National University
of computer and emerging sciences

DAEWOO
MANAGEMENT SYSTEM

GROUP MEMBERS :

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REPORT

PROJECT:

MANAGEMENT SYSTEM FOR DAEWOO EXPRESS BUS SERVICE

GROUP MEMBERS:

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GROUP DESCRIPTION:

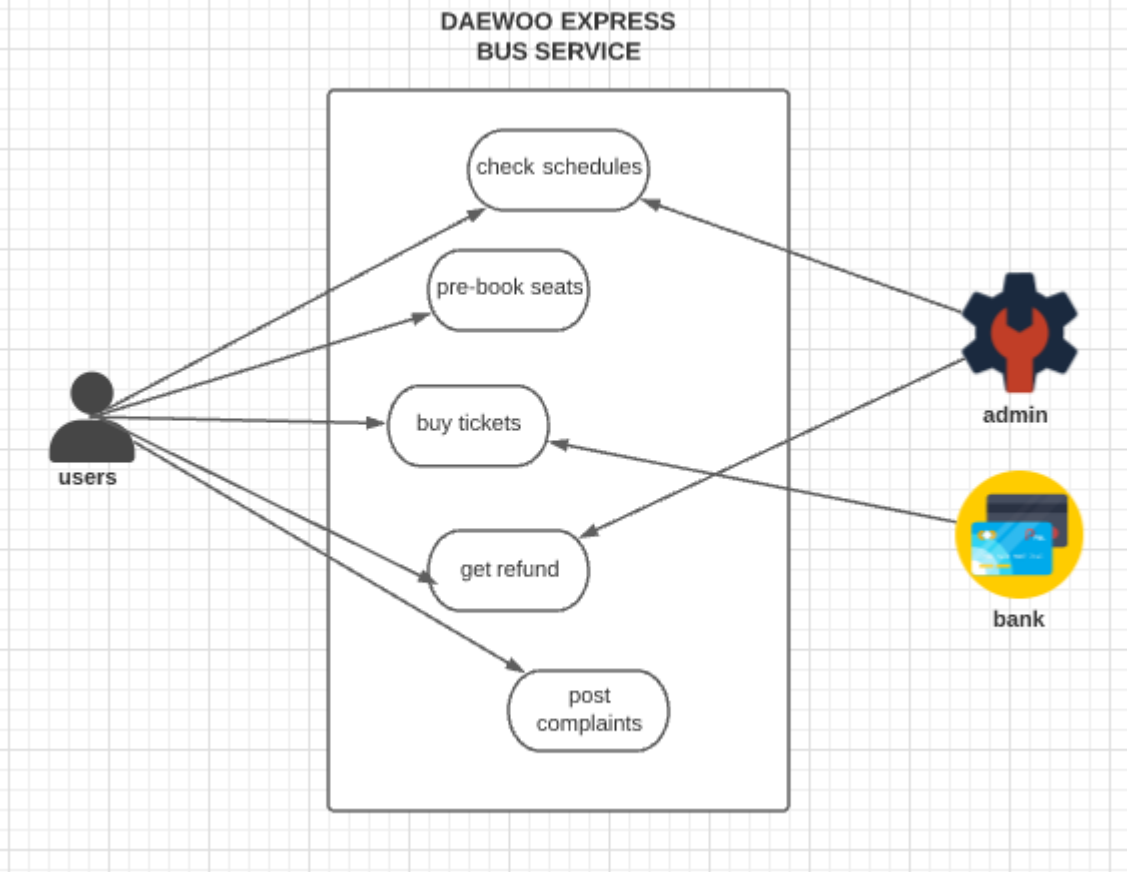
This project is a customized management system for the Daewoo express bus service. This is a desktop application. This MIS comprises of 3 different tiers i-e

1. the user interface is designed in JavaFX (to be handled conveniently by user)
2. the functionality part/backend is completely implemented using Java (which has all the code for operational functions)
3. the storage part/database is handled by the MySQL. (where all the data of the system is recorded in database in a systemized manner)

This application will be used by the users in different cities for booking seats (also seat number), checking schedules, making payments (through third party), deleting seat, checking for promotions, redeeming points and much more. The application may have more than one interfaces. This application provides each user with an account and requires a login from each user.

The application is totally designed and implemented by keeping in mind all the scenarios of Daewoo express bus service. The application is desktop based and any tier can be easily modified/upgraded without touching any other tier.

USE CASE DIAGRAM



HIGH-LEVEL DESCRIPTION

Below is the high-level description of all the use-cases mentioned in the use case diagram.

1. **schedule checks:**
   the customers can check for different schedules of buses and can also check for any ongoing promotions by using the schedule check process.
   Steps:
   - select departure and arrival terminals
   - select the most suitable time frame
   - select from economy and business
   - view the buses scheduled in that time frame

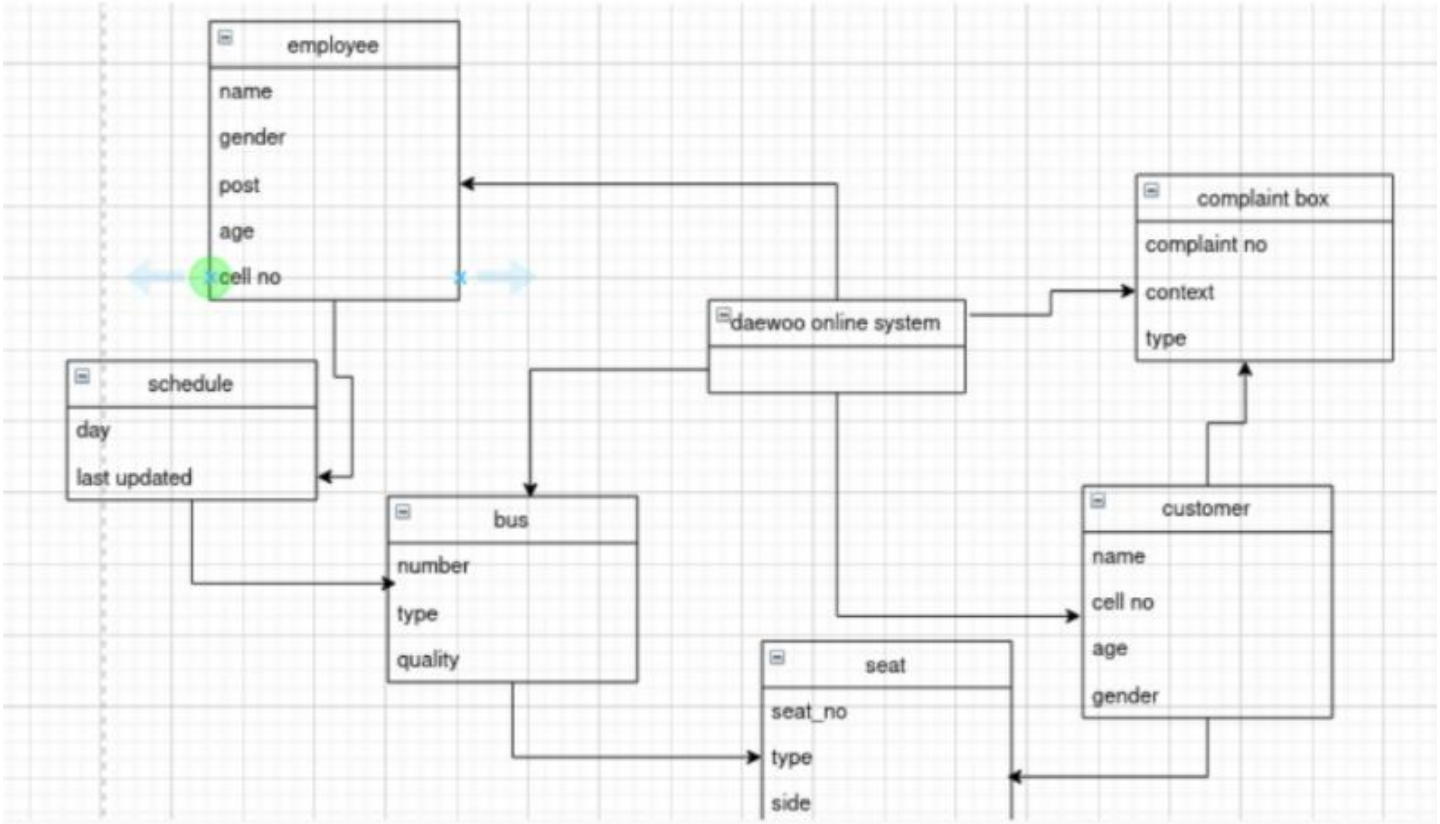
2. **pre-book seats:**
   customer select a seat of his choice from available ones and reserve it for himself for a particular period of time, if he pays for the seat in that given time the seat will be his but if he fails to buy the ticket, the process will be reversed and some other passenger able to book that seat.
   login account.
   Steps:
   - select a specific bus from the check schedules
   - select the specific seat
   - click confirm to reserve it

3. **buy-tickets:**
   passenger can himself buy the ticket online for his reserved seat or he can also visit the office physically and give payment in cash at the counter.
   Steps:
   - reserve the seat from pre-book seats
   - proceed for payment via any payment method
   - get the online ticket and print it.

4. **refund:**
   The passenger can also revert the bought ticket payment and get his money back into his wallet by using the refund process. he can then transfer this money from the wallet back to his bank account.
   Steps:
   - select a ticket which he owned
   - enter his account number and click refund
   - the amount will be transferred into his bank account

5. **complaint**
   the customers can write their reviews and complaints about the services by using the complaint use case.
   Steps:
   - click on 'write a complaint'
   - write complaint in the form of paragraph
   - click submit to post the complaint

DOMAIN MODEL DIAGRAM:



EXPANDED USE CASES with SYSTEM SEQUENCE DIAGRAM:

Use Case: Pre-book seats

Actors: Customer

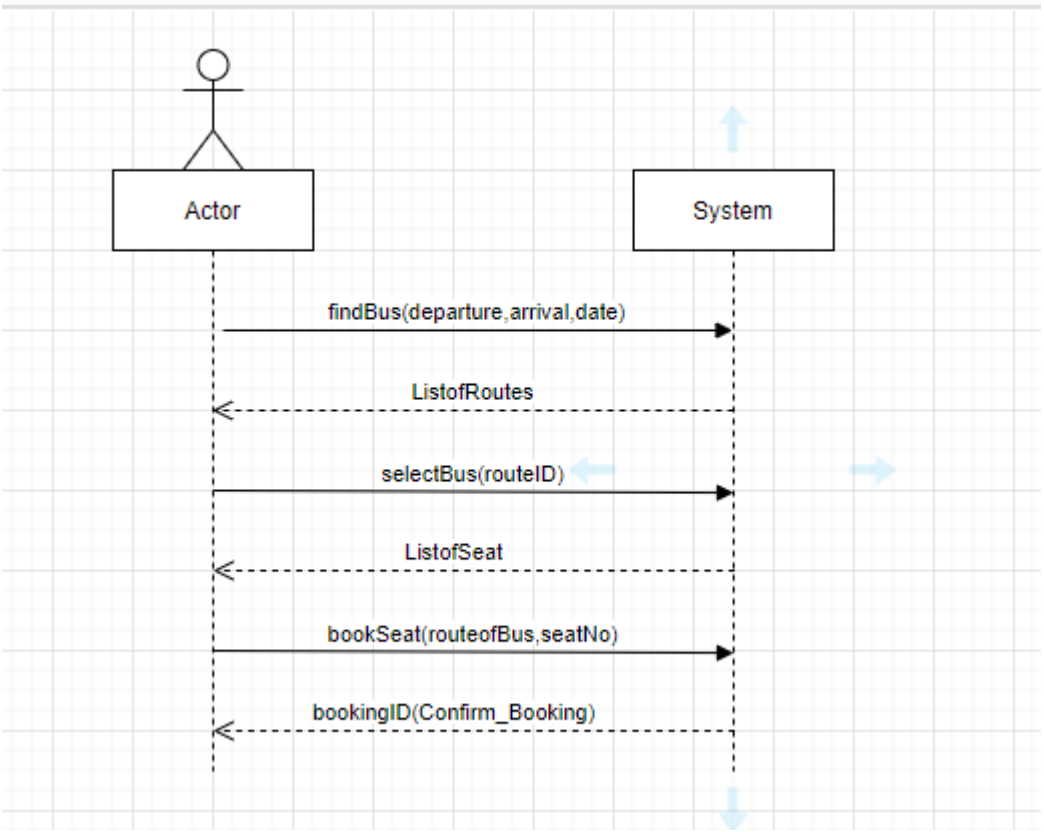
Overview: Book number of seats for future travelling

Events:

Actor Action	System Response
1. Begins when customer wants to pre-book a seat.	2. System will show necessary details for booking the seat.
3. Customer will fill necessary details and confirm him booking	4. System will show the available schedules for the customer.
5. Customer will select the desired bus route for himself.	6. System will show Booked and available seats for the customer
7. Customer select his desired seat.	8. System will ask for the confirmation of the seat.
9. Customer confirms his seat	10. System will book the seat and records in the customer account along with the booking number.

Alternatives

5. If there are no seats available for the customer, system will indicate that the bus is full, choose some other ride.


Actor
System
findBus(departure,arrival,date)
ListofRoutes
selectBus(routeID)
ListofSeat
bookSeat(routeofBus,seatNo)
bookingID(Confirm_Booking)

Use Case: Buy Tickets

Actors: Customer

Overview: Customer buys reserved tickets or instant ticket

Events:

Actor Action	System Response
1. Begins when customer wants to buy an instant ticket or pre-book seat.	
3. Customer selects either of the option A. If customer wants to buy pre-book seat ticket.	
	2. System will ask for necessary details for buying the ticket
b. Customer will enter booking number of the ride	
	a. System will ask to enter booking number of the reversed seat.
d. Customer selects the desired payment method	
	c. It will check and show the trip details and ask for the payment method
f. Customer will enter the necessary details for the payment and confirms it	
	e. It will show the necessary details to be filled for the payment
	g. It will first confirm the payment and records in the customer account
B. If customer wants to reserve and buy the ticket instantly a. Initiate Use Case Pre-book Seats	
	b. System will ask for necessary details for buying the ticket
c. Customer will enter booking number of the ride	
	d. It will check and show the trip details and ask for the payment method.
e. Customer selects the desired payment method	
	f. It will show the necessary details to be filled for the payment
g. Customer will enter the necessary details for the payment and confirms it	
	h. It will first confirm the payment and records in the customer account

Alternatives:

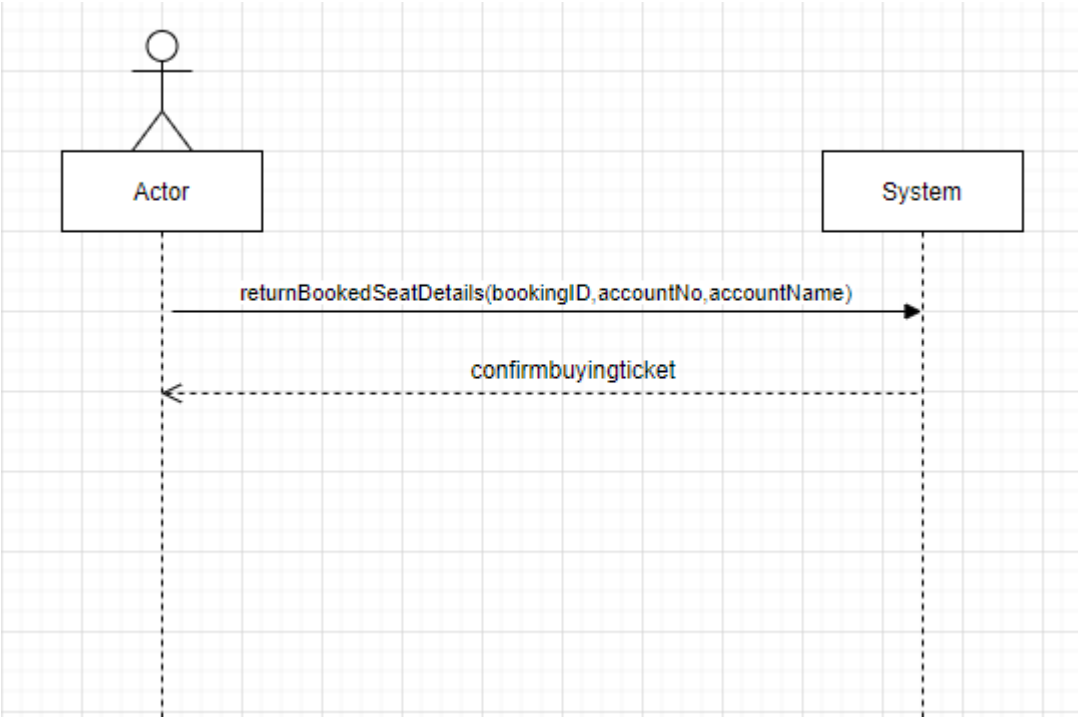
A) c. If the booking number couldn't find then the system will indicate error.

A) g. If the payment details didn't meet the requirements or failed to transfer the money, then the system will indicate error

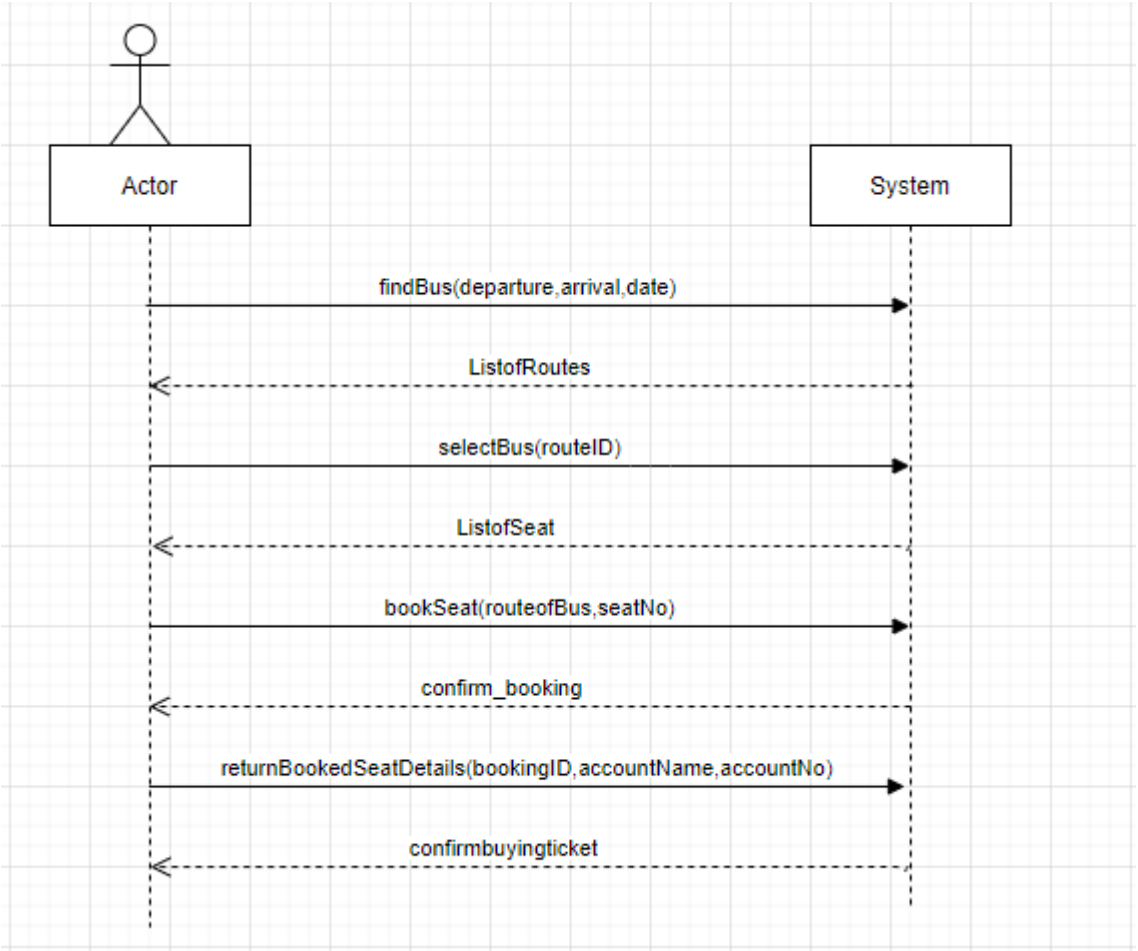
B) d. If the booking number couldn't find then the system will indicate error.

B) h. If the payment details didn't meet the requirements or failed to transfer the money, then the system will indicate error

(a) If customer wants to buy pre book seat



(b) If customer wants to buy instant ticket



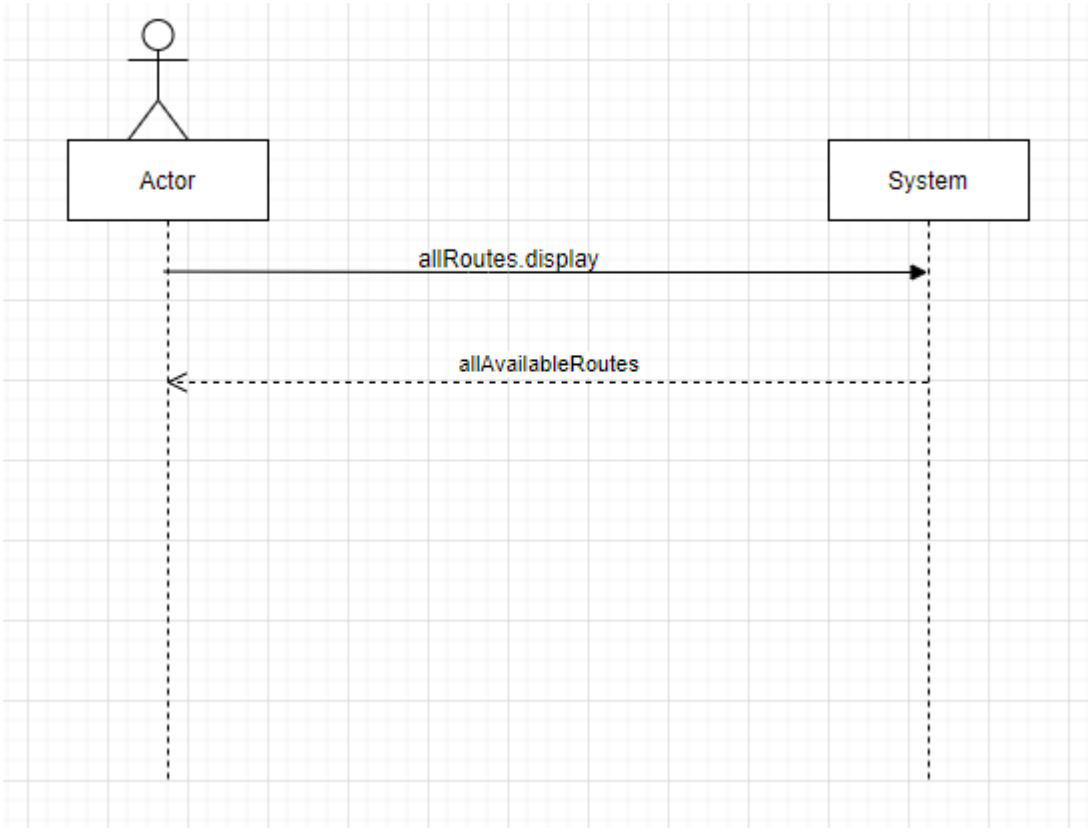
Use Case: Show schedules

Actors: Customer

Overview: Customer can see the schedules of the rides and the routes

Events:

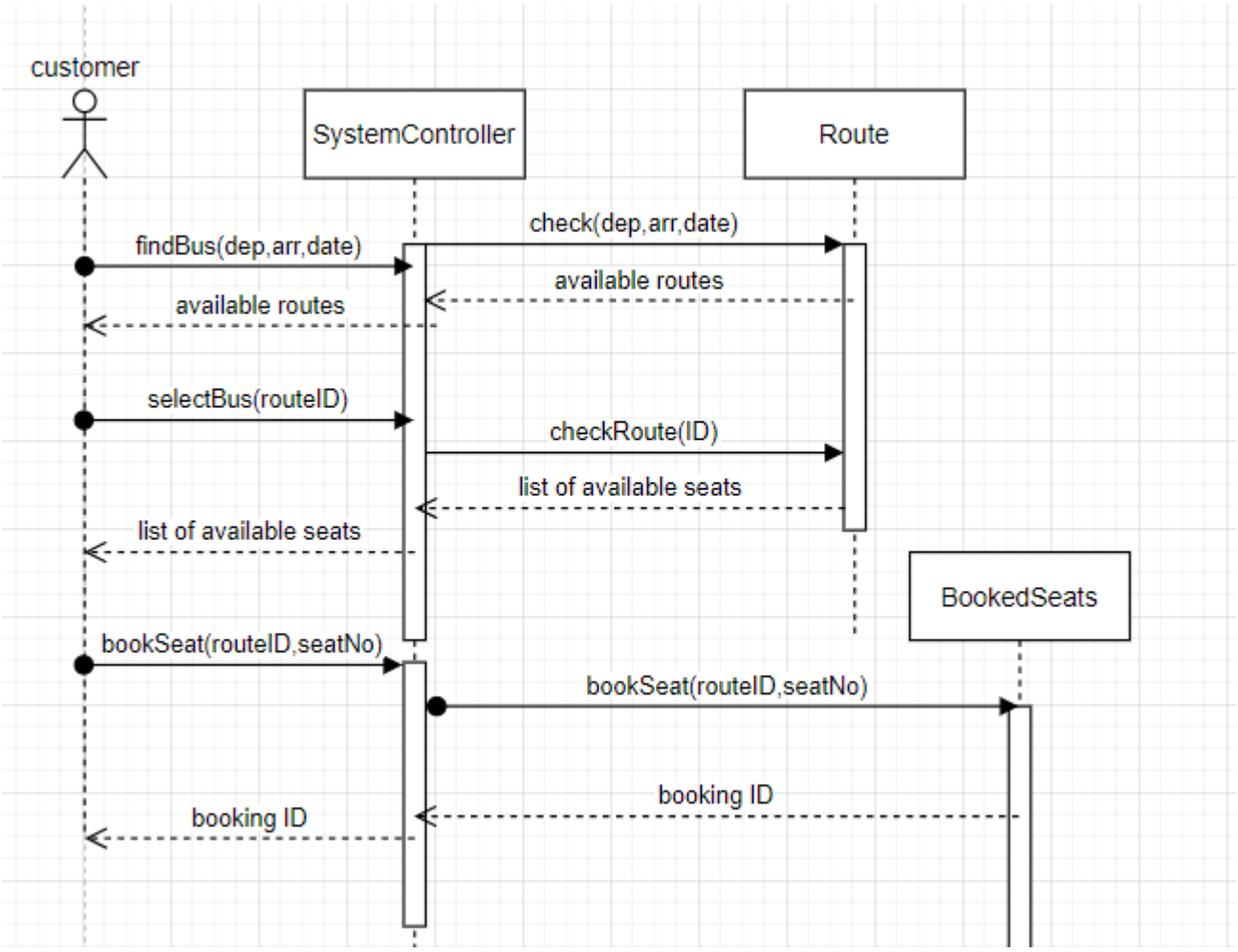
Actor Action	System Response
1. Begins when the customer wants to see the schedules of the buses and their routes	2. System will show the schedules of the buses, their routes and timings



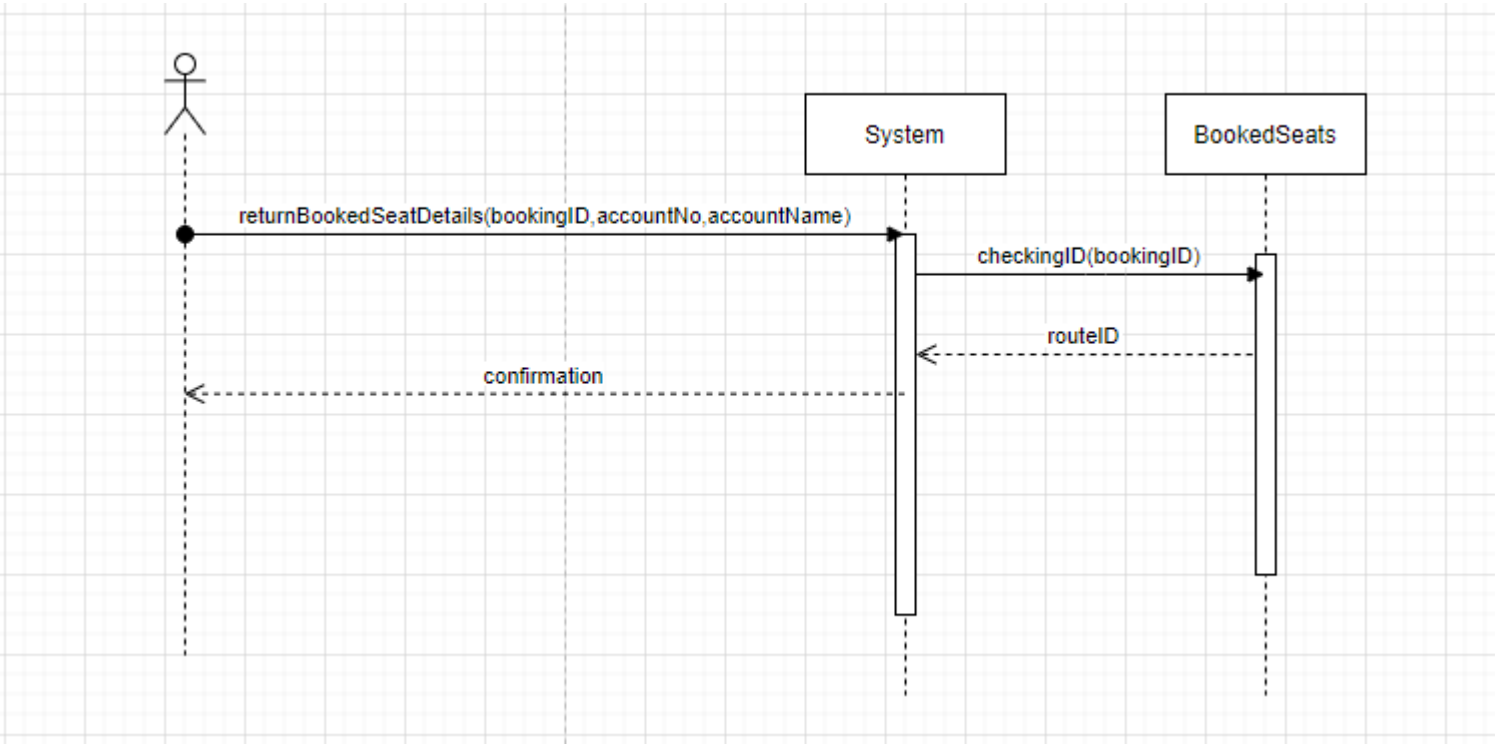
SEQUENCE DIAGRAM:

The sequence diagrams of all the use cases implemented in the application are as follows.

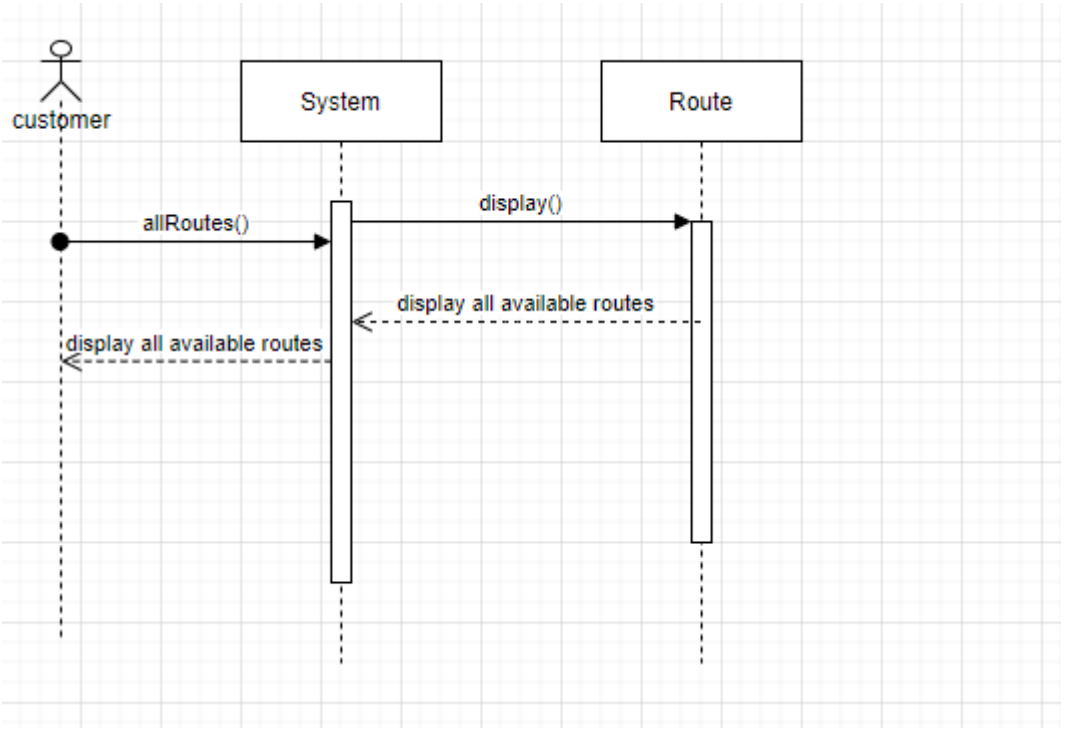
Pre-book seats:



Buy-ticket:

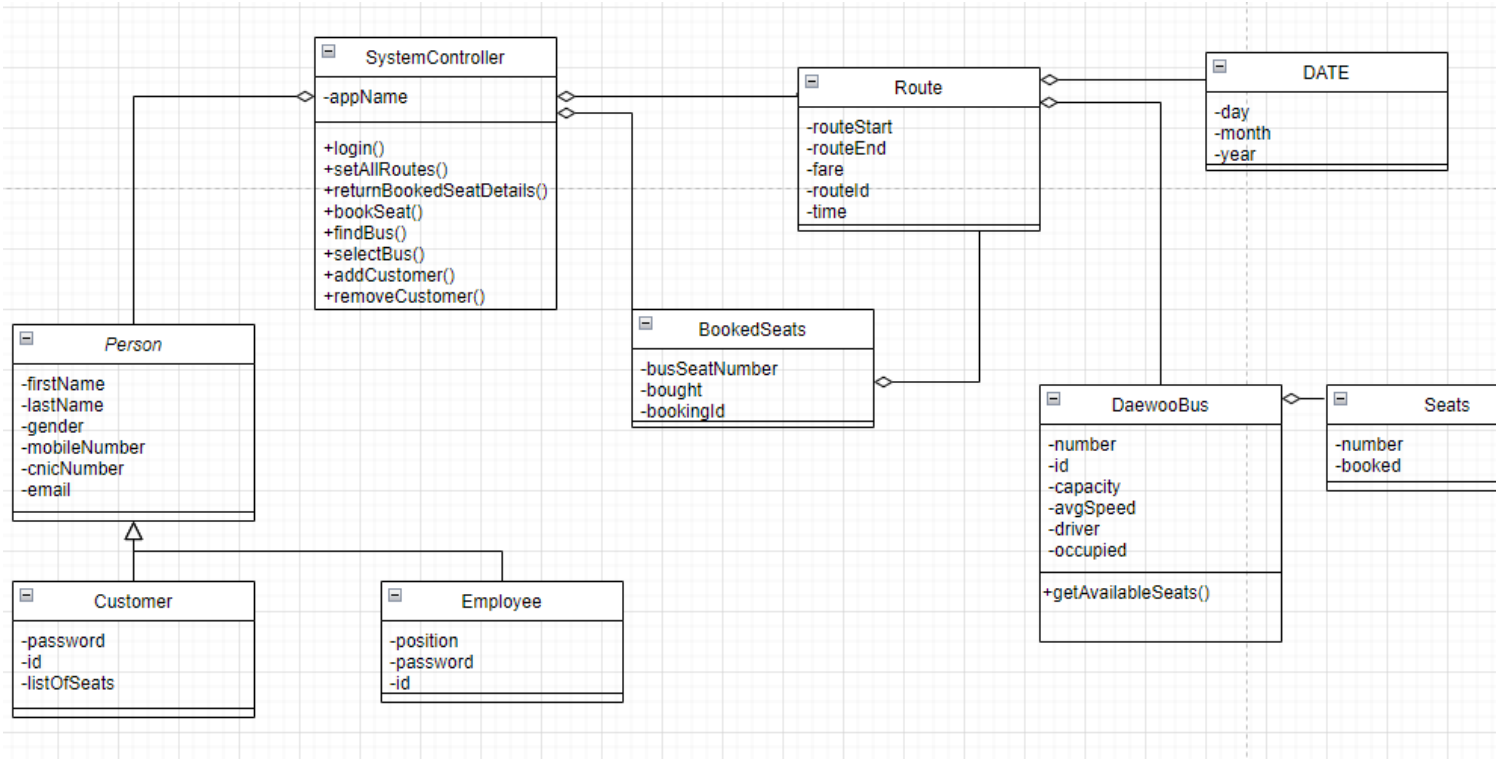


Check schedule:



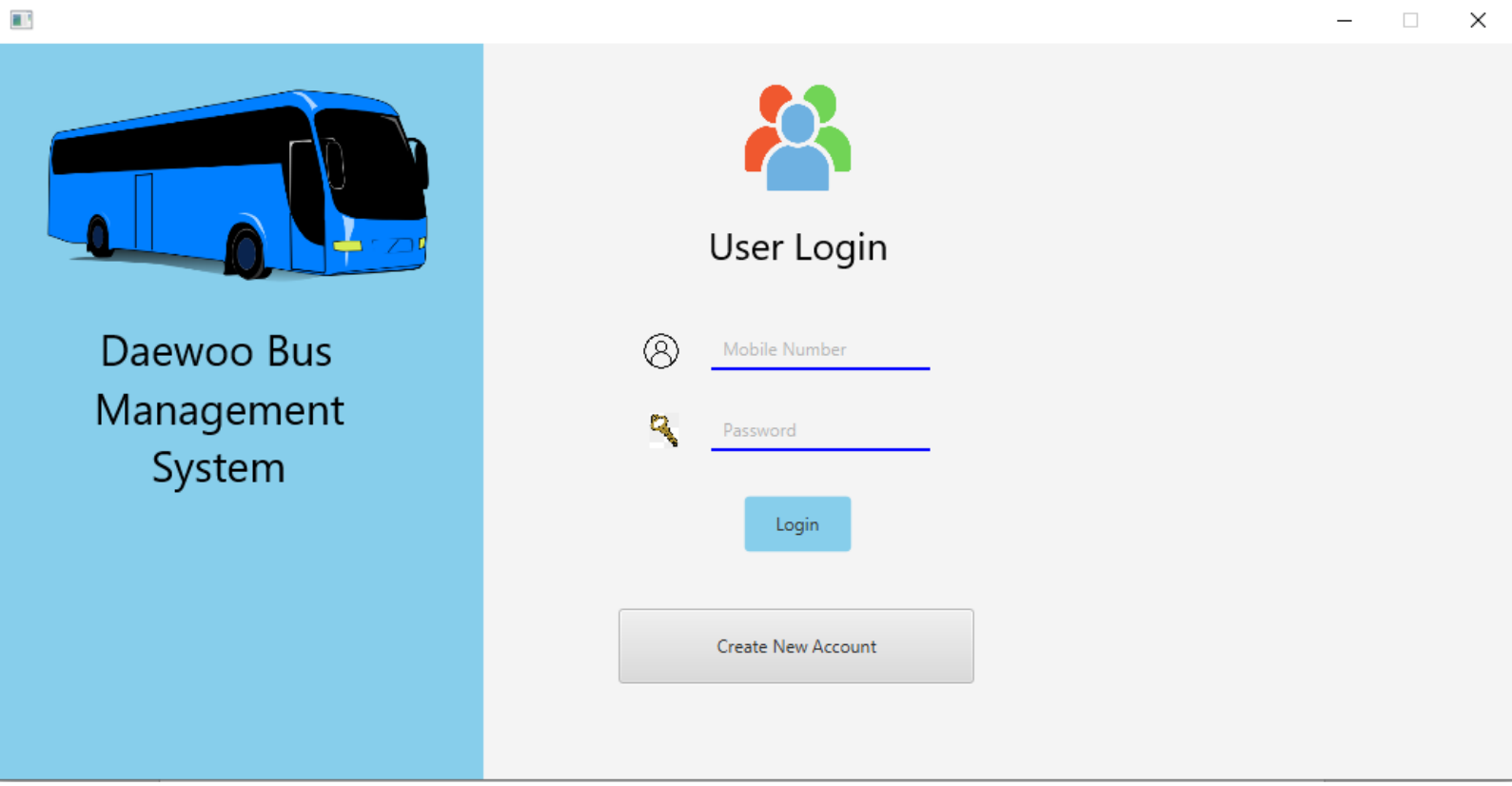
CLASS DIAGRAM:

Below is the class diagram of the Daewoo MIS. It gives a brief summary of all the classes used and a healthy relationship that these classes possess, in order to build up the whole project.



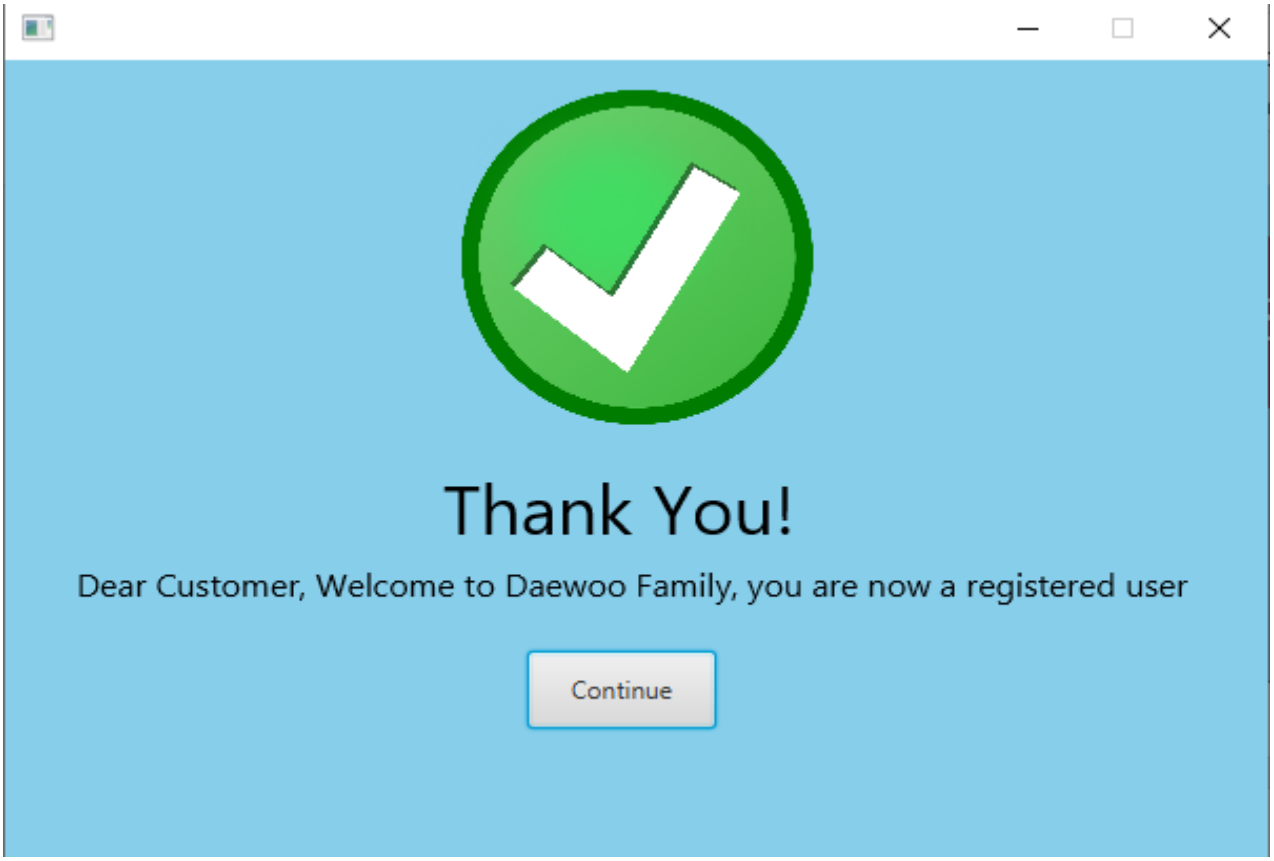
GRAPHICAL USER INTERFACE:

The first page will be login. You can either login or create account.

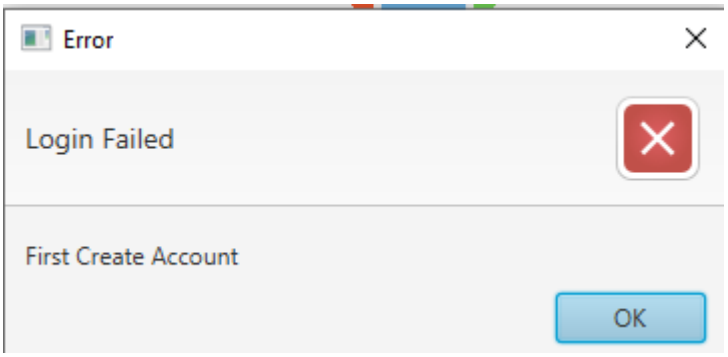


If you do not have an account then you will first have to register yourself. After clicking on create new account. The window given below will appear.

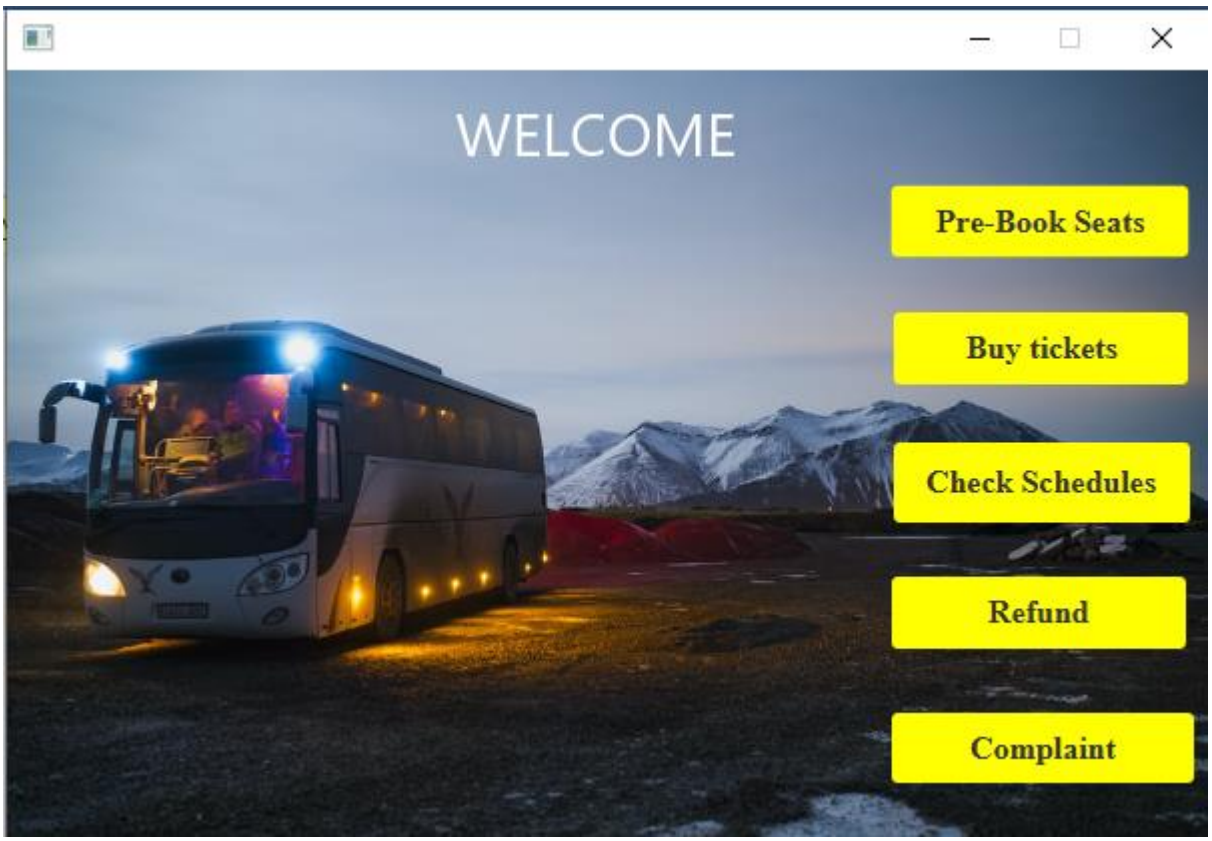
In order to create an account, you just need to enter the information and click on register. After clicking on register you will get a confirmation message that your account has been created successfully.



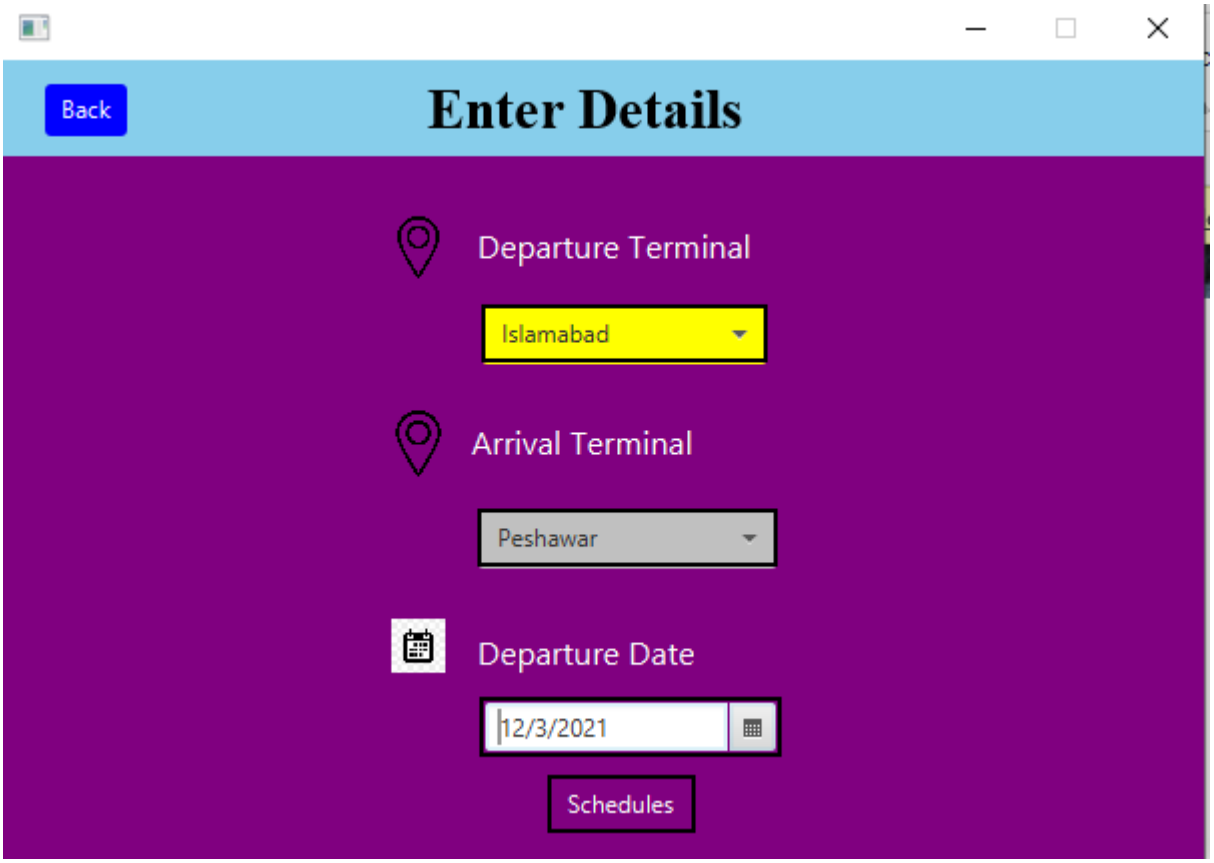
After clicking on continue you will again be redirected to the login page. This time you can just enter mobile number and password and click login. If you have entered wrong mobile number or password an error will be displayed on your screen as follows:



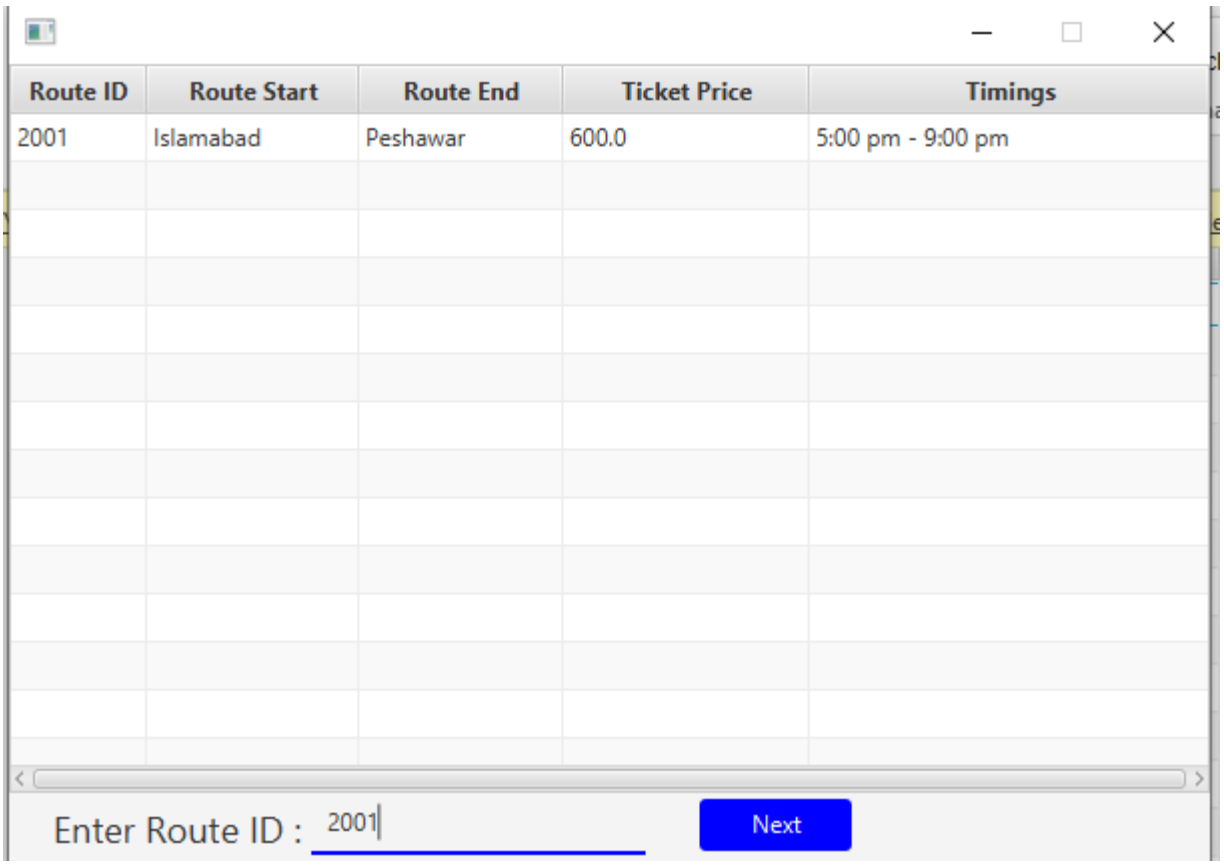
If you have entered correct information, you will be directed to the main page where you choose the task that you need to perform.



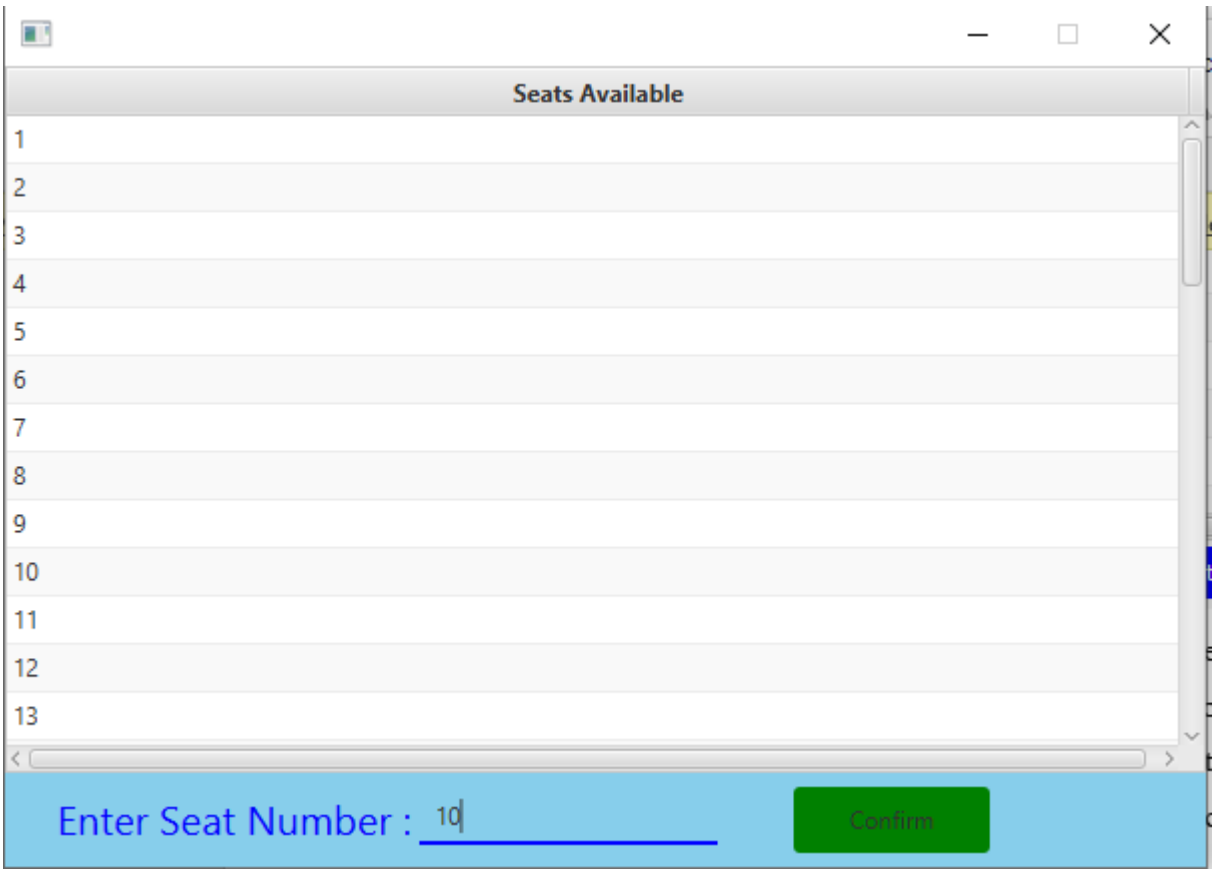
After clicking on prebook seats:



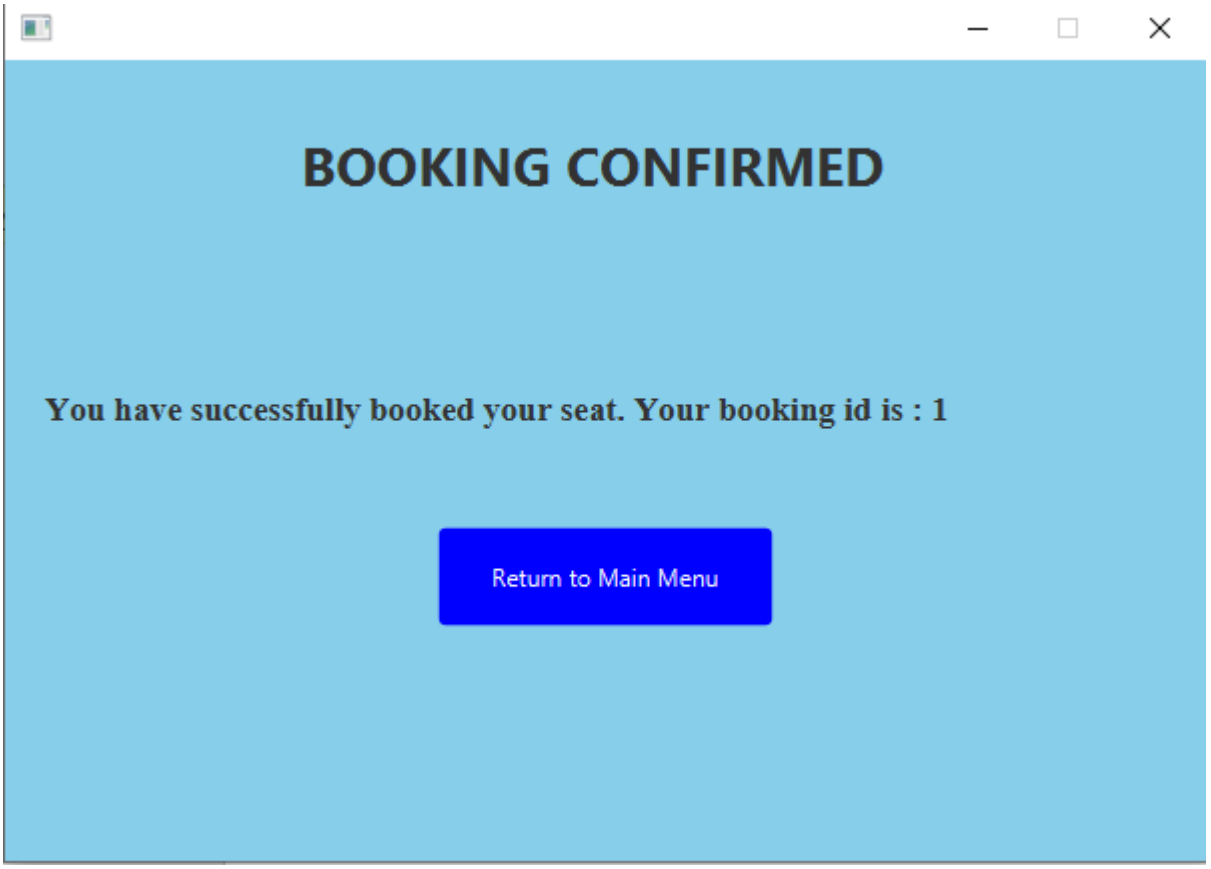
After entering the departure terminal, arrival terminal and date of departure you need to click on schedules. You will get the information of the buses according to the information that you have entered.



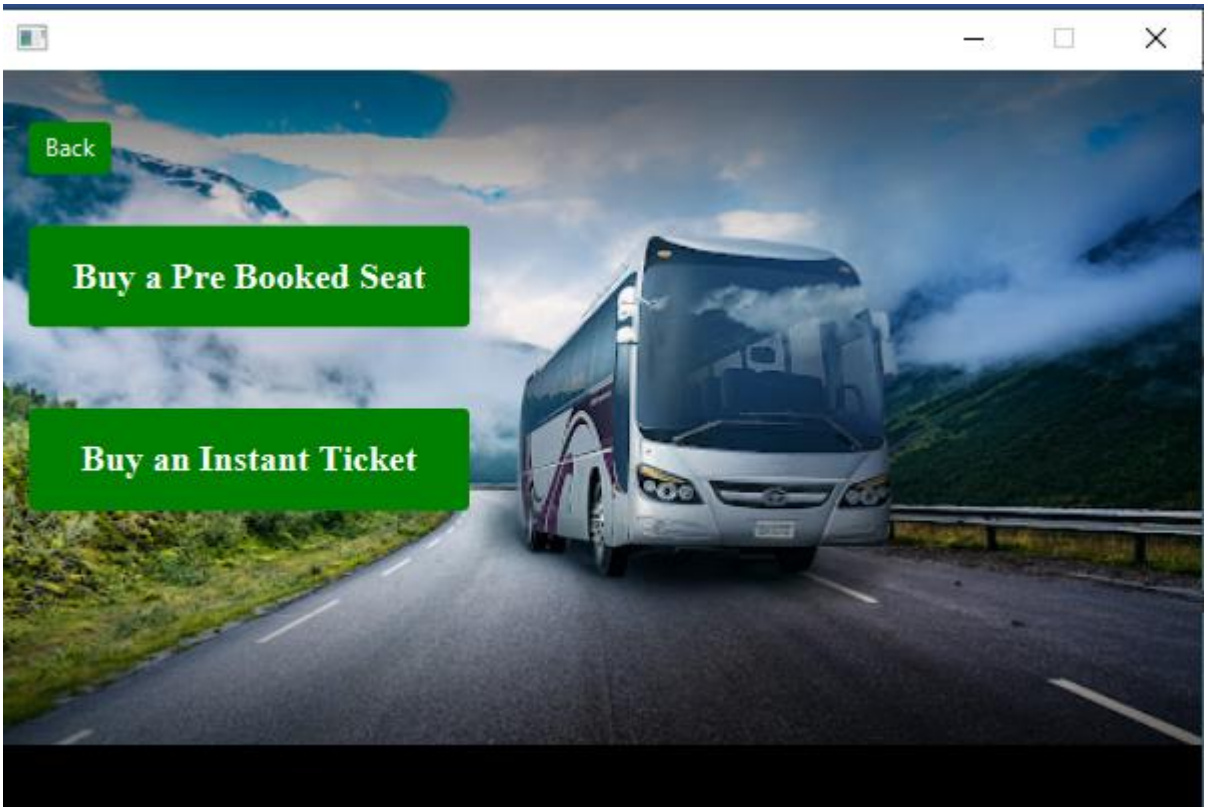
Then you will enter the route ID and click on next. In this case there is only one bus from Islamabad to Peshawar on 3rd December 2021. But there can be more than one buses from one station to another on a particular day. So, by looking at the price and timings you just need to select the bus and enter its route ID. By doing this you will get the seats that are available at the moment.



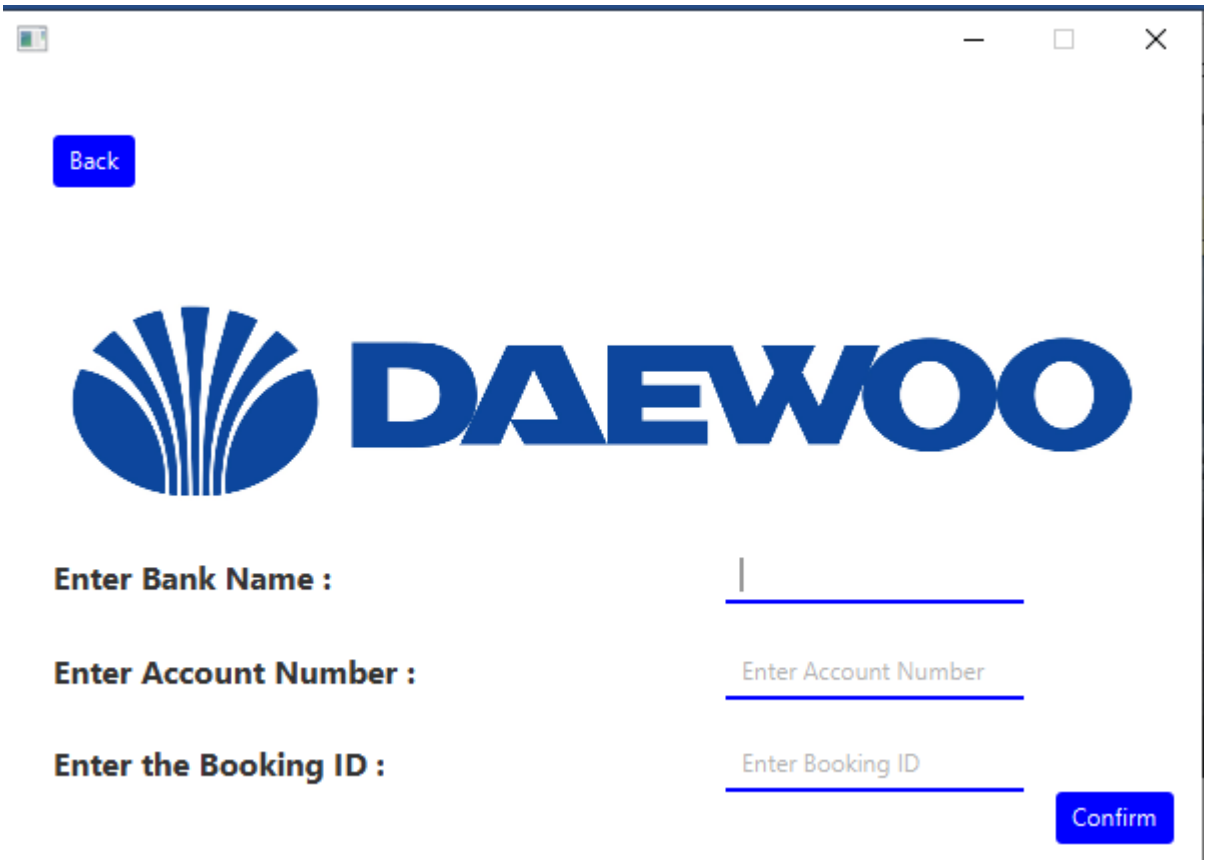
You can select the seat number that you want and click on confirm. This will lead you to a confirmation message and allot you with a booking ID.



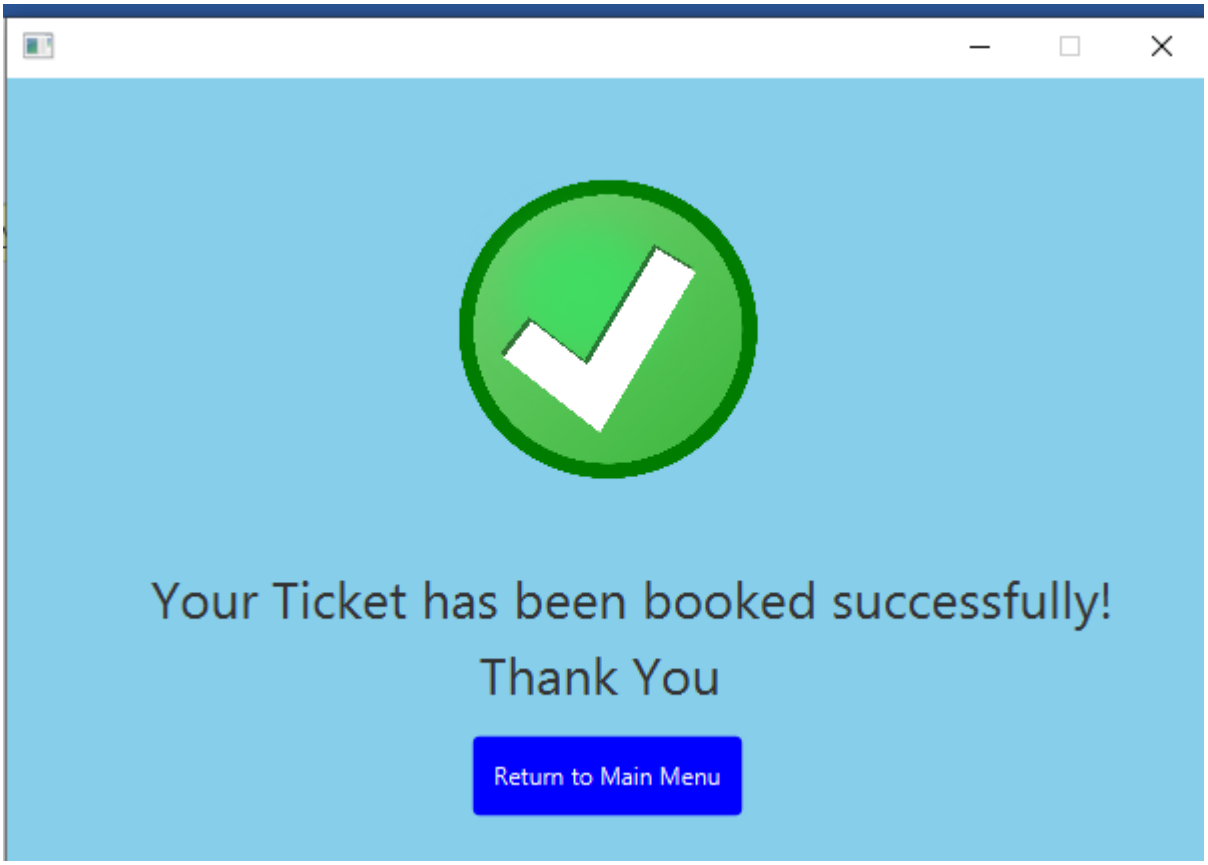
By clicking “return to main menu” you will be directed to the main page where you will have the options pre-booking seats, buying tickets, checking schedules. In order to buy tickets, you need to click on buying tickets. By doing this you will have two options:



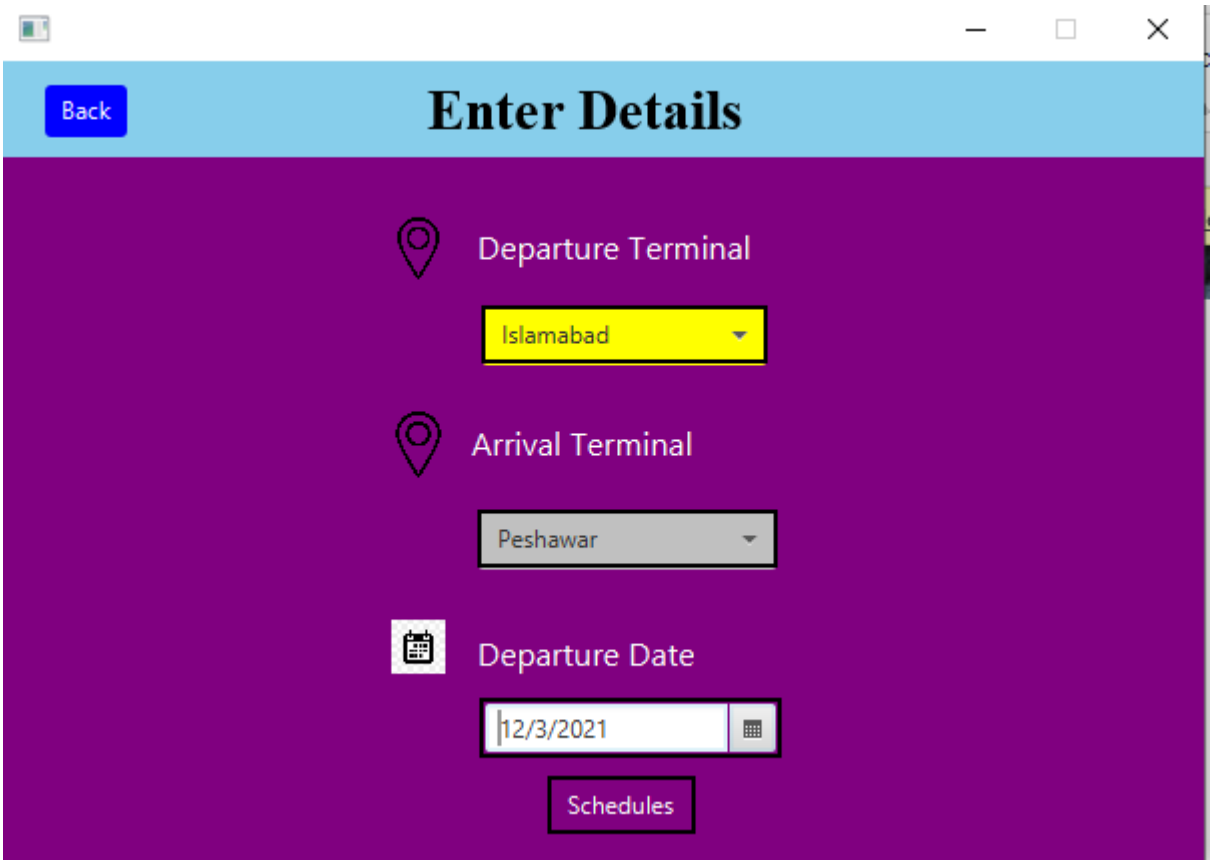
You can either buy a pre booked seat or buy an instant ticket. In order to buy a prebooked seat you need to enter the booking Id that you have generated from pre booking seats. You also need to enter the bank name and your account number.

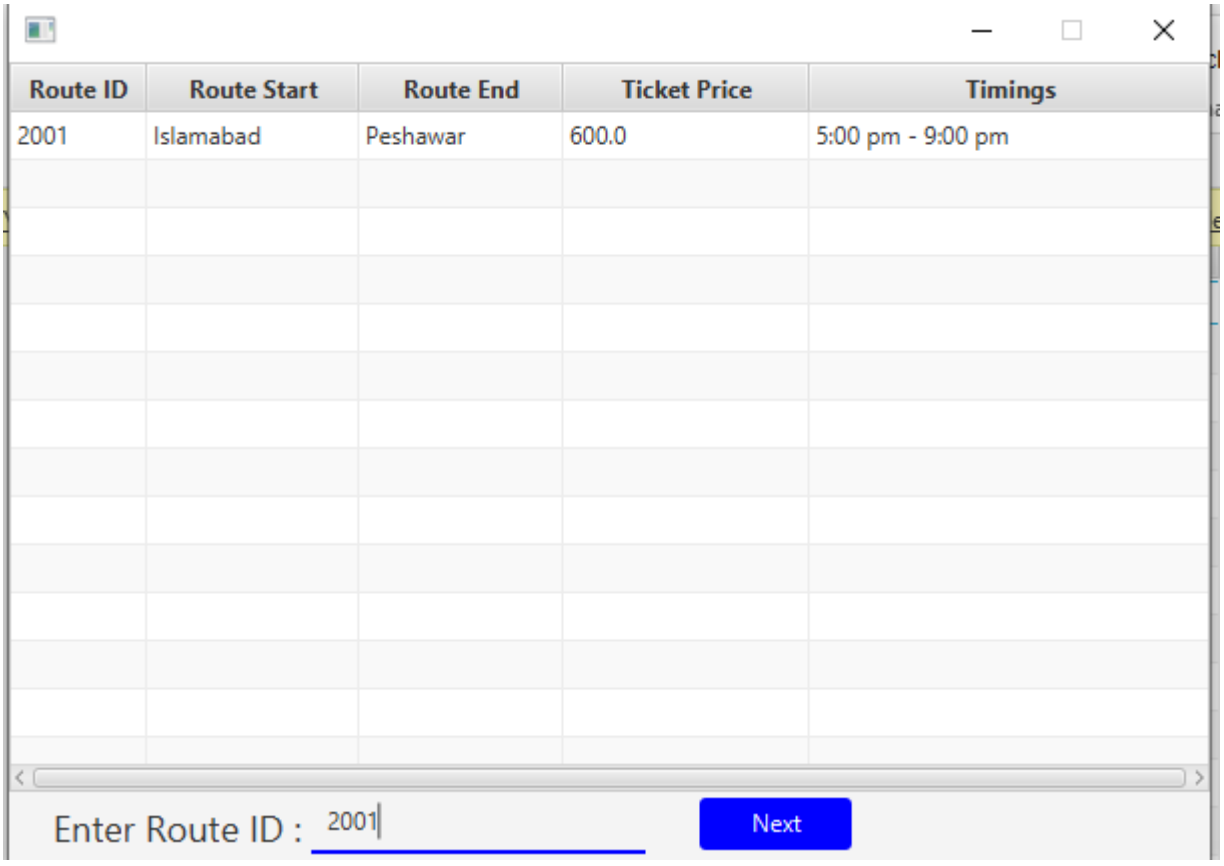


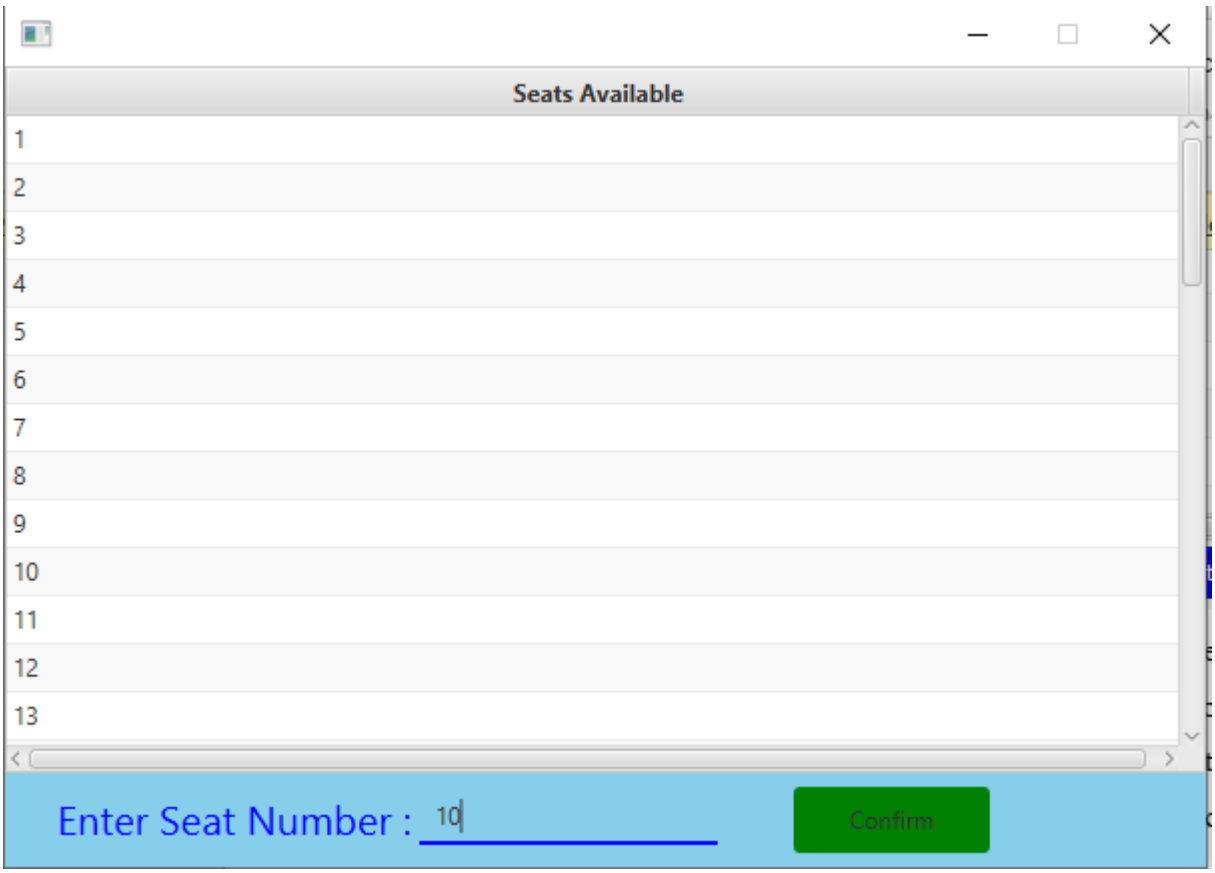
If you have entered incorrect booking id, an error will appear on the screen. If not then you will receive a confirmation message that you have successfully bought the ticket.



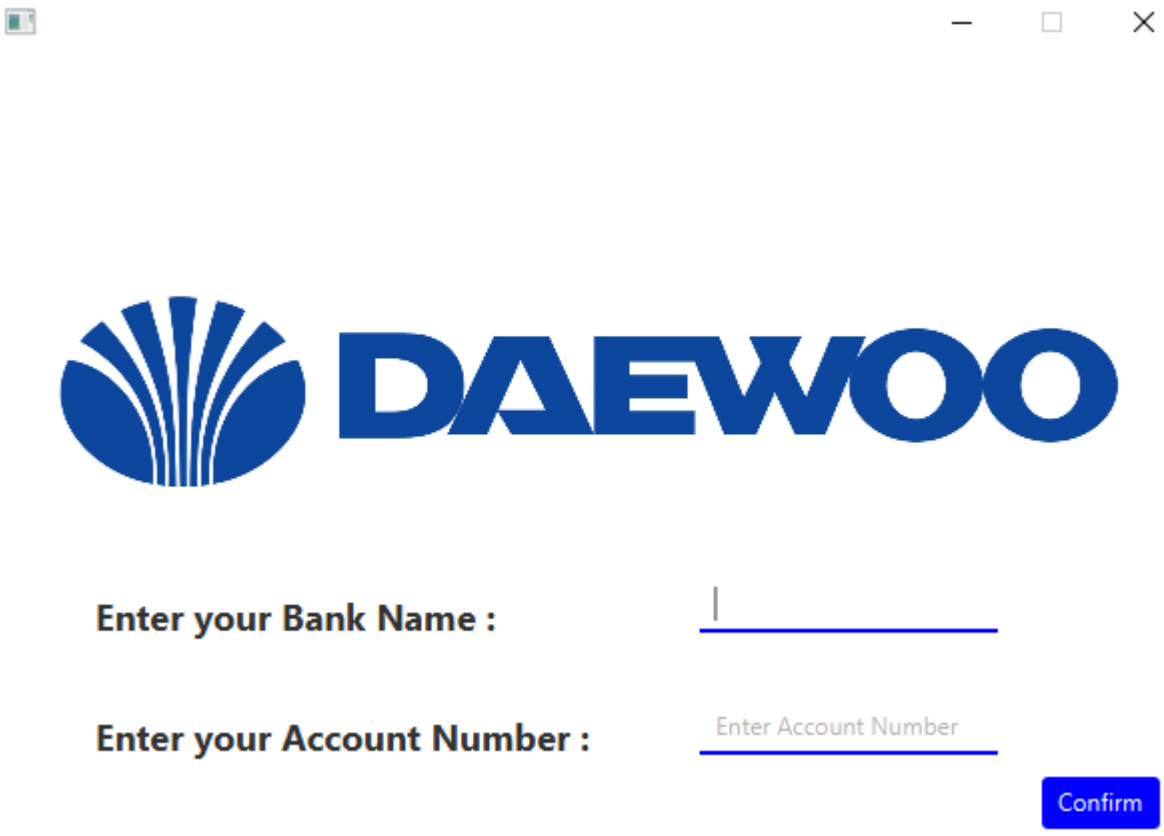
After clicking on “return to main menu” you will again be directed to the main page. By clicking buy tickets user can also buy an instant ticket. By doing this user will have to perform the following steps.



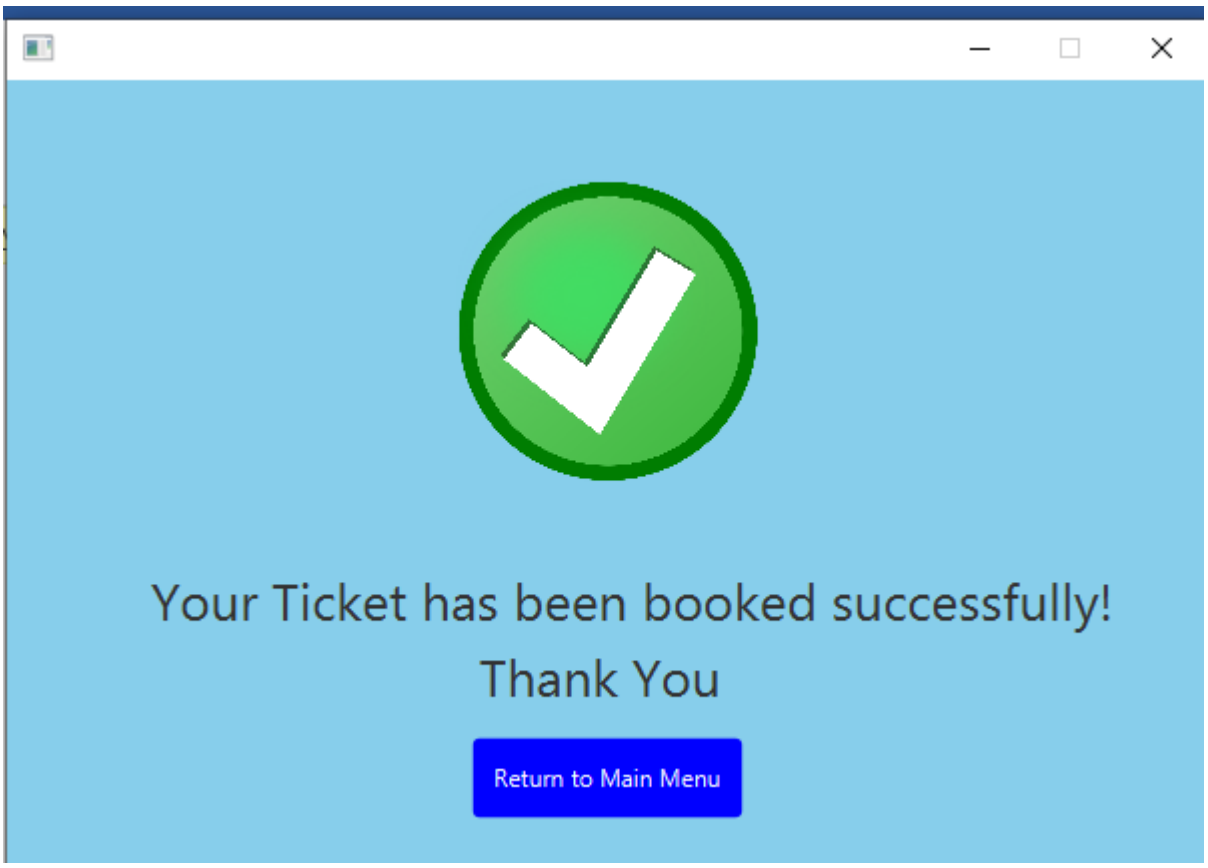




After this you just need to enter your bank name and you account number.



By just clicking on confirm your ticket will be confirmed.



This will again lead you to the main page and if the user just needs to know the schedules of the buses. Then he/she can click on check schedules and will get the desired result.

This report makes up a good idea of what overall our project is. The source code is zipped together with this report in the same folder and submitted in zipped format.

THANK YOU!!