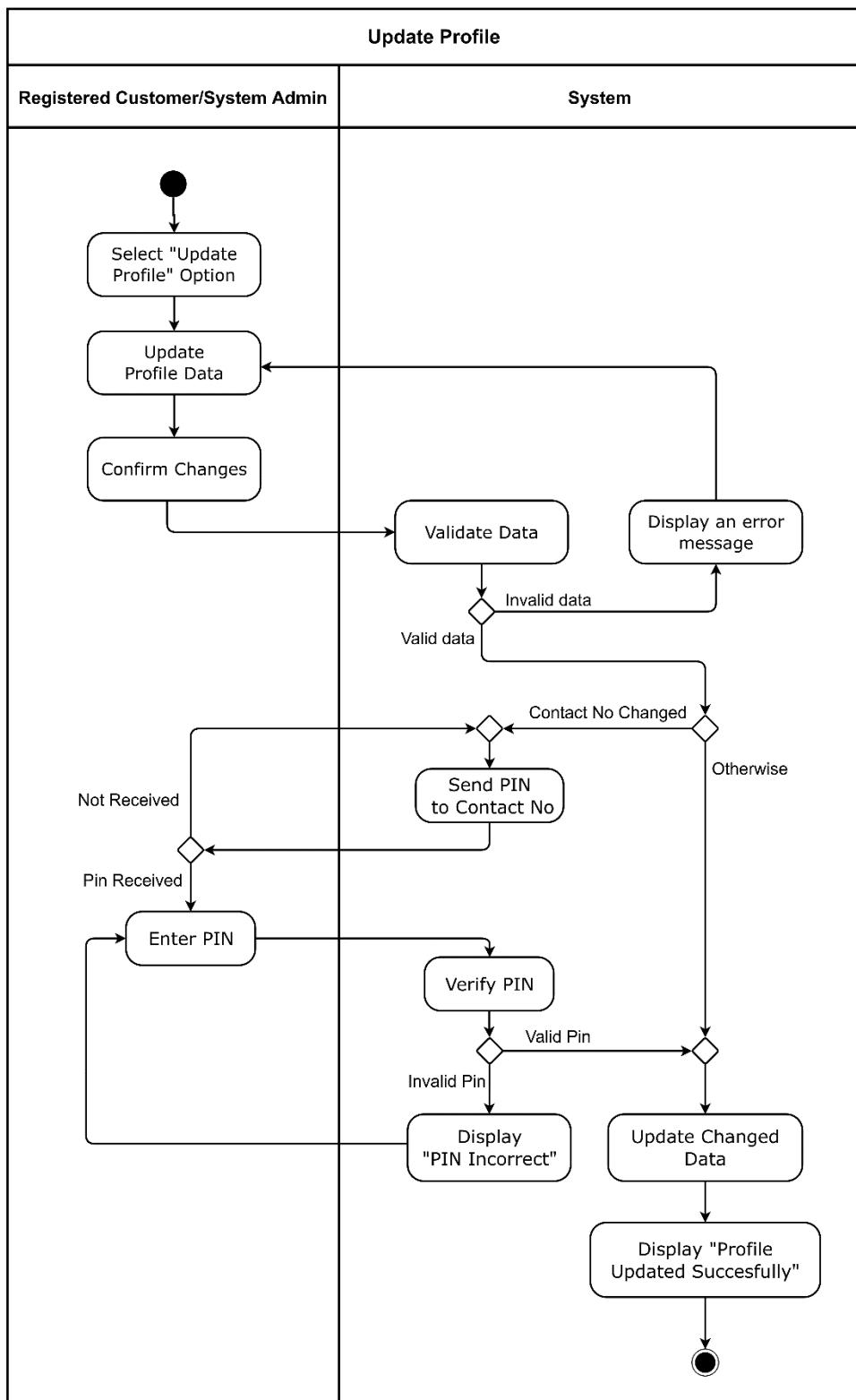


Figure 10: Update Profile (Activity Diagram)

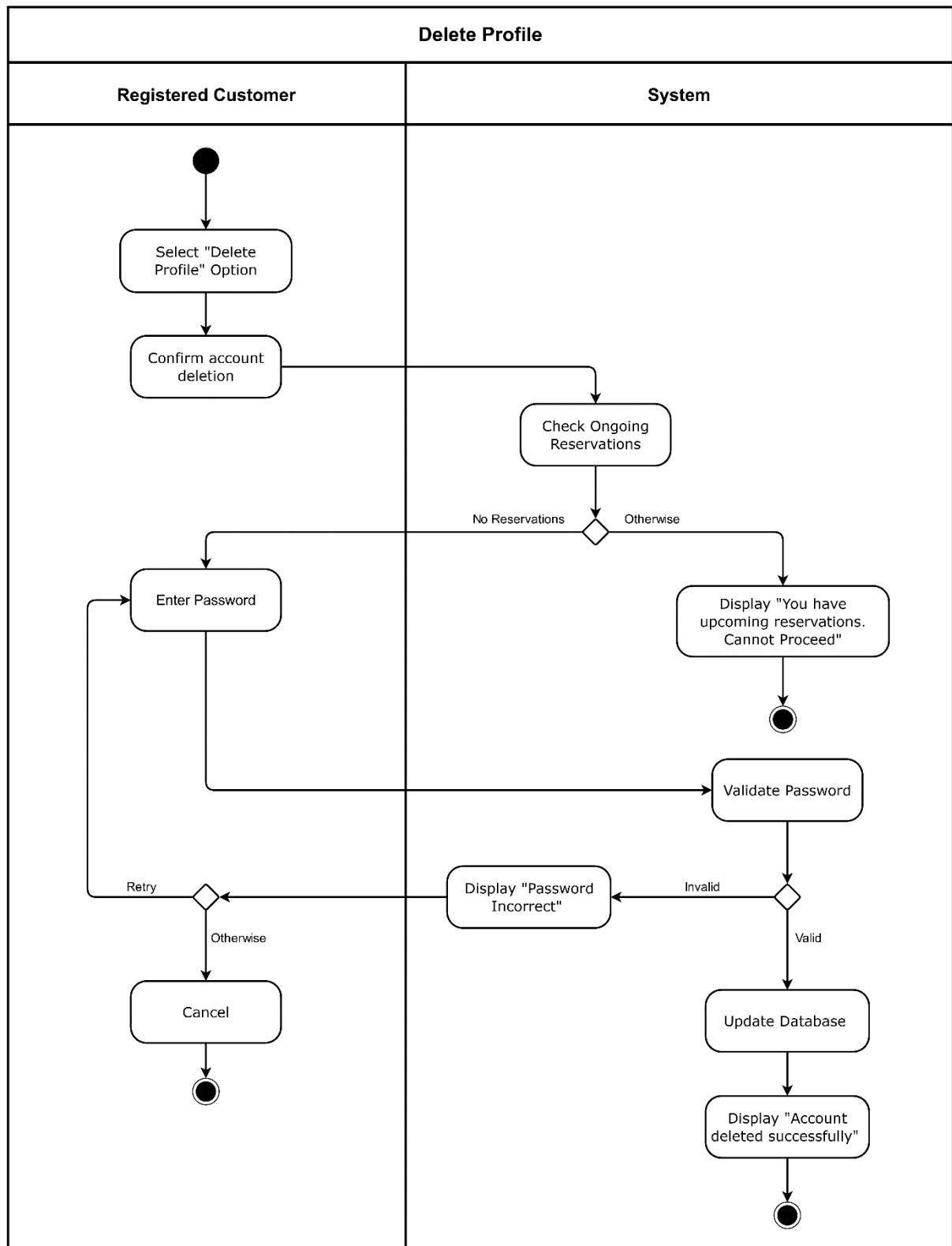


Figure 11: Delete Profile (Activity Diagram)

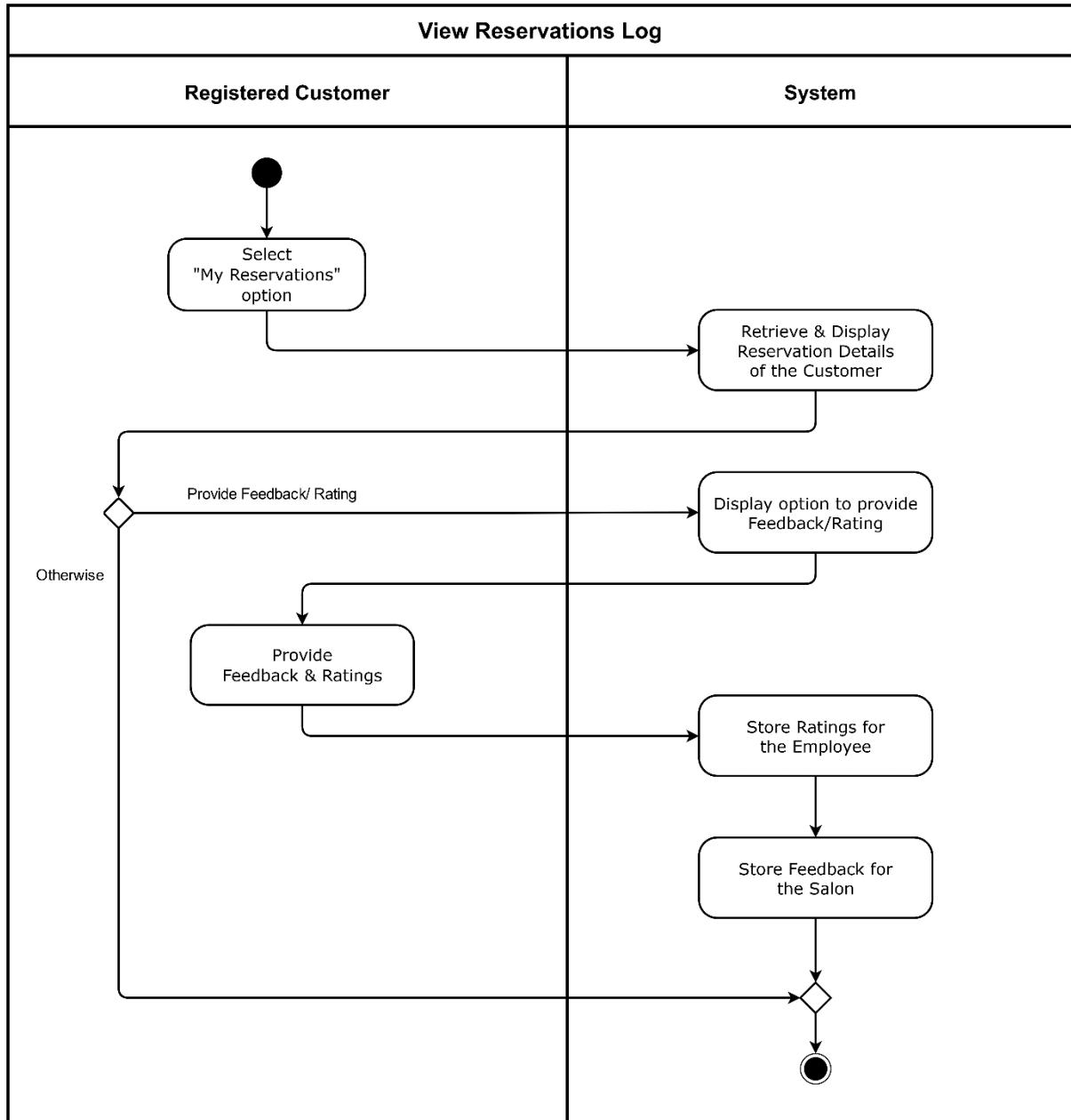


Figure 12: View Reservation Log (Activity Diagram)

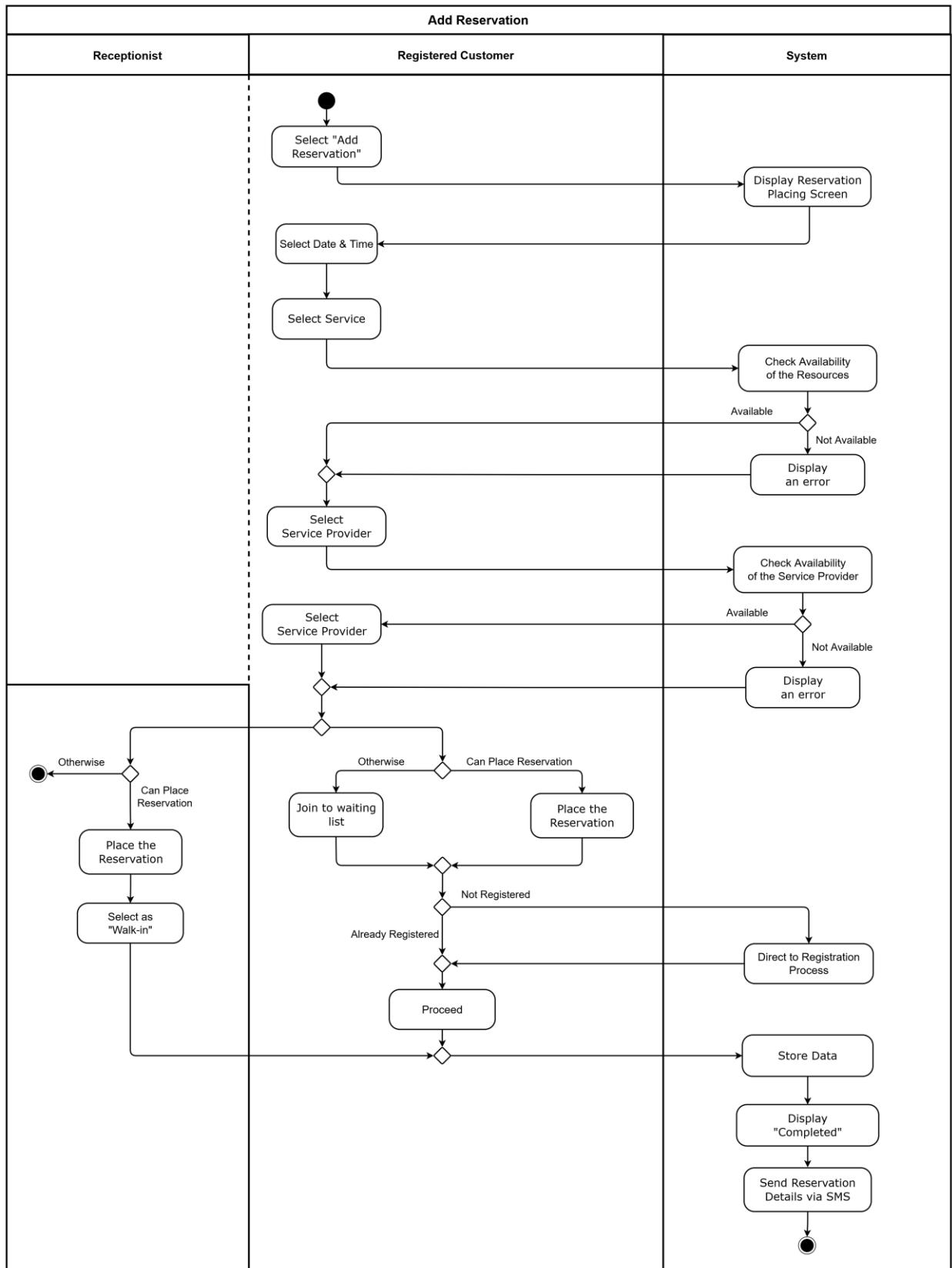


Figure 13: Add Reservation (Activity Diagram)

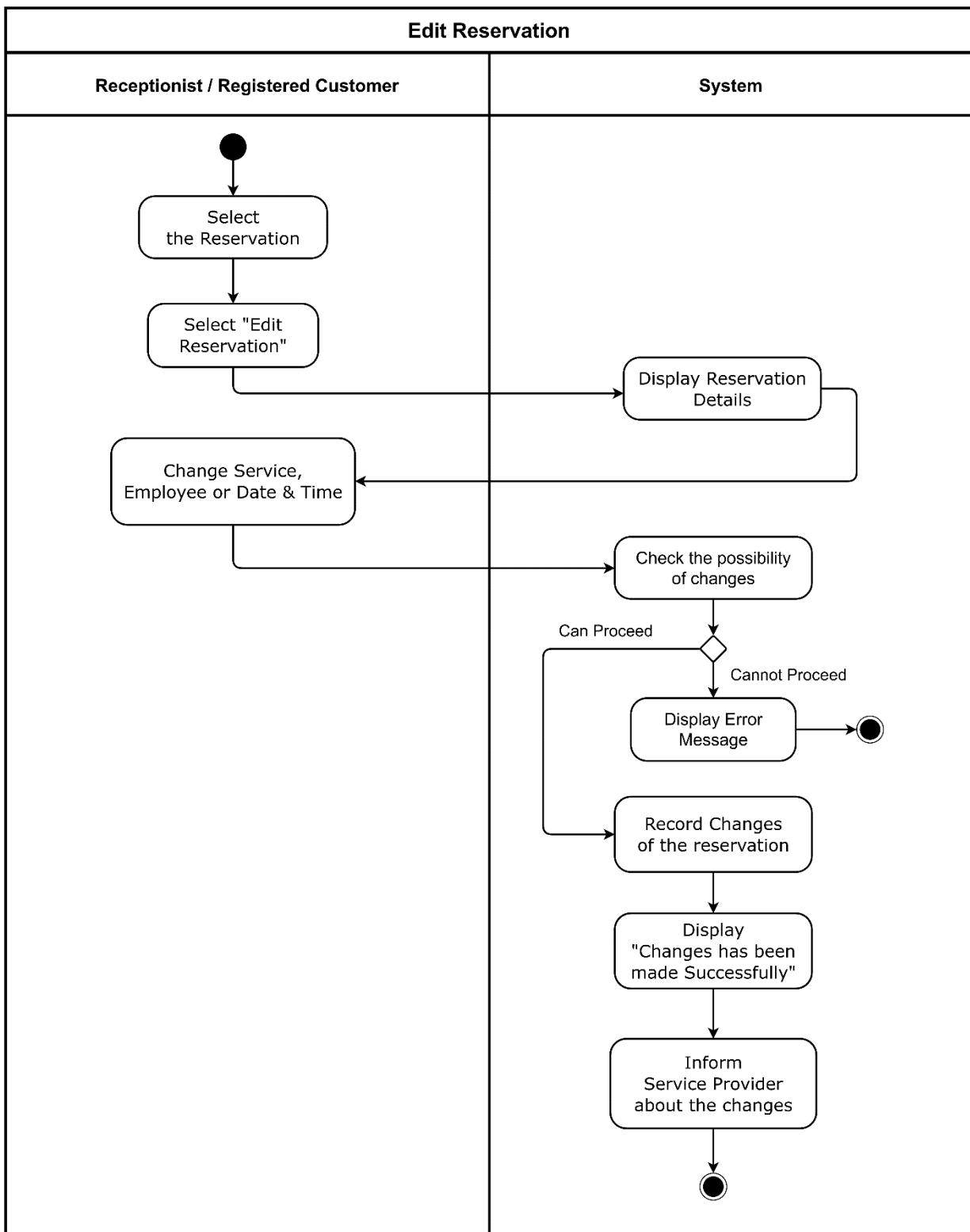


Figure 14: Edit Reservation (Activity Diagram)

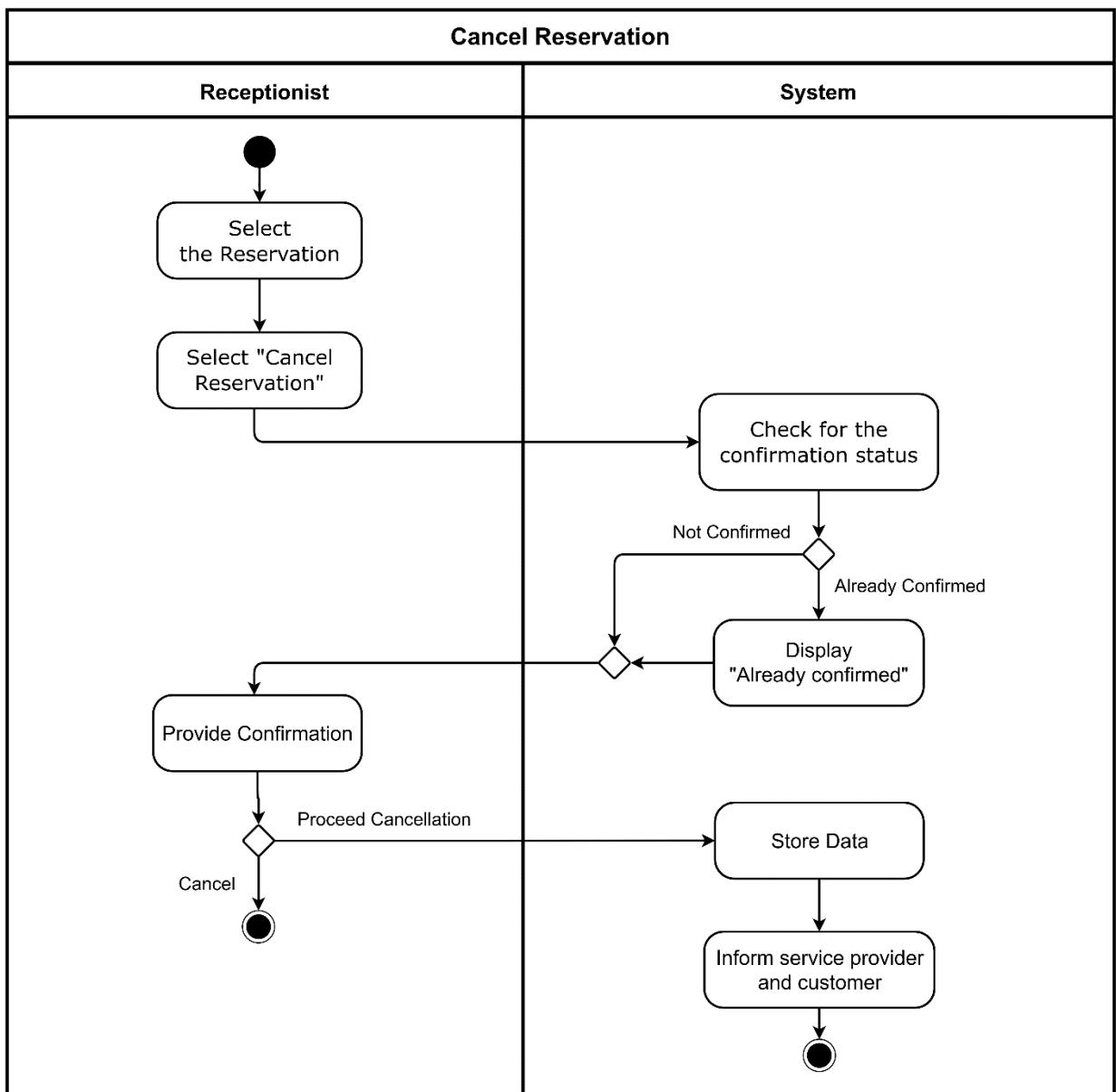


Figure 15: Cancel Reservation A (Activity Diagram)

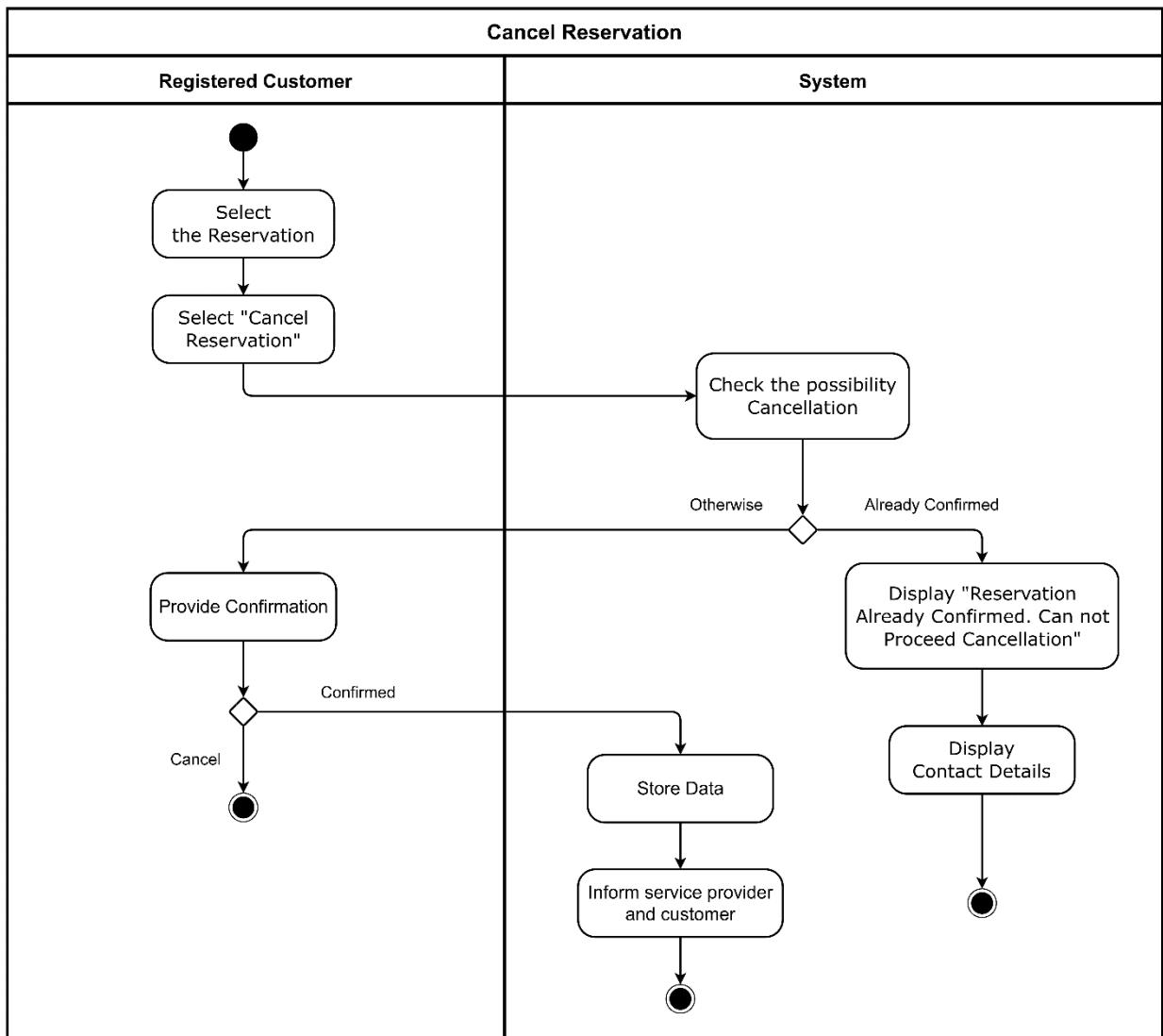


Figure 16: Cancel Reservation B (Activity Diagram)

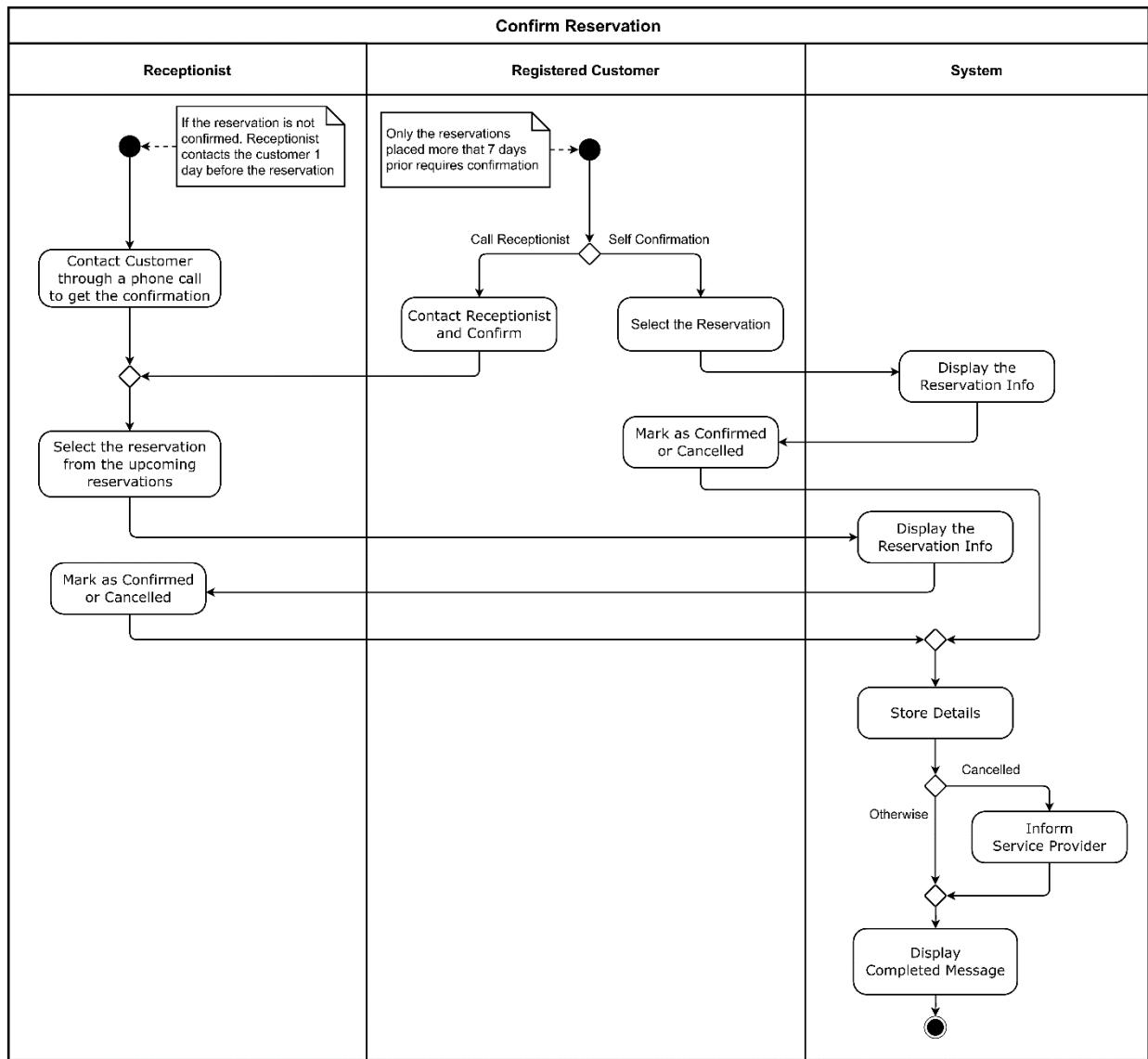


Figure 17: Confirm Reservation (Activity Diagram)

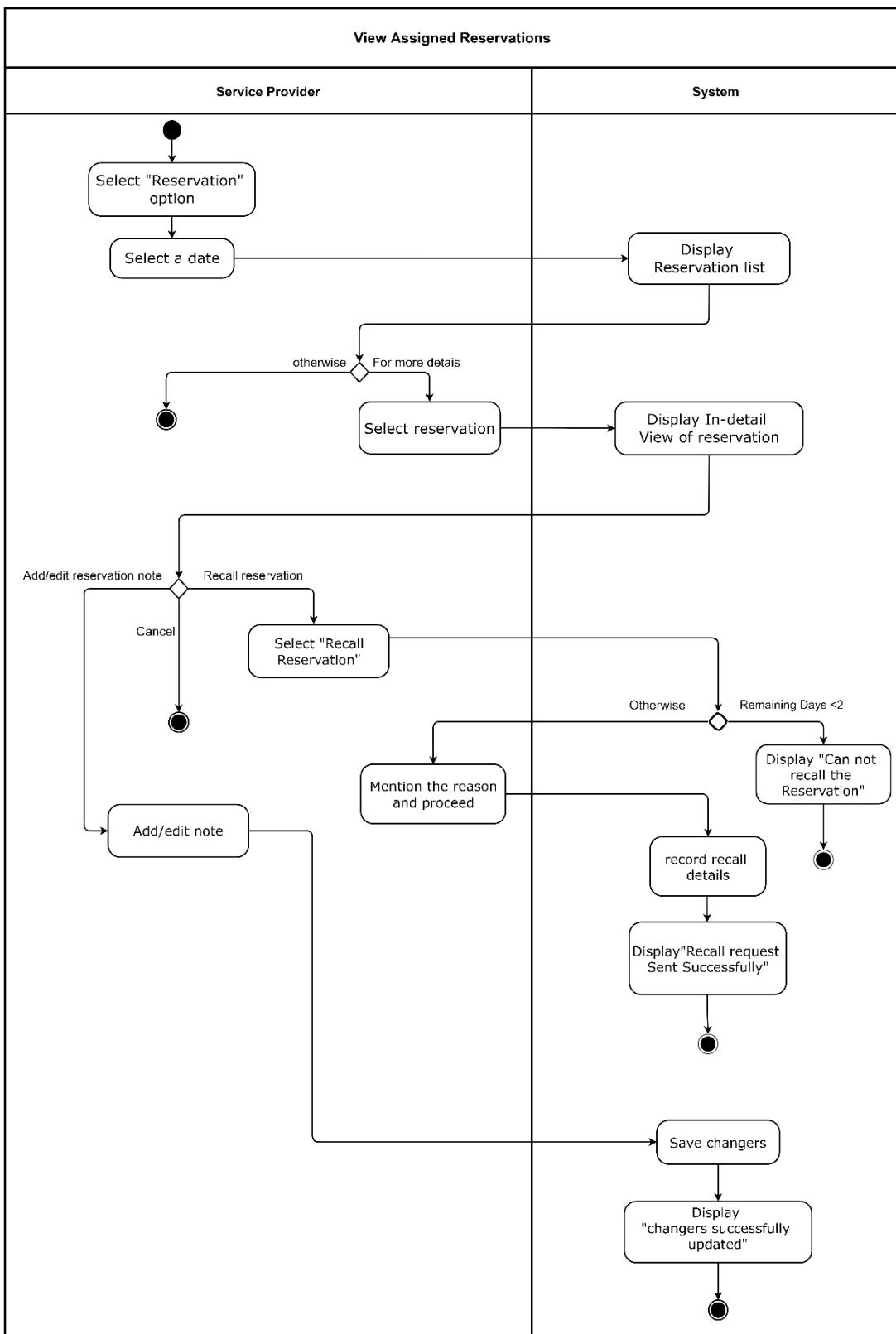


Figure 18: View Assigned Reservation (Activity Diagram)

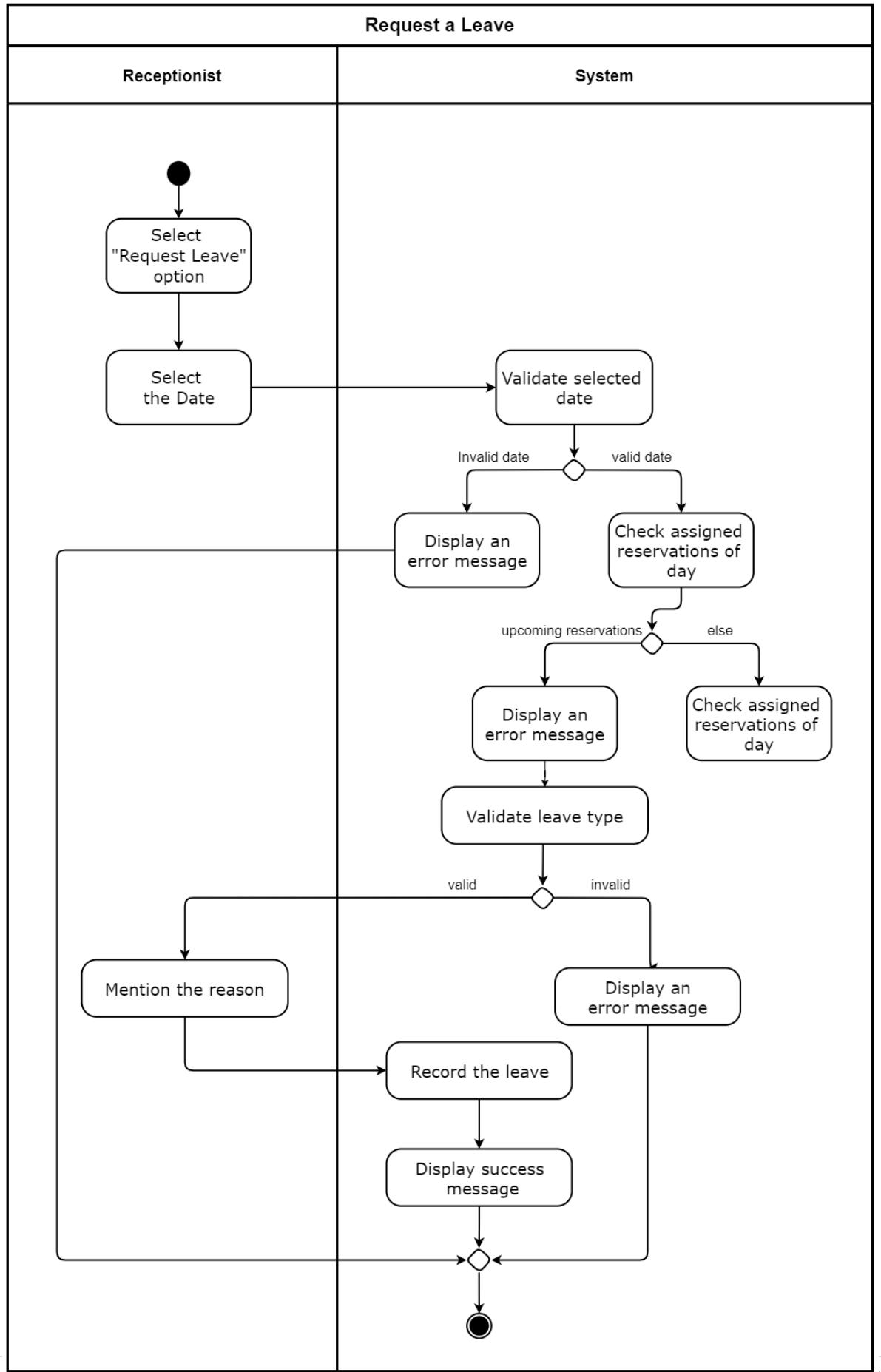


Figure 19: Request a Leave (Activity Diagram)

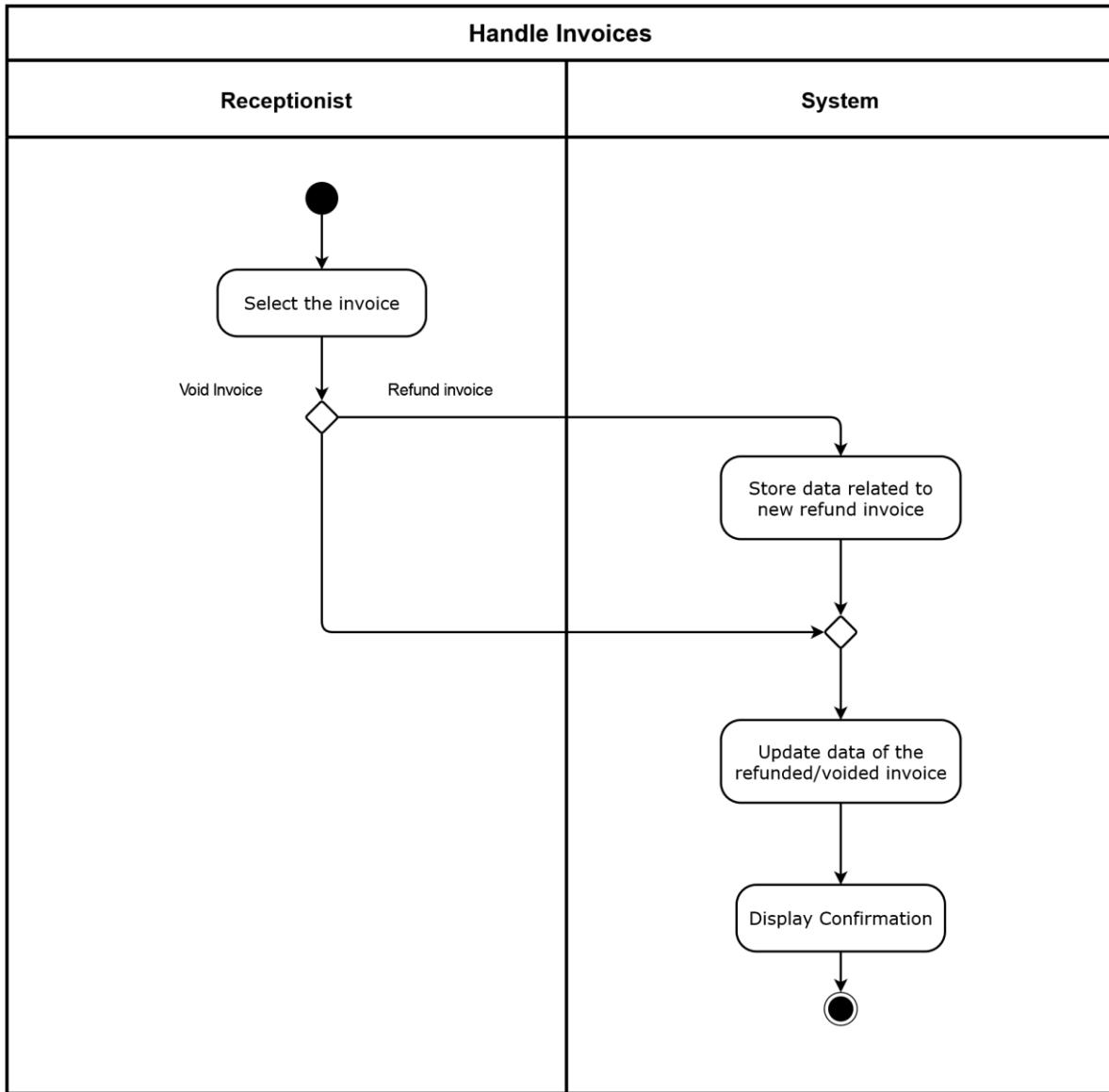


Figure 20: Invoice Handling (Activity Diagram)

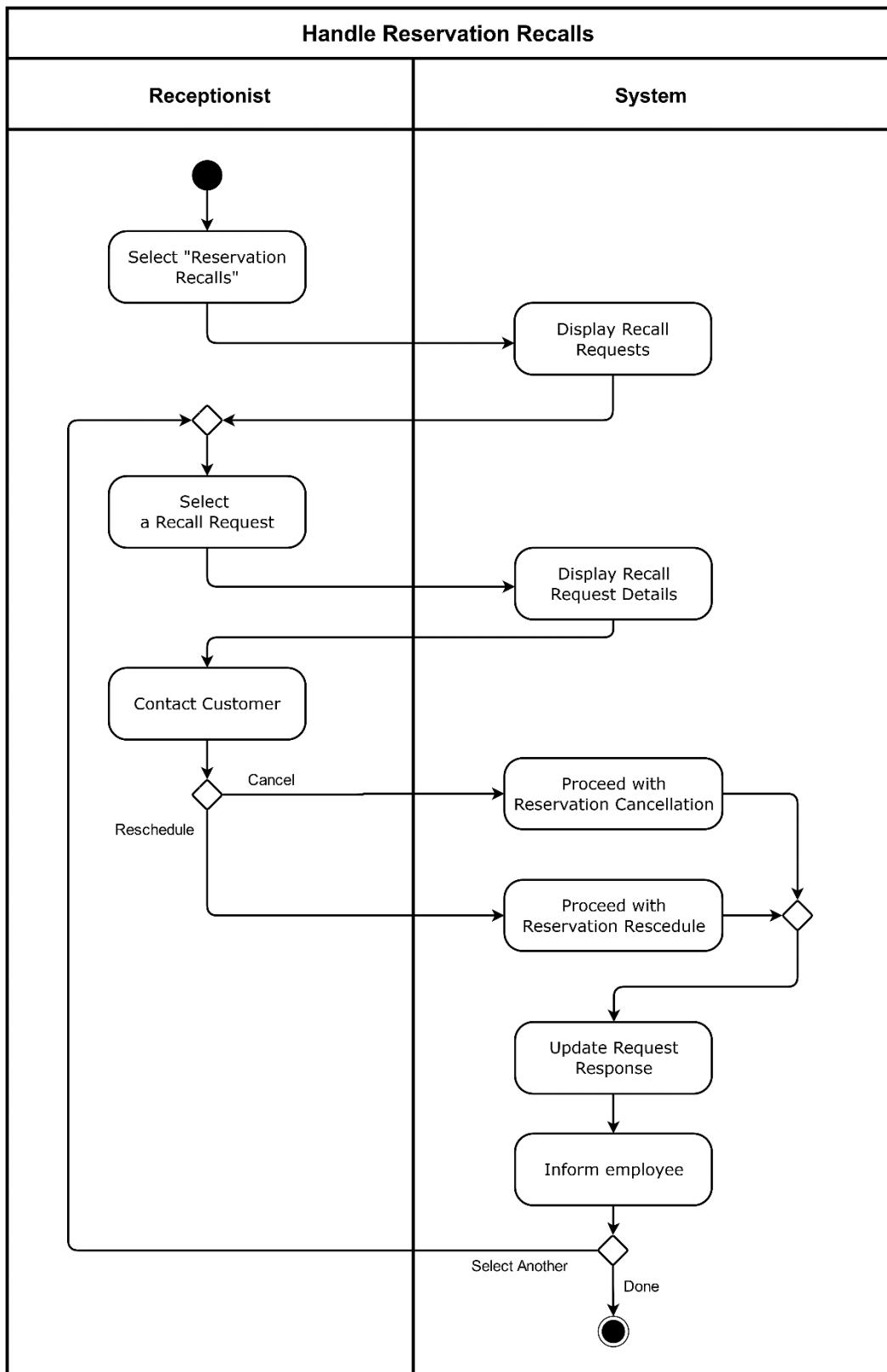


Figure 21: Handle Reservation Recalls (Activity Diagram)

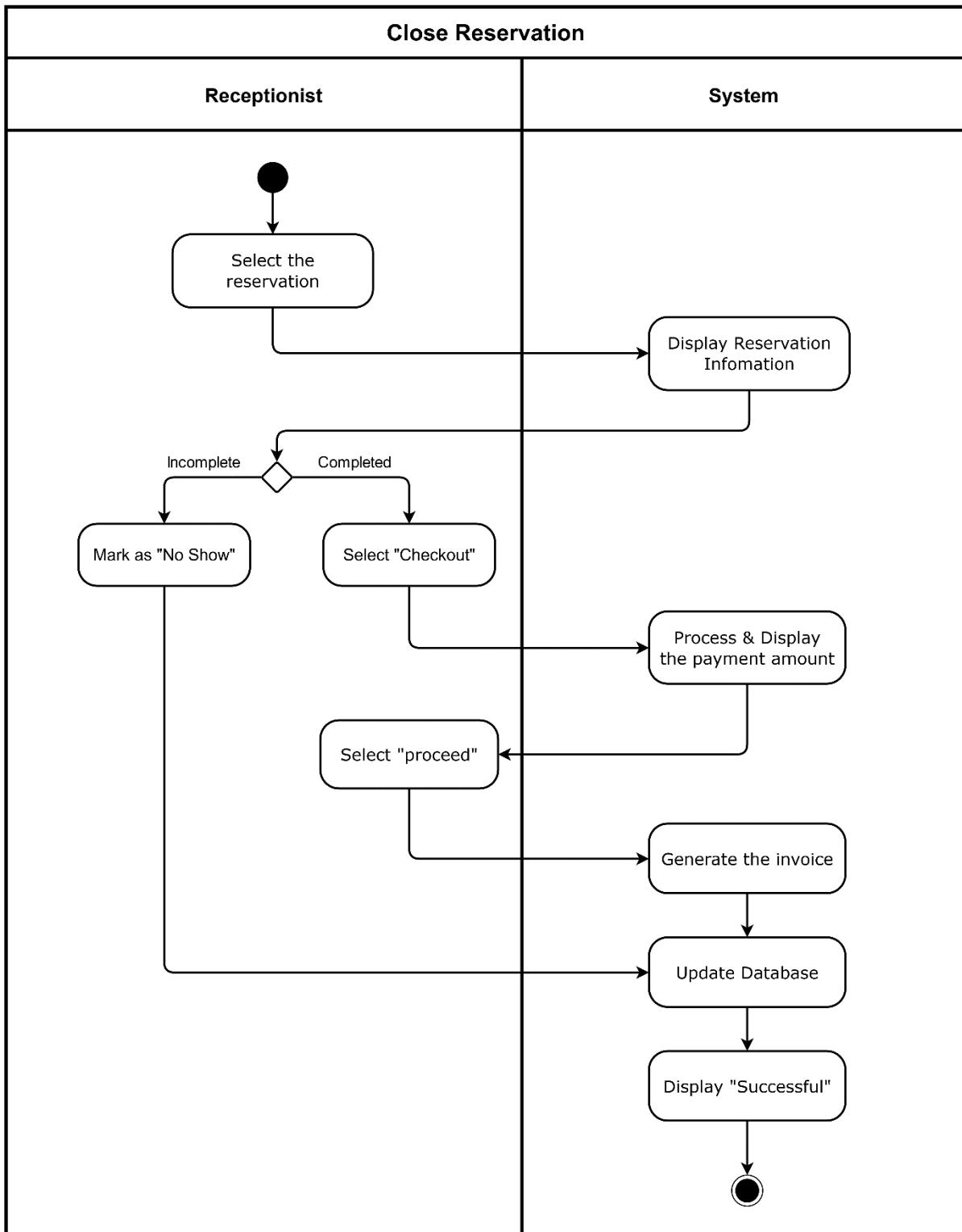


Figure 22: Close Reservation (Activity Diagram)

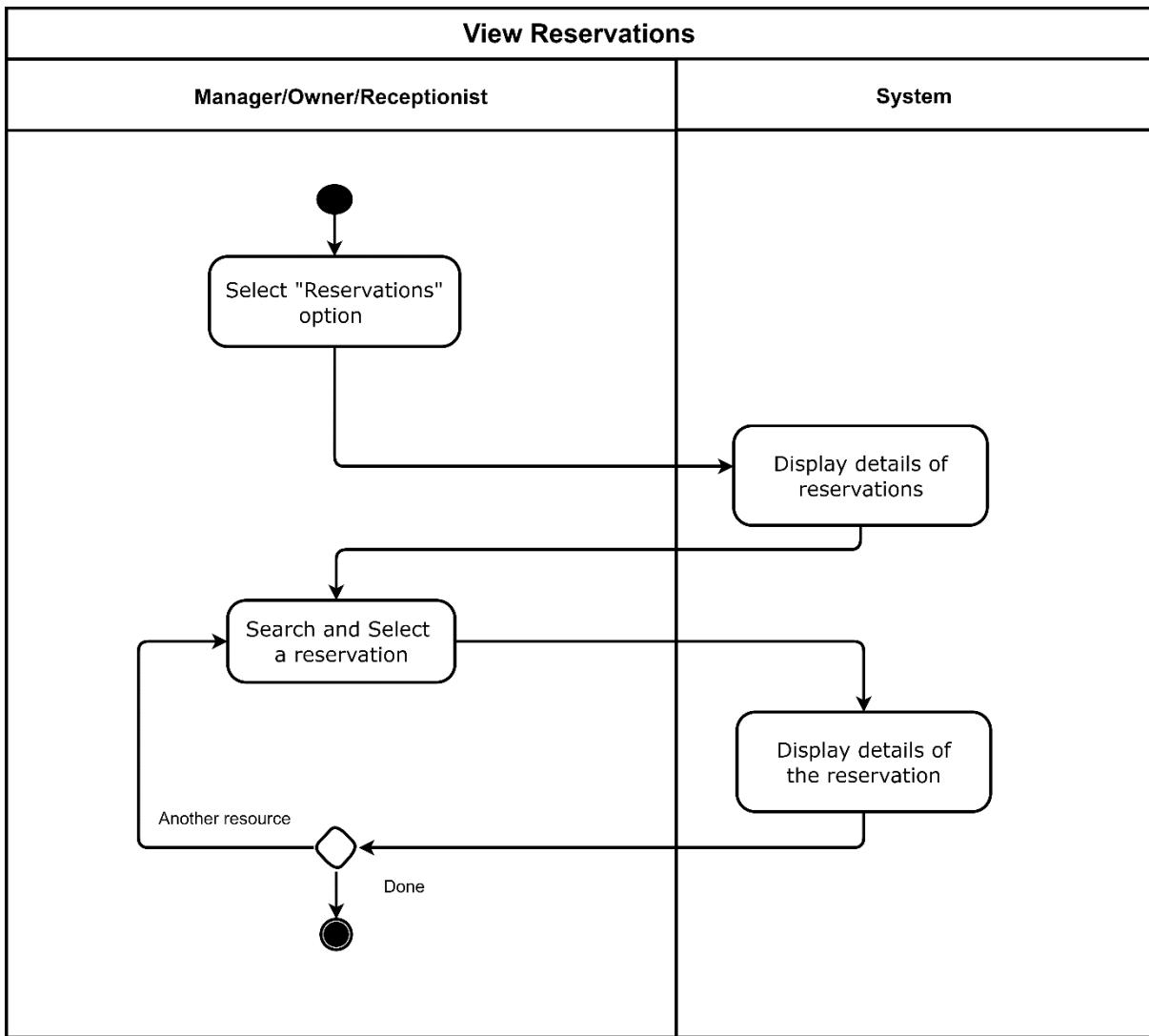


Figure 23: View Reservations (Activity Diagram)

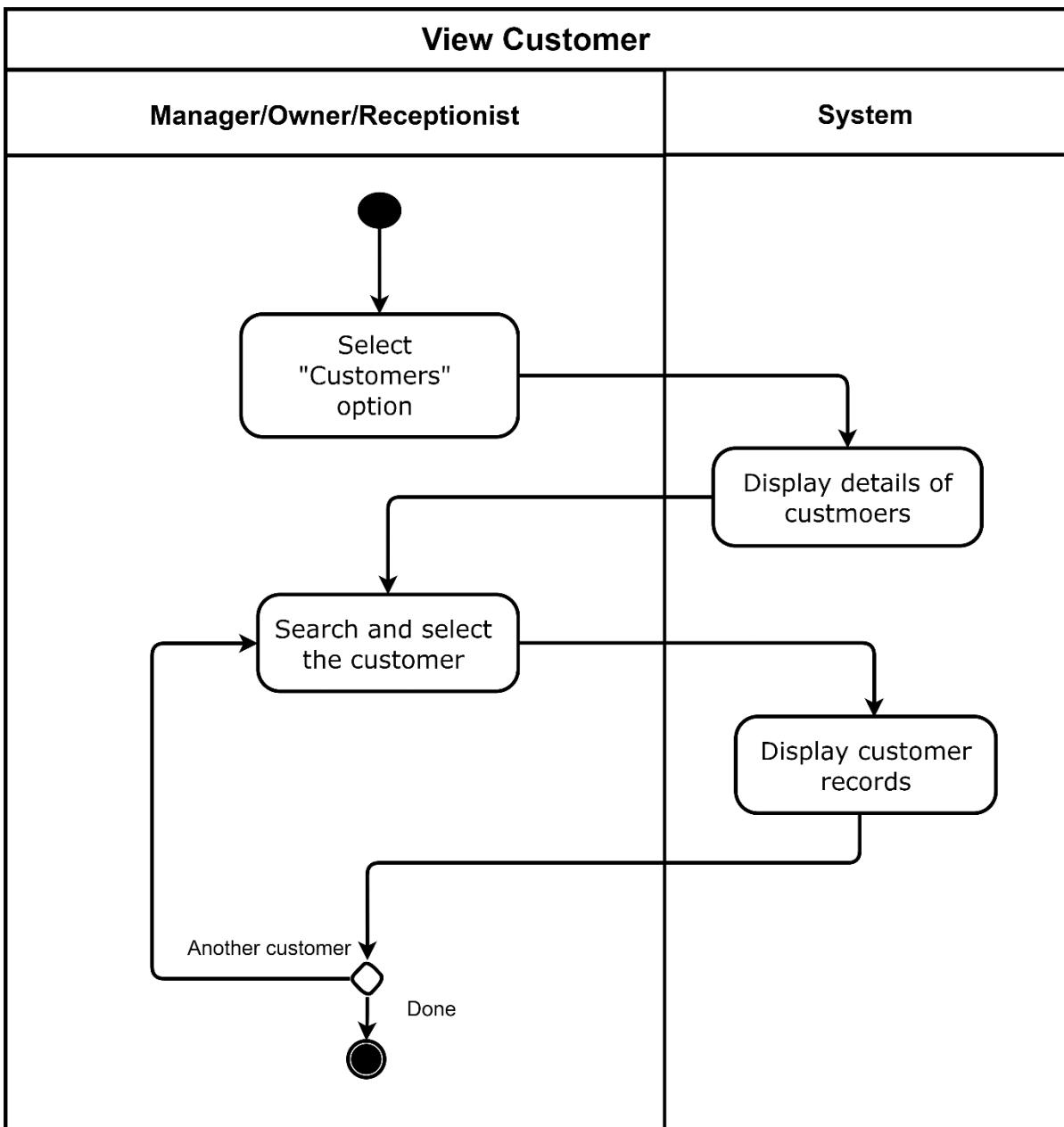


Figure 24: View Customer (Activity Diagram)

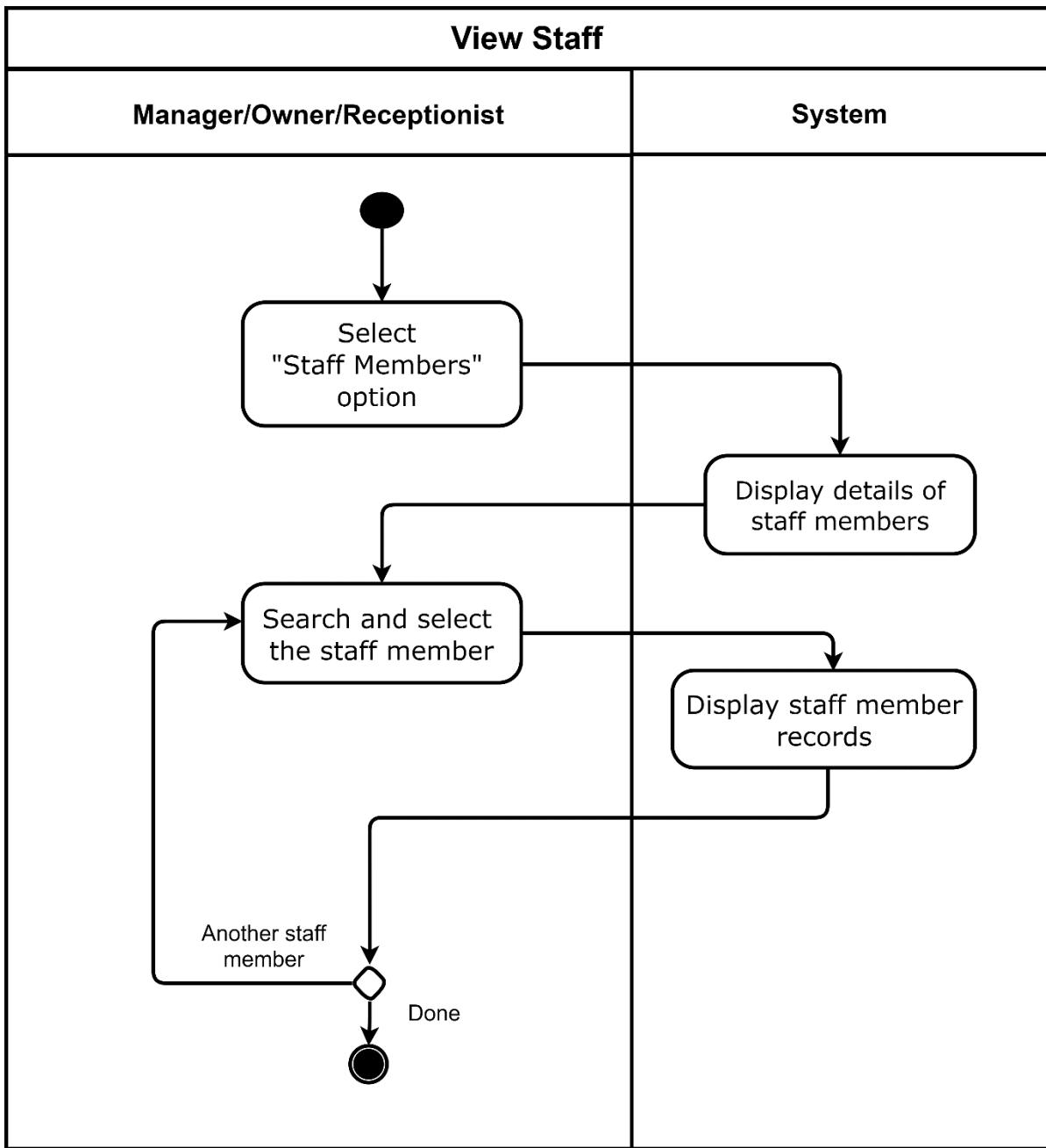


Figure 25: View Staff (Activity Diagram)

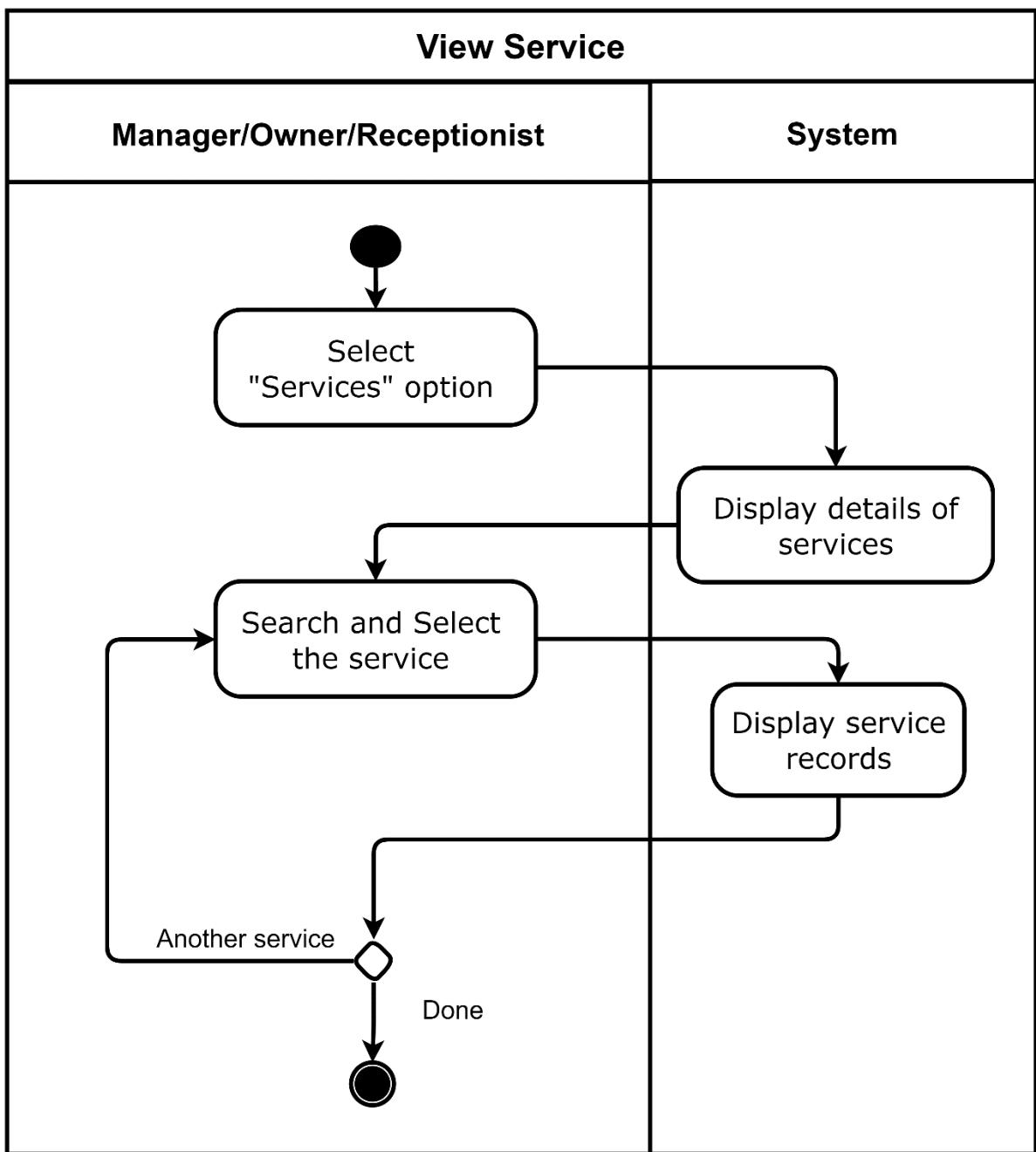


Figure 26: View Service (Activity Diagram)

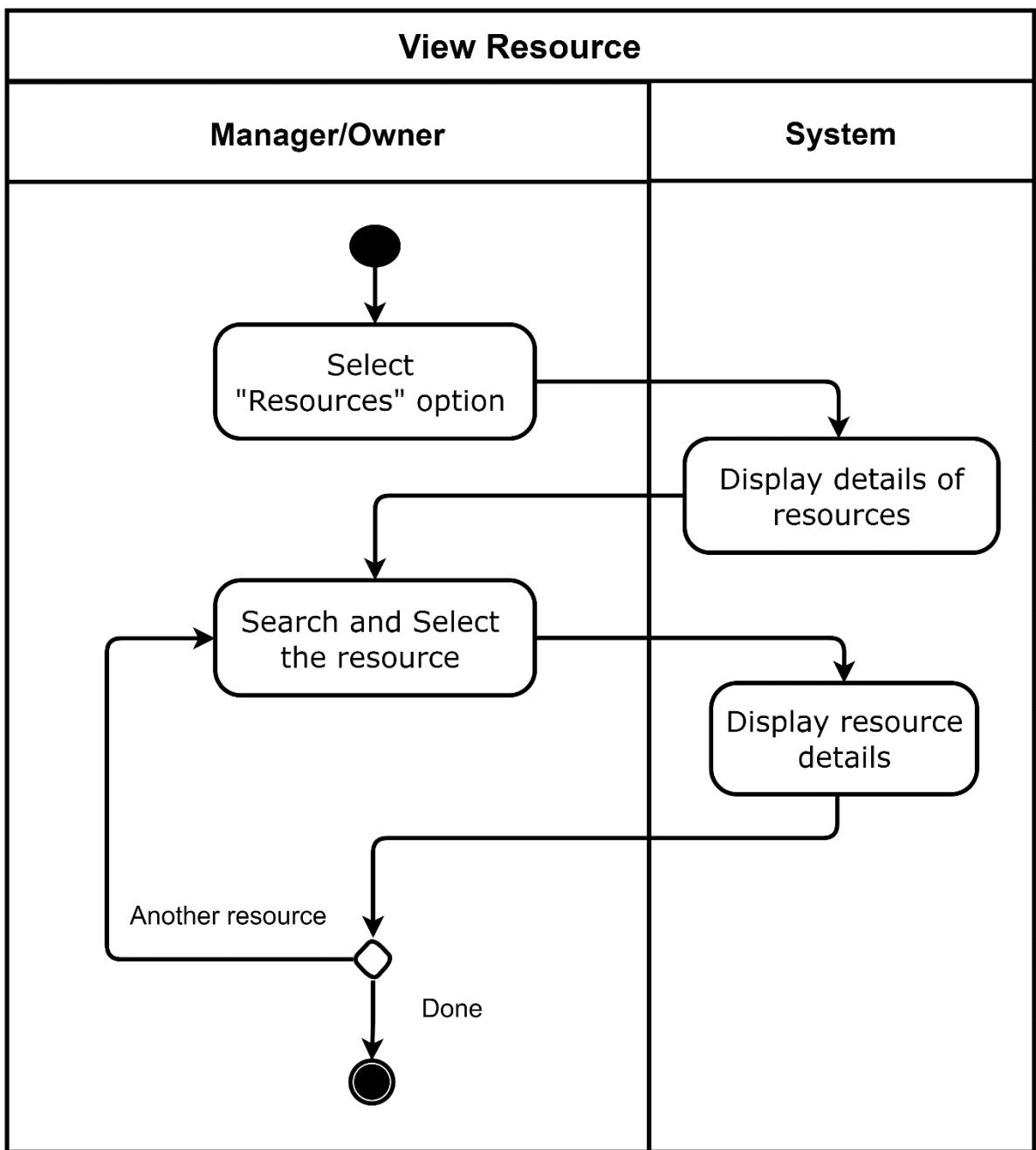


Figure 27: View Resource (Activity Diagram)

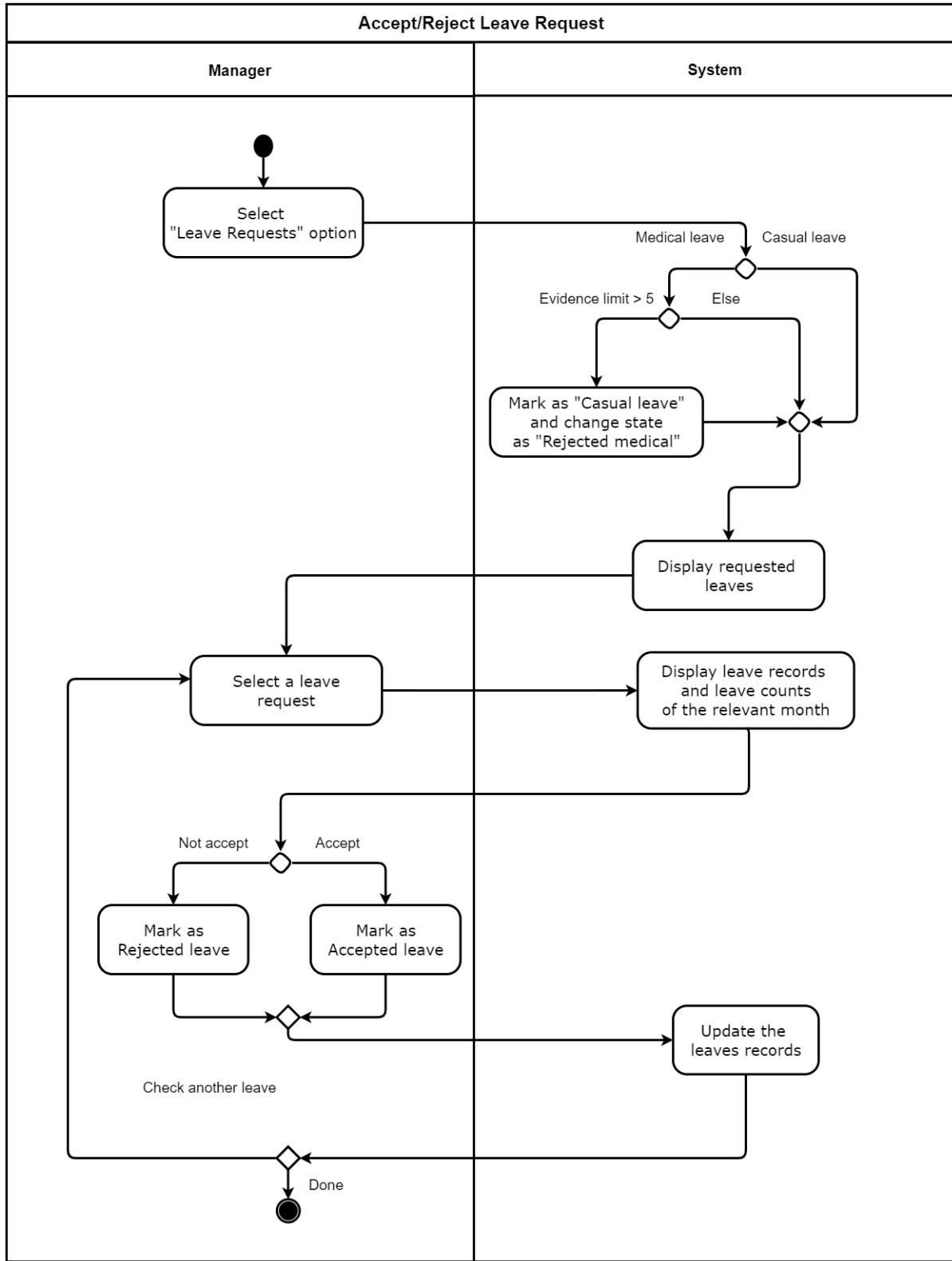


Figure 28: Accept/Reject Leave Request (Activity Diagram)

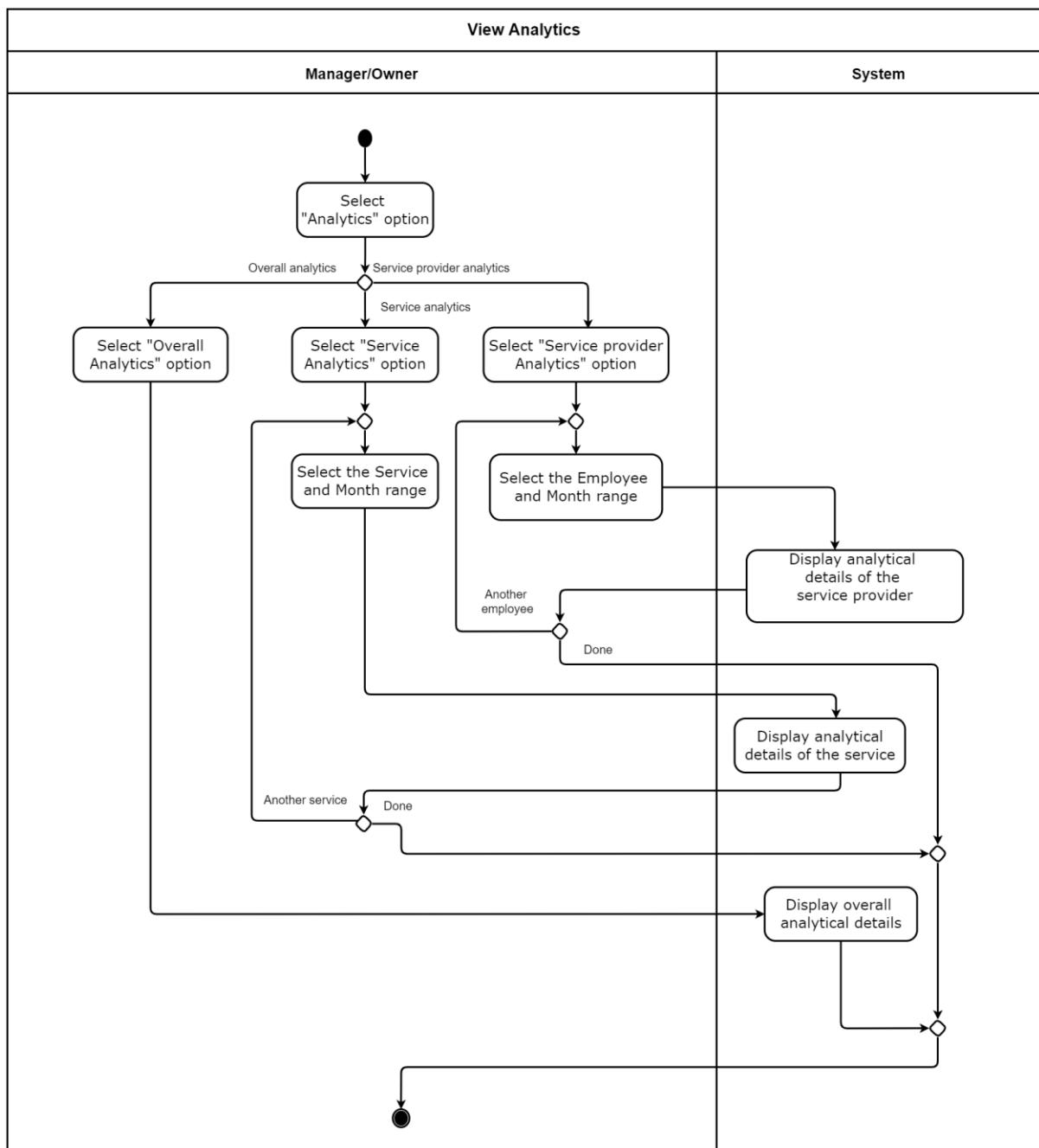


Figure 29: View Analytics (Activity Diagram)

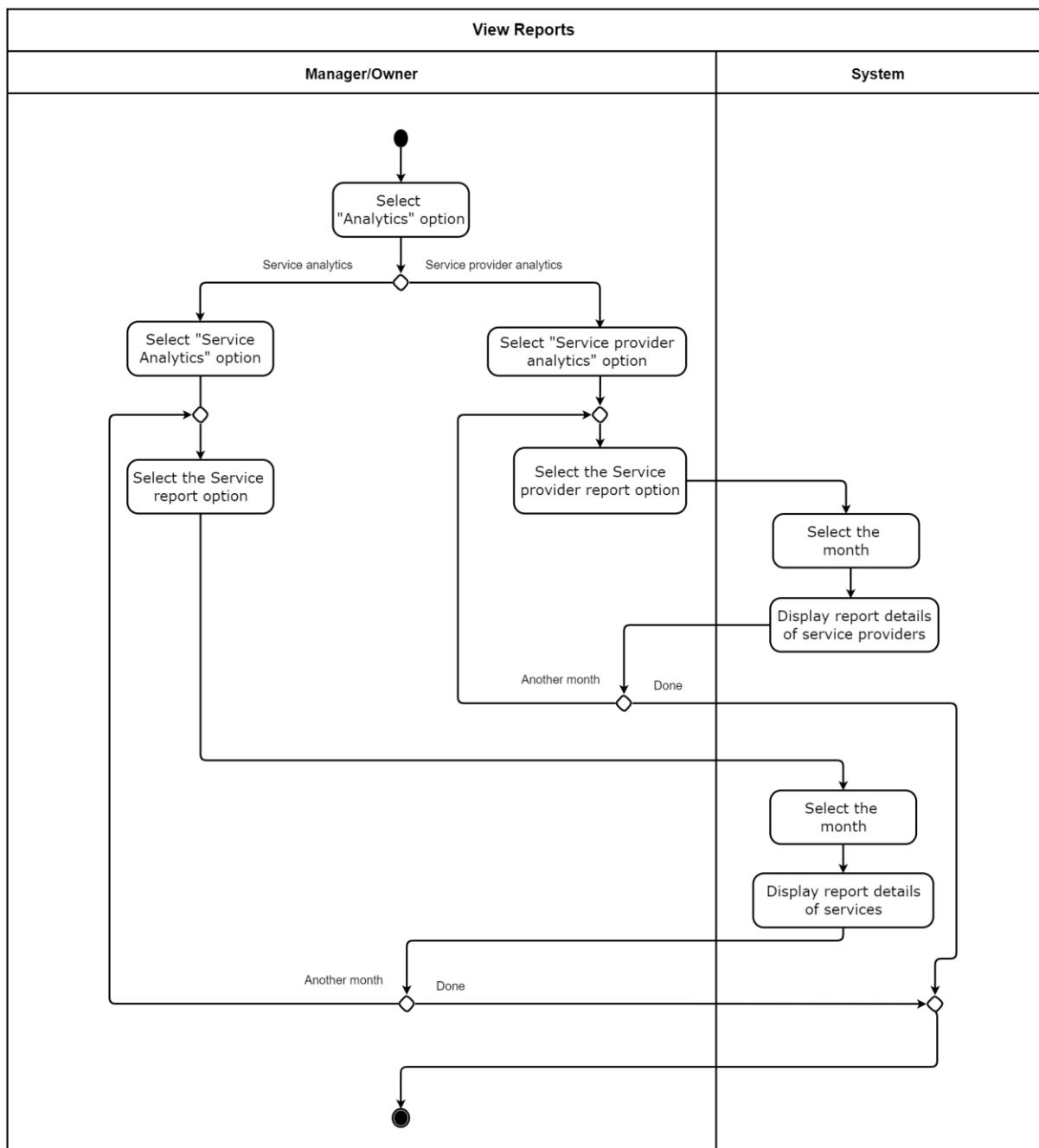


Figure 30:View Reports (Activity Diagram)

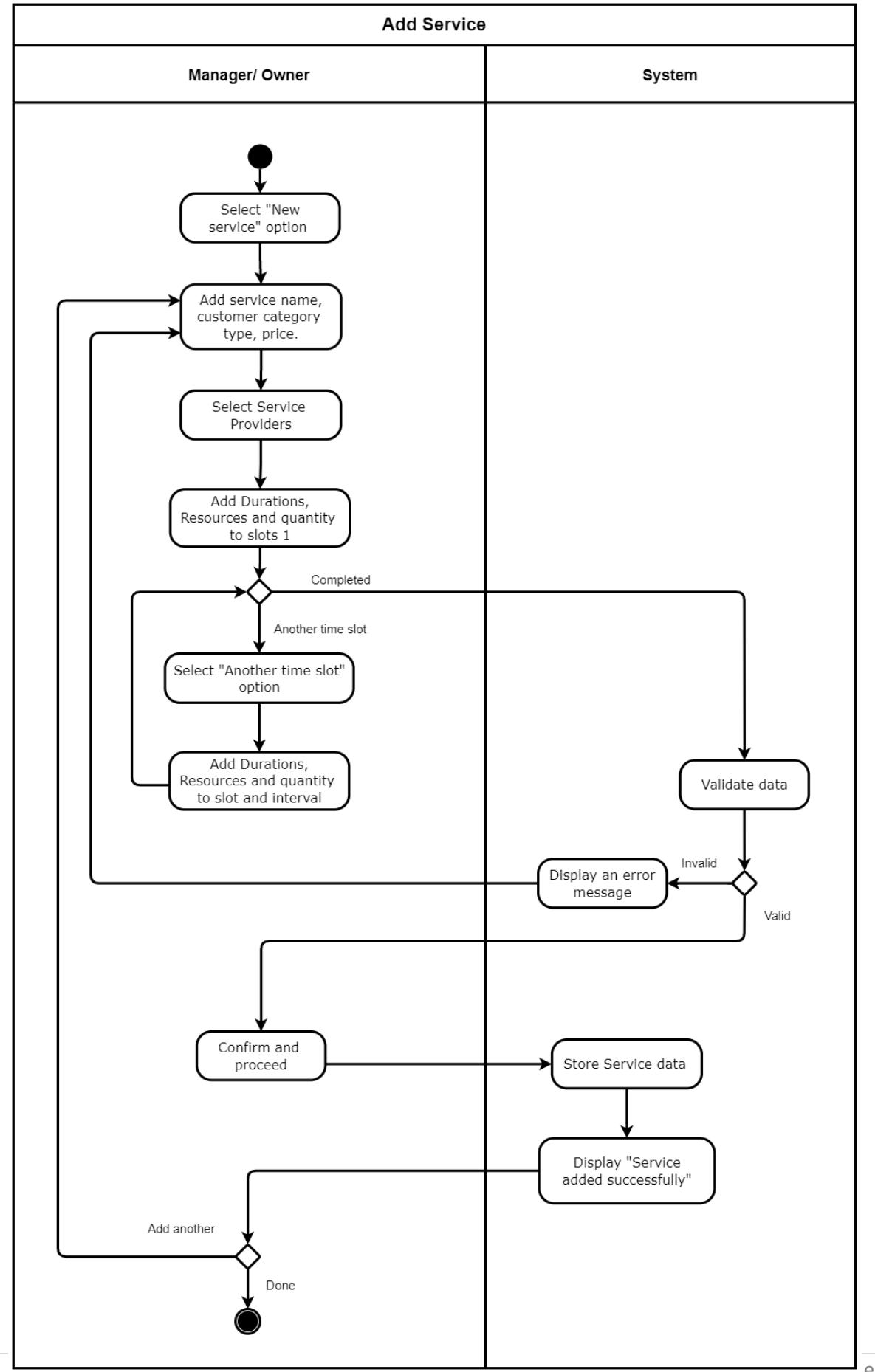


Figure 31: Add Service (Activity Diagram)

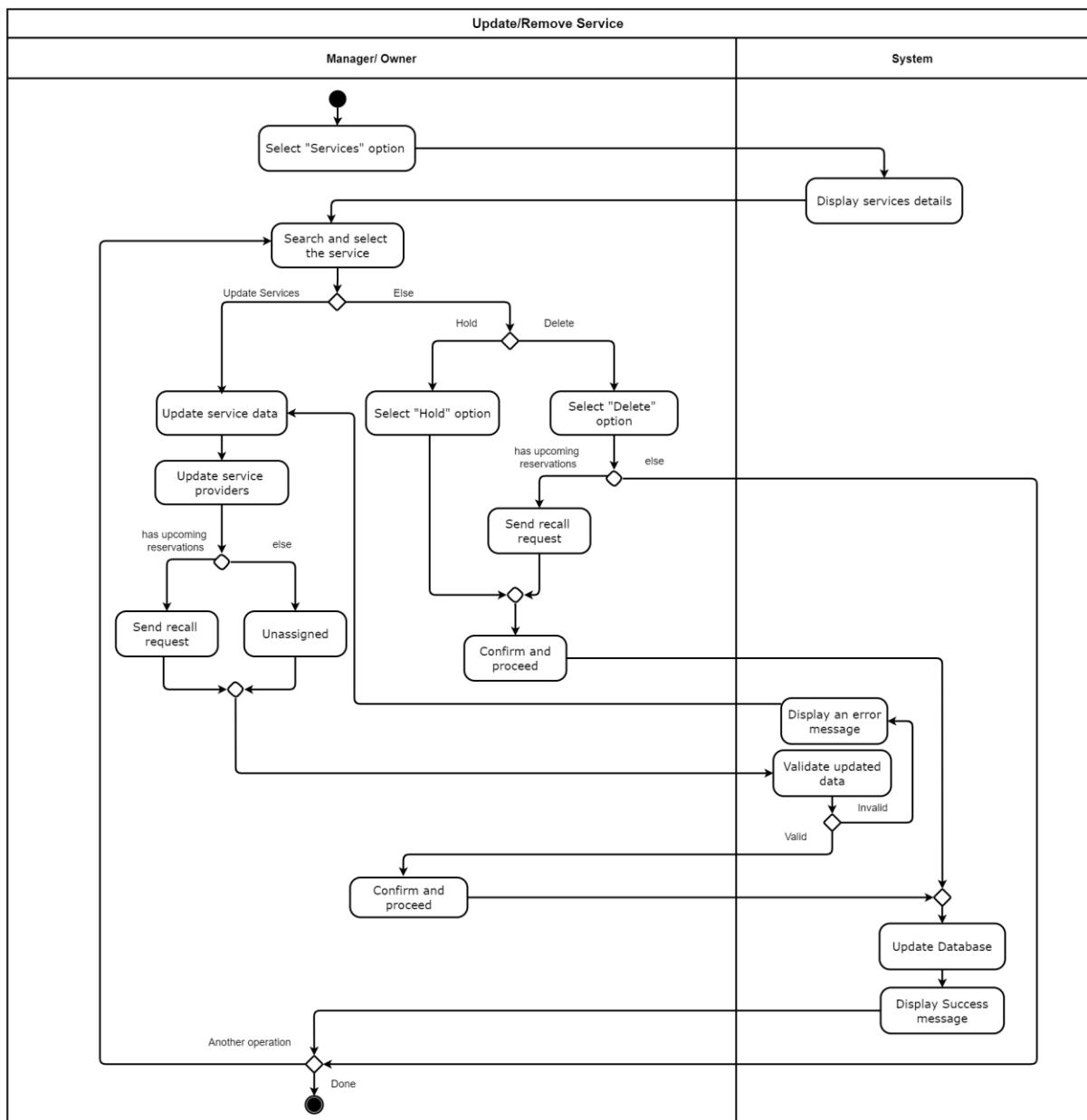


Figure 32: Update/Remove Service (Activity Diagram)

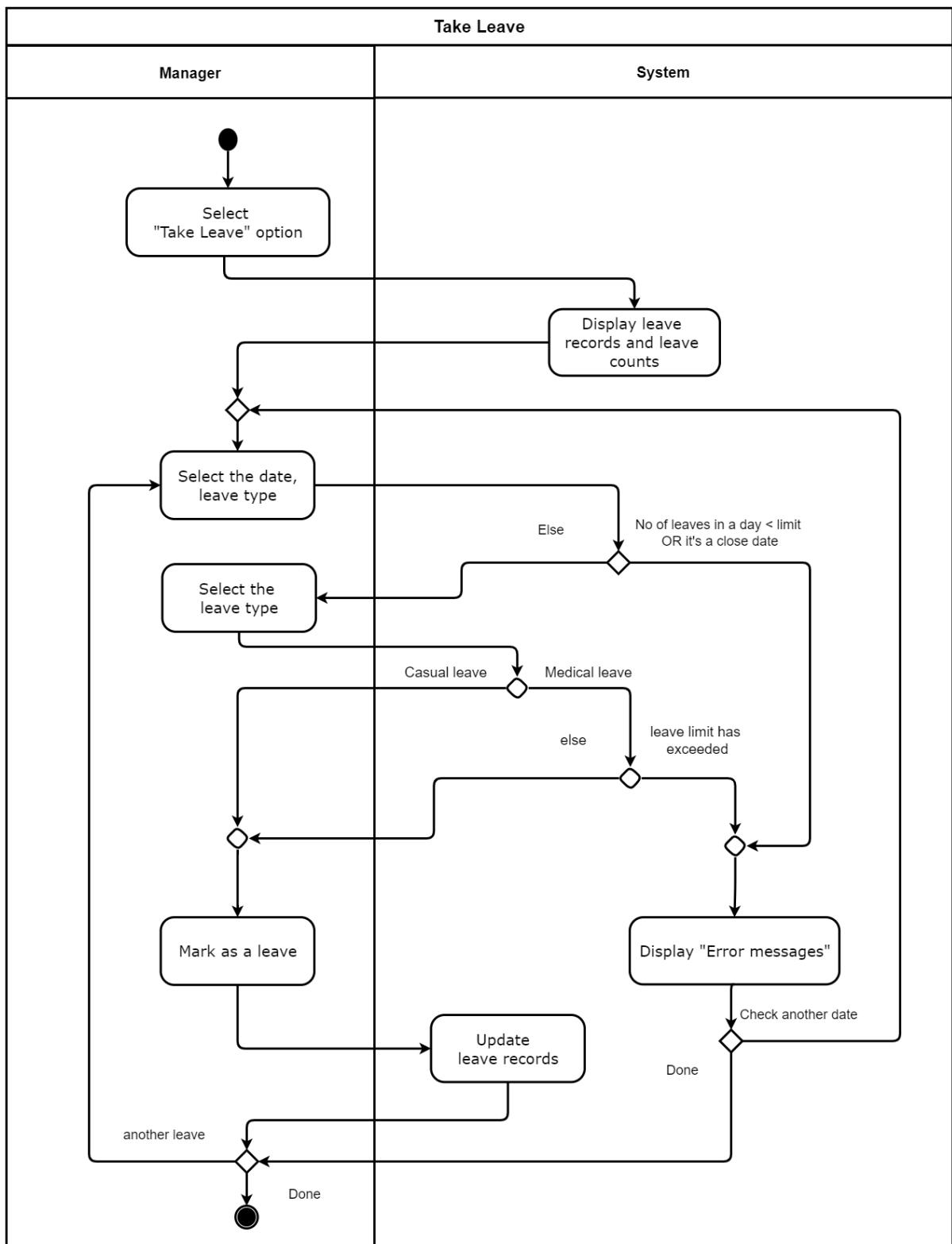


Figure 33: Take Leave (Activity Diagram)

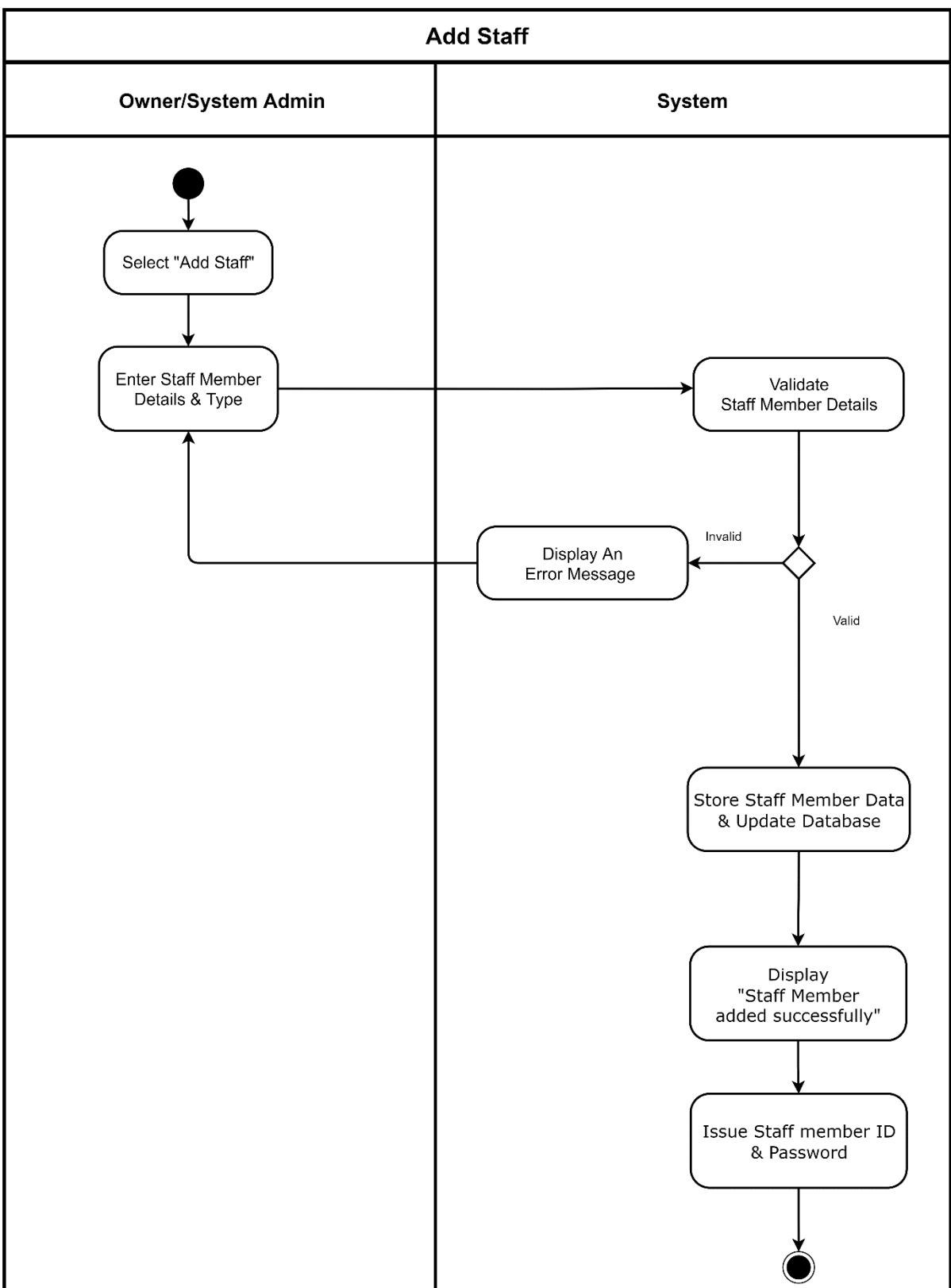


Figure 34: Add Staff (Activity Diagram)

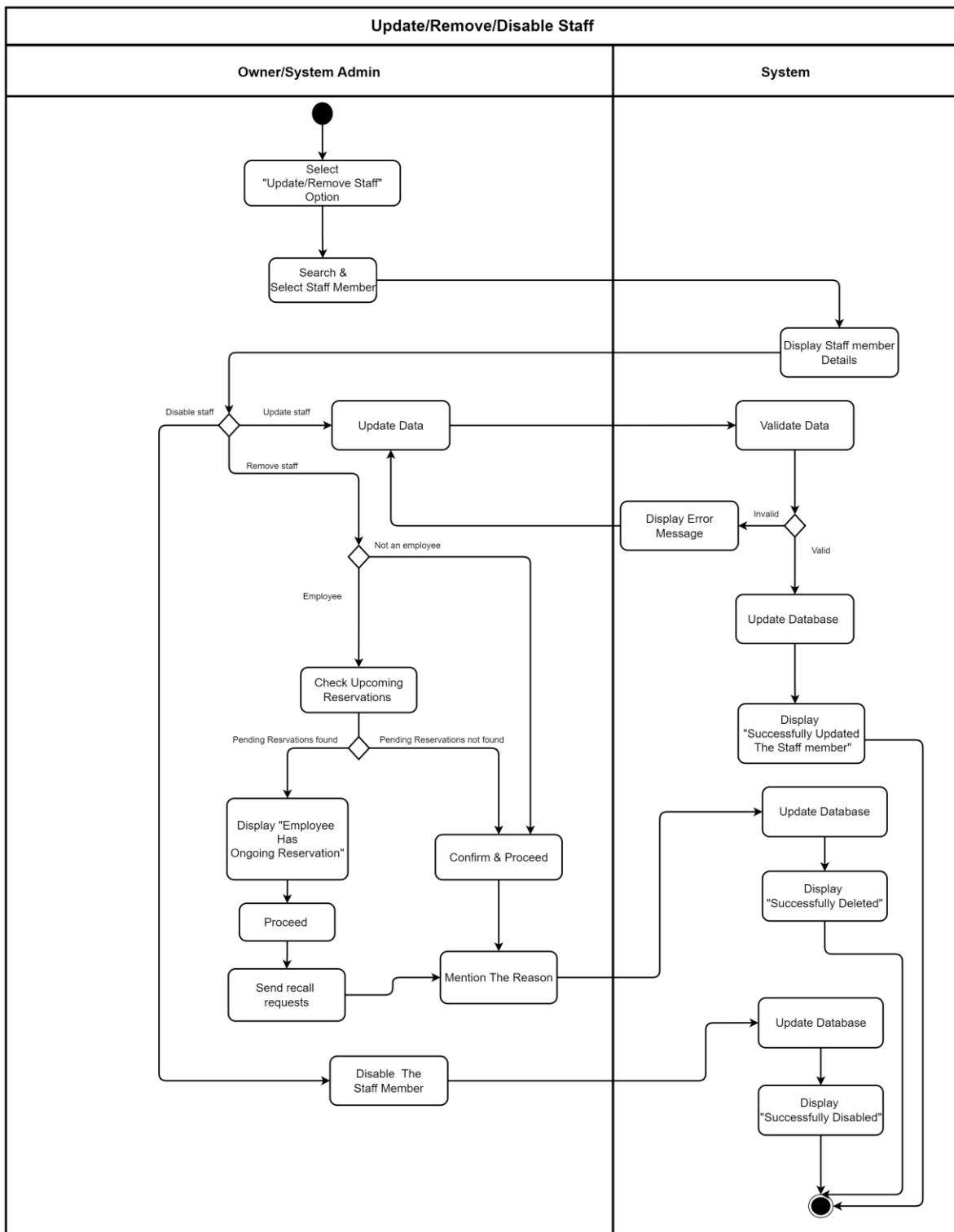


Figure 35: Update/Remove/Disable Staff (Activity Diagram)

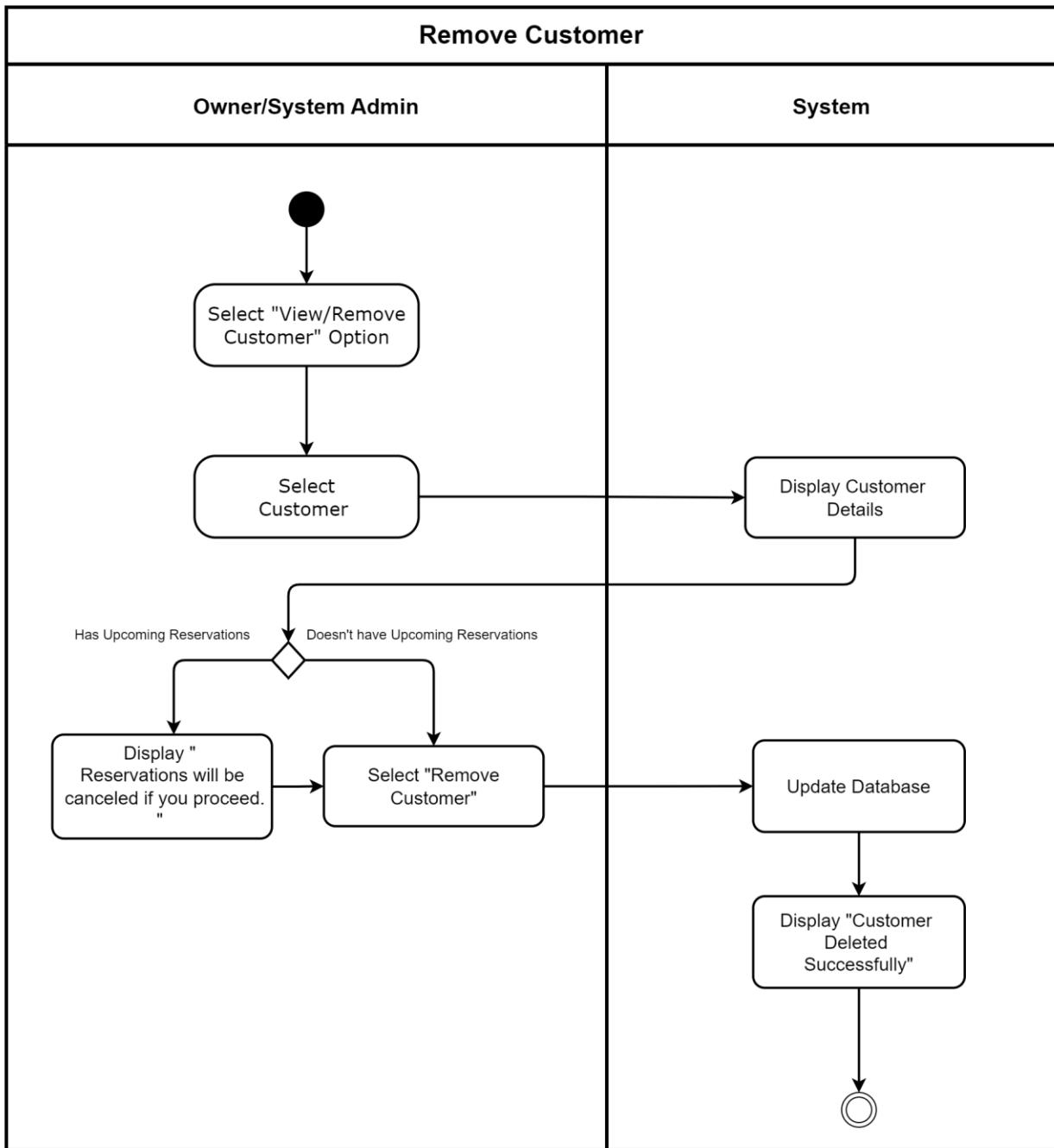


Figure 36: Remove Customer (Activity Diagram)

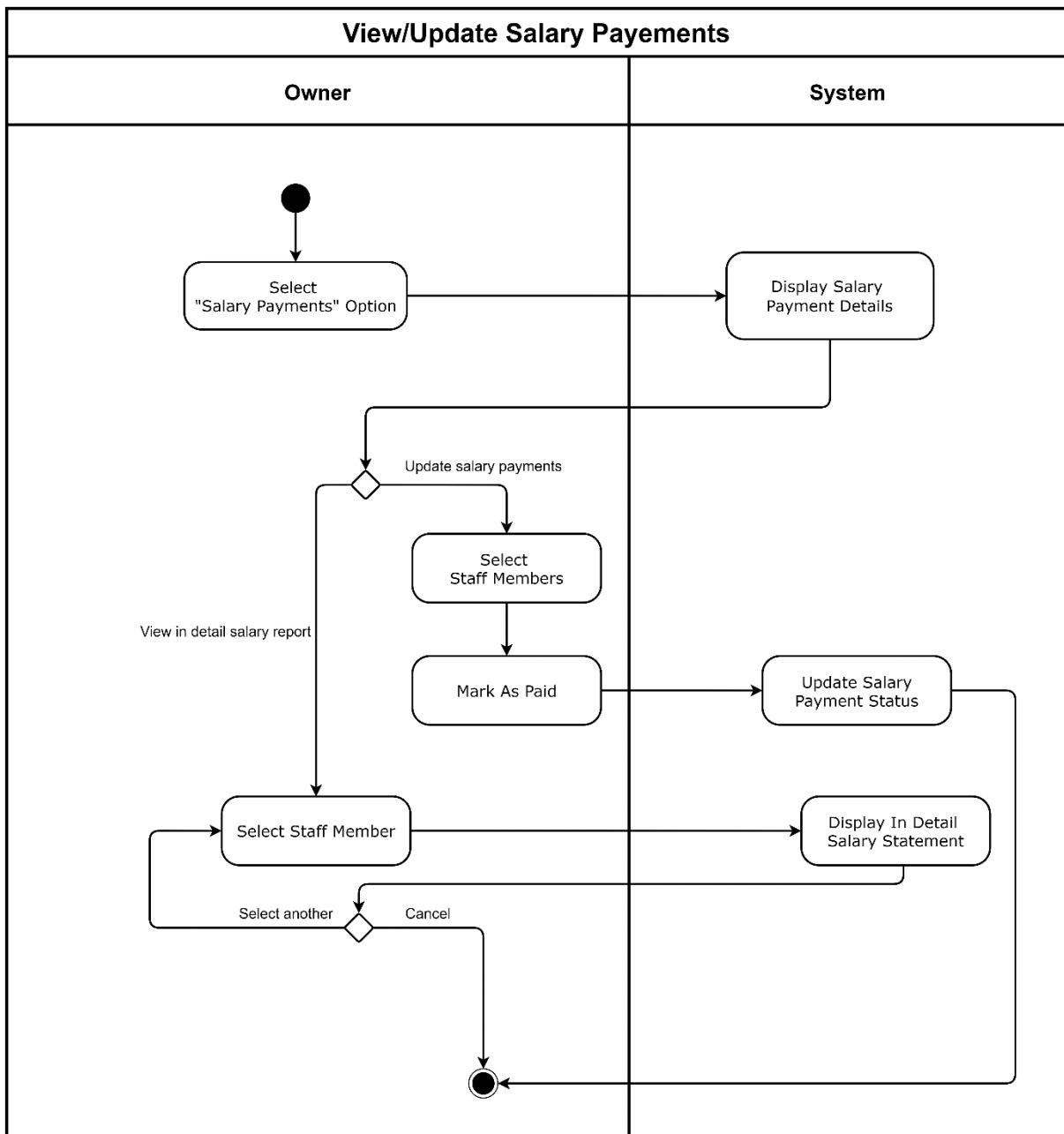


Figure 37: View/Update Salary Payments (Activity Diagram)

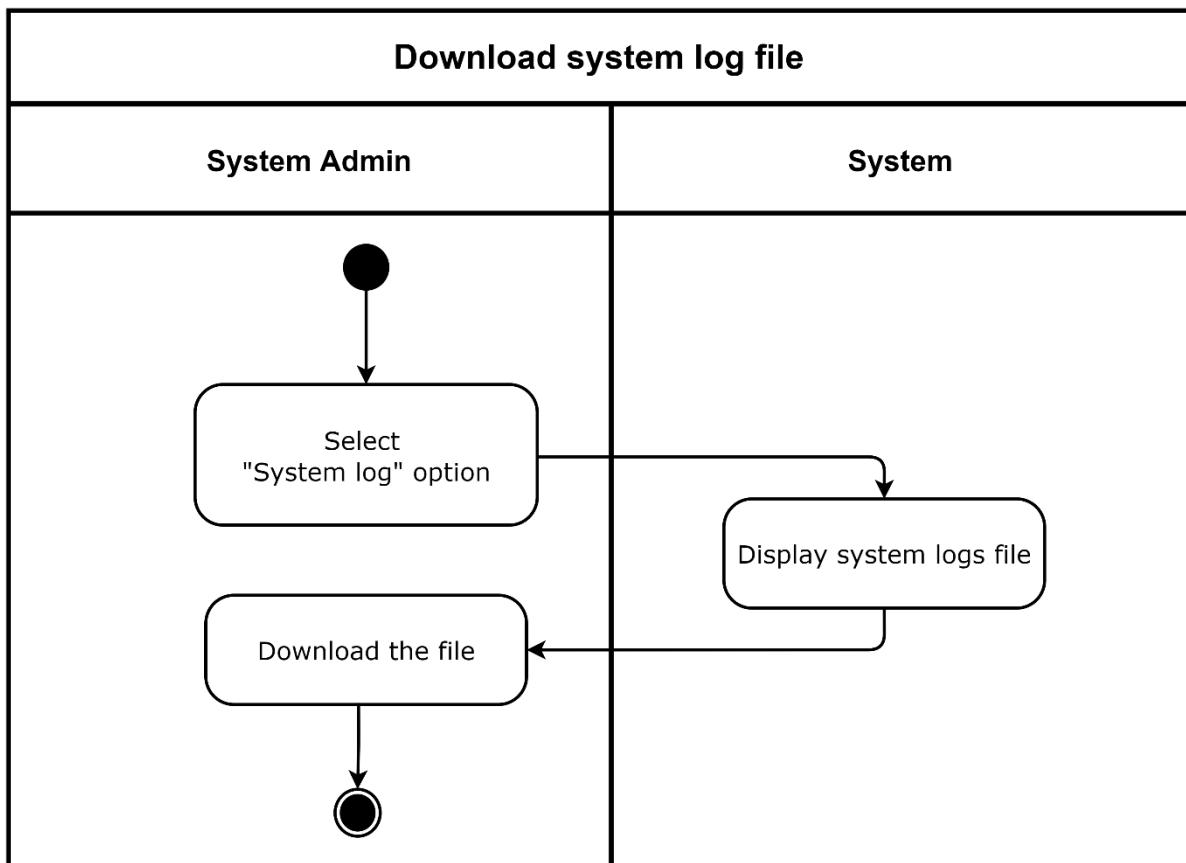


Figure 38: Download System Log File (Activity Diagram)

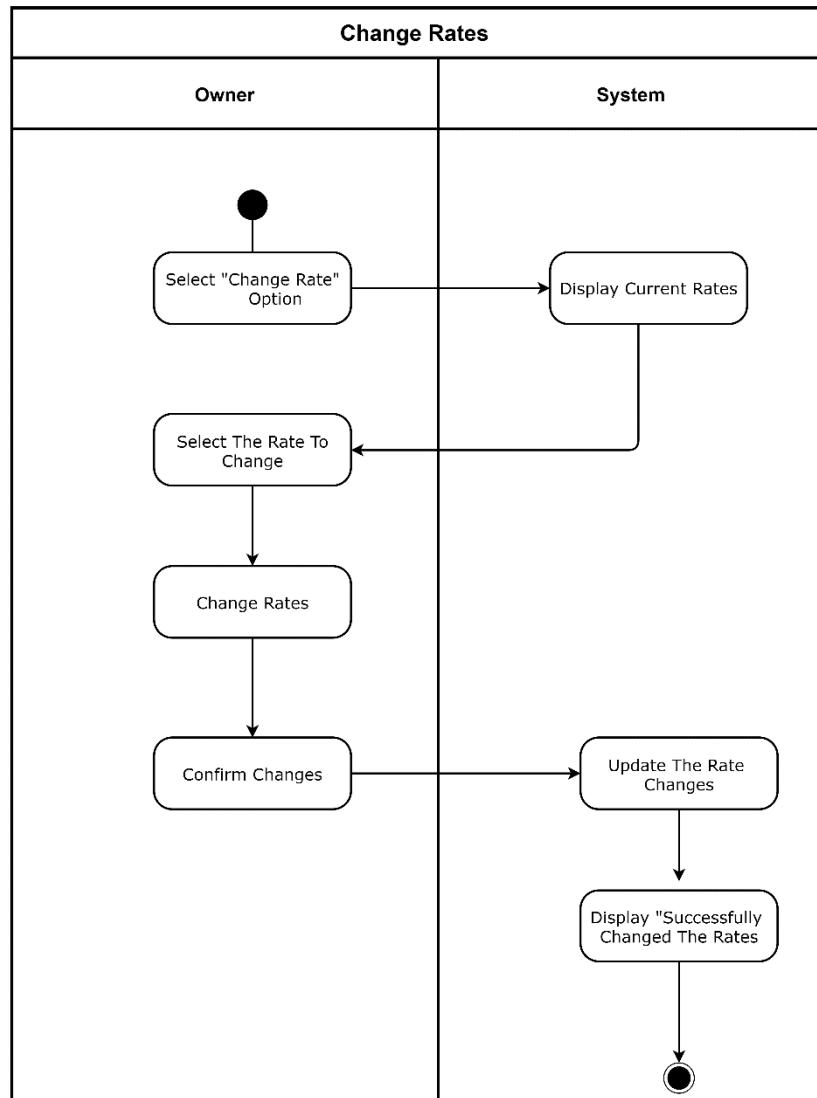


Figure 39: Change Rates (Activity Diagram)

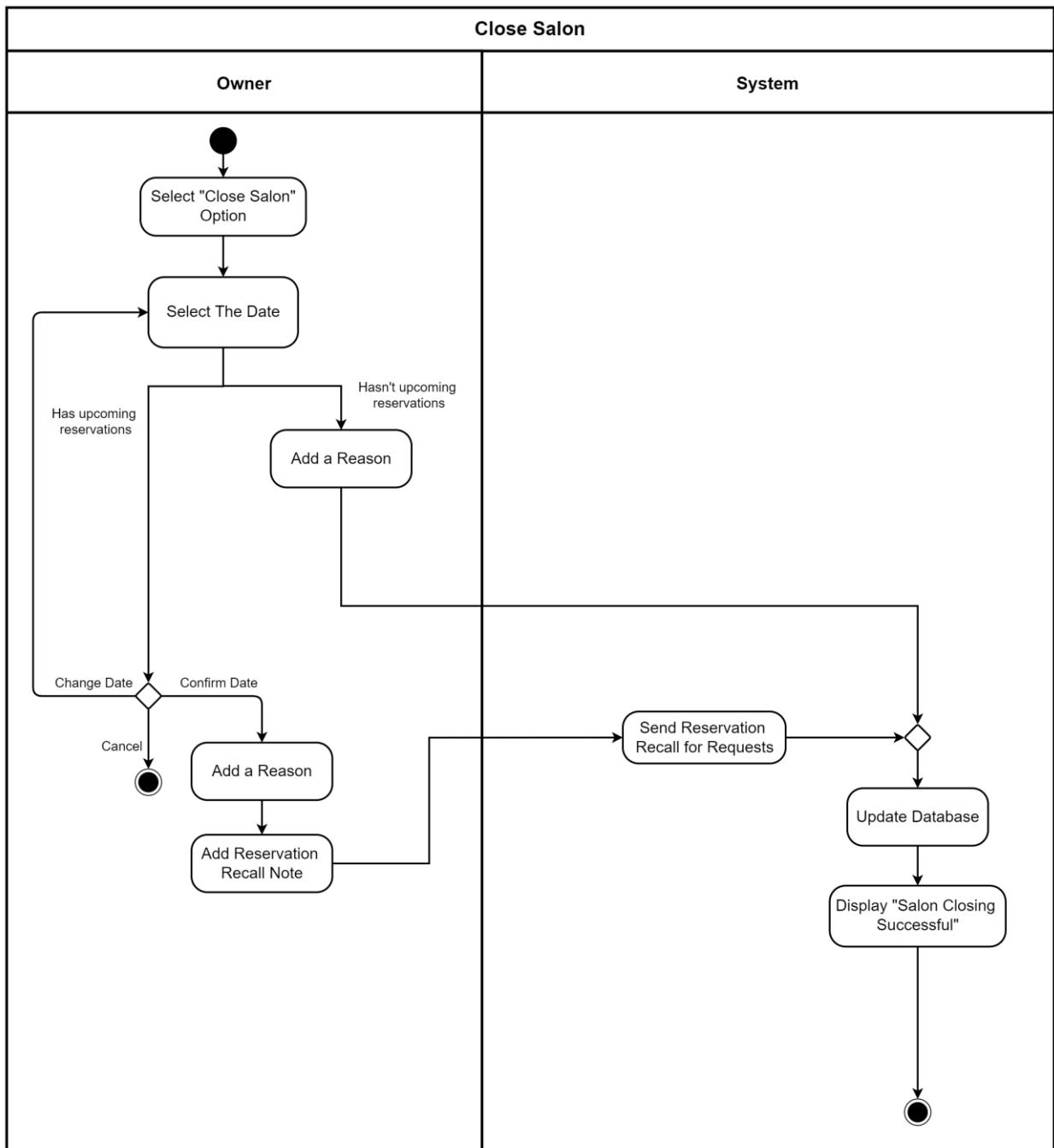


Figure 40: Close salon (Activity Diagram)

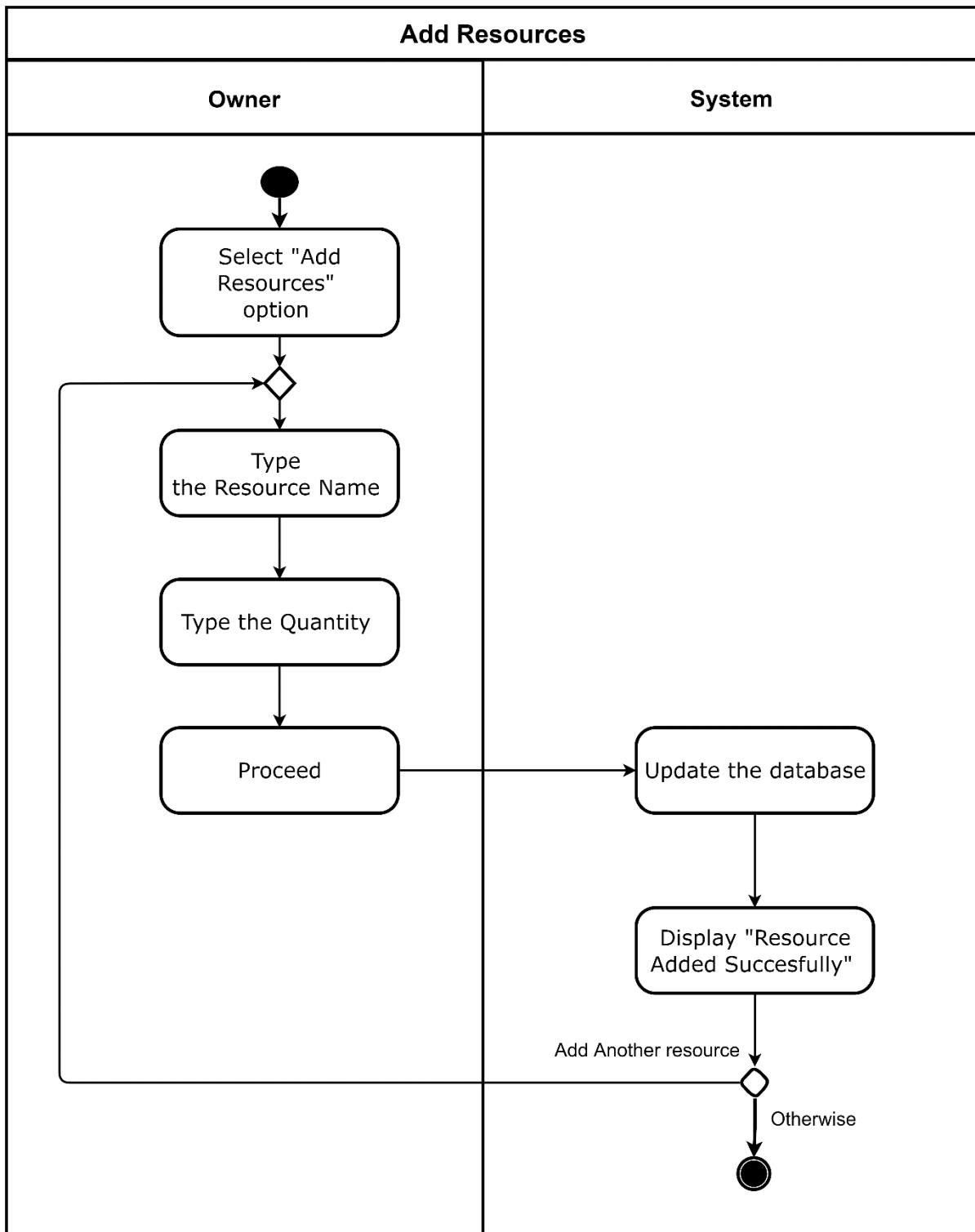


Figure 4I: Add Resources (Activity Diagram)

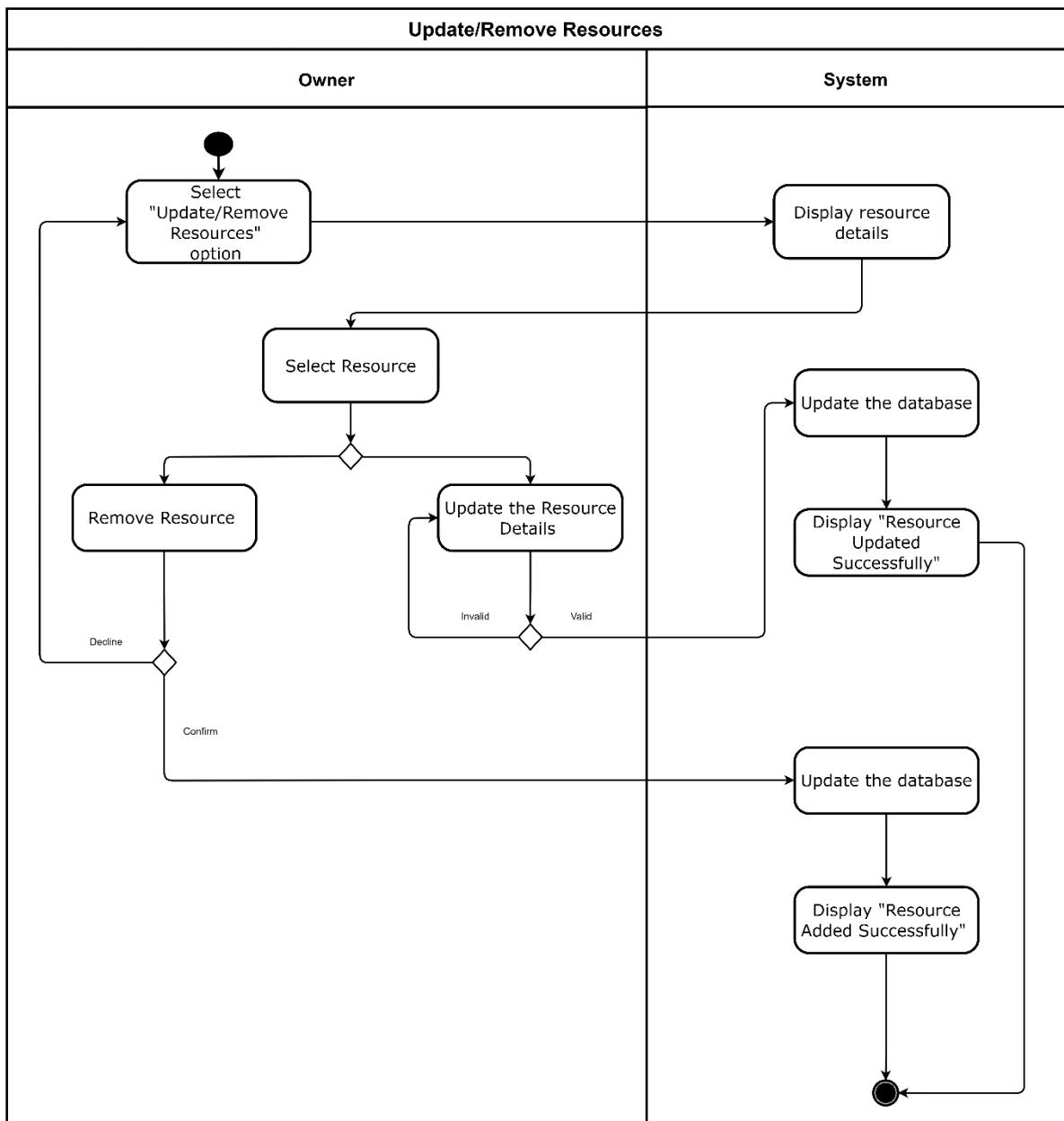


Figure 42: Update/Remove Resources (Activity Diagram)

7. Sequence Diagrams

Link to Sequence Diagrams: https://bit.ly/Sequence_Diagrams_CS30

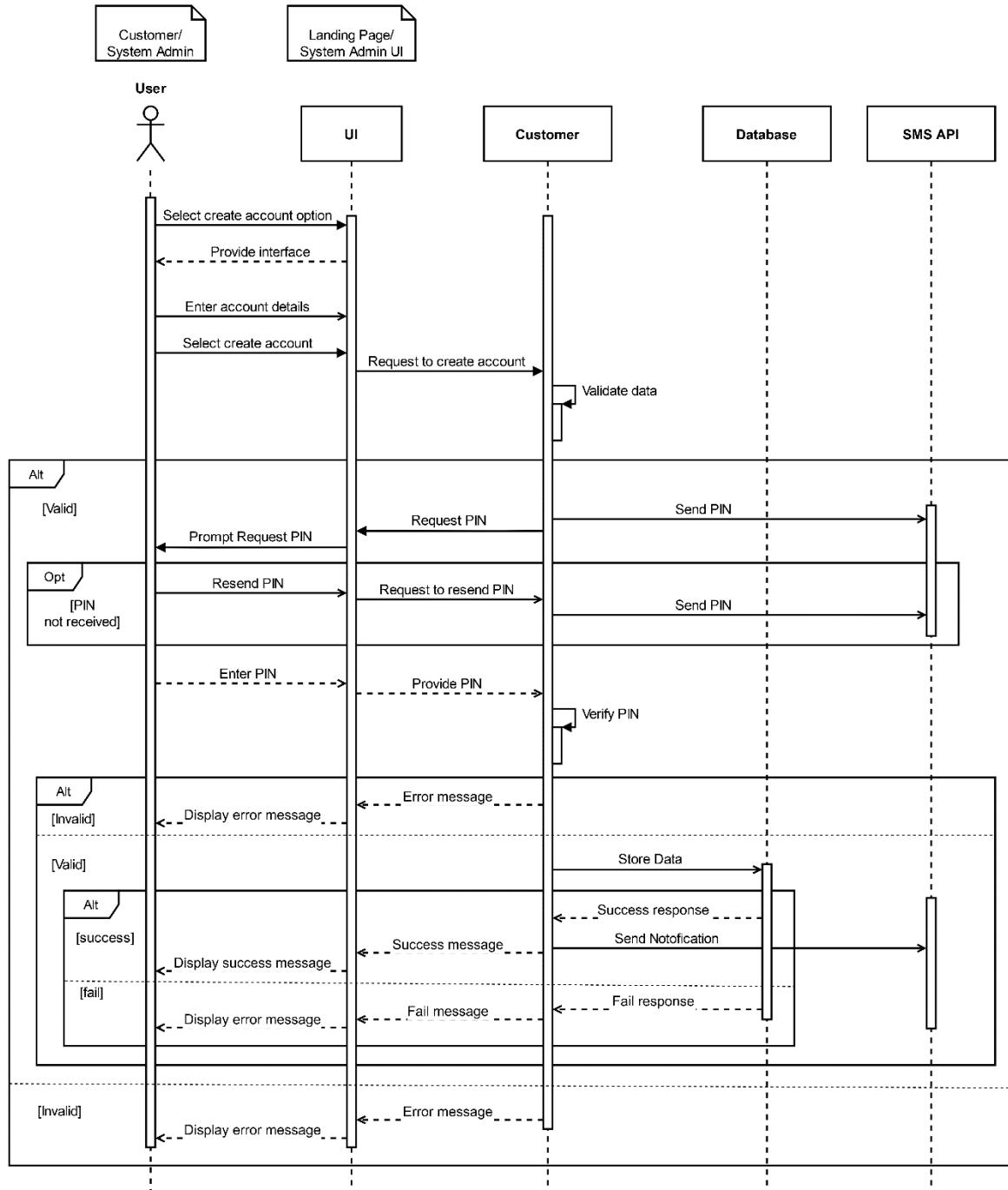


Figure 43: Create Customer Account (Sequence Diagram)

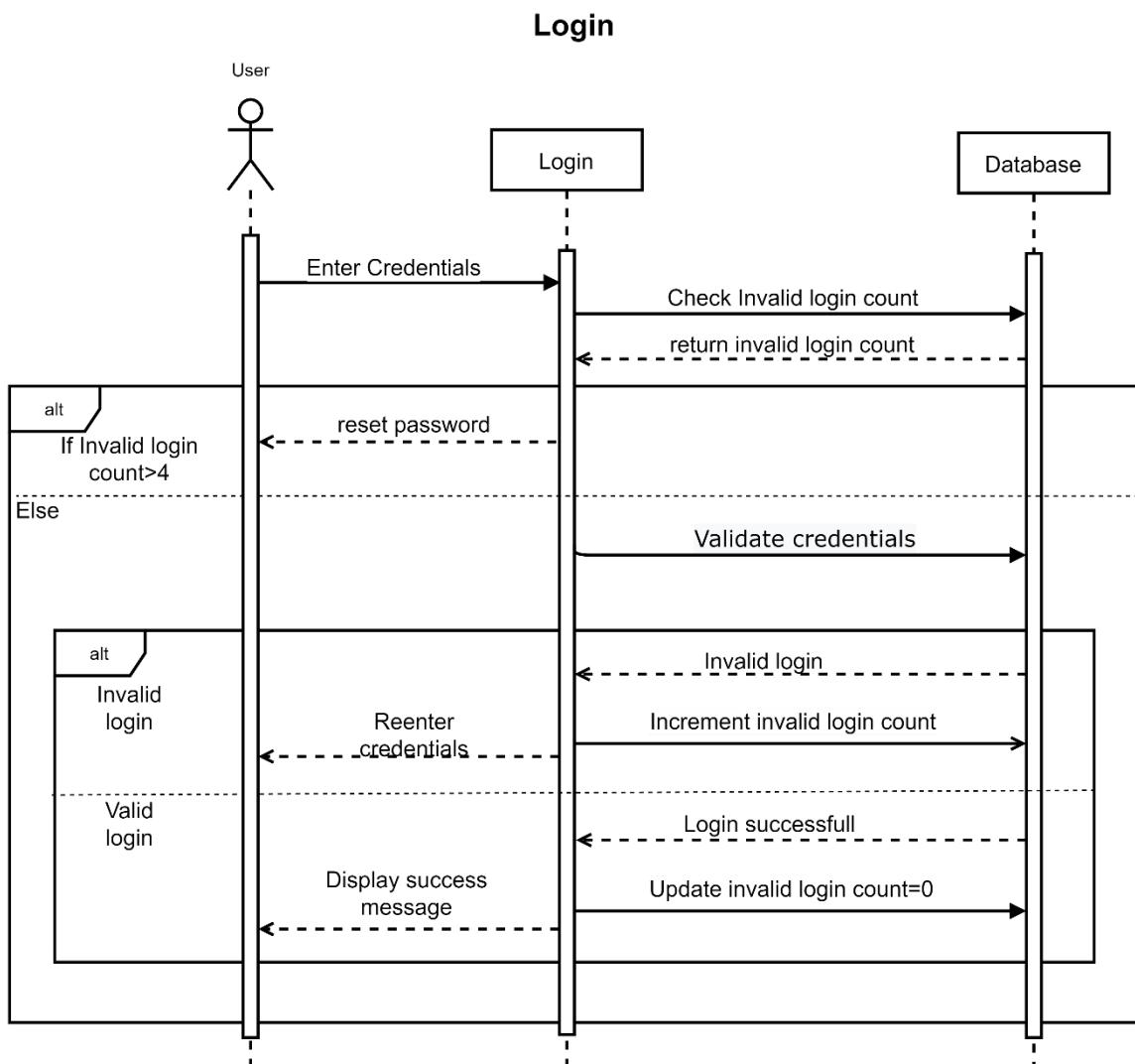


Figure 44: Login (Sequence Diagram)

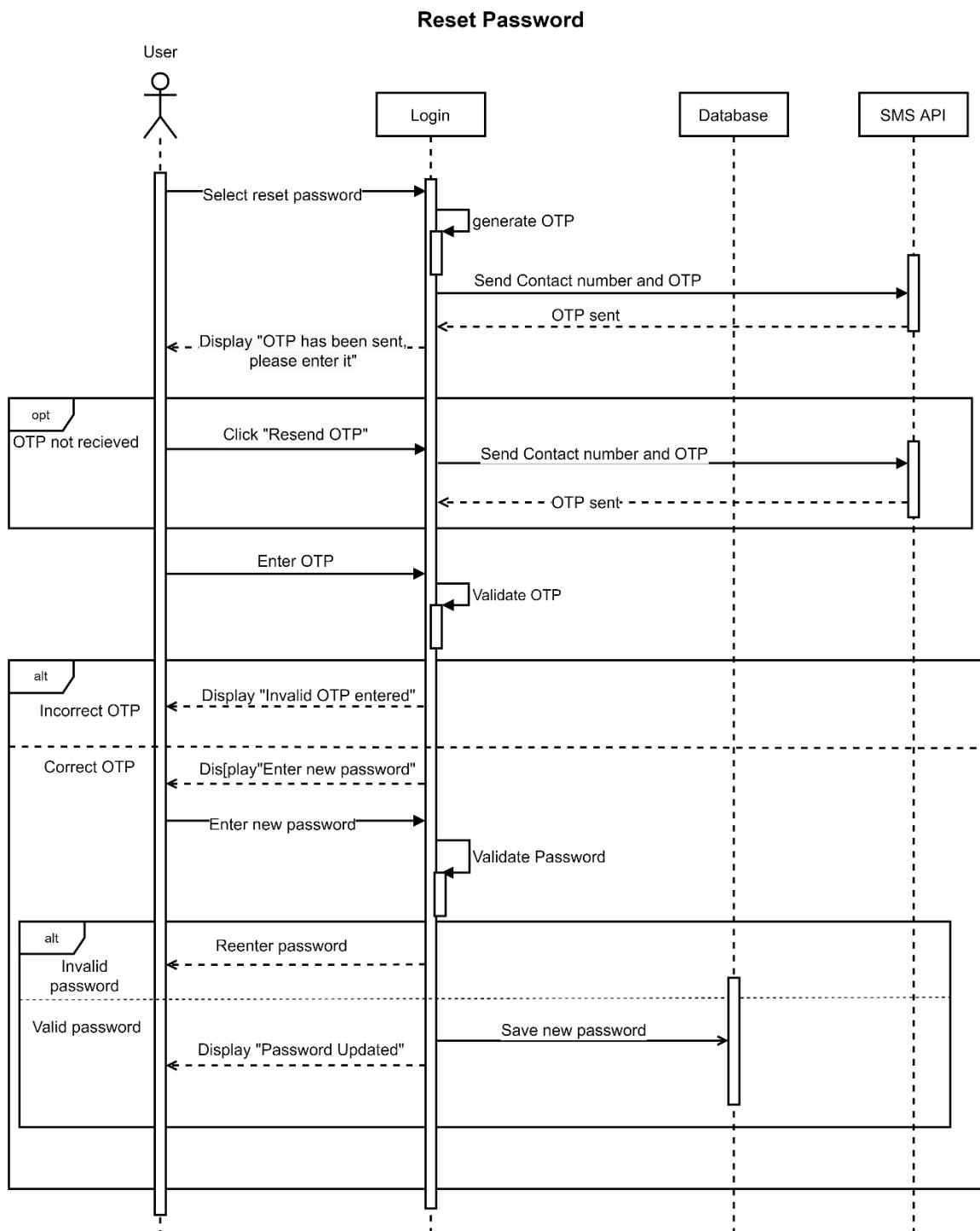


Figure 45: Reset Password (Sequence Diagram)

Change Password

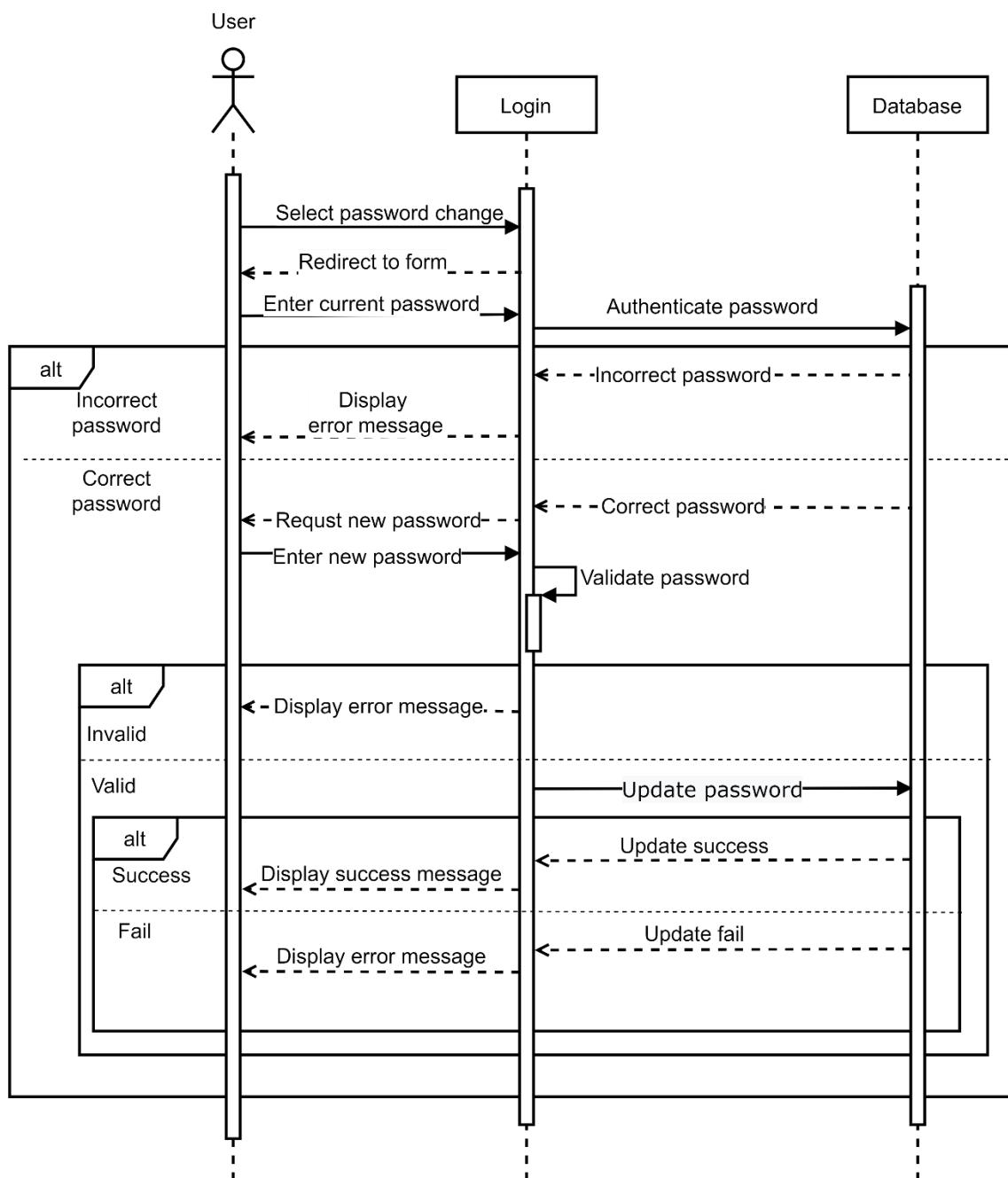


Figure 46: Change Password (Sequence Diagram)

View Profile

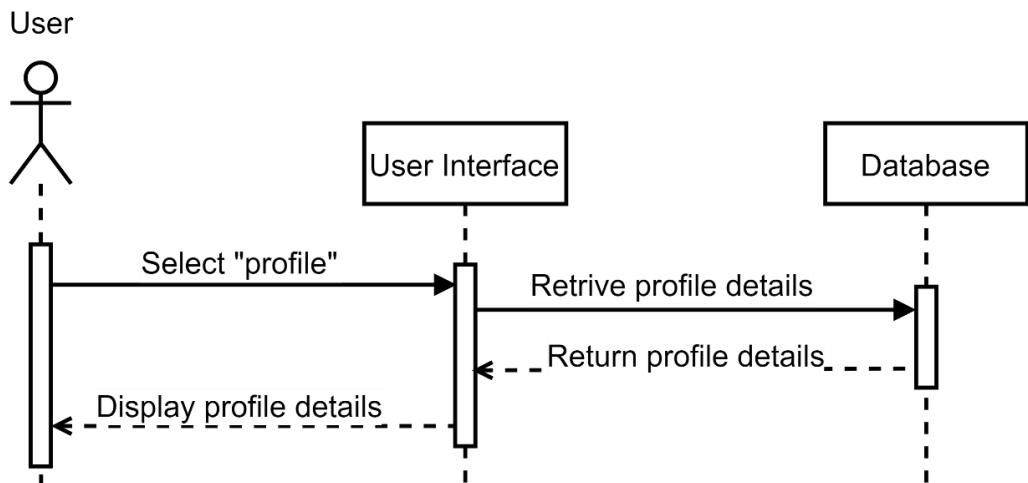


Figure 47: View Profile (Sequence Diagram)

Logout

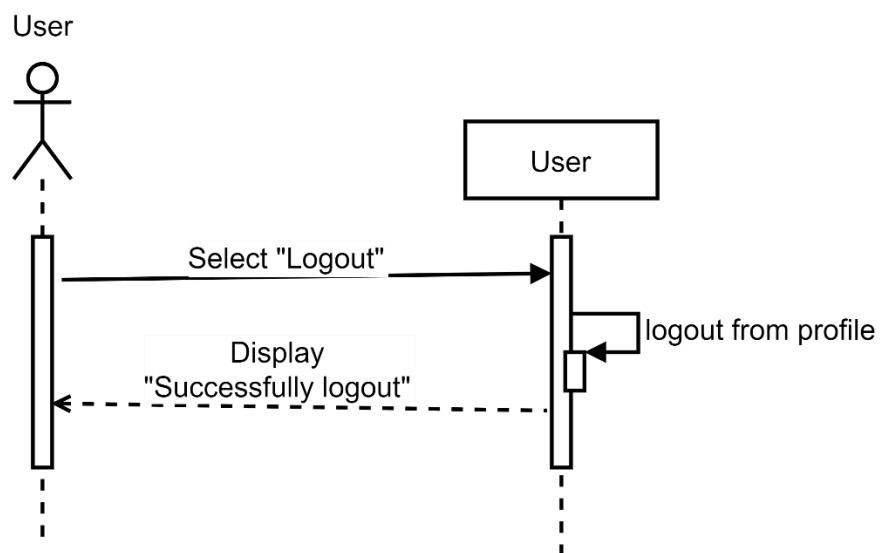


Figure 48: Logout (Sequence Diagram)

Update Profile

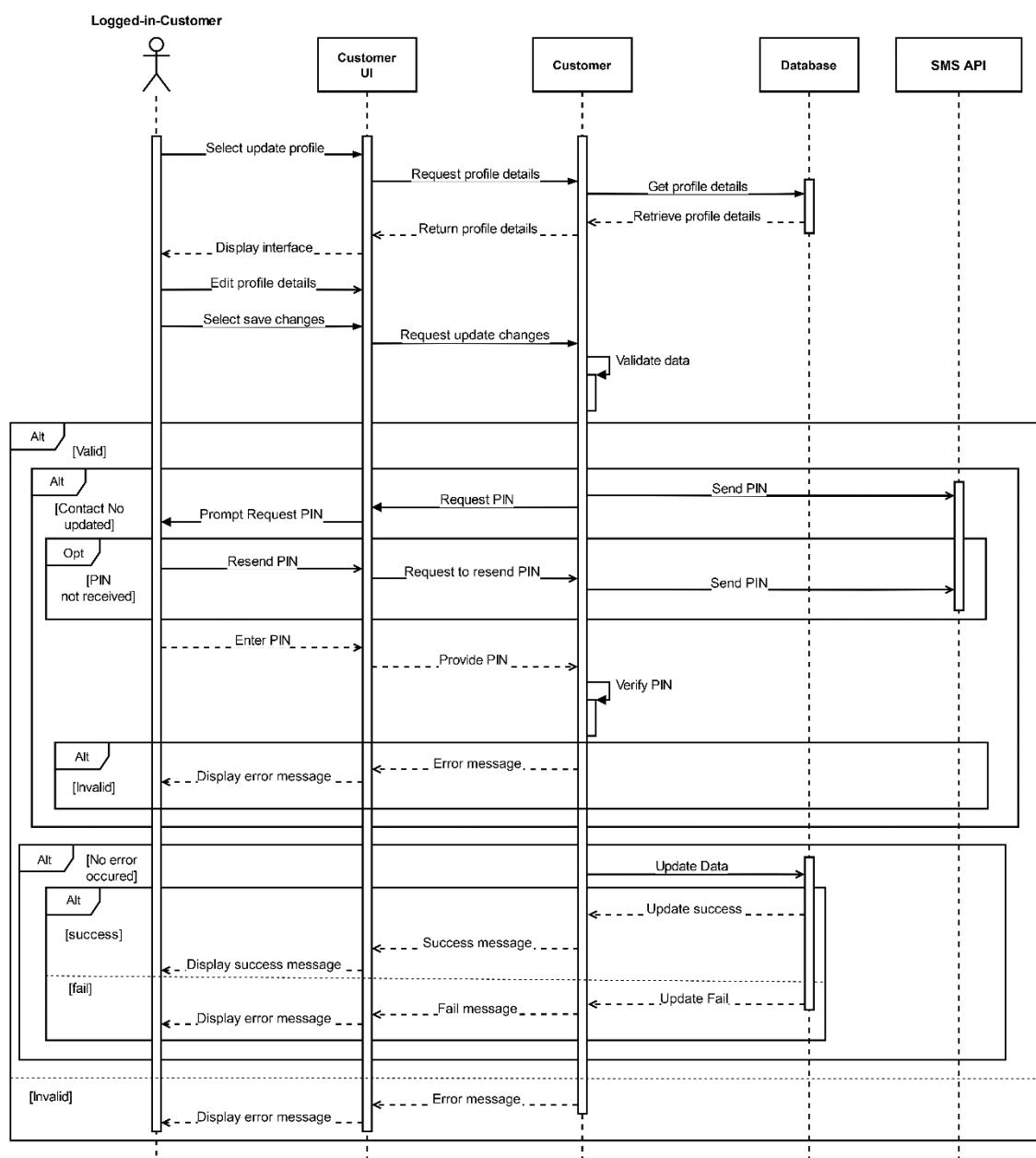


Figure 49: Update Profile (Sequence Diagram)

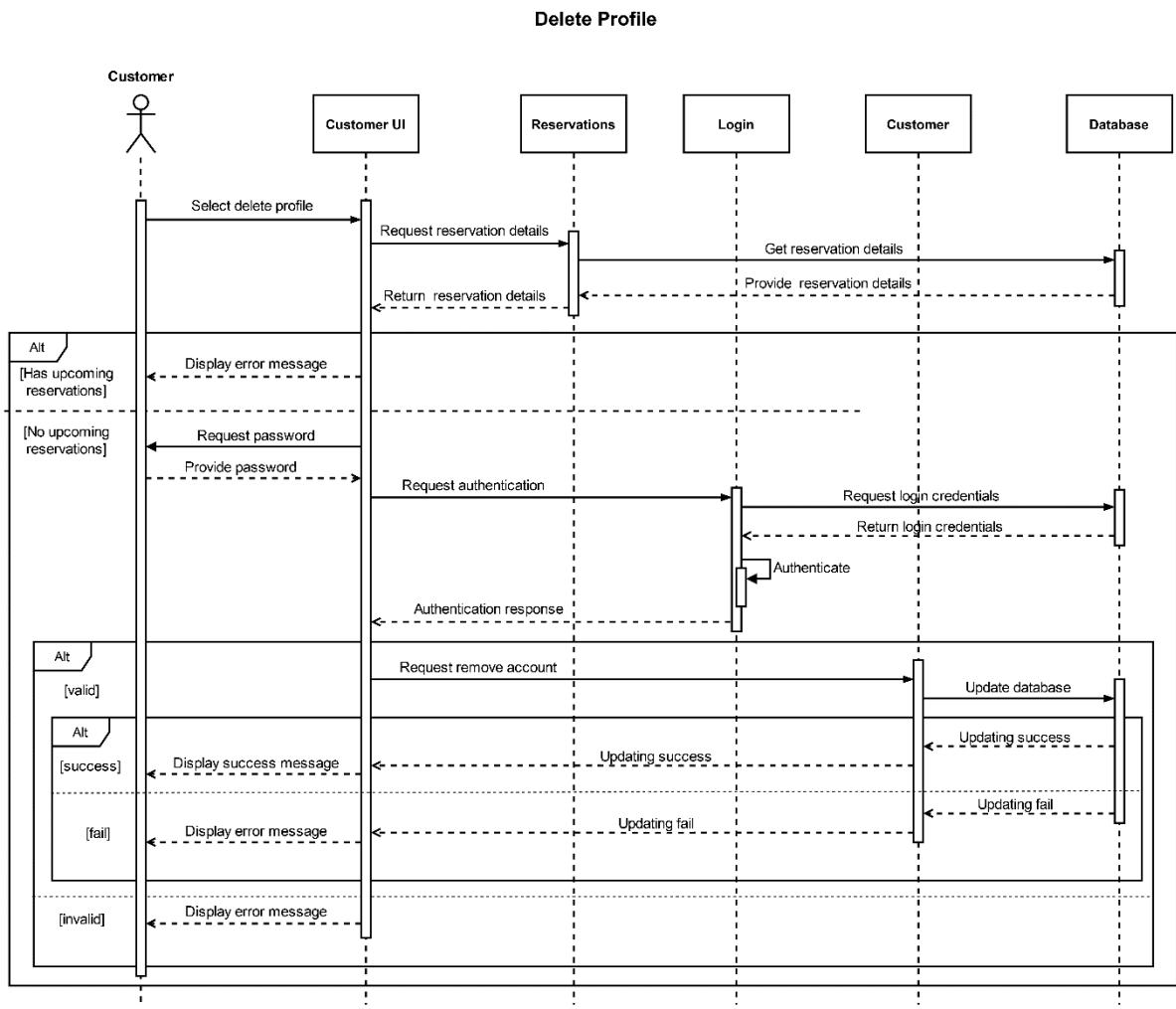


Figure 50: Delete Profile (Sequence Diagram)

View Reservations Log

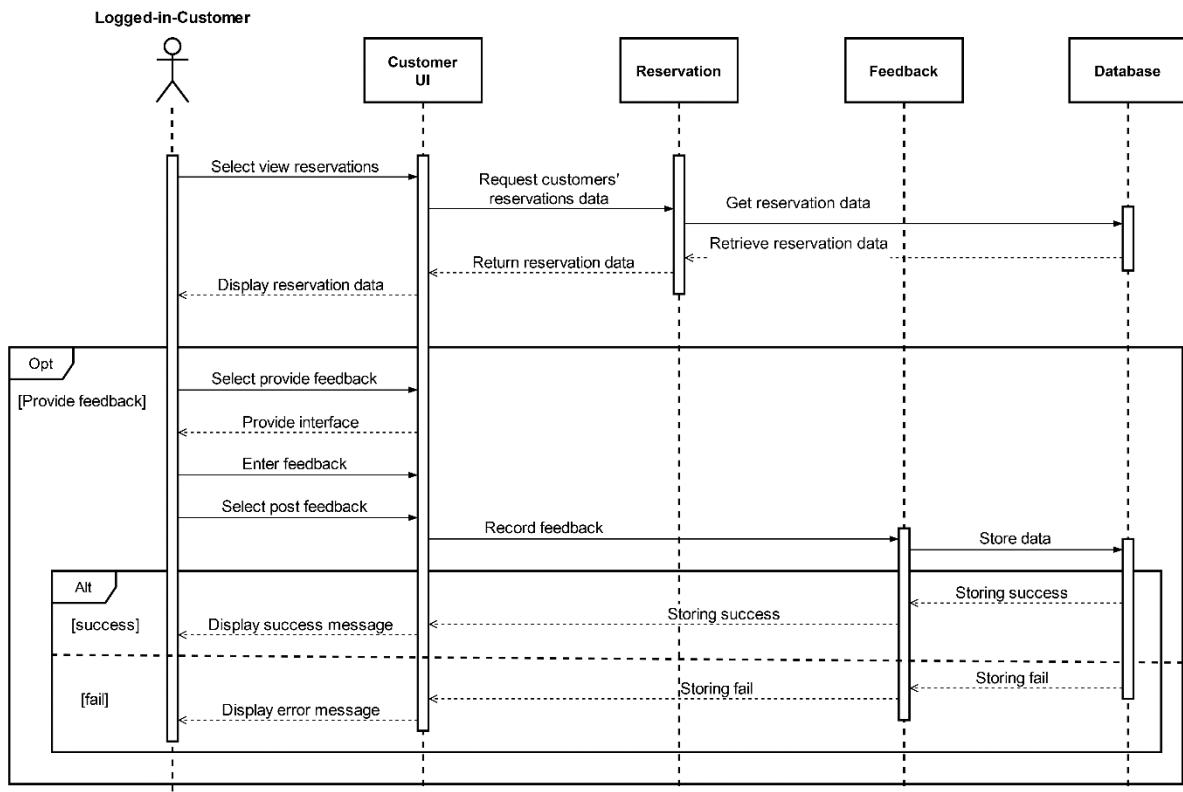


Figure 51: View Reservation Logs (Sequence Diagram)

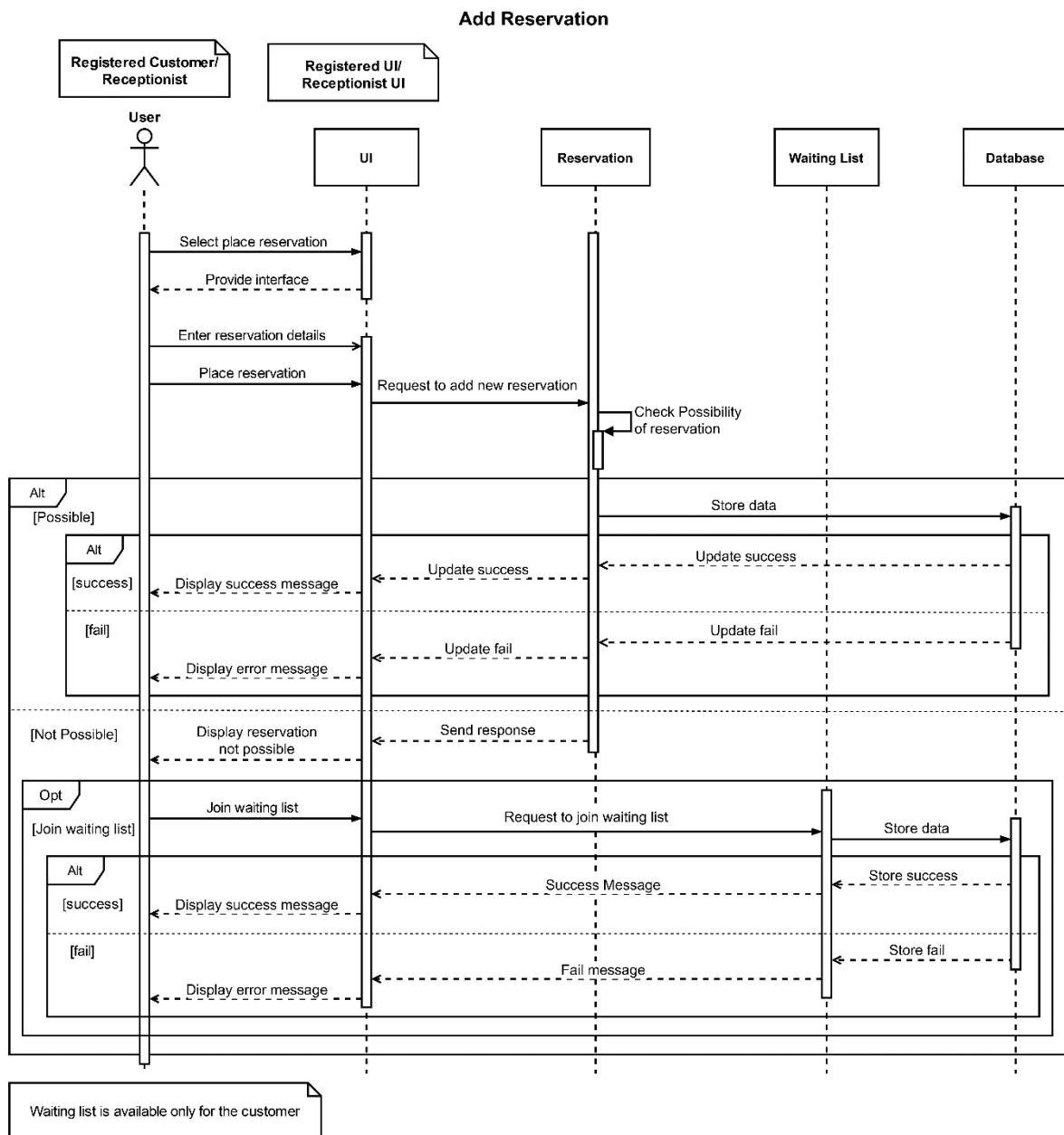


Figure 52: Add Reservation (Sequence Diagram)

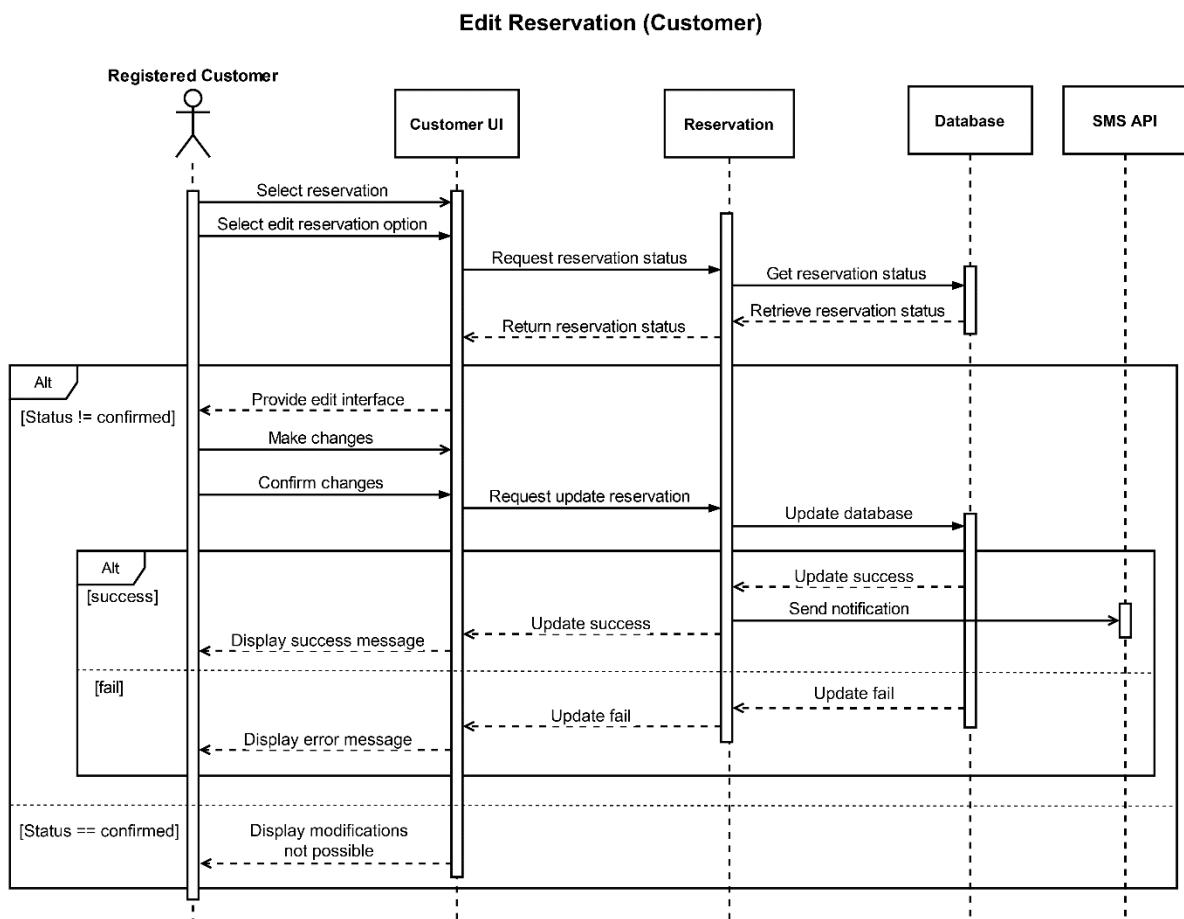


Figure 53: Edit Reservation-Customer (Sequence Diagram)

Edit Reservation (Receptionist)

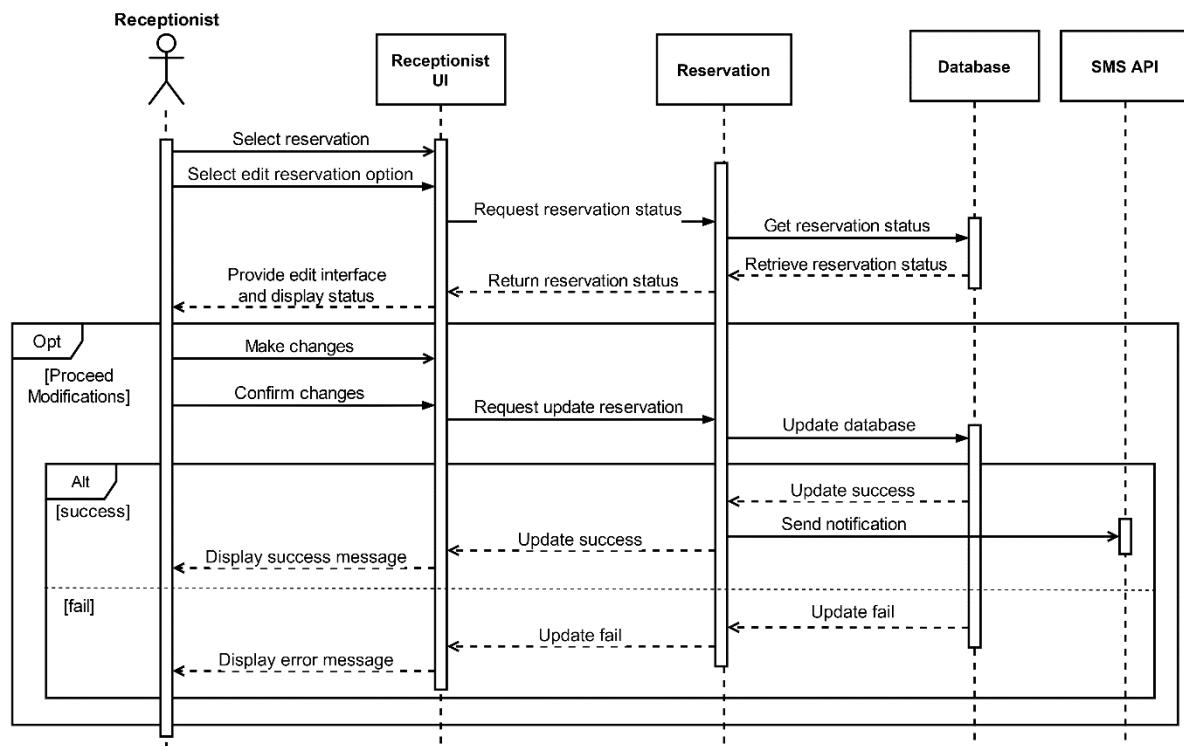


Figure 54: Edit Reservation(-Receptionist) (Sequence Diagram)

Cancel Reservation

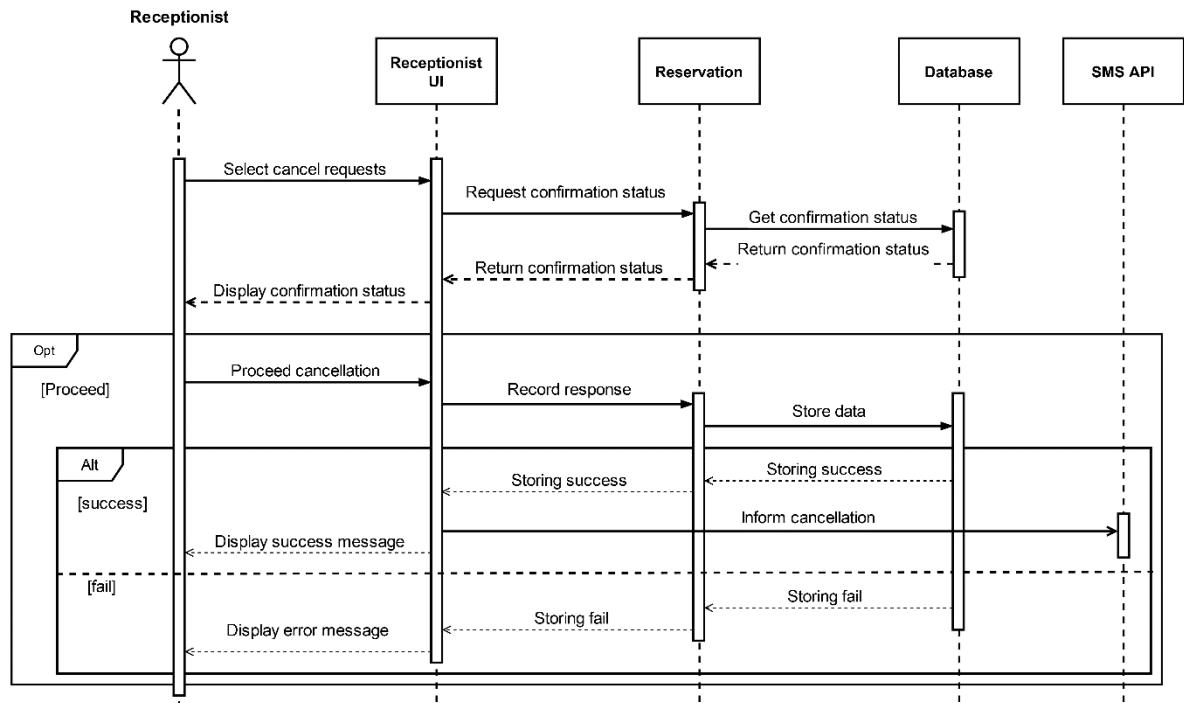


Figure 55: Cancel Reservation (Sequence Diagram)

Confirm Reservation

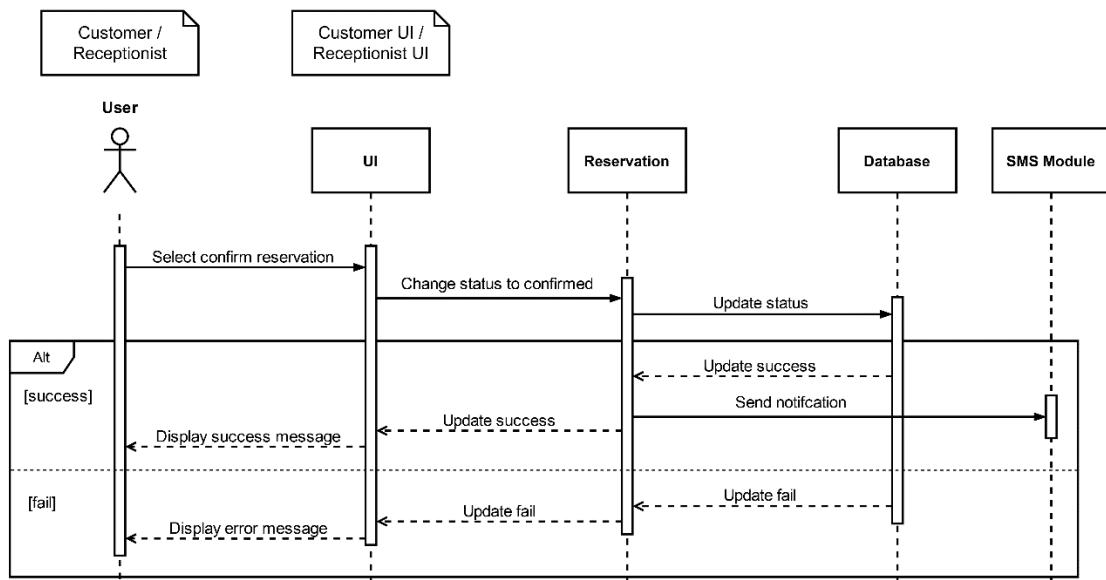


Figure 56: Confirm Reservation (Sequence Diagram)

View Assigned Reservations

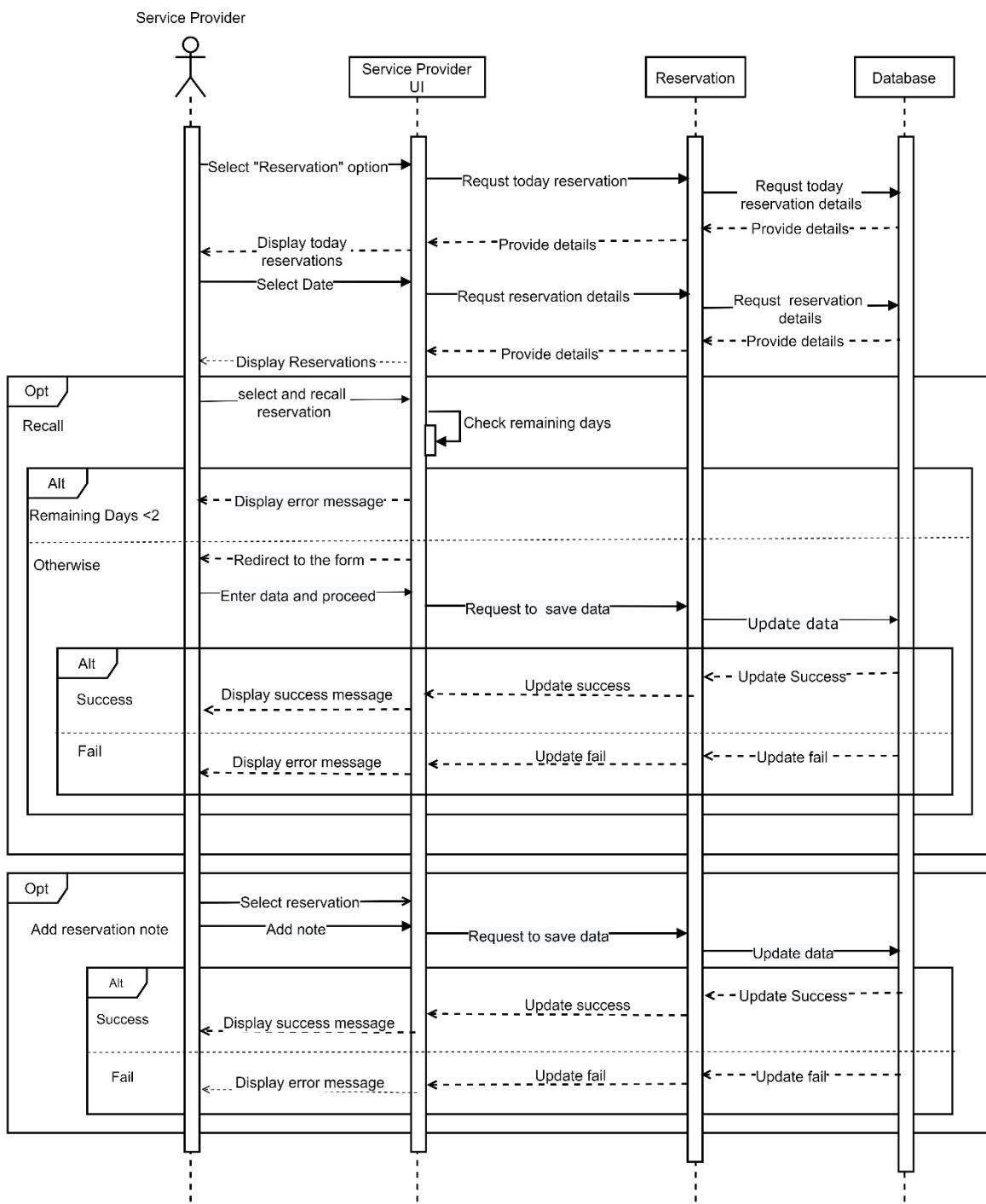


Figure 57: View Assigned Reservations (Sequence Diagram)

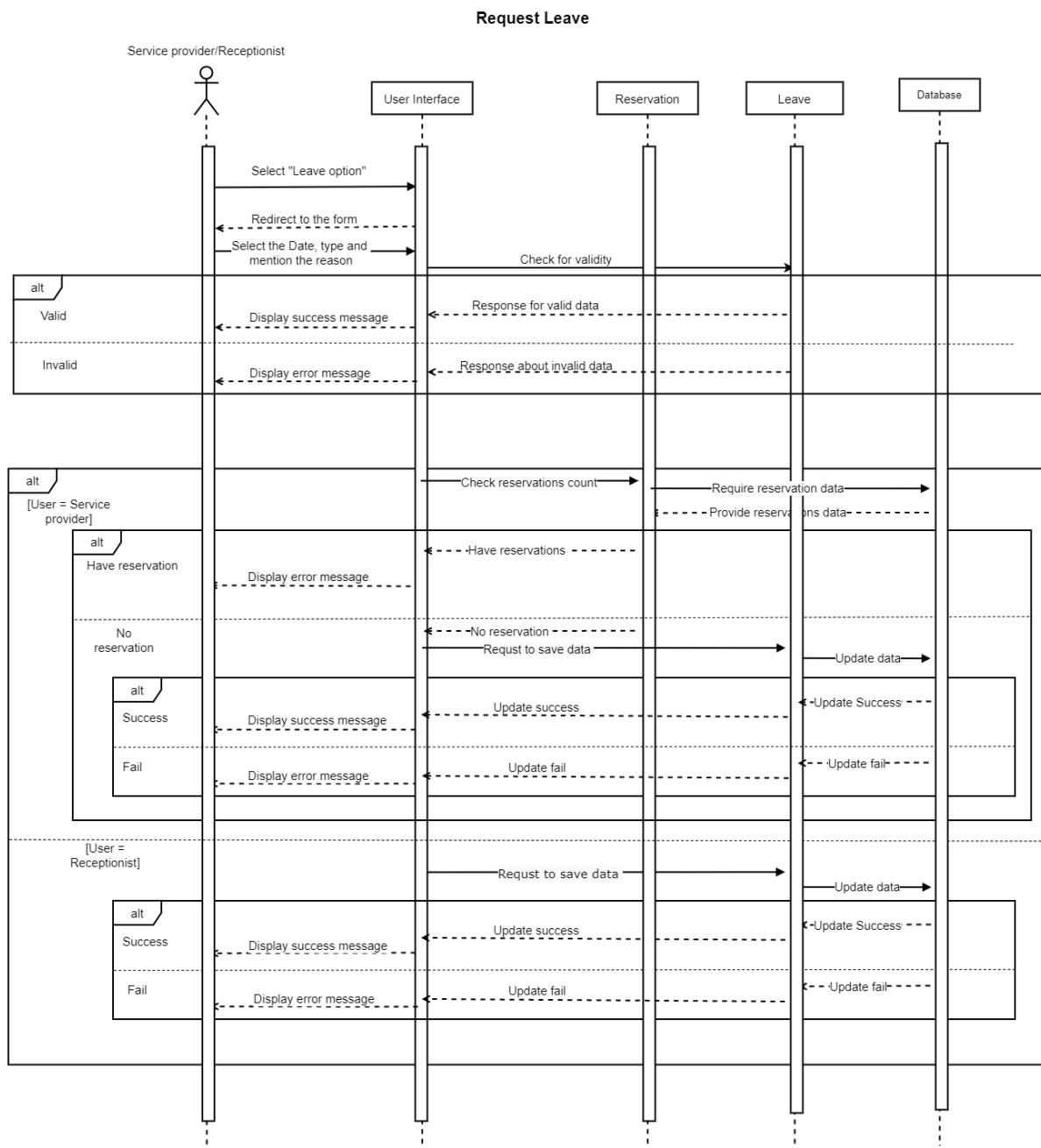


Figure 58: Request Leave (Sequence Diagram)

Handle Invoices

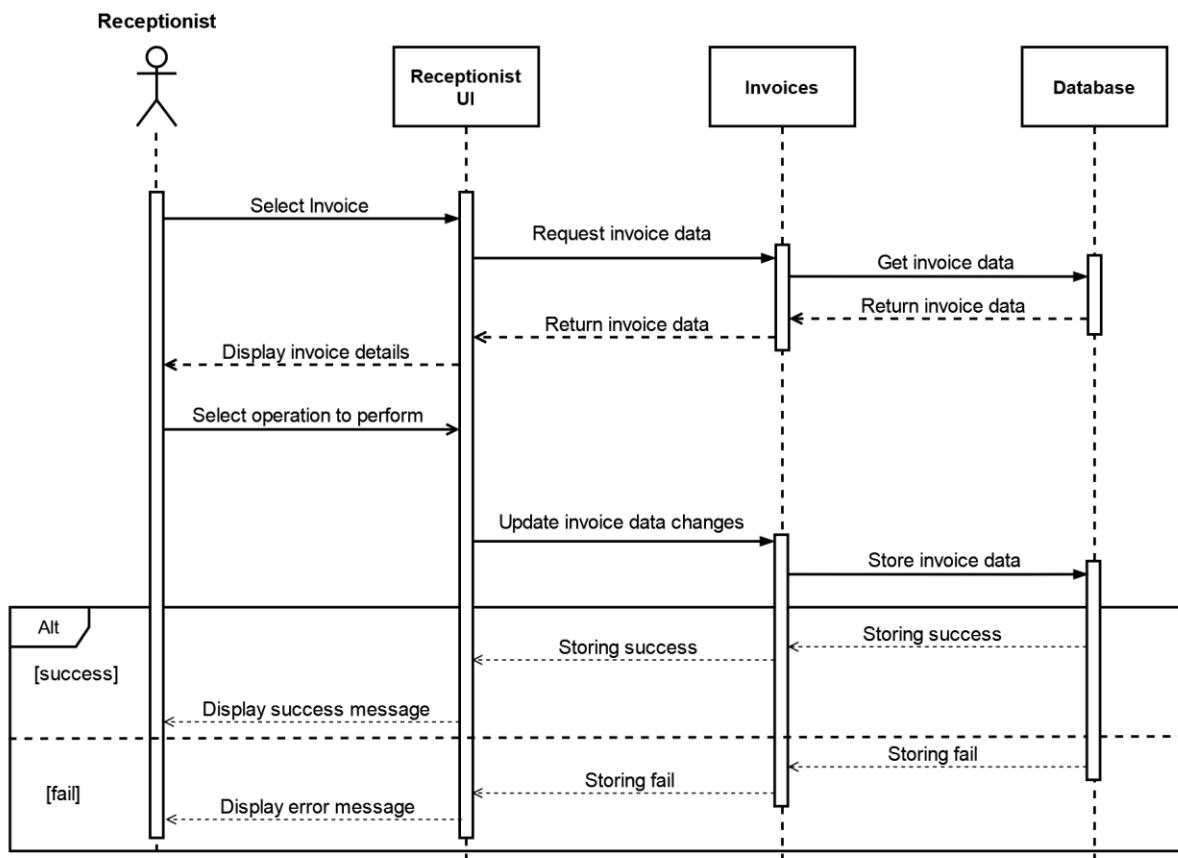


Figure 59: Handle Invoices (Sequence Diagram)

Handle Reservation Recalls

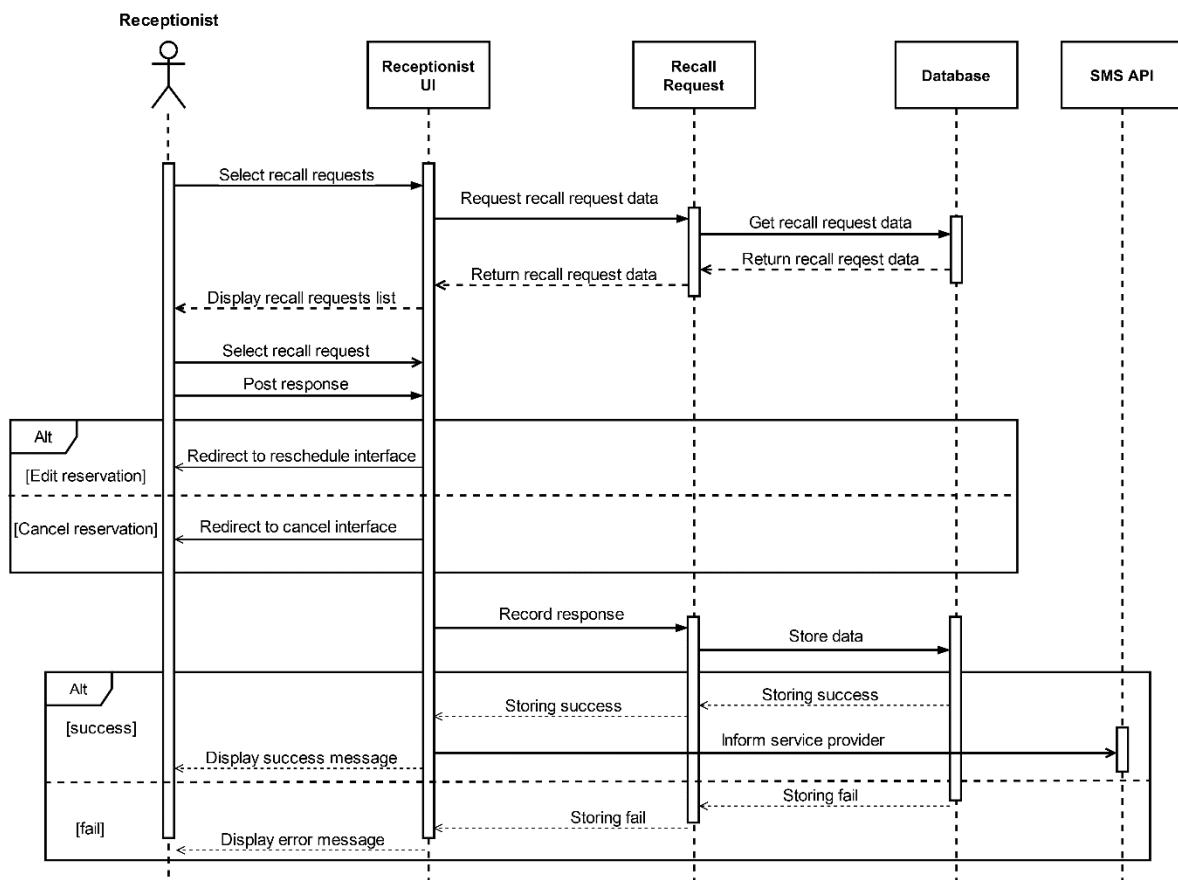


Figure 60: Handle Reservation Recall (Sequence Diagram)

Close Reservation

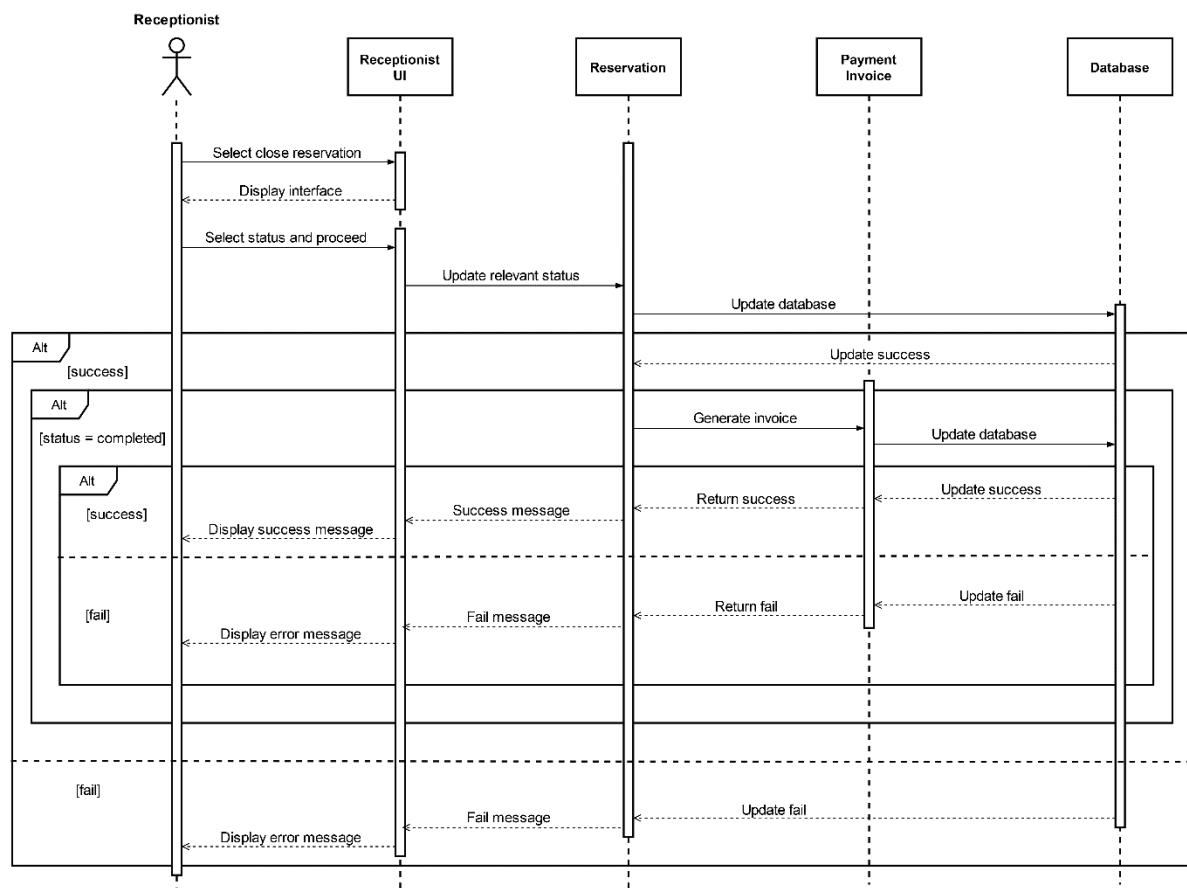


Figure 61: Close Reservation (Sequence Diagram)

View Reservations

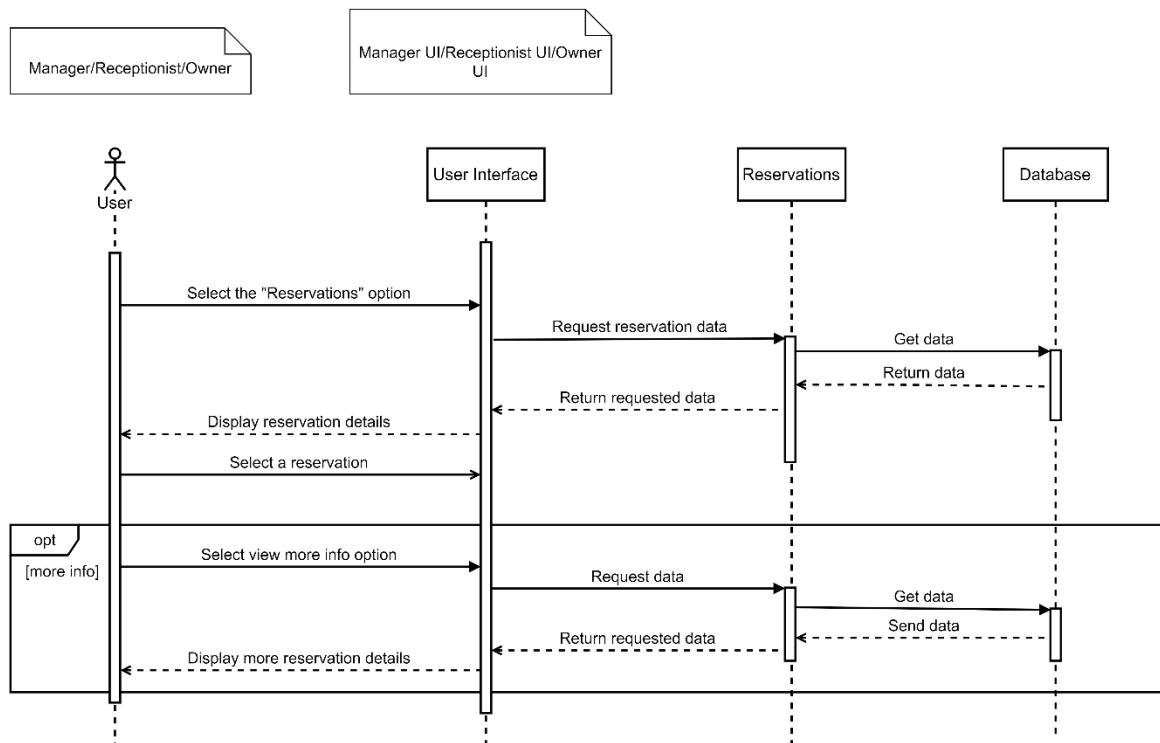


Figure 62: View Reservations (Sequence Diagram)

View Customers

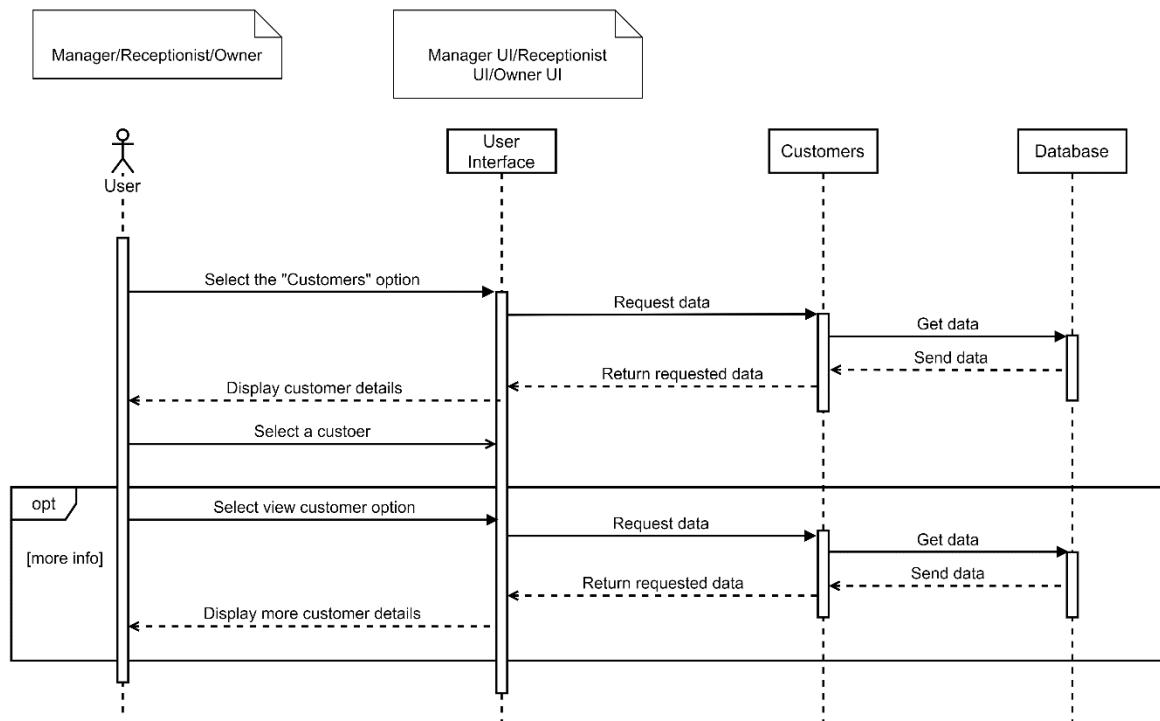


Figure 63: View Customers (Sequence Diagram)

View Staff Members

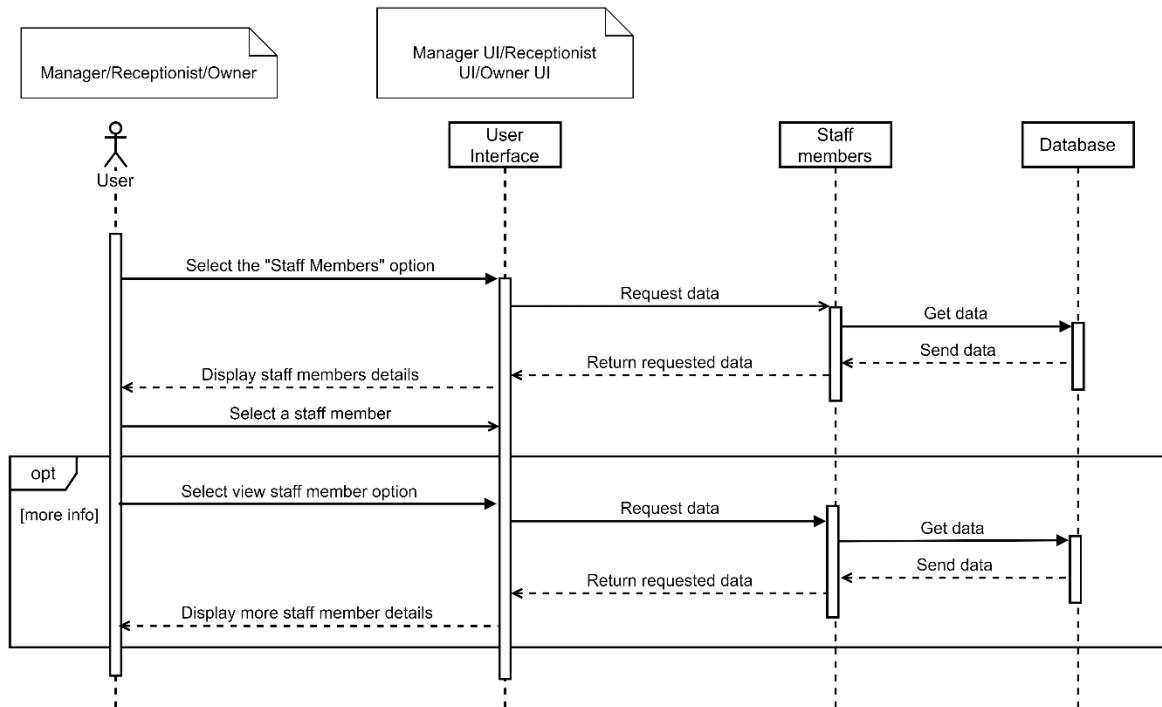


Figure 64: View Staff Members (Sequence Diagram)

View Service

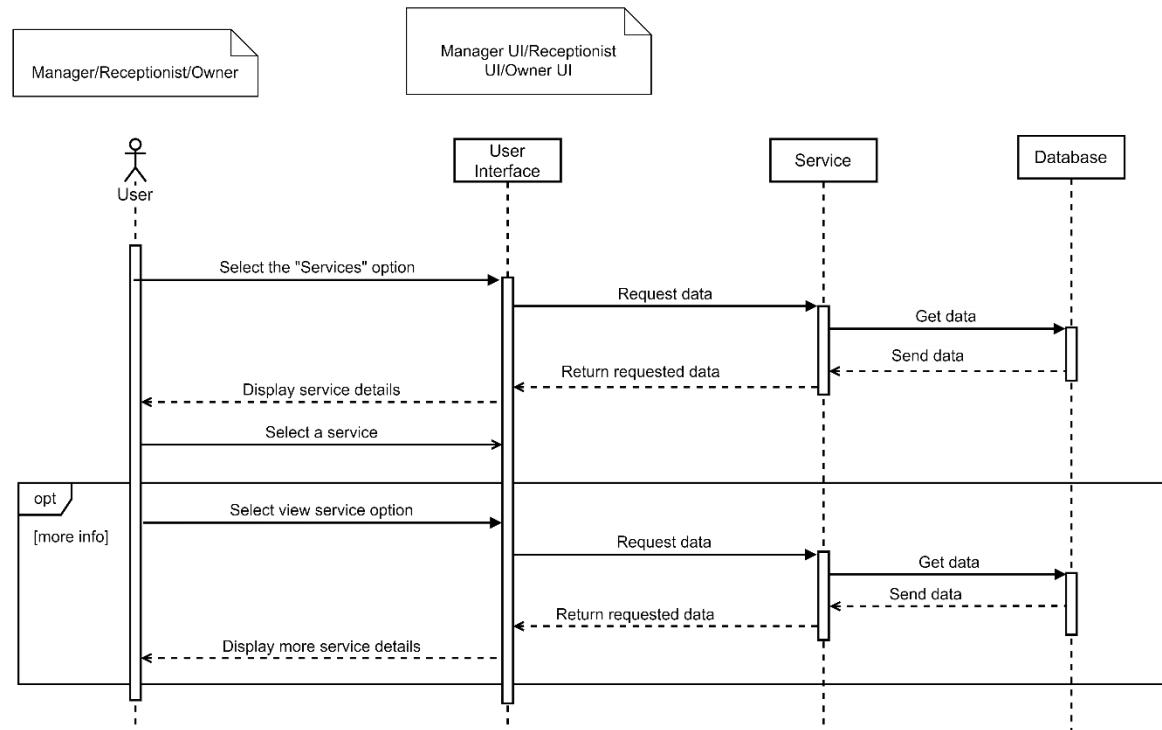


Figure 65: View Service (Sequence Diagram)

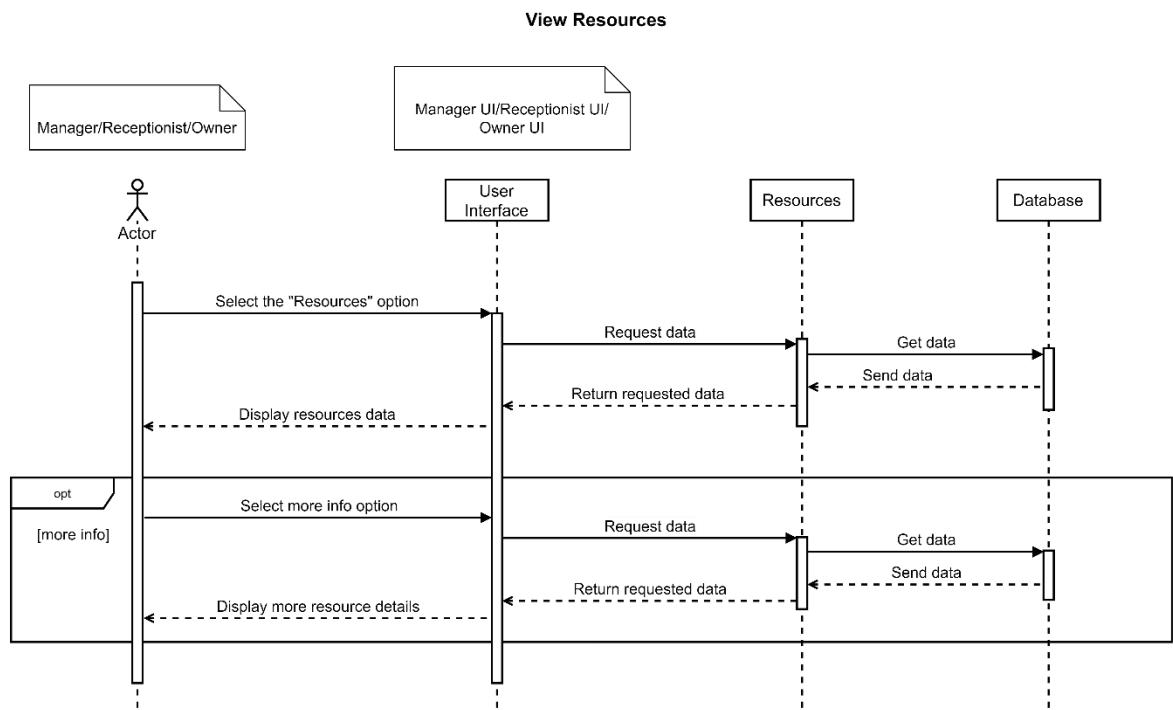


Figure 66: View Resources (Sequence Diagram)

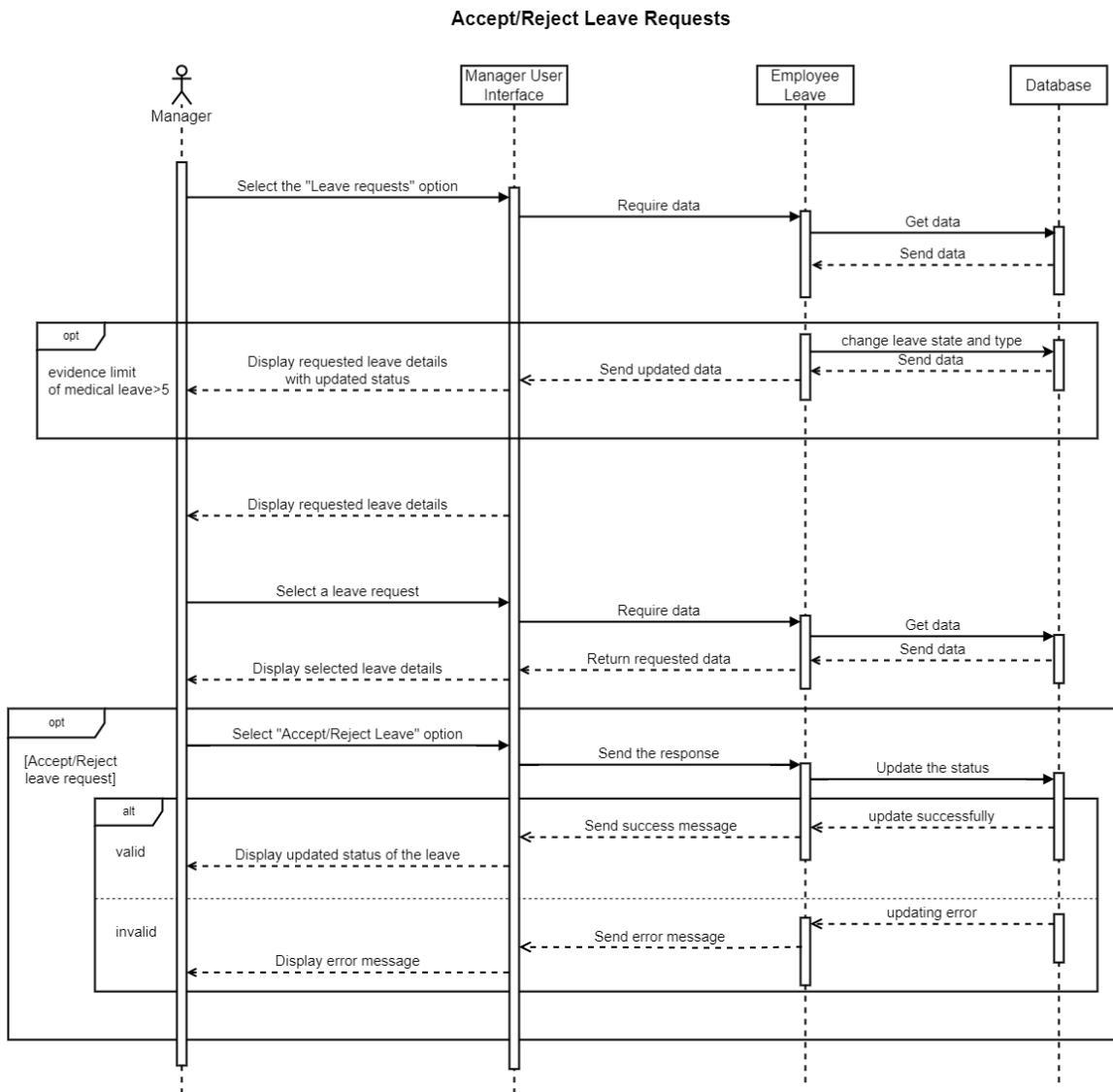


Figure 67: Accept/Reject Leave Requests (Sequence Diagram)

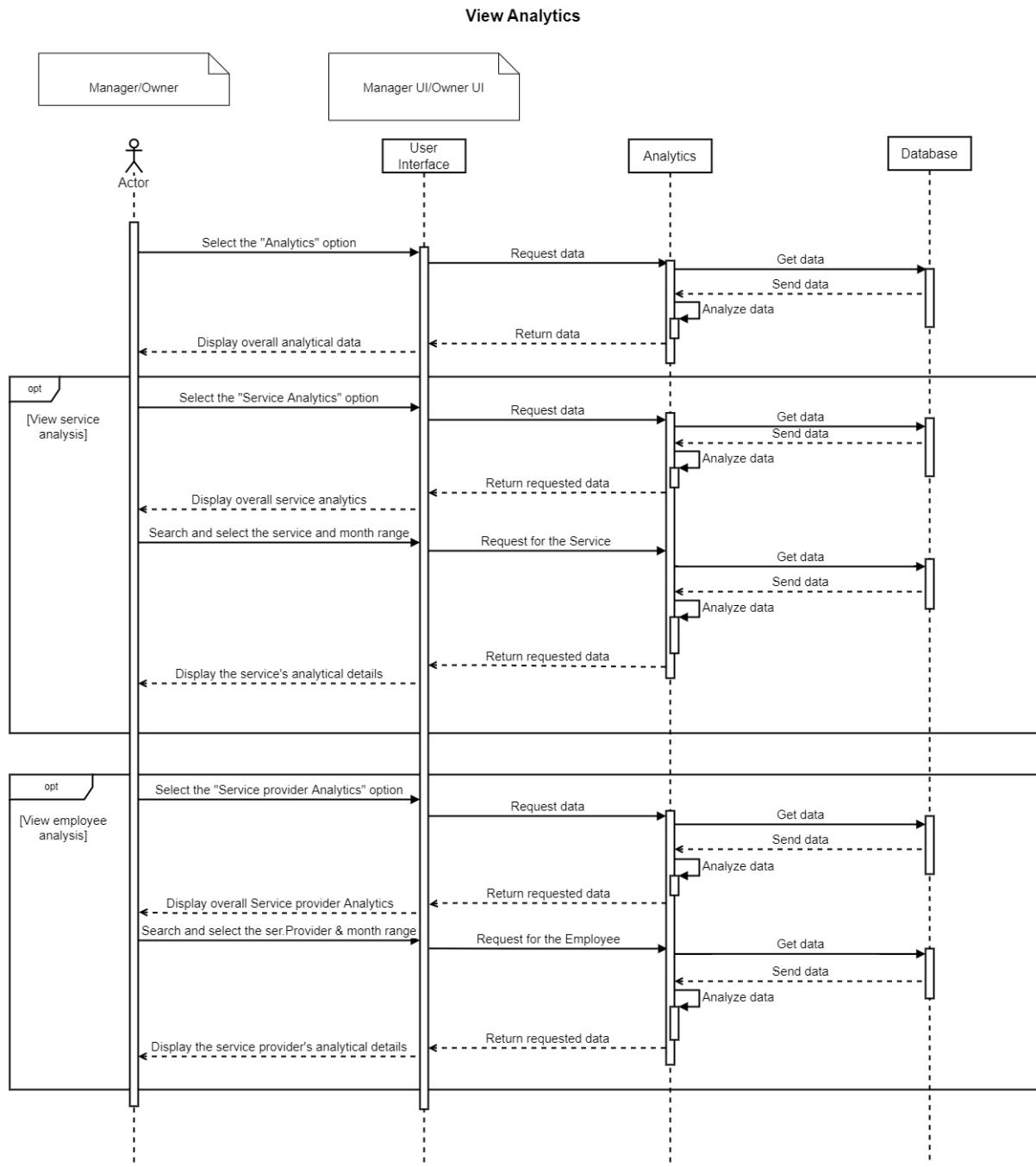


Figure 68: View Analytics (Sequence Diagram)

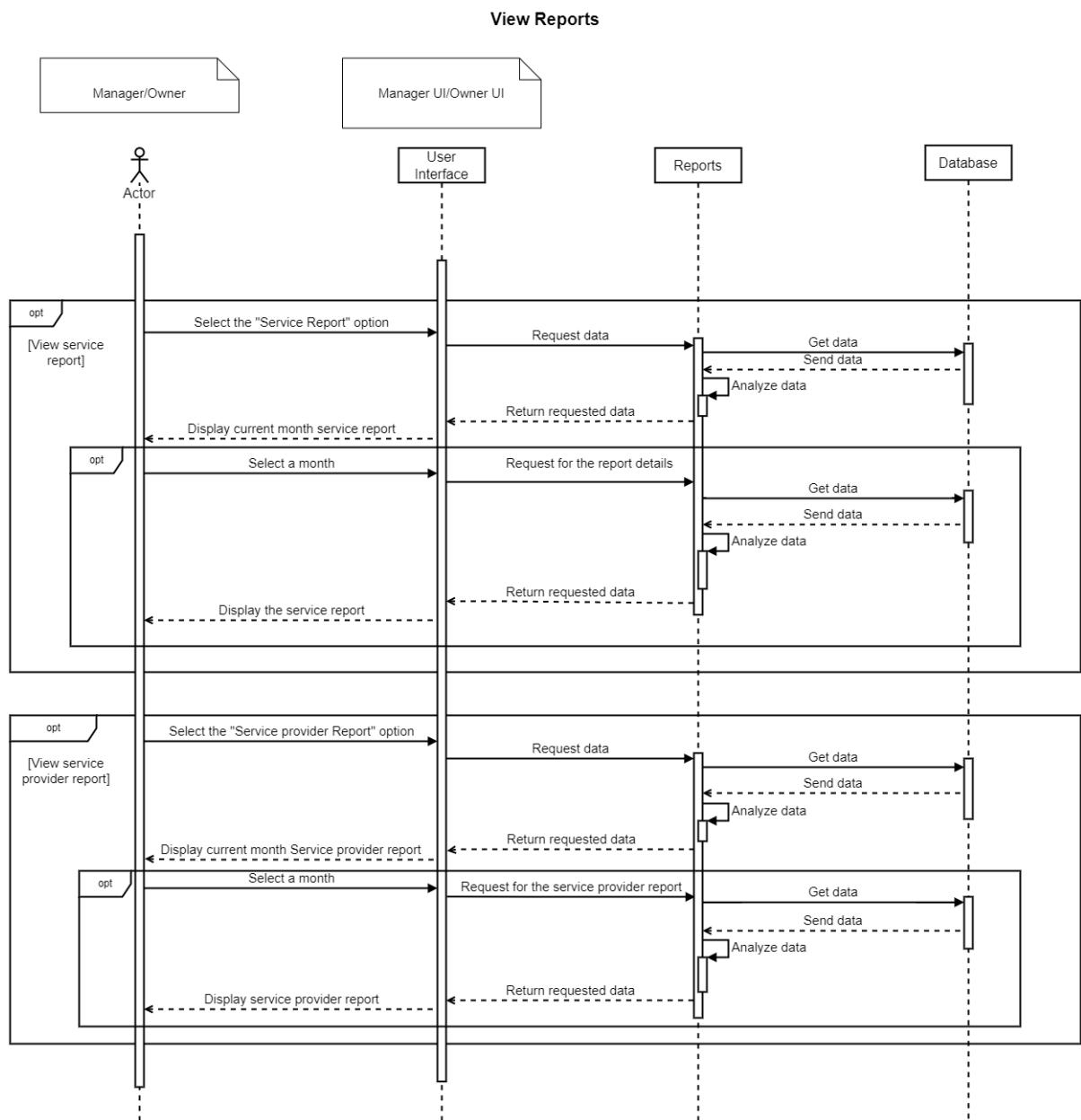


Figure 69:View Reports (Sequence Diagram)

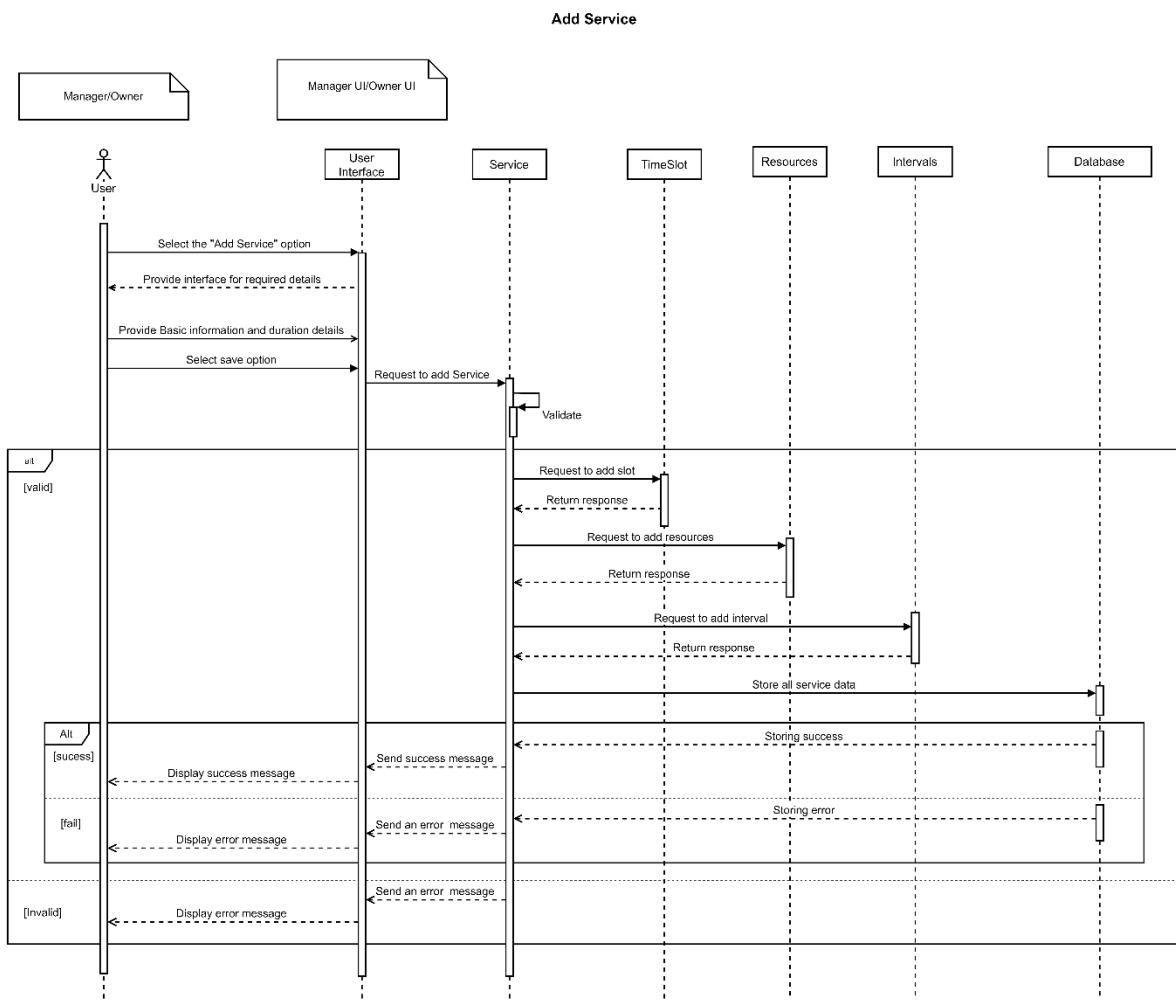


Figure 70: Add Service (Sequence Diagram)

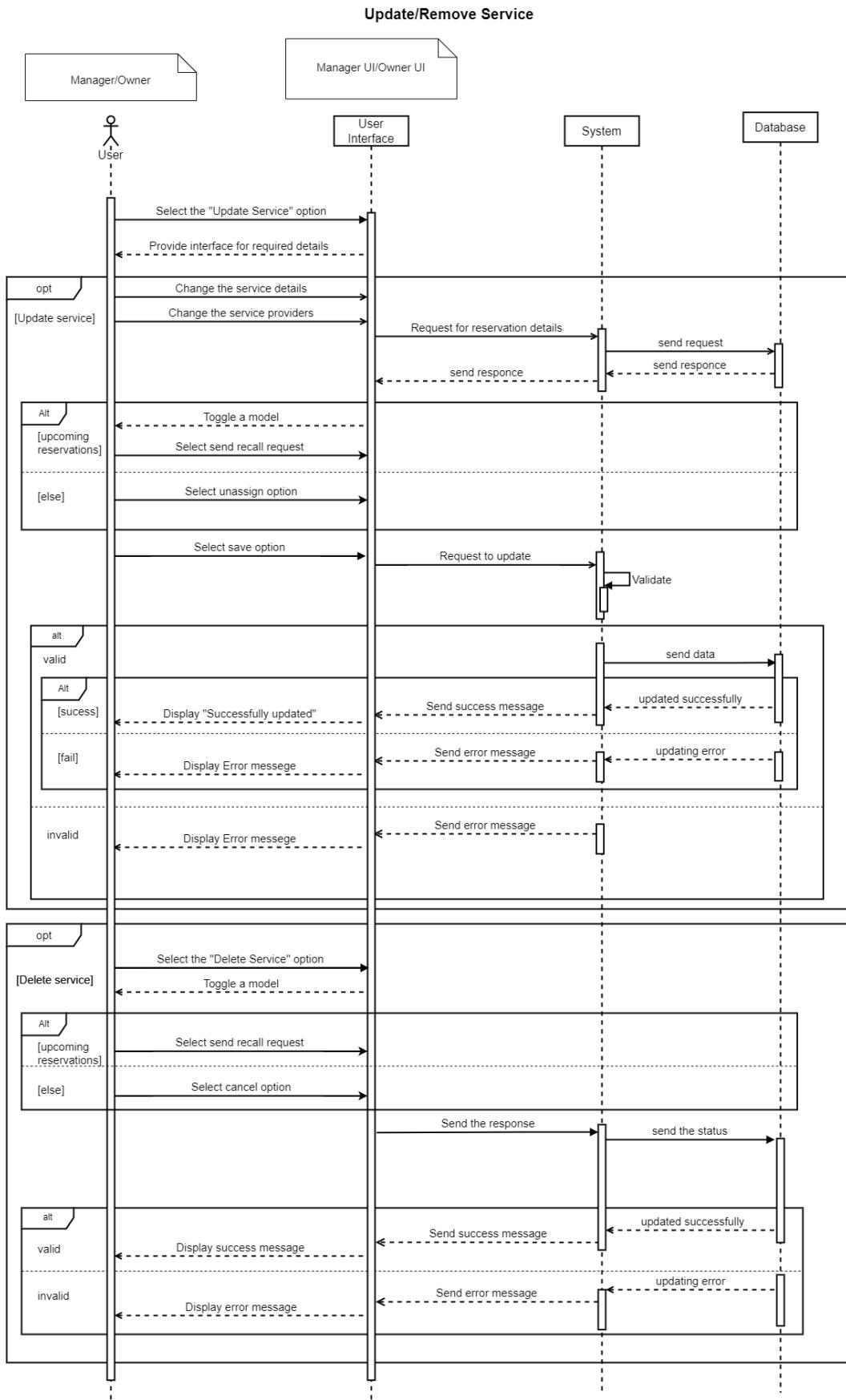


Figure 71: Update/Remove Service (Sequence Diagram)

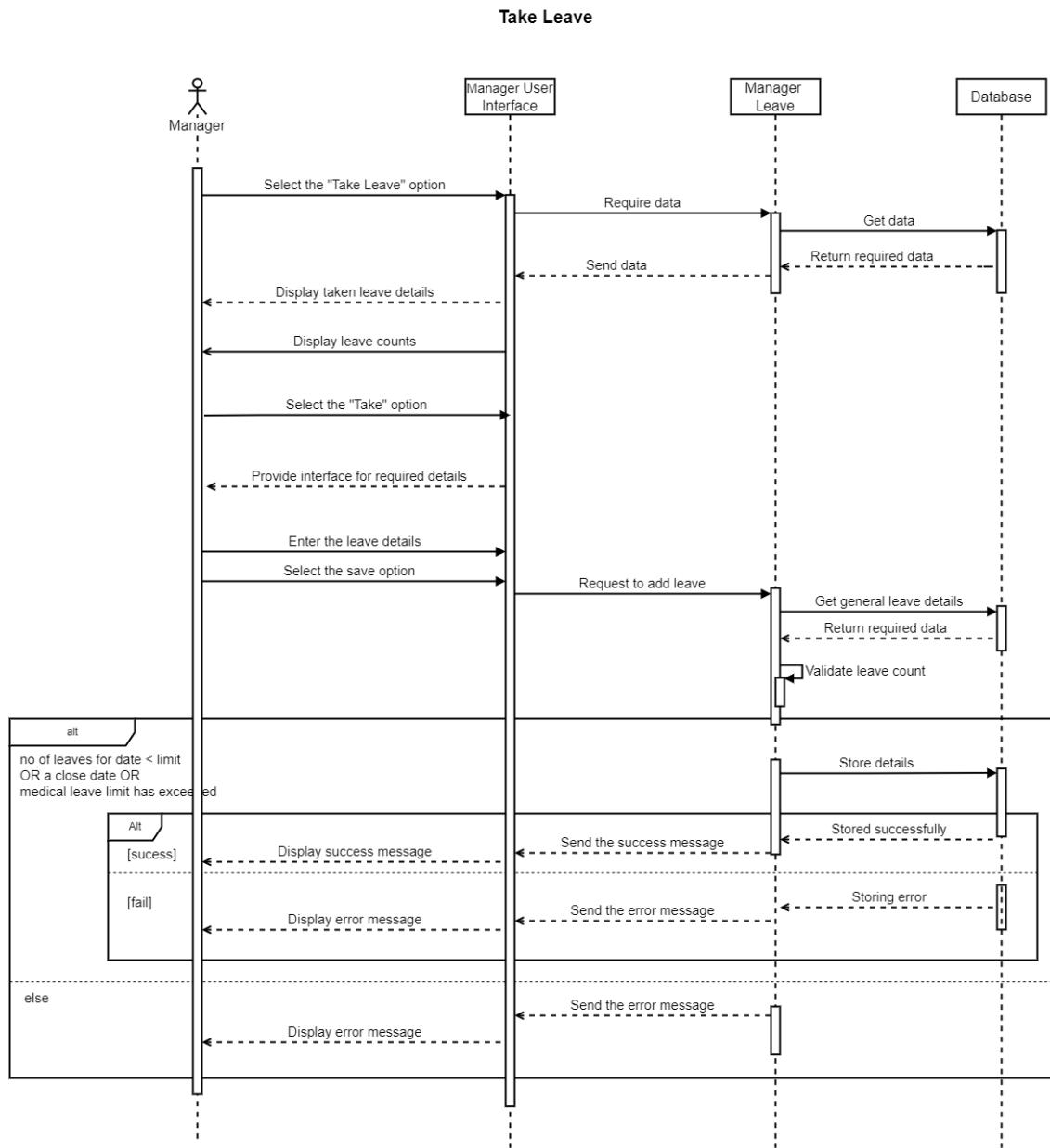


Figure 72: Take Leave (Sequence Diagram)

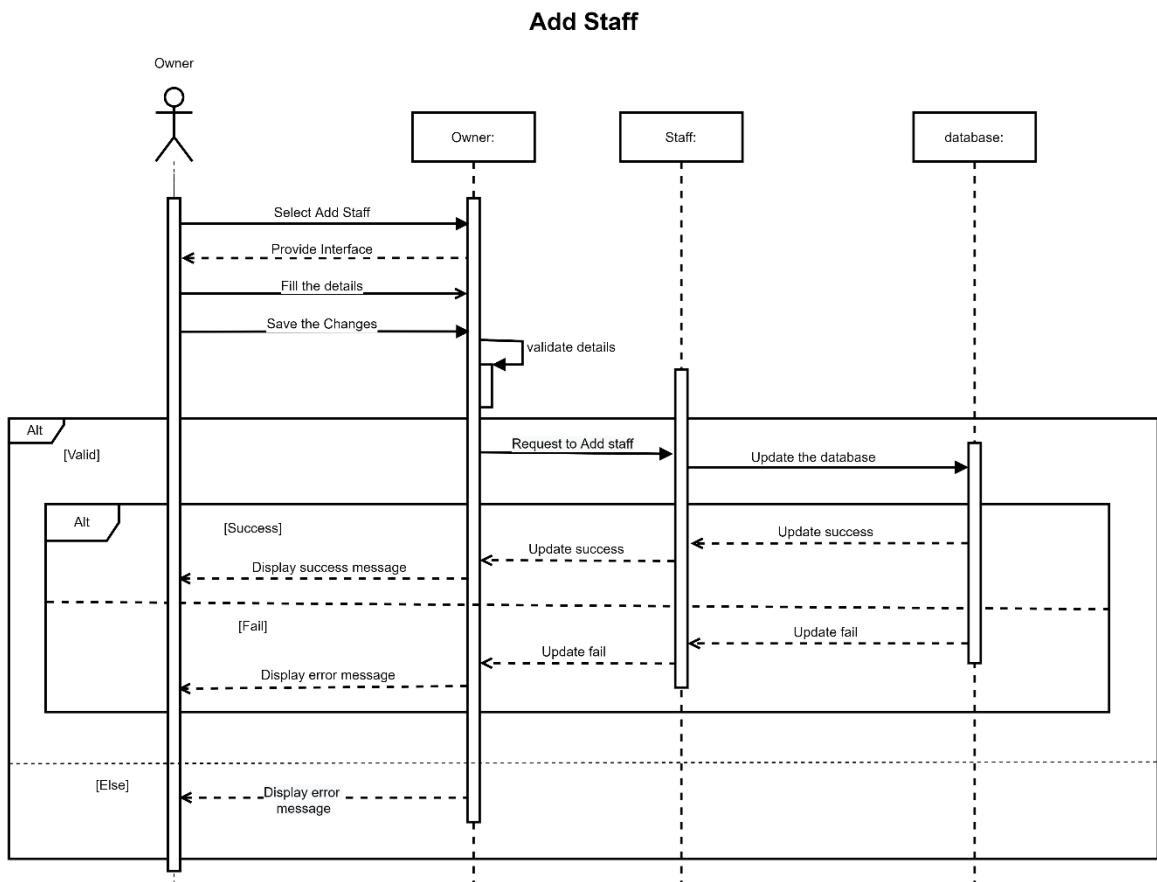


Figure 73: Add Staff (Sequence Diagram)

Update Staff

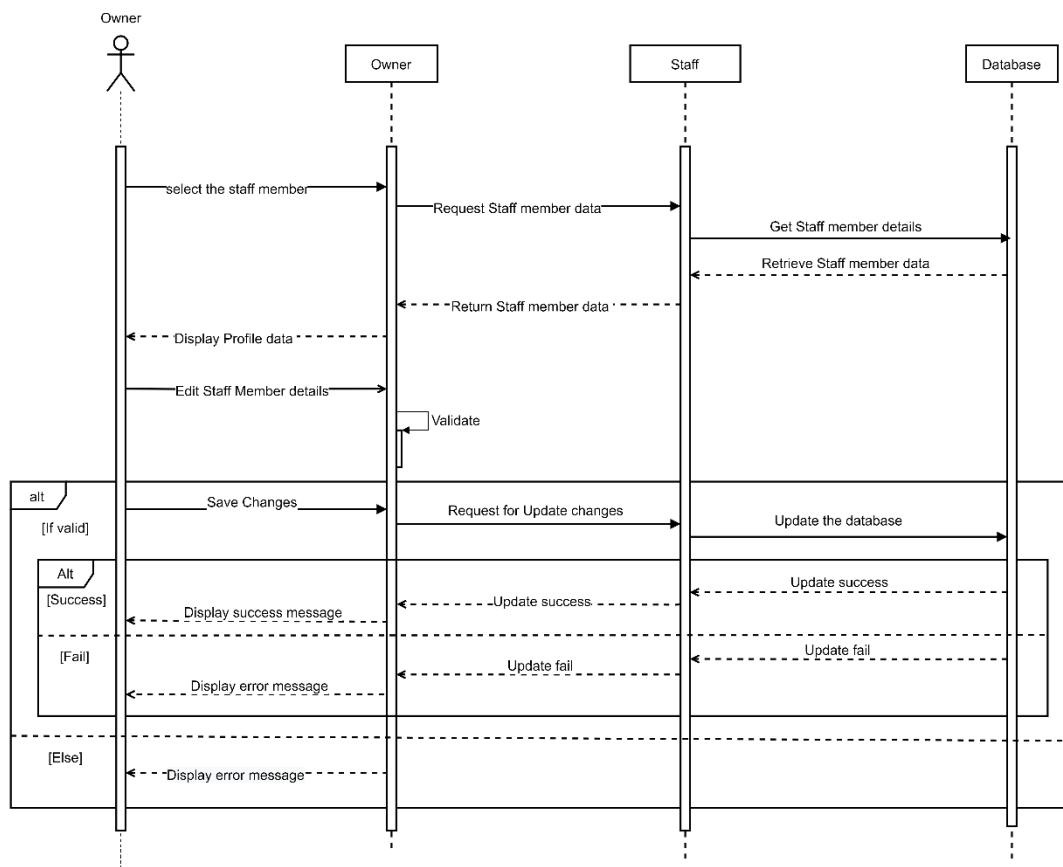


Figure 74: Update Staff (Sequence Diagram)

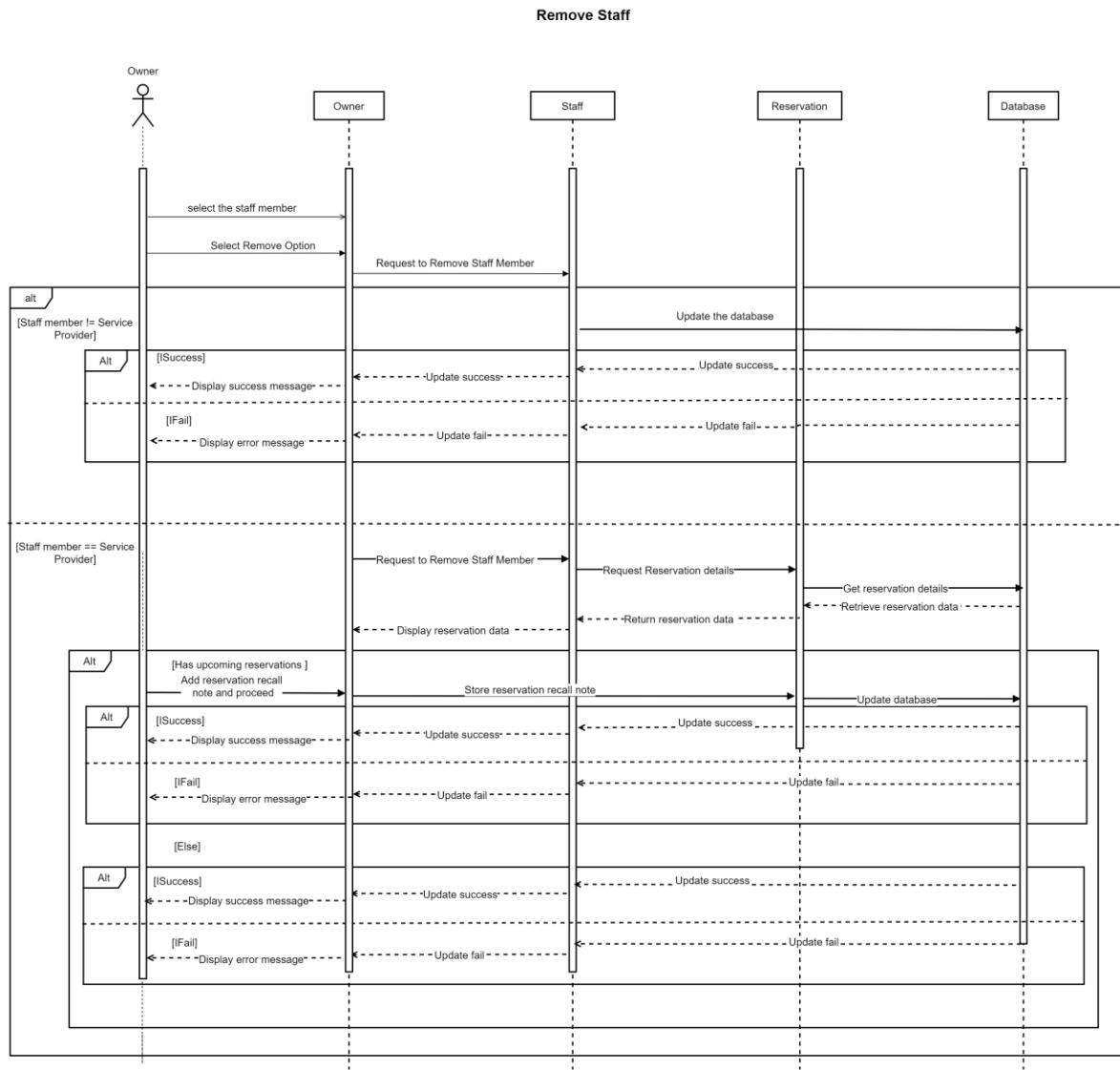


Figure 75: Remove Staff (Sequence Diagram)

Disable Staff

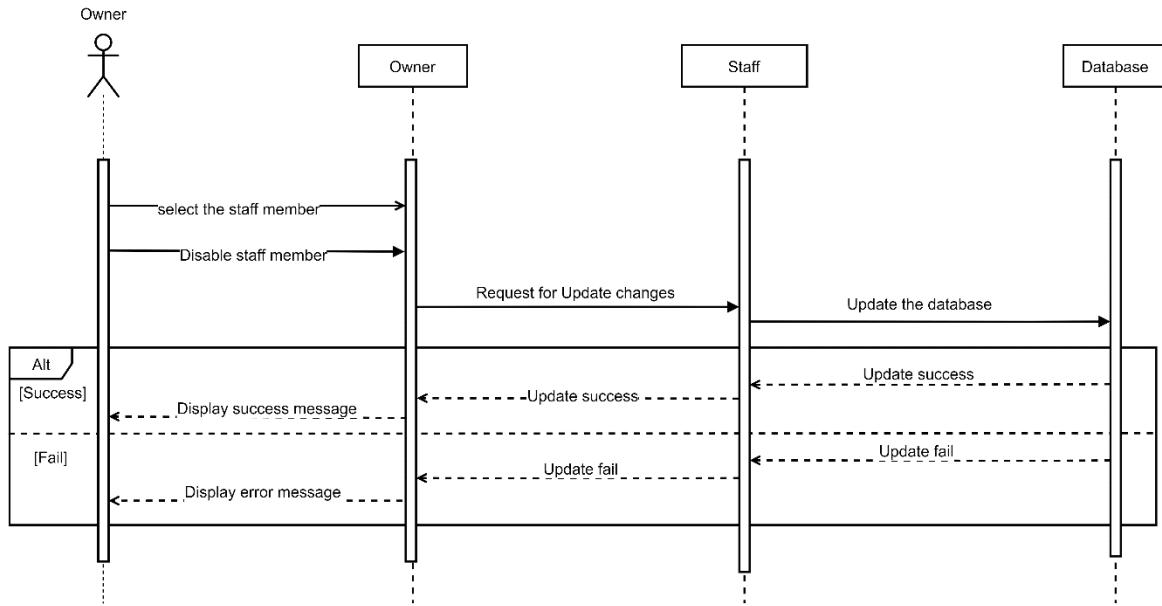


Figure 76: Disable Staff (Sequence Diagram)

Remove Customer

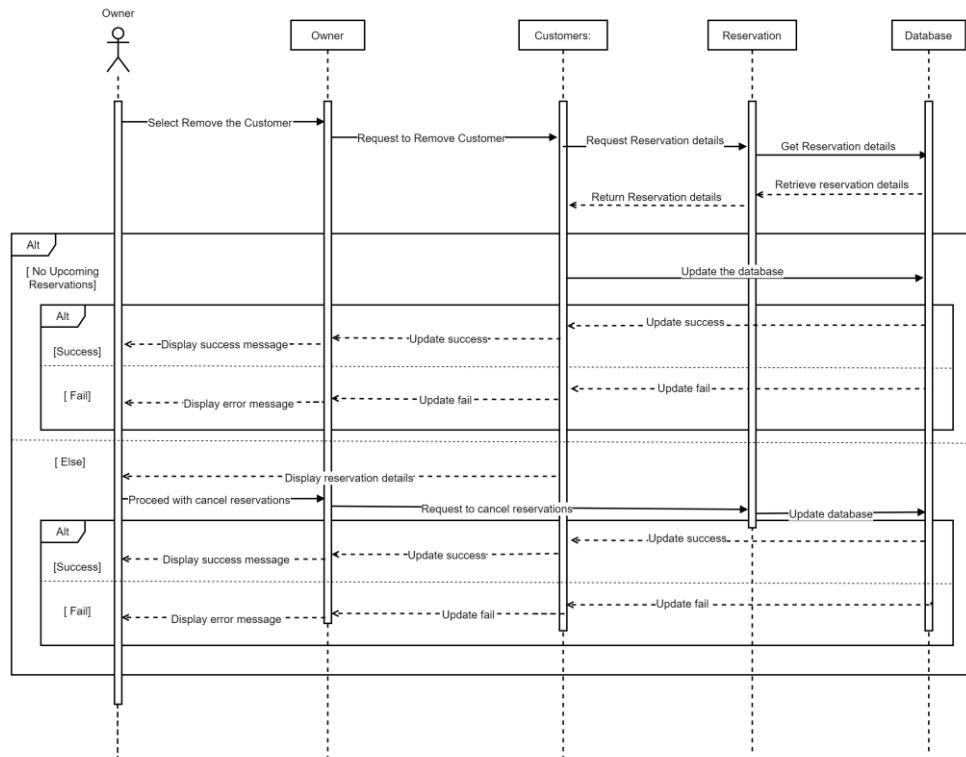


Figure 77: Remove Customer (Sequence Diagram)

View/Update Salary Payments

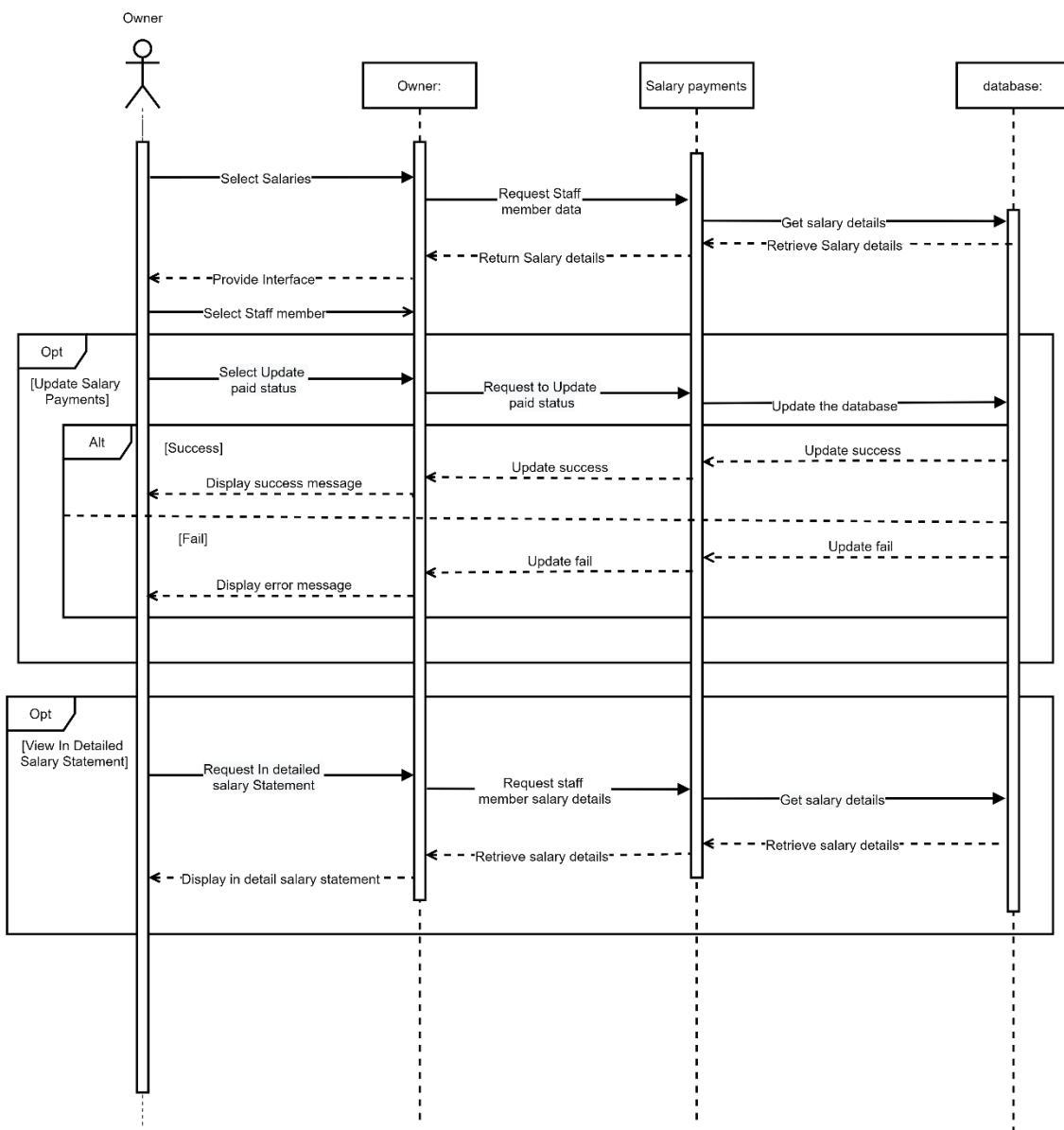


Figure 78: View/Update Salary Payments (Sequence Diagram)

Download system log file

System Admin

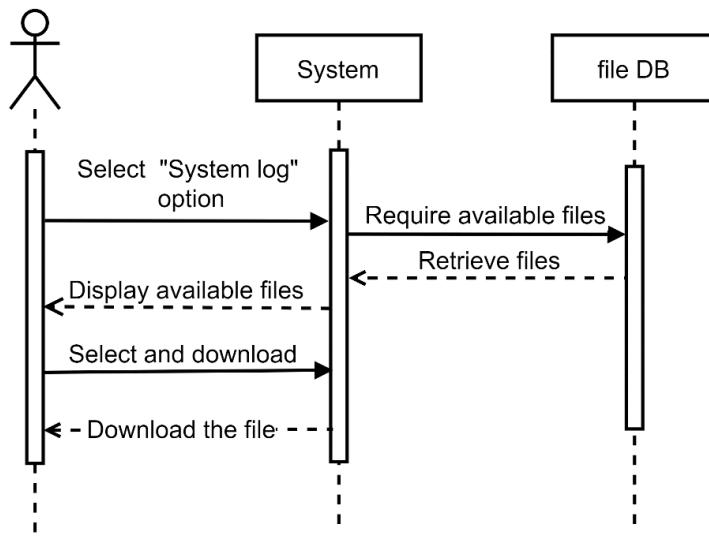


Figure 79: Download System Log File (Sequence Diagram)

Change Rates

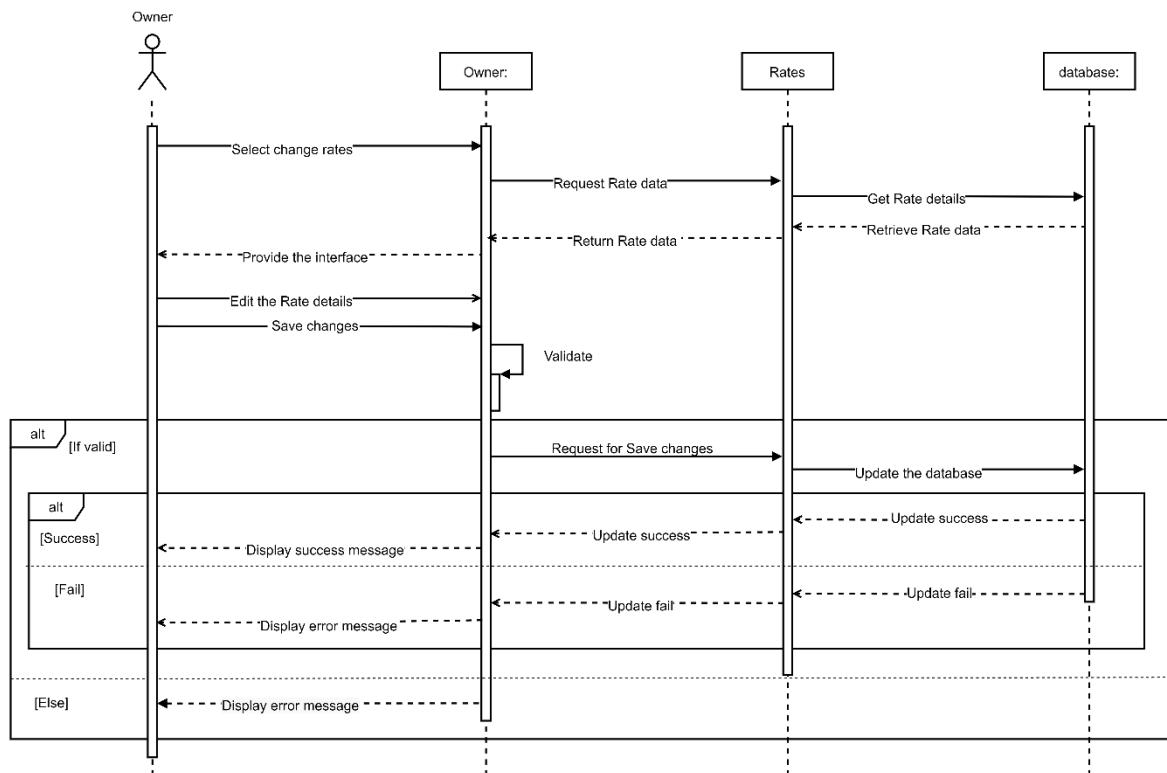


Figure 80: Change Rates (Sequence Diagram)

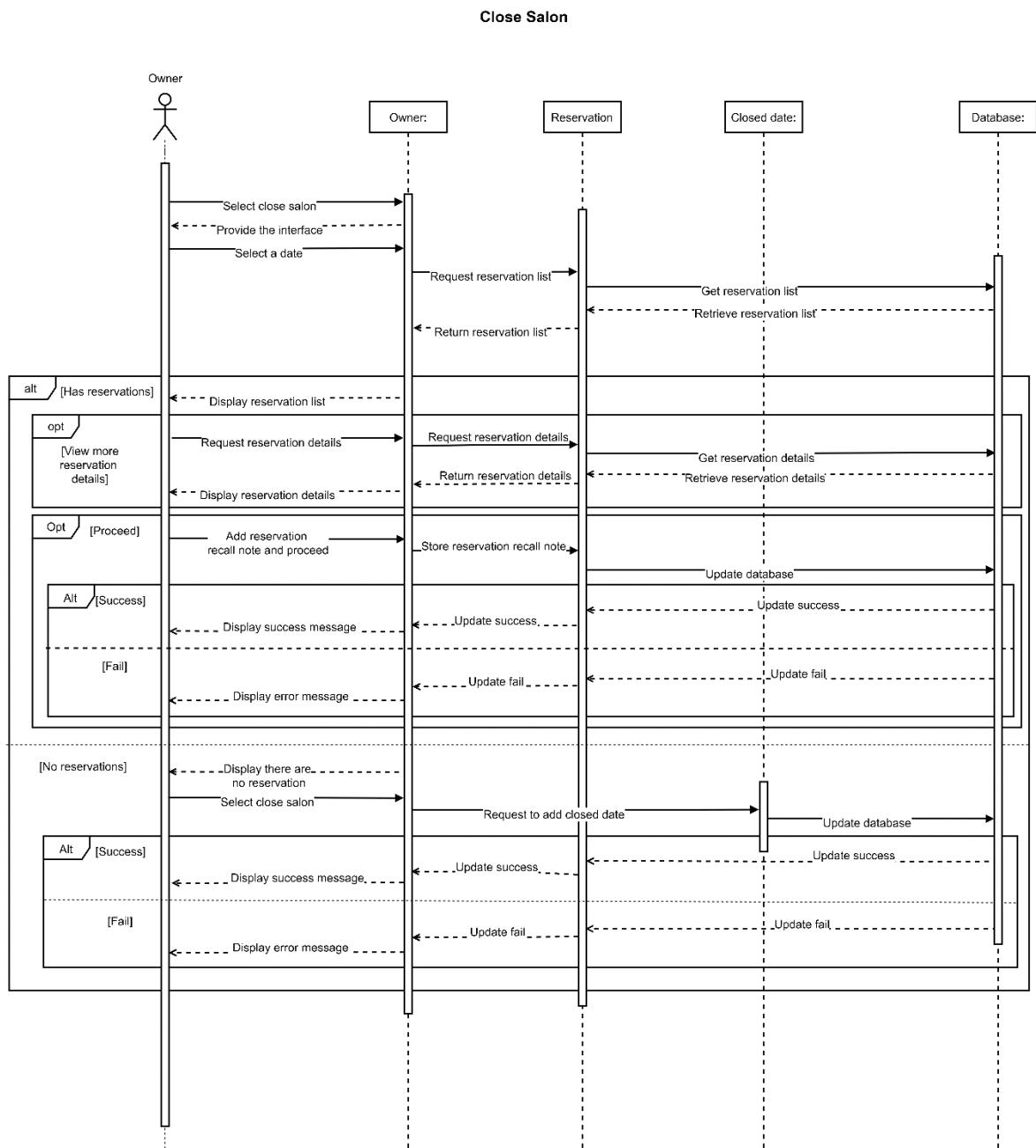


Figure 81: Close Salon (Sequence Diagram)

Add Resource

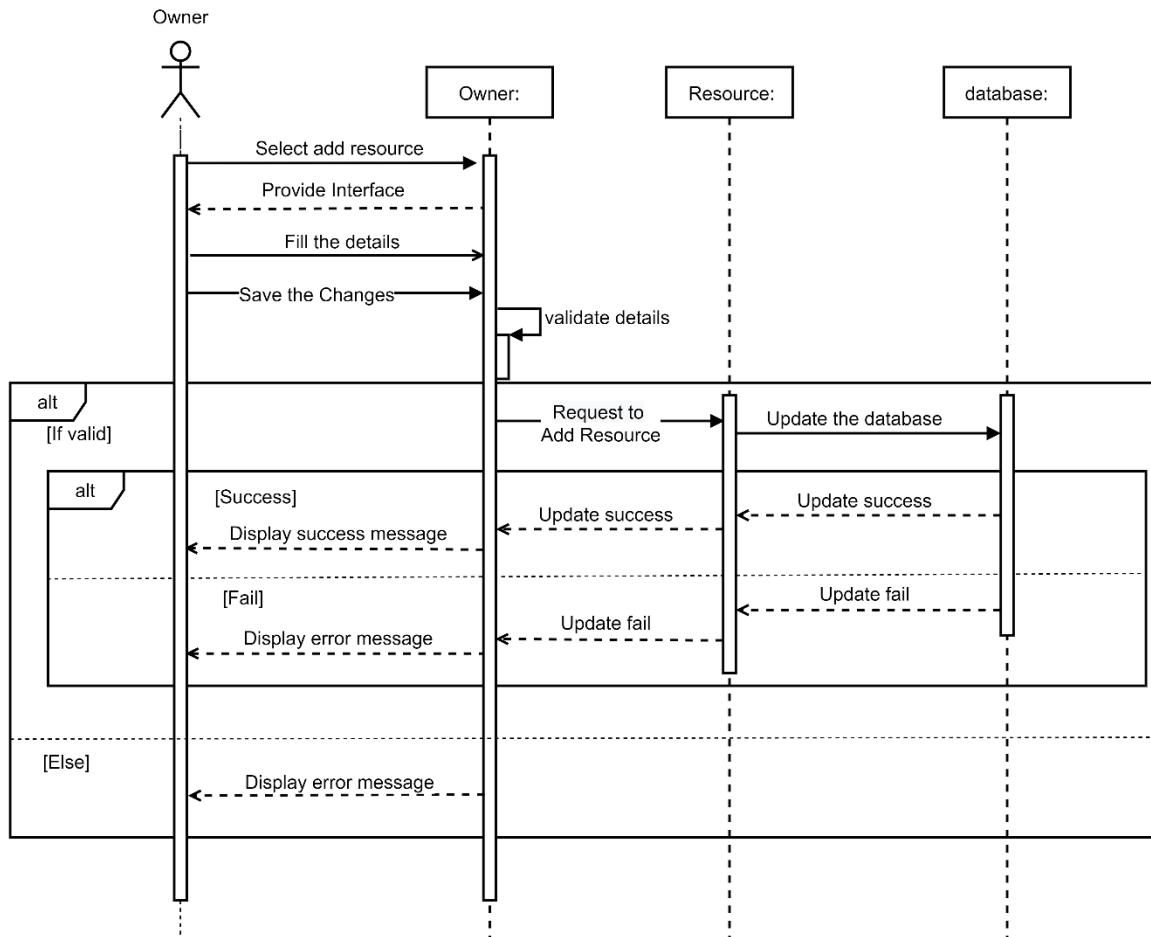


Figure 82: Add Resource (Sequence Diagram)

Update Resource

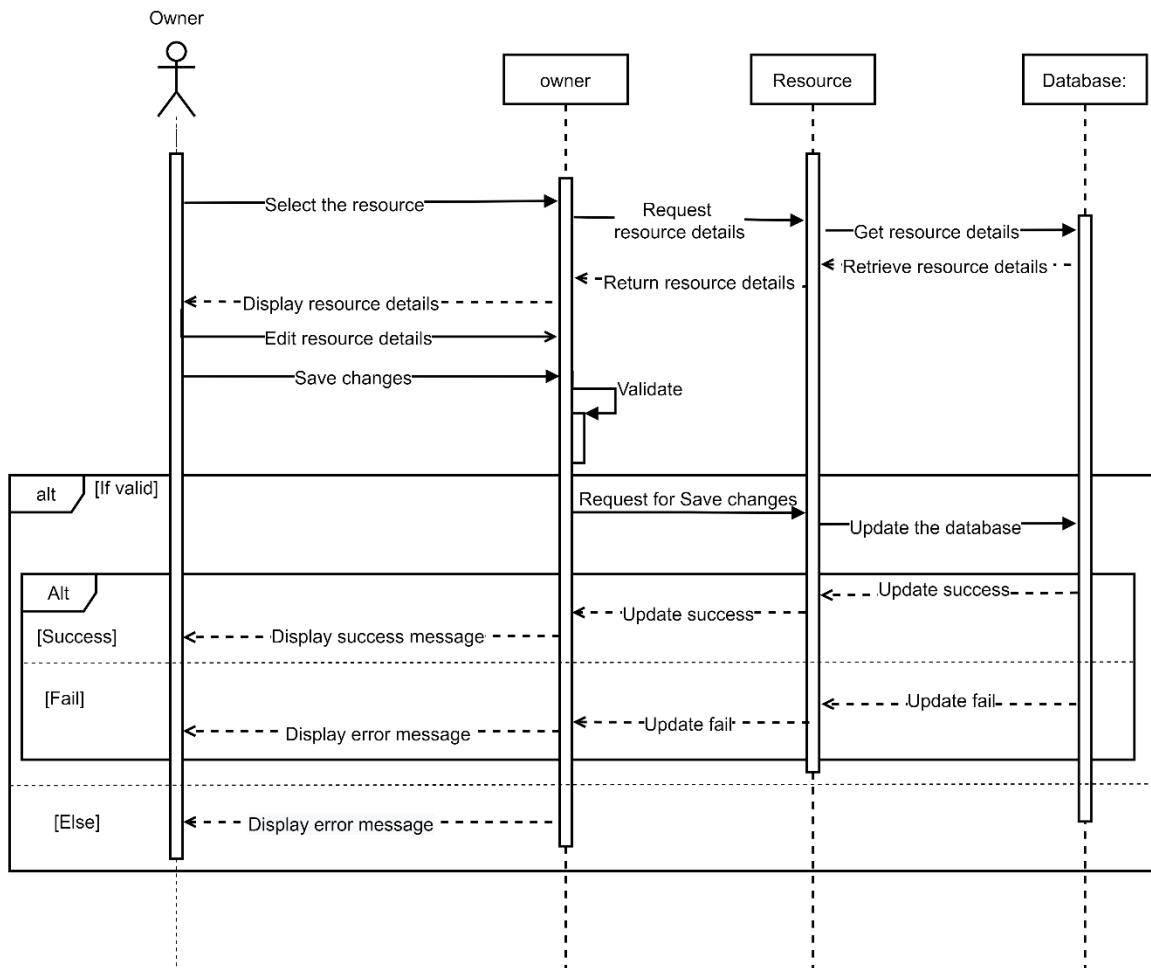


Figure 83: Update Resource (Sequence Diagram)

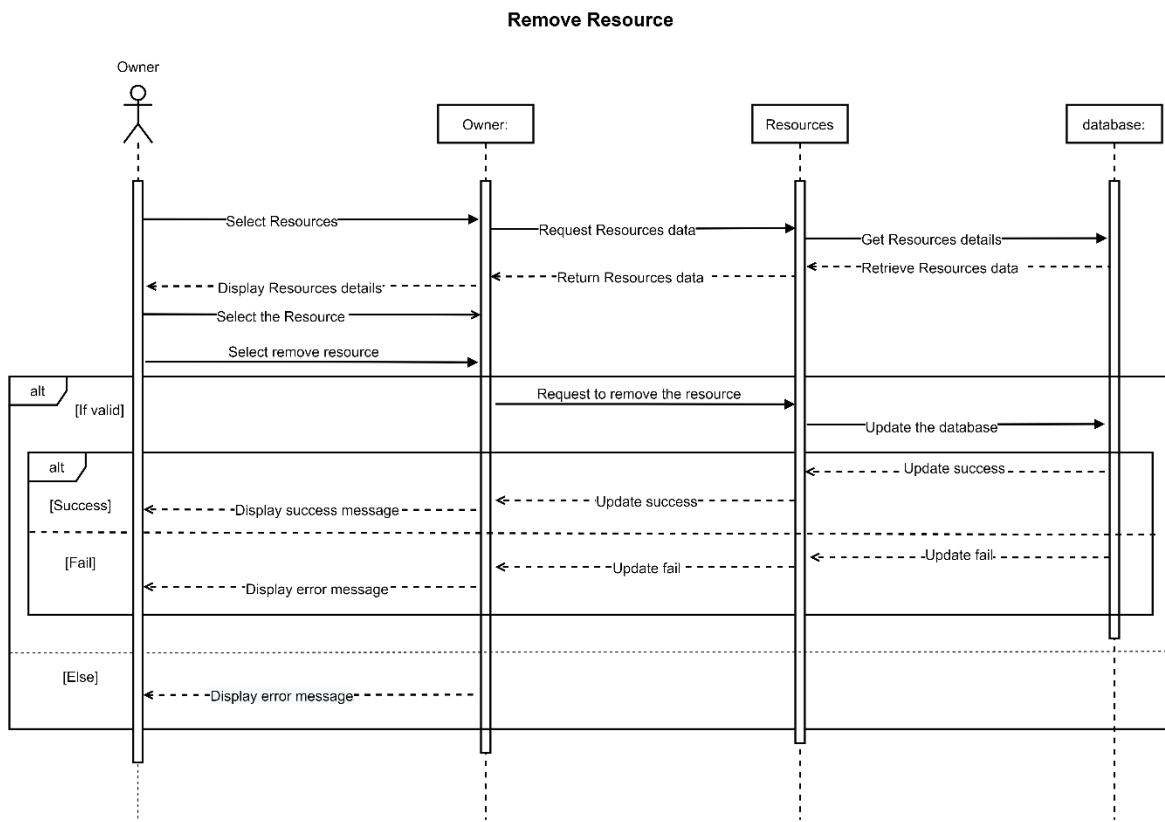


Figure 84: Remove Resource (Sequence Diagram)

8. State Transition Diagrams

Link to State Transition Diagrams: https://bit.ly/State_Transition_Diagrams_CS30

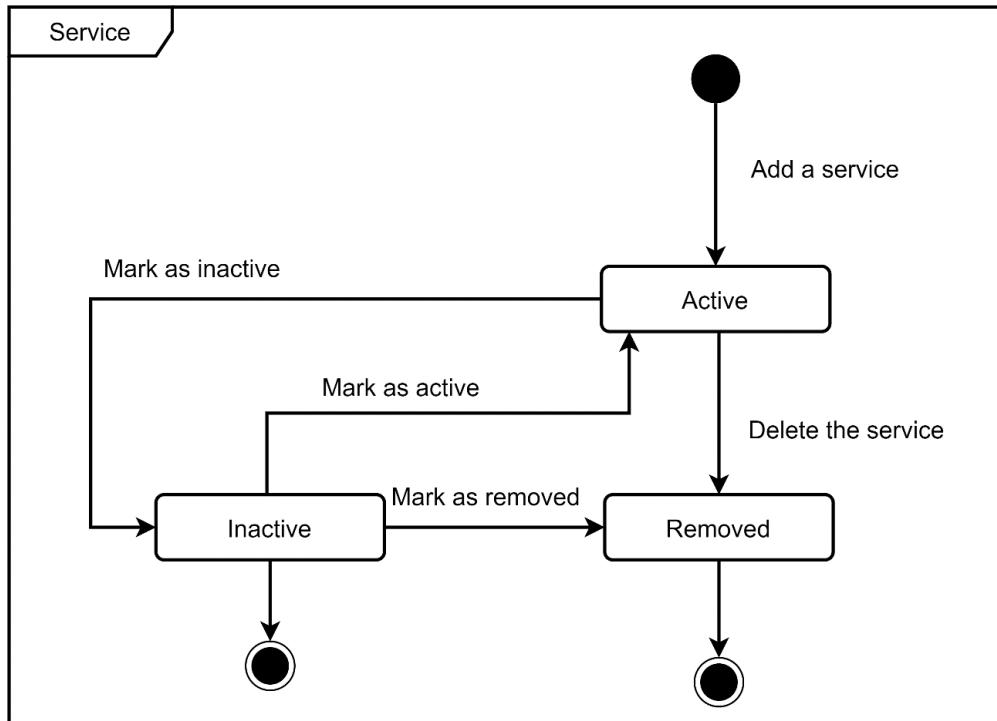


Figure 85: Service (State Transition Diagram)

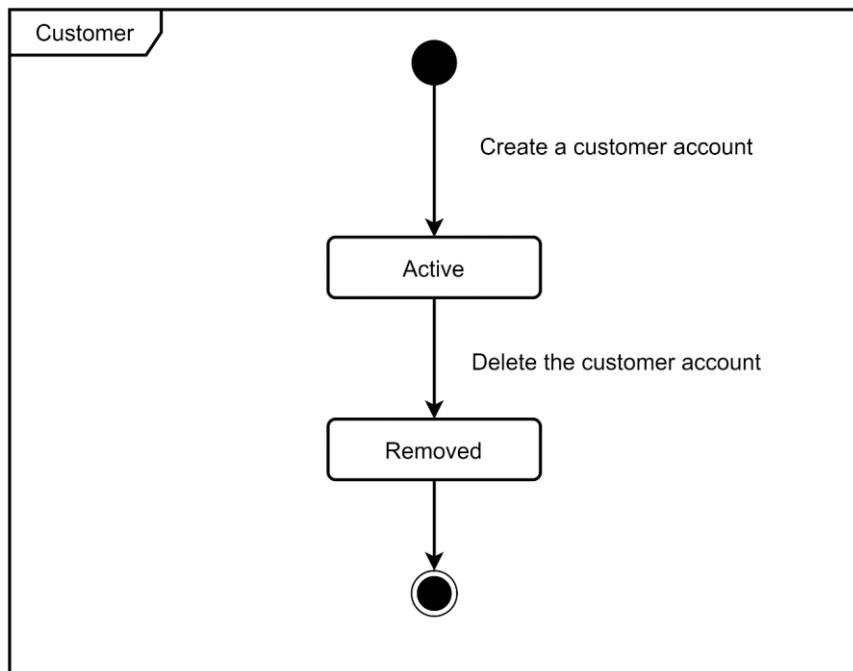


Figure 86: Customer (State Transition Diagram)

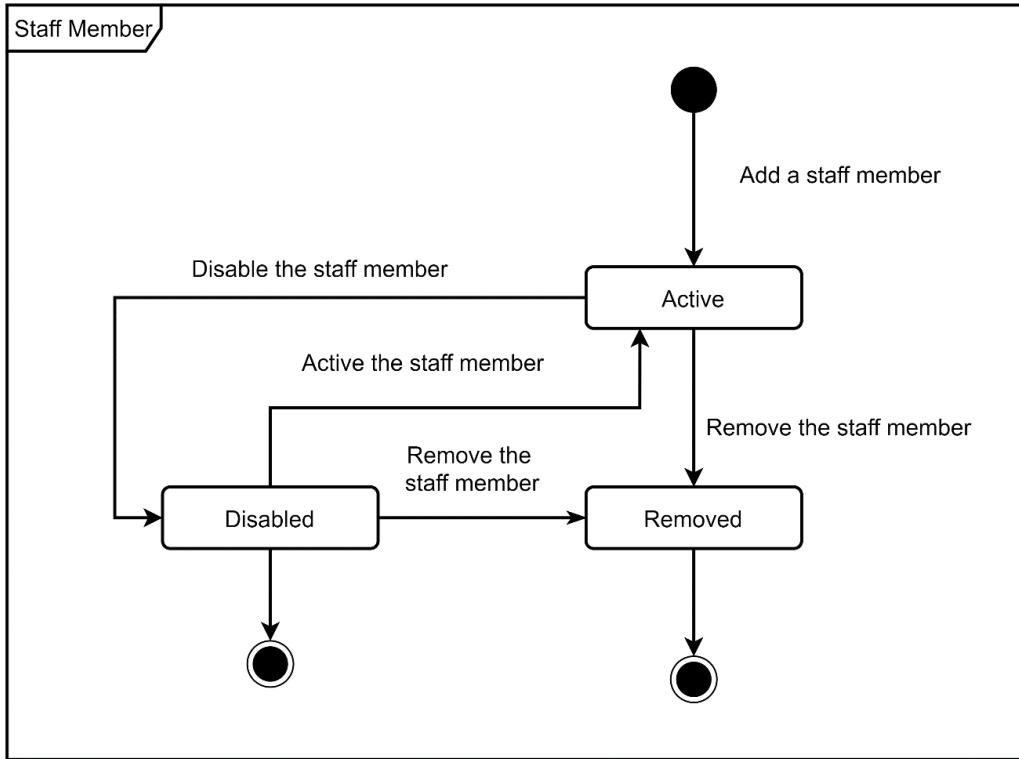


Figure 87: Staff Member (State Transition Diagram)

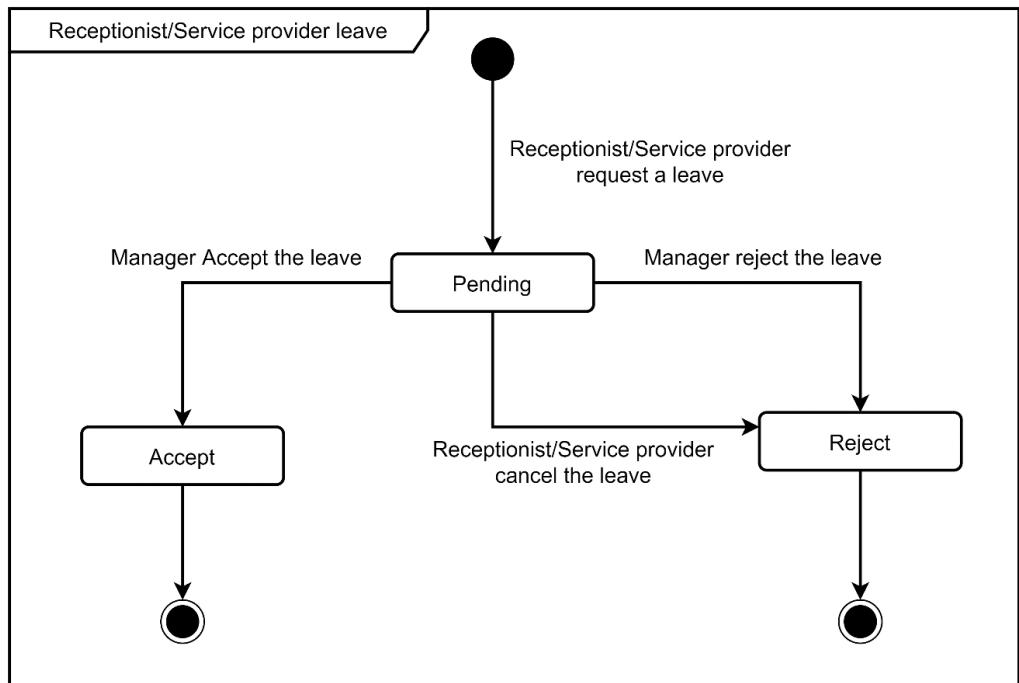


Figure 88: Receptionist/Service Provider Leave (State Transition Diagram)

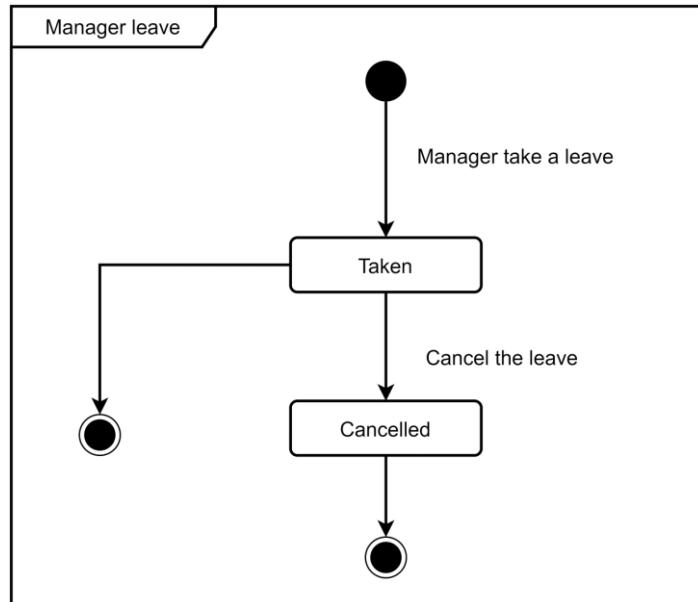


Figure 89: Manager Leave (State Transition Diagram)

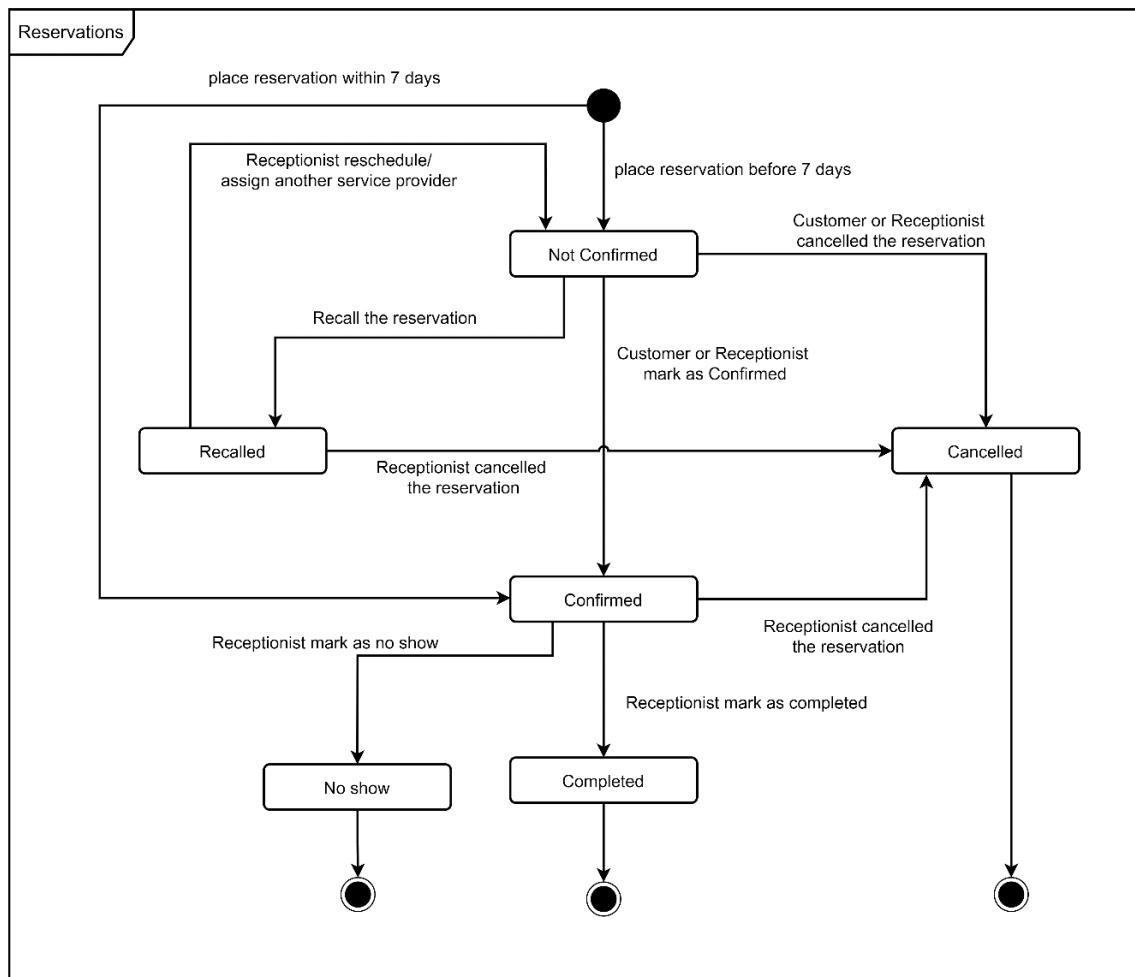


Figure 90: Reservations (State Transition Diagram)

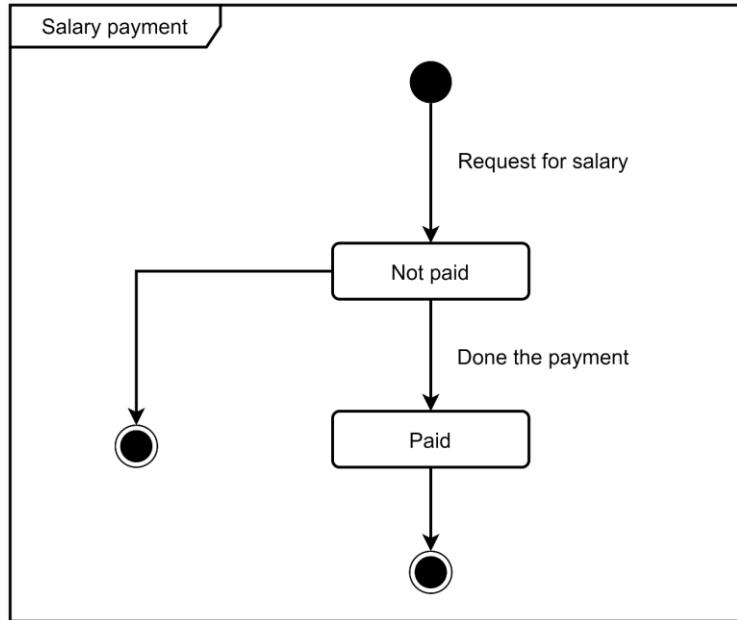


Figure 91: Salary Payment (State Transition Diagram)

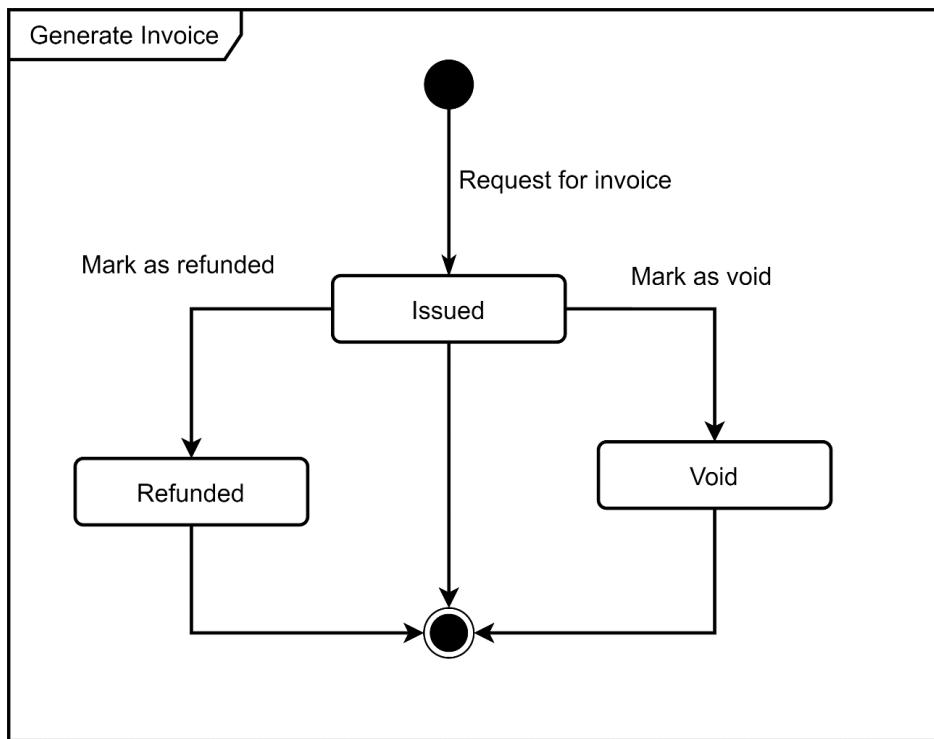


Figure 92: Generate Invoice (State Transition Diagrams)

9. Individual Contribution

9.1. Member 1

Index No : **19000413**

Registration No : **2019/CS/041**

Name : **N.D.Dissanayake**

Assigned User Role : **Receptionist, Customer**

Components:

1. Reservation Management Component - Receptionist
 - a. Add reservations
 - b. Update reservations
 - c. Remove reservations
 - d. Checkout Reservations
 - e. Mark final state of reservations
 - f. Handle reservation recall requests
2. Reservation Management Component - Customer
 - a. Add, Edit, Cancel reservations
 - b. Previous reservations summary
 - c. Provide customer feedback
3. Daily Reservations Calendar View
4. Sales Handling Component
 - a. Create, void payment invoices
 - b. Create, void refund invoices
 - c. Invoice detailed view
5. Data Validation Component
 - a. Empty field check
 - b. NIC validation
 - c. Mobile number validation
6. Session Validation Component
7. Toast Notifications Component
8. Custom Query Builder Component

Components Descriptions:

1. Reservation Management Component - Receptionist

Performs following validations when newly creating a reservation.

- salon closed status on the selected date
- service provider leave status on the selected date
- service provider occupied status on the selected date and time
- check availability of resources for selected service on selected date and time

Auto generates payment invoice when checking out from a reservation.

Viewing and managing the recall requests sent. Recalled reservations can be either canceled or rescheduled.

2. Reservation Management Component - Customer

Customer's end of placing new reservations. Similar logic to the receptionist.

View, Edit and Cancel reservations. Provide feedback for completed reservations.

3. Daily Reservations Calendar View

Provide an overall overview of the reservations of the selected date assigned to each service provider. Allow to perform operations on the existing reservations and add new reservations.

4. Sales handling component

Create payment invoices for completed reservations and Refund invoices for previously generated payment invoices. Void previous invoices.

Provides a separate detailed summary of actions related to invoice payments.

5. Data Validation Component

Validate common input types empty inputs, NIC numbers, Mobile Numbers of data input, update forms.

6. Session Validation Component

A common component that checks the logged-in user's accessibility level and restricts unauthorized users from accessing if the user doesn't have permission for access.

7. Toast Notifications

Display popup toast providing the feedback of an operation being successful or failing. Uses the session storage to keep the status of completed or failed status of an operation and pop the toast on page reload.

8. Custom Query Builder

Query builder developed from scratch for the ease of SQL querying. It contains functions to automatically build SQL queries of common formats based on passed parameters.

9.2. Member 2

Index No : **19000812**

Registration No : **2019/CS/081**

Name : **K.P.R.L.Madhubhashana**

Assigned User Role : **Owner**

Components

1. Owner Overview Component

2. Staff Management Component

- a. Add staff members
- b. Update staff members
- c. Enable/Disable staff member -
- d. Remove staff members
- e. Staff members view more

3. Resource management component

- a. Add resources
- b. Update resources
- c. Remove resources
- d. Purchase detail view

4. Close salon component

- a. Add close dates
- b. Remove close dates

5. Rates Management component

- a. Update rates

6. Salary management component

- a. Salary table view
- b. View salary report

7. Customer component

- a. Remove customer
- b. Customer detail view

Components Descriptions:

1. Owner Overview Component

Provide information for the owner, regarding the progress of the salon.

2. Staff Management Component

Add staff member data and creates relevant user account automatically and login details are sent to mobile. Date of birth and gender are automatically derived from the NIC.

Update member information and enable/disable staff members.

Removing existing staff members and automatically recalls upcoming reservations of service providers after being removed.

3. Resource management component

Add resources by inserting relevant information. Resource details will be stored in the resource type table and purchase record table. Also, can update and remove resources.

4. Close salon component

View, Add, Remove closing dates. Already placed reservations on closing dates will be automatically recalled.

5. Rates Management component

View and updates rates such as basic salary rates, service commission, leave limits.

6. Salary management component

View automatically calculated salaries of staff members as a summary for each month. Includes in detailed salary report for each salary calculation. Salaries will be calculated according to the following equation.

Total salary = basic salary + service commission – leave deduction

- Basic salary - details taken from the rate table
- Service commission – the percentage amount from the completed reservations by a particular service provider.
- Leave deduction - using additional leave count of the staff member

7. Customer component

View customers details. Removing customers can be performed and placed reservations will be cancelled.

9.3. Member 3

Index No : **19001029**

Registration No : **2019/CS/102**

Name : **H.D.R.M.Munasinghe**

Assigned User Role : **Service Provider, System Admin**

Components

1. Service provider reservation overview
2. Staff management component
 - a. Create user accounts
 - b. User account profile settings.
3. Leave management component
 - a. Add service provider and receptionist leave requests.
 - b. Update service provider and receptionist pending leave requests.
 - c. Remove service provider and receptionist pending leave requests.
 - d. Marks service providers leave. (Receptionist)
4. Reservation management component
 - a. Request reservation recall.
 - b. Update pending recall requests.
 - c. Remove pending recall requests.
 - d. View assigned reservations and update customer notes of the reservations.
5. Customer
 - a. Create customer accounts.
 - b. Profile settings
 - c. Change password.
6. System logs
 - a. Create customer log file

Components Descriptions:

1. Service provider reservation overview

Provide a daily reservation overview for assigned reservations, and allow service providers to filter reservations, send recall requests, and change customer notes of the selected reservation.

2. Staff management component

Add some modifications to the add staff process and create System admin's create staff accounts process. In the profile settings section, only owner and system admin roles can change mobile numbers and every user can change their passwords.

3. Leave management component

Provide the following validations when requesting a leave

- Consider salon close status of the selected date.
- Consider previous leave requested dates with requesting status.
- Consider reservations assigned dates with status.
- Consider leave limit of selected leave type.
- Consider the leave count of the selected month by selected leave type.

Allow to update leave request under some restrictions. Receptionists allow marking service providers' leaves for non-working days without requesting a leave.

4. Reservation management component

When recalling a reservation consider the remaining days of selected reservation and status.

5. Customer

Create system admin's customer account creation process by changing the customer registration process.

6. System logs

Maintain a text file for records of some special user activities. Only the System admin can download the log file.

9.4. Member 4

Index No : **19001274**
Registration No : **2019/CS/127**
Name : **R.M.N.T.S.Rajapaksha**
Assigned User Role : **Manager**

Components:

1. Manager overview
2. Service management component
 - a. Add services
 - b. Update services
 - c. Remove services
 - d. Hold and activate services
3. Leave management component
 - a. Add leave requests for managers
 - b. Update leaves for managers
 - c. Remove leaves for managers
 - d. Accept/ reject leave requests
 - e. Handle rejected medical leaves
4. Analytics component
 - a. Overall analytics
 - b. Service analytics
 - c. Service provider analytics
5. Reports component
 - a. Service report
 - b. Service provider report

Components Descriptions:

1. Manager overview

Provide information for the managers to get brief knowledge regarding the annual progress of the salon.

2. Service management component

Add services to the system by giving basic service information, assigning service providers, and adding slots with durations and resources. Whenever updating or removing a service, as a special case it checks for upcoming reservations and if then sends recall requests for reservations. Hold/activate service can be done through the system.

3. Leave management component

Managers can take leave through the system. When adding a leave it checks for close dates, remaining leave counts, and daily manager count. Also, provide functionalities to update/remove a leave.

Leave requests which are from service providers and receptionists are accepted/rejected by managers. Rejected medical leaves are automatically changed into casual leaves after 5 days from the requested date.

4. Overall Analytics

Overall analytics provide information on the salon's progress. Can get a brief knowledge about the last month's progress and the annual progress.

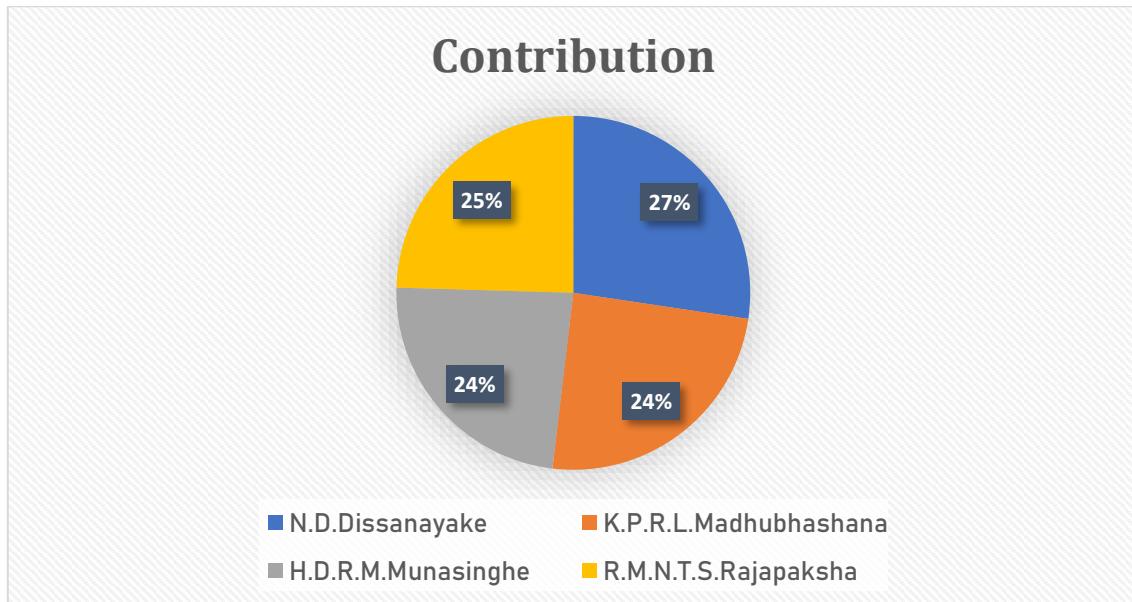
5. Service and Service provider Analytics

Service analytics provides reservation information regarding the progress of a selected service in a selected month range. Same functionalities for getting reservation information of a selected service provider in a selected month range.

6. Service Report and Service provider Report

Can get a service monthly report and a service provider monthly report in a selected month based on the reservation details.

*Developing MVC architecture and Designing UIs has been completed with the combined contribution of all four team members.



Git Repository Contributions Overview

Git usernames are as below,

- Member 1: 19000413 - N.D.Dissanayake – daredevil25
- Member 2: 19000812 - K.P.R.L.Madhubhashana – RAVINDULM
- Member 3: 19001029 - H.D.R.M.Munasinge – Ruwanthi123
- Member 4: 19001274 - R.M.N.T.S.Rajapaksha – Thashmi-nil