

Flight Booking Website Documentation

Team ID	LTVIP2025TMID57633
Project Title	Flight finder: navigating your air travel options

Flight Booking Website

Overview

A full-stack flight booking platform where users can:

- Search and book one-way or round-trip flights
- Select seats per flight
- Make secure payments via Stripe
- Receive downloadable e-tickets (PDF)
- View bookings in their profile
- Admin can manage flights, users, and view statistics

Tech Stack

Frontend	React.js, React Router DOM
Styling	CSS, Tailwind (optional), Icons
Backend	Node.js, Express.js
Database	MongoDB with Mongoose
Auth	JWT, bcrypt
Payment	Stripe

PDF	pdfkit (Node.js library)
-----	--------------------------

🔗 Features

User Features

- Flight search by source, destination, date
- Round-trip support with seat selection
- Live seat availability tracking
- Stripe payment integration
- E-ticket PDF generation and download
- View past bookings

Admin Features

- Admin login
- Flight CRUD operations
- View all bookings
- Admin dashboard with statistics

🔗 Folder Structure (Simplified) project-root/

```
|—— client/          # React frontend
|   |—— components/    # Reusable components
|   |—— pages/         # Route-level pages
|   |—— App.js
|   |—— index.js
|
|—— server/          # Node backend
```

```
|   ├── controllers/    # Route logic  
|   ├── models/        # MongoDB schemas  
|   ├── routes/        # Express endpoints  
|   ├── middleware/   # Auth & error handling  
|   └── index.js      # Server entry  
  
|  
└── .env             # Environment config
```

Frontend Details

- `Home.js` - Search UI for flights
- `BookingPage.js` - Booking form
- `SelectSeats.js` - Select seats for both flights
- `PaymentPage.js` - Stripe payment handler
- `MyBookings.js` - View & download booked tickets
- `AdminDashboard.js` - Admin stats and flight management

Backend Details

Key Routes:

- `/api/auth/login`, `/register`
- `/api/flights` (CRUD)
- `/api/bookings` (POST/GET)
- `/api/seats` (availability)
- `/api/admin/stats` (dashboard)

Database Models

User

```
{  
  name: String, email: String, password: String, role: { type:  
    String, enum: ["user", "admin"], default: "user" }  
}
```

Flight

```
{ airline: String, from: String, to: String,  
  departureTime: Date, arrivalTime: Date,  
  travelClass: ["Economy", "Business"], price:  
  Number, seats: { economy: Number, business:  
    Number }  
}
```

Booking

```
{  
  userId: ObjectId, flightId:  
  ObjectId, seatNumbers:  
  [String], paymentStatus:  
  String, roundTrip:  
  Boolean, returnFlightId:  
  ObjectId, ticketPdfUrl:  
  String  
}
```

Middleware:

- `authMiddleware` - Verifies JWT
- `errorMiddleware` - Global error handler

Auth System

- JWT-based login with access control
- Passwords hashed with bcrypt
- Protected routes for admin access

Payment Integration

- Stripe Checkout used for payment
- Once payment succeeds:
 - Booking data is stored
 - Ticket PDF is generated

PDF Ticket Generation

- On booking success, a PDF is generated using 'pdfkit'
- Contains:
 - Flight info
 - Passenger details
 - Seat numbers
 - Booking reference
- Available for download from "My Bookings"

Deployment

- DB: MongoDB Atlas

.env example:

MONGO_URI=<Your MongoDB URI>

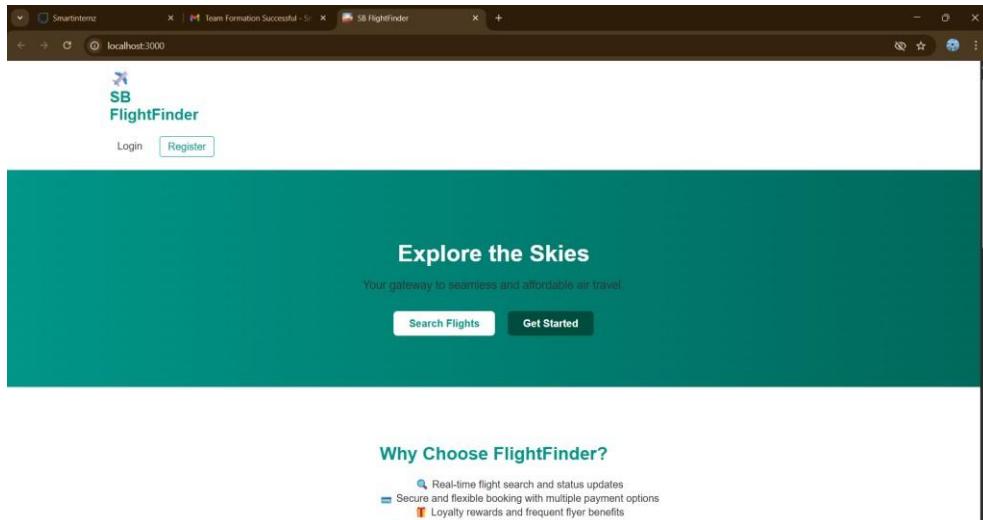
JWT_SECRET=<Your JWT secret>

STRIPE_SECRET_KEY=<Stripe Key>

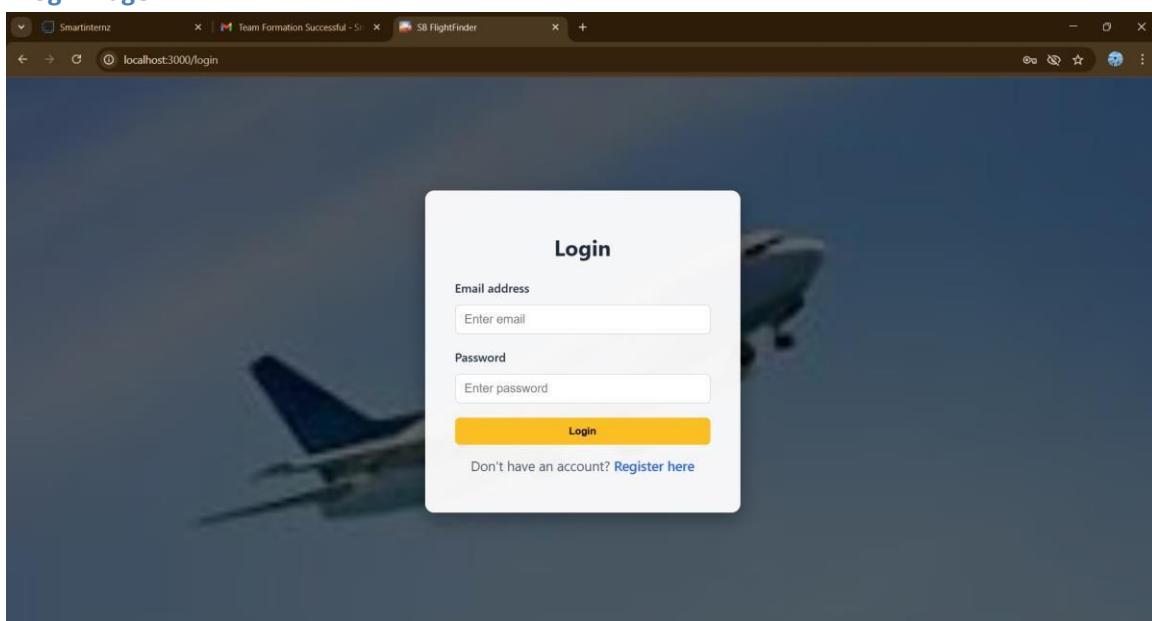
CLIENT_URL=http://localhost:3000

Screenshots

1. Home Page



2. Login Page



3. Register Page

The screenshot shows a registration form titled "Create Account" centered on a blue gradient background. The form includes fields for Name, Email, and Password, followed by a "Register" button. Below the button is a link to "Already have an account? Login".

4. Dashboard

The screenshot displays the "Flight Ticket Booking" dashboard. At the top, there are "My Bookings" and "Logout" buttons. Below them is a navigation bar with tabs: ROUND TRIP, ONE WAY, MULTI CITY, TOURISTER, and DESTINATIONS. The main search area contains fields for "From" and "To" destinations, date ranges ("dd-mm-yyyy" for departure and return), a "Flexible with date" checkbox, a dropdown for "Economy" class, and a prominent yellow "Search Flights" button. A small footer at the bottom reads "© 2025 FlightFinder. All Rights Reserved."

5.Flight search

The screenshot shows a search results page for flights from New York to Paris. The search parameters are: From: New York, To: Paris, Start: 2025-06-25, Return: 2025-06-25. The results are divided into Departure Flights and Return Flights.

Departure Flights:

Flight	From	To	Departure	Arrival	Date	Price	Action
Emirates	New York	Paris	12:30	01:50	2025-04-10	₹15000	Book with Return

Return Flights:

Flight	From	To	Departure	Arrival	Date	Price
Emirates	Paris	New York	11:30	00:30	2025-04-15	₹16000

[← Return to Dashboard](#)



6.booking page

The screenshot shows a booking form titled "Book Your Flight" overlaid on a background image of an airplane wing against a sunset sky. The form contains the following information:

Flight Details:

Emirates
From: New York
To: Paris
Date: 2025-04-10
Departure: 12:30
Arrival: 01:50
Price: ₹15000

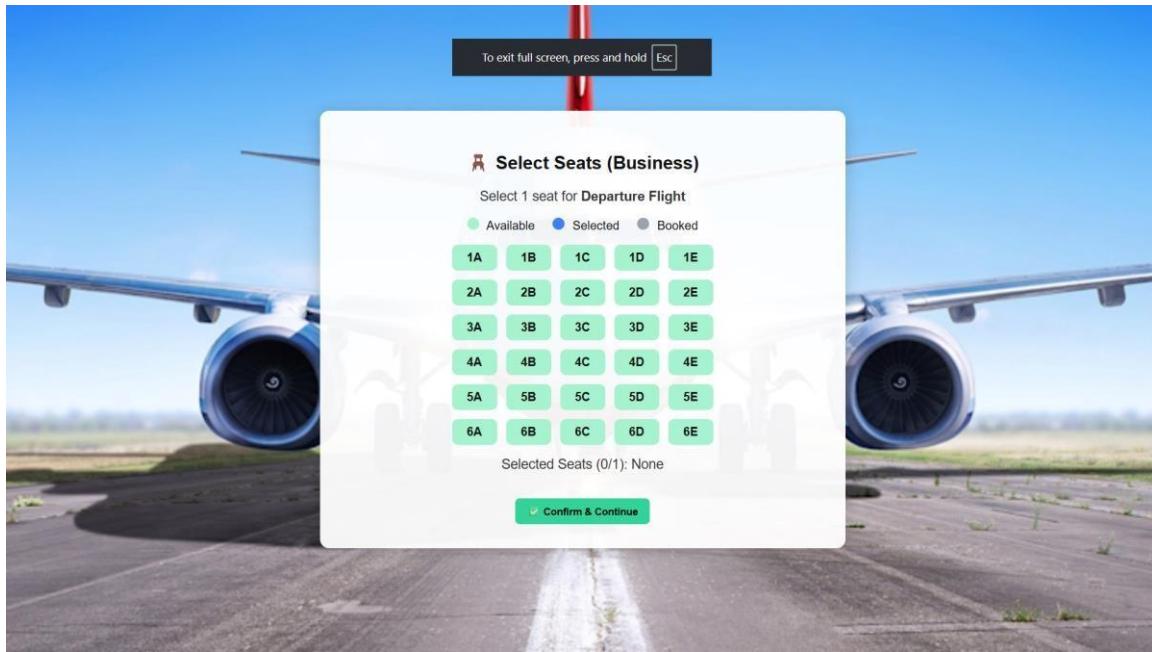
Emirates (Return)
From: Paris
To: New York
Date: 2025-04-15
Departure: 11:30
Arrival: 00:30
Price: ₹16000

Passenger 1:

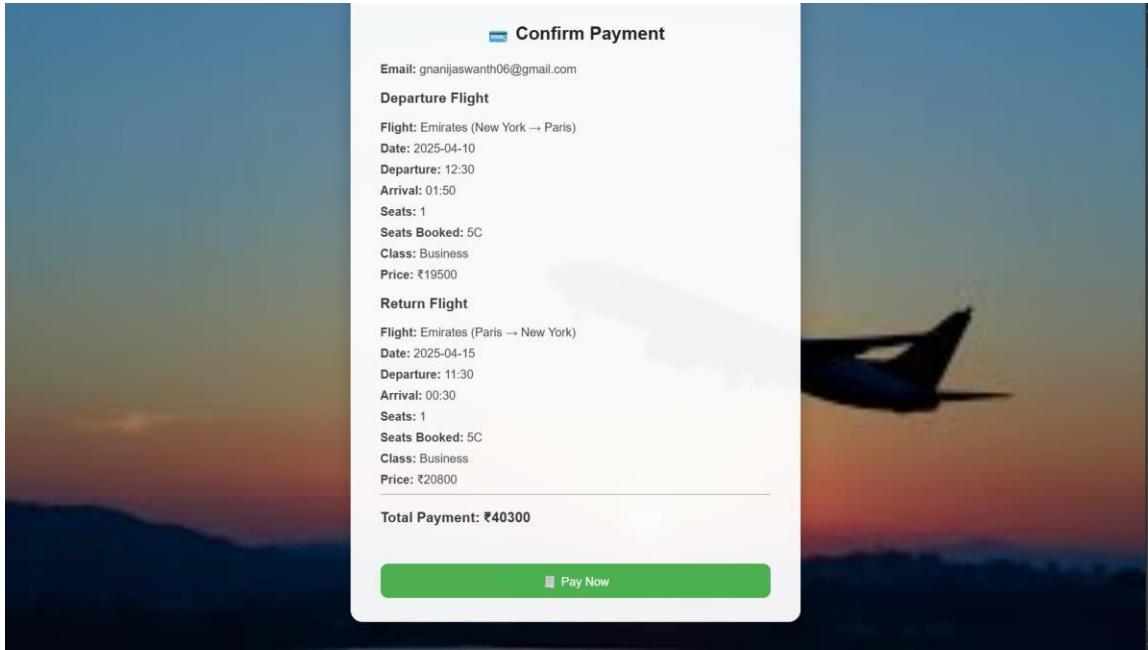
Name:
Age:
Gender: Male Female Select
Email:
Class: Economy Premium Economy Business Class
Number of Seats:

[Select Seats & Continue](#)

6.seat selection page



7.payment page



7.transaction page

New business sandbox [Sandbox](#)

To exit full screen, press and hold Esc

Flight: Emirates (New York → Paris)

₹40,300.00

Email: gnanijaswanth06@gmail.com

Card information:

4242 4242 4242 4242 VISA

06 / 28 123

Cardholder name: jhon

Country or region: India

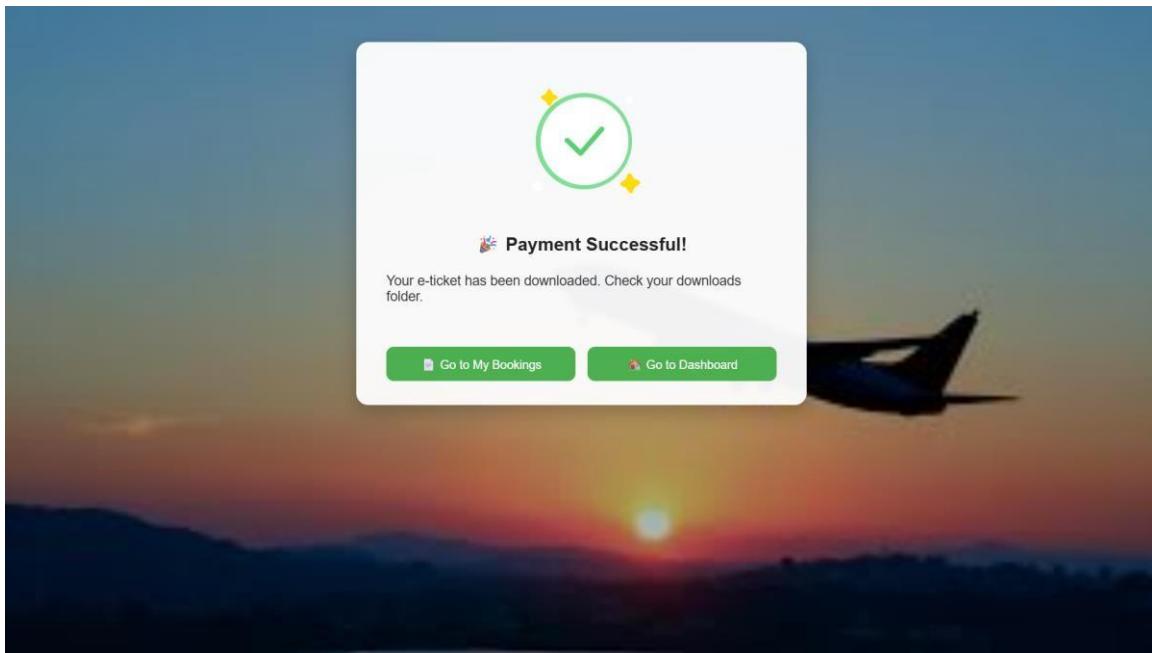
Save my information for faster checkout
Pay faster on New business sandbox and everywhere
Link is accepted.

Pay

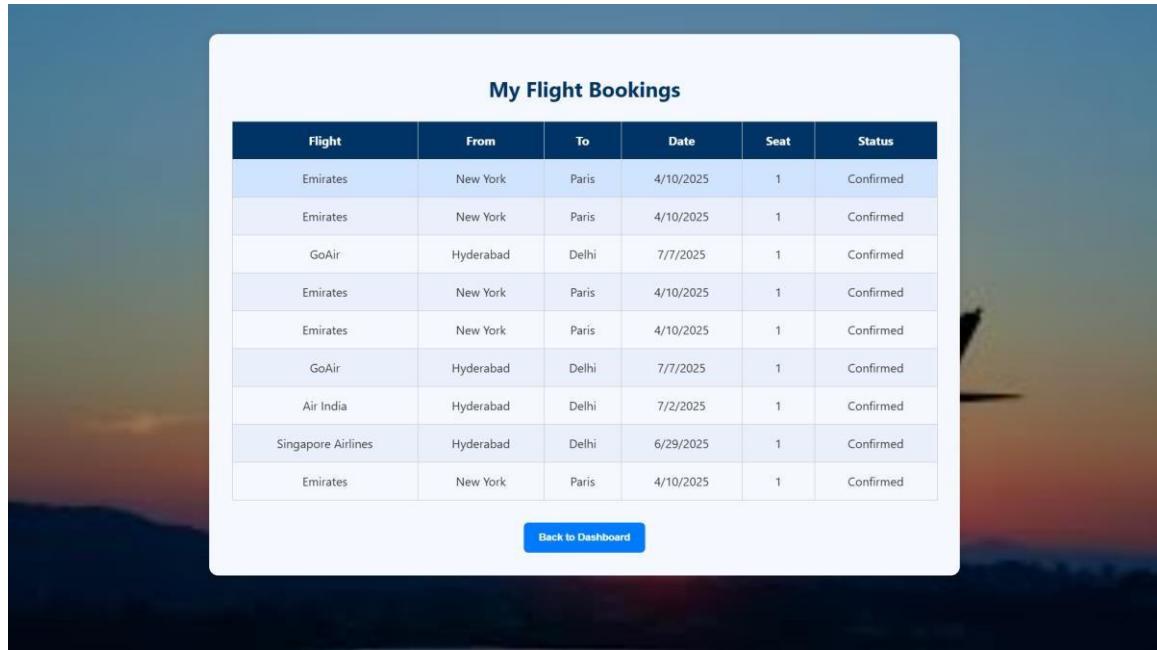
Notwithstanding the logo displayed above, when paying with a co-branded eftpos debit card, your payment may be processed through either card network.

Powered by [stripe](#) | [Terms](#) | [Privacy](#)

8.confirmation page



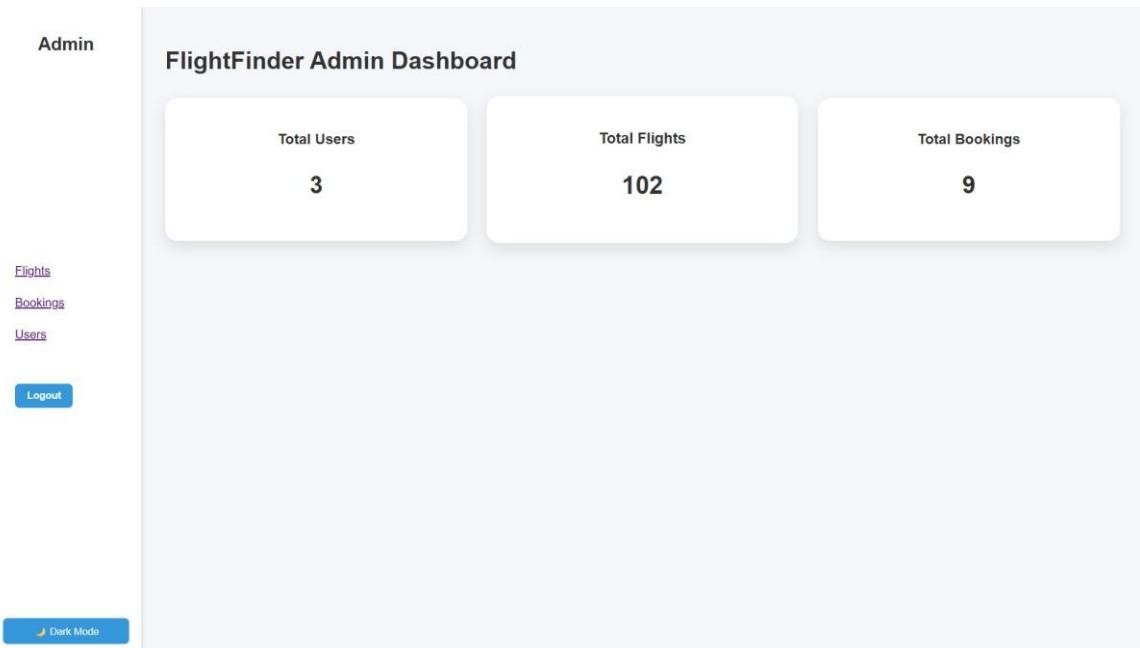
9.my bookings page



My Flight Bookings					
Flight	From	To	Date	Seat	Status
Emirates	New York	Paris	4/10/2025	1	Confirmed
Emirates	New York	Paris	4/10/2025	1	Confirmed
GoAir	Hyderabad	Delhi	7/7/2025	1	Confirmed
Emirates	New York	Paris	4/10/2025	1	Confirmed
Emirates	New York	Paris	4/10/2025	1	Confirmed
GoAir	Hyderabad	Delhi	7/7/2025	1	Confirmed
Air India	Hyderabad	Delhi	7/2/2025	1	Confirmed
Singapore Airlines	Hyderabad	Delhi	6/29/2025	1	Confirmed
Emirates	New York	Paris	4/10/2025	1	Confirmed

[Back to Dashboard](#)

10.admin dashboard page



Admin

FlightFinder Admin Dashboard

Total Users: 3

Total Flights: 102

Total Bookings: 9

[Flights](#)

[Bookings](#)

[Users](#)

[Logout](#)

[Dark Mode](#)

Demo Instructions

1. Set up environment variables

- Create a ` `.env` file in ` `/server` and ` `/client` (if needed)

2. Install dependencies cd

```
server && npm install
```

```
cd .. / client && npm
```

```
install
```

3. Run locally cd server

```
&& npm run dev cd
```

```
.. / client && npm start
```

4. Open

```
http://localhost:3000
```

```
in browser
```

Future Improvements

- Flight filters (duration, airline, stops)
- Email ticket confirmations
- Mobile responsive redesign
- Admin notifications
- Chat support

Contributors

-M V N Manaswini

Lankapalli Manna Prince

Narra Sasidhar

S Sai Baba Pavan Kumar