

# Flight Booking System – API Documentation

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## Introduction

This API powers a flight booking platform, enabling users to search for available flights, register and authenticate, book seats, and manage their personal bookings. Admins are authorized to add new flights and manage flight inventory.

The backend is secured using JSON Web Tokens (JWTs) to authenticate and authorize access to protected resources.

## Base URL

All requests should be made to:  
`http://localhost:3000/api`

## Authentication

Most routes are protected and require the user to be authenticated.

After a successful login or registration, the server responds with a JWT token. This token must be included in all subsequent authenticated requests using the following header format:

**Authorization: Bearer <JWT\_TOKEN>**

Example:

**Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR...**

## Endpoints

### Auth Routes

#### Register a New User

POST `http://localhost:3000/api/auth/register`

Request Body:

```
{
  "name": "Shivam",
  "email": "shivam@example.com",
  "password": "yourpassword"
}
```

Response:

```
{
  "_id": "...",
  "name": "Shivam",
  "email": "shivam@example.com",
  "token": "JWT_TOKEN"
}
```

### Login User

POST <http://localhost:3000/api/auth/login>

Request Body:

```
{
  "email": "shivam@example.com",
  "password": "yourpassword"
}
```

Response:

```
{
  "_id": "...",

  "name": "Shivam",

  "email": "shivam@example.com",

  "token": "JWT_TOKEN"
}
```

### Flight Routes

#### Get All Flights

GET <http://localhost:3000/api/search?origin=Delhi&destination=Mumbai>

Response Example:

```
[
  {
    "_id": "...",

    "flightNumber": "6E203",
```

```
"origin": "Delhi",
"destination": "Mumbai",
"departureTime": "2023-10-01T10:00:00.000Z",
"arrivalTime": "2023-10-01T12:00:00.000Z",
"price": 5000,
"seatsAvailable": 49,
"flightDuration": "2h",
"flightType": "Domestic",
"_v": 0
}
]
```

### Booking Routes (Protected)

Headers:

Authorization: Bearer <JWT\_TOKEN>

#### Book a Flight

POST <http://localhost:3000/api/book>

Request Body:

```
{
  "flightId": "...",
  "passengerName": "Shivam",
  "passengerEmail": "shivam1@example.com",
  "seatCount": 1
}
```

Response:

```
{
  "message": "Booking successful!",
  "booking": {
    "flightId": "..",
    "passengerName": "Shivam",
    "passengerEmail": "shivam1@example.com",
    "seatCount": 1,
    "userId": "..",
    "_id": "..",
    "bookingDate": "2025-06-28T08:13:14.694Z",
  }
}
```

```
    "_v": 0
  }
}
```

### View My Bookings

GET <http://localhost:3000/api/book/my>

Response:

```
{
  "_id": "..",
  "flightId": {
    "_id": "..",
    "flightNumber": "6E203",
    "origin": "Delhi",
    "destination": "Mumbai",
    "departureTime": "2023-10-01T10:00:00.000Z",
    "arrivalTime": "2023-10-01T12:00:00.000Z",
    "price": 5000,
    "seatsAvailable": 49,
    "flightDuration": "2h",
    "flightType": "Domestic",
    "_v": 0
  },
  "passengerName": "Shivam",
  "passengerEmail": "shivam@example.com",
  "seatCount": 1,
  "userId": "..",
  "bookingDate": "2025-06-28T07:45:33.598Z",
  "_v": 0
}
```

### Delete a Booking

DELETE <http://localhost:3000/api/book/685f9d9d45622bb93e953313>

Response:

```
{
  "message": "Booking cancelled successfully"
}
```

## Admin Routes (Admin Access Required)

### Add a Flight

POST <http://localhost:3000/api/admin/flights>

Request Body:

```
{  "flightNumber": "AI502",
  "flightType": "Domestic",
  "flightDuration": "2h 30m",
  "origin": "DEL",
  "destination": "GOA",
  "departureTime": "2025-07-01T12:30:00Z",
  "arrivalTime": "2025-07-01T15:00:00Z",
  "totalSeats": 150,
  "seatsAvailable": 150,
  "price": 2899
}
```

Response:

```
{  "message": "Flight added successfully",
  "flight": {
    "flightNumber": "AI502",
    "origin": "DEL",
    "destination": "GOA",
    "departureTime": "2025-07-01T12:30:00.000Z",
    "arrivalTime": "2025-07-01T15:00:00.000Z",
    "price": 2899,
    "seatsAvailable": 150,
    "flightDuration": "2h 30m",
    "flightType": "Domestic",
    "_id": "...",
    "__v": 0
  }
}
```

### Update a flight

PUT <http://localhost:3000/api/admin/flights/>"flightID"

Request Body:

```
{
  "destination": "GOA",
  "totalSeats": 120
}
```

Response

```
{
  "_id": "685f8f85302cbb728efe7ffe",
  "flightNumber": "AI502",
  "origin": "DEL",
  "destination": "GOA",
  "departureTime": "2025-07-01T12:30:00.000Z",
  "arrivalTime": "2025-07-01T15:00:00.000Z",
  "price": 2899,
  "seatsAvailable": 150,
  "flightDuration": "2h 30m",
  "flightType": "Domestic",
  "__v": 0
}
```

#### Delete a Flight

DELETE [http://localhost:3000/api/admin/flights/"FlightID"](http://localhost:3000/api/admin/flights/)

```
{
  "message": "Flight deleted successfully"
}
```