

# **Database Management Systems Lab Project Report**

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## **DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**



### **DECLARATION**

**I hereby declare that the entire work embodied in this Mini Project thesis titled, “Project title” submitted to the Visvesvaraya Technological University, Belagavi has been carried out by me at the Department of ISE, NMAM Institute of Technology, Nitte under the supervision of Ms. Preethi Salian, Assistant Professor, Department of ISE, NMAM Institute of Technology, Nitte. This thesis has not been submitted in part or full for the award of any diploma or degree of this or any other University.**

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# DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING



## **CERTIFICATE FROM THE SUPERVISOR**

This is to certify that Mr. Varun R Rao, bearing USN: 4NM20IS174 and Mr. Vijay Raj V bearing USN: 4NM20IS176 has worked under my supervision for their mini project thesis titled, “Airline Flight reservation system”. I also certify that; the work is original and has not been submitted to any other University wholly or in part for the award of any other degree.

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# **ABSTRACT**

Airline reservation System is a computerized system used to store and retrieve information and conduct transactions related to air travel. The project is aimed at exposing the relevance and importance of Airline Reservation Systems. It is projected towards enhancing the relationship between customers and airline agencies through the use of ARSs, and thereby making it convenient for the customers to book the flights as when they require such that they can utilize this software to make reservations.

This software has two parts. First is user part and the administrator part. User part is used as a front end and administrator is the back end. Administrator is used by airline authority. It will allow the customers to access database and allow new customers to sign up for online access.

The system allows the airline passenger to search for flights that are available between the two travel cities, namely the “Departure city” and “Arrival city” for a particular departure and arrival dates. The system displays all the flight’s details such as flight no, name, price and duration of journey etc.

After search the system display list of available flights and allows customer to choose a particular flight. Then the system checks for the availability of seats on the flight. If the seats are available then the system allows the passenger to book a seat. Otherwise, it asks the user to choose another flight.

To book a flight the system asks the customer to enter his details such as name, address, city, state, and credit card number and contact number. Then it checks the validity of card and book the flight and update the airline database and user database. The system also allows the customer to cancel his/her reservation, if any problem occurs.

The main purpose of this software is to reduce the manual errors involved in the airline reservation process and make it convenient for the customers to book the flights as when they require such that they can utilize this software to make reservations, modify reservations or cancel a particular reservation.

# **ACKNOWLEDGEMENT**

The completion of this mini project in Database System Models Lab titled “Airline Reservation System” is majorly credited to our ever-supportive project mentors, who have, in every step of the way instilled us with invaluable information and guidance.

They have in always, given us their valuable insights as to how we can optimize our project for maximum efficiency, making it a highly optimized project for student attendance management.

We would like to thank Ms. Preethi Salian (Assistant Professor Gd. II , dept ISE, NMAMIT , Nitte, Karkala, India) and Ms. Sapna S (Assistant Professor Gd, I , dept, ISE, NMAMIT, Nitte, Karkala, Karnataka, India)

Without their guidance and support, this project wouldn't not have been possible to achieve with such standards.

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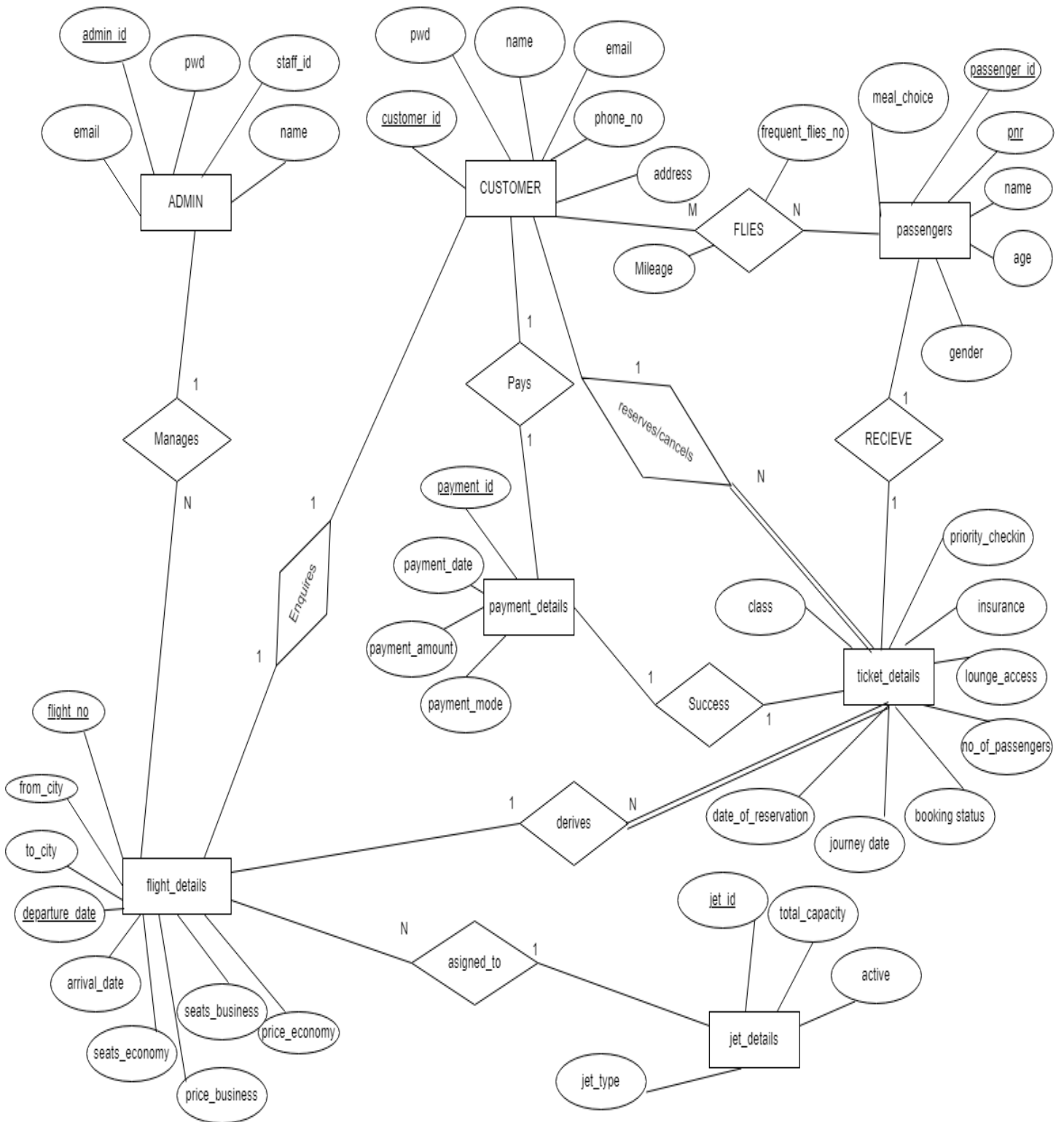
# INTRODUCTION

The “Flight Ticket Booking System” has been developed to override the problem prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Flight Ticket Booking System, as described above, can lead to error free, secure, reliable and fast management system, it can assist the user to concentrate on their other activities rather To concentrates on the record keeping. Thus, it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Ticket, Flight, Passenger, Flight Route, Payment. Every Flight Ticket Booking System has different Flight needs therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

# ER DIAGRAM





# SCHEMA DIAGRAM

## ADMIN

<u>admin_id</u>	pwd	staff_id	name	email
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## CUSTOMER

<u>customer_id</u>	pwd	name	email	phone_no	address
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## JET\_DETAILS

<u>jet_id</u>	jet_type	total_capacity	active
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## FLIGHT\_DETAILS

<u>flight_no</u>	from_city	to_city	<u>departure_date</u>	arrival_time	departure_time	arrival_time	seats_economy
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seats_business	price_economy	price_business	<u>jet_id</u>
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## FREQUENT\_FLIER\_DETAILS

<u>frequent_flier_no</u>	<u>customer_id</u>	mileage
--------------------------	--------------------	---------

## PASSENGERS

<u>passenger_id</u>	pnr	name	age	gender	meal_choice	<u>frequent_flier_no</u>
---------------------	-----	------	-----	--------	-------------	--------------------------

## PAYMENT\_DETAILS

<u>payment_id</u>	pnr	payment_date	payment_amount	payment_mode
-------------------	-----	--------------	----------------	--------------

## TICKET\_DETAILS

pnr	date_of_reservation	<u>flight_no</u>	journey_date	class	booking_status	no_of_passengers	lounge_access
-----	---------------------	------------------	--------------	-------	----------------	------------------	---------------

priority_checkin	insurance	<u>payment_id</u>	<u>customer_id</u>
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# FUNCTIONAL REQUIREMENTS

## ADMIN

- LIST FLIGHTS
- ARRANGE FLIGHTS
- ADD FLIGHTS
- SCHEDULED FLIGHTS
- CHECK BOOKED TICKETS

## CUSTOMER/PASSENGER

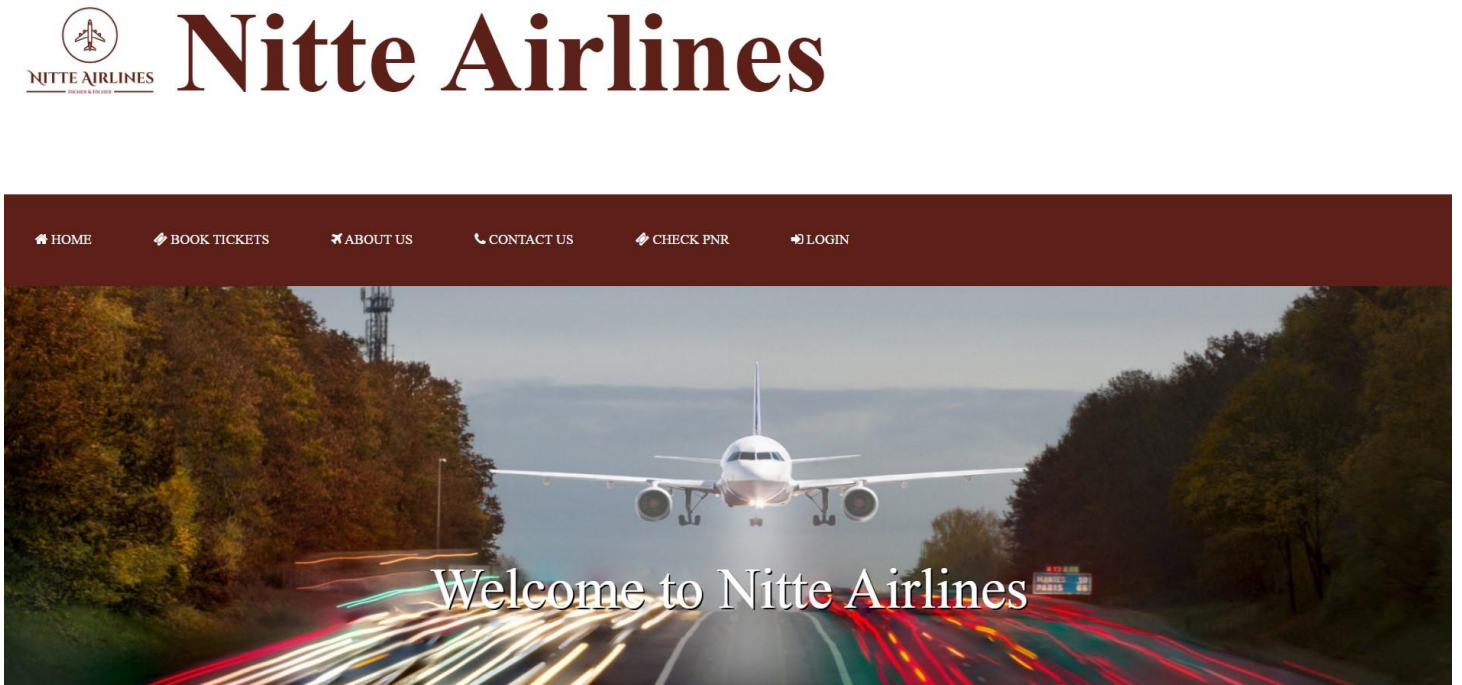
- SIGN UP
- LOGIN
- BOOK TICKET
- PRINT TICKET
- CHECK PNR

# **NON-FUNCTIONALITY REQUIREMENTS**

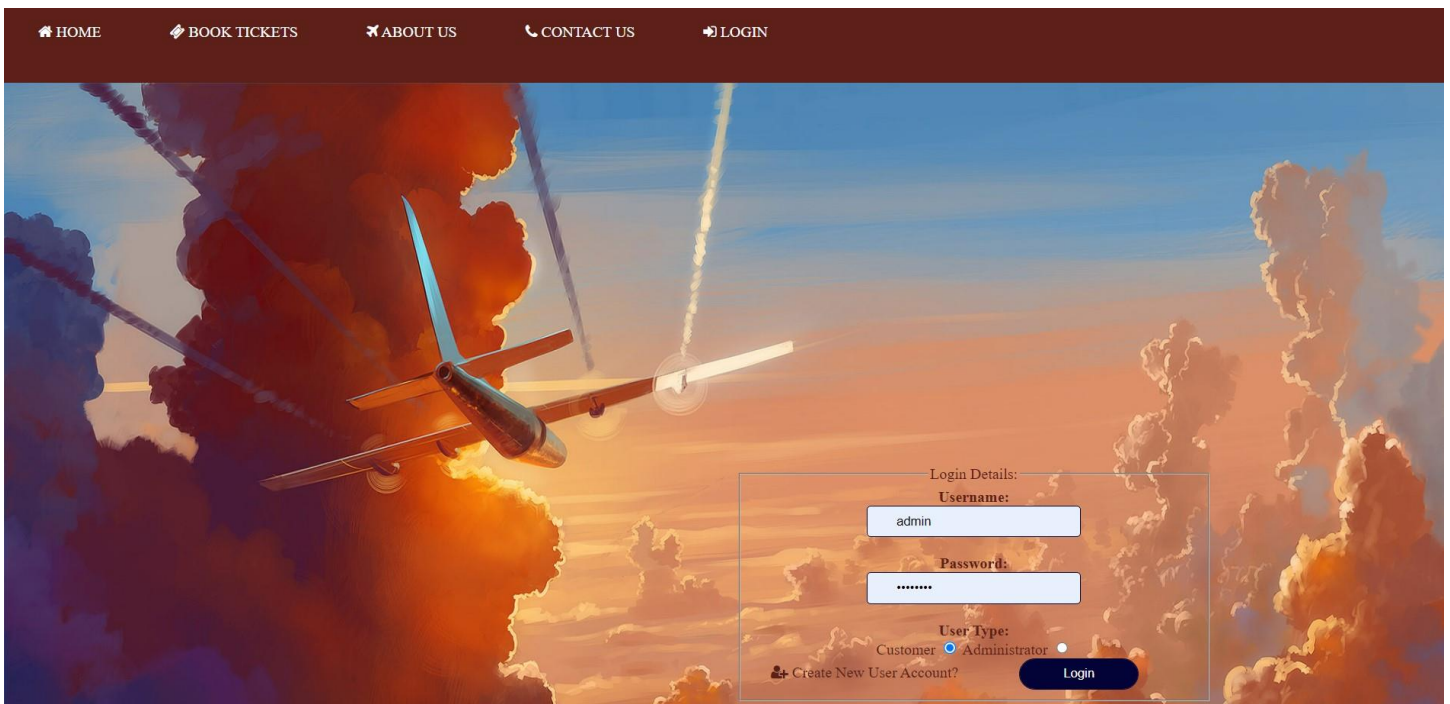
In this system, the authentication of the user is an important factor. The user authentication will be done by login by username and password and classified by user type. Users will get access to the system as permission are classified for that type of user. The types of users being customer and admin. Admin of the system can manipulate the data of other users.

The system has a consistent interface so that the system is easy to use and in the interface of our system buttons And forms are used to enter data related to a specific module.

## RESULT SNAPSHOTS



### 1. Homepage



### 2. Login Page

### 3. Create new user Account



New user successfully registered! Login into your account to book tickets.

### 4. Successfully created



Welcome Sapna

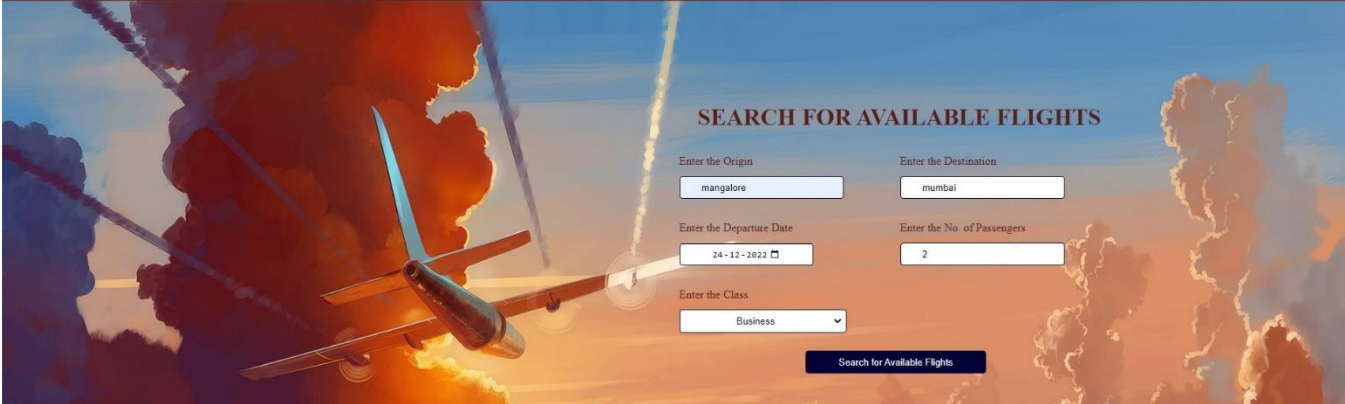
- ✈ Book Flight Tickets
- ✈ View Booked Flight Tickets
- ✈ Print Booked Ticket
- ✈ Cancel Booked Flight Tickets

### 5. Logged In



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### SEARCH FOR AVAILABLE FLIGHTS

Enter the Origin

Enter the Destination

Enter the Departure Date

Enter the No. of Passengers

Enter the Class

Search for Available Flights

## 6. Search for Available Flights



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## AVAILABLE FLIGHTS

Flight No.	Origin	Destination	Departure Date	Departure Time	Arrival Date	Arrival Time	Price(Economy)	Select
002	mangalore	mumbai	2022-12-22	13:33:00	2022-12-22	15:36:00	₹ 6000	<input type="radio"/>

Select Flight

## 7. Available Flights

## ADD PASSENGERS DETAILS

### PASSENGER 1

Passenger's Name 
 Passenger's Age 
 Passenger's Gender 
 Passenger's Inflight Meal 
 Passenger's Frequent Flier ID (if applicable)

### PASSENGER 2

Passenger's Name 
 Passenger's Age 
 Passenger's Gender 
 Passenger's Inflight Meal 
 Passenger's Frequent Flier ID (if applicable)

## ENTER TRAVEL DETAILS

Do you want access to our Premium Lounge? ☒ Yes ☐ No
 Do you want to opt for Priority Checkin? ☒ Yes ☐ No
 Do you want to purchase Travel Insurance? ☒ Yes ☐ No

Submit Travel/Ticket Details

## 8. Add Passenger Details



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## ENTER THE PAYMENT DETAILS

### Payment Summary

Base Fare, Fuel and Transaction Charges (Fees & Taxes included): ₹ 12000  
 Meal Combo Charges: ₹ 500  
 Priority Checkin Fees: ₹ 400  
 Lounge Access Fees: ₹ 600  
 Insurance Fees: ₹ 200  
 Discount: ₹ 0

**Total:** ₹ 13700

Your Payment/Transaction ID is 564949748. Please note it down for future reference.

### Enter the Payment Mode:-

☒ Credit Card
 ☐ Debit Card
 ☐ Net Banking

Pay Now

## 9. Payment





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## BOOKING SUCCESSFUL

Your payment of ₹ 13700 has been received.

Your PNR is 1748553. Your tickets have been booked successfully.

## 10. Successful Booking



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## VIEW BOOKED FLIGHT TICKETS

### Upcoming Trips

PNR	Date of Reservation	Flight No.	Journey Date	Class	Booking Status	No. of Passengers	Payment ID
1748553	2022-12-22	002	2022-12-22	economy	CONFIRMED	2	564949748

### Completed Trips

No trips completed in the past 30 days!

## 11. View Booked Flights



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Enter Your PNR Number

## 12. PNR Check



### 13. Boarding Pass

## 14. Cancel Tickets

## 15. Cancel Successful



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Welcome Administrator!

- ✕ View List of Booked Tickets for a Flight
- ✕ Add Flight Schedule Details
- ✕ Delete Flight Schedule Details
- ✕ Add Aircrafts Details
- ✕ Activate Aircraft
- ✕ Deactivate Aircraft

## 16. Administrator Logged In



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### VIEW LIST OF BOOKED TICKETS FOR A FLIGHT

Enter the Flight No.

002

Enter the Departure Date

22-12-2022

Submit

## 17. View list of booked tickets



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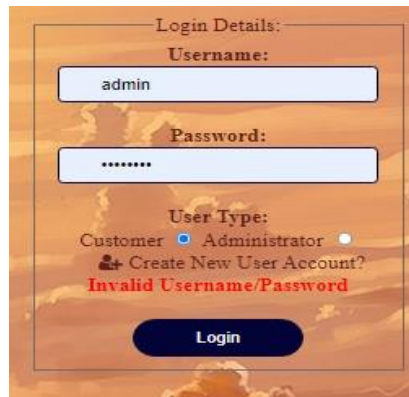
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### LIST OF BOOKED TICKETS FOR THE FLIGHT

PNR	Date of Reservation	Class	No. of Passengers	Payment ID	Customer ID
9283784	2022-12-21	economy	4	873202182	vijay

## 18. List View

# TEST CASES




Login Details:

Username:  
admin

Password:  
\*\*\*\*\*

User Type:  
Customer ☐ Administrator ☒

 Create New User Account?

**Invalid Username/Password**

Login

## 1. Invalid Password/Username



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### AVAILABLE FLIGHTS

No flights are available !

## 2. Flight Check when No Flights



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### VIEW BOOKED FLIGHT TICKETS

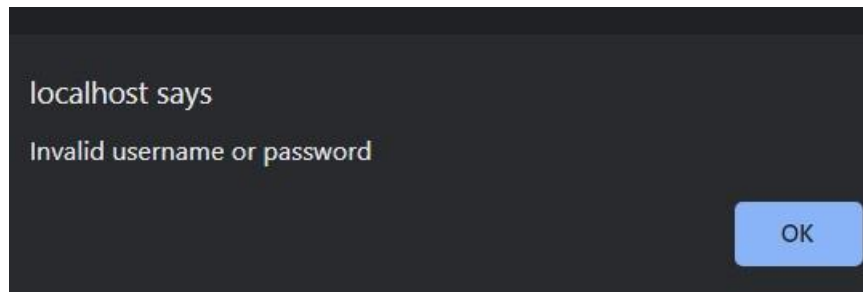
[Upcoming Trips](#)

No upcoming trips!

[Completed Trips](#)

No trips completed in the past 30 days!

## 3. Viewing Flights when flights are not booked



#### **4. Invalid PNR User Status**

# REFERENCES

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