



International Islamic University Chittagong(IIUC)

Computer and Communication Engineering(CCE)

LAB REPORT -03

Draw the following UML Diagrams for Object Oriented Analysis and Design of your selected project work:

i) Use Case Diagrams

ii) Activity Diagrams

iii) Sequence Diagrams

iv) Class Diagrams

Course Code: CCE-3508

Course Title: System Analysis, Design and Development Sessional

Submitted To

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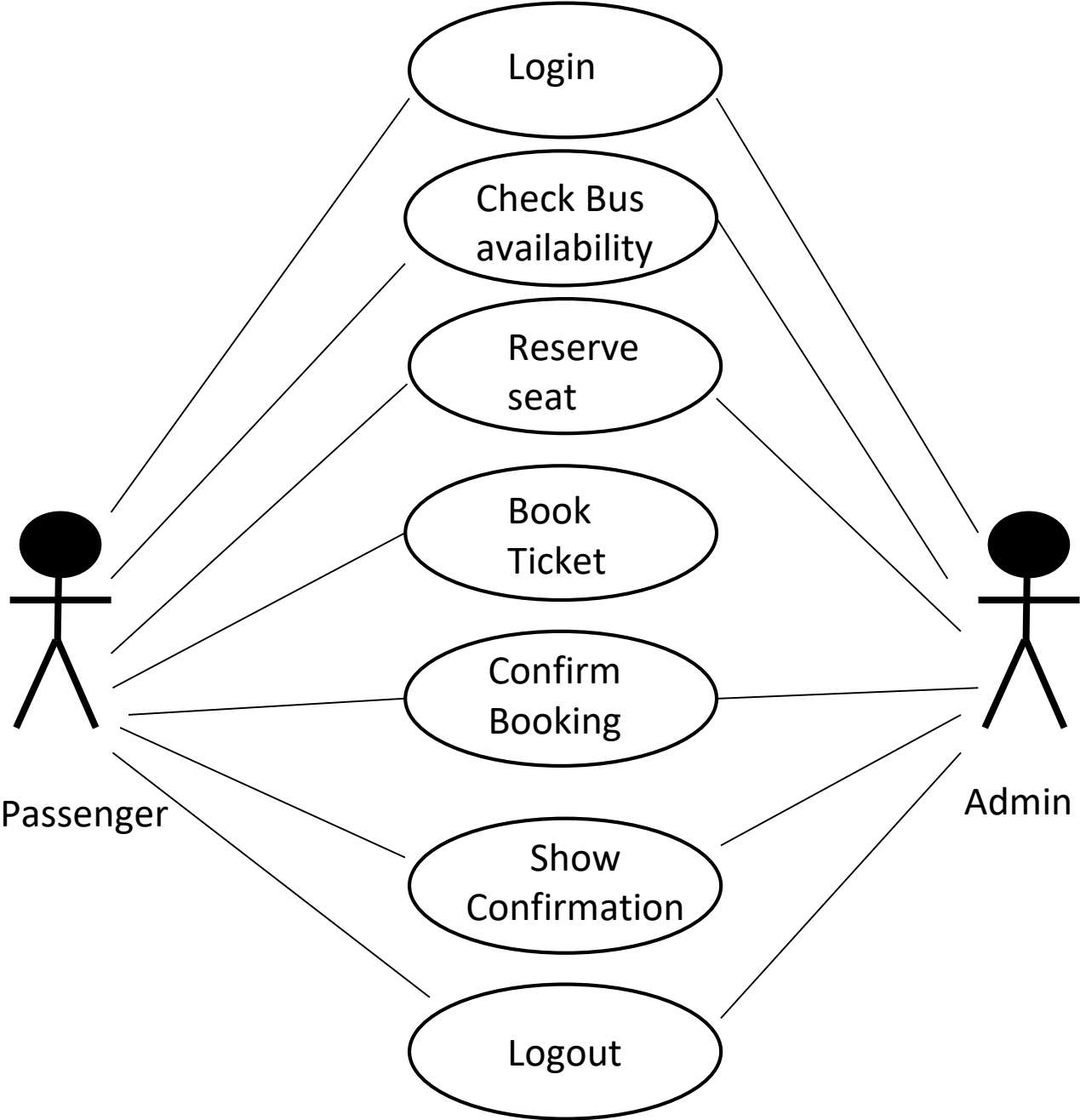
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Use case Diagram

This Use Case Diagram is a graphic depiction of the interactions among the elements of Bus transportation system. It represents the methodology used in system analysis to identify, clarify, and organize system requirements of Bus transportation System. The main actors of Bus transportation system. System in this Use Case Diagram are: Admin and Passenger, who perform the different type of use cases such as check bus availability, reserve seat, book ticket, confirm booking, show confirmation and Full Bus Ticket Booking System Operations. Major elements of the UML use case diagram of Bus transportation system. System are shown on the picture below.

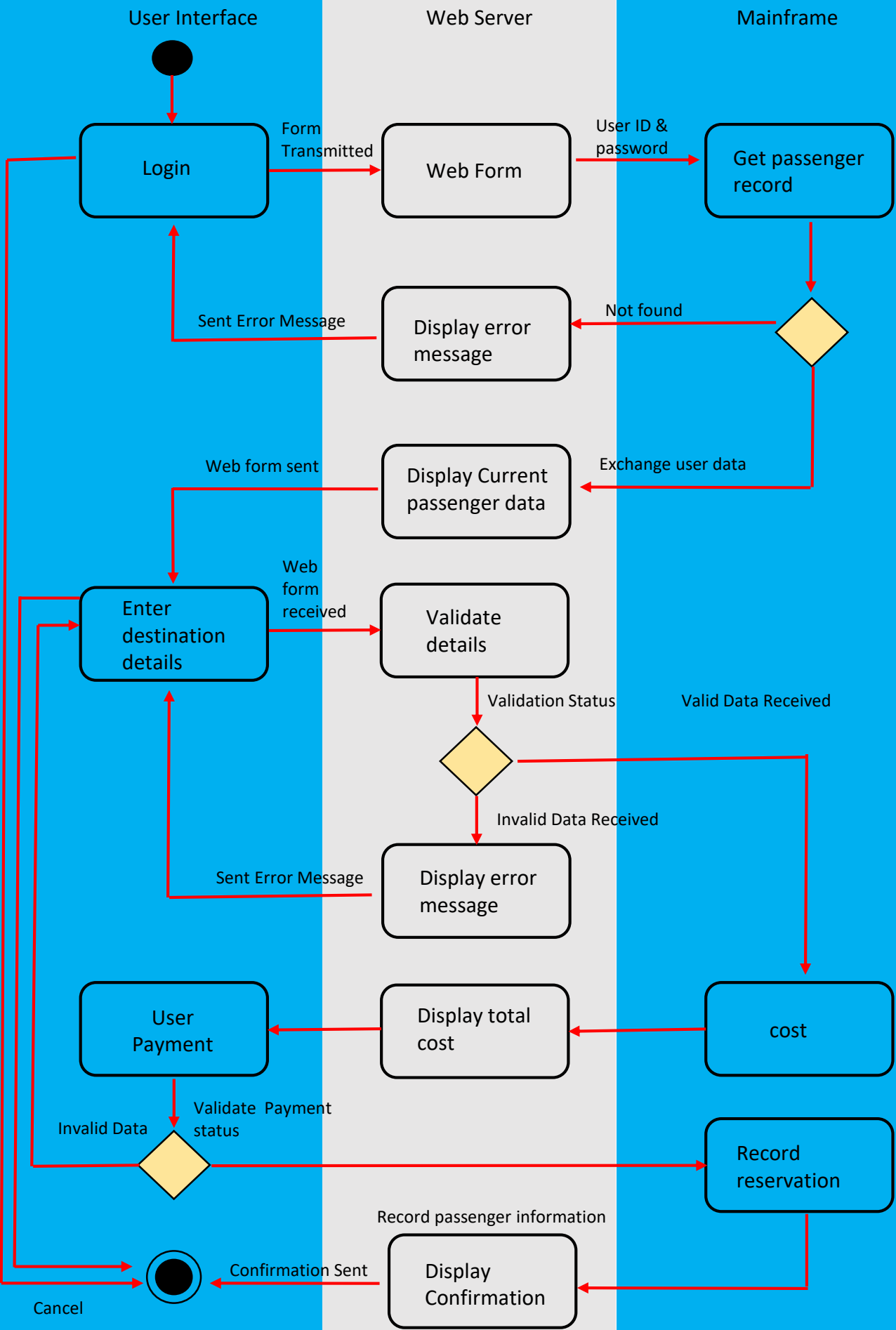
Use Case Diagram for Bus Transportation System



User activity diagram

The diagram below helps demonstrate how the activity diagram of the bus transportation system page works and the various objects in the Bus, Route, Ticket, and Booking page interact over the course of the Activity. In this Activity Diagram of Bus transportation System, which shows the flows Login Activity, destination details, user payment where the user will be able to login using their username and password. Then a user or passenger can enter their desired destination then they can pay for a ticket. Finally if the payment is confirmed then the user will receive a copy of the ticket. In case if the payment is not completed then an error message will pop up and the user will be redirected to the enter destination details page.

Activity Diagram for Bus Transportation system (User)

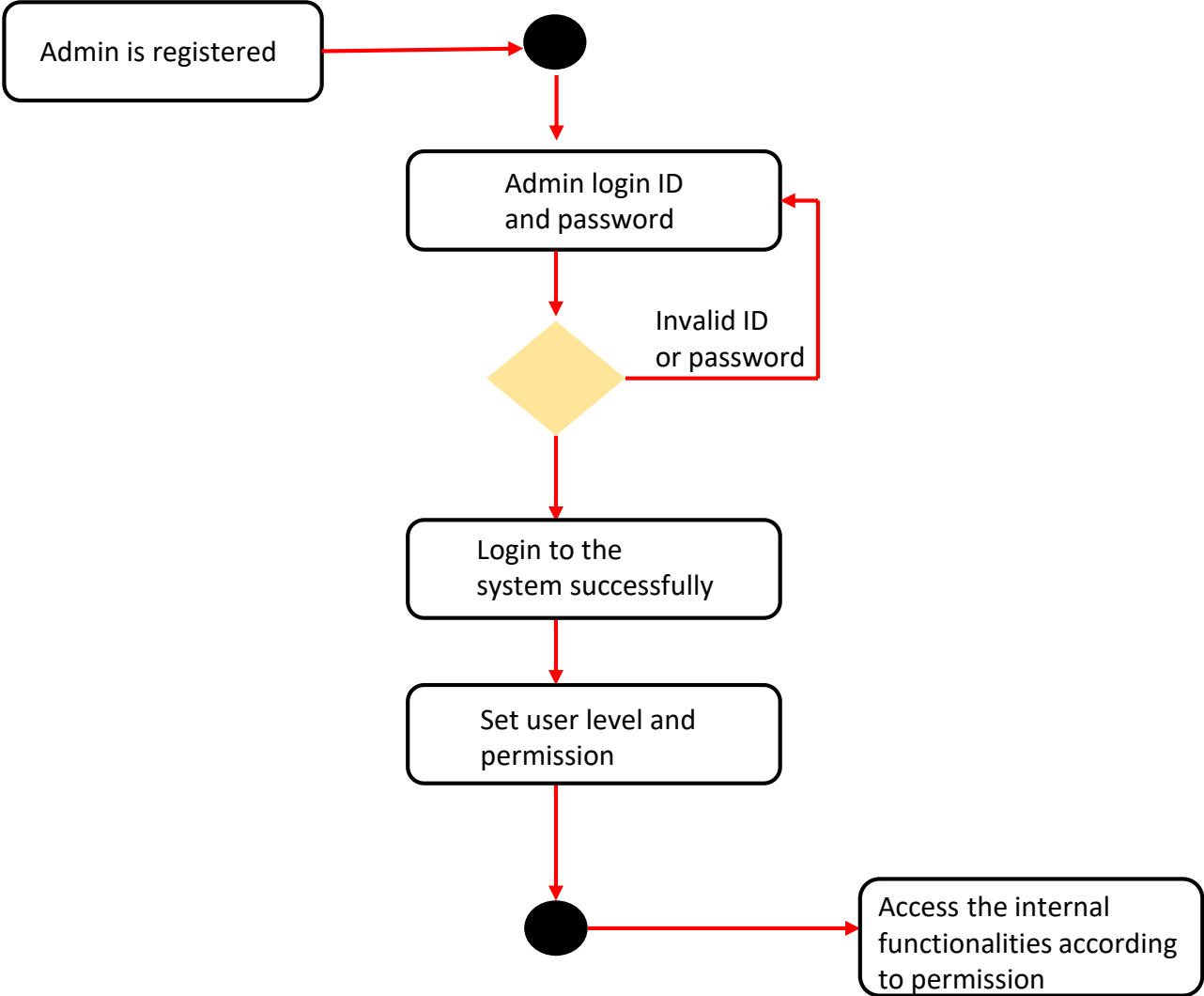


Activity Diagram(Admin)

This is the Login Activity Diagram of Bus transportation System, which shows the flows of Login Activity, where the admin will be able to login using their username and password.

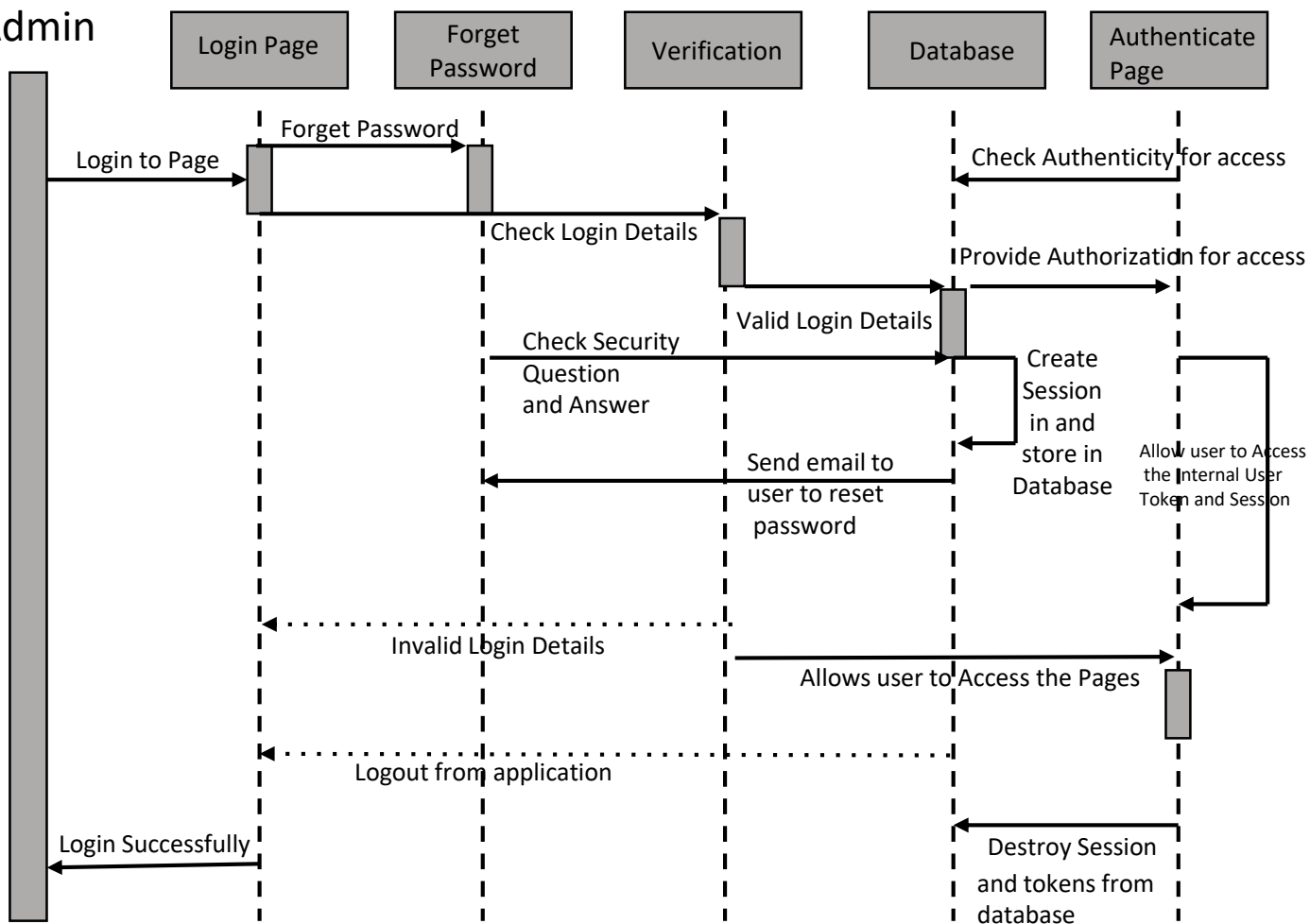
After login, Admin can manage all the operations on Route, Customer, Ticket, Bus, Booking. All the pages such as Ticket, Bus, Booking are secure and user can access these page after login. The diagram below helps demonstrate how the login page works in a Bus Booking System. The various objects in the Bus, Route, Customer, Ticket, and Booking page interact over the course of the Activity.

Activity Diagram for Bus Transportation system (Admin)

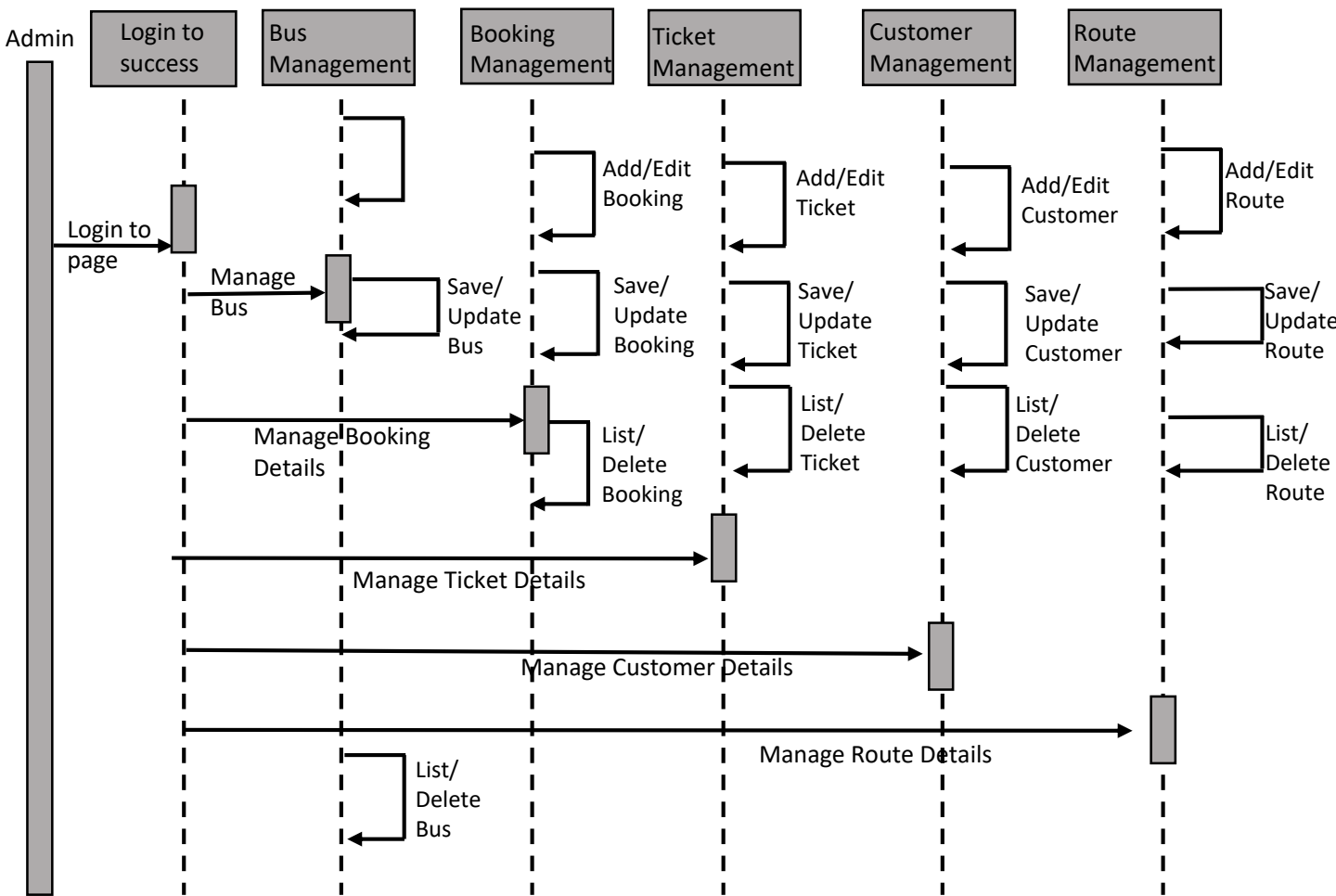


Login Sequence Diagram

Admin



UML sequence diagram



Class Diagram

Payment
+Amount

Ticket
+TicketNo +Starting Location +Destination Location +Passenger No
+PaymentAmount() +CancelTicket()

Passenger
+Name +Age +Address
+SearchBus +ViewSchedule() +ReserveSeat() +PurchaseTicket() +CancelTicket() +MarkedPayment()

Ticket
+Name +Location
+Reserve Seat() +Reserve Ticket() +Cancel Ticket() +Receive Payment()

Bus
+Model +BusId

Bus Transportation Database
+Id
+Response