

Assignment 2 Cover Sheet

CASE STUDY NAME	Bus Scheduling and Booking System
PROJECT ID	Y1S2_2023_MTR_G10

Group Details:

	Student Registration Number	Student Name
1	IT22002174	DINETH T.H.V.
2	IT22315496	ANURADHA D.P.G.C.
3	IT22349460	WARUNIKA R.S.
4	IT22352026	HANSARA K.D.K.U.
5	IT22909428	NISFA N.M.F.

Assignment 2 Certify Sheet

I hereby certify,



The attached is my own work and no further changes will be made.




I have contributed in this assignment to the best of my ability.

And I understand.



I may be subject to student discipline processes in the event of an act of academic misconduct by me including an act of plagiarism or cheating.

Student Details:

Student Name	Student Registration Number	Date	Signature
HANSARA K.D.K.U.	IT22352026	29/05/2023	

Part I

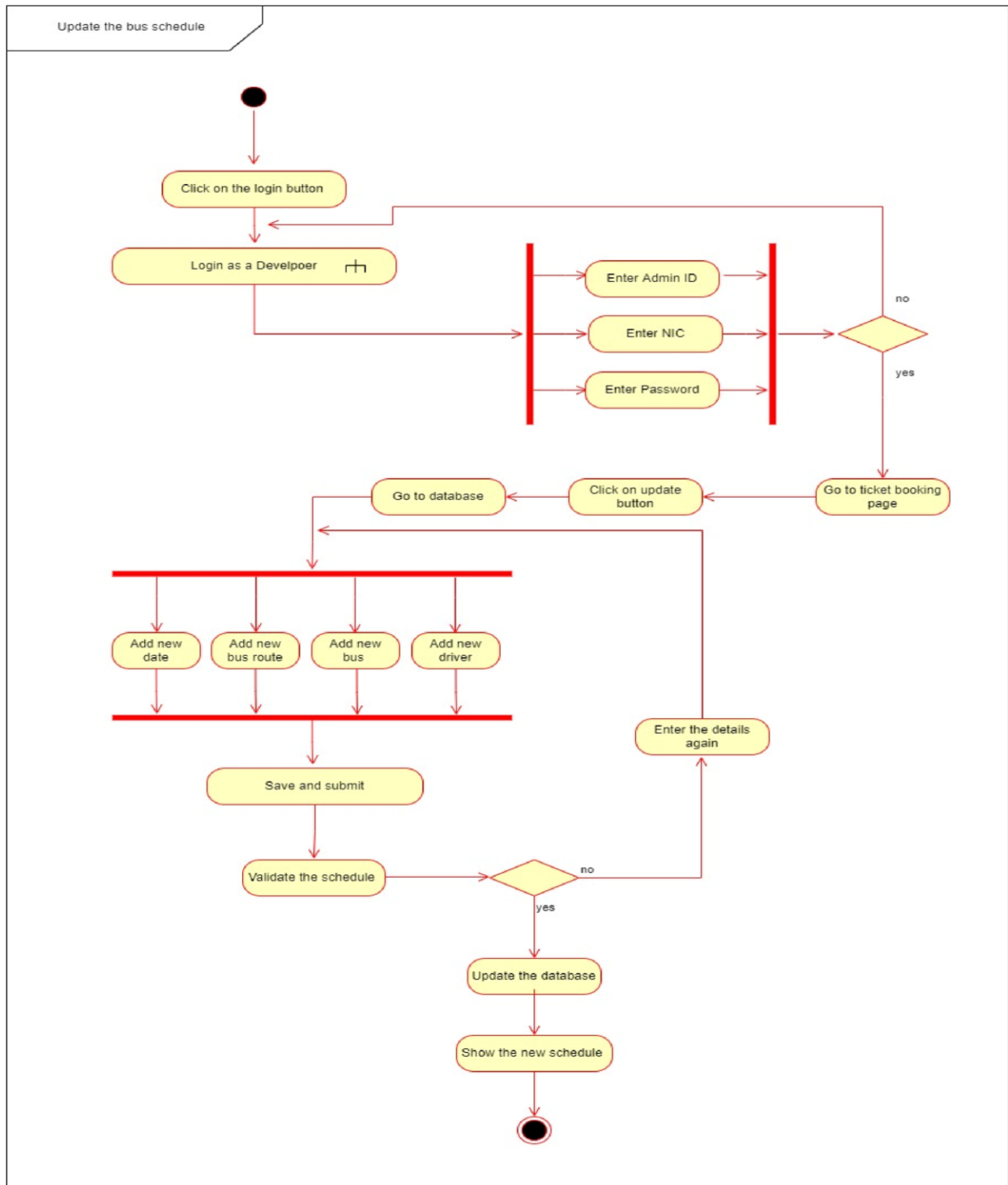
1. Use Case Scenario

Number	01	
Name	Update the bus schedule	
Summary	Developer manages and update the schedule.	
Priority	-	
Precondition	Login as a developer to the system	
Post condition	Publish the new schedule into the system	
Primary Actors	Developer	
Triggers	User has chosen update schedule	
Main Scenario	Step	Action
	1	Login to the site as a developer
	2	Go to the Ticket booking page
	3	Click on the update schedule button.
	4	System displays a form a to update the new schedule.
	5	Developer enters the relevant information.
	6	System validates the updated details.
	7	Submit the new updated schedule.
	8	System displays success message.
Extensions	Step	Action
	6.a	If system does not validate the updated schedule.
	6.b	Resubmit the schedule.
Open Issues	-	-

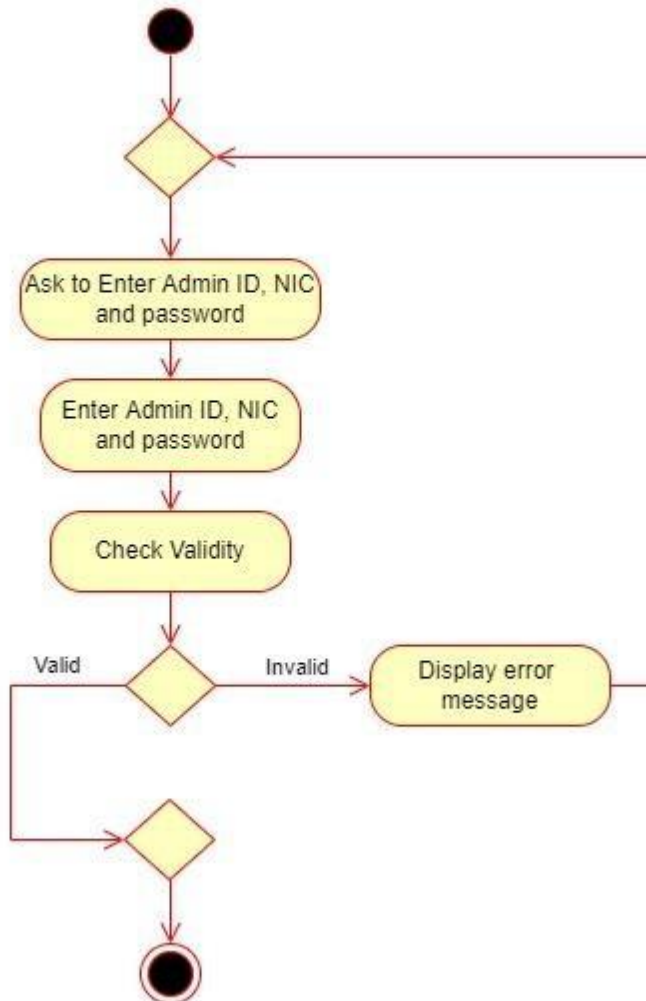
Assumption

In this use case scenario, my assumption is that the Admin updates all the bus schedules on time because it is more vital to the users who are using this system in a day to day basis.

2. Activity Diagram without Partitioning

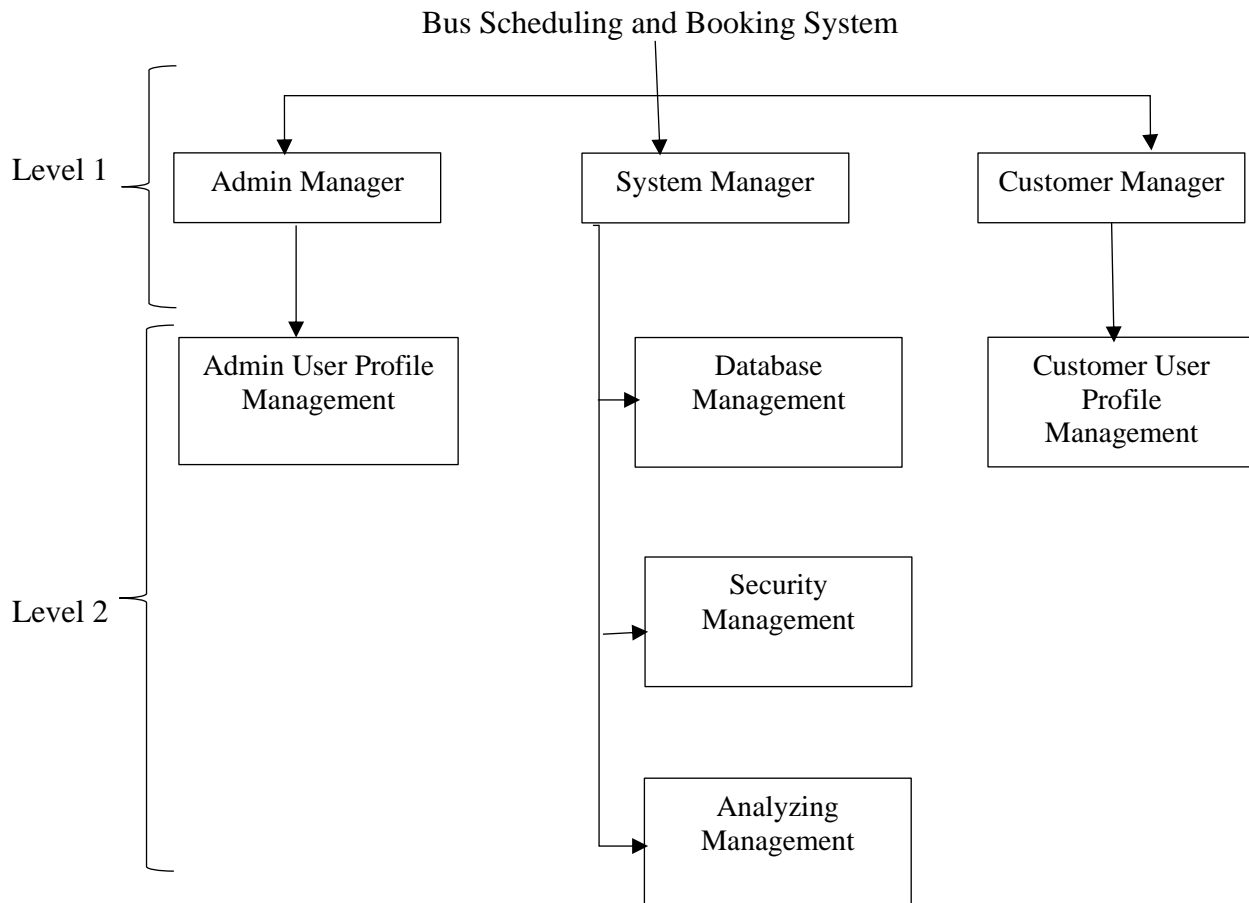


Admin Login



Part II

1. Sub – System of the System



Description of the Sub System

Admin Manager

Add new features and manage bus schedules and users' details are done here.

Admin User Profile Management –

This will be handled by the administrator.

System Manager

Database Management –

Maintain the DBMS of the Bus Scheduling and booking system.

Security Management –

Maintain all personal details safe and secure.

Analyzing the Data –

This is for Keeping data. It saves existing information and new information like registration and login details and retrieves data.

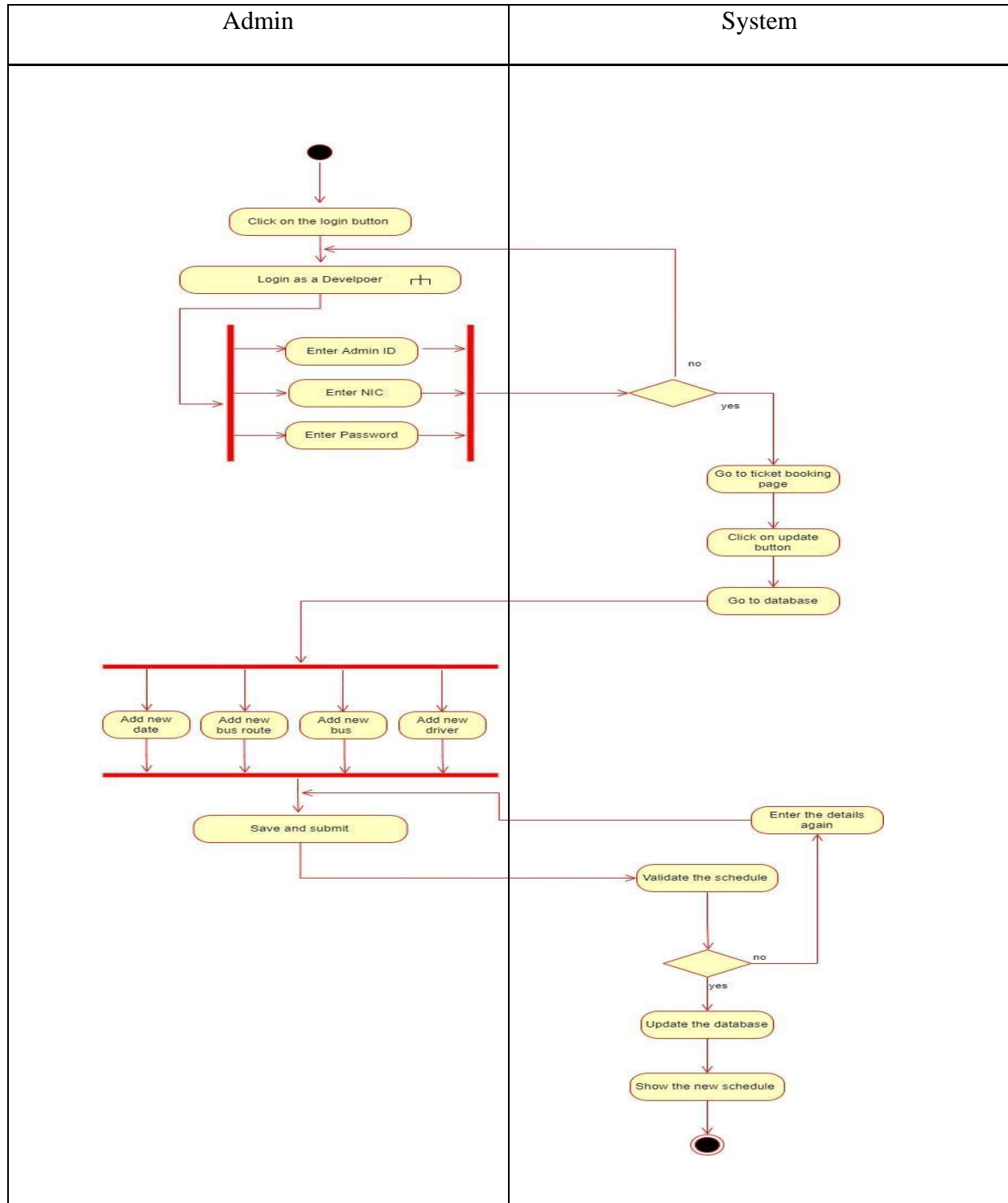
Customer Manager

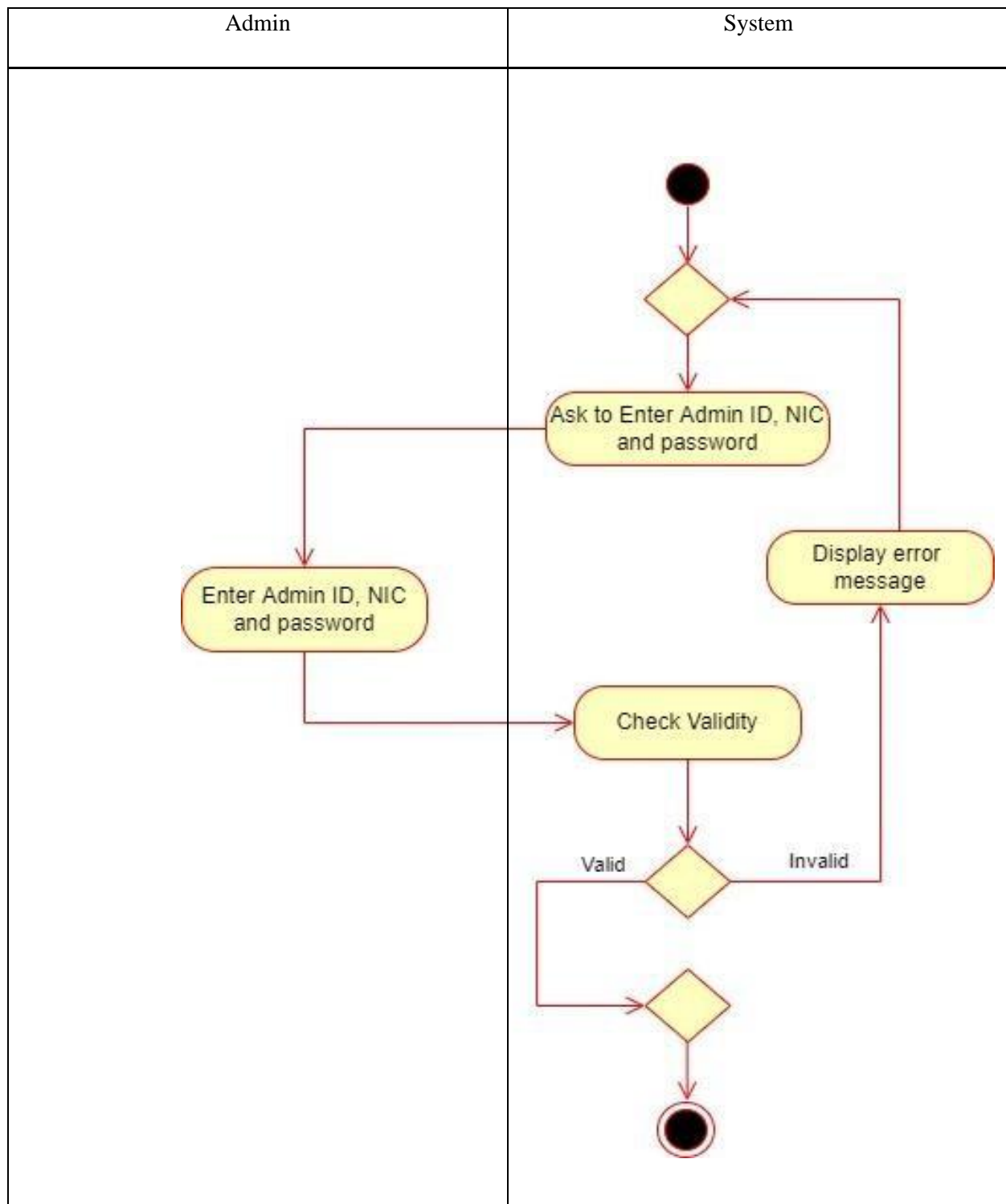
The User Management system considers what users do through the system.

Customer User Profile Management –

1. Check user login details are valid.
2. In communications manager the main task is to perform communication among other sub-systems in the main system about customer needs.
3. The customer care manager directly interacts with the customers to satisfy their needs.

2. Activity Diagram with Partitioning - Swim Lanes





Assignment 2 Certify Sheet

I hereby certify,



The attached is my own work and no further changes will be made.




I have contributed in this assignment to the best of my ability.

And I understand.



I may be subject to student discipline processes in the event of an act of academic misconduct by me including an act of plagiarism or cheating.

Student Details:

Student Name	Student Registration Number	Date	Signature
DINETH T.H.V.	IT22002174	29/05/2023	

Part I

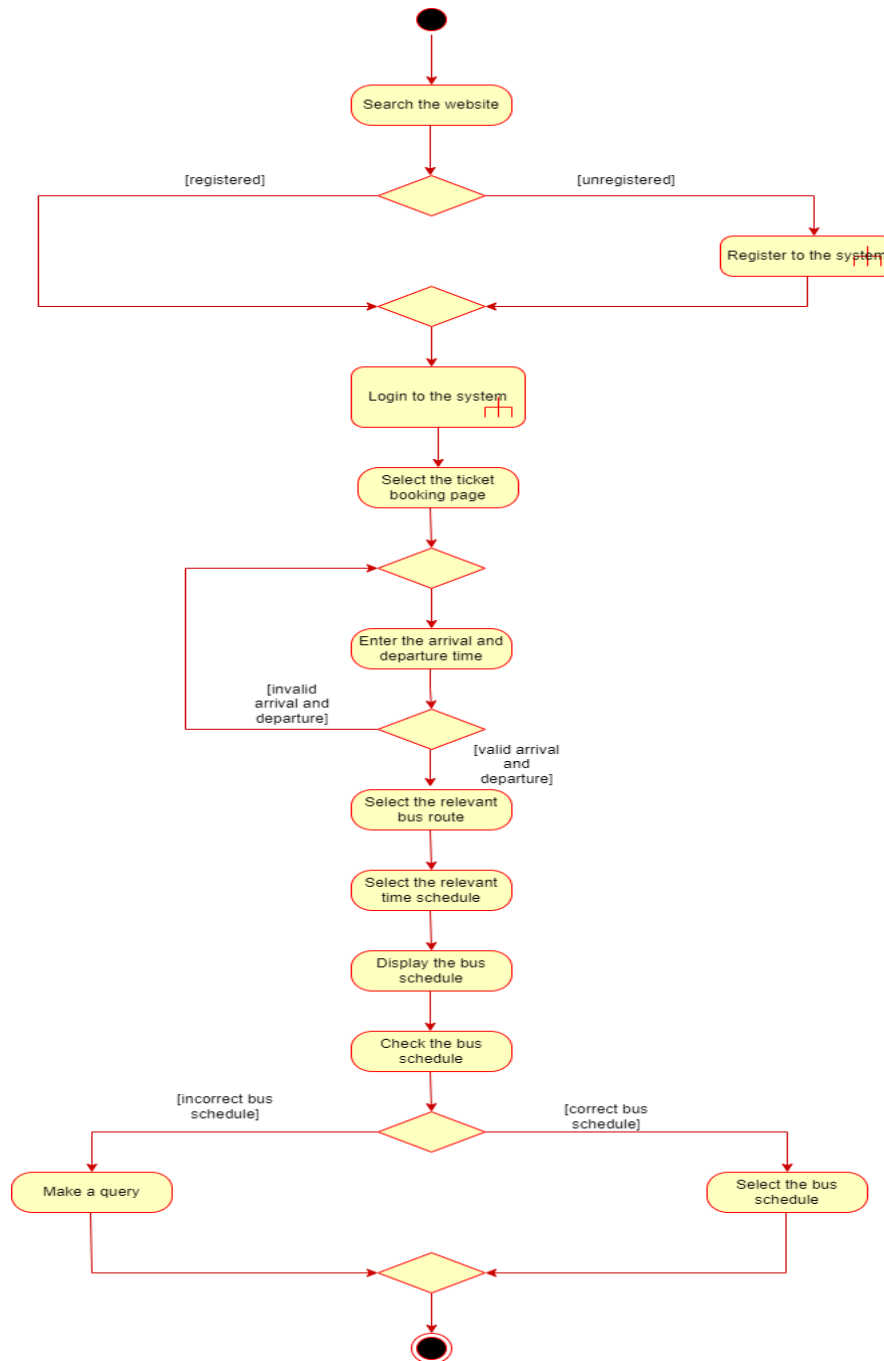
1. Use Case Scenario

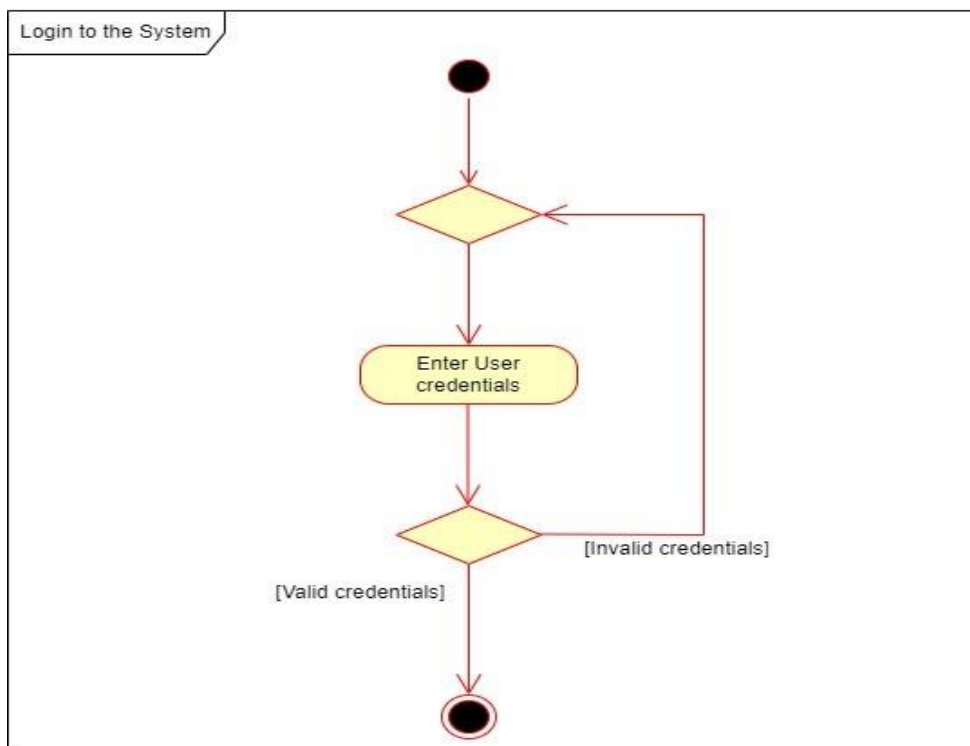
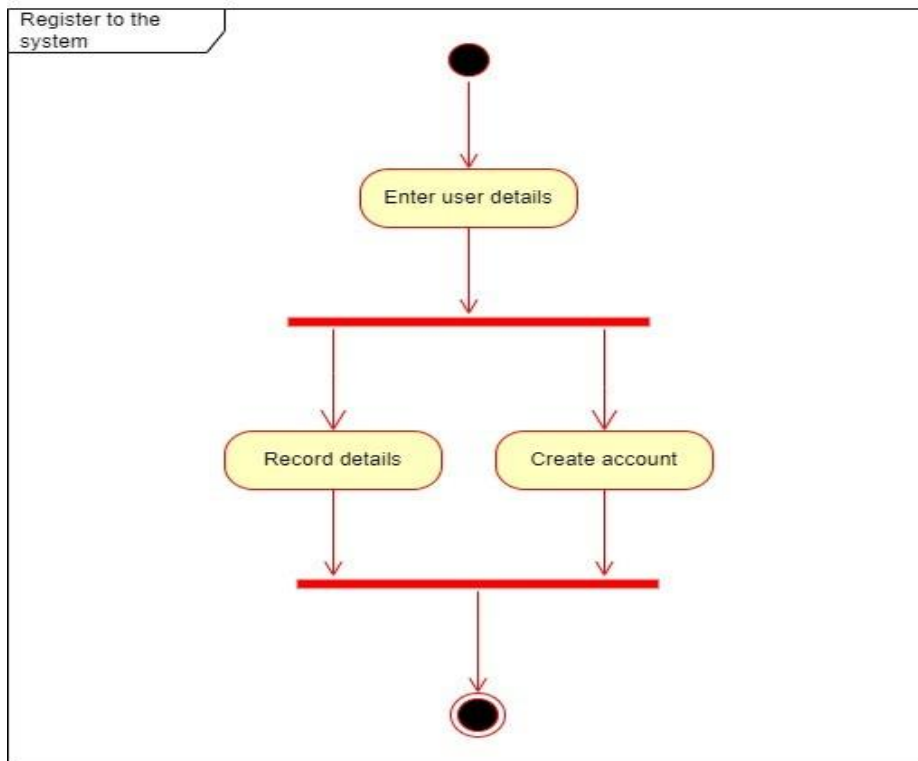
Number	02	
Name	Checking bus schedules	
Summary	Passenger login to the site and check the timetable	
Priority	3	
Precondition	-	
Postcondition	Checked the timetable	
Primary Actors	Rarely user	
Secondary Actors	Admin, Developer	
Triggers	Passengers choose the relevant time schedule	
Main Scenario	Step	Action
	1	Search the website
	2	Login to the System
	3	Select the ticket booking page
	4	User enters the Arrival and Departure
	5	User selects the relevant bus route
	6	Select the relevant time schedule
	7	System displays the bus schedule for the entered information
	8	User checks the bus schedule
	9	User selects the bus schedule
Extensions	Step	Action
	2.a	If the user is not registered
	2.b	Register to the system
	4.a	If user enters an invalid arrival or departure
	4.b	User enters the correct arrival and departure
	8.a	If bus schedule is incorrect
	8.b	Make an inquiry
Open issues	-	-

Assumption

My assumption on this use case scenario is that the passengers will log in to the system more often to check the availability of the busses to their destinations and a convenient time to travel.

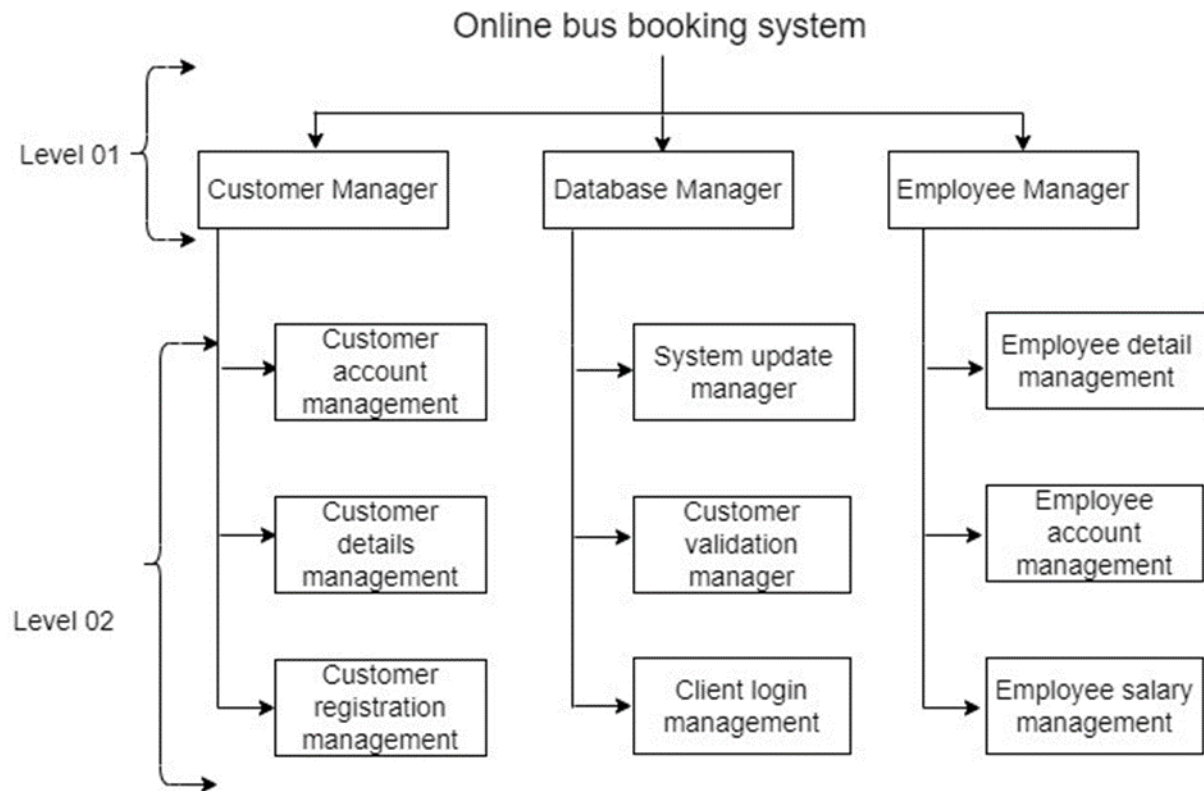
2. Activity Diagram with Partitioning





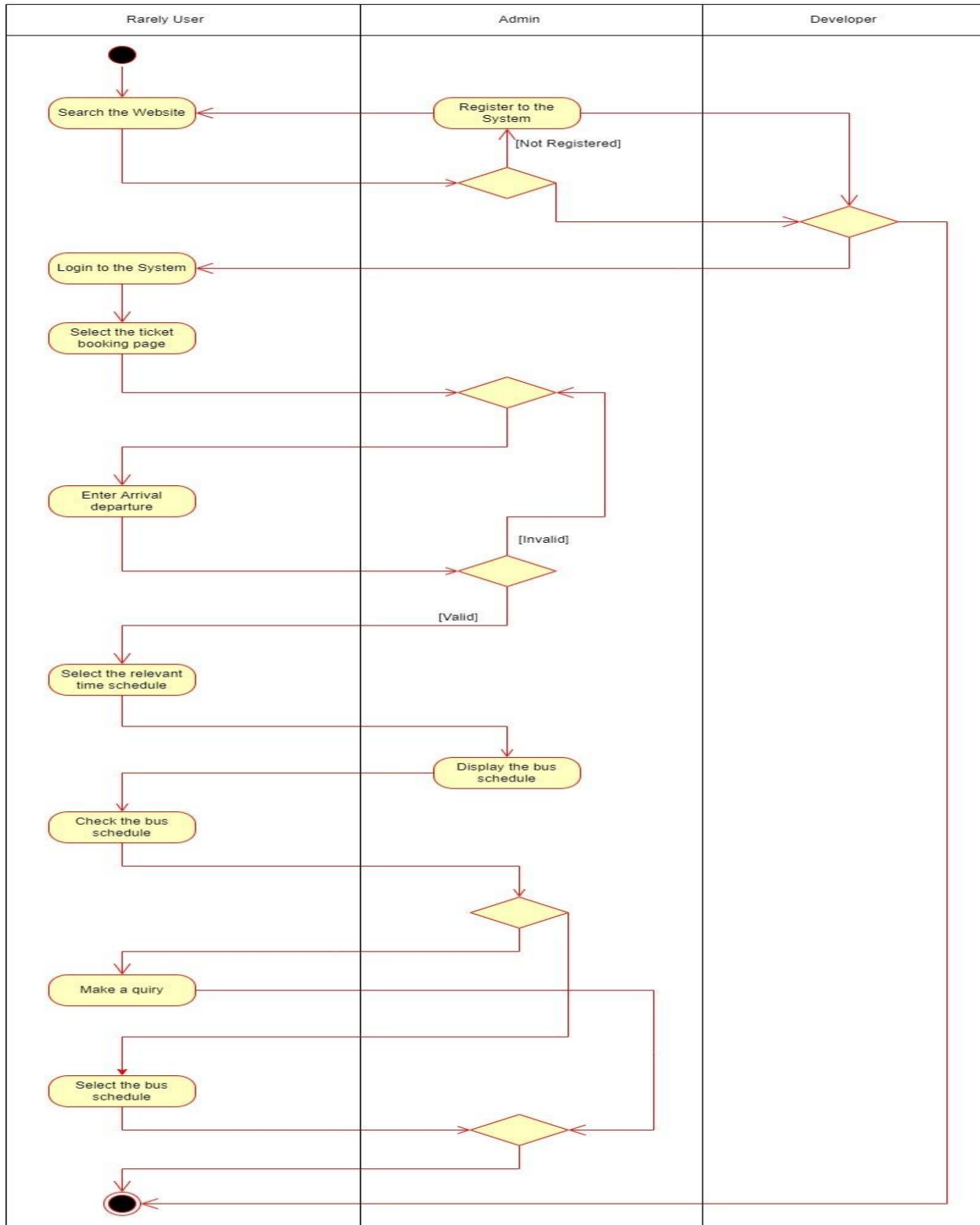
Part II

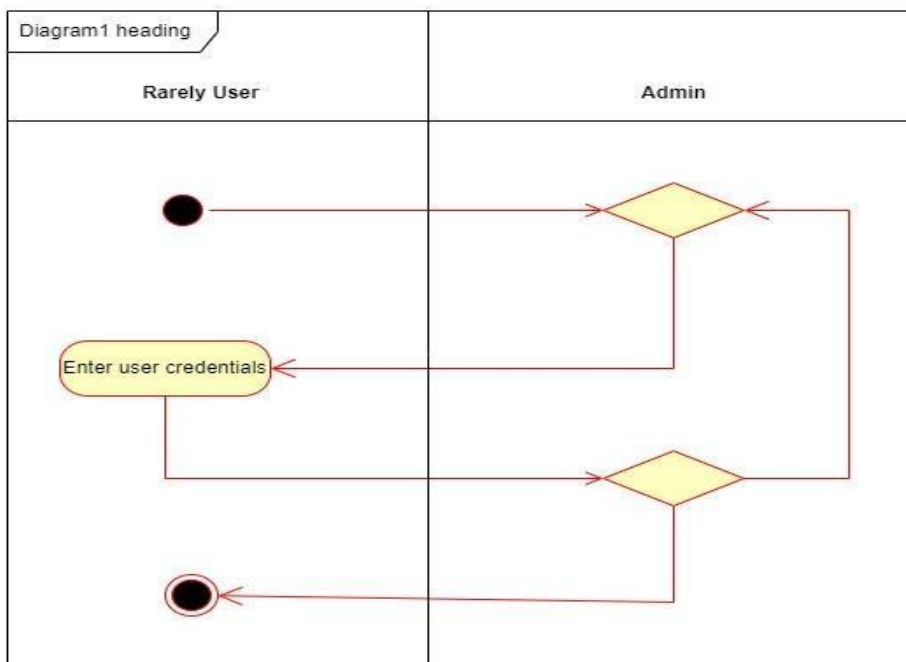
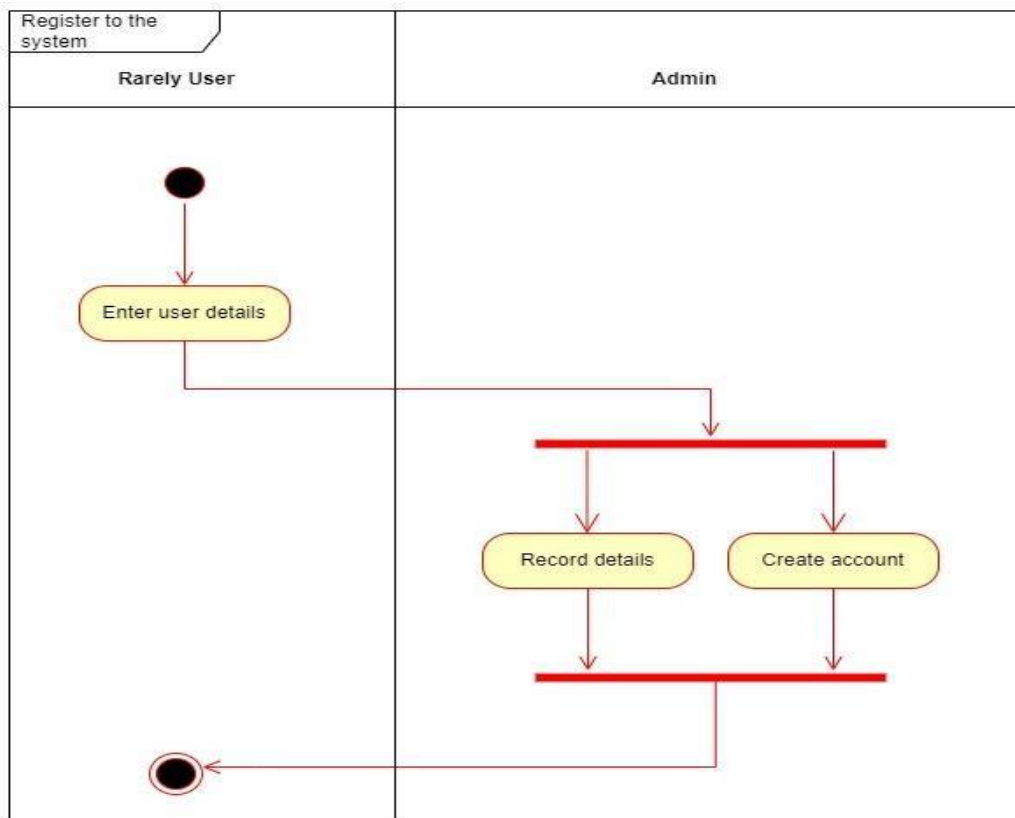
1. Sub-System of the System



2. Activity Diagram with Partitioning – Swim Lanes

Check the bus schedule in an online bus booking system





Assignment 2 Certify Sheet

I hereby certify,



The attached is my own work and no further changes will be made.




I have contributed in this assignment to the best of my ability.

And I understand.



I may be subject to student discipline processes in the event of an act of academic misconduct by me including an act of plagiarism or cheating.

Student Details:

Student Name	Student Registration Number	Date	Signature
ANURADHA D.P.G.C.	IT22315496	29/05/2023	

Part I

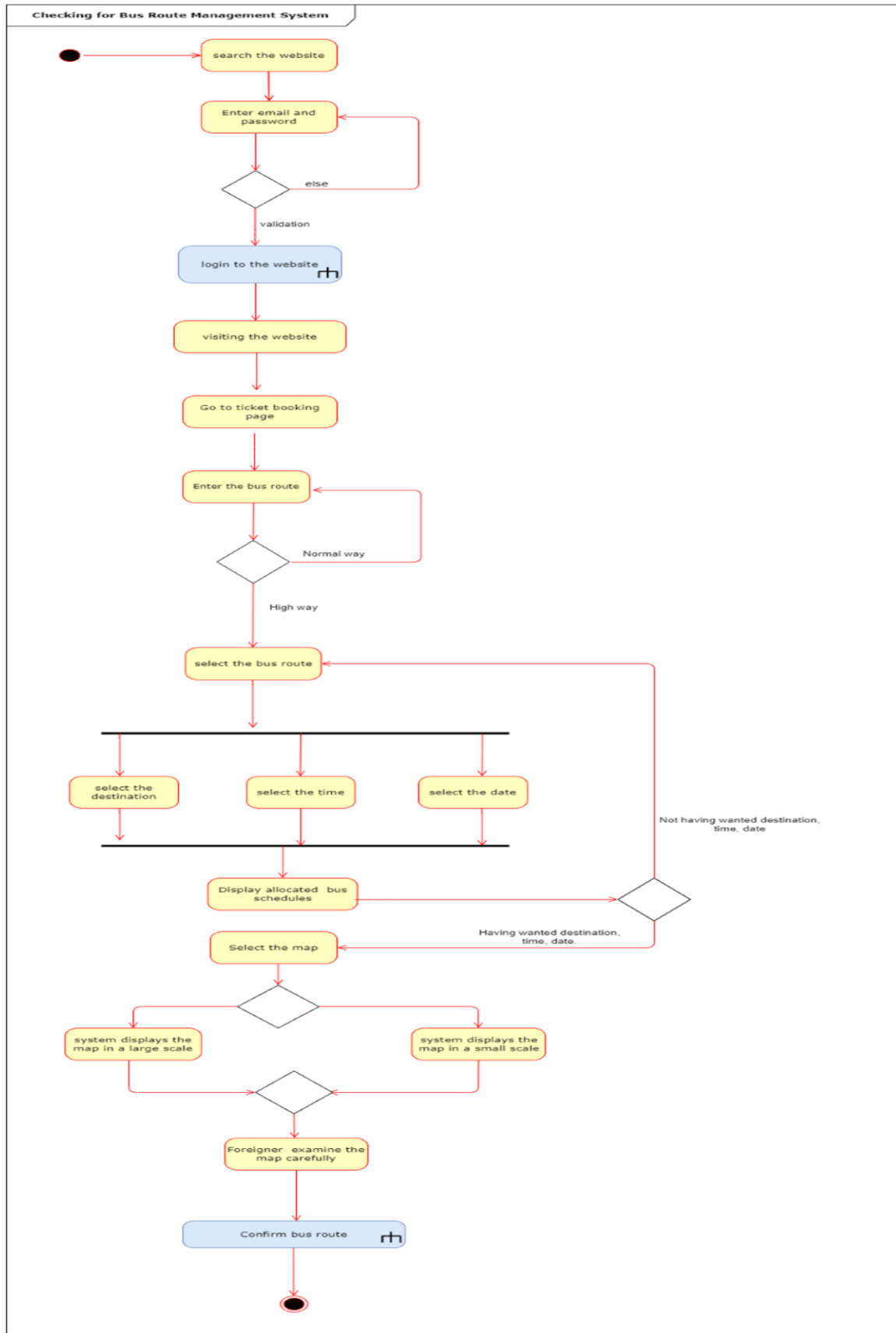
1. Use Case Scenario

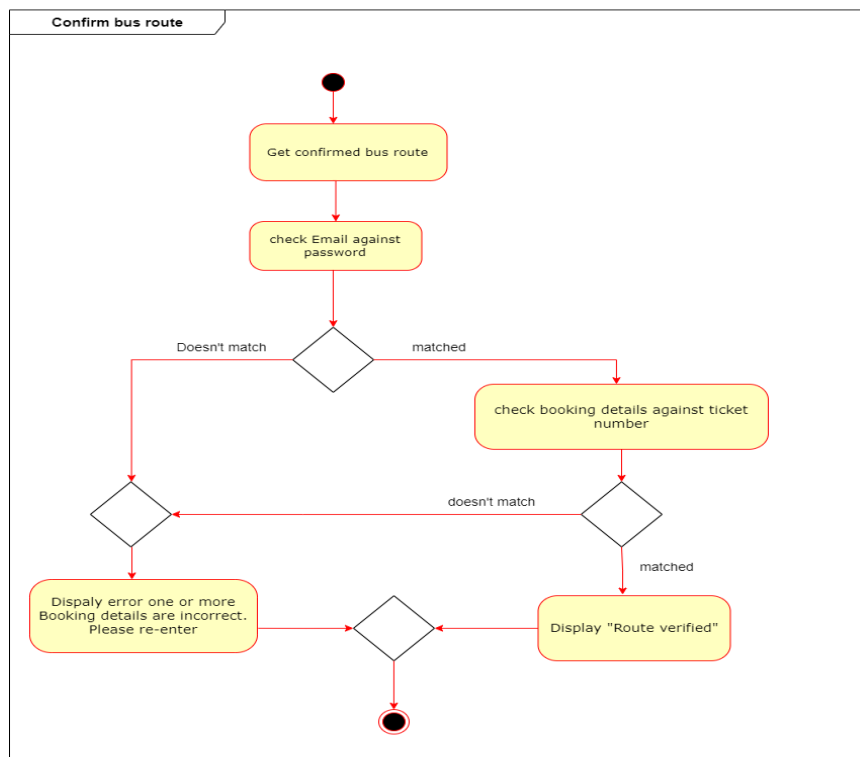
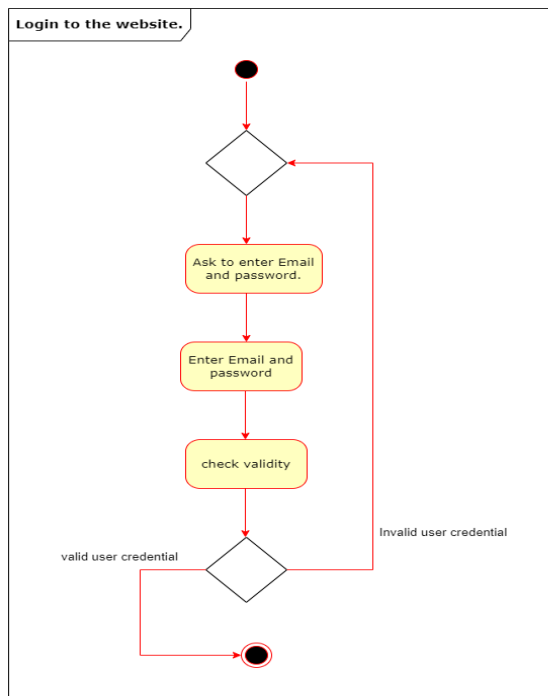
Number	03	
Name	Checking bus route.	
Summary	Foreigner check route through the system.	
Priority	3	
Precondition	Foreigner has logged into the website.	
Post condition	Check the routes.	
Primary Actors	Foreigner.	
Triggers	Foreigner has chosen the route.	
Main Scenario	Step	Action
	1	User searches the website.
	2	Enter user email and password.
	3	User log to the website.
	4	Visit the website.
	5	Go to ticket booking page.
	6	User enter the bus route that he wants to check the map.
	7	Select the indicating bus route.
	8	Select destination
	9	Select time
	10	Select date
	11	Display allocated bus schedules
	12	Select the map.
	13	System will display the map in a large scale.
	14	System will display the map in a small scale.
	15	User examines the bus route map carefully.
	16	Confirm the bus route.
Extensions	Step	Branching Action
	2.a	If foreigner enters invalid user credentials.
	2.b	System will display an error message.
	11.a	No buses available for the selected dare and time.
Open Issues	-	-

Assumption

As every passenger has different options they like when travelling, my assumption on this use case scenario is that passengers will check on the route on which the bus to their destination will travel so that they can be sure to get their other priorities done on time.

2. Activity Diagram with Partitioning

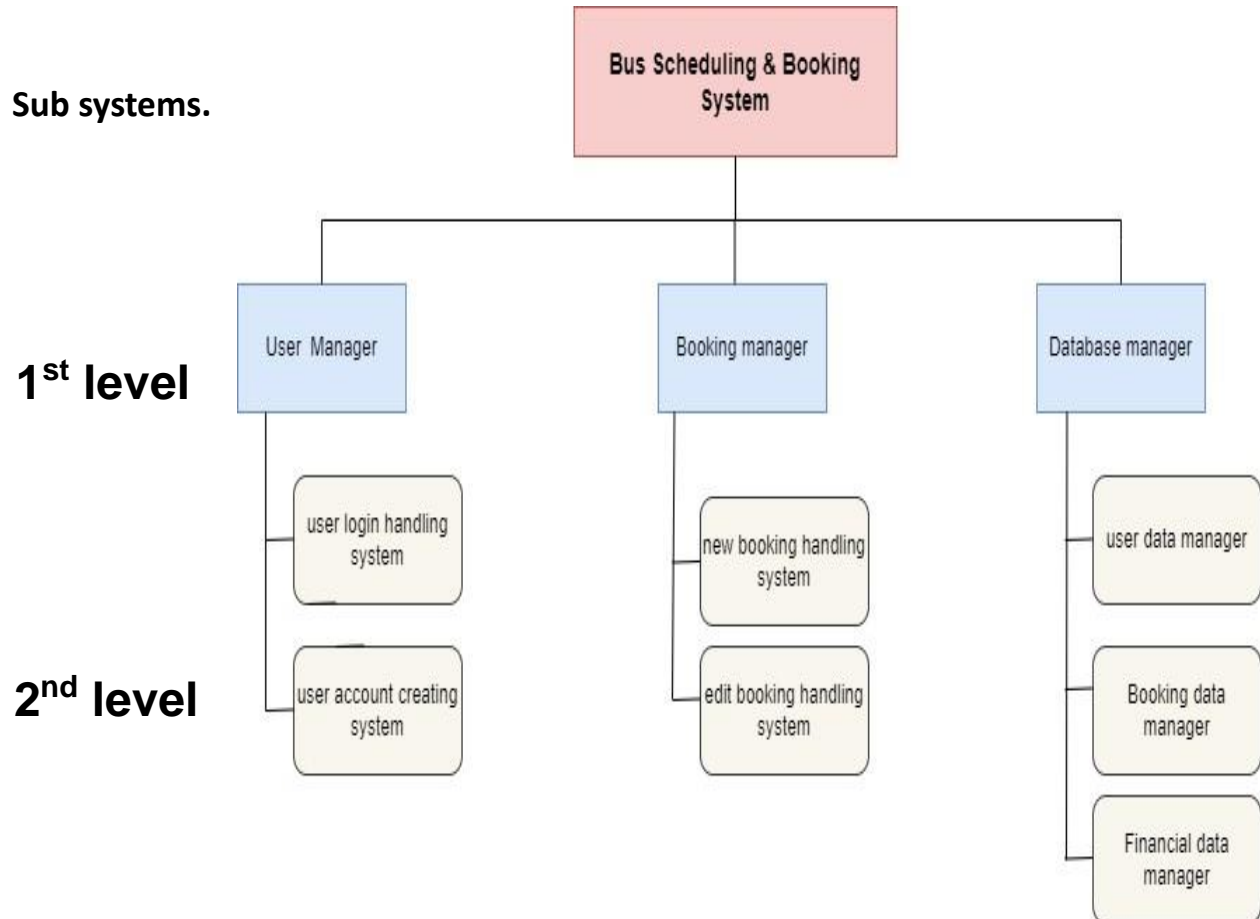




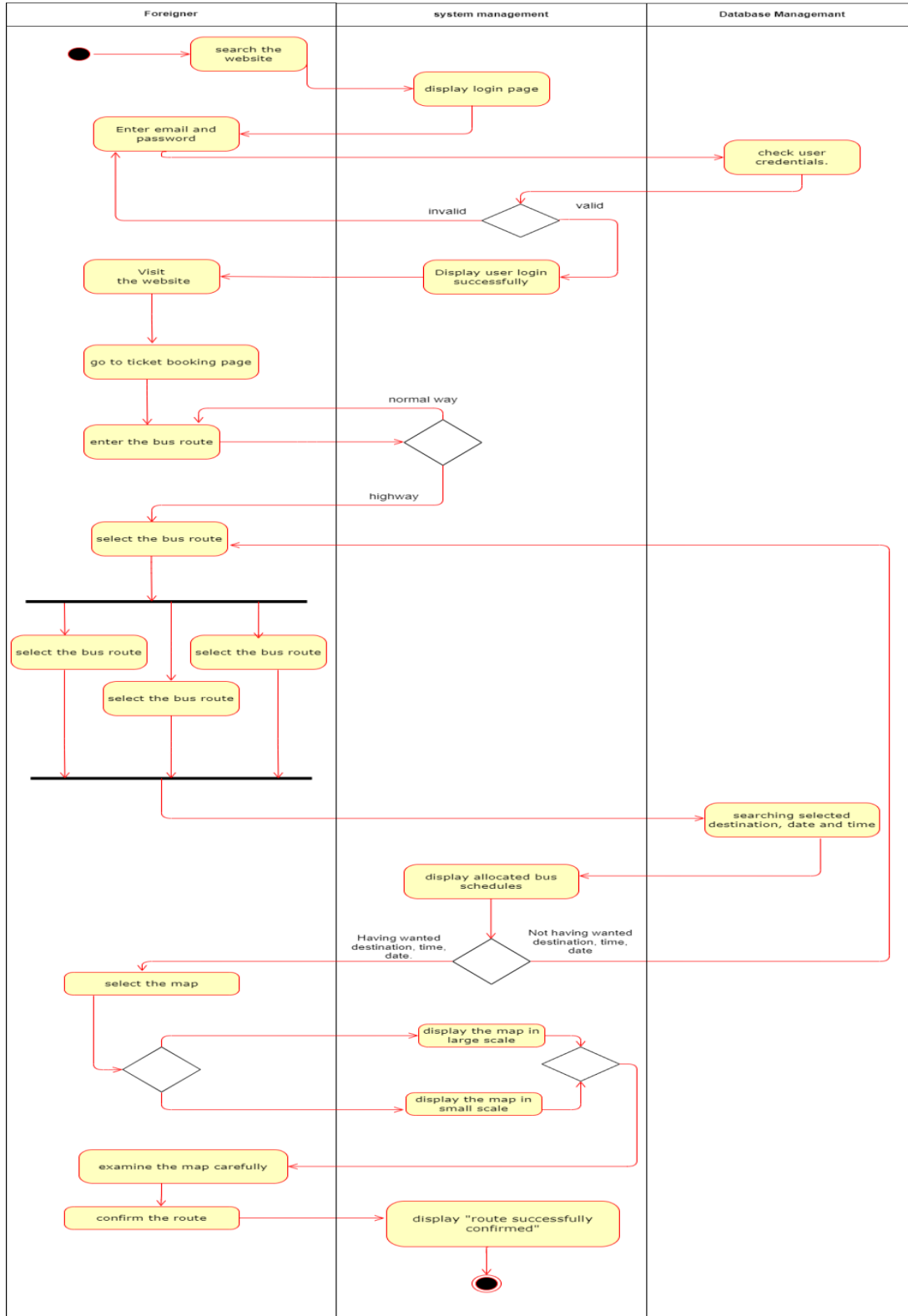
Part II

1. Sub-System of the System

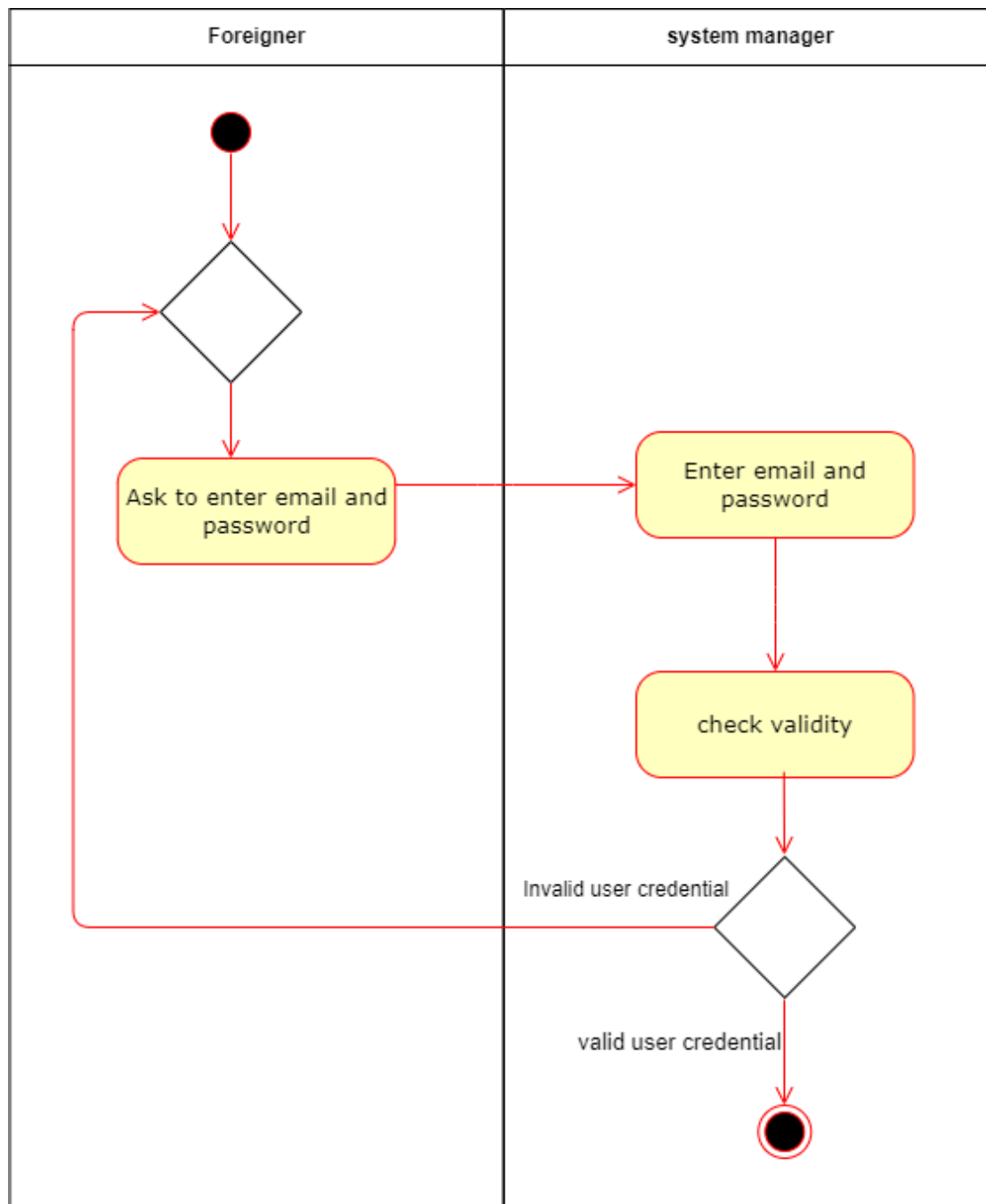
Sub systems.



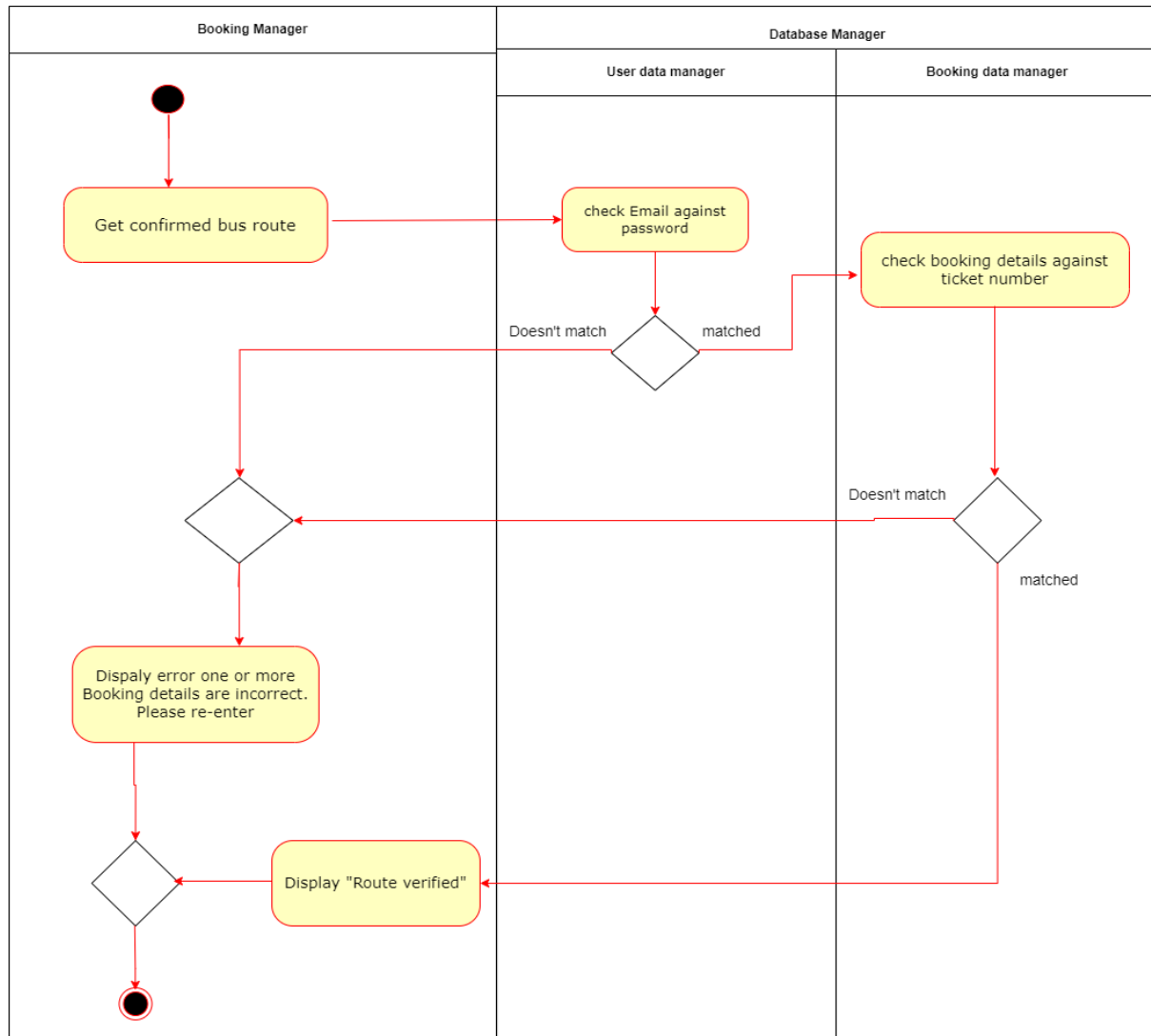
2. Activity Diagram with Partitioning – Swim Lanes



Login to the website.



Confirm the bus route.



Assignment 2 Certify Sheet

I hereby certify,



The attached is my own work and no further changes will be made.




I have contributed in this assignment to the best of my ability.

And I understand.



I may be subject to student discipline processes in the event of an act of academic misconduct by me including an act of plagiarism or cheating.

Student Details:

Student Name	Student Registration Number	Date	Signature
WARUNIKA R.S.	IT22349460	29/05/2023	

Part I

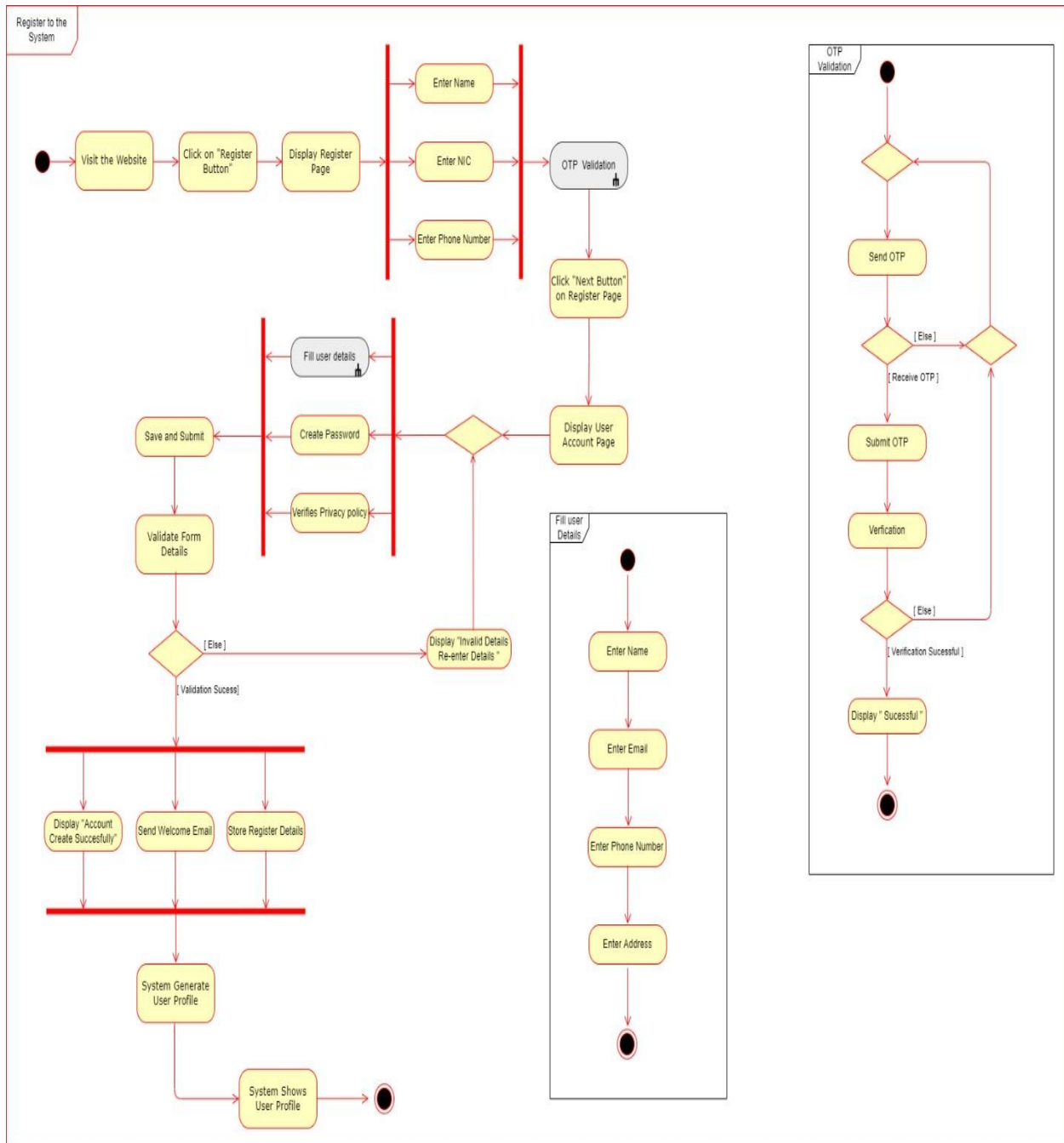
1. Use Case Scenario

Number	04	
Name	Register	
Summary	Guest creates the new account	
Priority	04	
Precondition	-	
Post condition	System sends an e-mail by confirm the registration.	
Primary Actors	Guest	
Triggers	Guest has chosen to be Register a new account	
Main Scenario	Step	Action
	1	Click on the Register button.
	2	System displays the registration form.
	3	User enters the relevant details.
	4	System validates the OTP code.
	5	System will redirect user to User Account Page.
	6	User enters relevant details.
	7	User creates a password.
	8	User asks to accept privacy policy and terms.
	9	Select save and submit.
	10	System displays the registration successful message.
	11	System generates the User Profile.
Extensions	Step	Branching Action
	4.a	If user enters an incorrect OTP.
	4.b	System suggests resending the OTP.
	8.a	If user doesn't accept the privacy policy.
	8.b	System displays an error message.
Open Issues	-	-

Assumption

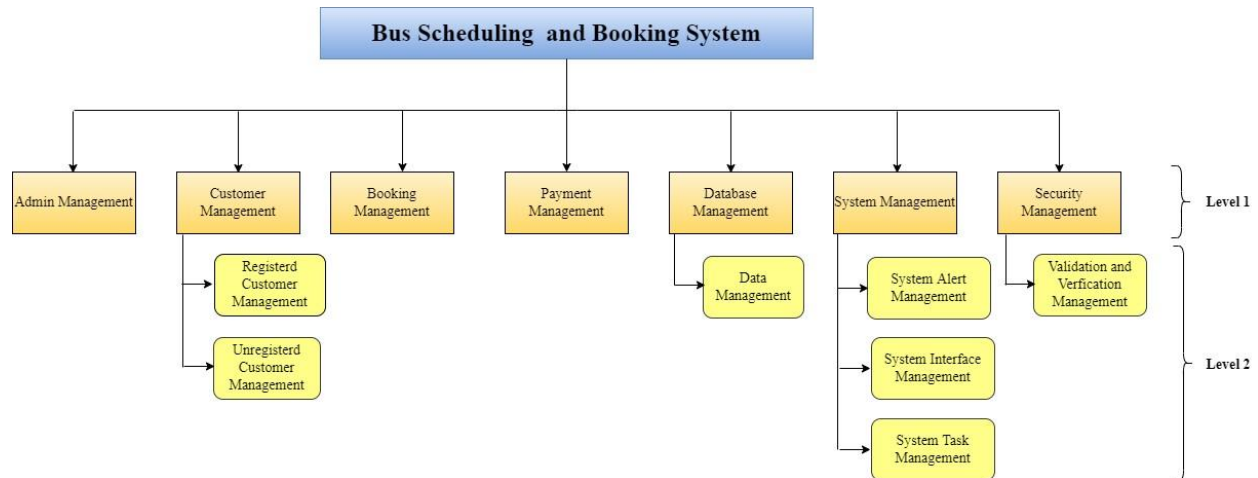
This is a system which is designed to be useful to many people as local transport is their prime mode of travelling. So, in this use case scenario I assume that the passengers will create a user profile for themselves in order to book their tickets quickly and without much hassle.

2. Activity Diagram without partitioning



Part II

1. Sub-System of the System



Description of the Sub-systems

Admin Management

The Admin or Developer will take care of this. The main task performed here is a database and website handling.

Customer Management

The Customer Management system takes into account what customers do while using the system.

Unregistered Customer Management –

Unregistered customers' activities are managed through the unregistered customer management system.

Registered Customer Management –

If a customer wants to connect to the system, they must first register. The registered customer management oversees all the registered customer's activities.

Booking Management

Bus ticket booking is managed here.

Payment Management

Payment management is in charge of financial matters.

Database Management

If necessary, other management can retrieve data from the database. The database management

system is used to carry out these tasks.

Data Management –

The most important consideration is to properly store new data and handle it securely.

System Management

Here there are 3 parts as,

System Alert Management –

This is regarding the part of the system that controls alerts. It sends customers important messages and alerts.

System Interface Management –

Messages from the System Show the user interface for the system.

System Task Management –

This stage configures the system's activities.

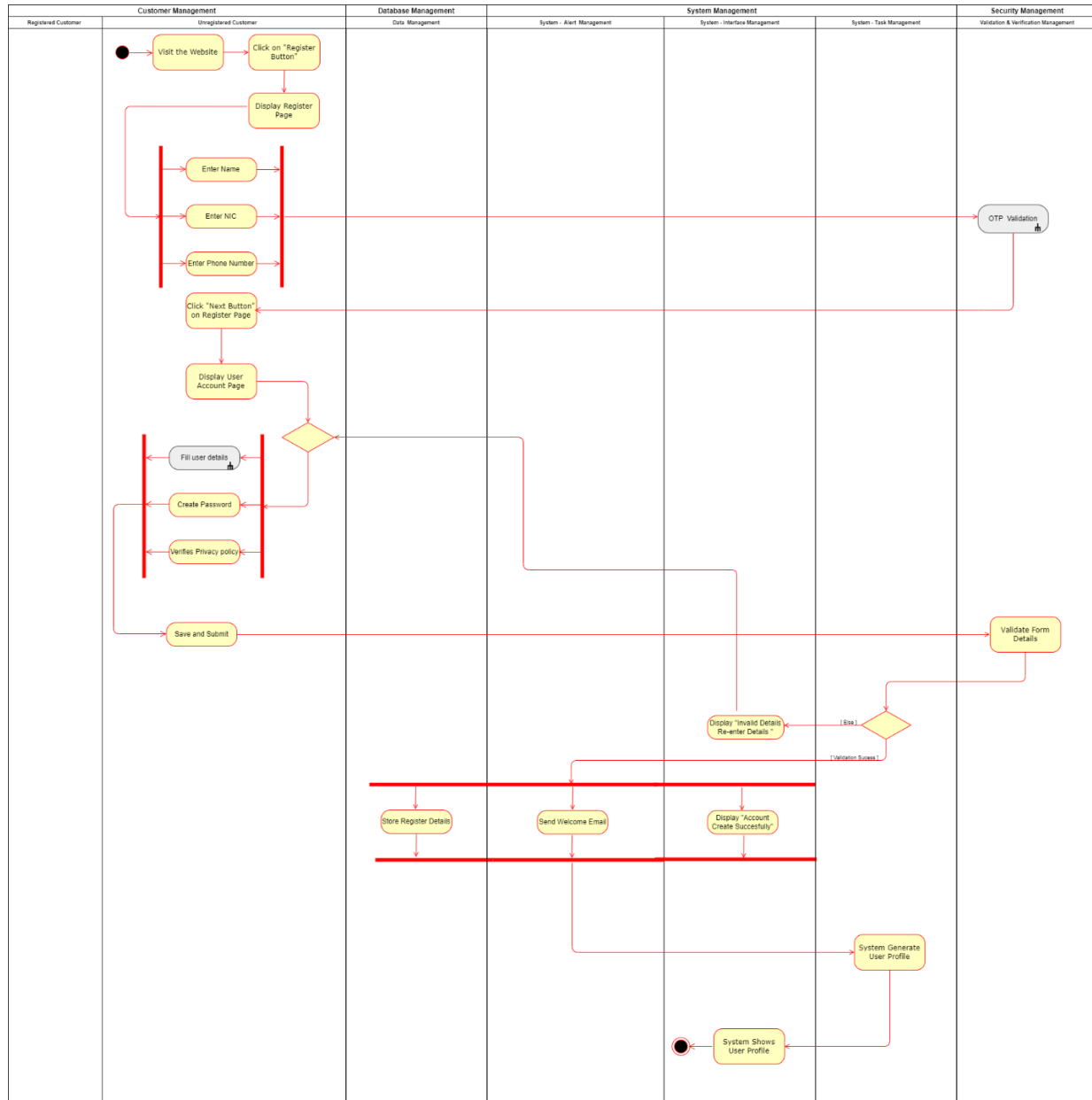
Security Management

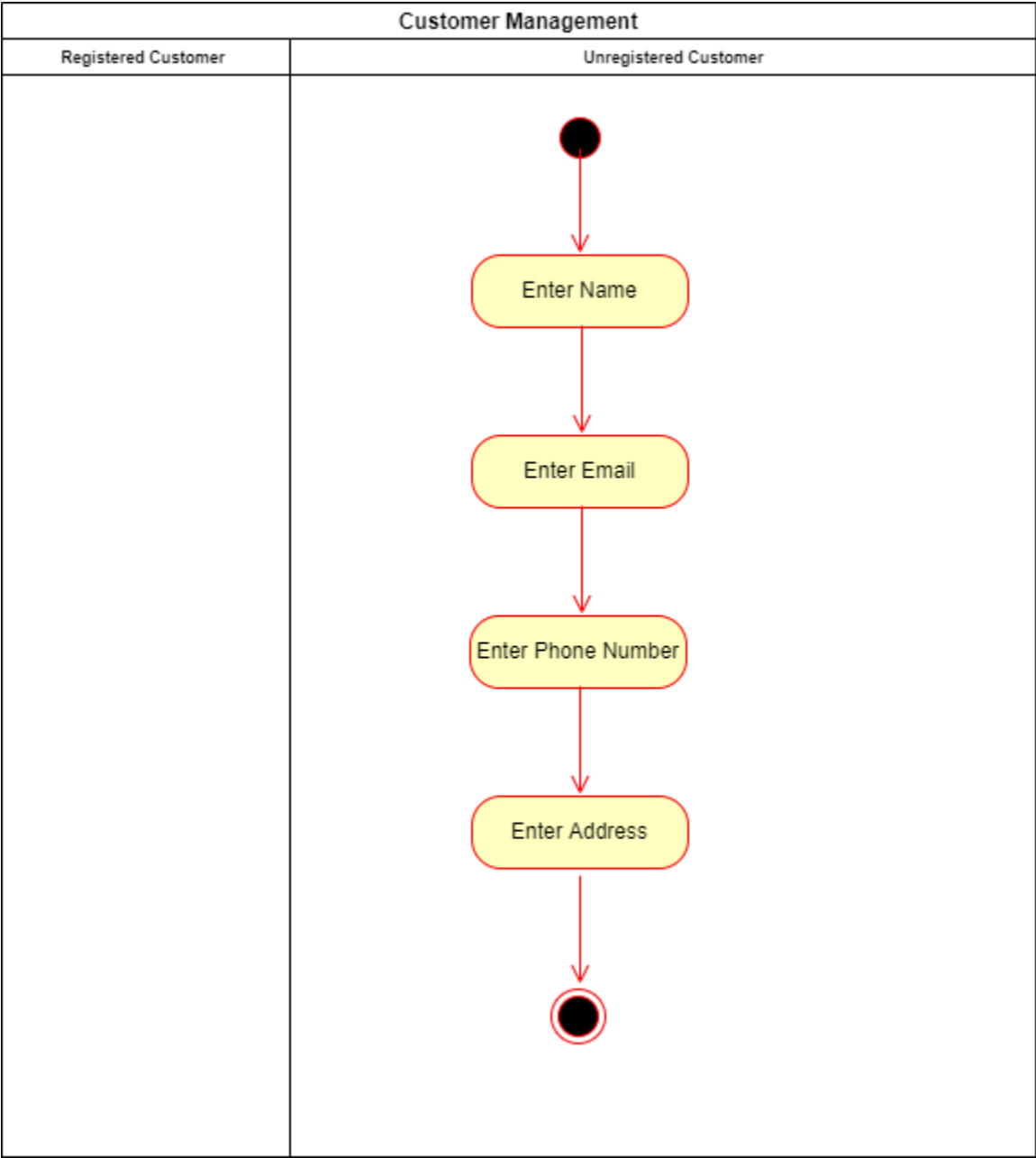
This system is in place for the system's security.

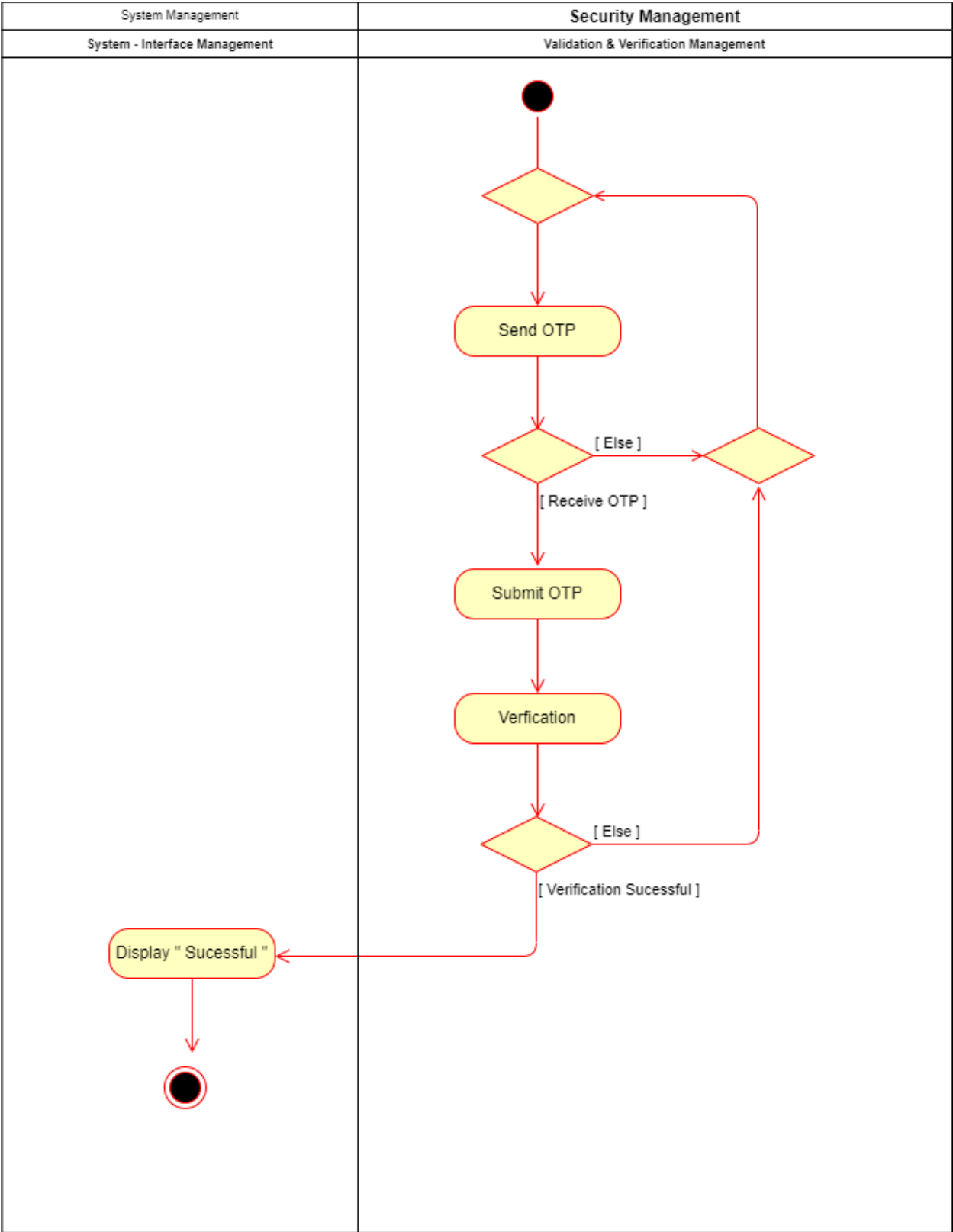
Validation and Verification Management –

Verification and validation management is used to verify and validate the information entered by customers. It's possible that it's helped by other systems.

2. Activity Diagram with Partitioning – Swim Lanes







Assignment 2 Certify Sheet

I hereby certify,



The attached is my own work and no further changes will be made.




I have contributed in this assignment to the best of my ability.

And I understand.



I may be subject to student discipline processes in the event of an act of academic misconduct by me including an act of plagiarism or cheating.

Student Details:

Student Name	Student Registration Number	Date	Signature
NISFA N.M.F.	IT22909428	29/05/2023	

Part I

1. Use Case Scenario

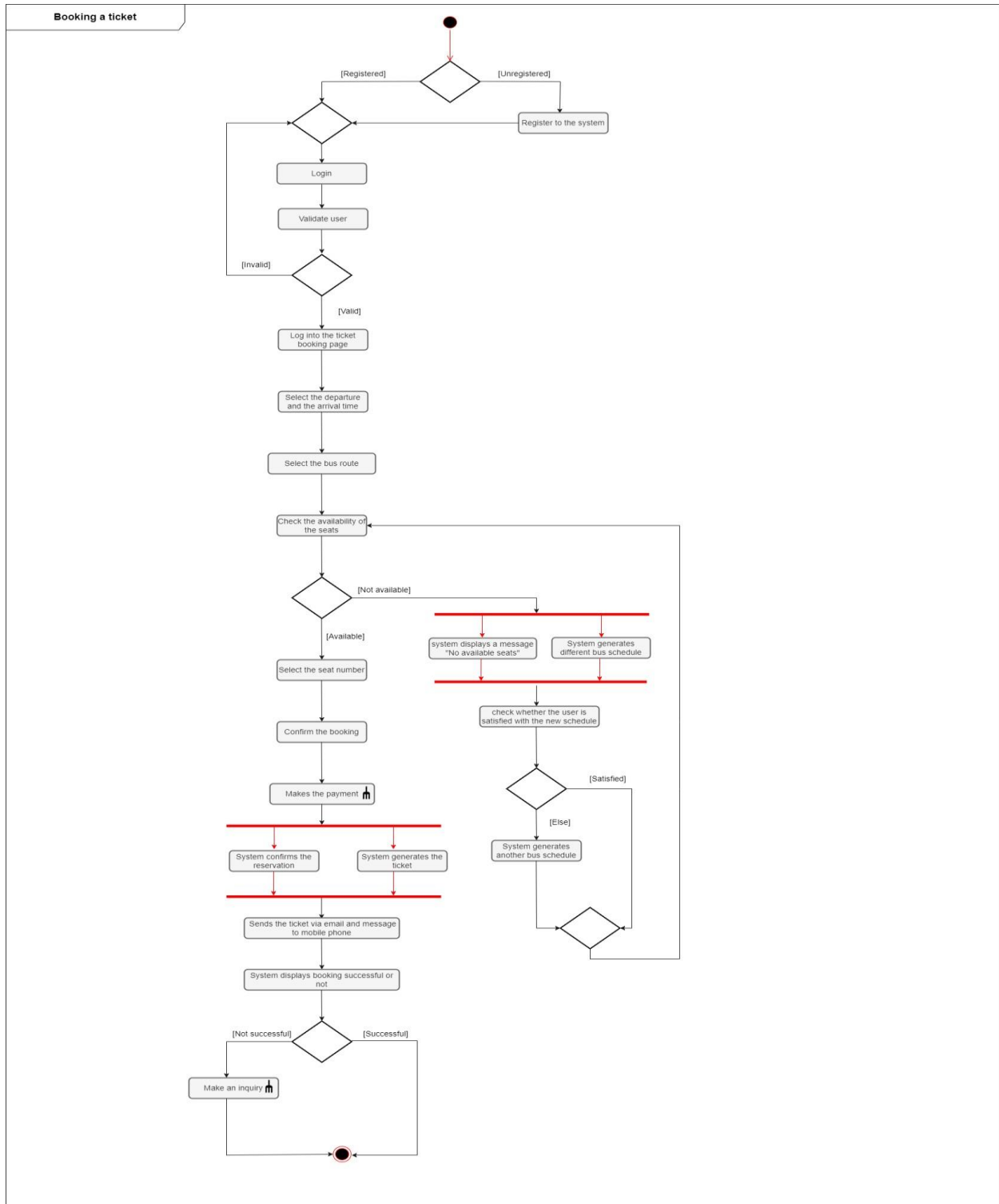
Number	05	
Name	Booking ticket.	
Summary	Reservation of a ticket.	
Priority	-	
Precondition	User has logged into the ticket booking page.	
Post condition	System sends the ticket as an email or a message to mobile phone.	
Primary Actors	Frequent user.	
Triggers	Has chosen to book a ticket.	
Main Scenario	Step	Action
	1	User has to logged in to the system.
	2	User enters user credentials.
	3	System validates the user credentials.
	4	User has to log into ticket booking page.
	5	Select the departure and the arrival time of the bus.
	6	Select the bus route.
	7	Check the availability of seats.
	8	Click on “Book” button to view booking details page.
	9	Select the seat number.
	10	Confirm the booking.
	11	User makes the payment.
	12	System confirms the reservation.
	13	System generates the ticket.
	14	System sends the ticket via email and message to mobile phone
	15	System displays that booking is successful.
Extensions	Step	Branching Action
	3.a	System displays an error message
	3.b	If user credentials are invalid user is asked to log again to the system
	7.a	System notifies seats are not available.
	7.b	System suggests a different time schedule.
	7.c	Check whether the user is satisfied with the new schedule.
	7.d	If user is not satisfied with the new schedule generates another schedule.
	11.a	System displays an error message saying, “your ticket is not.

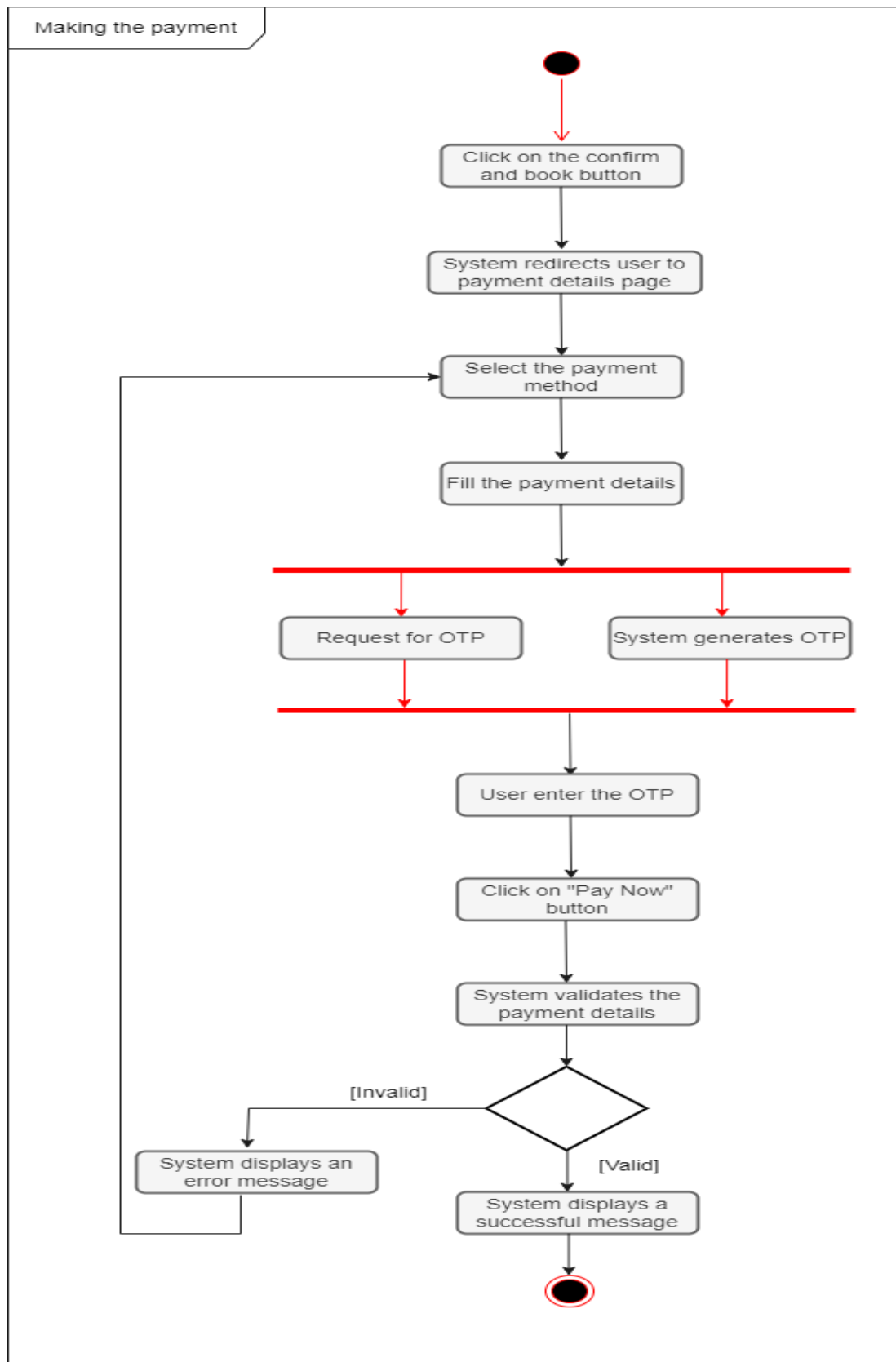
		available”.
	11.b	Make an inquiry.
Open Issues	-	-

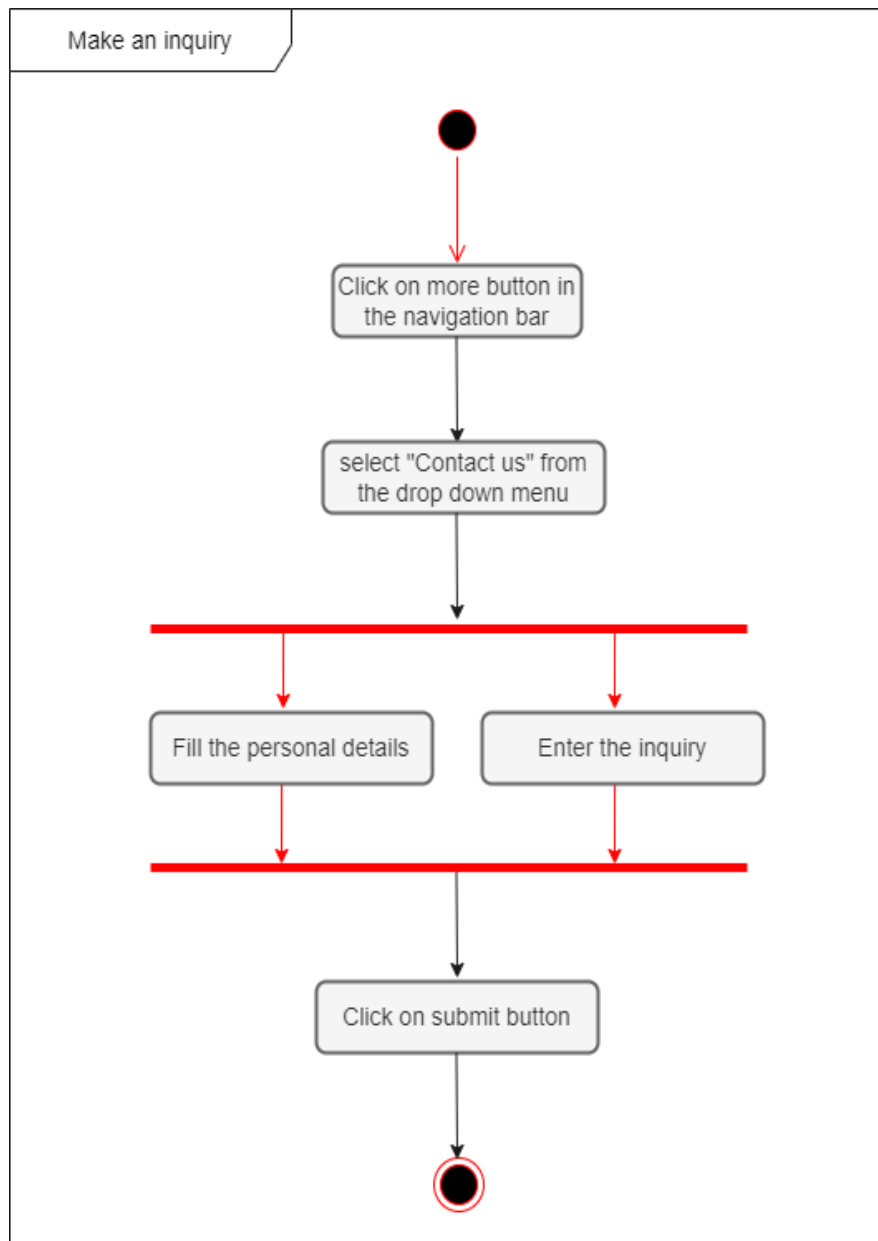
Assumption

In order to reserve their seats to their destination the passengers must book their tickets with their seat numbers. So, in this use case scenario I assume that the passengers will login to the system and book their tickets to their destination and will get an email and text message as a confirmation.

2. Activity Diagram with Partitioning

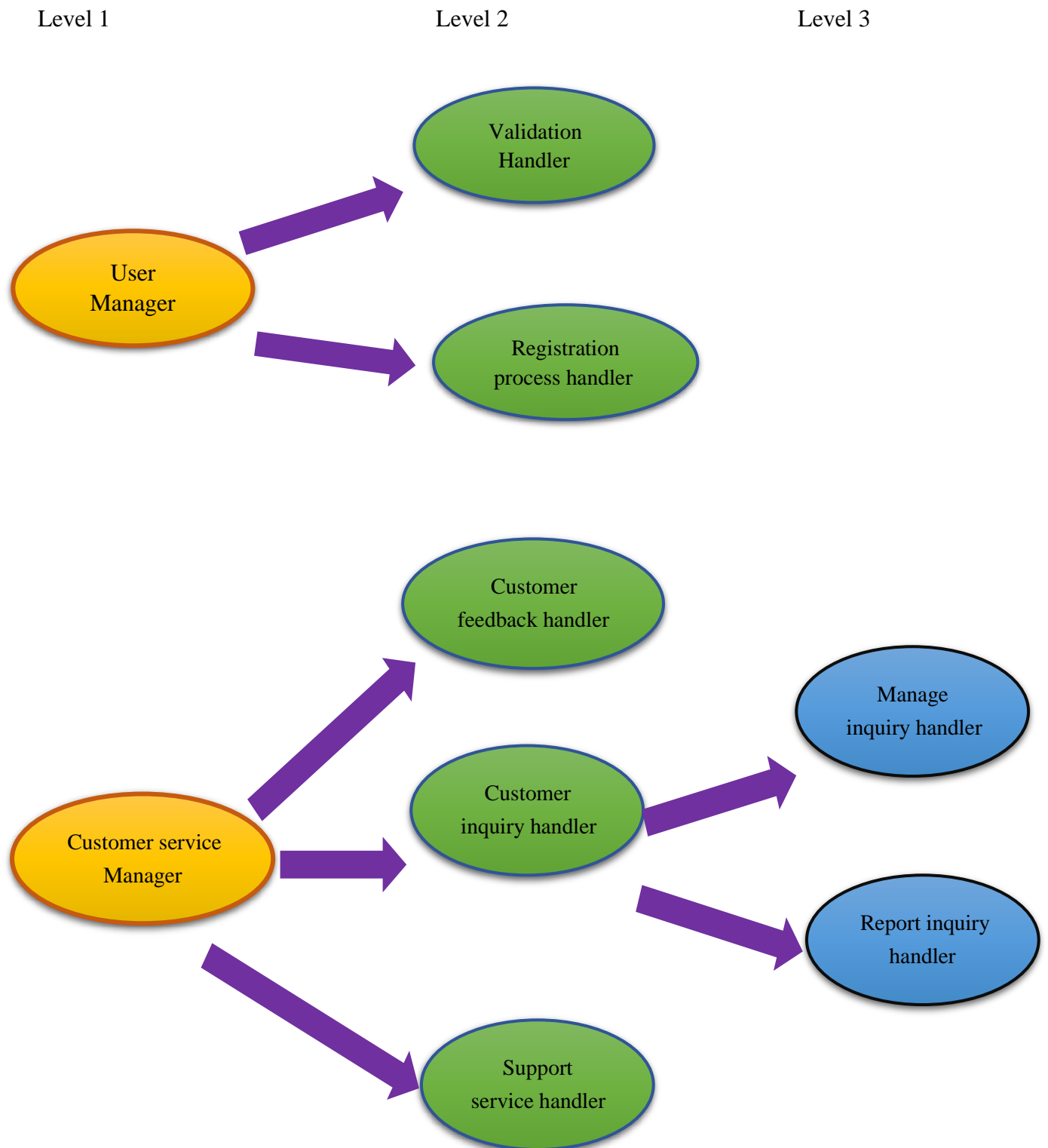


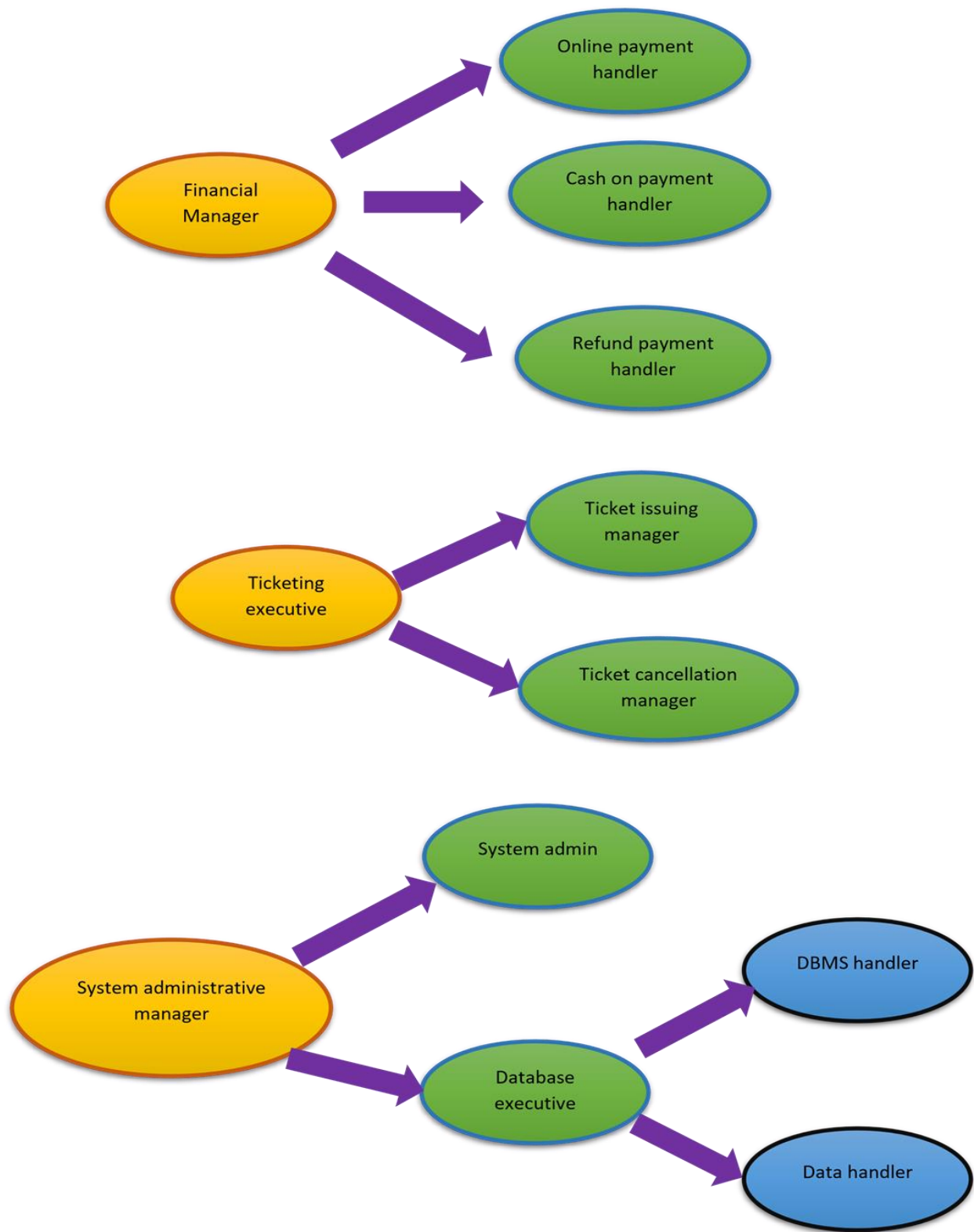




Part II

1. Sub-System of the System





User manager

Validation handler –

Check user login details are valid.

Registration process handler –

Check whether the user entering correct details when registering.

Customer service manager

Customer feedback handler –

Check customer feedback and responses.

Customer inquiry handler –

Check customer inquiries and informs to the relevant members and responses to the customer.

Support service handler –

Support the customer to get the service details.

Financial Manager

Online payment handler –

Manages all the online payments.

Cash on payment handler –

Manages all the cash on payments.

Refund payment handler –

Manages all the refunds of the bookings.

Ticket Executive

Ticket issuing manager –

Sends the ticket to passenger via email or message to mobile phone.

Ticket cancellation manager –

Sends the email to customer saying customer has successfully cancelled the ticket.

System administrative manager

System admin –

Manages and control all the system activities.

Database executive -

Maintain DBMS of booking system and secure data in a database.

2. Activity Diagram with Partitioning - Swim Lanes

