TruEvent Horizons

Event Planning Management System

Project Proposal

CS 41

Details of project supervisor, Co-supervisor, Advisors

Project Supervisor (Academic Staff of UCSC):

Name of the supervisor   : Mr. Roshan Abeyweera

……………………………

Signature of the supervisor

……………………………..
2022/08/13

Date

Project Co-Supervisor (Assigned by Course Coordinator):

Name of the co-supervisor   : Ms. Akna Delgodaarachchi

………………………

Signature of the co-supervisor

………………………………..
14/08/2022

Date

The client of the Project:

There is no specific client for the project. The system is expected to suit the general needs and requirements of a customer who wishes to plan out an event from scratch to top.

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1 Introduction

Event planning is an uphill task for many people. As much as one would wish to have a perfect occasion, several factors are likely to hamper the process of event planning. One of these factors include major budget concerns. Anyone dreaming of a successful event should allocate adequate funds to have it sail through, but with the tough economic times, it's become a challenge to utilize the limited resources. Time constraints are also another major factor. Planning for an occasion needs a lot of time. When considering different service providers from different sectors manually, a huge amount of time will be wasted particularly on that aspect. Poor planning skills also will lead to a substandard event. This kind of poor planning is mainly brought about by the lack of exposure. When the customer or the event planner is not very well catered with the event organizing subject, he or she tends to make numerous mistakes that may lead to a poorly planned event. The following issues have been identified as the common causes of customer dissatisfaction when it comes to event planning.

Service Seeker Point of view:

- There is no common platform (all in one platform) for the customers to visit and go through their event reservation needs.
- Even though there are websites for respective services individually, those websites do not give a clear idea about the overall event plan with all the services included.
- Customers waste a large amount of time, money and effort in traveling and visiting each service place and clients individually and physically.
- Managing reservations through mobile phone conversations is not practical because if it's an event, locations, food, and decorations should be viewed in person in order to decide.
- Difficulties arise when contacting service providers because sometimes mobile numbers might not work and sometimes the respective service client might be on another call.
- It is hard to compare all the price levels of each service and package to choose the best possible services.
- If a customer changes his mind about a certain reservation, the connection between the customer and the client gets damaged because there is no other way to decline the reservation other than telling it in person.
- Customers often struggle with making advance payments to different service companies at different time periods as they request.

Service Provider Point of view:

- At the end of the month, it is a very tedious task to manually go through all the service logs to generate reports.
- Some service providers might not have their own websites.

All the above issues can be properly addressed with the use of an event planning management system. But it's not the case in reality. Most service websites do not use an automated management system. Even though some companies have their own websites they only provide information on services and contact details. reservation schedules, reservation booking, offers and promotions are not being offered. Also, as a user, he or she might have to visit a number of websites of different service categories just to compare and get the most suitable choices because there is no common platform where you can compare and select all the required services that you wish to reserve in the most satisfying aspects in a single platform.

Based on the aforementioned issues it has been discovered that there's a requirement for a well-designed user-friendly Event Planning Management System which is not fulfilled by currently available systems. As a proposed solution, our application consists of solutions for the current problems we face while planning for upcoming events and how planners can tackle these matters through this proposed system. It also entails building a fully functional system that would help achieve a well-organized, timely and within the budget event just through a few clicks on the screen.

2   Project Goal

The main goal of this project is to satisfy both customers and the service providing clients of the event planning system by managing the majority of the organizational work within our system with minimum user effort and time. That includes, building a common platform (all in one platform) for the customers to visit and go through their event reservation needs, enabling customers to plan, reserve or book and manage events services online 24/7, enable those planning for events to do so easily, effectively and efficiently and with minimum traveling and to give customers an attractive, logical shopping experience.

3   Objectives of the Project

The main objective of developing the proposed system is to maintain an efficient and a positive interaction with customers and the service providing clients. To achieve the proposed end-result, the system shall provide the following functionalities.

We provide a web-based application (a common platform) for different types of service providing clients to market their companies and products through the given sections and allow more easier and convenient way to market themselves to the customers.

Customers are provided with a hassle-free environment to go through all of their preferred categories of services and select the best suitable services (or a package) as they need.

After logging in, the customer enters whatever event is relevant to him/her, for example, a wedding, a funeral, B-day party etc. After providing the event he/ she is then directed to pages of services or suppliers who offer the items or services required where he or she will have to choose which item goes to the online basket. Here, the cart refers to an online electronic basket where users' selected item details get recorded.

If the customer prefers to select packages instead of going through each and every service one by one, that is also possible and whatever the package customer choses will be added to the cart.

After confirming the event reservations, each customer is provided with a discrete interface where they get a personalized view of upcoming reservations and their status. Also, a confirmation is being sent to mobile as a text message and also an email will be sent with the details of the confirmed reservation being included.

Reports will be generated at the end of each month where they will analyze the number of customers/service providers being registered, what are the services those customers prefer, most selling packages, most requested service providing companies and the profit of the system as well.

Customer ratings and feedback are collected from the customer for the service they received.

There is a separate Policy agreement that any user must agree on when registering to the system. This detailed policy agreement can be viewed using the following link.

Link: https://bit.ly/3S8UQRF

By providing above functionalities from the system it's targeted to increase the number of customers and services provided within a given time period and by that maximize the profit.

4 Scope of the Project

The system will be designed only as a Responsive Web App which can be used in desktop computers and also in mobile devices.

Functionalities of the system are limited to mainly 4 components.

- ❖ Reservation management
- ❖ Services/Packages management
- ❖ Payment management
- ❖ Report generation

In scope

- ★ Online reservation management.
  - ○ Reservations based on specific services and days/timeslots.
  - ○ Providing a customer specific view (timeline) for the upcoming reservations.
  - ○ Providing a service provider specific view (timeline) for the upcoming reservations.
  - ○ Notification system (SMS and Email) for confirmations and cancellations.
- ★ Adding new services and packages to the system.
- ★ Applying promotions for the customers given by the service providers.
- ★ Advance payment handling via the System Admin.
- ★ Ability to search for reservations/service providers etc.
- ★ Hotel recommendations according to the user's living town.
- ★ Report and payment invoice generating.
- ★ Advance payment percentages paid by the system admin to the respective service providers individually.
- ★ Full Payment will be handled for each service provider after the event is completed. (Refer to the policy agreement for further clarifications)

Out of scope

- ✕ Inventory management related to the products used in the system service platforms.
- ✕ Food catering is not being dealt here under hotel reservations.
- ✕ Adding a new service providing category (other than the given ones) dynamically is not being handled by the system.
- ✕ Other than the reservation management system, the internal business processes of the other management systems will not be covered in the system.
- ✕ When finding the recommended hotels near to the user location, pre-made "Recommended Systems" will not be used.

5 Project Feasibility

This section emphasizes on the feasibility study which was carried out to determine the overall feasibility of the project. The conclusion of the study is crucial when deciding whether the product is achievable or not. The following main factors were considered in the analysis and each subsection provides a justification for the related factor.

- Technical Feasibility
- Economic Feasibility
- Operational Feasibility
- Schedule Feasibility
- Legal and Ethical Feasibility

5.1 Technical Feasibility

This subsection refers to the analysis of the availability and capability of hardware and software to identify whether it can cater to the technical requirements of the system. we are planning to use,

- ➢ HTML, CSS, and JavaScript as the front-end development technologies. The features and functionalities of these technologies can provide the required structure, styles and dynamic behavior required by the front-end of the system.

- ➢ PHP as the back-end technology, since the proposed system is completely web based so PHP is well suited for the requirement. Scalability and easy maintenance are added advantages.

- ➢ MySQL as the DBMS technology. It provides all the functionality required for the relational database of the proposed system.

All the above technologies are freely and readily available.
The applications and tools which will be used are Visual Studio Code, Wamp Server, MS Office, GitHub, Trello, Adobe XD, Draw.io, JetBrains software are also available for the development team and the team is familiar with working with the aforementioned software and technologies.

A separate SMS API will be used in order to send the notifications from the system when required.

a payment sandbox will be used to handle the payments in the system.

All the hardware equipment required to the development are already available.

Therefore, it's evident that all above mentioned technologies, software, tools and hardware are easily accessible and capable of providing the technical requirements of the proposed system. Hence the **project is technically feasible**.

5.2   Economic Feasibility

This subsection refers to the analysis of the cost-effectiveness of the project and which assesses whether it is possible to implement our system.

➢ Apart from the SMS API and Hosting Expenses, all the above-mentioned applications and tools which are used for the development purposes are free and open-source.

➢ Even though there will be charges for the SMS API and hosting platforms that will be at low cost.

➢ As the development team will use their own computers and other hardware components there is no additional hardware cost.

The cost can be covered with the profit we keep from the customers as well as the service providers throughout the year. (Refer to the agreement policy for more details)

Since there are no considerable expenses the total cost of the system is bearable. Hence the **system is economically feasible**.

5.3   Operational Feasibility

This subsection refers to the analysis of how well the proposed solution solves the problems, and satisfies the requirements identified in the requirements gathering phase.

Considering the issues that were identified, the proposed system provides multiple subsystems addressing all functionalities required by the service providers and the customers.

The following survey results shows that the proposed system satisfies the requirements of the users and they are being addressed accordingly.

Are interested in planning an event through online platform ?

60 responses

● Yes
● No

90%

10%
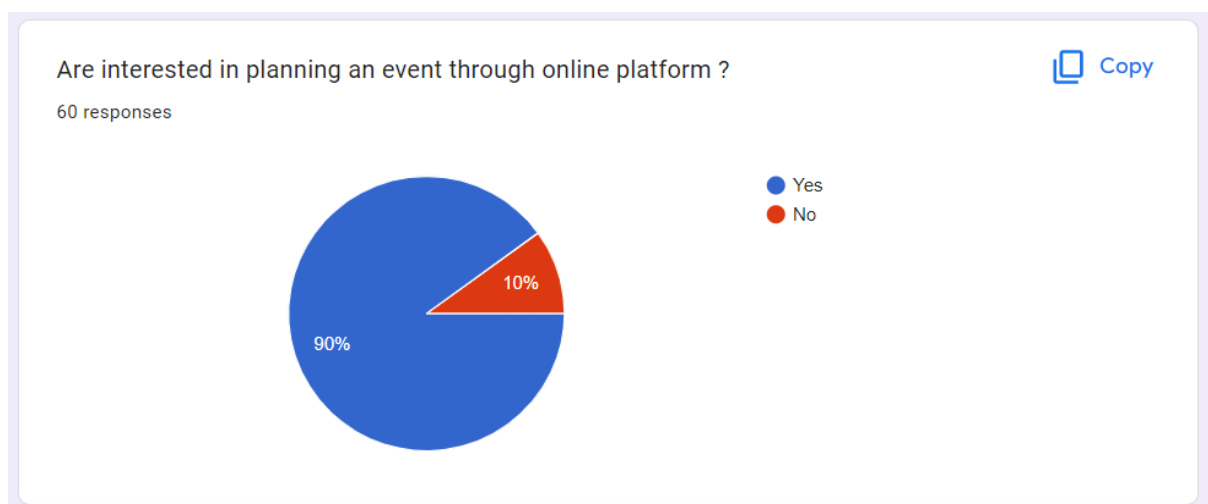
We all know that amidst your busy schedule, you need to plan your event perfectly as well. When it come to Event Planning Via Online platforms, what kind of approach you prefer on following ? ⧉ Copy

56 responses
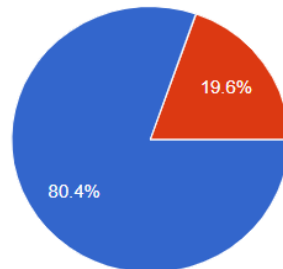
- ● I am user that prefer to see all the suppliers or service providers in a same web aplication under different sections so I can select all my options under a single website.
- ● I am prefer going to each and every Individual Service Provider's websites manually and selecting one after another while switching from website to website.

19.6%

80.4%

If you are interested in planning an event through online platform what kind of event planning system you choose ? ⧉ Copy

51 responses
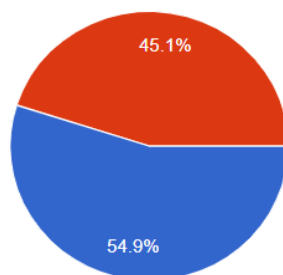
- ● Choose a package that contains a random combination of service providers in each category(music / hotel / photography etc) and go with that package.
- ● Manually choose each service provider for each category on customer preference and choice.

45.1%

54.9%

If you would like to choose suppliers separately for all event activities, what kind of event you like to planning ? ⧉ Copy

60 responses

Decorations	30 (50%)
Music Band	35 (58.3%)
Hotel	22 (36.7%)
Photography	33 (55%)
Catering services	15 (25%)
Other	6 (10%)
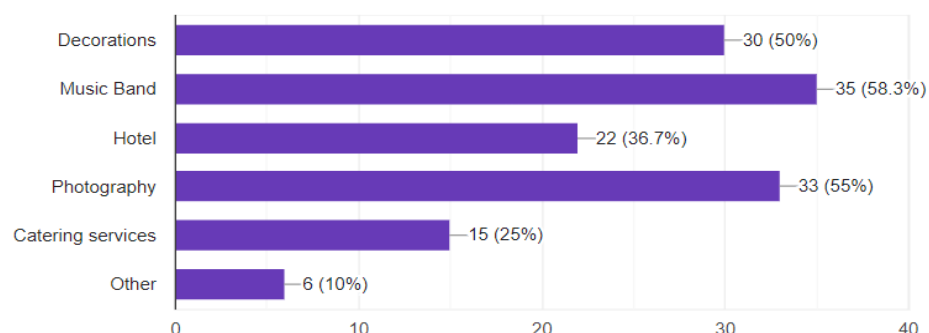
According to the above facts the system caters to all the requirements identified. Hence the **system is Operationally Feasible**.

5.4 Scheduling Feasibility

Schedule feasibility is the degree to which a deadline for a strategy plan project or process is realistic and achievable.

The development of the "TruEvent Horizons" event planning management system should be completed within 10 months. We have decided to follow a modified waterfall methodology for the development process.

Requirement gathering phase is completed and all the requirements of the system have been clearly identified.

Since there are 4 members in the development team, the available time duration is adequate.

Hence **scheduling the project is feasible.**

A Gantt chart of the estimated timeline is attached at the end of this proposal.

5.5 Legal and Ethical Feasibility

Legal and Ethical Feasibility refers to the project being analyzed and confirming the legal and ethical requirements. This includes analyzing barriers of legal and ethical implementation of projects, data protection acts etc.

- ➢ Customers who use the system cannot access personal data of any other customer or service provider within the system.

- ➢ The service records collected and stored related to customers will not be exposed to a third party under any circumstances.

- ➢ Payment records of the customers and service providers can be accessed and managed only by the system admin/super Admin.

The whole system will be developed using free, and open-source resources, and any external code fragments will be acknowledged and given credits to its rightful owner.

Although Sri Lanka does not have any consolidated and/or specific laws on data protection yet, in early 2021, the LDD released a final draft version of an Act to Provide for the Regulation of Processing of Personal Data (2021) ('the Draft Bill'). According to section 9 and section 10 of the draft bill collecting and retaining data for specific purposes with prior knowledge is possible.

Hence according to the draft, there are no restrictions on establishing the system in accordance with the rules and regulations relating to data protection. Since there are neither legal or ethical conflicts, the project is legally and ethically feasible.

6 Deliverables of the Project

In this section, deliverables refer to the quantifiable processes and services which are within the scope that must be provided upon completion of the project.

- A fully functional responsive web application with following subsystems.

    - Reservation Management to handle all operations regarding reservations for both customers and the service providers.

    - Services & Package Management.

    - Advanced Payment Management.

    - Report Generating System to view progress and analytical data.

- System Documentation.

- User Agreement Policy Document.
  https://bit.ly/3S8UQRF

7 Project Constraints, Assumptions and Limitations

This refers to the defined constraints, assumptions and limitations which are needed in order to sustain the system inside the designed scope, when developing and deploying the system.

7.1 Constraints

- The system should be developed from scratch since no frameworks are allowed.
- System Admin accounts can be created only by Super Admin.
- Customers cannot place reservations on already booked dates or the days where the service provider is unavailable.
- Profit is calculated only at the end of each month.
- When updating the reservation calendar, Customers can reserve dates up to maximum 3 months ahead time period.
- Service providers can also update their respective calendars up to maximum 3 months ahead time period.
- Customers can reserve days starting from 7 days ahead from the current date.
- Each service provider takes a limited number of reservations on a single day because the availability of staff and equipment cannot be predicted beforehand.
- When making the advance payment, all customers must pay the respective amount to a common account handled by the system.
- Full Payment and advance payment is being distributed to the service providers only after the event or the reservation is fully complete.

7.2   Assumptions

➢ All the users of the system have the minimum level of required knowledge of English and IT to operate the system.
➢ Customers have the minimum knowledge for handling the web application.
➢ The service providers and the customers have computers/devices and network connection required to operate the system.
➢ All the reservations which are not confirmed by the customer, will be confirmed only after the Advance payment is made within the due date (according to the agreement policy).
➢ In case of a cancellation of a reservation, returning the advance payment/ keeping a fine payment for cancellation depends on the agreement policy.
➢ The user must make the full payment 14 days prior to the event day. otherwise, the reservation gets automatically canceled.
➢ If a user cancels the reservation 14 days prior to the event day, either he or she can reschedule the reservation to another day. If not, full payment will not be refunded. Then a certain pre-agreed percentage of the payment amount will be transferred to the respective service providers. (Percentages are being mentioned in the agreement policy).

7.3   Limitations

➢ Payment facility will be implemented via a Payment Sandbox during the development period.

Agreement Policy Document: https://bit.ly/3S8UQRF

8 Requirements Analysis

In requirement identification the users of the system have been identified as follows.
- Registered customer
- Hotel Managers
- Band Managers
- Photography companies
- Decoration Companies
- System Admin
- Super Admin - Owner of the Website

8.1 Functional Requirements

The following functionalities have been recognized regarding the operations that each actor performs using the system. Each functional requirement is stated under identified actors of the system.

All Users

- ✓ Should be able to register (Except Admins and Super Admin).
- ✓ Should be able to login.
- ✓ Should be able to logout.
- ✓ Shall be able to change password.
- ✓ Shall be able to view the profile.
- ✓ Shall be able to update the profile.
- ✓ Shall be able to delete the profile.

Registered Customer

- ✓ Should be able to add reservations.
- ✓ Shall be able to edit reservations (according to the policy).
- ✓ Shall be able to cancel reservations (according to the policy).
- ✓ Shall be able to view available registered service providers and packages and compare them.
- ✓ Shall be able to view reservation logs (upcoming).
- ✓ Shall be able to provide feedback and ratings and also to make complaints.
- ✓ Facility to make advance payments.
- ✓ Chat option with the system admin and service providers.
- ✓ Should receive SMS and email confirmation on payment, event cancellation, reservation, and reminders.
- ✓ Receive payment invoices.

Hotel Managers

- ✓ Should be able to add Offers and Promotions.
- ✓ Should be able to delete Offers and Promotions.
- ✓ Should be able to cancel reservations.
- ✓ Should be able to confirm reservations.
- ✓ Shall be able to view the reservation schedule.
- ✓ View reports at the end.
- ✓ Should be able to get the Payments

Band Managers

- ✓ Should be able to add Offers and Promotions.
- ✓ Should be able to delete Offers and Promotions.
- ✓ Should be able to cancel reservations.
- ✓ Should be able to confirm reservations.
- ✓ Shall be able to view the reservation schedule.
- ✓ Shall be able to view the packages being included.
- ✓ View reports at the end.
- ✓ Should be able to get the Payments

Photography Companies

- ✓ Should be able to add Offers and Promotions.
- ✓ Should be able to delete Offers and Promotions.
- ✓ Should be able to cancel reservations.
- ✓ Should be able to confirm reservations.
- ✓ Shall be able to view the reservation schedule.
- ✓ Shall be able to view the packages being included.
- ✓ View reports at the end
- ✓ Should be able to get the Payments

Decoration Companies

- ✓ Should be able to add Offers and Promotions.
- ✓ Should be able to delete Offers and Promotions.
- ✓ Should be able to cancel reservations.
- ✓ Should be able to confirm reservations.
- ✓ Shall be able to view the reservation schedule.
- ✓ Shall be able to view the packages being included.
- ✓ View Reports at the End.
- ✓ Should be able to get the Payments

Admin

- ✓ Shall be able to create user accounts in the system.
- ✓ Shall be able to remove user accounts from the system.
- ✓ Shall be able to add services and packages.
- ✓ Shall be able to update services and packages.
- ✓ Shall be able to remove services and packages.
- ✓ Shall be able to pay for the service providers.
- ✓ Shall be able to review complaints.
- ✓ Able to generate reports.
- ✓ Able to view reports.

Super Admin

- ✓ Can do everything a system admin would do.
- ✓ Can create admin accounts

In this section the proposed system is modeled using diagrams to provide an abstract overview of the overall system in different aspects and levels. There are mainly 4 types of diagrams included.

Flow Charts: Shows the workflow or steps of performing operations in the system.

Use Case Diagram: Shows a system's functionalities and corresponding parties which are engaged with those functionalities.

Component Diagram: Shows the organizations and dependencies among a set of components.

Activity Diagrams: Show the flow of activities involved in a process or in data processing.

8.1.1. Flow Charts

Registration, Login and Recover Password
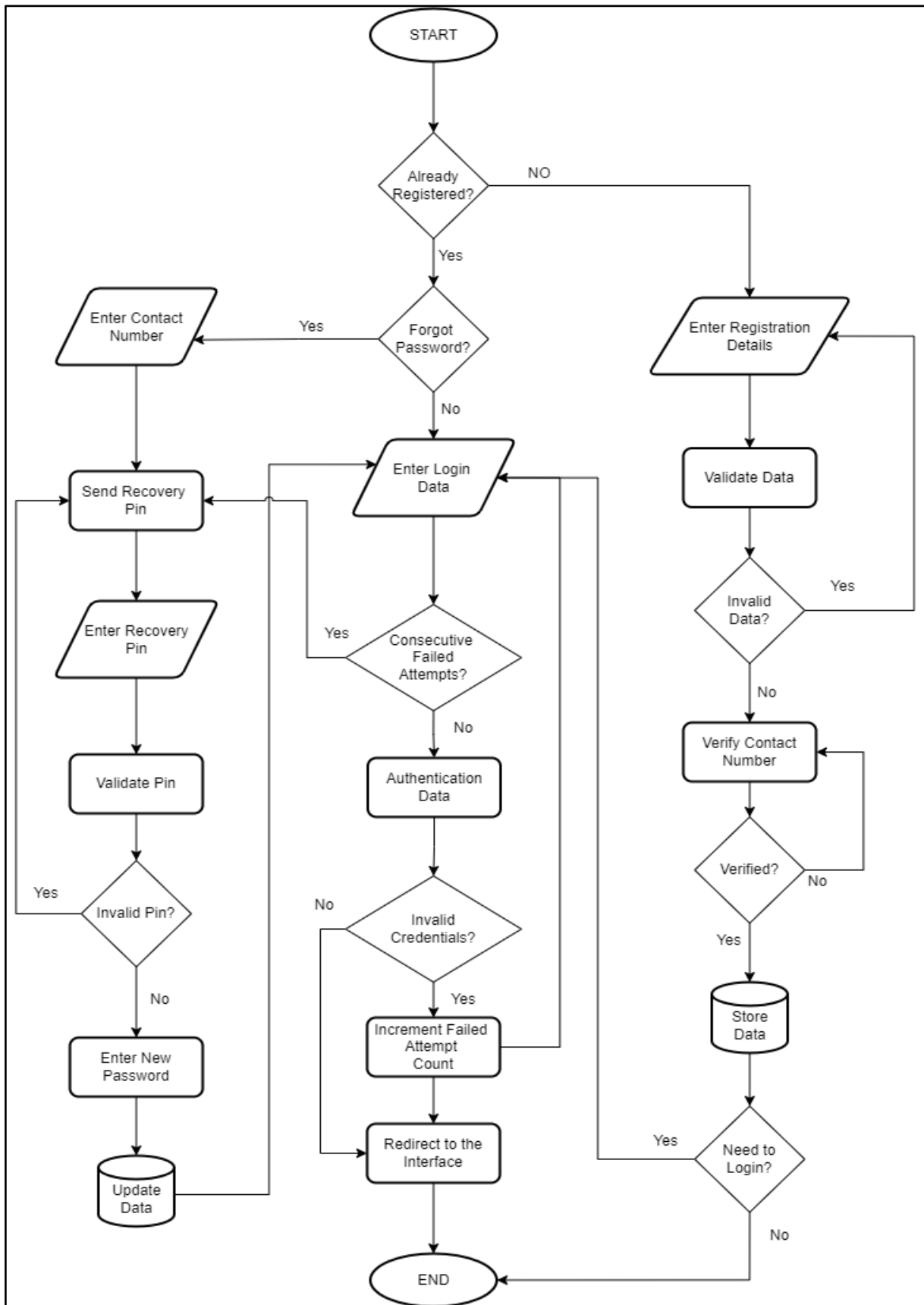
Figure 1: Registration, Login & Recover Password

Reservation Management
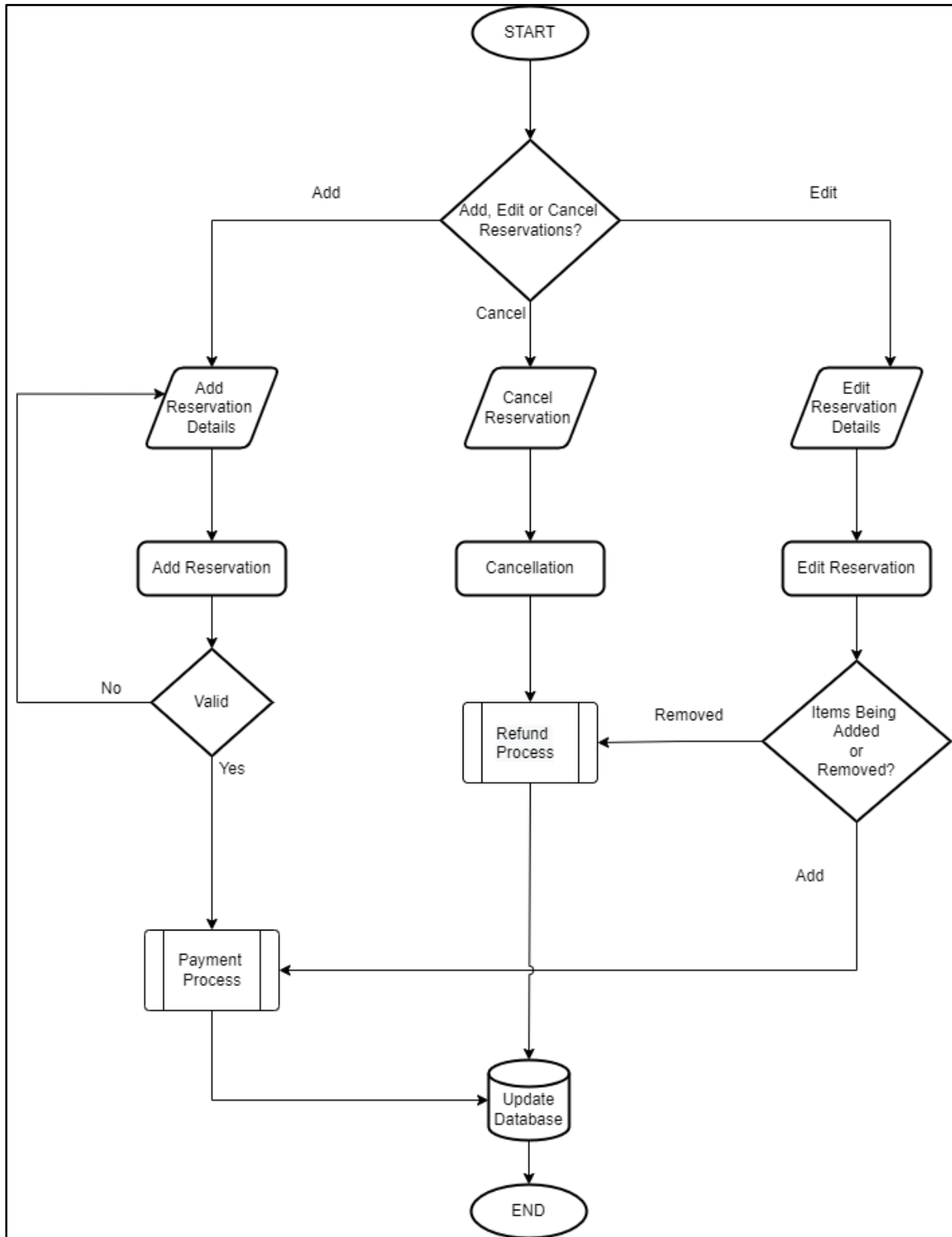
Figure 2 : Reservation Management

Service and Package Management
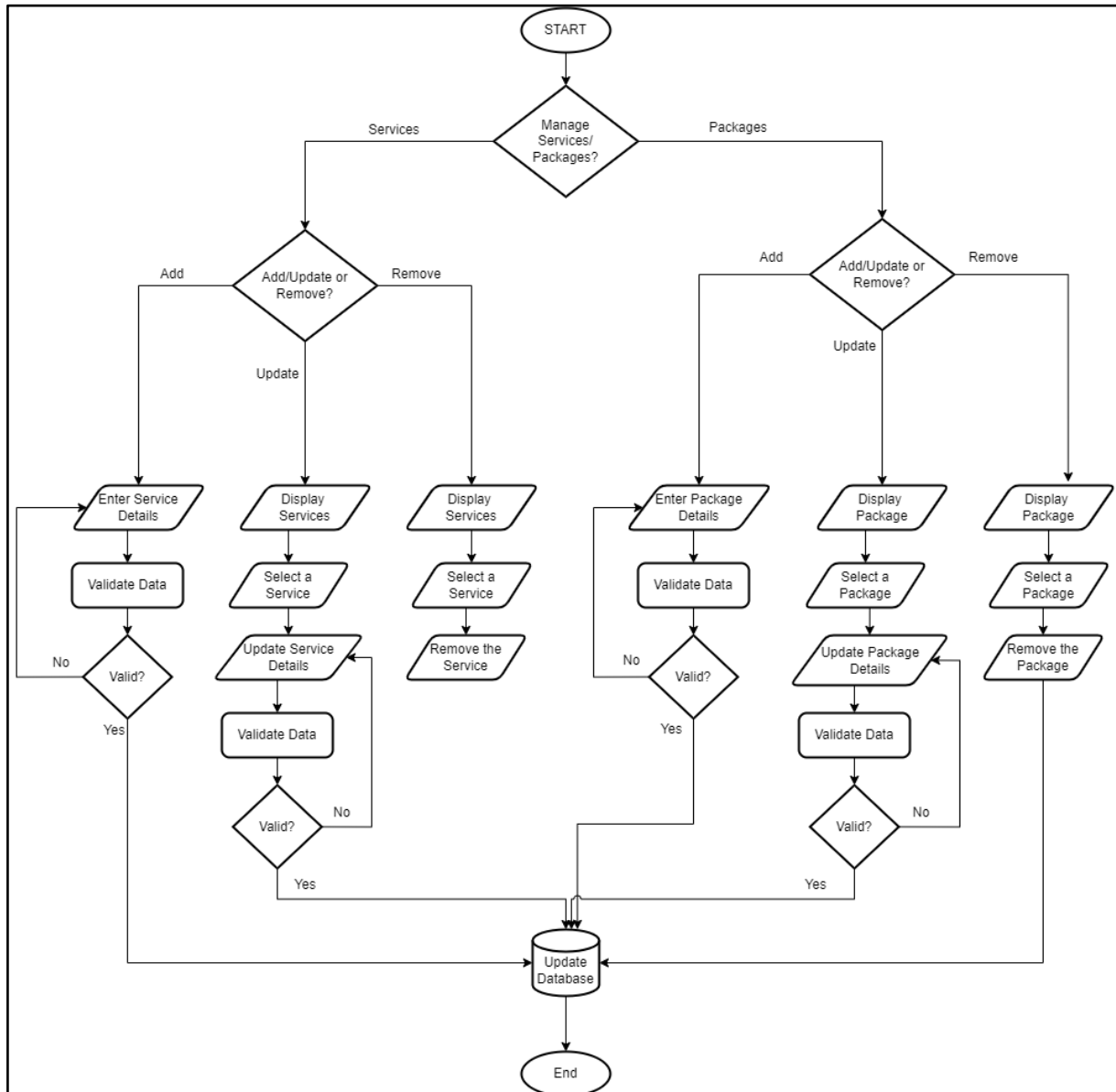
Figure 3: Service & Package Management

Advance Payment Handling
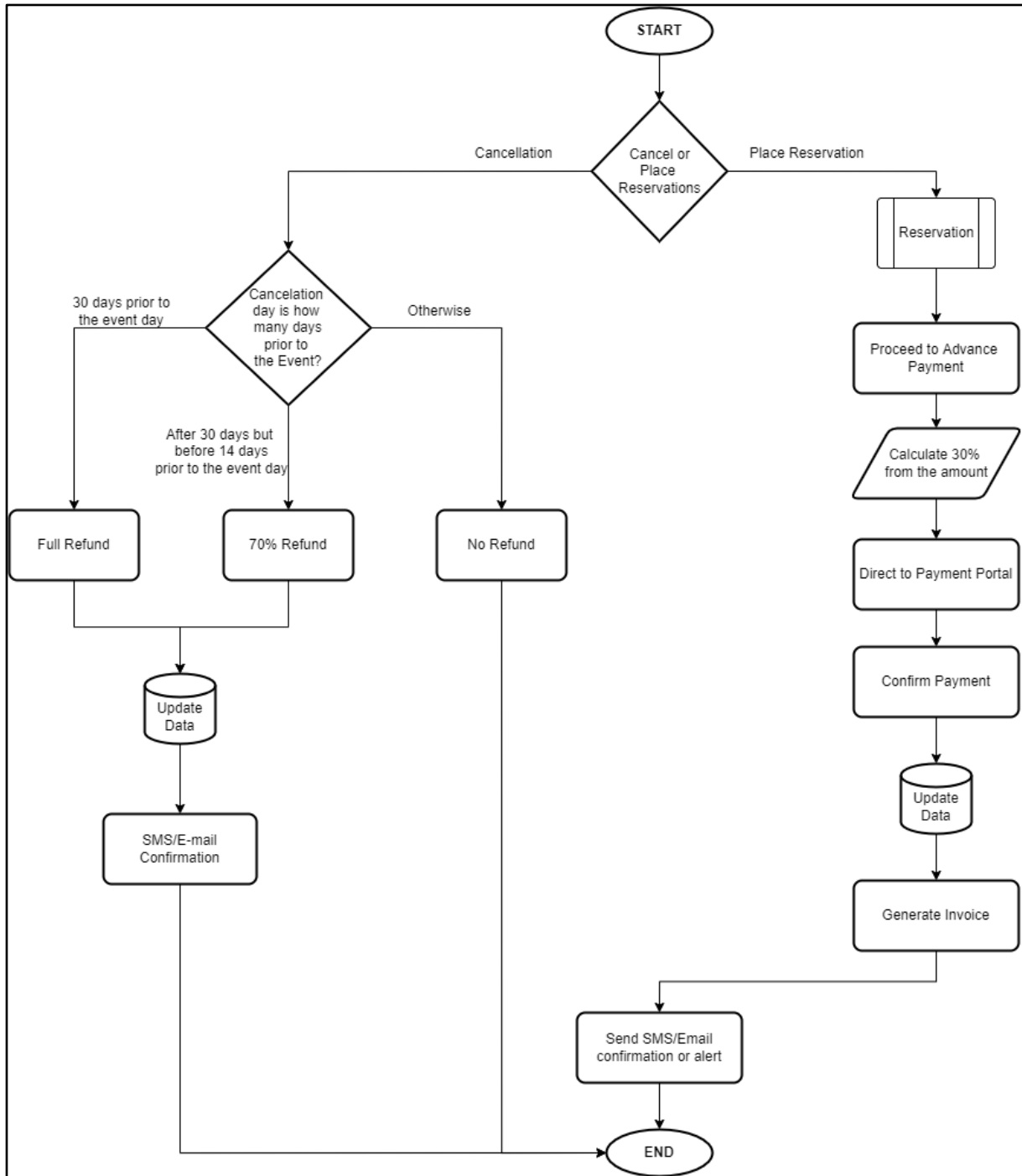
Figure 4: Advance Payment Handling

8.1.2. Component Diagram
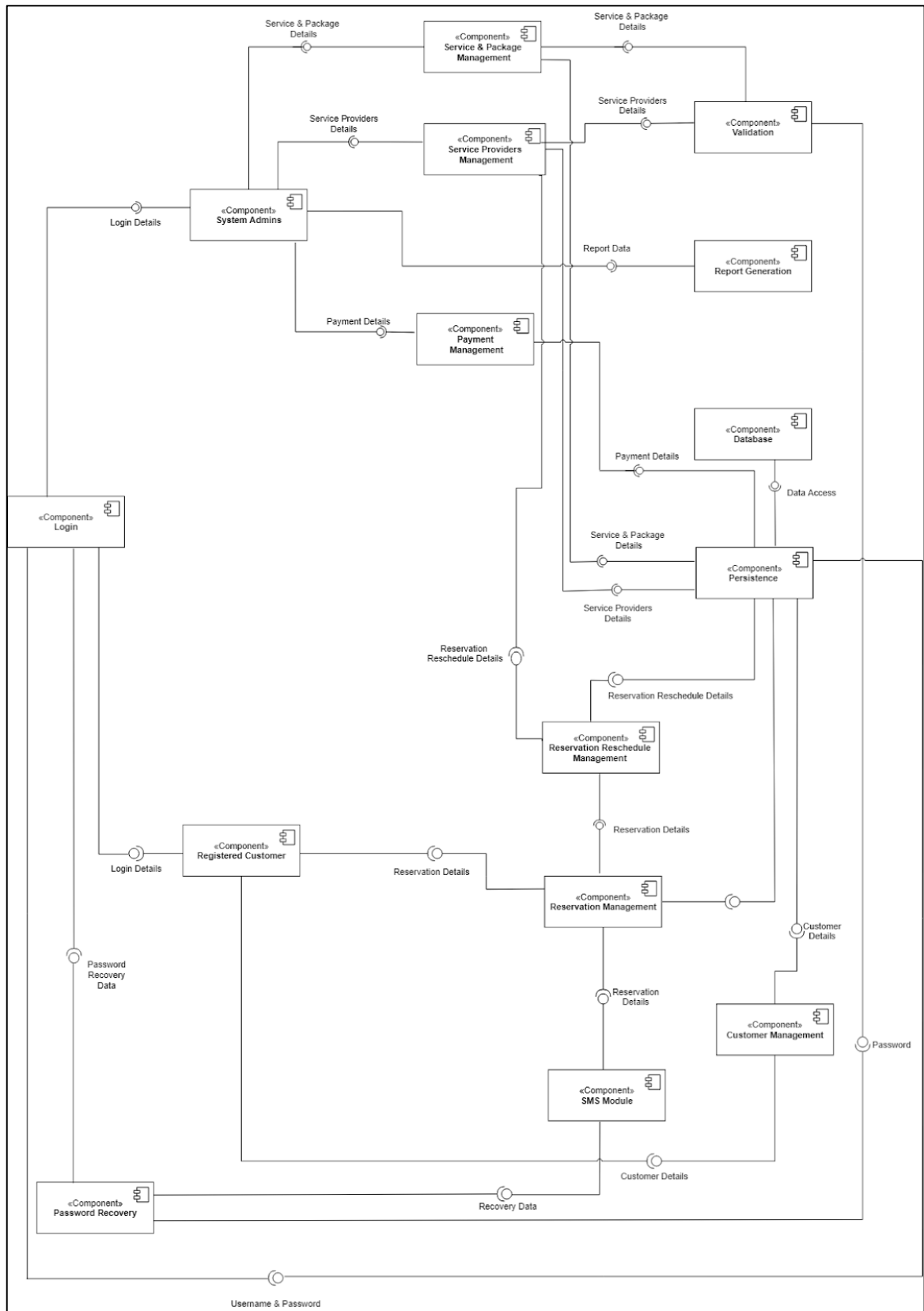
Figure 5: Component Diagram

A clear Version of the complete Component Diagram can be viewed at:
https://bit.ly/3bNcPwA

8.1.3. Use Case Diagrams
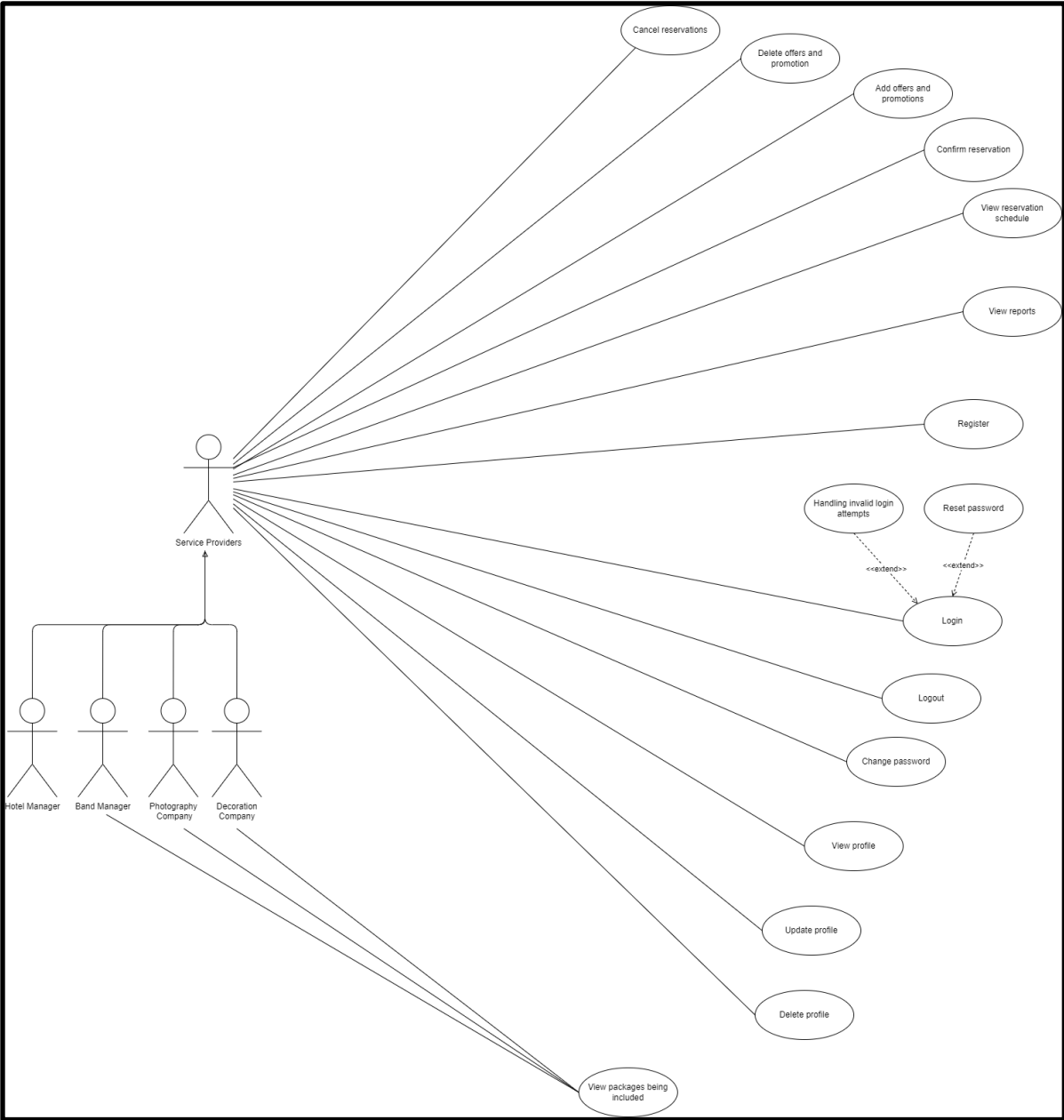
Figure 6: Use Case Diagram I
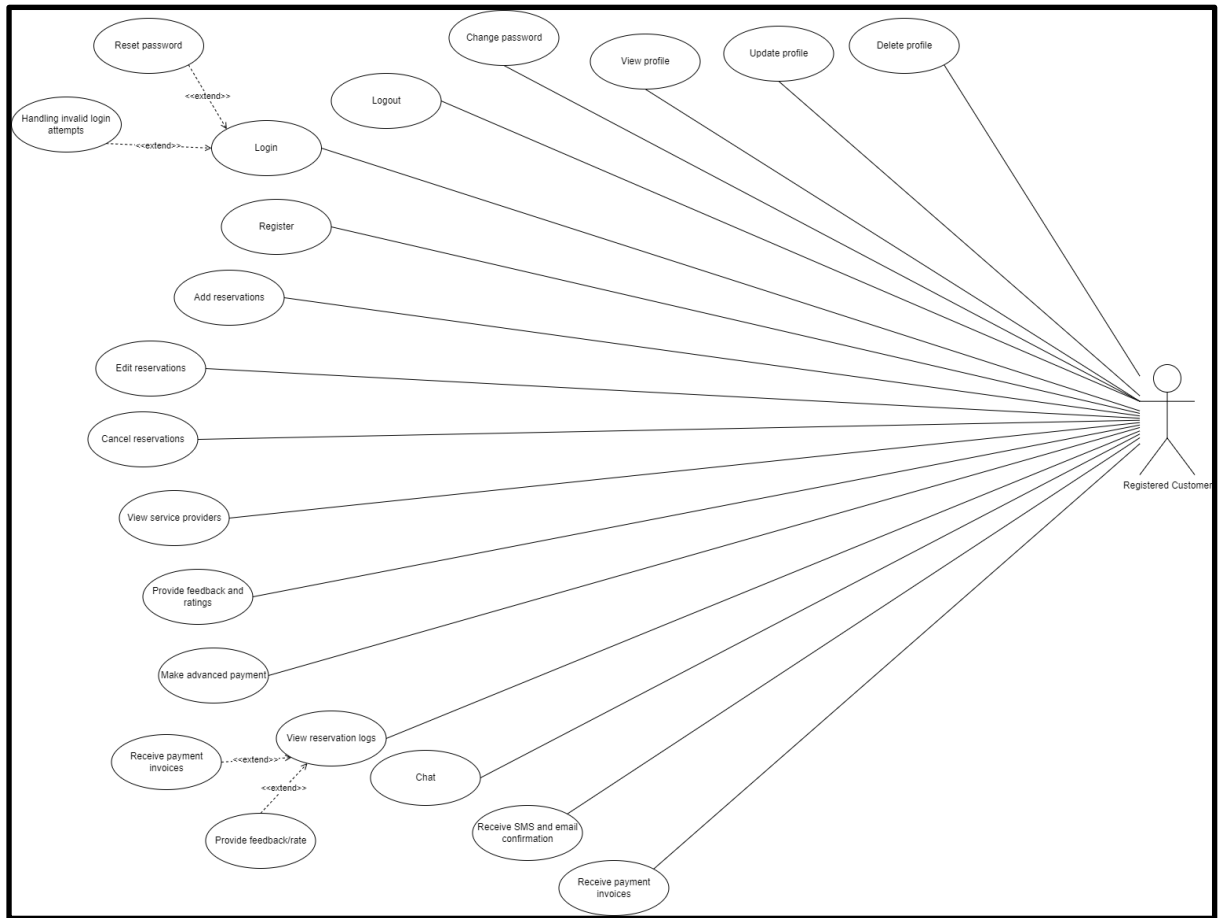
Figure 7: Use Case Diagram II
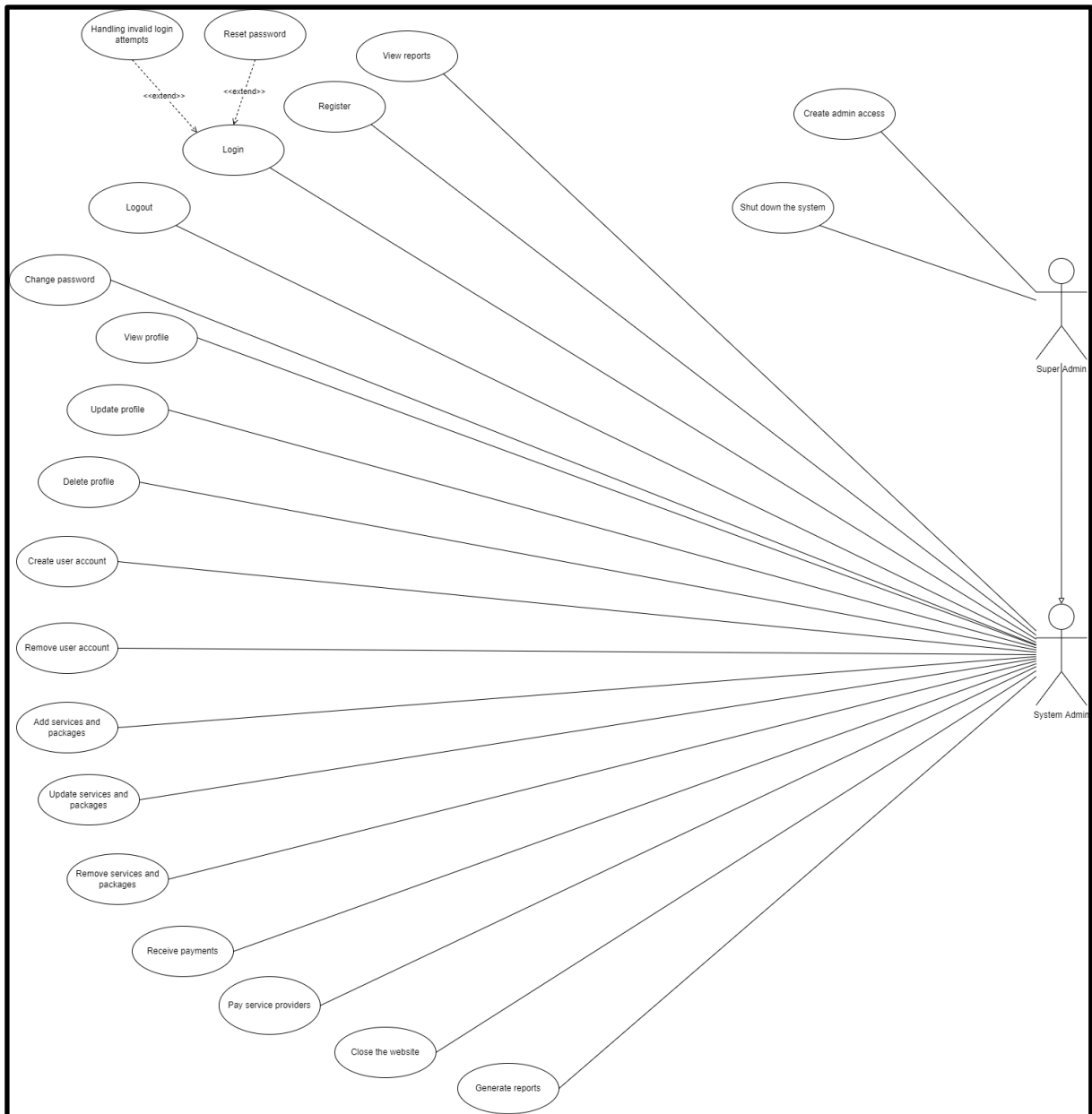
Figure 8: Use Case Diagram III

Figure 9: Use Case Diagram (Overall)

A clear Version of the complete Use Case Diagram can be viewed at: https://bit.ly/3Sf9VRz

8.1.4. Use Case Descriptions

Use Case	Register
Use Case ID	1
Actors	Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	All the users can register.
Precondition	Users have not been registered to this system before.
Main Flow	1. Select the "Register" option. 2. Enter registration details. 3. Verify contact number. System updates the system and notifies.
Post Condition	User account created.
Alternative Flows	Entered invalid data ● System displays an error ● Customer can enter data again Incorrect contact number ● PIN is not received ● Customer can enter data again Incorrect PIN ● PIN verification fails ● Customer can resend PIN again

Table 1: Registration

Use Case	Login
Use Case ID	2
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	All the users can login to the system.
Precondition	Users should be registered to the system before login.
Main Flow	1. Select "Login" option 2. Enter contact number and password. 3. System validates the contact number and password. 4. System display "Login Successful" . System provides a relevant interface.
Post Condition	User is logged into the system.
Alternative Flows	Provided contact number or password are incorrect, ● Error message displayed ● User can re-enter credentials or reset password

Table 2: Login

Use Case	Logout
Use Case ID	3
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	Users can log out from the system.
Precondition	Logged in through their accounts.
Main Flow	1. Users can click the "Logout" option. 2. Users log out from the system. 3. Display "Logout Successfully".
Post Condition	Users log out from the system.
Alternative Flows	None

Table 3: Logout

Use Case	Change Password
Use Case ID	4
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	Users can change their current password.
Precondition	Logged in through their accounts.
Main Flow	1. Click the "Change Password" option. 2. System asks for the current password. 3. User enters the current password. 4. System validates the current password. 5. System asks for the new password two times. 6. System validates and updates the new password. 7. System displays "Password Changed Successfully".
Post Condition	Users log out from the system.
Alternative Flows	None

Table 4: Change Password

Use Case	View Profile
Use Case ID	5
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	Users can view their profile.
Precondition	Logged in through their accounts.
Main Flow	1. Users click the "Profile" option. 2. Systems display their profile details.
Post Condition	None
Alternative Flows	None

Table 5: View Profile

Use Case	Update Profile
Use Case ID	6
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	Already registered users 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, admin or a service provider.
Main Flow	1. Select the "Update Profile" option. 2. Make necessary changes. 3. System validates the changes. 4. If the contact number is changed it is verified by an SMS pin. System updates the database and notifies
Post Condition	Profile data has been updated.
Alternative Flows	Data entered invalid ● Error message displayed. Users can re-enter or cancel.

Table 6: Update Profile

Use Case	Delete Profile
Use Case ID	7
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company, Admin
Description	Users can delete their profile.
Precondition	Users are logged in to the system.
Main Flow	1. Selects "Delete Profile" option. 2. System gets a confirmation from the user. 3. System checks whether there are upcoming reservations for the user. 4. If not, the user's password is verified. System updates the database and notifies.
Post Condition	The user's profile is removed.
Alternative Flows	The user has upcoming reservations ● Error is displayed Entered invalid password ● Error message is displayed ● User can re-enter or cancel

Table 7: Delete Profile

Use Case	Add Reservations
Use Case ID	8
Actors	Registered Customer
Description	Registered customers can place a reservation to get a service.
Precondition	Logged in through the account.
Main Flow	1. Select the "Add reservations" option. 2. Registered customer proceeds. 3. Select a category and service. 4. Select date and time. 5. 5.1. If the slot is reserved, customer can join to the waiting list 5.2. Else the reservation is placed. 6. Confirm and proceed.
Post Condition	Reservation is placed and notifications are sent to customer and service provider
Alternative Flows	None

Table 8: Add Reservation

Use Case	Edit Reservations
Use Case ID	9
Actors	Registered Customer
Description	A previously placed reservation can be edited.
Precondition	Logged in through the account.
Main Flow	1. Registered customers select the reservation from their reservation list. 2. Make changes in the reservation. 3. Confirm and proceed.
Post Condition	Reservation is modified and the service provider is informed about the changes.
Alternative Flows	None

Table 9: Edit Reservation

Use Case	Cancel Reservations
Use Case ID	10
Actors	Registered Customer, Hotel Manager, Band Manager, Photography Company, Decoration Company
Description	A previously placed reservation can be canceled.
Precondition	Logged in through the account.
Main Flow	1. 1.1. Registered customer selects a reservation. 1.2. Mark cancellation. 1.3. Confirm and proceed. 2. 2.1. Hotel manager selects a reservation. 2.2. Mark cancellation. 2.3. Confirm and proceed. 3. 3.1. Band manager selects a reservation. 3.2. Mark cancellation. 3.3. Confirm and proceed. 4. 4.1. Photography company selects a reservation. 4.2. Mark cancellation. 4.3. Confirm and proceed. 5. 5.1. Decoration company selects a reservation. 5.2. Mark cancellation. 5.3. Confirm and proceed.
Post Condition	Reservation is canceled and the service provider is informed about the changes.
Alternative Flows	None

Table 10: Cancel Reservation

Use Case	View Service Providers
Use Case ID	11
Actors	Registered Customer
Description	Registered customers can view different service providers.
Precondition	Registered users must be logged in to the system.
Main Flow	1. Customers click the "View Service Providers" option. 2. System displays the Service Providers list by categories. 3. Customers can select one to check the In-detail view of each service provider.
Post Condition	none
Alternative Flows	none

Table 11: View Service Providers

Use Case	Provide Feedback and Ratings
Use Case ID	12
Actors	Registered Customers
Description	Registered customers can provide feedback and ratings
Precondition	Registered User has to complete the reservation.
Main Flow	1. View the completed reservations. 2. Click on each reservation. 3. Provide feedback by using the forum.
Post Condition	none
Alternative Flows	none

Table 12: Provide Feedback and Rating

Use Case	Make Advance Payment
Use Case ID	13
Actors	Registered Customer
Description	After selecting the items to the cart, users proceed to the advance payment portal.
Precondition	Customers must complete the reservations of all selected services or packages.
Main Flow	1. Complete the reservations by adding them to the cart. 2. Proceed to make payment. 3. Pay the relevant percentage from the full amount. 4. Place the reservation.
Post Condition	Payment successful
Alternative Flows	none

Table 13: Make Advance Payment

Use Case	View Reservation Logs
Use Case ID	14
Actors	Registered Customer
Description	Customers can view their upcoming reservation logs and past completed reservation logs.
Precondition	Customers have to complete and place a reservation.
Main Flow	1. Go to the dashboard. 2. In there there is a separate section for the upcoming reservations and past reservations. 3. By clicking on each reservation, we can have a detailed view.
Post Condition	none
Alternative Flows	If there are no reservations, then it's empty.

Table 14: View Reservation Logs

Use Case	Chat option with system Admin
Use Case ID	15
Actors	Registered customers
Description	Customers can have a casual chat with the system admin in order to find the answers.
Precondition	Customers have to be registered and system admin has to be in the system.
Main Flow	1. Customers can open a chat session with the system admin through the system.
Post Condition	none
Alternative Flows	none

Table 15: Chat option with System Admin

Use Case	**Receive SMS and Email Confirmation**
Use Case ID	16
Actors	Registered customer
Description	After booking the event, after canceling the event and when making a payment, a confirmation SMS or an Email will be sent to the customer.
Precondition	Complete a reservation Cancel a reservation Make payment
Main Flow	Either one of these will happen. 1. Complete a reservation When completing a reservation email confirmation is being sent and SMS is being delivered. 2. Cancel a reservation When canceling a reservation, email confirmation is being sent and SMS is being delivered. 3. Make payment When completing a payment email confirmation is being sent and SMS is being delivered.
Post Condition	Reservation done, cancellation done, payment done
Alternative Flows	none

Table 16: Receive SMS & Email Confirmation

Use Case	Receive Payment Invoice
Use Case ID	17
Actors	Registered Customer
Description	After completing the payments, the user receives a summary report of the payment details as an invoice.
Precondition	Customers must complete the reservation and make the advance payment.
Main Flow	1. Complete the reservation 2. Make payments. 3. Summarize the payment details into an invoice.
Post Condition	none
Alternative Flows	none

Table 17: Receive Payment Invoice

Use Case	View Reports
Use Case ID	18
Actors	System Admin, Super Admin, Service Provider
Description	Users are able to view reports.
Precondition	A report will be generated once a month. In order to view the report, Admins and service providers must be logged in.
Main Flow	1. Users have to login to the system 2. Then click on view monthly report. 3. View the report.
Post Condition	none
Alternative Flows	none

Table 18: View Reports

Use Case	Create user accounts
Use Case ID	19
Actors	System Admin
Description	Admin can create user accounts.
Precondition	System admin must be logged into the system
Main Flow	1. Login to the system. 2. Click on create new user account. 3. Fill out the relevant fields. 4. Save the user.
Post Condition	User account successfully created.
Alternative Flows	none

Table 19: Create User Account

Use Case	Remove user accounts
Use Case ID	20
Actors	System Admin
Description	Admin can remove user accounts.
Precondition	System admin must be logged into the system
Main Flow	1. Login to the system. 2. Click on remove user account. 3. Select the user account you need to remove. 4. Confirm removal.
Post Condition	User account successfully removed.
Alternative Flows	none

Table 20: Remove User Account

Use Case	Add Services
Use Case ID	21
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can add services to the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select the "Add services" option 2. Add service details 3. Validate entered data 4. Add the service to the system
Post Condition	New service is added to the system
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to re-enter the details

Table 21: Add Services

Use Case	Add Packages
Use Case ID	22
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can add packages to the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select the "Add packages" option 2. Add package details and add services to the package 3. Enter package discount rate and other details 4. Calculate package price 5. Validate entered data 6. Add the package to the system
Post Condition	New package is added to the system
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to re-enter the details

Table 22: Add Packages

Use Case	**Update / Remove Services**
Use Case ID	23
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can update /remove services to the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	.Select the "Update / Remove Services" option .Select service .If the system admins / super admin selects the "Update/ Hold Service" option .If select the "Update Service option" .Update the selected service details .Validate updated details .Update the system .Else select the "Hold Service" option .Hold the service from the system .Else the system admins/ super admin selects the "Remove Service" option .Update the system
Post Condition	Update the system after update / remove
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to update the details

Table 23: Update / Remove Services

Use Case	Update / Remove Packages
Use Case ID	24
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can update /remove packages to the system
Precondition	Logged into the system through System Admins or Super Admin account

Main Flow	.Select the "Update / Remove Service" option
	.Select service
	.If the system admins / super admin selects the "Update Package" option
	    3.1 Update the selected package details
	    3.2 Validate updated details
	    3.3 Update the system
	
	.Else the system admins/ super admin selects the "Remove Package" option
	.Update the system

Post Condition	Update the system after update / remove
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to update the details

Table 24: Update / Remove Packages

Use Case	Receive Advance Payment
Use Case ID	25
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can receive the advance payments to the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select "Payment Details" option 2. Display advance payment details 3. Display payment methods 4. Add payment method details 5. Validate data 6. Confirm the success of payment.
Post Condition	Receive advance payment and pay to service providers
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to change the payment details

Table 25: Receive Advance Payment

Use Case	Settle Advance Payment to Service Providers
Use Case ID	26
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can pay the advance payments to the service providers
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select "Payment Details" option 2. Select "Transfer advance payments" option 3. Select the common pool. 4. Display advance payment details 5. Display payment methods 6. Add payment method details 7. Validate data 8. Confirm the success of payment.
Post Condition	None
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to change the payment details

Table 26: Settle Advance Payment to Service Providers

Use Case	Settle Total payments to Service Providers
Use Case ID	26 - (b)
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can pay the total payments to the service providers
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select "Payment Details" option 2. Select "Transfer payments" option 3. Select "Total Payment" option 4. Select category with service provider 5. Enter customer details 6. Check whether user can proceed the total payment 7. Verified the customer details 8. Display advance payment details 9. Display payment methods 10. Add payment method details 11. Validate data 12. Confirm the success of payment.
Post Condition	None
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to change the payment details

Table 26 – (b): Settle Total Payments to Service Providers

Use Case	View Package being included
Use Case ID	27
Actors	System Admins / Super Admin, Service providers (except hotels)
Description	System Admins / Super Admin can view the packages of the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select the "View Package" option 2. Search and select the package 3. Display package records
Post Condition	None
Alternative Flows	None

Table 27: View Package being included

Use Case	Add offers and promotions
Use Case ID	28
Actors	Service Providers
Description	Service providers are able to add offers and promotions
Precondition	Service providers should be logged in
Main Flow	1.Service provider logs in to the system 2.Click on the promotions/offer button 3.Add the relative details of the offers and promotions 4.Confirm and add to dashboard
Post Condition	Promotions Successfully added.
Alternative Flows	None

Table 28: Add Offers and Promotions

Use Case	Delete offers and promotions
Use Case ID	29
Actors	Service Providers
Description	Service providers are able to delete offers and promotions
Precondition	Service providers should be logged in
Main Flow	1.Service provider logs in to the system 2.Click remove and remove the promotions 3.Confirm
Post Condition	Promotion Successfully removed.
Alternative Flows	None

Table 29: Delete Offers and Promotions

Use Case	Cancel Reservations
Use Case ID	30
Actors	Service Providers
Description	Service providers are able to cancel reservation
Precondition	Service provider should be logged in
Main Flow	1.Service provider should log in to the system 2.Go to the reservation's dashboard 3.Click the cancel and cancel the reservation 4.Confirm Cancellation
Post Condition	Reservation Canceled, Status changed to available
Alternative Flows	None

Table 30: Cancel Reservation

Use Case	Confirm Reservation
Use Case ID	31
Actors	Service provider
Description	Service providers are able to confirm reservation
Precondition	Service provider should be logged in
Main Flow	1.Service provider should log in to the system 2.Go to reservations 3.Check availability 4.Confirm reservation
Post Condition	Reservation confirmed, status changed to booked
Alternative Flows	Leave on pending

Table 31: Confirm Reservation

Use Case	View Reservation Schedule
Use Case ID	32
Actors	Service Providers
Description	Service Providers are able to see the reservation status and get updates of upcoming bookings.
Precondition	Service Provider should be logged in
Main Flow	1.Service provider should log in to the system 2.Go to reservation schedule 3.View reservations
Post Condition	None
Alternative Flows	None

Table 32: View Reservation Schedule

Use Case	Create admin access
Use Case ID	33
Actors	Super admin
Description	Create an admin access to a new admin
Precondition	Super admin should be logged in
Main Flow	1.Log in using super admin 2.Go to create new admin 3.Add admin details 4.Confirm
Post Condition	New admin created
Alternative Flows	None

Table 33: Create Admin Access

Use Case	Generate report
Use Case ID	34
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can generate reports of the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select the "Generate Report" option 2. Add details to the reports 3. Finalize the data in the report
Post Condition	None
Alternative Flows	None

Table 34: Generate Report

Use Case	Receive Total Payment
Use Case ID	35
Actors	System Admins / Super Admin
Description	System Admins / Super Admin can receive the total payments to the system
Precondition	Logged into the system through System Admins or Super Admin account
Main Flow	1. Select "Payment Details" option 2. Check whether user can proceed the total payment 3. Display total payment details 4. Display payment methods 5. Add payment method details 6. Validate data 7. Confirm the success of payment.
Post Condition	Receive total payment and pay to service providers
Alternative Flows	Invalid details are added ● Display an error message ● Give a chance to change the payment details

Table 35: Receive Total Payment

Use Case	Reschedule Reservation
Use Case ID	36
Actors	Registered Customer
Description	Registered Customers can reschedule reservations.
Precondition	Logged into the system through Registered Customer account
Main Flow	1. Select Reschedule Reservation option 2. Include Reschedule Details 3. Confirm Reschedule Reservation
Post Condition	Proceed Reschedule Reservation
Alternative Flows	None

Table 36: Reschedule Reservation

8.1.5. Activity Diagrams
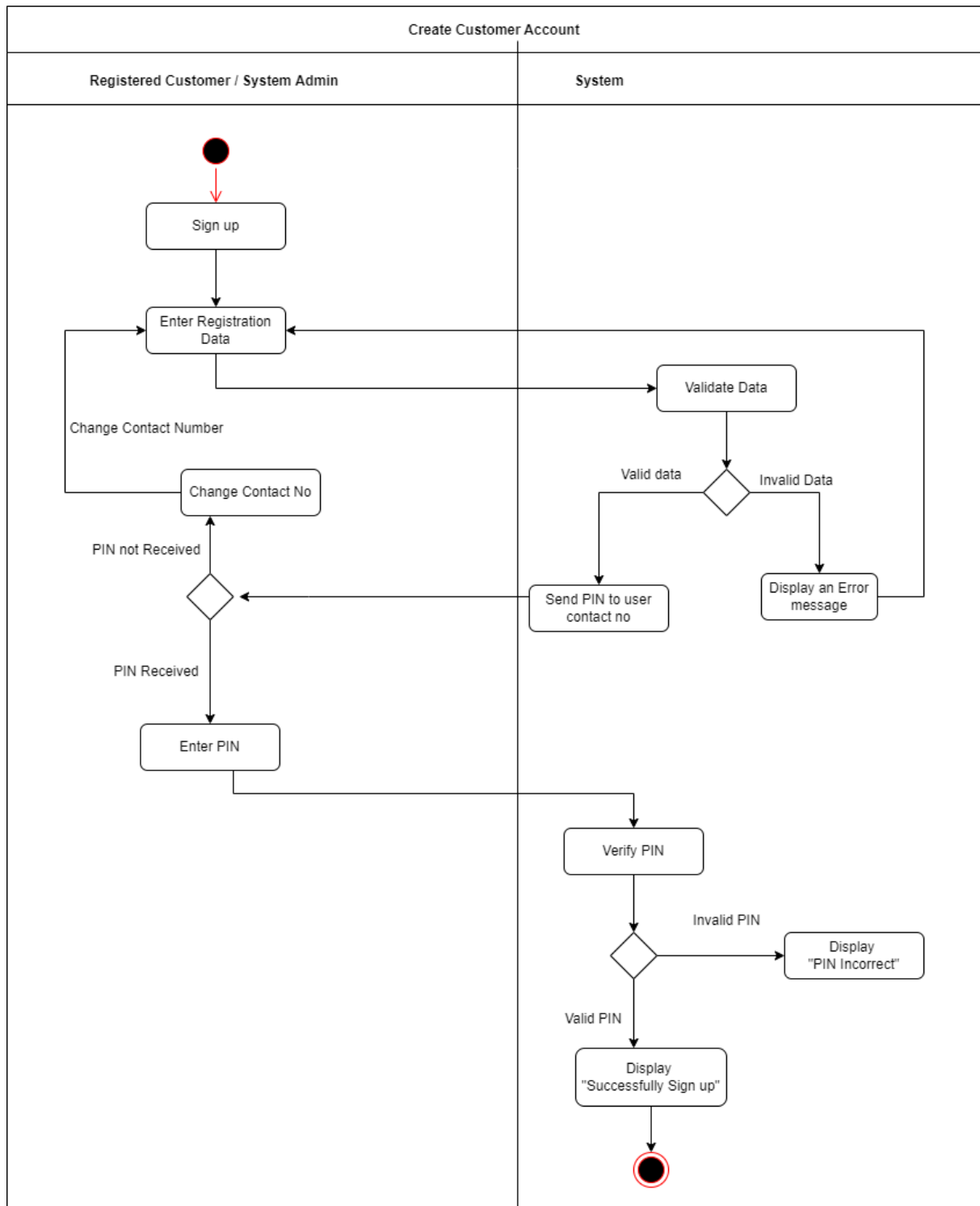
Figure 10: Create Customer Account
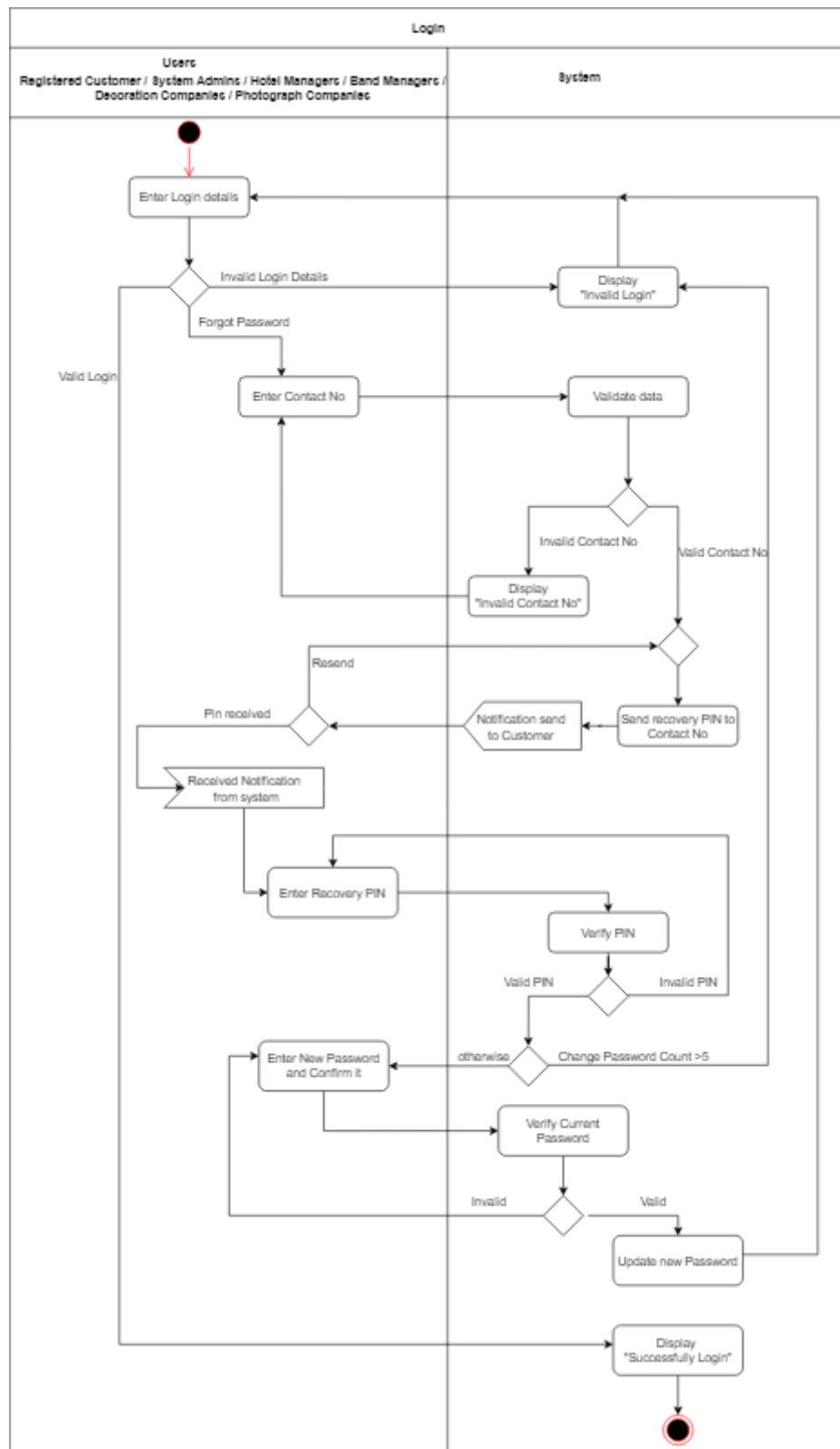
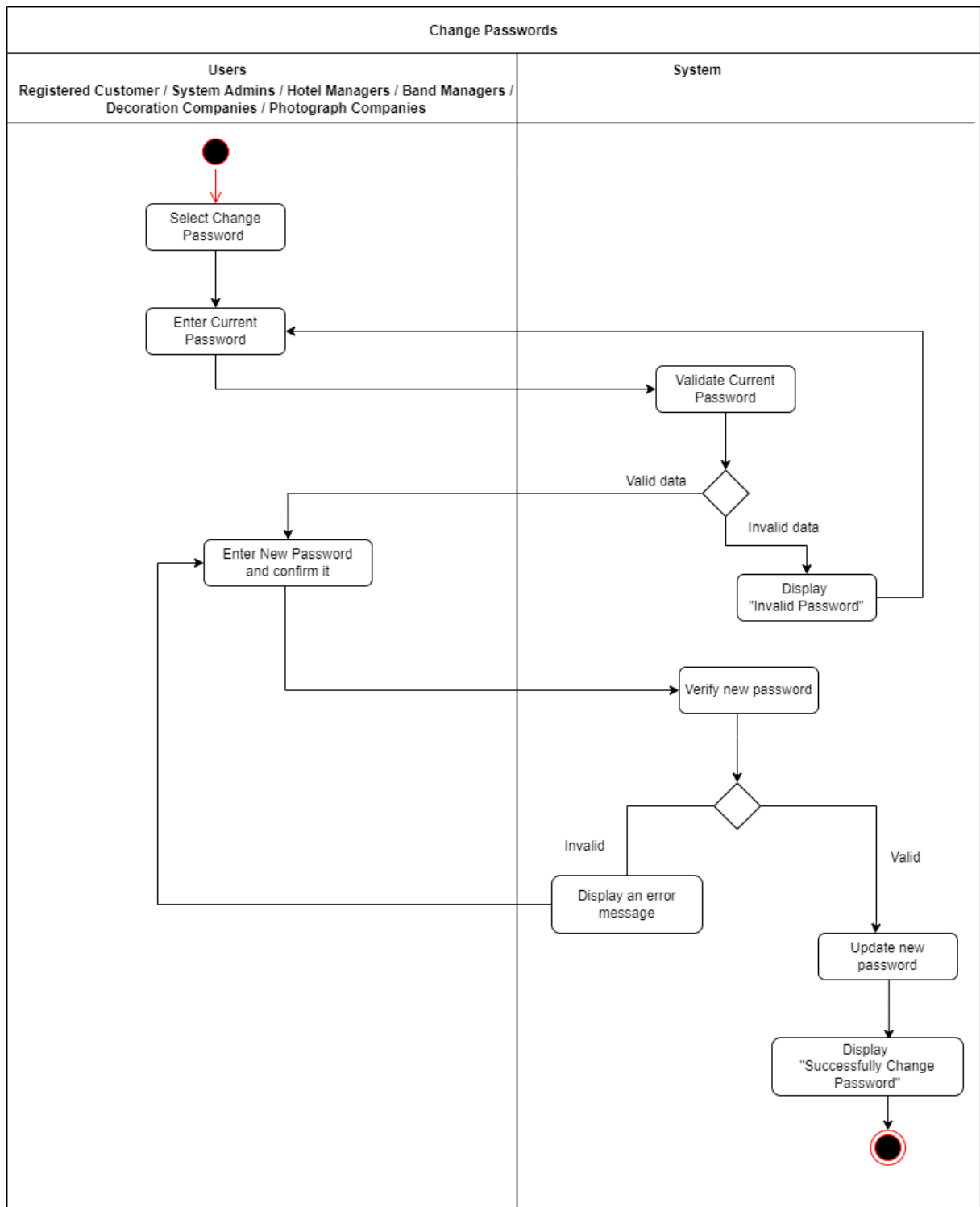*Figure 11: Login*
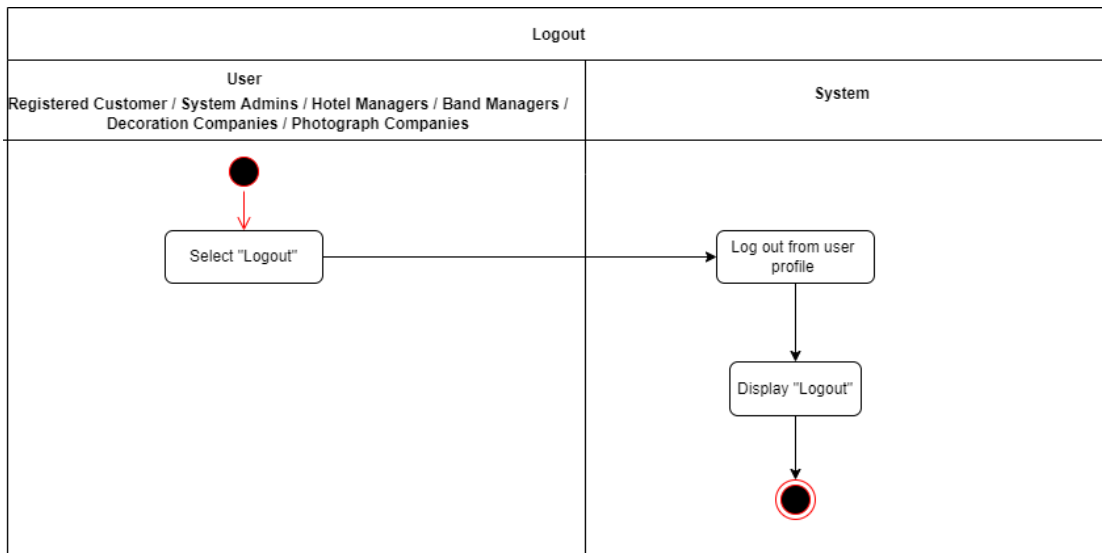
Figure 12: Logout
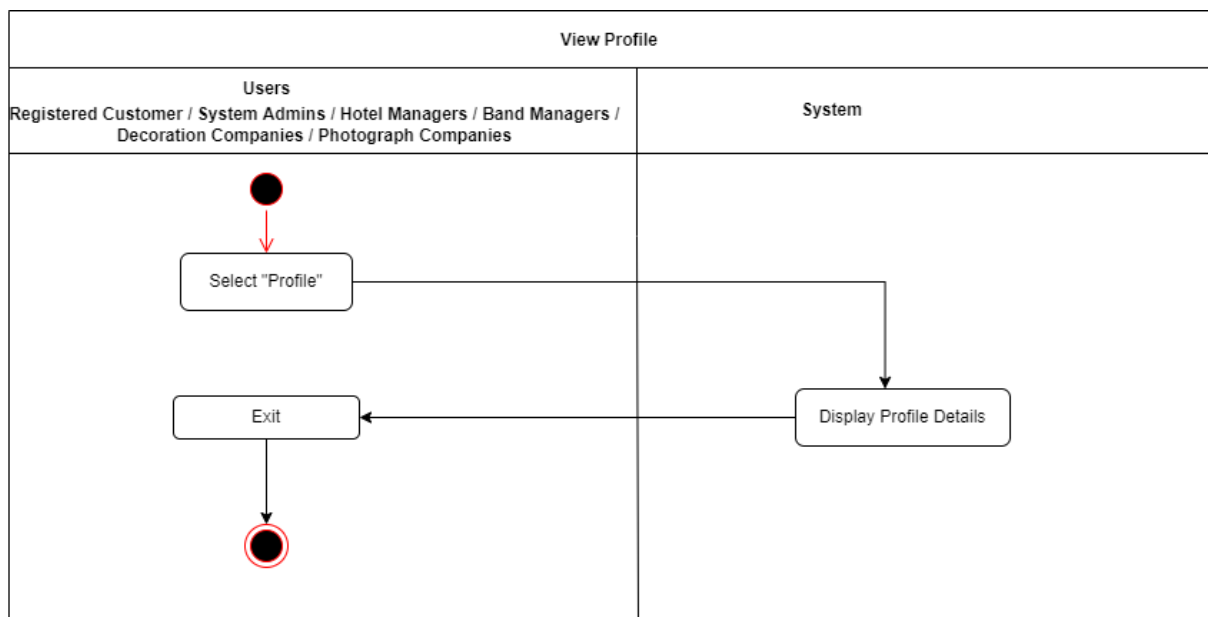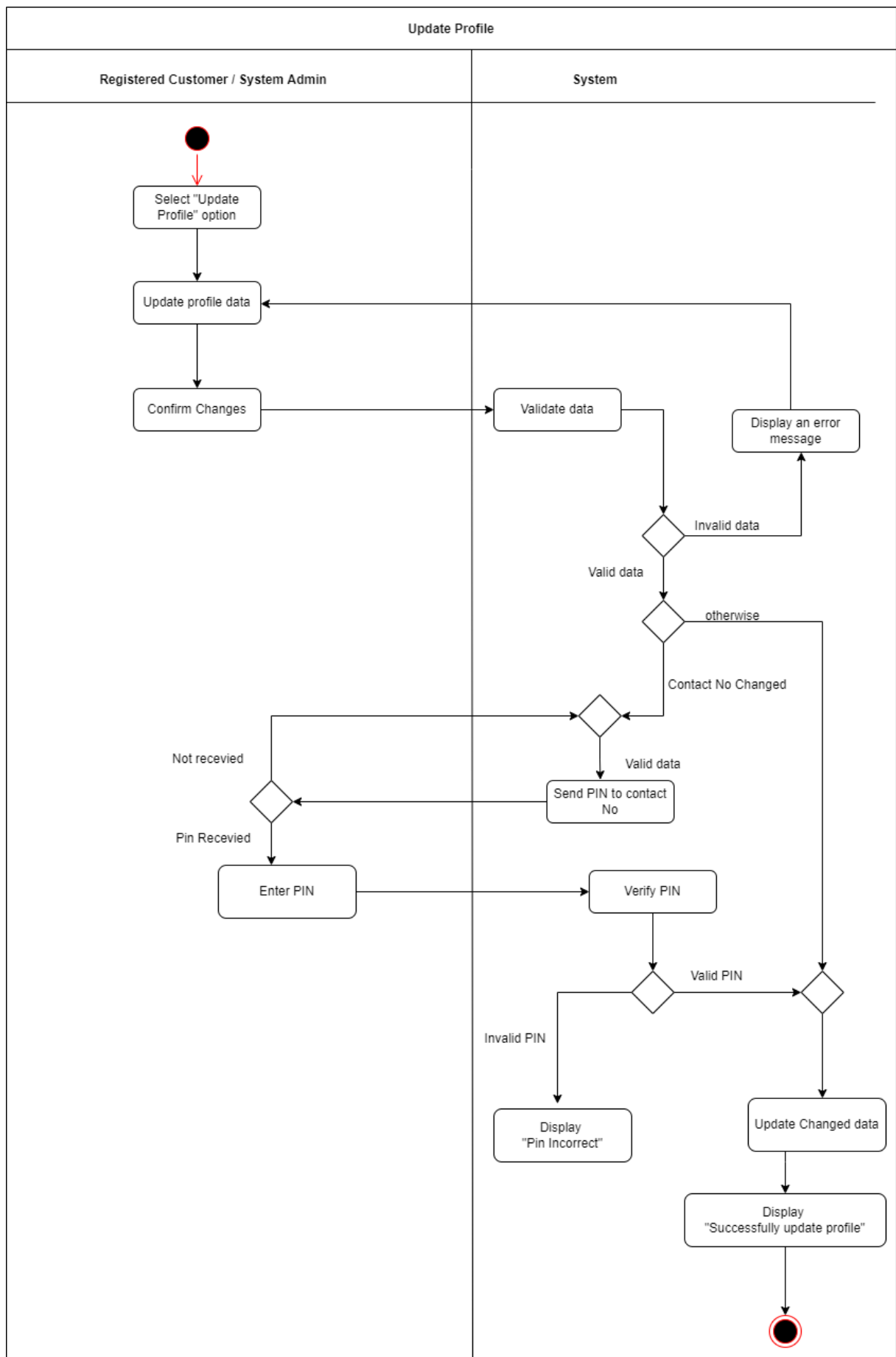

Figure 13: View Profile
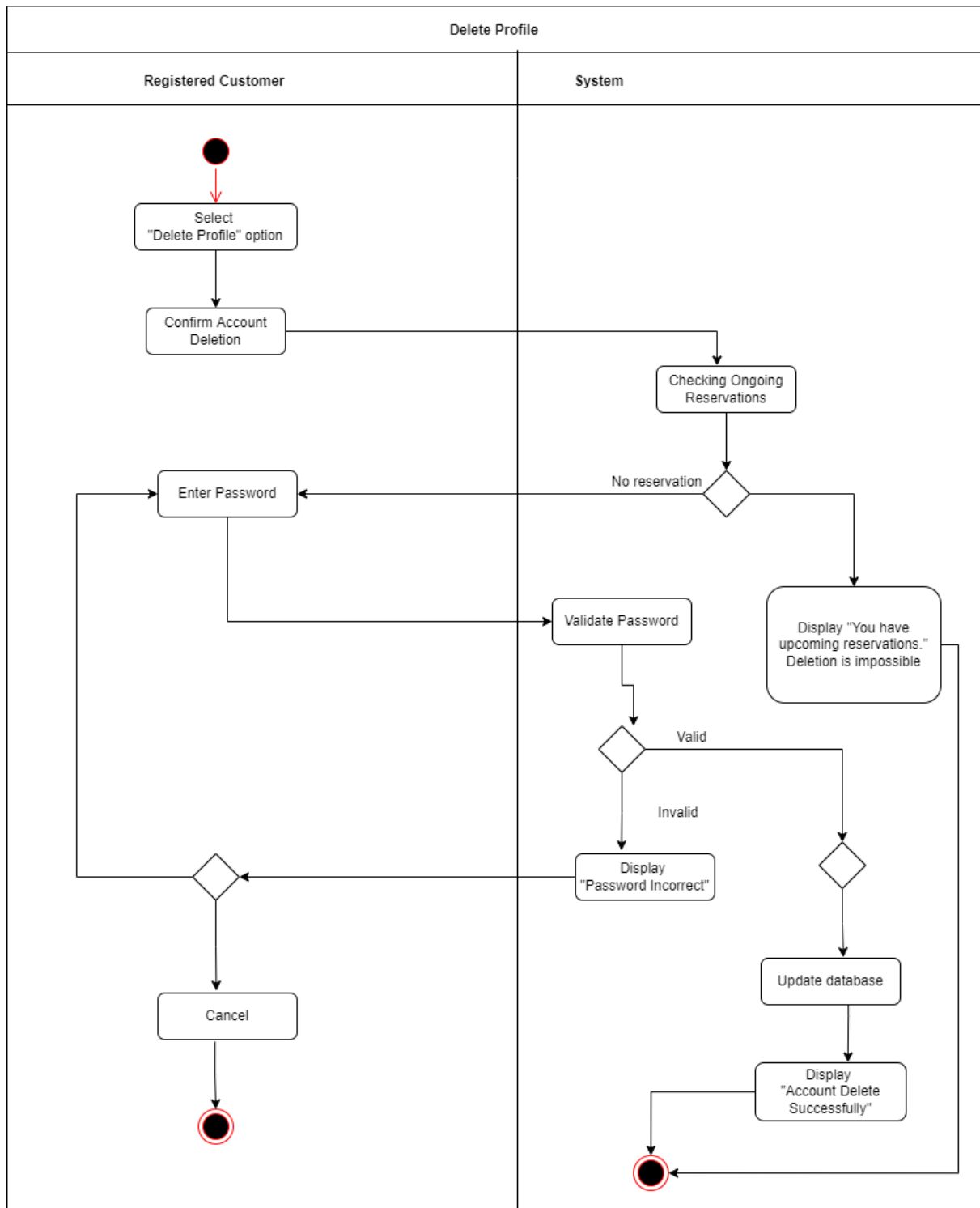
Figure 14: Change Password
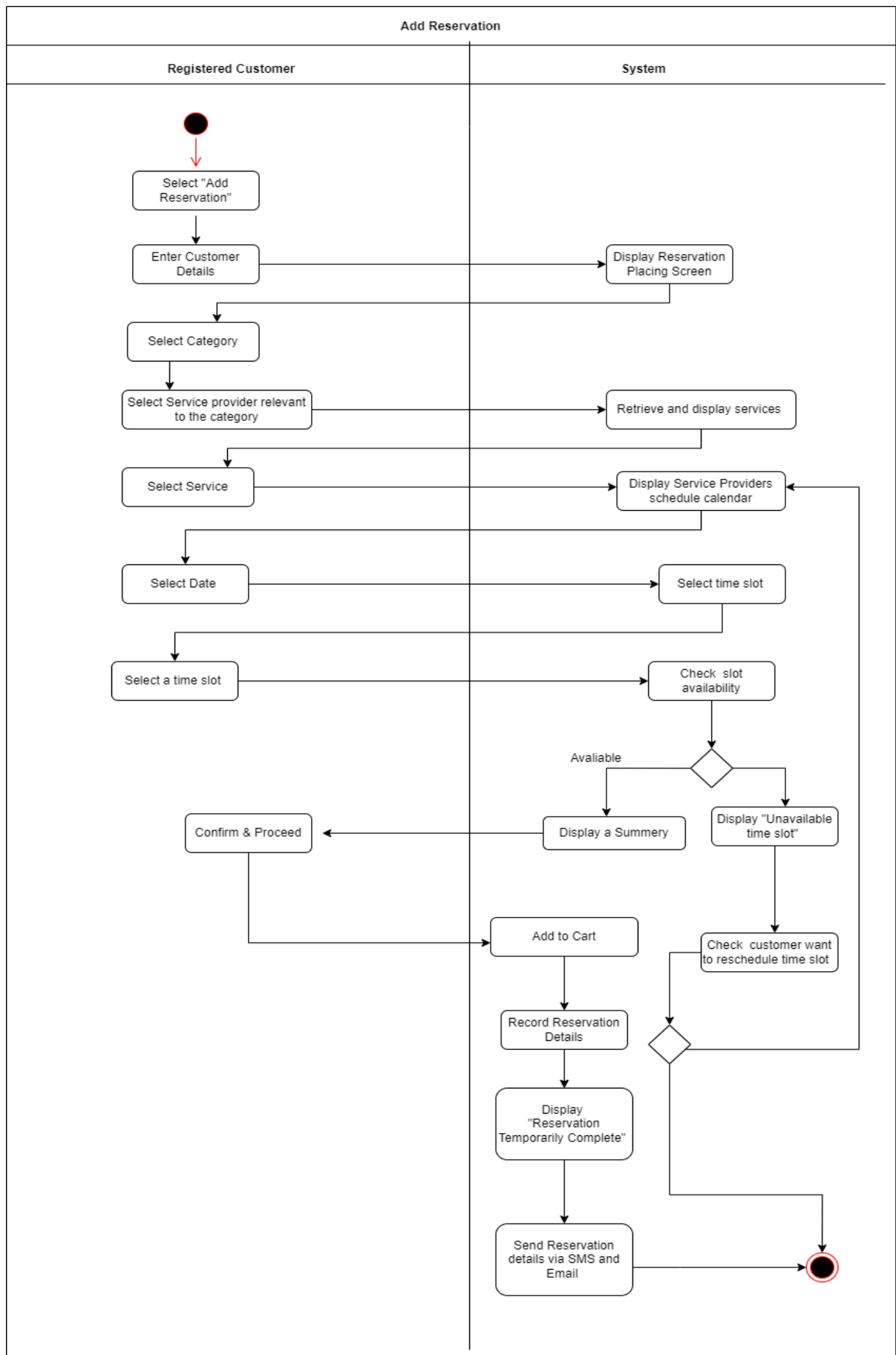
Figure 15: Update Profile
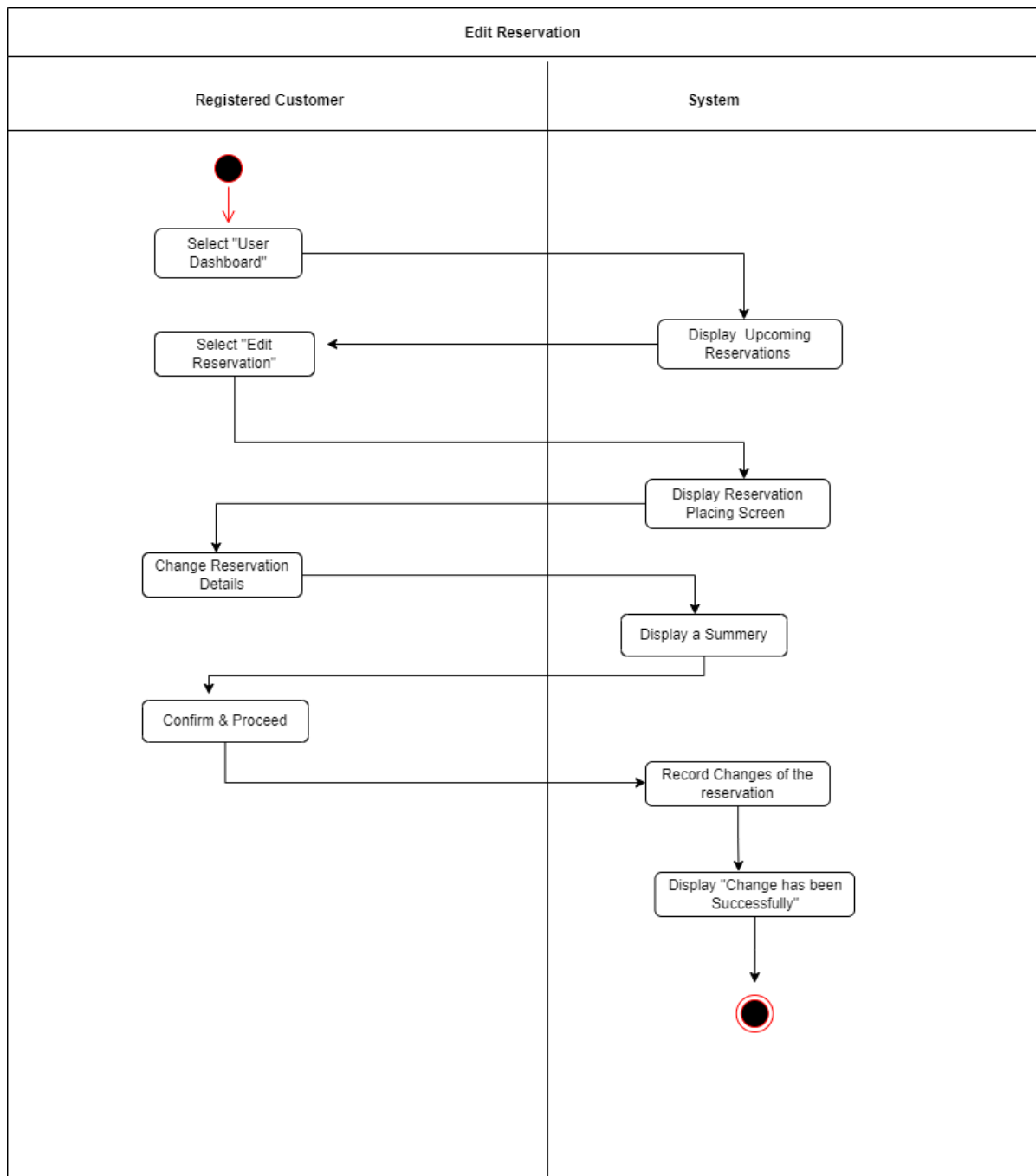
Figure 16: Delete Profile

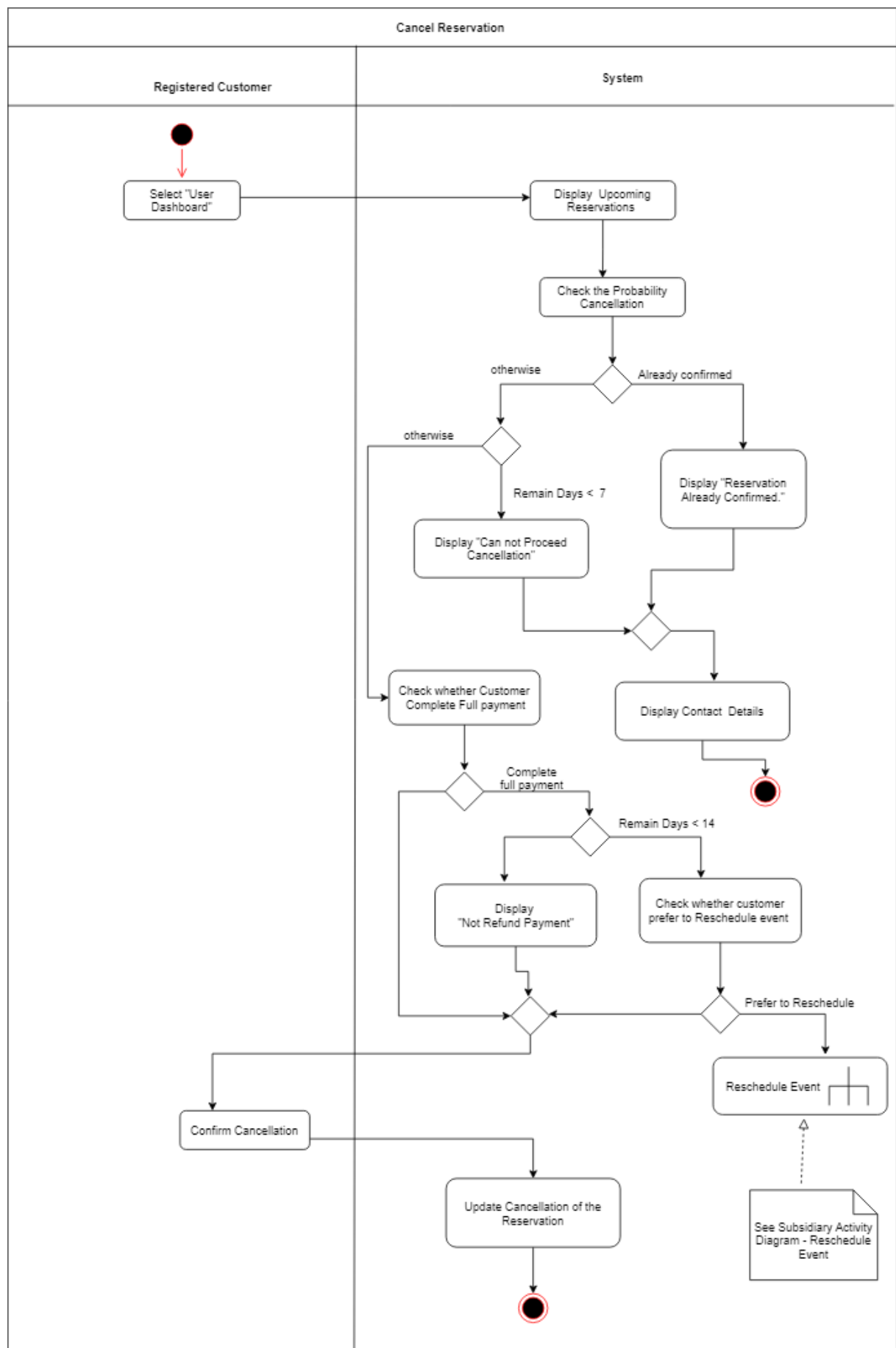*Figure 17: Add Reservation*

Figure 18: Edit Reservation
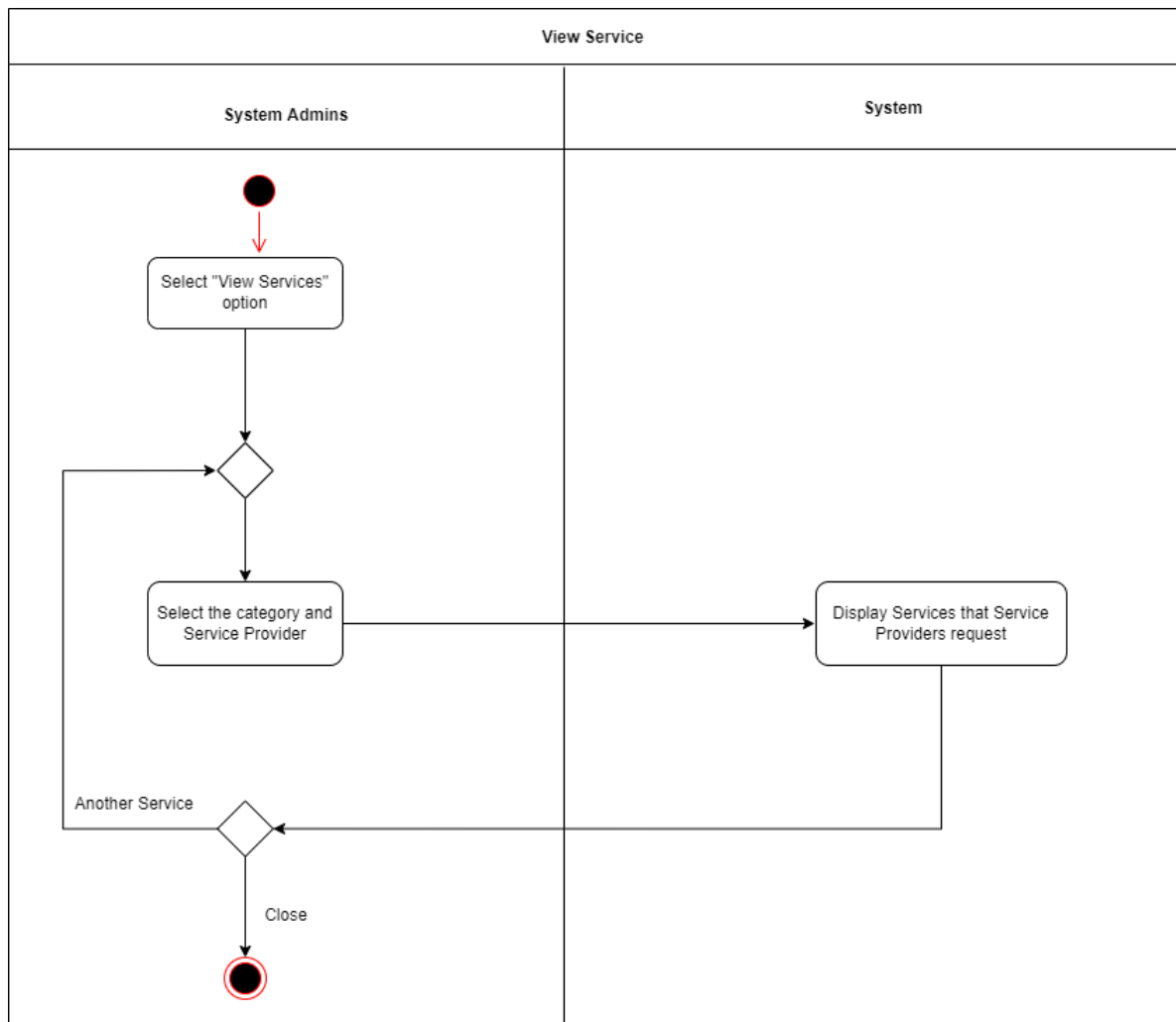
Figure 19: Cancel Reservation

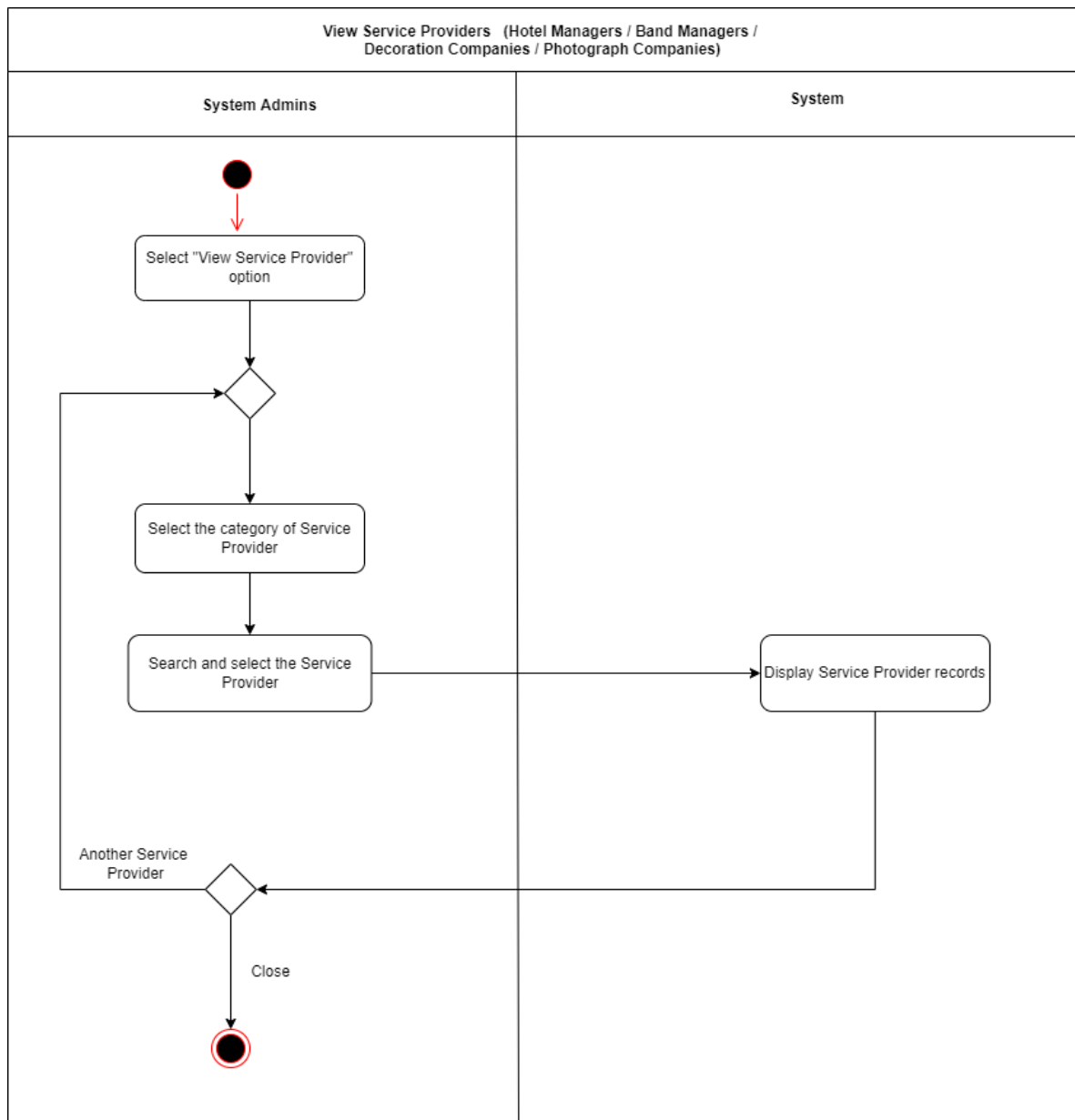*Figure 20: View Service*
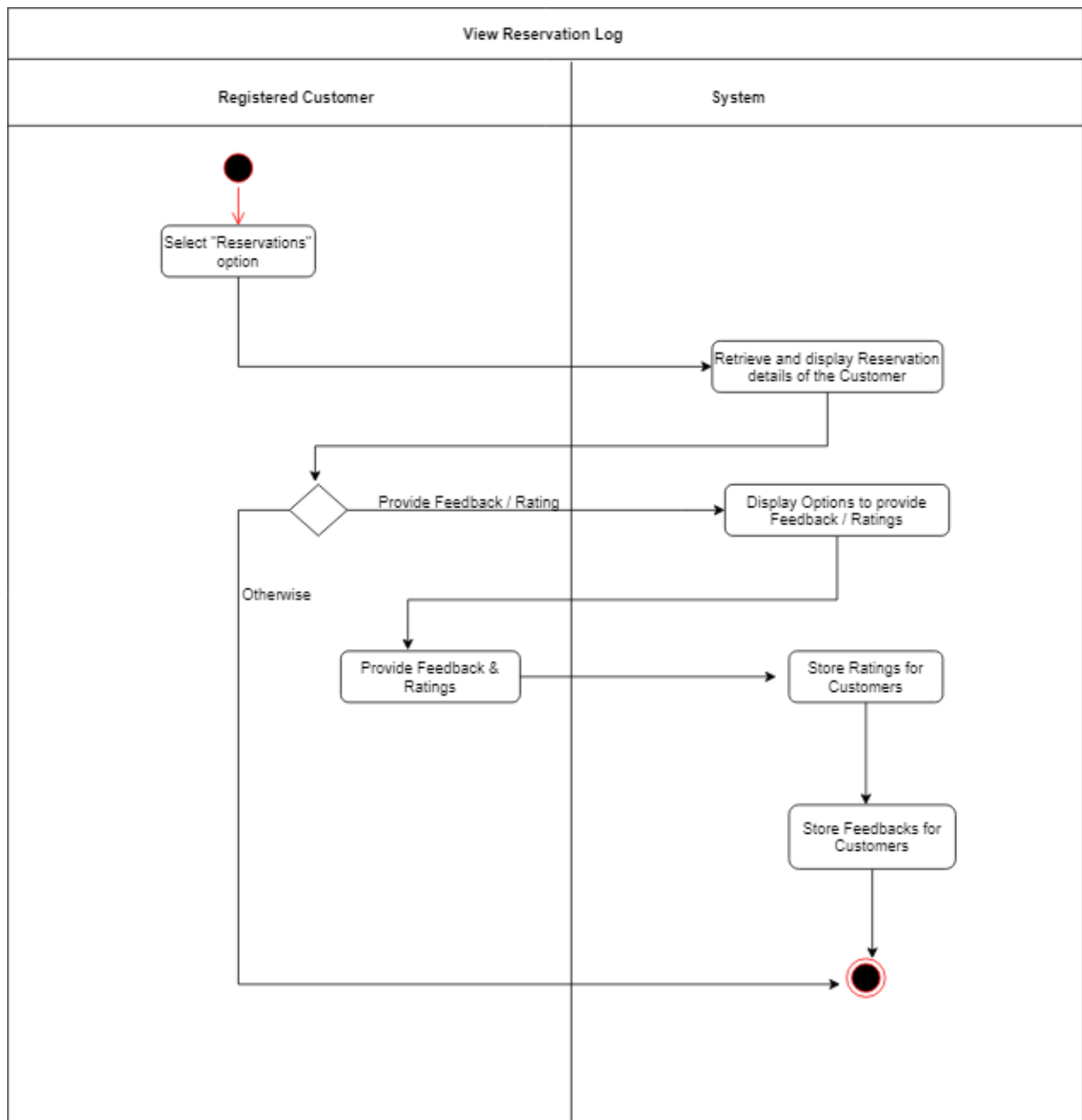
Figure 21: View Service Providers
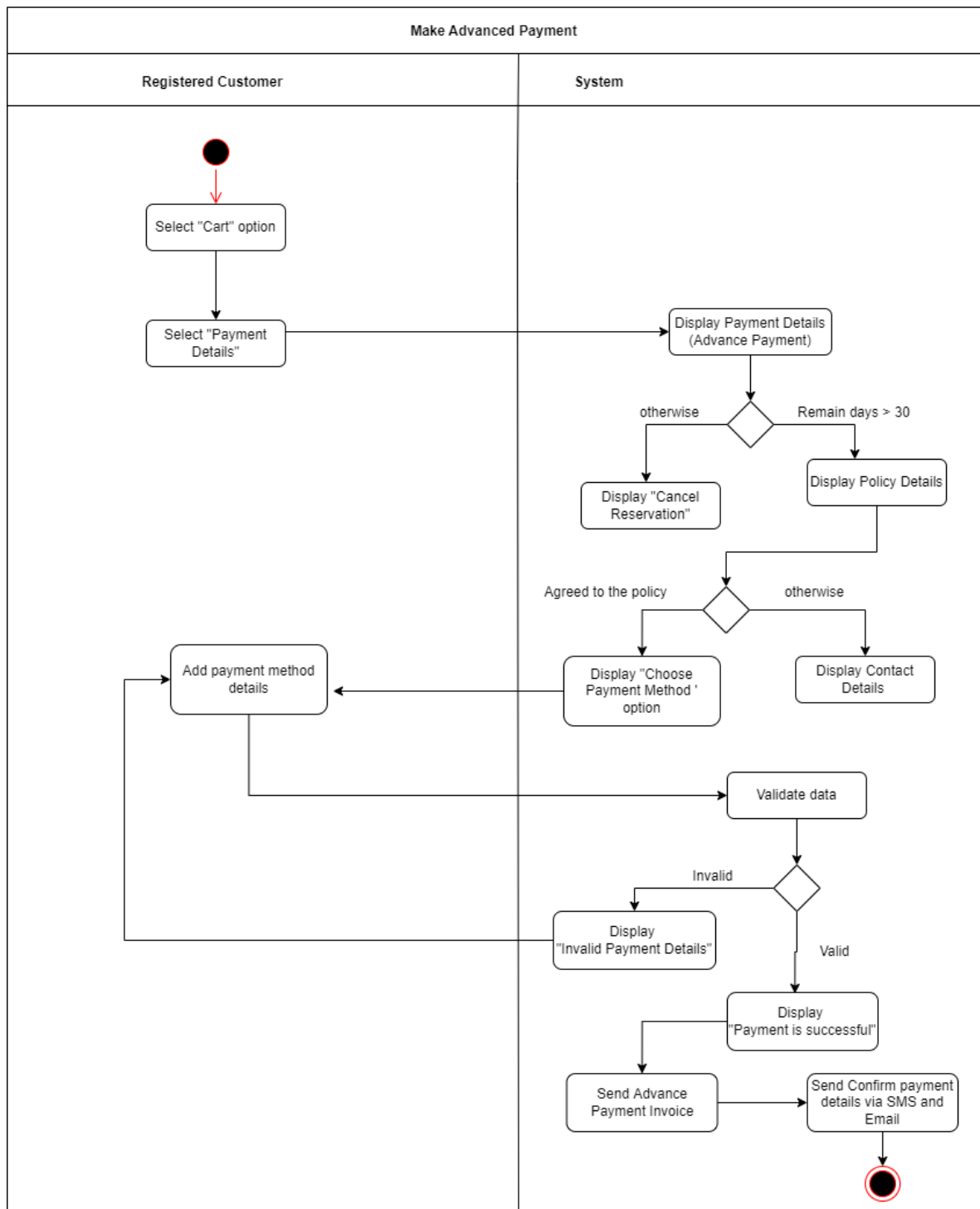
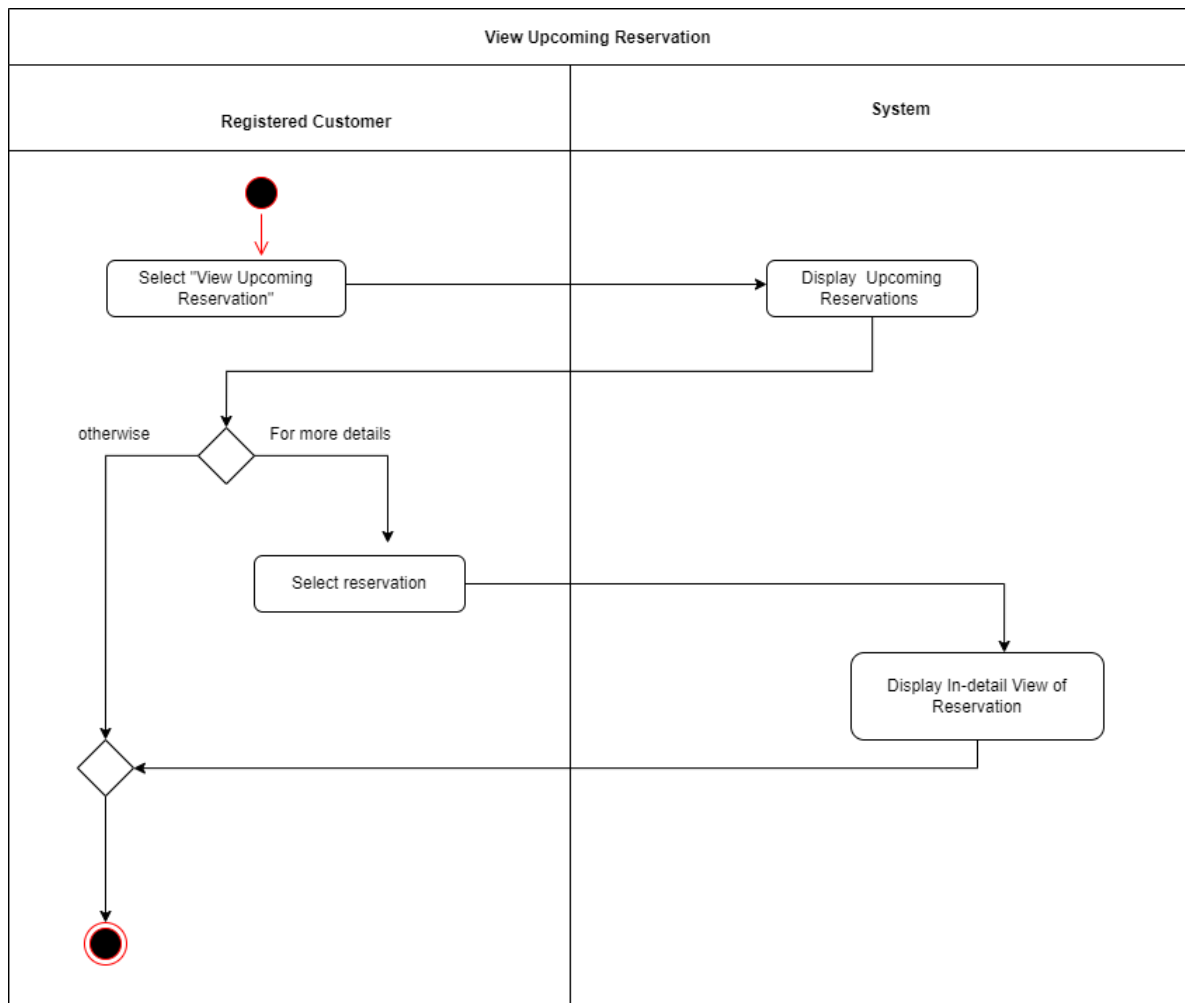*Figure 22: View Reservation Log*

Figure 23: Make Advanced Payment
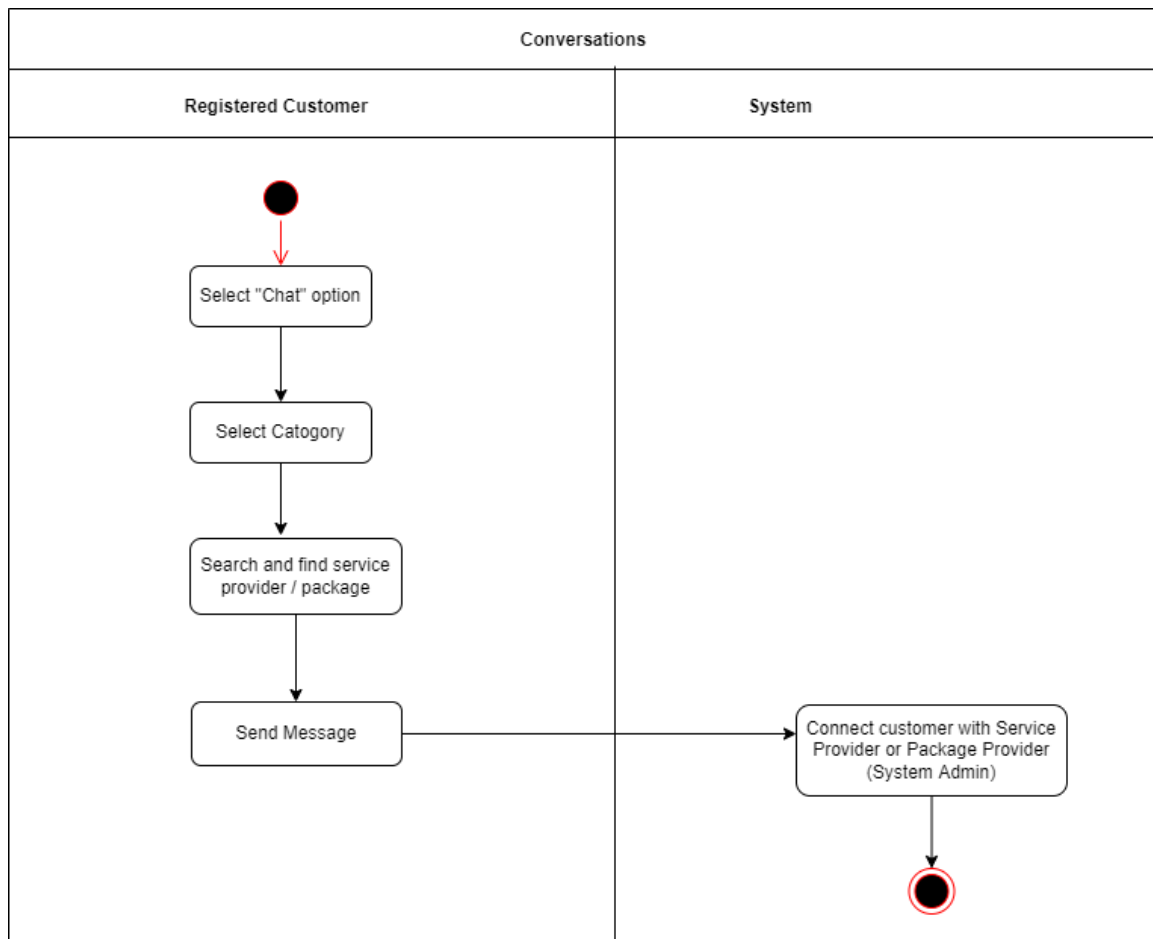
Figure 24: View Upcoming Reservation

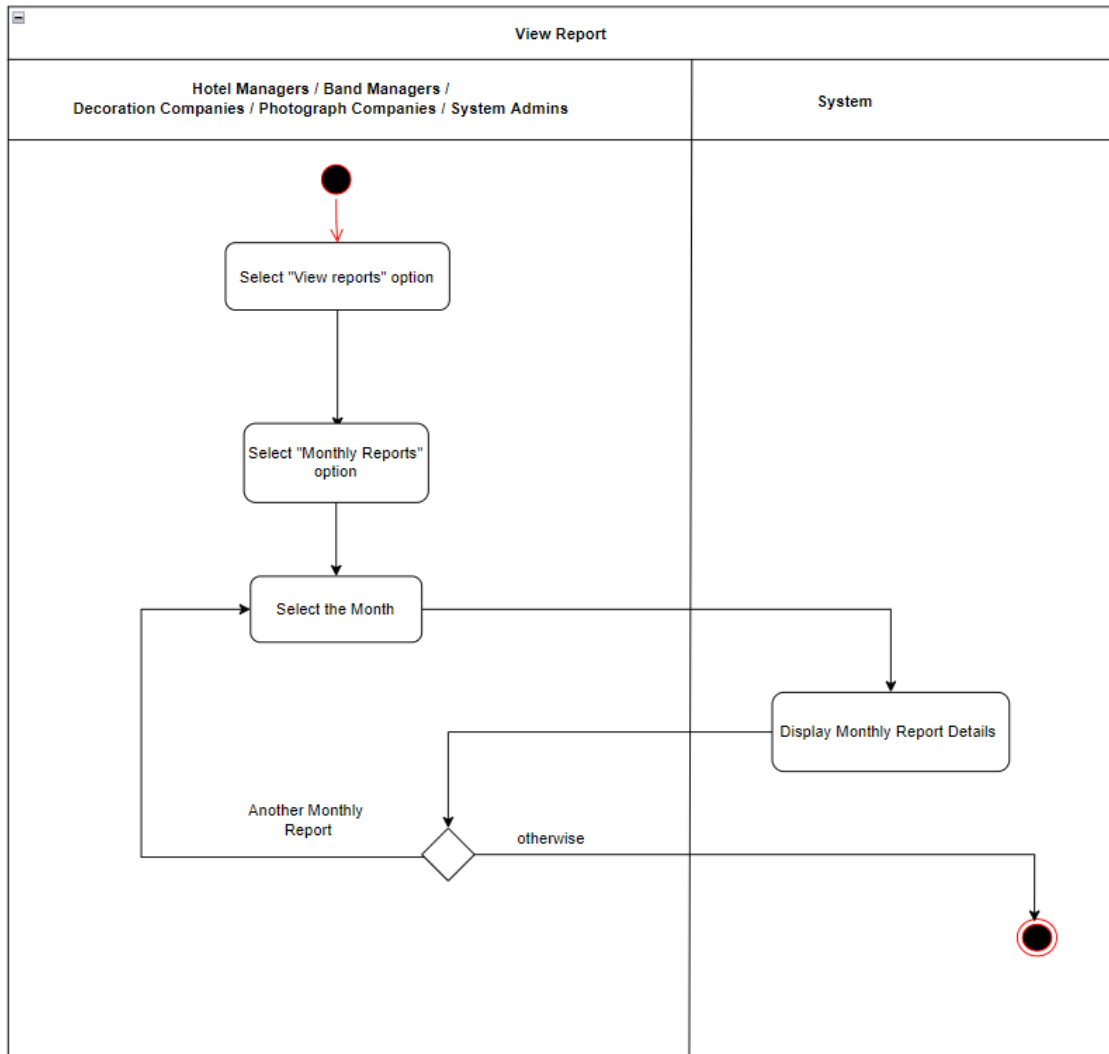*Figure 25: Conversations*

Figure 26: View Report
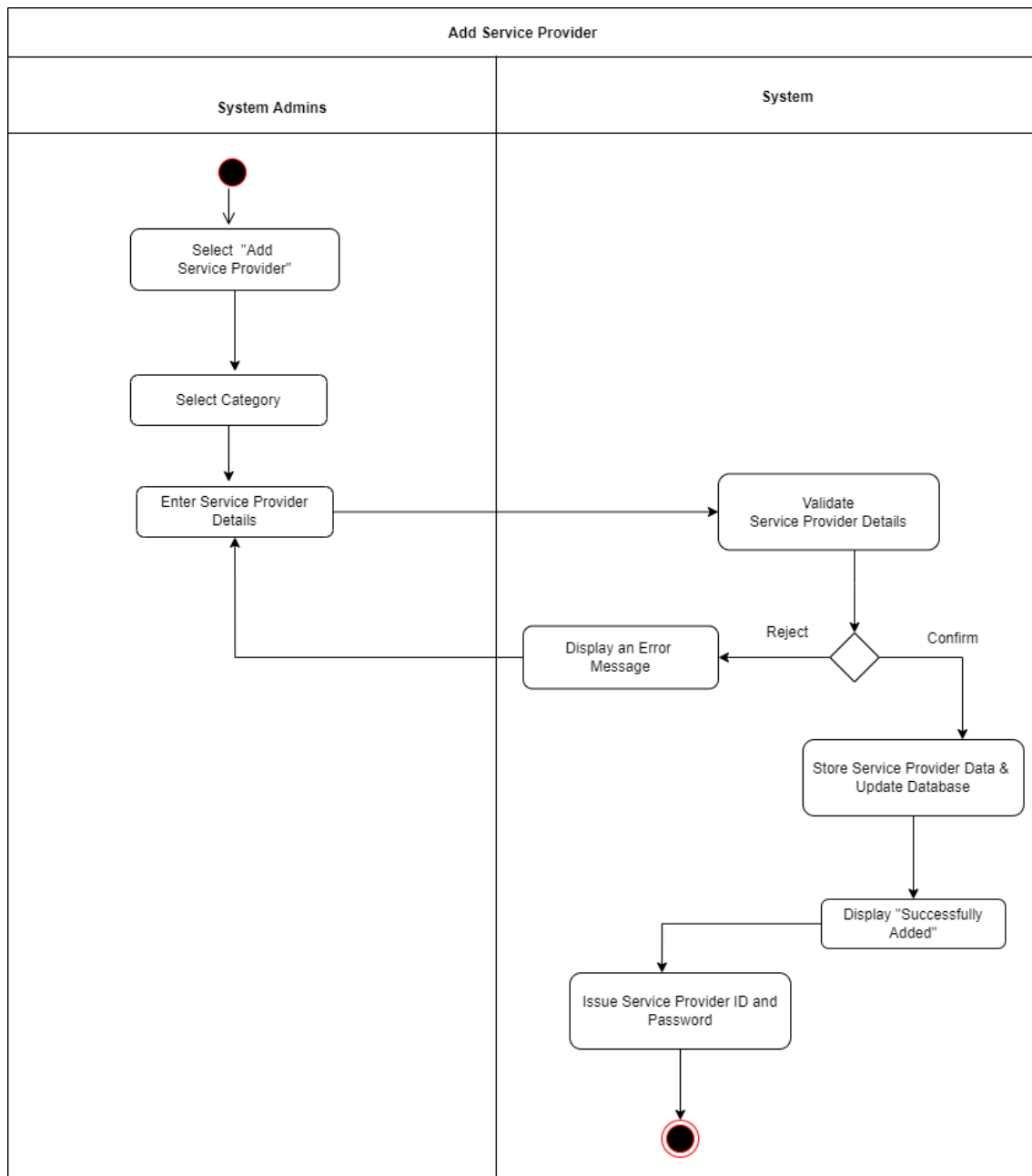
Figure 27: Add Service Provider
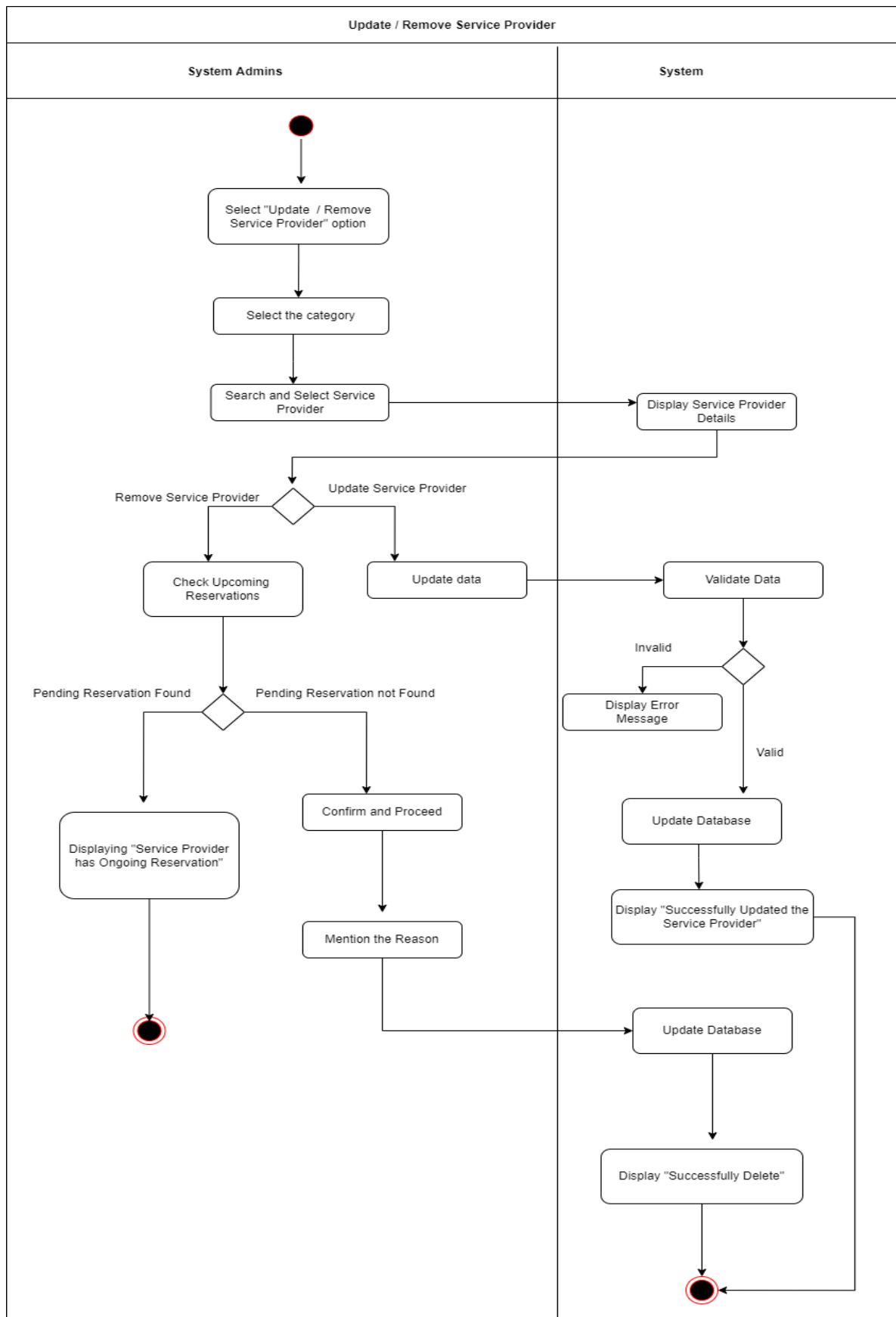
Figure 28: Update/Remove Service Provider
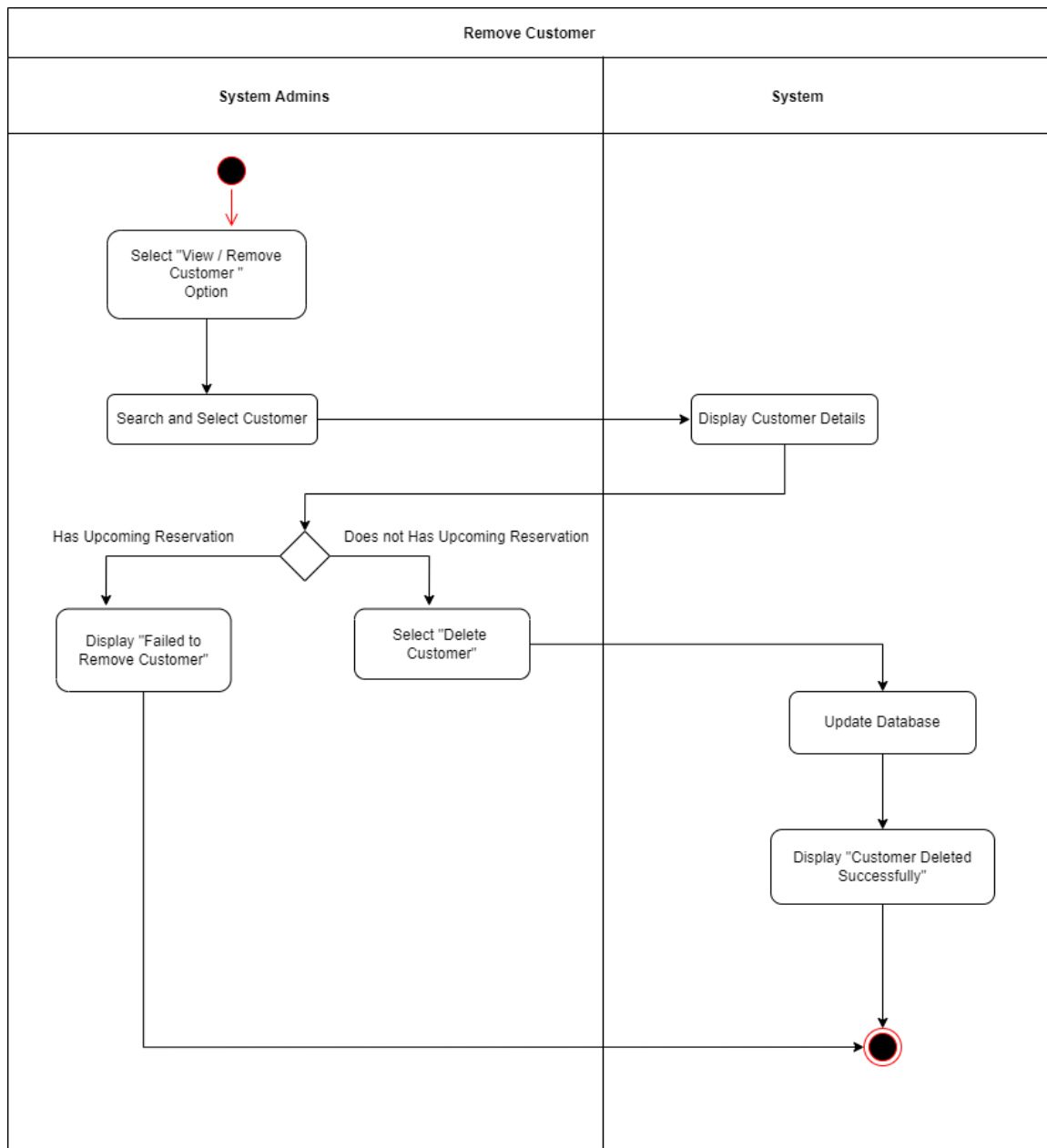
Figure 29: Remove Customer
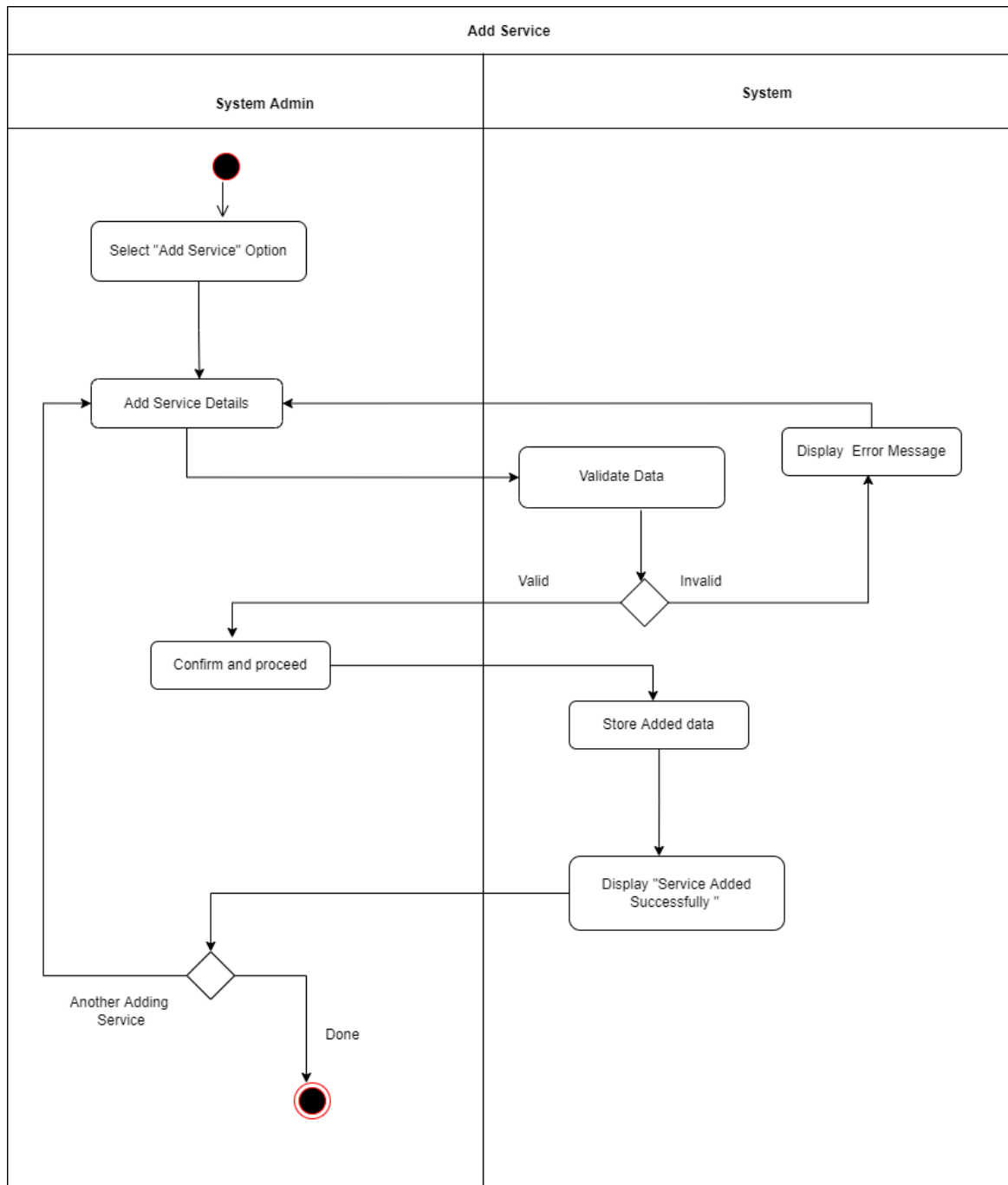
Figure 30: Add Service
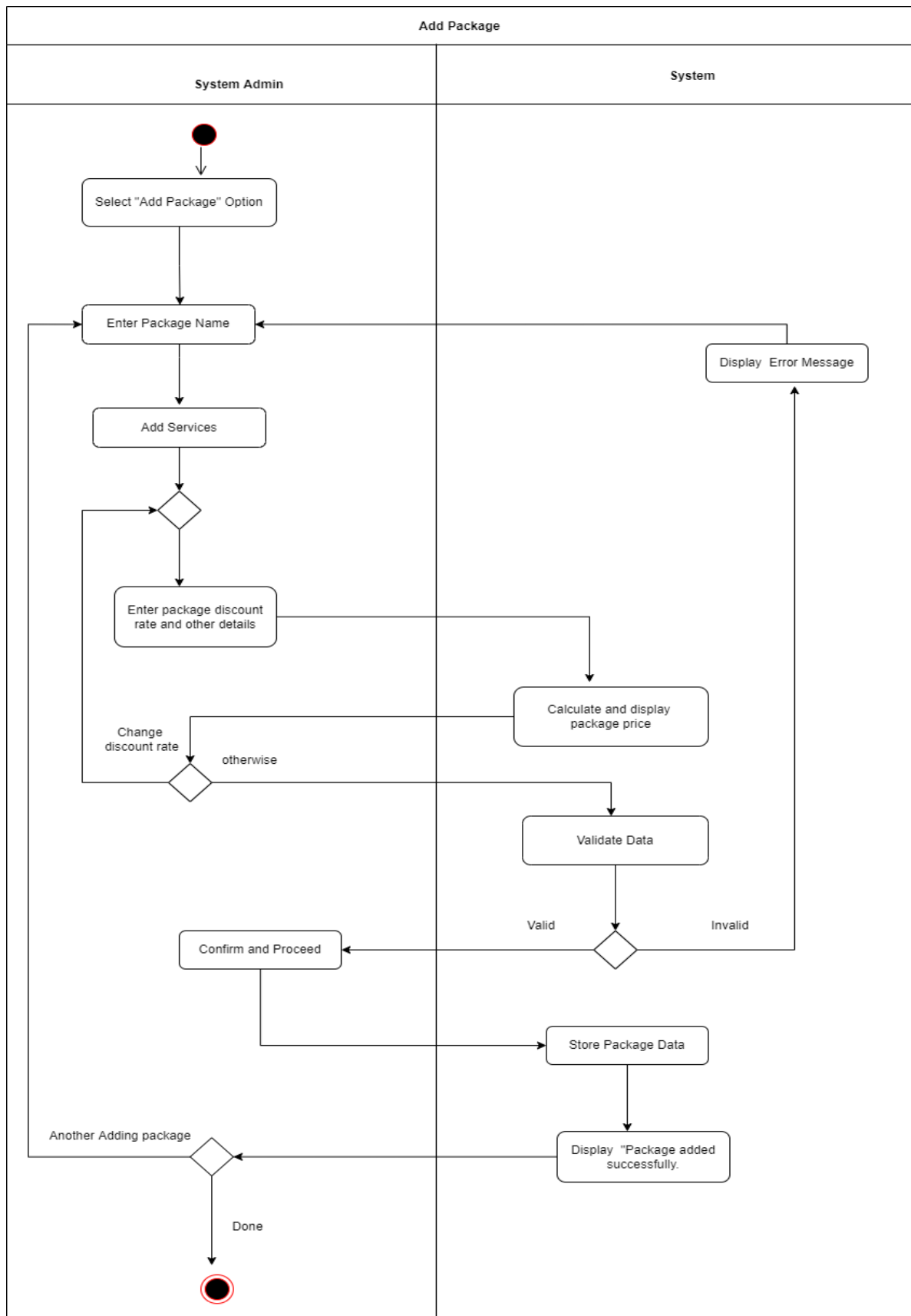
Figure 31: View Package
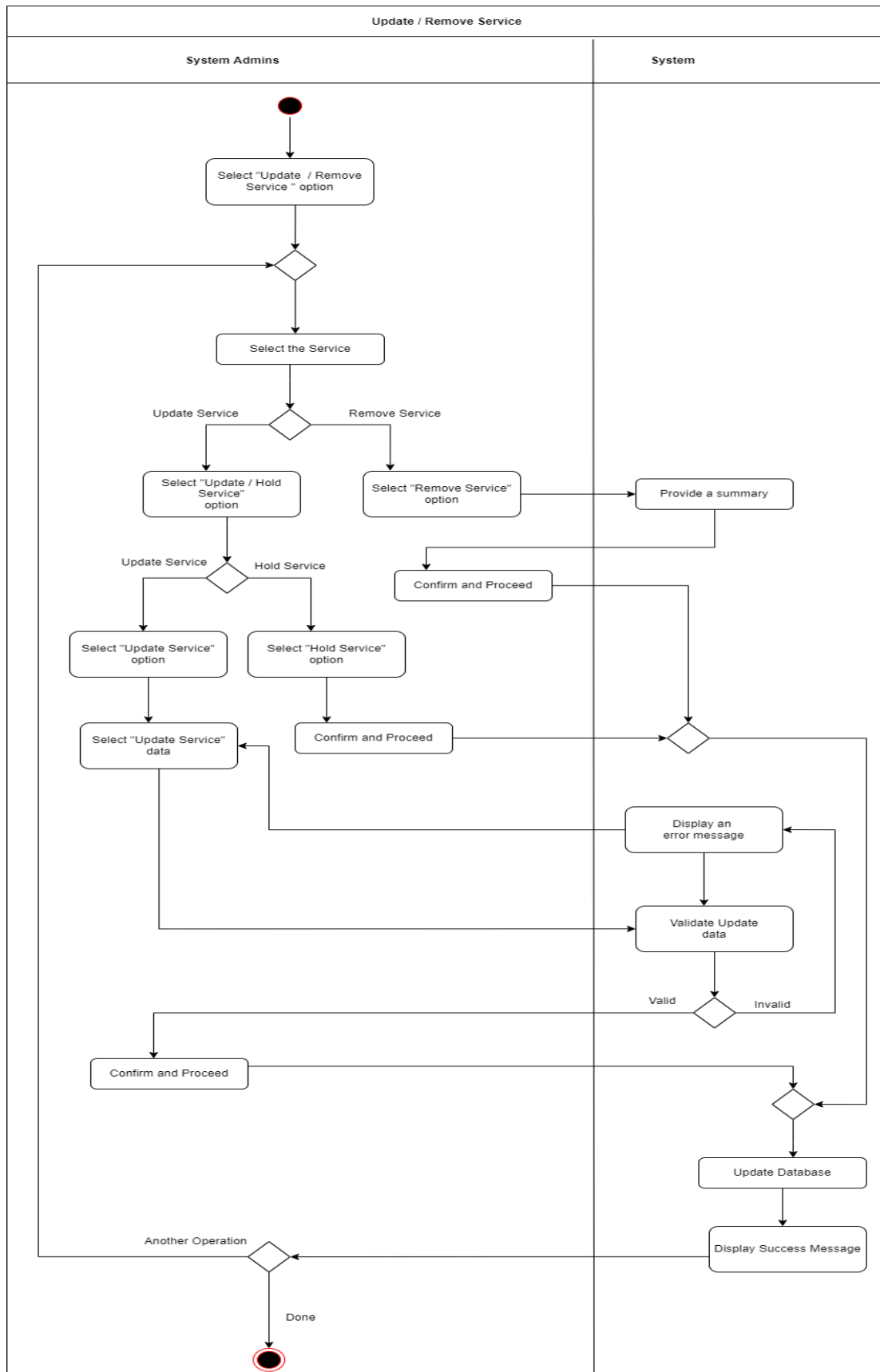
Figure 32: Update/Remove Service
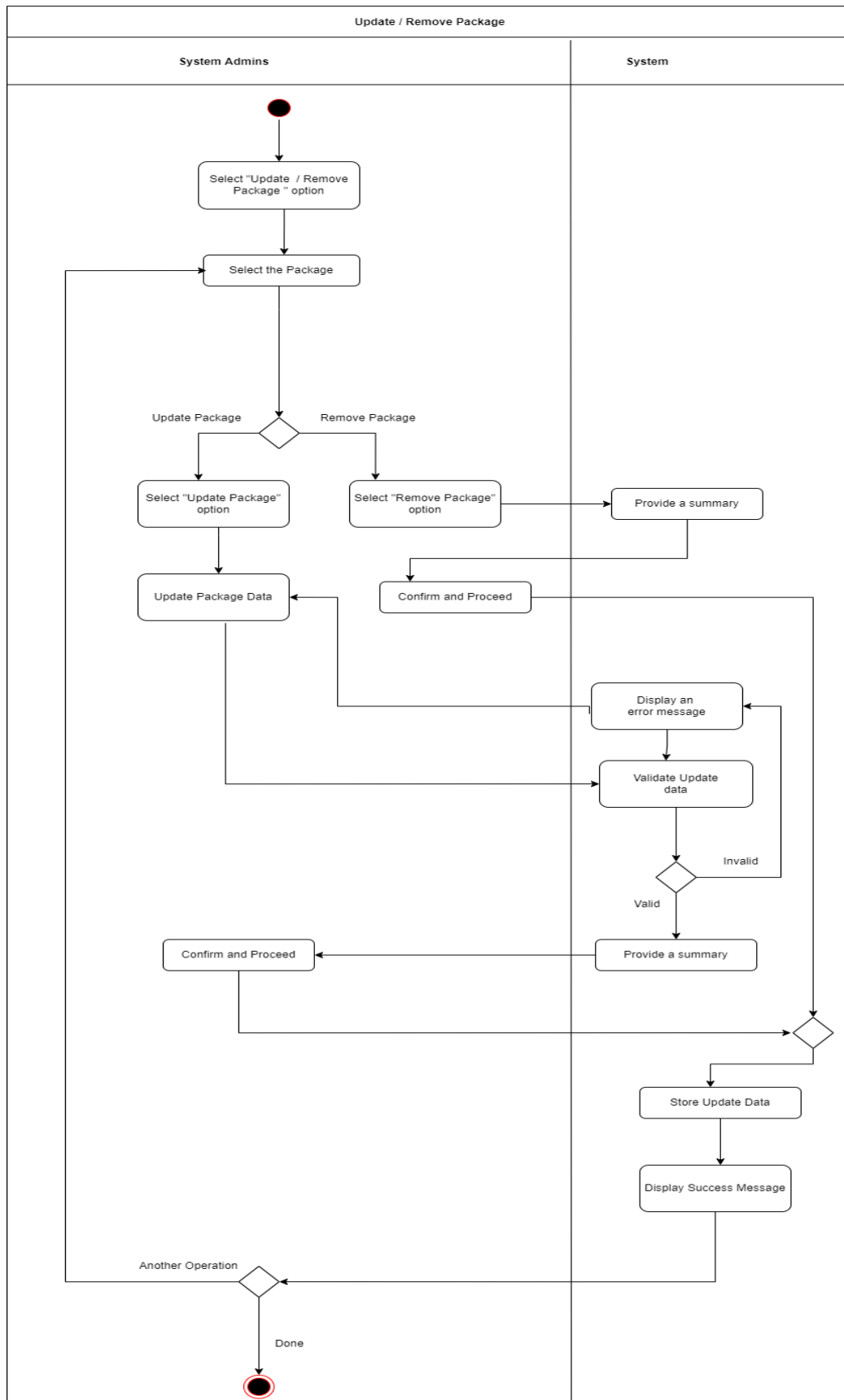
Figure 33: Update/Remove Package
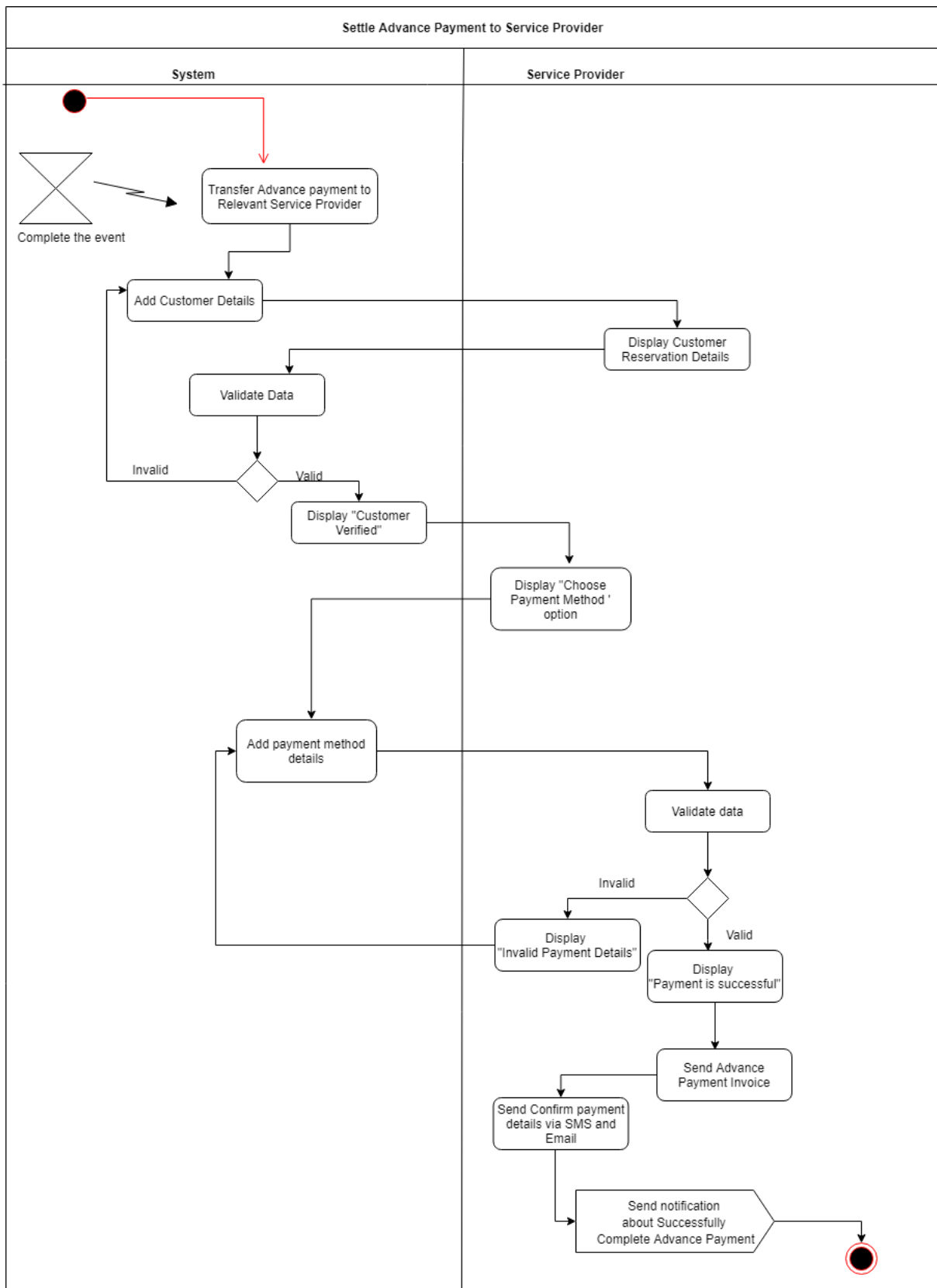
Figure 34: Settle Advance Payment to Service Provider
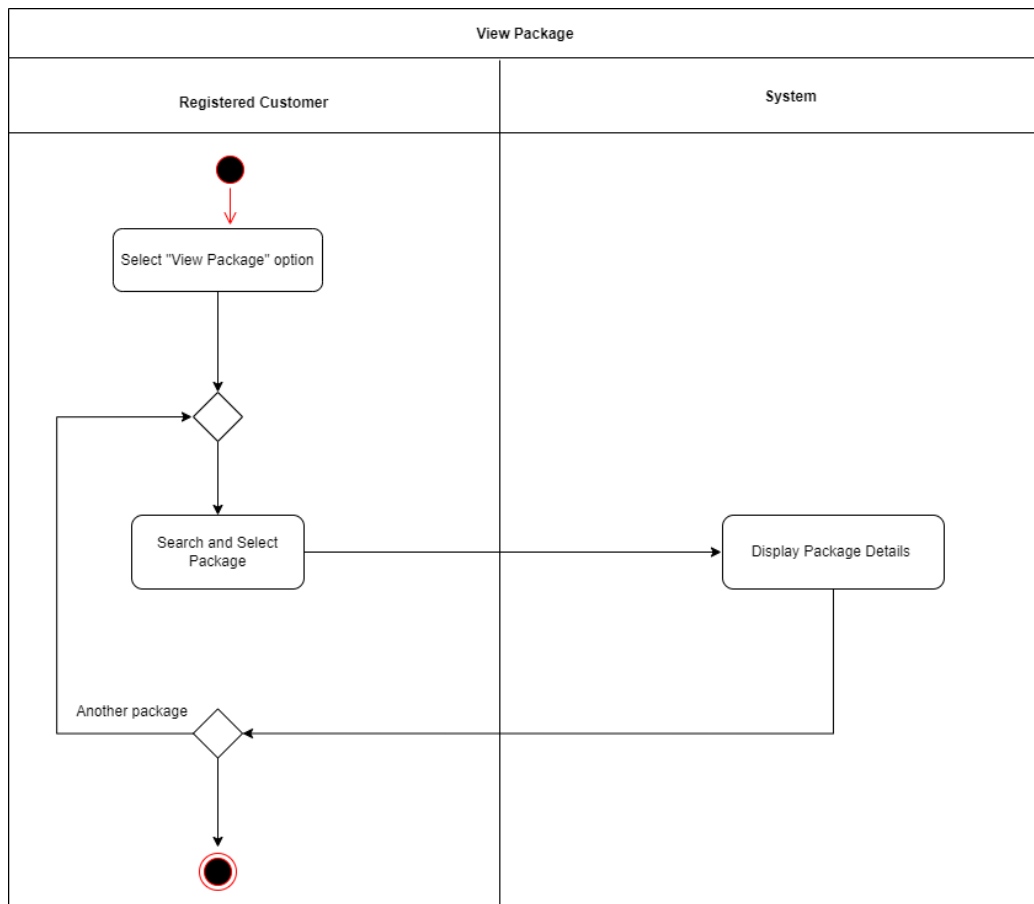
Figure 35: View Package
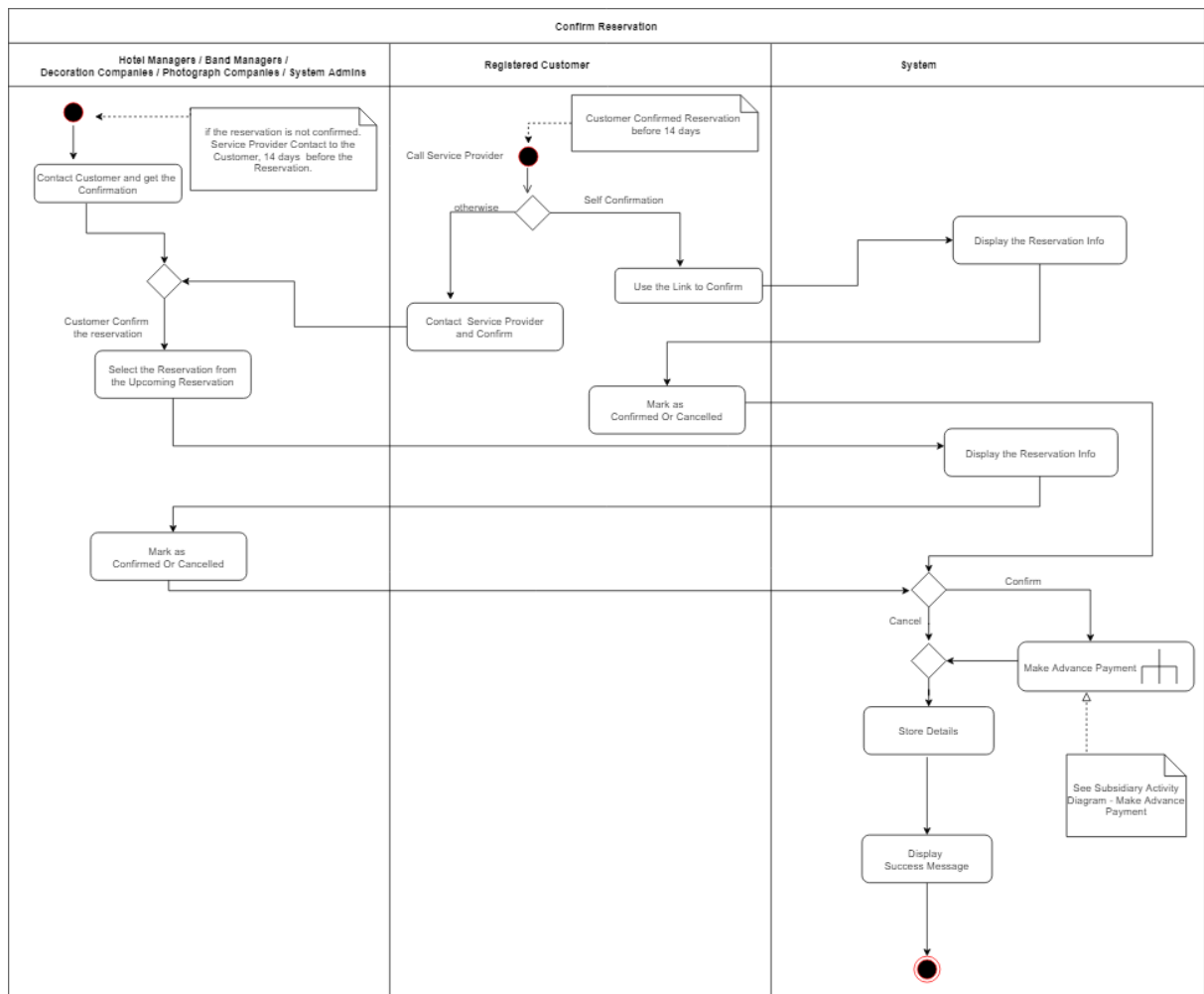
Figure 36: Confirm Reservation
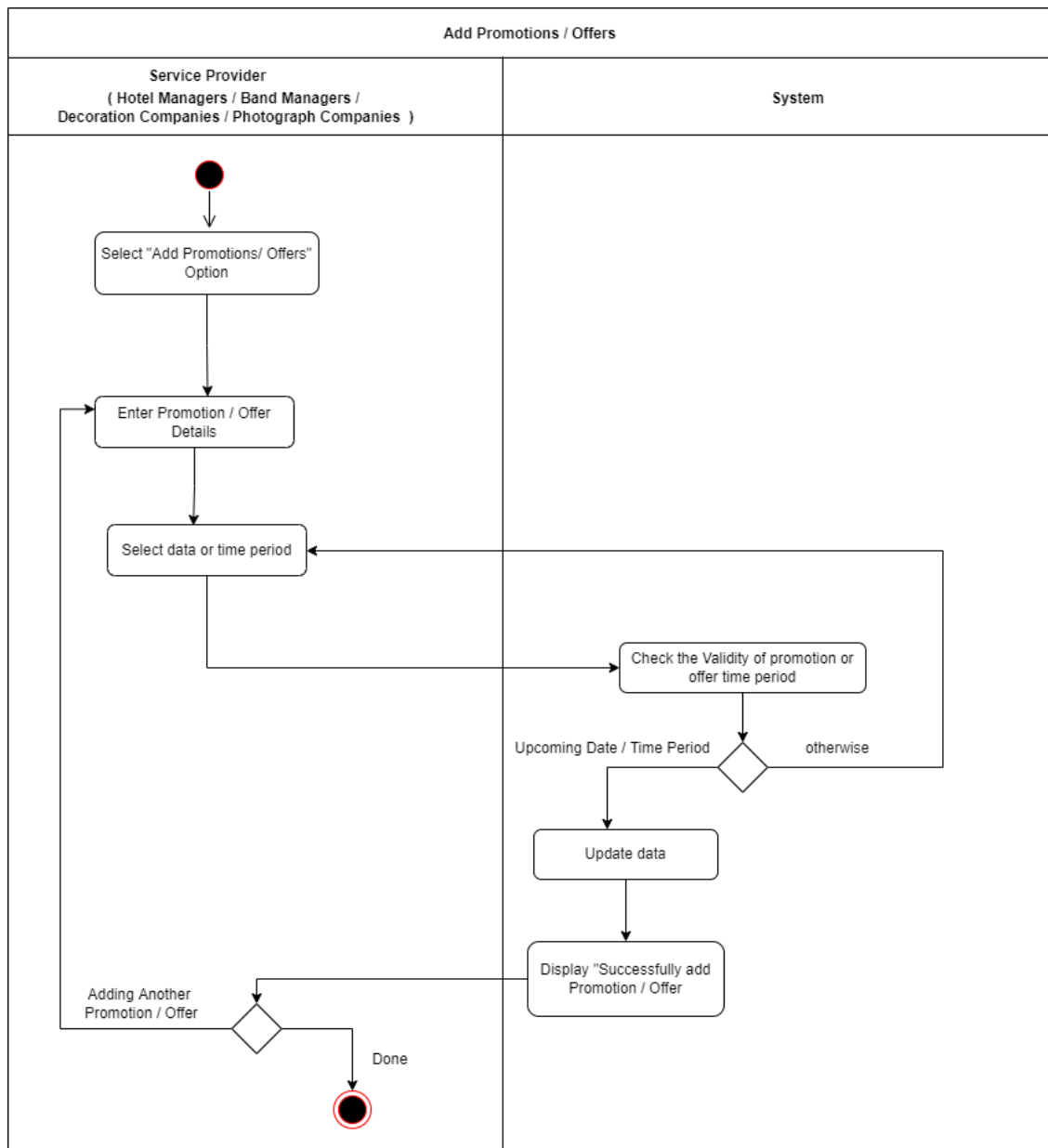
Figure 37: Add Promotions/Offers
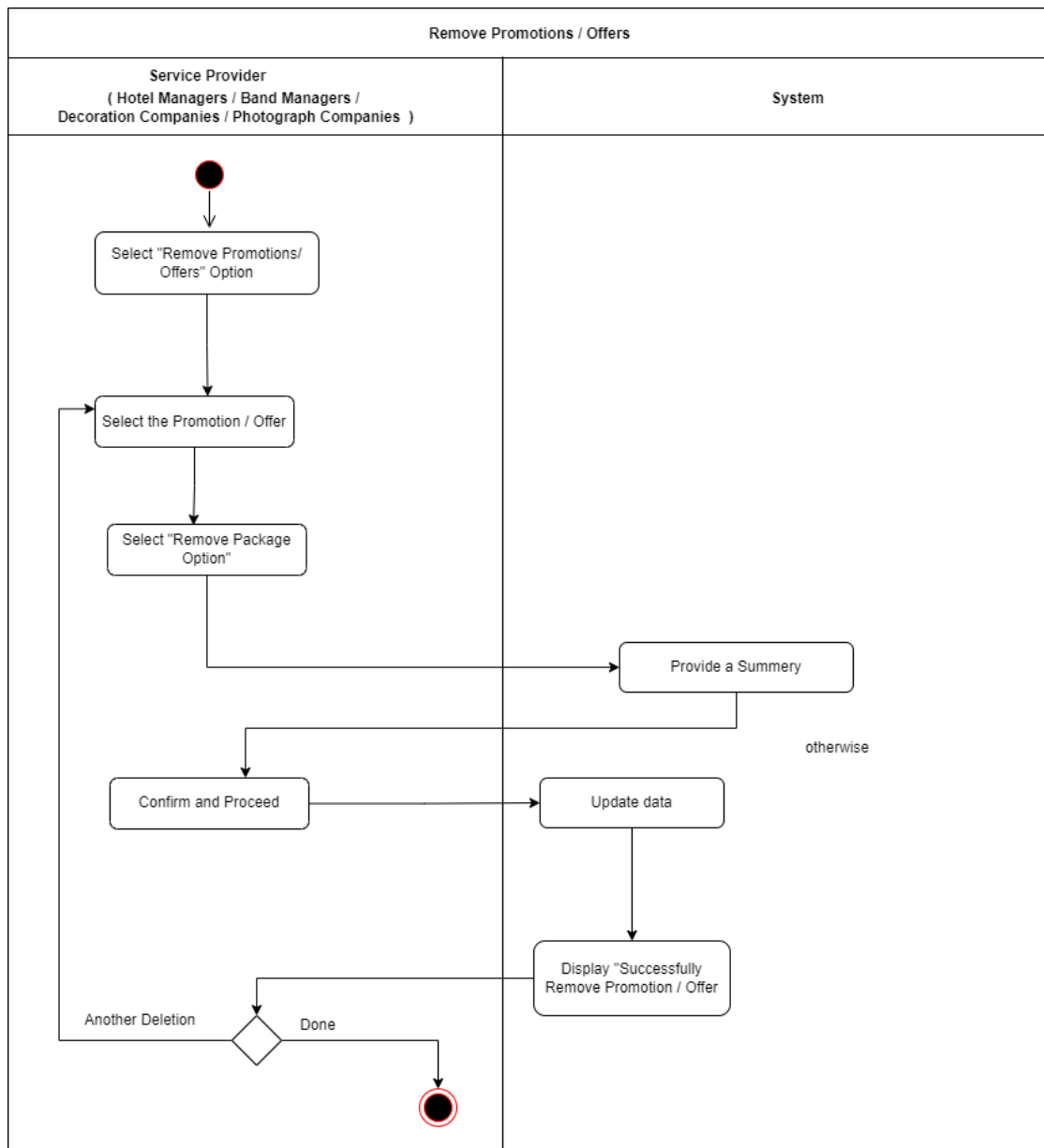
Figure 38: Remove Promotions/Offers
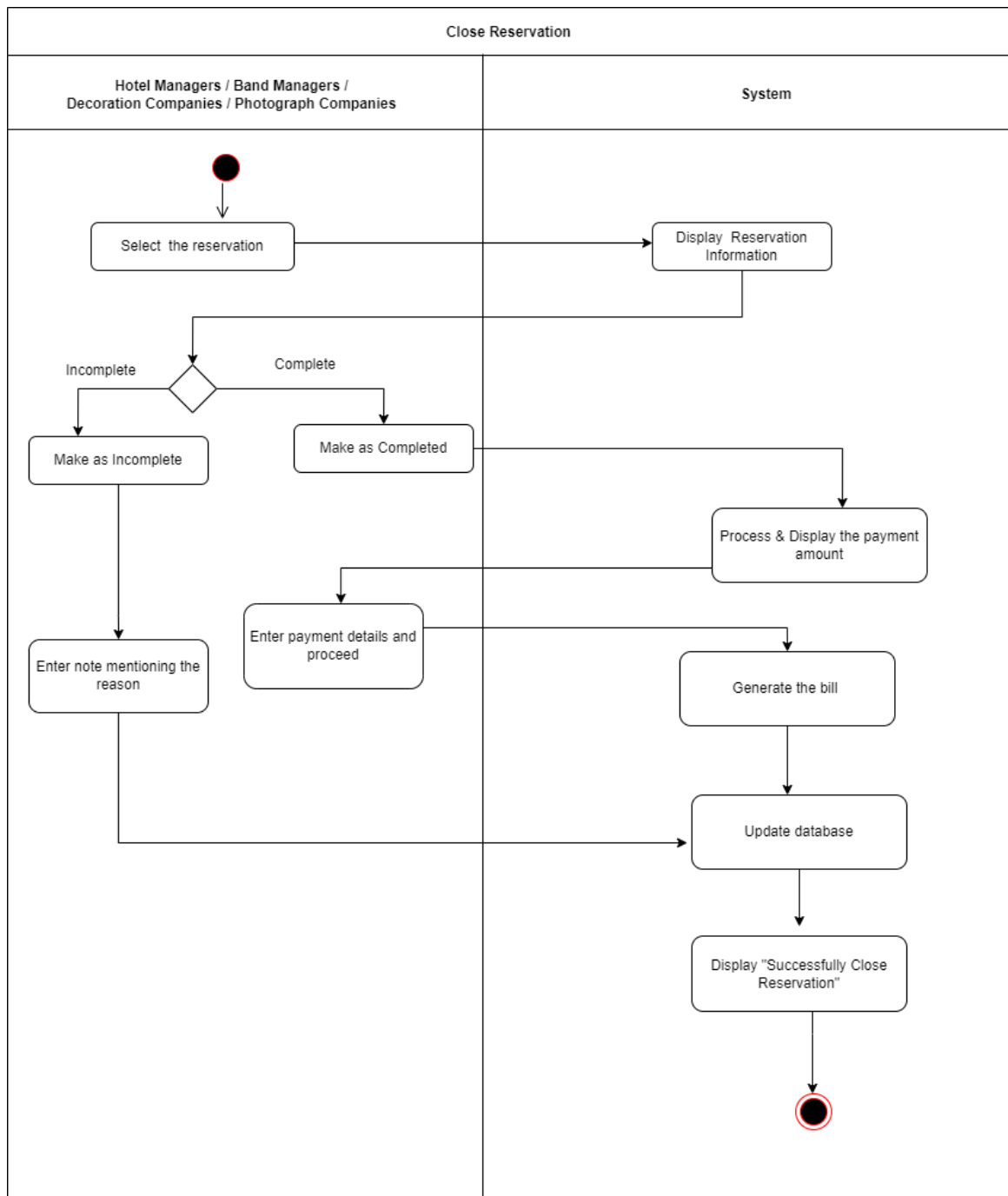
Figure 39: Close Reservation
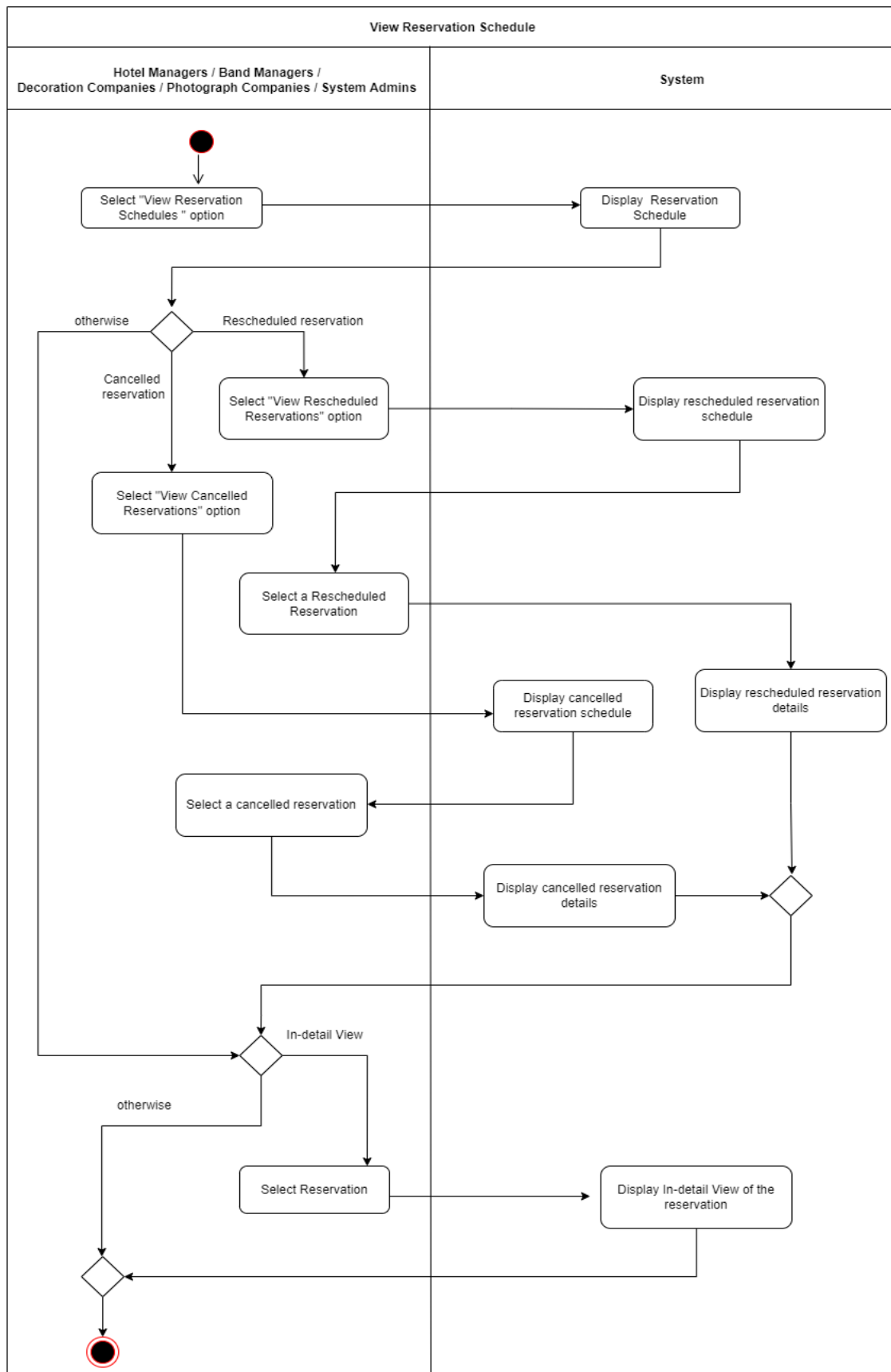
Figure 40: View Reservation Schedule
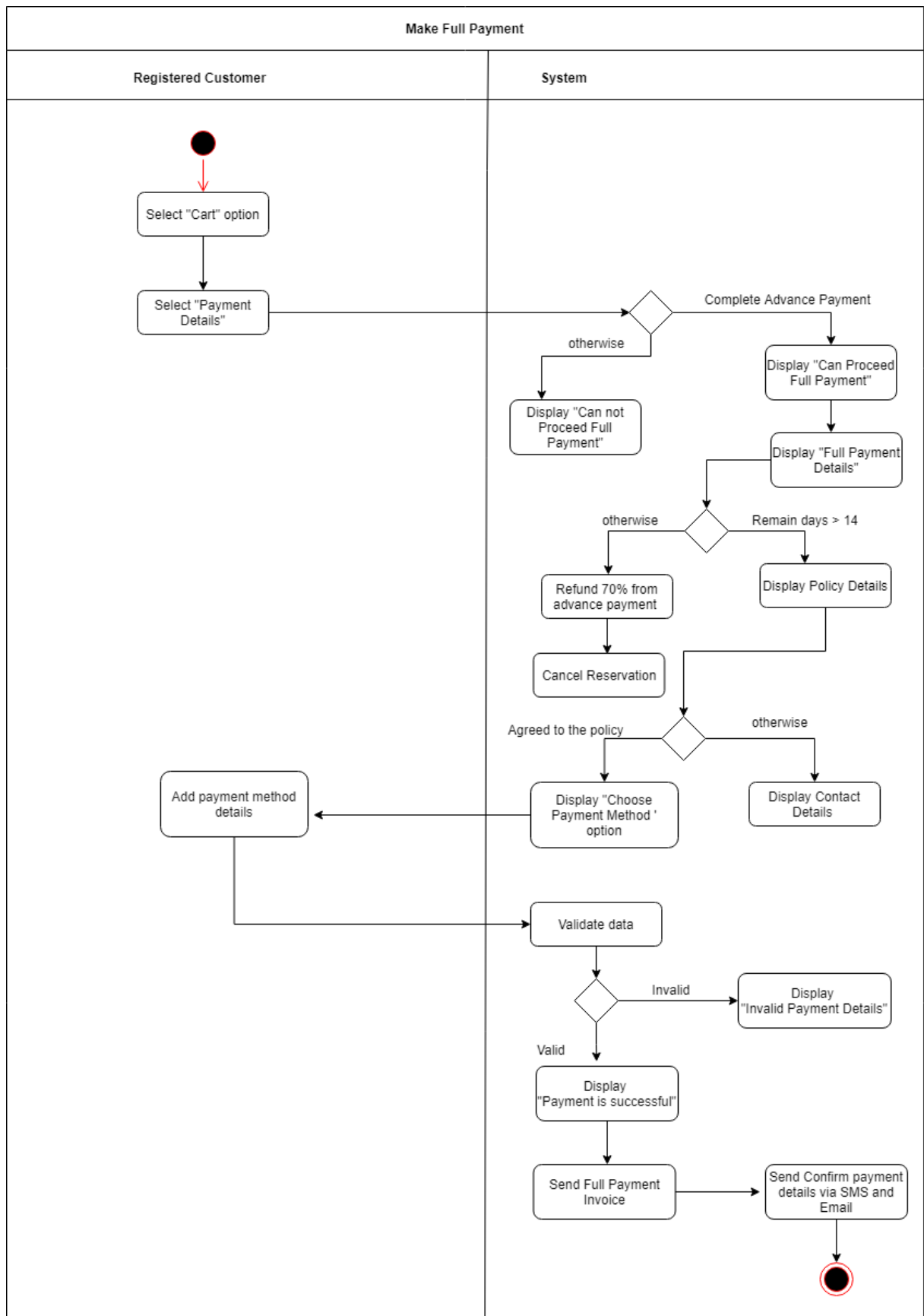
Figure 41: Make Full Payment
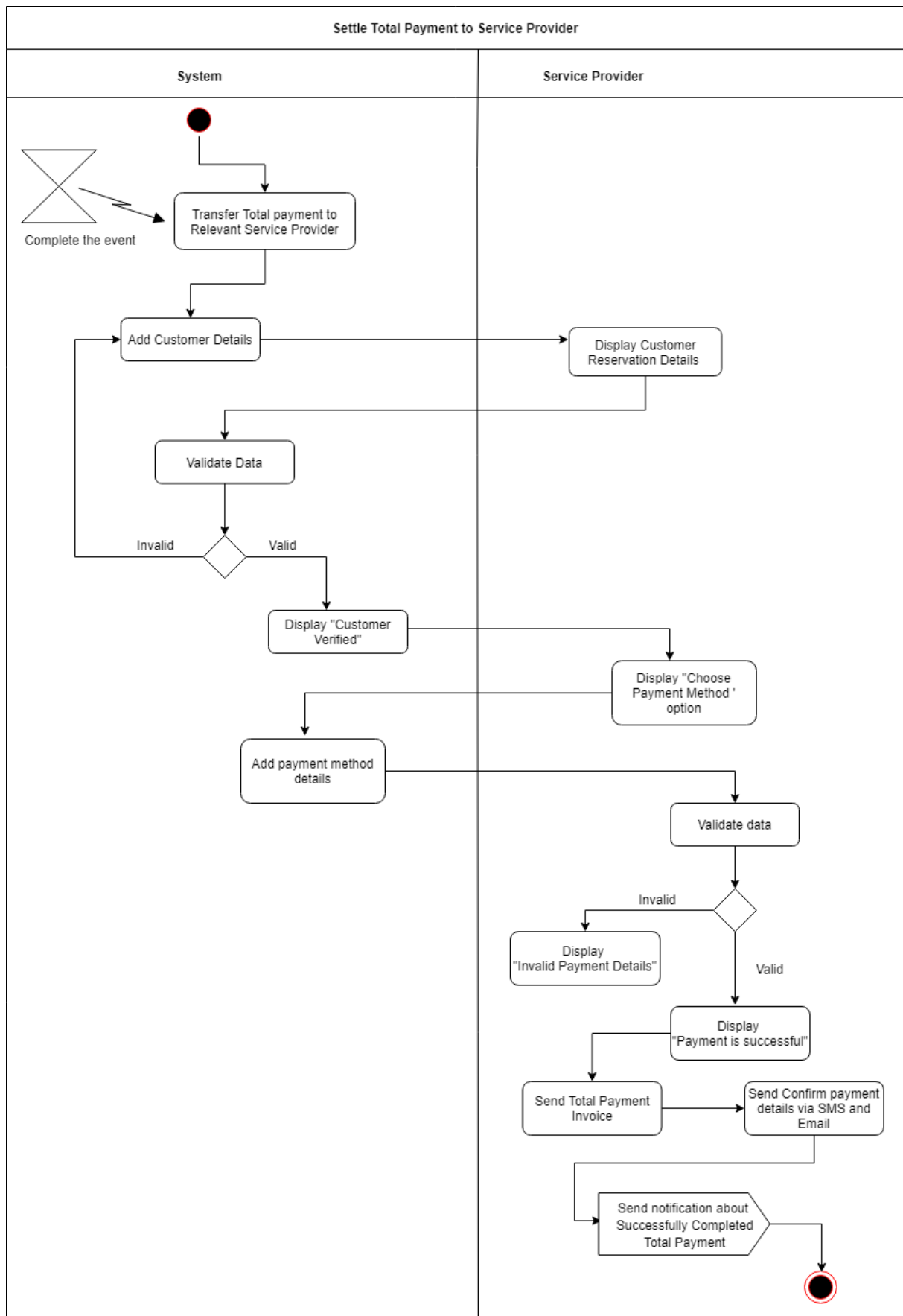
Figure 42: Settle Total Payment to Service Provider
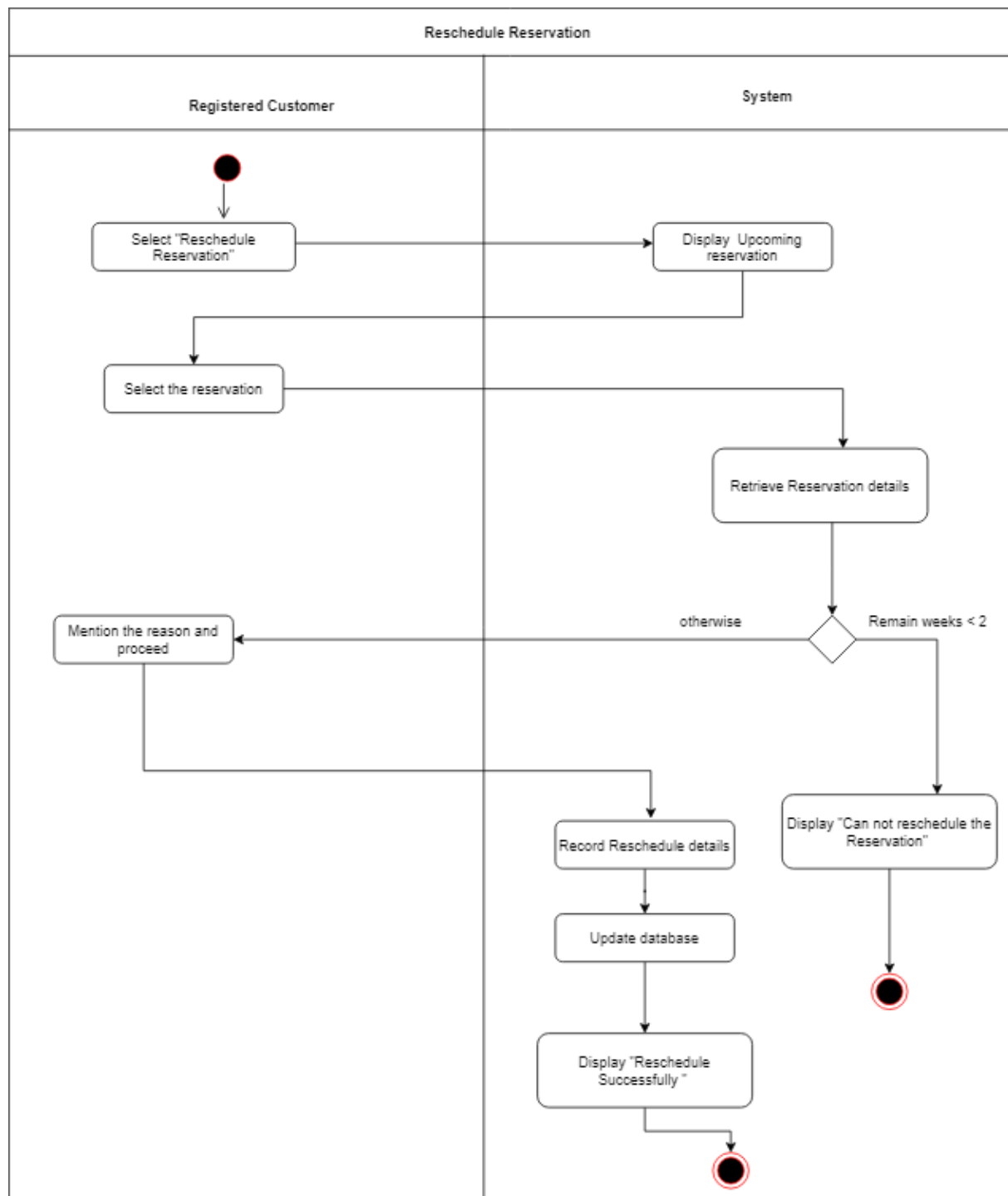
Figure 43: Reschedule Reservation

8.2 Quality Attributes

The following qualities have been identified as the quality attributes of the system that shall be achieved.

<u>User-friendliness</u>

The system shall be able to be used easily by the users without requiring a high level of knowledge to understand the operations. The proposed system shall be used by its users to do tasks with a minimum number of clicks. The provided should be easily accessible and navigable.

- o System shall require a minimum level of IT and English knowledge to operate.
- o Systems should have user interfaces with minimal but clear designs.
- o confirmation and pop-up messages shall provide a clear idea of the actions that the user performs.

<u>Modifiability</u>

The system may require updates and modifications from time to time so the system must be flexible for changes and updates anytime.

- o Designing the system as components and having minimum dependencies shall provide the required modularity to accommodate changes easily with less modifications.

- o Documentation, version controlling and good coding practices have been maintained throughout the system development time period.

- o Thus, the system shall be modified to add new components with minimum effort.

<u>Security</u>

Authentication

- o Every login is processed with authentication of credentials.

- o Passwords are stored using encryption to secure login details if any unauthorized access occurs.

- o OTP being sent to customers via SMS and email when recovering/changing passwords (two factor authentication).

System will be validating all possible input fields in order to avoid SQL injections.

System does not hold responsibility for the security of credit card details which are solely handled by the payment gateway.

Performance

System should respond to the events without any significant delay that may affect the overall usability of the system.

- System shall be tested for its efficiency of response and improve it by using optimized scheduling algorithms.

- Database shall be normalized to reduce data redundancy and by that it shall allow retrieval of data efficiently by minimizing the delay.

Testability

System shall be easily testable to ensure functionality or to identify issues. Since the system is designed into separate components it can be tested separately and the debugging process will be easier.

Availability

System shall be able to be used with less interruptions and accessible easily.

- Since the system is accessible over the internet, its users can easily access it regardless of the location.

- Reservations can be placed regardless of the service provider's working hours via online.

- System logs of the important events are taken in order to allow the system to recover quickly in an event of system failure.

- System is mostly available throughout all the time, but can be closed down temporarily for a short period of time in case of maintenance.

9 Technologies to be Used

The following software tools and technologies will be used during the development of the proposed system.

- Front-End
  - HTML
  - CSS
  - JavaScript

- Back-End
  - PHP

- Database
  - MySQL

- Code Editors
  - Visual Studio Code
  - WebStorm/ PHPStorm by JetBrains

- Version Controlling
  - GitHub
  - GIT

- Diagrams
  - Draw.io

- Documentation
  - Microsoft Office 365
  - Google Docs

- Collaboration tools
  - Trello
  - Zoom meetings

- Cloud Storage
  - Google Drive

- Local Hosting
  - WampServer

10 Project Timeline

Below is the Gantt chart for the project timeline. Since it contains tentative timeframes, it may slightly vary during the development.

Month	Week	Selection of a project	Requirement Gathering	Requirement analysis	Feasibility study	Usecase, Activity, Component, diagrams and flow charts	Proposal Documentation	SRS Documentation	System Architecture	UI Design	Backend Design	Documentation - Interim	Implementation	System Testing	Deployment
July	Week 1	X													
July	Week 2	X													
July	Week 3	X	X	X	X										
July	Week 4		X	X	X	X									
August	Week 1					X	X								
August	Week 2						X	X							
August	Week 3							X							
August	Week 4							X							
September	Week 1							X							
September	Week 2							X							
September	Week 3							X	X	X					
September	Week 4							X	X	X					
October	Week 1								X	X					
October	Week 2								X	X					
October	Week 3								X	X					
October	Week 4									X	X				
November	Week 1									X	X				
November	Week 2									X	X				
November	Week 3										X				
November	Week 4										X				
December	Week 1										X				
December	Week 2										X				
December	Week 3										X				
December	Week 4										X				
January	Week 1										X				
January	Week 2										X				
January	Week 3										X	X			
January	Week 4										X	X			
February	Week 1											X			
February	Week 2											X	X		
February	Week 3											X	X	X	
February	Week 4												X	X	
March	Week 1												X	X	
March	Week 2											X	X	X	
March	Week 3												X	X	
March	Week 4												X	X	
April	Week 1												X	X	
April	Week 2													X	
April	Week 3													X	
April	Week 4													X	X
May	Week 1														X
May	Week 2														X
May	Week 3														X
May	Week 4														X

11 Declaration

We as members of the project titled 'TruEvent Horizons', certify that we will carry out this project according to the guidelines provided by the coordinators and supervisors of the course as well as that we will not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any university. To the best of our knowledge and brief, the project work will not contain any material previously published or written by another person or ourselves except where due reference is made in the text of appropriate places.

Student Name	Index No.	Signature
Saneru Akarawita	20000073	2022/08/12
Harini Jayawardhana	20000881	2022/08/12
Kaveesha Muthukuda	20001185	2022/08/12
Chirasi Amaya Walpola	20001975	2022/08/12

** Proposal is unchanged as there were no major modifications done to the proposal document. summery of changes has being already submitted going with the feedback we received.