

# Flight Booking Website Documentation

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Team ID	LTVIP2025TMID58532
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>

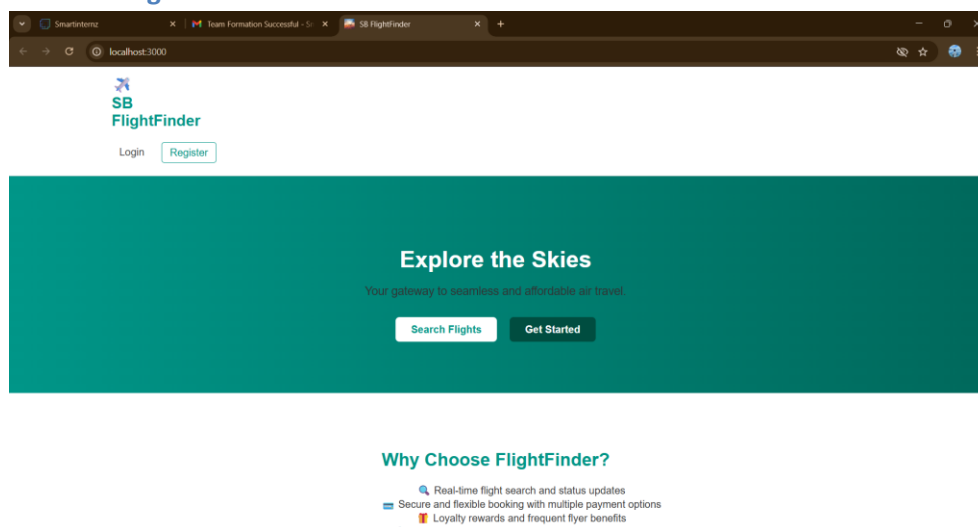
JWT\_SECRET=<Your JWT secret>

STRIPE\_SECRET\_KEY=<Stripe Key>

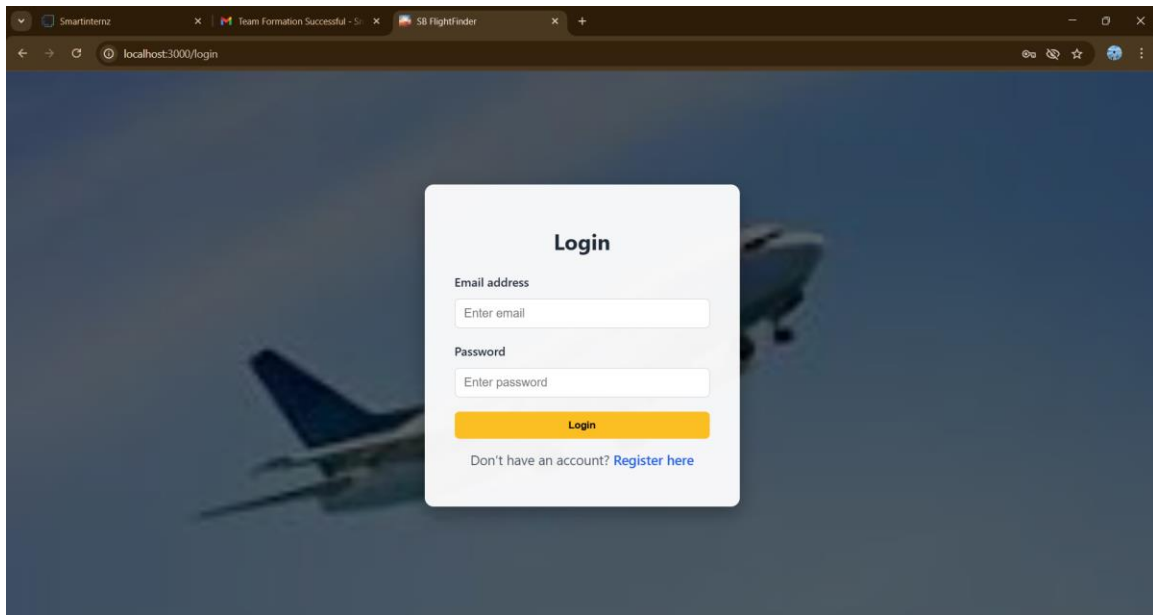
CLIENT\_URL=http://localhost:3000

## Screenshots

### 1. Home Page



## 2.Login Page



Smartinternz x Team Formation Successful - S x SB FlightFinder x +

localhost:3000/login

### Login

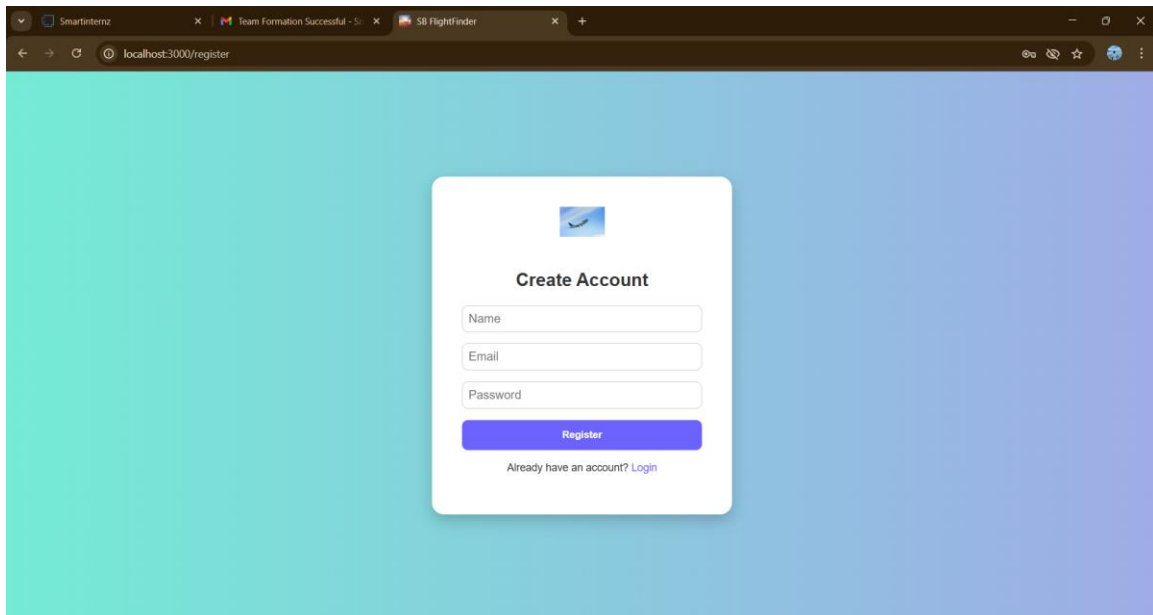
Email address

Password

Login

Don't have an account? [Register here](#)


## 3.Register Page



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localhost:3000/register

### Create Account



Name

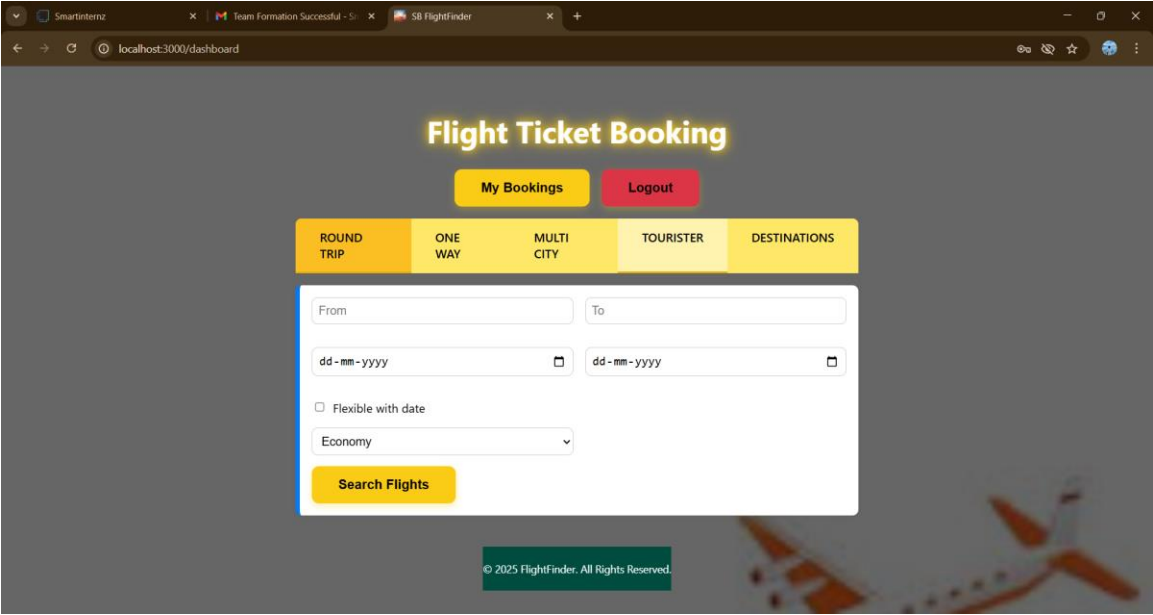
Email

Password

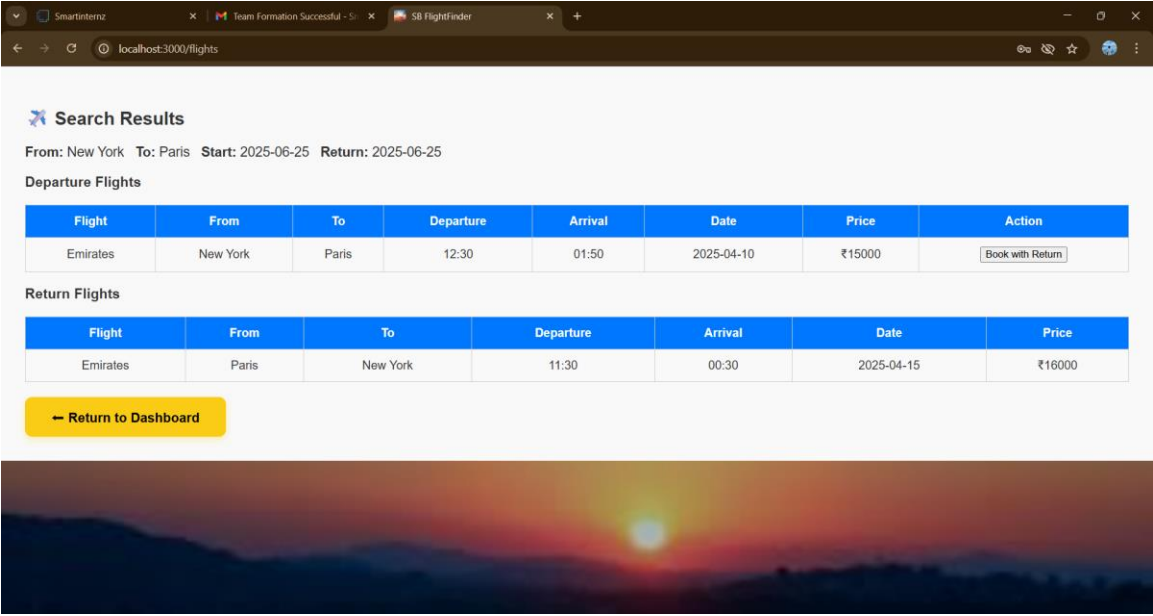
Register

Already have an account? [Login](#)

4. Dashboard

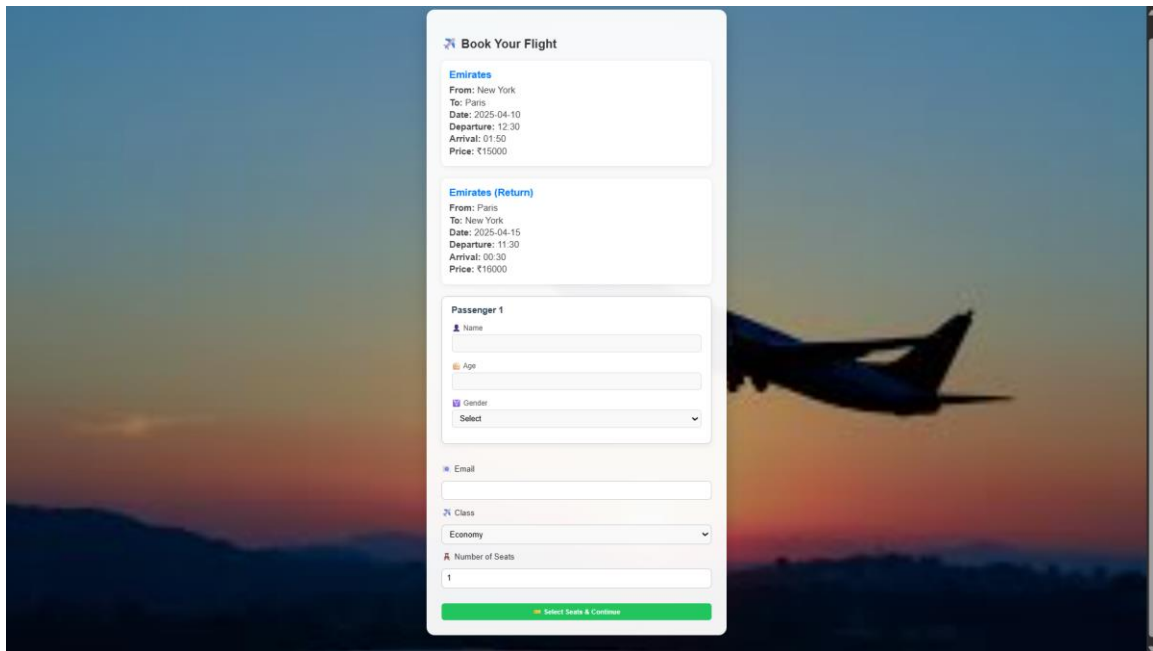


5.Flight search





## 6.booking page



**Book Your Flight**

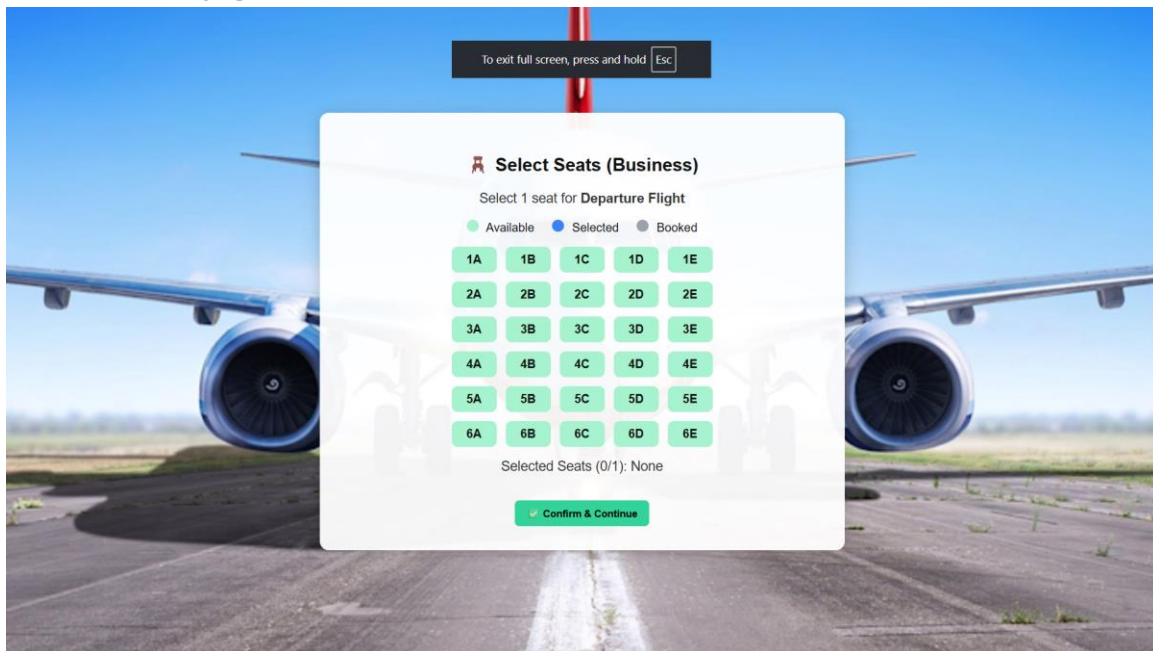
**Emirates**  
From: New York  
To: Paris  
Date: 2025-04-10  
Departure: 12:30  
Arrival: 01:50  
Price: \$15000

**Emirates (Return)**  
From: Paris  
To: New York  
Date: 2025-04-15  
Departure: 11:30  
Arrival: 00:30  
Price: \$15000

**Passenger 1**  
Name:   
Age:   
Gender:   
Email:   
Class:   
Number of Seats:

[Select Seats & Continue](#)

## 6.seat selection page



To exit full screen, press and hold **Esc**

**Select Seats (Business)**  
Select 1 seat for Departure Flight

● Available ● Selected ● Booked

1A	1B	1C	1D	1E
2A	2B	2C	2D	2E
3A	3B	3C	3D	3E
4A	4B	4C	4D	4E
5A	5B	5C	5D	5E
6A	6B	6C	6D	6E

Selected Seats (0/1): None

[Confirm & Continue](#)

## 7.payment page

Confirm Payment

Email: gnanijaswanth06@gmail.com

**Departure Flight**

Flight: Emirates (New York → Paris)

Date: 2025-04-10

Departure: 12:30

Arrival: 01:50

Seats: 1

Seats Booked: 5C

Class: Business

Price: ₹19500

**Return Flight**

Flight: Emirates (Paris → New York)

Date: 2025-04-15

Departure: 11:30

Arrival: 00:30

Seats: 1

Seats Booked: 5C

Class: Business

Price: ₹20800

Total Payment: ₹40300

Pay Now

## 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

06 / 28123

Cardholder name

jhon

Country or region

India

☐ Save my information for faster checkout

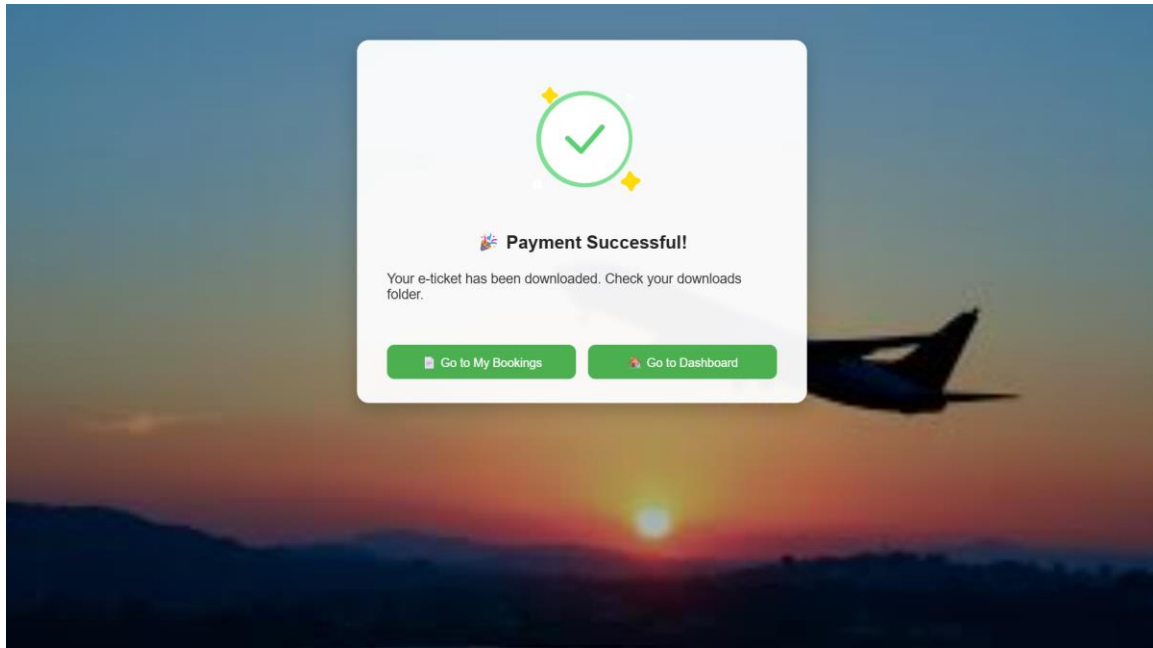
Pay faster on New business sandbox and everywhere Link is accepted.

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

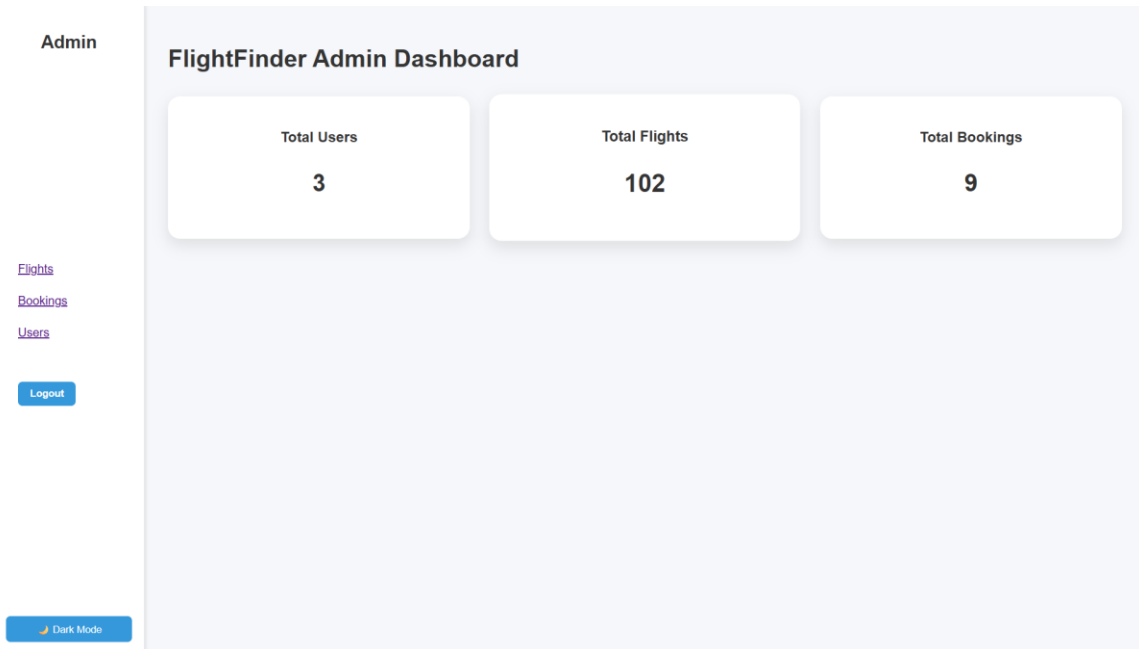


## 9.my bookings page

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



### ? 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**

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