

“Railway Ticket Booking System”

A PROJECT REPORT

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In fulfillment for the subject Software Project-1 (MTCA16106)

Master of Computer Application

At



Sarvajani College of Engineering & Technology, Surat

December, 2024



Sarvajanik Education Society
Sarvajanik College of Engineering & Technology, Surat.
Master of Computer Application Department
Academic Year 2024-25



Date:

CERTIFICATE

This is to certify that the project entitled “Railway Ticket Booking System” has been submitted by Patel Dishank Kumar N. (ET24MTCA043), Patel Vivek Kumar R. (ET24MTCA054), Patel Dhruv R. (ET24MTCA041) & Soni Anant R. (ET24MTCA064) towards fulfillment for the subject Software Project-1 (MTCA16106) in 1st Semester of MCA of Sarvajanik University, Surat during the academic year 2024-25.

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Examiners' Signature:

1. _____

2. _____

Acknowledgements

Team Effort is the only key to success. Success cannot be achieved single-handedly. So, we would like to express our sincere thanks to all the dignitaries involved in making this project a great joy and turning it into a successful work.

We would like to take the opportunity to thank my college **Sarvajanik College of Engineering and Technology** for giving us this tremendous opportunity to work in the real-time project. **Prof. Riddhi Patel** our professor and project coordinator, has been very prudent to us throughout our college studies. He is the person who has been giving direction to our work and the shape of our imagination. We express our regards to him from the core of our hearts.

We also like to thank our H.O.D. **Prof. Gayatri Kapadia** and all the professors who are always ready to give best guidance. They are the individuals who give solutions whenever required. We would also like to acknowledge all our friends and colleagues, team members for their help and encouragement from time to time. The constant support and encouragement of my friend deeply appreciates. The project indeed gave challenging and exhilarating experience in designing and developing the required system.

Finally, we would like to thank our parents for their support throughout the project. We owe a special debt to our family & friends for their supports blessing and encouragement for us.

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1. Project Abstract



ABSTRACT

The Railway Ticket Booking System is an application developed to simplify and streamline the ticket booking process for passengers. This system, developed in C, manages and stores all the booking-related data in an efficient manner, ensuring a reduction in errors and time-consuming tasks that were common in manual systems. The primary goal of this system is to provide a reliable, secure, and user-friendly platform for booking railway tickets.

The system has two types of logins: Administrator and Client. The administrator manages the overall system operations, including client data, ticket bookings, and access control. The client, on the other hand, can register and book tickets by selecting destinations, coach types, and other preferences.

This system was created to address issues like data redundancy, difficulty in handling multiple files, and inefficiencies in manual ticket booking processes. It offers secure access to sensitive information, with only the administrator having the authority to modify or update data. The client can view and manage their booking details through their login.

The system ensures accurate data handling and eliminates the need for redundant entries, offering a smooth experience for users. By automating the process of ticket booking, the system is more reliable and reduces the chances of errors, providing a more efficient and organized way to manage bookings.

2. Objectives



Objectives:

The primary objective of a Railway Ticket Booking System is to simplify and automate the process of booking train tickets, making it more efficient and user-friendly. It aims to reduce the complexities associated with manual booking and provide a smooth experience for both passengers and administrators. Here's a breakdown of its goals:

- Efficient Ticket Booking Process
- Revenue Management
- Reduces Communication Gaps
- Destination and Coach Management
- Passenger Information Handling
- Organizes and Simplifies Booking Tasks
- Centralized Data and Easy Access

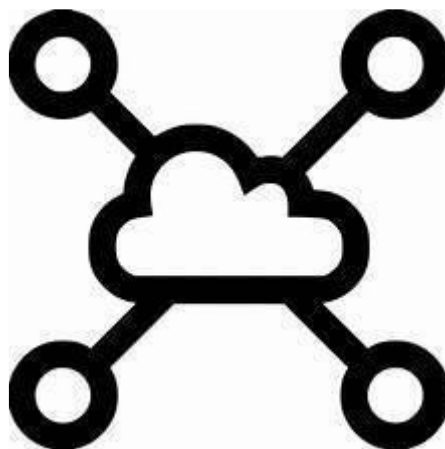
3. Software Specification



Software Specification

Language	C Language
Operation System	Windows 11
Tools	Dev C++

4. Database Design / File System (Table Design)



Admin Database Design:

Admin Register	Admin Login
Admin Full Name	Admin Email Id
Admin Contact Number	Admin Password
Admin Address	
Admin Email Id	
Admin Password	
Admin Repeat Password	

User Database Design:

User Register	User Login
User Full Name	User Email Id
User Contact Number	User Password
User Address	
User Email Id	
User Password	
User Repeat Password	

Ticket Booking Database Design:

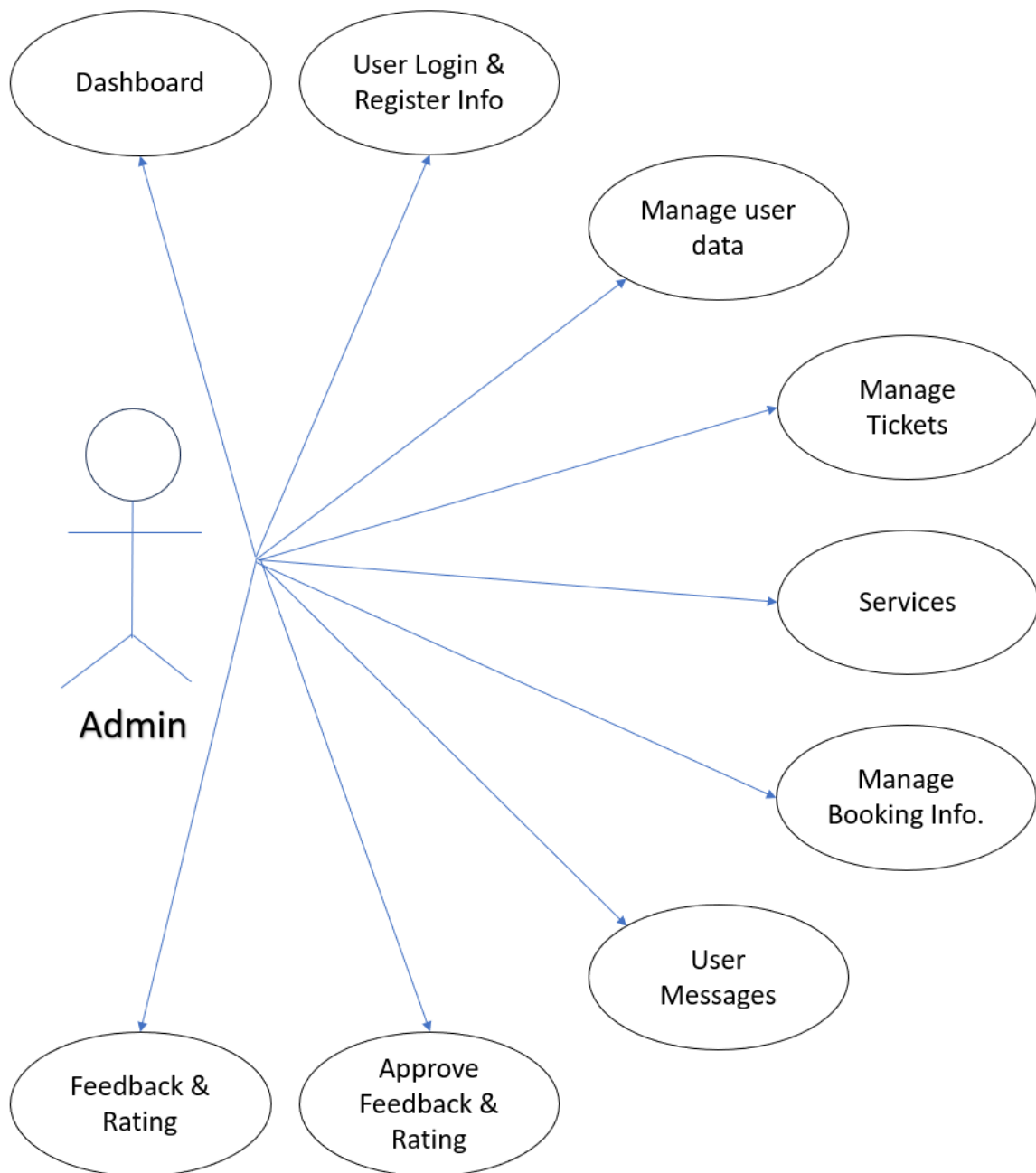
Tourist Name
Tourist Age
Select Destination
Select Coach [AC & Non-AC]
Select Food [Veg & Non-Veg]
Counts of Tickets
Show Ticket Price
Payment Process
Payments Amount
Payment Id
Payment Process

5. Diagrams



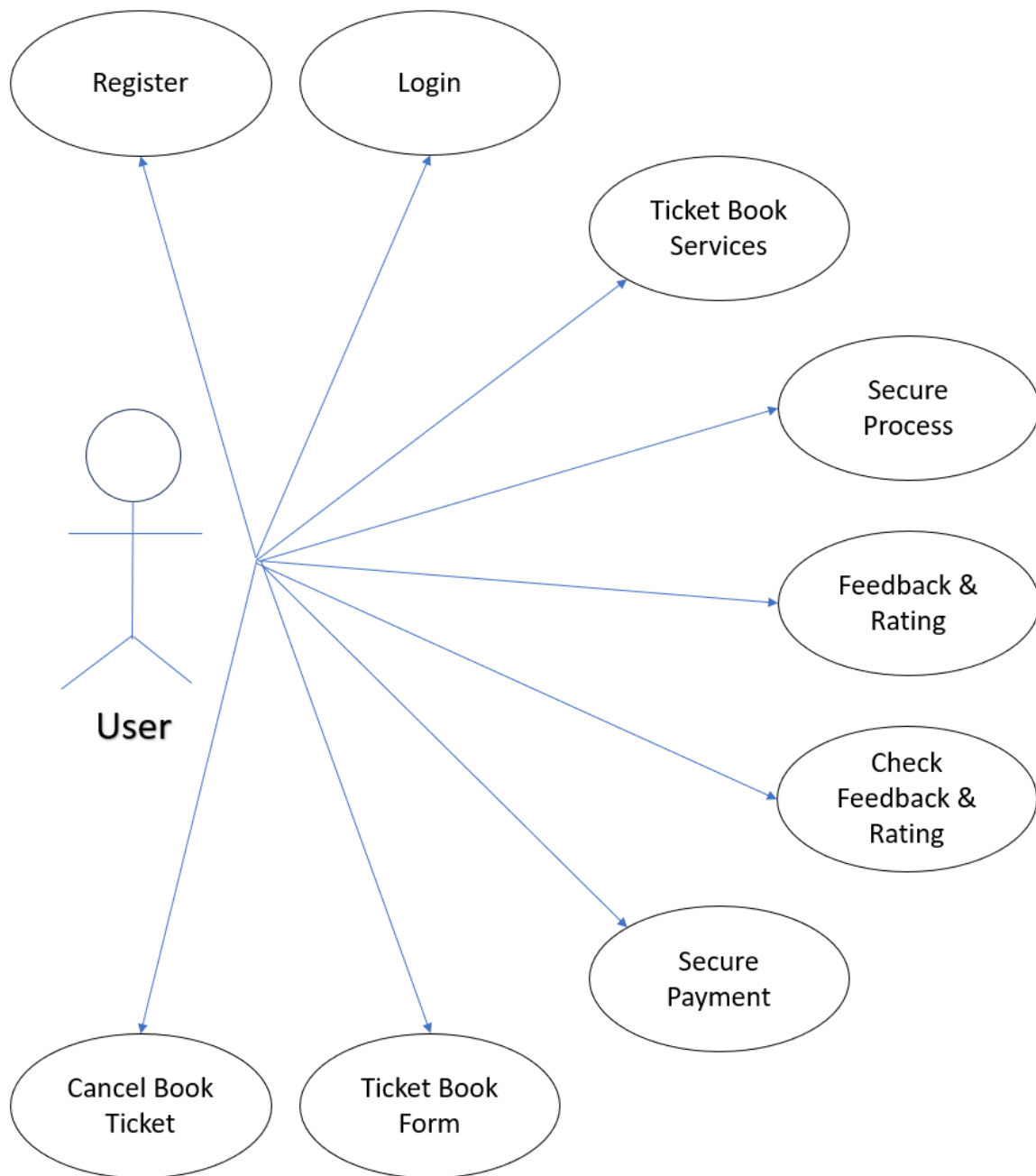
Use Case Diagram:

5.1 Admin Use Case Diagram



[Admin Use Case Diagram]

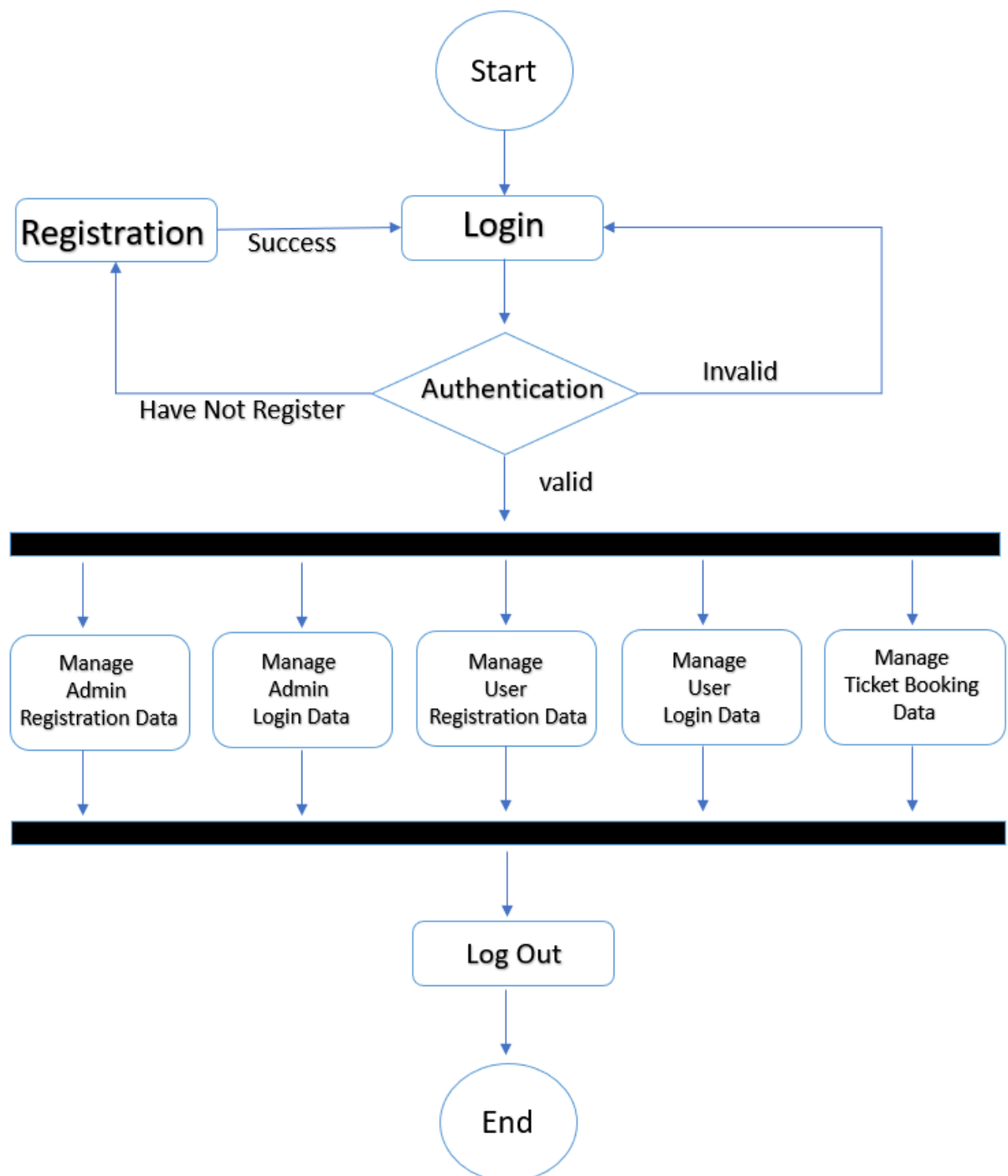
5.2 User Use Case Diagram:



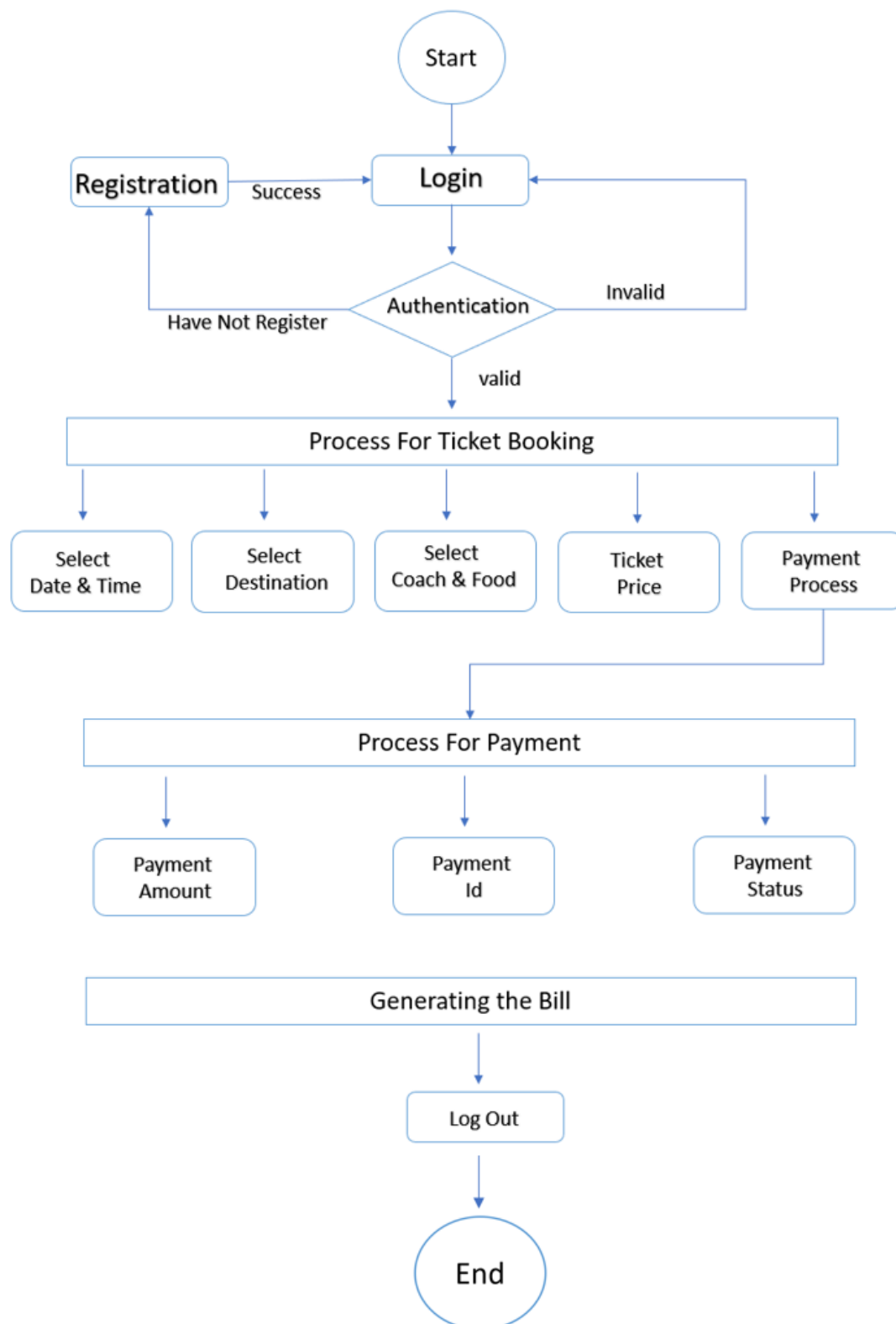
[User Use Case Diagram]

Activity Diagram:

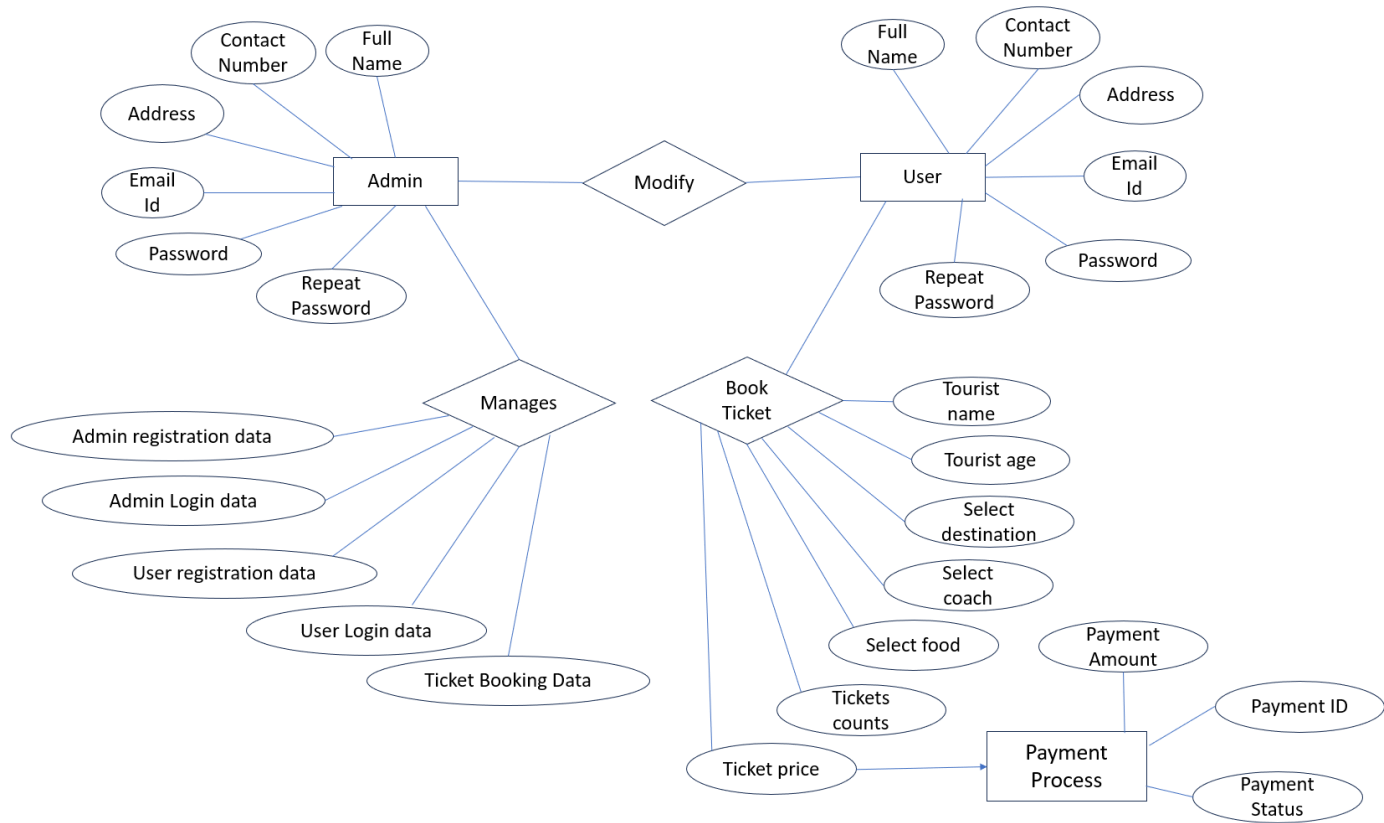
5.3 Admin Activity Diagram:



5.4 User Activity Diagram:



5.5 ER Diagram



6. System Flow Chart



Screenshots:

Admin Registration & Login:

```
----- Welcome To Railway Ticket Booking Application -----
1. Admin Side
2. Client Side
3. Exit
Enter Your Choice: 1

----- Welcome To Admin Side -----
1. New Registration
2. Login
3. Exit
Enter Your Choice: 1

----- Admin Registration -----
Enter your full name: Anant
Enter your contact number: 8140591020
Enter your address: Surat
Enter your email: Anant@gmail.com
Enter your password: 2526
Repeat your password: 2526

----- Confirm Your Details -----
Name      : Anant
Contact   : 8140591020
Address   : Surat
Email     : Anant@gmail.com
Password  : 2526

Are the details correct? (y/n): y
Registration successful! Admin registration data saved to file.
```

```
Enter for login? (Y/y for Yes, N/n for No): y

----- Admin Login -----
Enter your email: Anant@gmail.com
Enter your password: 2526
Login successful!

1.Check Admin Registration Data
2.Check Admin Login Data
3.Check Client Registration Data
4.Check Client Login Data
5.Check Ticket Booking Data
Enter your choice : 1

Admin Registration Data:
Name: admin1, Contact: 8140592856, Address: Surat, Email: admin1@gmail.com, Password: 111
Name: admin2, Contact: 8958648575, Address: Surat, Email: admin2@gmail.com, Password: 222
Name: admin3, Contact: 9856458759, Address: Surat, Email: admin3@gmail.com, Password: 333
Name: admin4, Contact: 8659745896, Address: Surat, Email: admin4@gmail.com, Password: 444
Name: admin5, Contact: 9586487595, Address: Surat, Email: admin5@gmail.com, Password: 555

Name: Anant, Contact: 8956232154, Address: surat, Email: anant@gmail.com, Password: 123
Name: a, Contact: 26, Address: 3, Email: 23, Password: 23
Name: Anant, Contact: 8140591020, Address: Surat, Email: Anant@gmail.com, Password: 2526
```

- 1.Check Admin Registration Data
- 2.Check Admin Login Data
- 3.Check Client Registration Data
- 4.Check Client Login Data
- 5.Check Ticket Booking Data

Enter your choice : 2

Admin Login Data:

Email: admin1@gmail.com, Password: 111, logged in successfully at 23:41:17

Email: admin2@gmail.com, Password: 222, logged in successfully at 23:42:17

Email: admin3@gmail.com, Password: 333, logged in successfully at 23:42:17

Email: admin4@gmail.com, Password: 444, logged in successfully at 23:43:17

Email: admin5@gmail.com, Password: 555, logged in successfully at 23:43:17

Email: admin1@gmail.com, Password: 111, logged in successfully at 00:37:08

Email: anant@gmail.com, Password: 123, logged in successfully at 11:00:09

Email: 23, Password: 23, logged in successfully at 11:29:44

Email: Anant@gmail.com, Password: 2526, logged in successfully at 19:13:08

- 1.Check Admin Registration Data
- 2.Check Admin Login Data
- 3.Check Client Registration Data
- 4.Check Client Login Data
- 5.Check Ticket Booking Data

Enter your choice : 6

Invalid Choice!

User Registration & Login:

```
----- Welcome To Railway Ticket Booking Application -----  
  
1. Admin Side  
2. Client Side  
3. Exit  
  
Enter Your Choice: 2  
  
----- Welcome To Client Side -----  
  
1. New Registration  
2. Login  
3. Exit  
  
Enter Your Choice: 1  
  
----- Client Registration -----  
  
Enter your full name: anant  
Enter your contact number: 56  
Enter your address: s  
Enter your email: anant@gmail.com  
Enter your password: 369  
Repeat your password: 369  
  
----- Confirm Your Details -----  
Name      : anant  
Contact   : 56  
Address   : s  
Email     : anant@gmail.com  
Password  : 369  
  
Are the details correct? (y/n): y  
  
Registration successful! Client registration data saved to file.  
  
Enter for login? (Y/y for Yes, N/n for No): y  
  
----- Client Login -----  
  
Enter your email: anant@gmail.com  
Enter your password: 369  
  
Login successful!  
  
Login details saved to client_log_data.txt.  
  
----- You Are Login Successfully -----
```

Ticket Booking Process:

```
----- Fill The Details & Book Your Ticket Easily Here -----  
  
Enter the Tourist Name: anant  
Enter the Tourist Age: 26  
  
-----  
No      ||      Source      ||      Destination  
1       ||      Surat       ||      Vadodara  
2       ||      Surat       ||      Ahmedabad  
3       ||      Surat       ||      Rajkot  
4       ||      Surat       ||      Jamnagar  
5       ||      Surat       ||      Bhuj  
6       ||      Surat       ||      Gandhinagar  
7       ||      Surat       ||      Junagadh  
8       ||      Surat       ||      Porbandar  
9       ||      Surat       ||      Palanpur  
10      ||      Surat       ||      Navsari  
-----  
Enter Your Choice For Select Destination: 5  
  
You Select The Destination Surat To Bhuj  
Which type of Coach do you want ?  
1. AC  
2. Non-AC  
Enter Your Choice For Select Coach : 1  
  
You Select AC Coach  
Which type of food do you want:  
1. Veg  
2. Non-veg  
Enter your choice for select food : 1  
  
How many tickets do you want : 2
```

```
----- Check Your Details -----  
  
Tourist Name is: anant  
Tourist Age is: 26  
Ticket Booked Date: 24-11-2024  
Ticket Booked Time: 11:06:55  
Your Destination is : Surat To Bhuj  
Your Coach is: AC Coach  
Your Food is: Veg  
Total number of tickets : 2  
Your total ticket price is : 2700  
You Have To Pay : 2700  
Do you want to proceed with booking? (Y/N): y
```

Ticket Generated:

```
----- Your Ticket is Successfully Booked -----  
  
Tourist Name: anant  
Tourist Age: 26  
Ticket Booked Date: 24-11-2024  
Ticket Booked Time: 11:07:33  
Destination: Surat To Bhuj  
Coach: AC Coach  
Food: Veg  
Total Tickets: 2  
Total Ticket Price: Rs.2700/-  
Payment Amount: Rs.2700/-  
Payment ID: FE5848387  
Payment Status: Paid  
Thank you for booking with us!  
----- Happy Journey! -----
```


7. Source Code



8. Testing



9. References

- www.studytonight.com
- www.drawio.com
- www.cppreference.com
- www.scaler.com/topics/c/file-handling-in-c/