

Software Engineering

Topic: Airline Seat Selection, Boarding Pass Issuance And Aircraft Boarding

Group: 8

Dept-Sec: CSE-C

Name	Roll	Role
B . Purna Ajay	CB.EN.U4CSE19209	Project Manager
Mahesh V	CB.EN.U4CSE19224	Software Engineer: App, Backend Engineer
Kailash M	CB.EN.U4CSE19229	Business Analyst
Naveen Aditiya B	CB.EN.U4CSE19232	Software Tester
Varsha M	CB.EN.U4CSE19258	Software Engineer: Web

About the project

- We will be creating an Airline Booking System which will help the customers to book a flight ticket. The customers can modify and cancel the ticket.
- Given that the passenger hasn't already registered, will allow creating an account
- The boarding pass will contain the passenger details, scannable QR code of their PNR number, seat number.
- The airport agent can enter the flight ID and grab the passenger list.
- The airport agent can enter the PNR and grab the passenger details.
- The main purpose of this software is to reduce the manual errors involved in the airline reservation process and makes it convenient for the customers to book the flights when they require so that they can utilize this software to make reservations, modify reservations or cancel a particular reservation.

Stakeholders

- a. Employees**
- b. Passengers**
- c. Government Authorities**
- d. Airline Clients**

Modules

- Login Module
- Booking Module
- Search Module
- Check Availability Module
- Boarding Pass Issual Module
- Payment Module
- Purchase Module
- Exit Module

Table(Master/Transaction)

Primary key — Master table (Flight Info Table)

Foreign key — Transaction table

1. **Ticket Price Table**-price,flight boarding point,flight destination,flight name,flight-ID.
2. **Ticket Cancellation Status Table**-price,flight boarding point,flight destination,flight name,flight-ID(change if any requirements)
3. **Flight Schedule Table**-flight-ID,flight_name,date,time,flight_boarding point,flight_destination_point,path_taken.
4. **Login Details Table**-name,username,user_id,address,aadhaar_number,passport_number,phone_number,date_of_birth,password.
5. **Flight Info Table**-flight_name,airline_name,no_of_tickets_available,_cost_of_ticket,flight_destination,travel_date,time,seat_vacancy,passenger_id
6. **Flight Route Table**-flight_name,flight_id,flight_destination,flight_starting_from,path_taken,date,time
7. **Airport Staff Table**-staff_id,staff_name,staff_shift_hour,aadhar_no,date_of_birth
8. **Passenger Table**-passenger_id,passenger_name,passenger_mobile,passenger_username,passenger_password,passenger_address,aadhar_no,date_of_birth
9. **Transaction Table**-Transaction_ID,price,payment_method.

User_id, payment_id,

Tools/Languages:

1. VScode, MongoDB,Android Studio(Java)+SQLite
2. Javascript (NodeJS,EJS,ReactJS), HTML/CSS
3. Bootstrap

Reports

Name: Airline Booking

Purpose: For booking Flight tickets using our product

This report is to convey all the modules that we are using in this project along with the tables. This project consists of tables that include the details of Flight, passengers, and different modules which will help the user to freely interact with the application.

Suppliers: They are interested in gaining more profits. However, they will be affected if the tickets are sold less which means less purchase of the flight tickets will lead to less profit.

Competitors: They will charge less price for the same traveling journey to attract more customers, and they will keep eye on each other to do better and get more sales.

Assumptions:

- Mobile and web Platform
- When the Ticket is canceled by the user, only some percent of the user ticket amount will be re-sent .(Ticket Cancellation Charges).
- Admin will be able to search booking enquiry and has permission to edit , add and delete any booking enquiry
- Passenger will be able to generate a report of airline ticket booking
- Admin can update the price of the Flight Ticket.

Requirements:

User

a) Passenger :

- Login
- KYC Details and Update
- Search Ticket
- Book Ticket
- Payment
- After payment receives receipt and schedule

b) Government Authorities:

- Login
- KYC Details and Update
- PNR Searching
- Ticket cancellations module

c) Admin(Airline reservation system)

- Display list of vacant schedules
- Display reservation info and payment
- Receives the payment and transaction
- Generates reservation form and release receipt

d) Airline Clients

- Login
- Price updation portal

User Stories

Customers:

- The customer has to login/register at the portal.
- For a new user, identity details have to be verified
- Select the flight destination ticket and confirm the payment and other flight details like one-way, round trip, etc...
- Cancellation of ticket feature should also be provided

- He/She should be allotted a seat based on his/her preference and a boarding pass should be issued on the day of the flight.
- After issuance of boarding pass, he/she should successfully be able to board the flight without any hassle.

Air Clients:

- Air Clients include various airline companies who provide services to customers.
- As an air client, all details of employees working for respective clients have to be stored.
- Cancellation of tickets if requested should be processed smoothly.
- A list of services that are to be provided on a flight have to be maintained for different categories of customers (business, economy).
- After the customer selects the flight the corresponding air clients have to be notified about the passenger details and travel details.
- They should provide SMS alerts and other notification help desks online/offline to customers.
- A feedback portal for customers to share their experience post arrival at their destination.

Air Staff:

- The Airport Authority of the respective country must provide authorization to the corresponding ground staff and maintain a database.
- Help desks of air clients should be provided to customers.
- Visitor entry, traveler entry should be properly checked and processed and baggage verification must be done.
- Waiting Lounge and various other services to be provided.
- Various on-the-ground services like hotel accommodation, cab booking must be provided.
- Some value added services like the cafeteria, etc should also be provided.
