FLIGHT BOOKING APPLICATION USING MERN STACK

Screenshots of Installation and Executions

1. PRE-REQUISITES :

Here are the key prerequisites for developing a full-stack application using Node.js, Express.js, MongoDB, React.js:

✓ **Node.js and npm:**

Node.js is a powerful JavaScript runtime environment that allows you to run JavaScript code on the server-side. It provides a scalable and efficient platform for building network applications. Install Node.js and npm on your development machine, as they are required to run JavaScript on the server-side.

Download: https://nodejs.org/en/download/

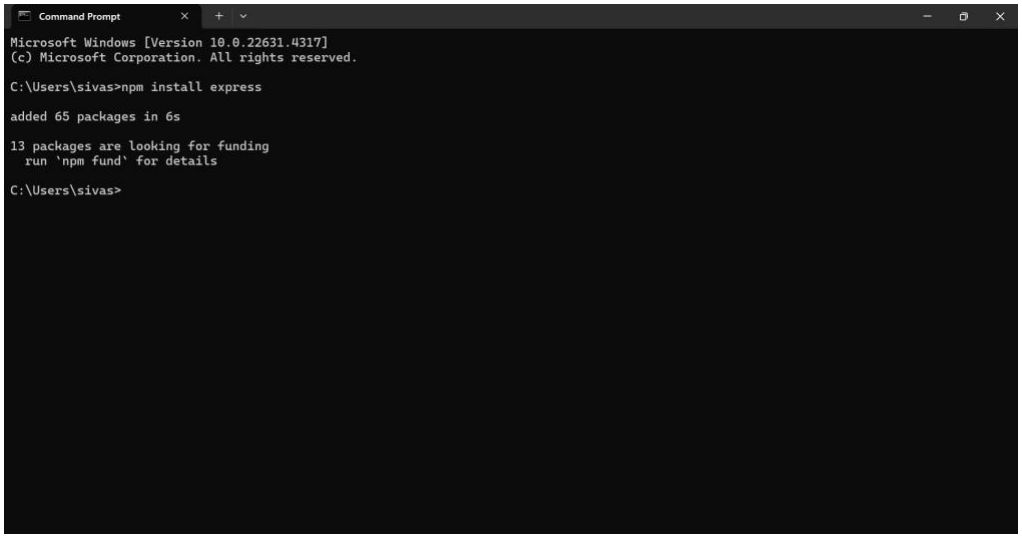
Installation instructions: https://nodejs.org/en/download/package-manager/ Run **"npm init"** to get default dependencies

✓ **Express.js:**

Express.js is a fast and minimalist web application framework for Node.js. It simplifies the process of creating robust APIs and web applications, offering features like routing, middleware support, and modular architecture. Install Express.js, a web application framework for Node.js, which handles server-side routing, middleware, and API development.

Installation: Open your command prompt or terminal and run the following command:

npm install express



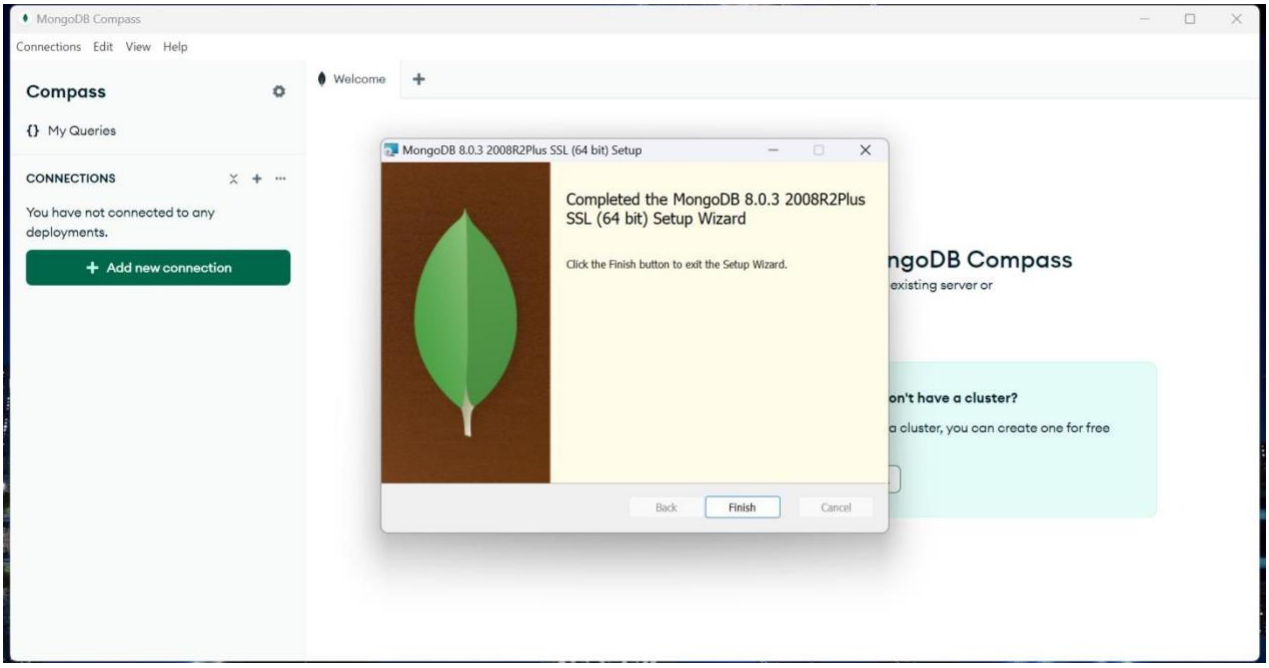
✓ **MongoDB:**

MongoDB is a flexible and scalable NoSQL database that stores data in a JSON-like format. It provides high performance, horizontal scalability, and seamless integration with Node.js, making it ideal for handling large amounts of structured and unstructured data.

Set up a MongoDB database to store your application's data.

Download: https://www.mongodb.com/try/download/community

Installation instructions: https://docs.mongodb.com/manual/installation/



✓ **React.js:**

React.js is a popular JavaScript library for building user interfaces. It enables developers to create interactive and reusable UI components, making it easier to build dynamic and responsive web applications.

Install React.js, a JavaScript library for building user interfaces.

Follow the installation guide: https://reactjs.org/docs/create-a-new-react-app.html

✓ **HTML, CSS, and JavaScript**:

Basic knowledge of HTML for creating the structure of your app, CSS for styling, and JavaScript for client-side interactivity is essential.

✓ **Database Connectivity**:

Use a MongoDB driver or an Object-Document Mapping (ODM) library like Mongoose to connect your Node.js server with the MongoDB database and perform CRUD (Create, Read, Update, Delete) operations.

✓ **Front-end Framework**:

Utilize React.js to build the user-facing part of the application, including entering booking room, status of the booking, and user interfaces for the admin dashboard. For making better UI we have also used some libraries like material UI and boostrap.

Install the required dependencies by running the following commands:

cd frontend || npm

install cd ../backend ||

npm install Start the

Development Server:

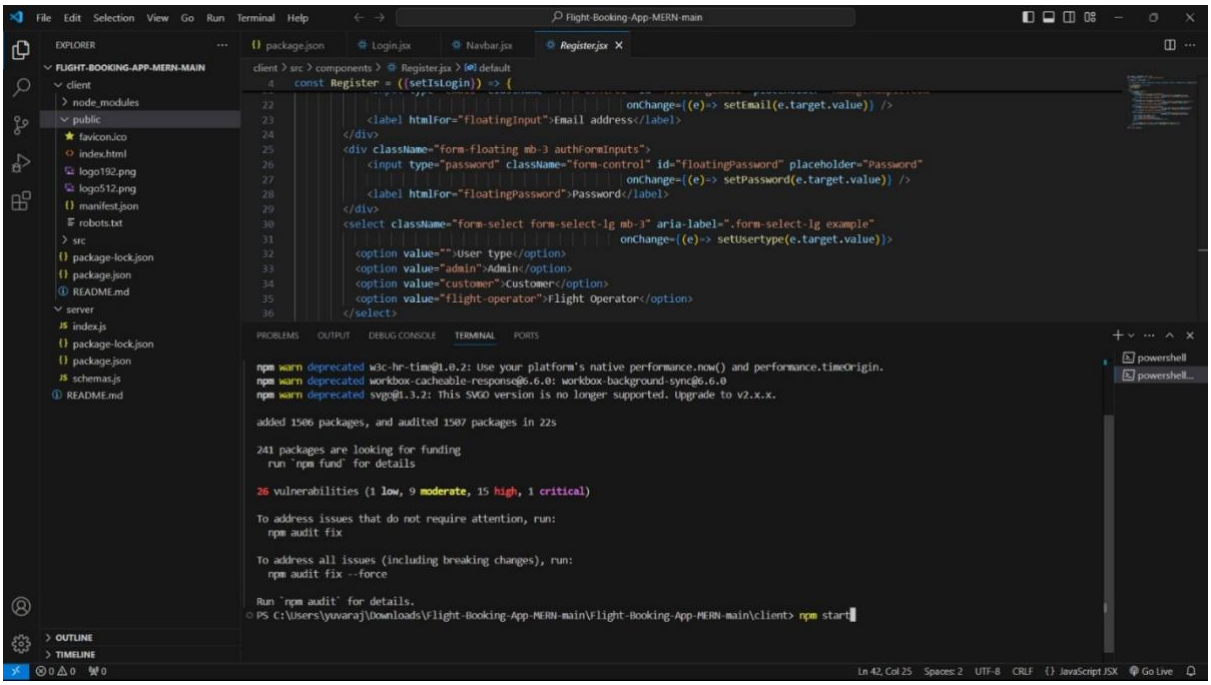
• To start the development server, execute the following command:

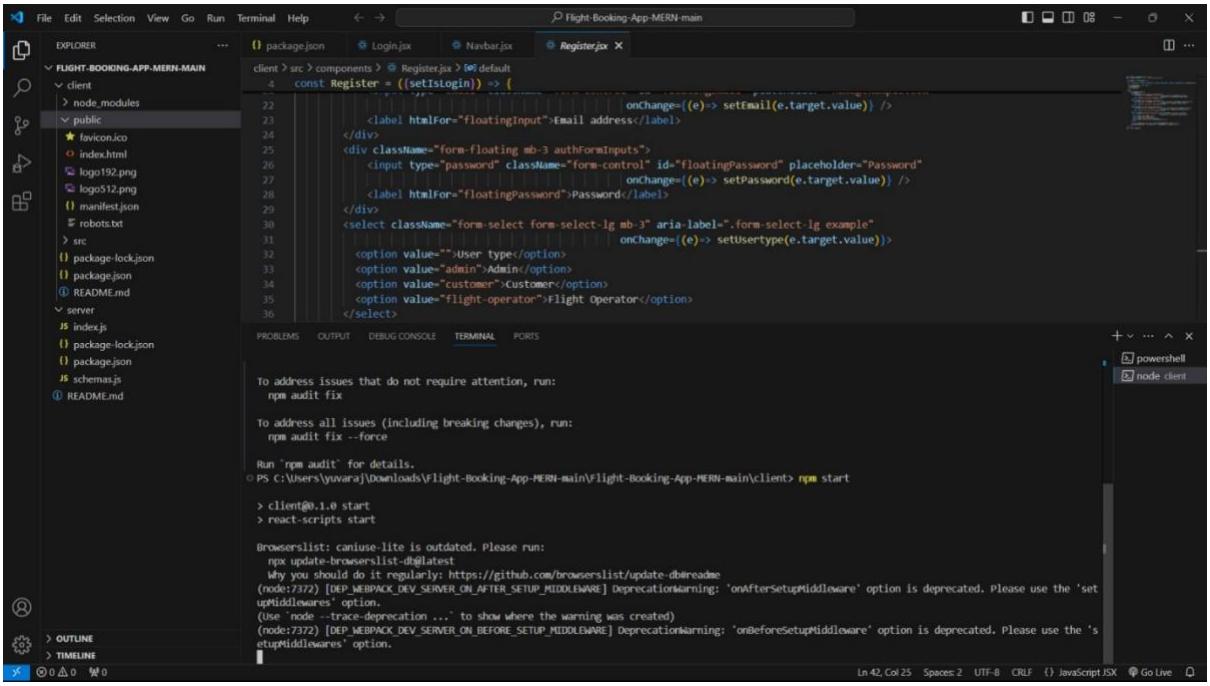
npm start

The installation is successfully installed and set up the SB FOOD APPLICATION on your local machine. You can now proceed with further customization, development, and testing as needed.

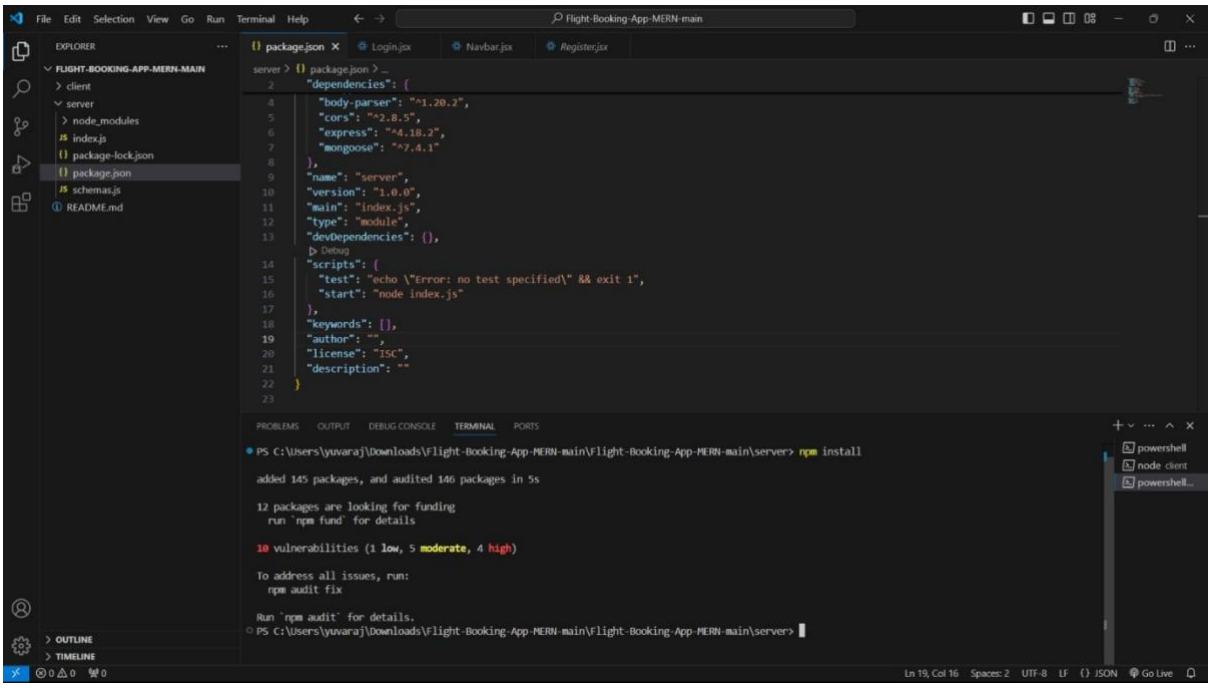
1.1 Screenshot

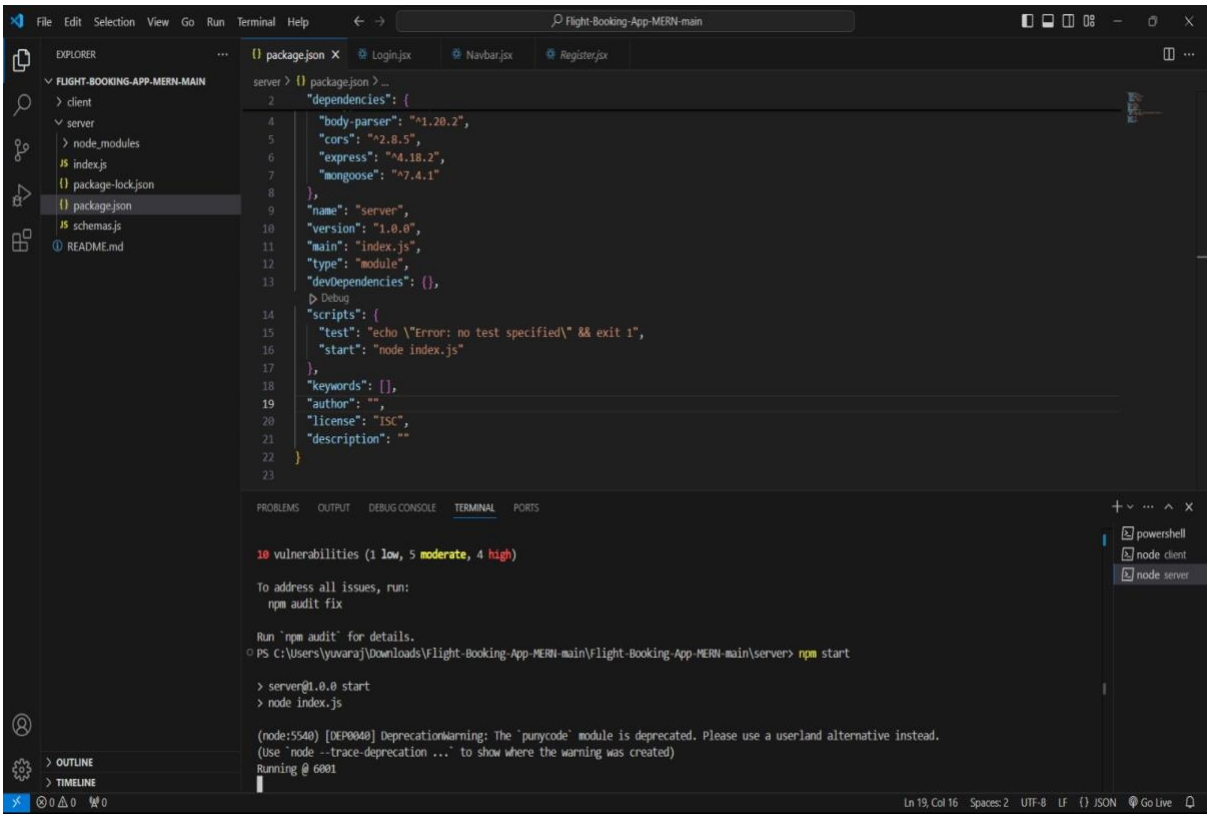
Clientside





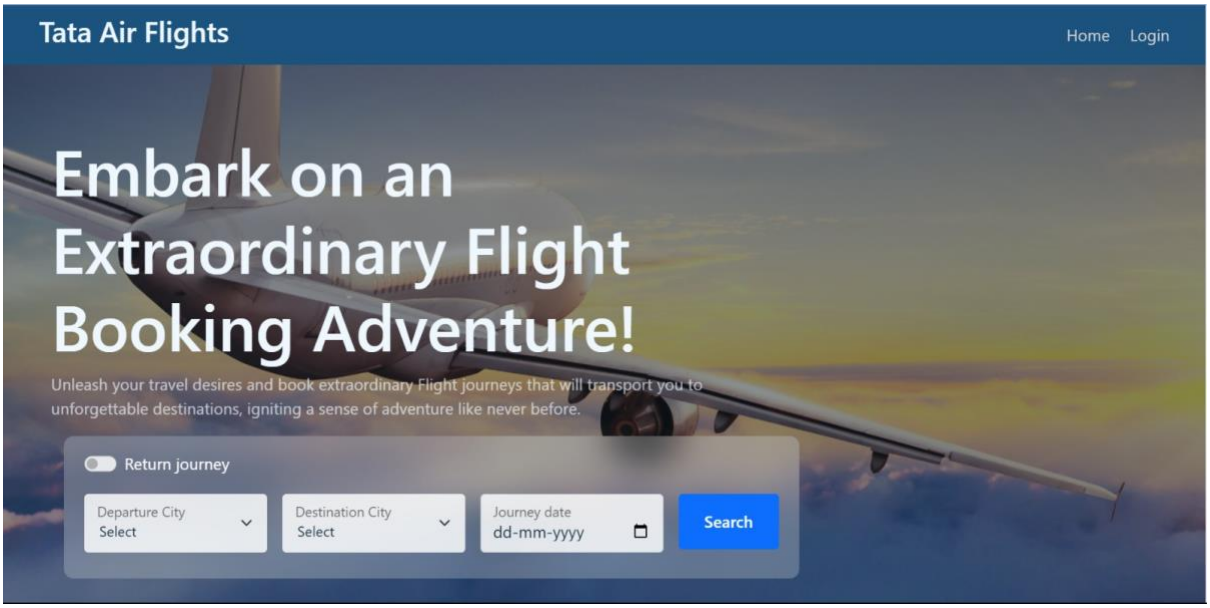
Serverside


File Edit Selection View Go Run Terminal Help
Flight-Booking-App-MERN-main
EXPLORER
FLIGHT-BOOKING-APP-MERN-MAIN
client
server
node_modules
index.js
package-lock.json
package.json
schemas.js
README.md
package.json
Login.jsx
Navbar.jsx
Register.jsx
server > package.json > ...
"dependencies": {
"body-parser": "^1.20.2",
"cors": "^2.8.5",
"express": "^4.18.2",
"mongoose": "^7.4.1"
},
"name": "server",
"version": "1.0.0",
"main": "index.js",
"type": "module",
"devDependencies": {},
Debug
"scripts": {
"test": "echo \"Error: no test specified\" && exit 1",
"start": "node index.js"
},
"keywords": [],
"author": "",
"license": "ISC",
"description": ""
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\yuvaraj\Downloads\Flight-Booking-App-MERN-main\Flight-Booking-App-MERN-main\server> npm install
added 145 packages, and audited 146 packages in 5s
12 packages are looking for funding
run `npm fund` for details
10 vulnerabilities (1 low, 5 moderate, 4 high)
To address all issues, run:
npm audit fix
Run `npm audit` for details.
PS C:\Users\yuvaraj\Downloads\Flight-Booking-App-MERN-main\Flight-Booking-App-MERN-main\server>
powershell
node client
powershell...
OUTLINE
TIMELINE
Ln 19, Col 16 Spaces: 2 UTF-8 LF {} JSON Go Live

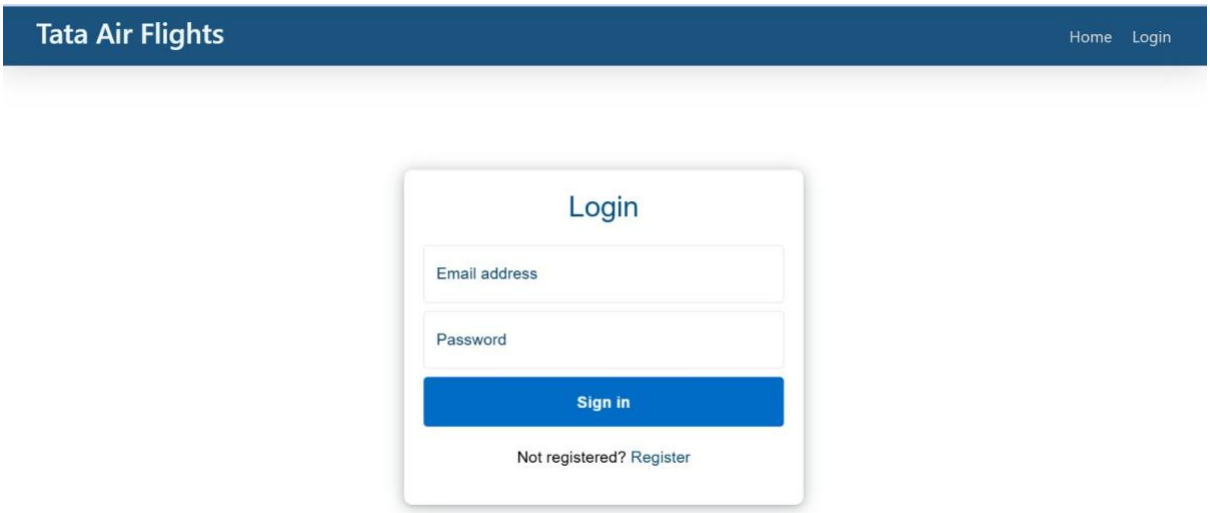

File Edit Selection View Go Run Terminal Help
Flight-Booking-App-MERN-main
EXPLORER
FLIGHT-BOOKING-APP-MERN-MAIN
client
server
node_modules
index.js
package-lock.json
package.json
schemas.js
README.md
package.json
Login.jsx
Navbar.jsx
Register.jsx
server > package.json > ...
"dependencies": {
"body-parser": "^1.20.2",
"cors": "^2.8.5",
"express": "^4.18.2",
"mongoose": "^7.4.1"
},
"name": "server",
"version": "1.0.0",
"main": "index.js",
"type": "module",
"devDependencies": {},
Debug
"scripts": {
"test": "echo \"Error: no test specified\" && exit 1",
"start": "node index.js"
},
"keywords": [],
"author": "",
"license": "ISC",
"description": ""
}
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
10 vulnerabilities (1 low, 5 moderate, 4 high)
To address all issues, run:
npm audit fix
Run `npm audit` for details.
PS C:\Users\yuvaraj\Downloads\Flight-Booking-App-MERN-main\Flight-Booking-App-MERN-main\server> npm start
> server@1.0.0 start
> node index.js
(node:5540) [DEP0040] DeprecationWarning: The `punycode` module is deprecated. Please use a userland alternative instead.
(Use `node --trace-deprecation ...` to show where the warning was created)
Running @ 6001
powershell
node client
node server
OUTLINE
TIMELINE
Ln 19, Col 16 Spaces: 2 UTF-8 LF {} JSON Go Live

SOFTWARE INTERFACE

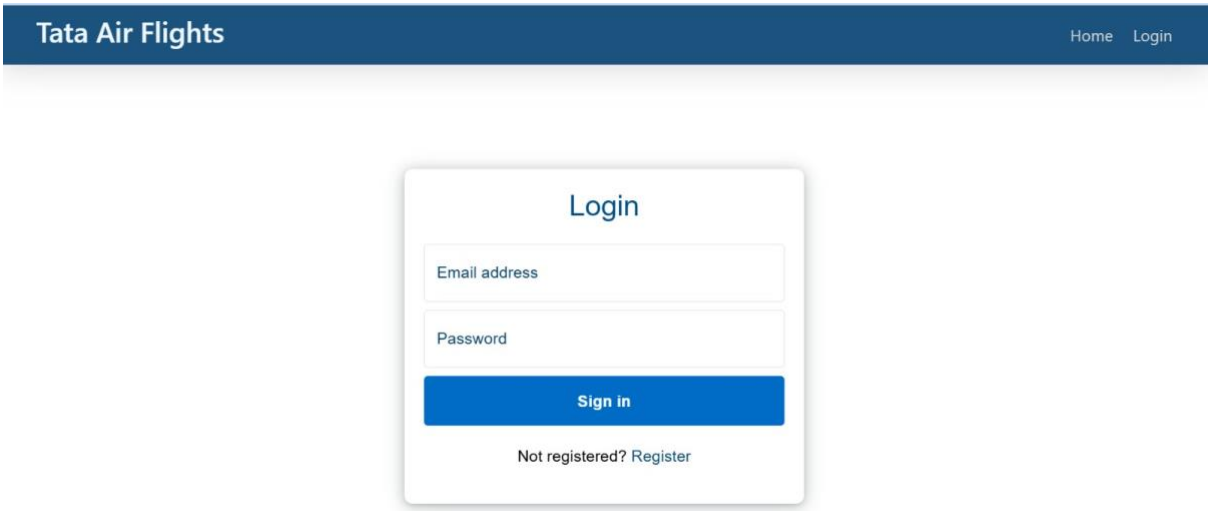
HOME PAGE



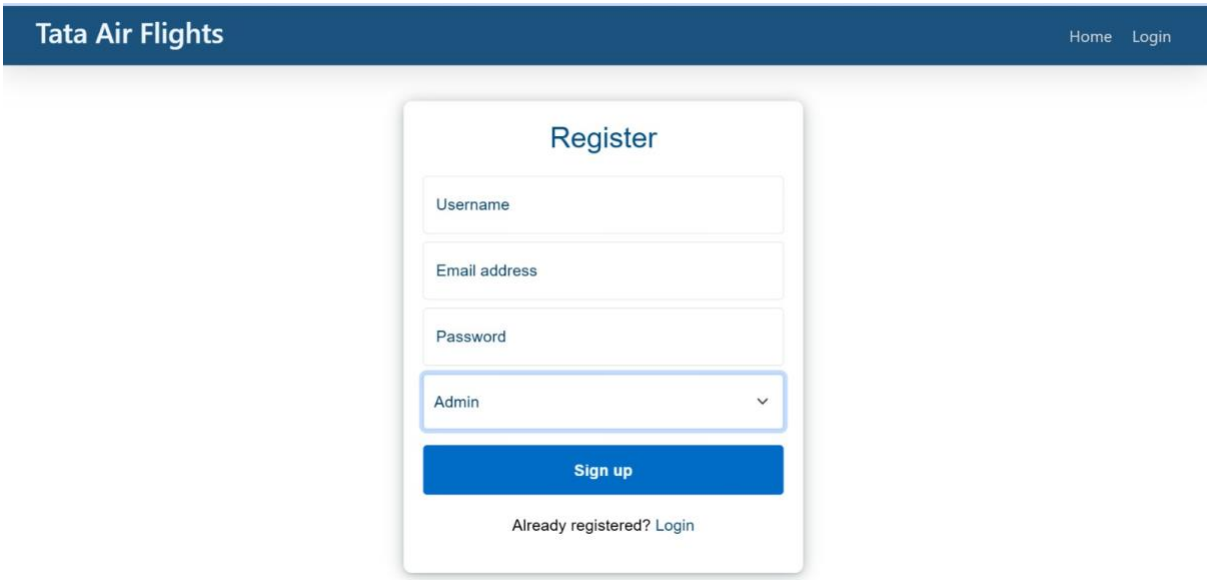
LOGIN PAGE

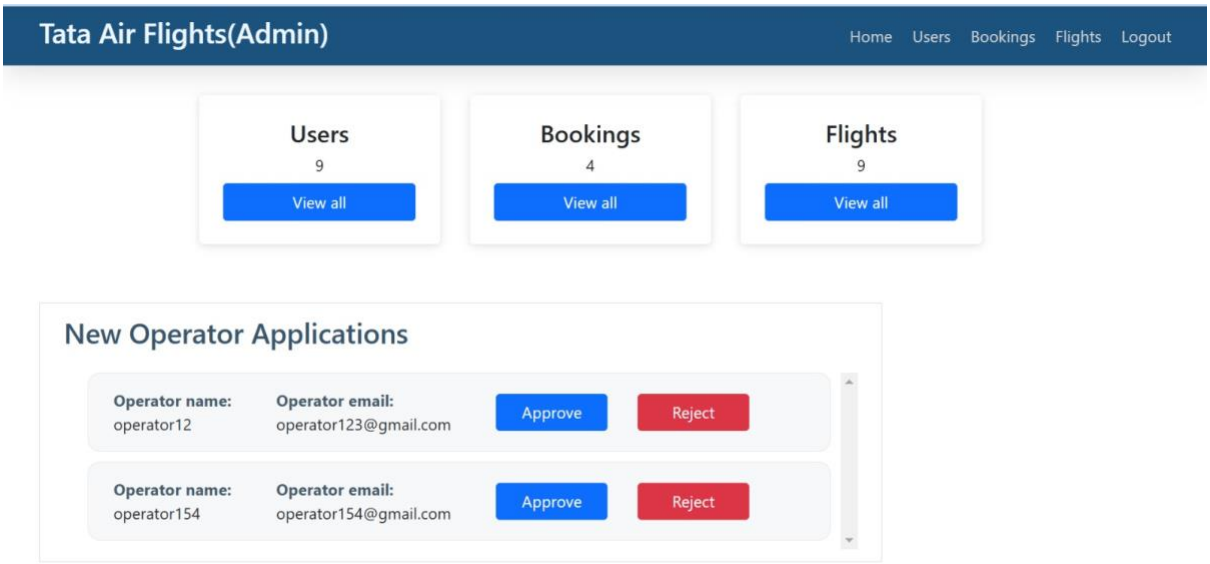


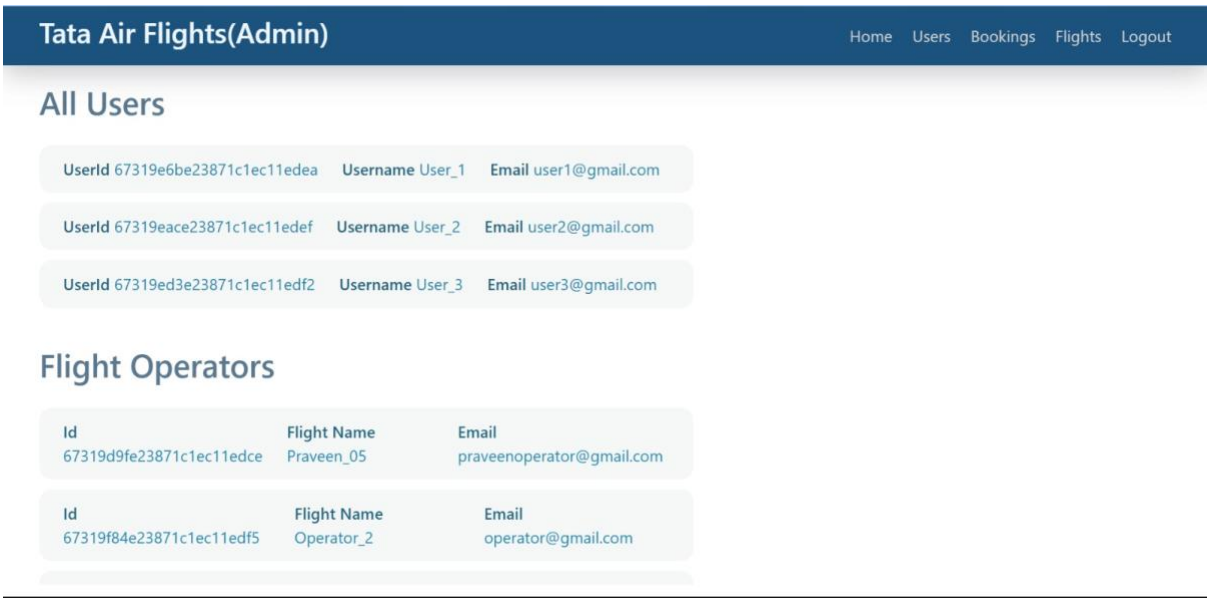
Registration Page

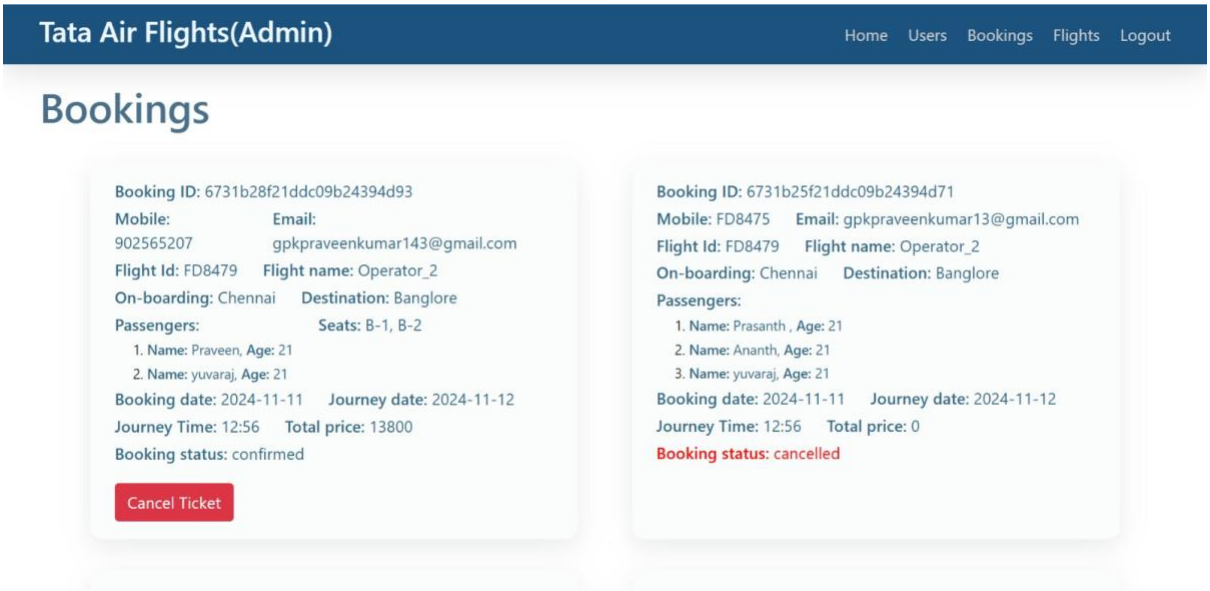


ADMIN INTERFACE

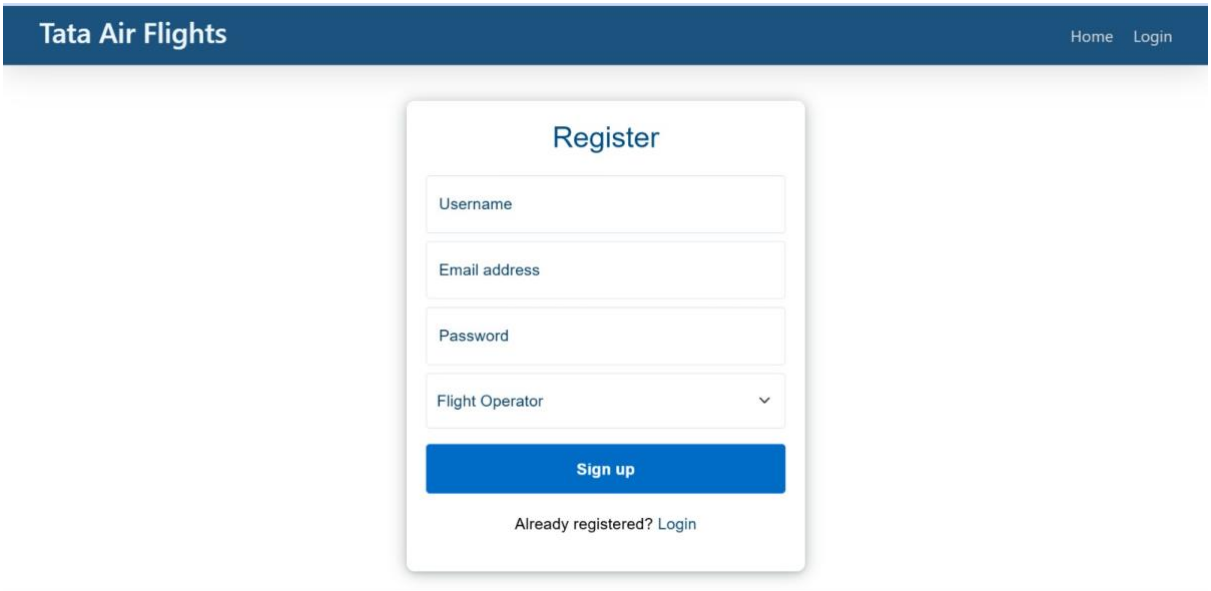


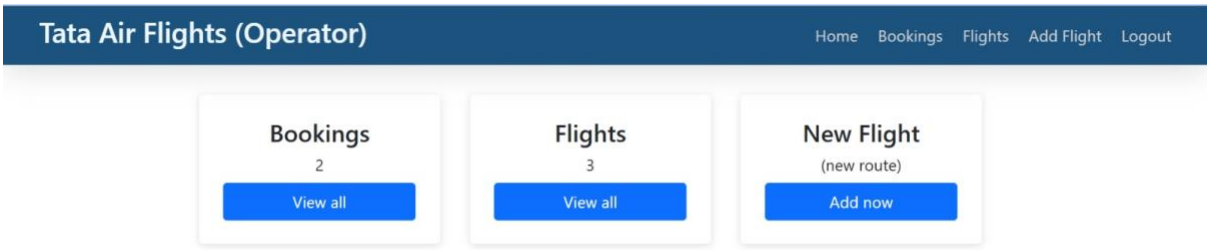

Tata Air Flights(Admin)
Home
Users
Bookings
Flights
Logout
Users
9
View all
Bookings
4
View all
Flights
9
View all
New Operator Applications
Operator name:
operator12
Operator email:
operator123@gmail.com
Approve
Reject
Operator name:
operator154
Operator email:
operator154@gmail.com
Approve
Reject

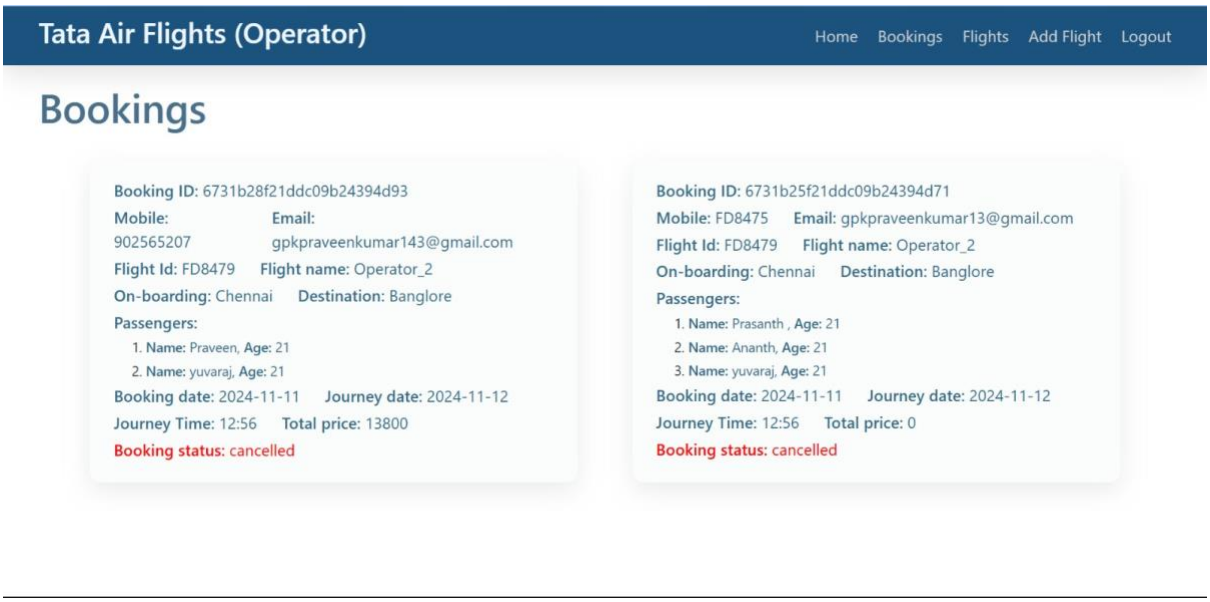

Tata Air Flights(Admin)
Home
Users
Bookings
Flights
Logout
All Users
UserId 67319e6be23871c1ec11edea
Username User_1
Email user1@gmail.com
UserId 67319eace23871c1ec11edef
Username User_2
Email user2@gmail.com
UserId 67319ed3e23871c1ec11edf2
Username User_3
Email user3@gmail.com
Flight Operators
Id
67319d9fe23871c1ec11edce
Flight Name
Praveen_05
Email
praveenoperator@gmail.com
Id
67319f84e23871c1ec11edf5
Flight Name
Operator_2
Email
operator@gmail.com

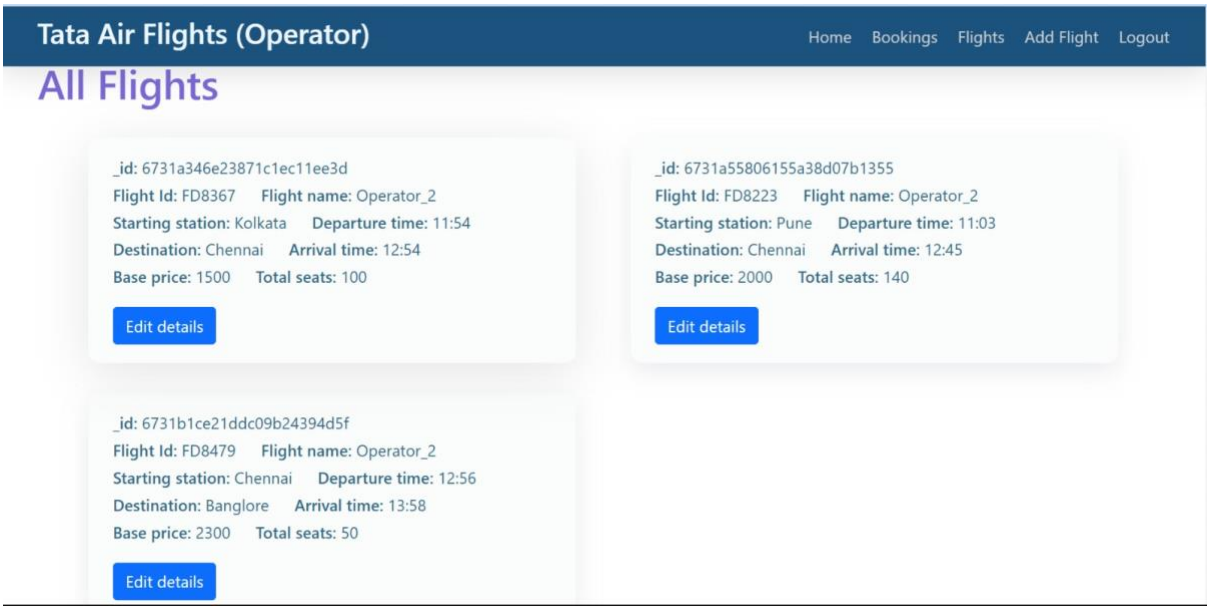


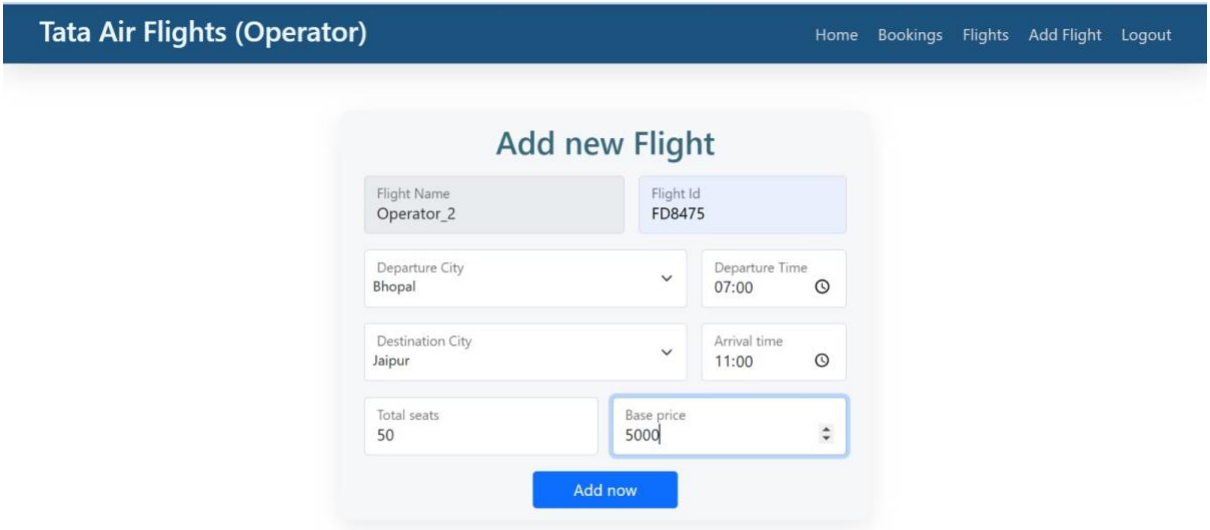
OPERATOR INTERFACE

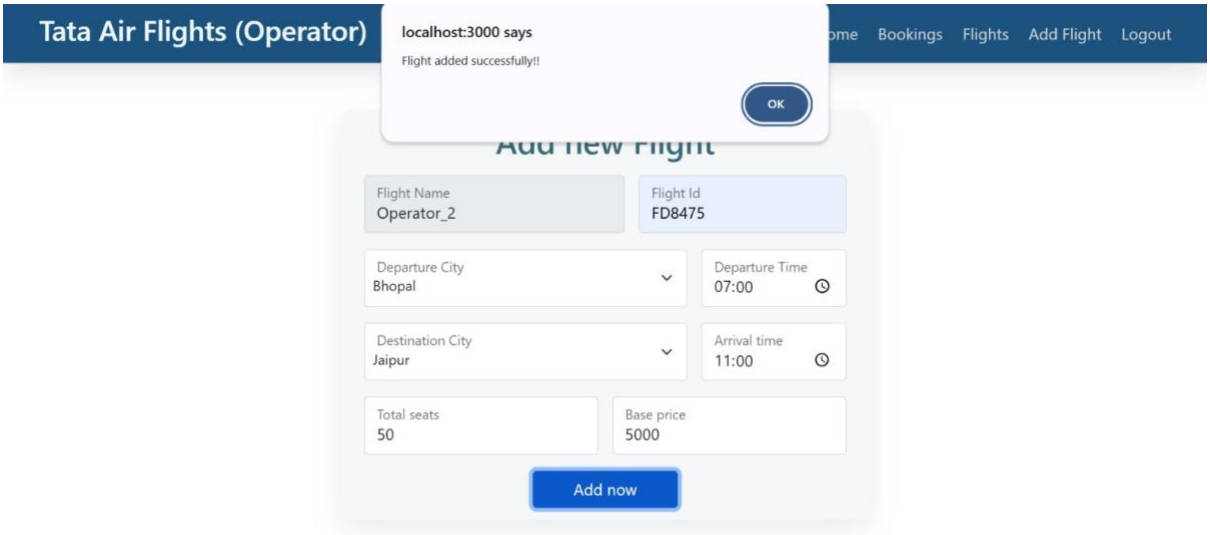



Tata Air Flights (Operator)
Home
Bookings
Flights
Add Flight
Logout
Bookings
2
View all
Flights
3
View all
New Flight
(new route)
Add now

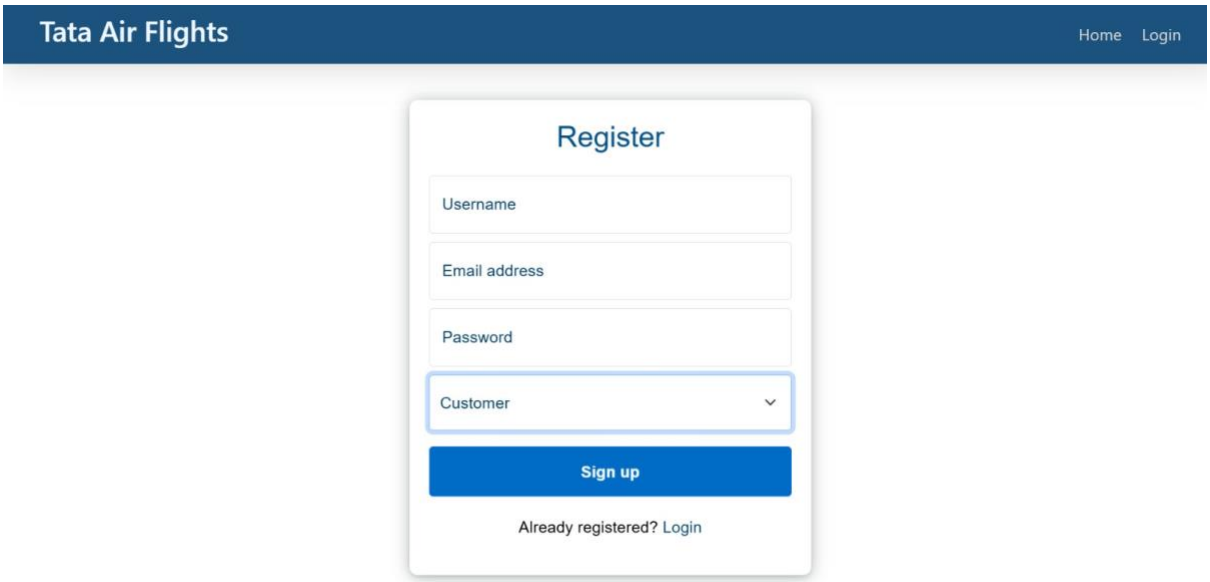

Tata Air Flights (Operator)
Home
Bookings
Flights
Add Flight
Logout
Bookings
Booking ID: 6731b28f21ddc09b24394d93
Mobile: 902565207
Email: gpkpraveenkumar143@gmail.com
Flight Id: FD8479
Flight name: Operator_2
On-boarding: Chennai
Destination: Banglore
Passengers:
1. Name: Praveen, Age: 21
2. Name: yuvaraj, Age: 21
Booking date: 2024-11-11
Journey date: 2024-11-12
Journey Time: 12:56
Total price: 13800
Booking status: cancelled
Booking ID: 6731b25f21ddc09b24394d71
Mobile: FD8475
Email: gpkpraveenkumar13@gmail.com
Flight Id: FD8479
Flight name: Operator_2
On-boarding: Chennai
Destination: Banglore
Passengers:
1. Name: Prasanth , Age: 21
2. Name: Ananth, Age: 21
3. Name: yuvaraj, Age: 21
Booking date: 2024-11-11
Journey date: 2024-11-12
Journey Time: 12:56
Total price: 0
Booking status: cancelled

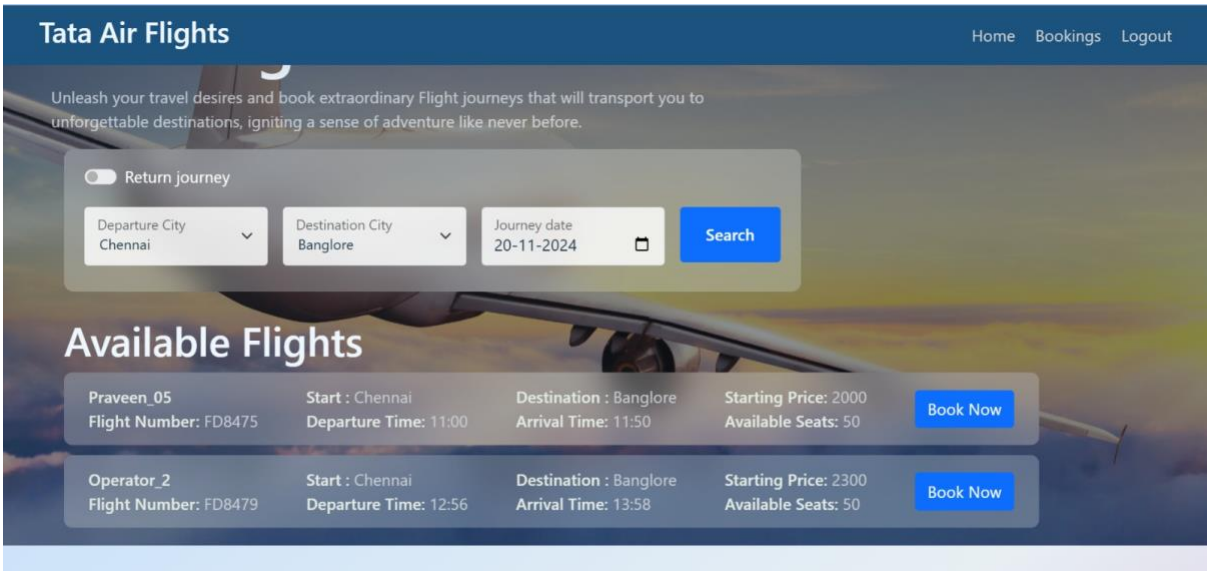

Tata Air Flights (Operator)
Home Bookings Flights Add Flight Logout
All Flights
_id: 6731a346e23871c1ec11ee3d
Flight Id: FD8367 Flight name: Operator_2
Starting station: Kolkata Departure time: 11:54
Destination: Chennai Arrival time: 12:54
Base price: 1500 Total seats: 100
Edit details
_id: 6731a55806155a38d07b1355
Flight Id: FD8223 Flight name: Operator_2
Starting station: Pune Departure time: 11:03
Destination: Chennai Arrival time: 12:45
Base price: 2000 Total seats: 140
Edit details
_id: 6731b1ce21ddc09b24394d5f
Flight Id: FD8479 Flight name: Operator_2
Starting station: Chennai Departure time: 12:56
Destination: Banglore Arrival time: 13:58
Base price: 2300 Total seats: 50
Edit details

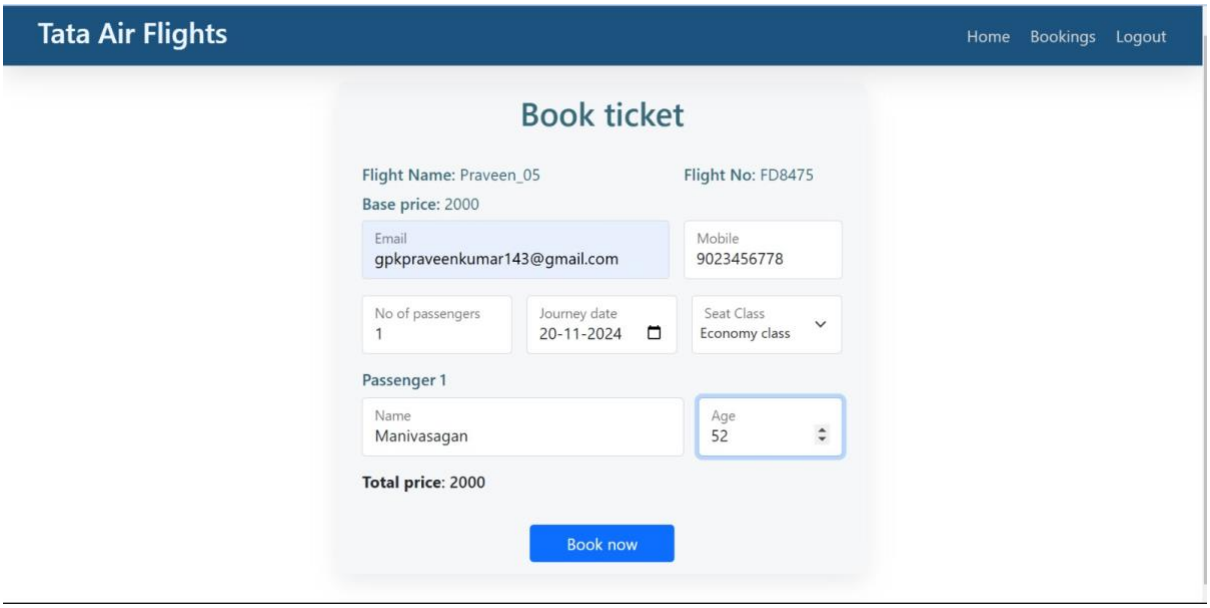

Tata Air Flights (Operator)
Home Bookings Flights Add Flight Logout
Add new Flight
Flight Name
Operator_2
Flight Id
FD8475
Departure City
Bhopal
Departure Time
07:00
Destination City
Jaipur
Arrival time
11:00
Total seats
50
Base price
5000
Add now

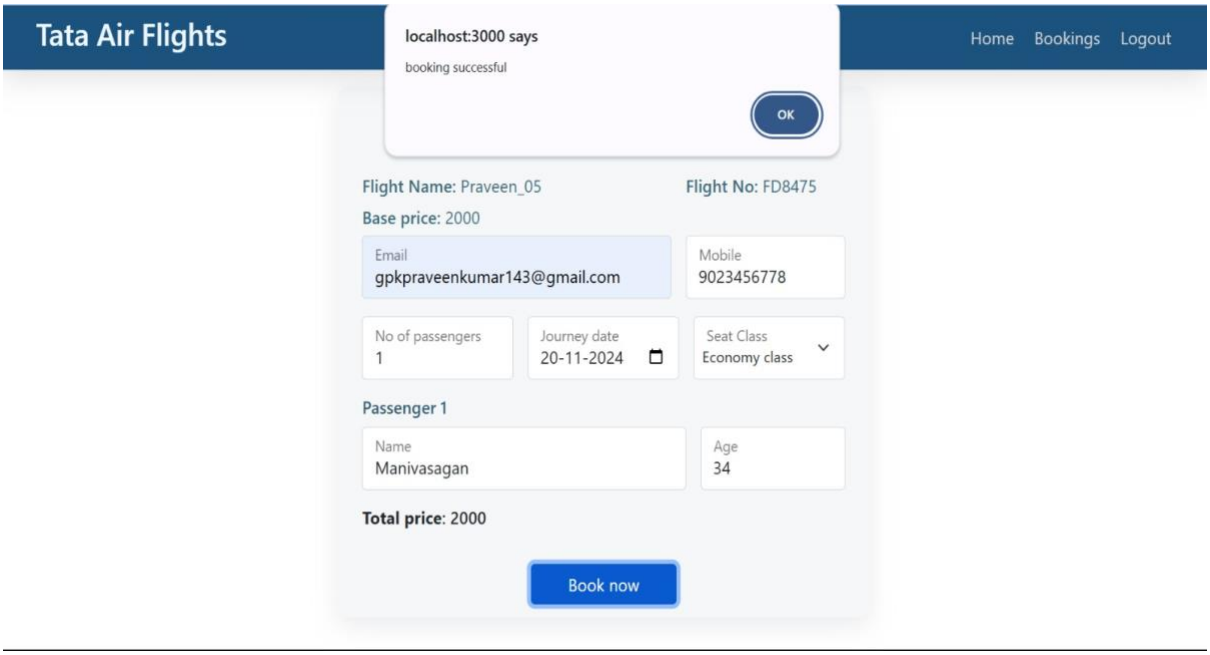


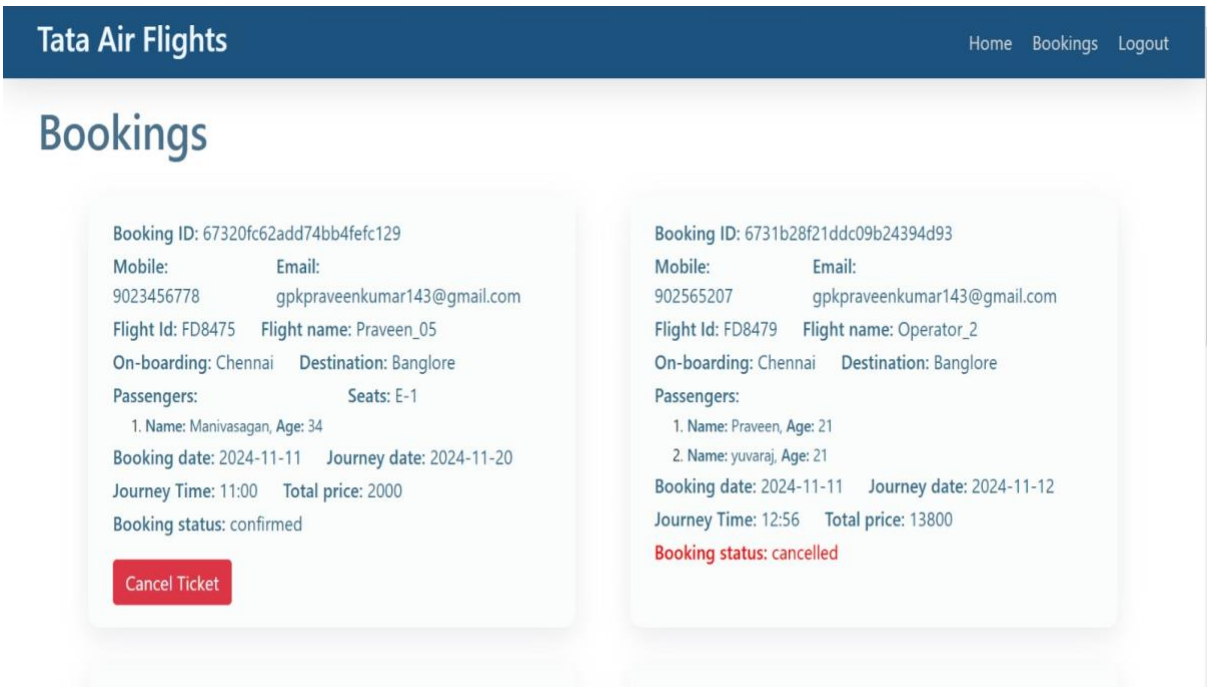
CLIENT INTERFACE



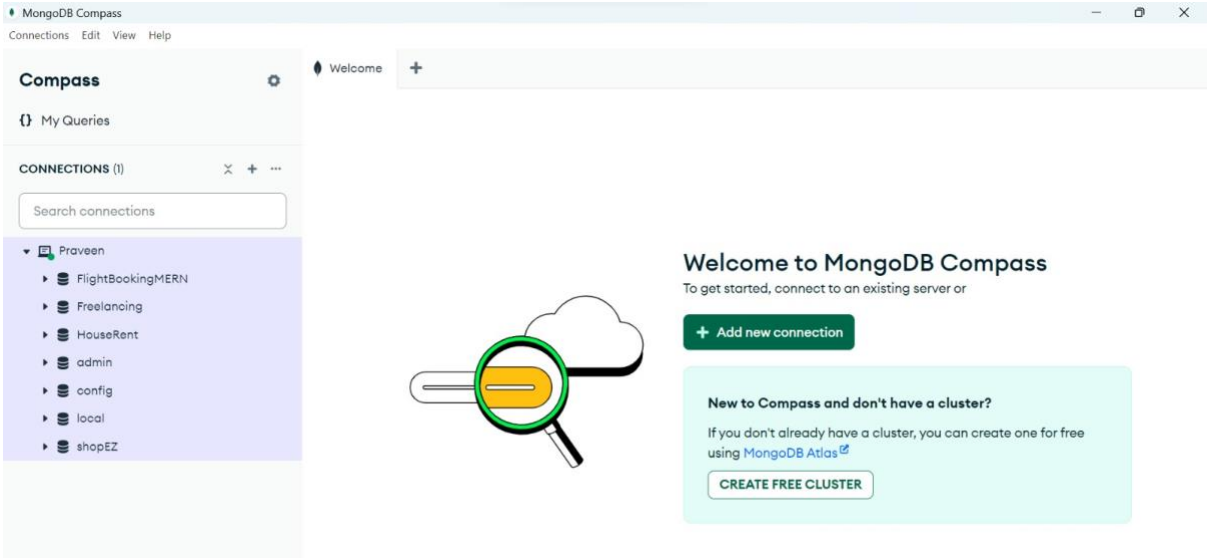

Tata Air Flights
Home
Bookings
Logout
Unleash your travel desires and book extraordinary Flight journeys that will transport you to unforgettable destinations, igniting a sense of adventure like never before.
Return journey
Departure City
Chennai
Destination City
Banglore
Journey date
20-11-2024
Search
Available Flights
Praveen_05
Flight Number: FD8475
Start : Chennai
Departure Time: 11:00
Destination : Banglore
Arrival Time: 11:50
Starting Price: 2000
Available Seats: 50
Book Now
Operator_2
Flight Number: FD8479
Start : Chennai
Departure Time: 12:56
Destination : Banglore
Arrival Time: 13:58
Starting Price: 2300
Available Seats: 50
Book Now

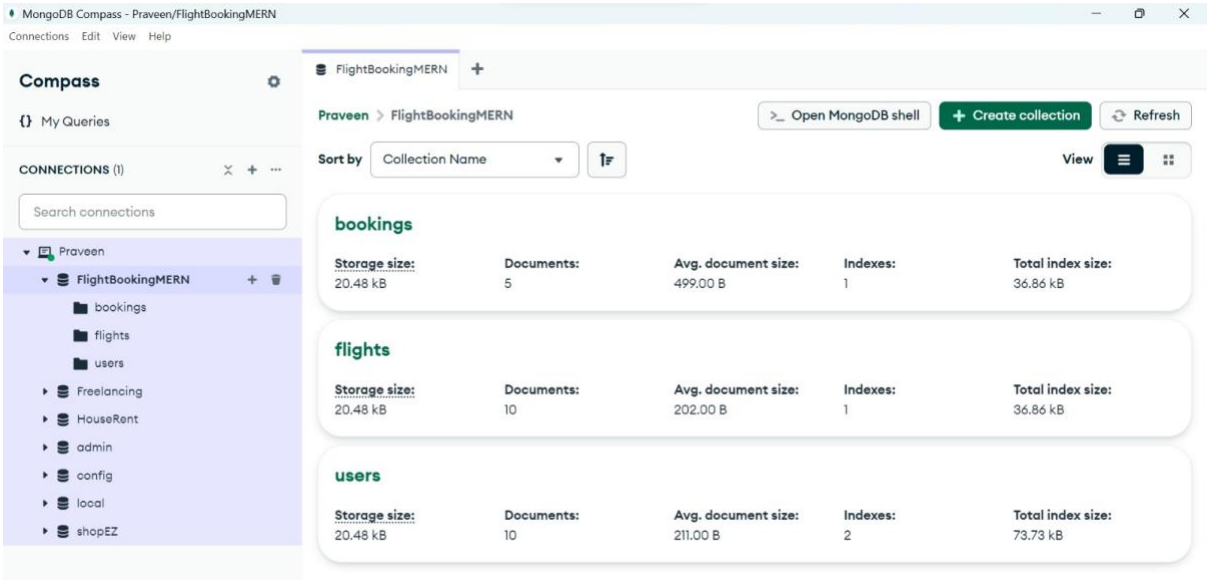

Tata Air Flights
Home
Bookings
Logout
Book ticket
Flight Name: Praveen_05
Flight No: FD8475
Base price: 2000
Email
gpkpraveenkumar143@gmail.com
Mobile
9023456778
No of passengers
1
Journey date
20-11-2024
Seat Class
Economy class
Passenger 1
Name
Manivasagan
Age
52
Total price: 2000
Book now

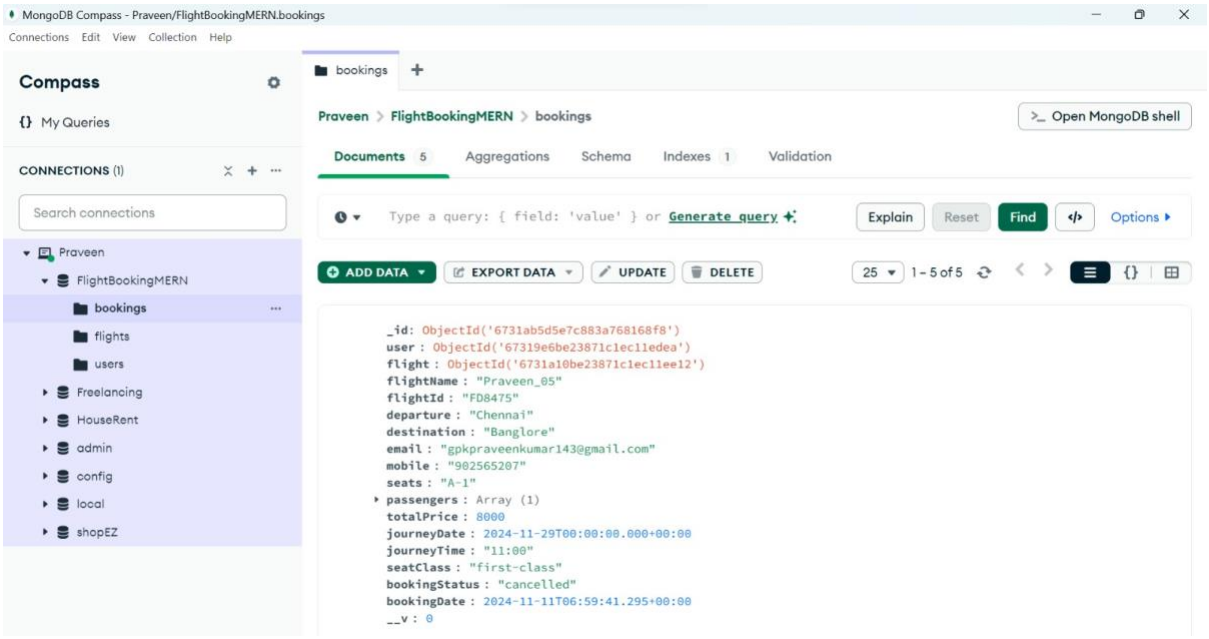

Tata Air Flights
localhost:3000 says
booking successful
OK
Home
Bookings
Logout
Flight Name: Praveen_05
Flight No: FD8475
Base price: 2000
Email
gpkpraveenkumar143@gmail.com
Mobile
9023456778
No of passengers
1
Journey date
20-11-2024
Seat Class
Economy class
Passenger 1
Name
Manivasagan
Age
34
Total price: 2000
Book now


Tata Air Flights
Home
Bookings
Logout
Bookings
Booking ID: 67320fc62add74bb4fefc129
Mobile: 9023456778
Email: gpkpraveenkumar143@gmail.com
Flight Id: FD8475
Flight name: Praveen_05
On-boarding: Chennai
Destination: Banglore
Passengers:
Seats: E-1
1. Name: Manivasagan, Age: 34
Booking date: 2024-11-11
Journey date: 2024-11-20
Journey Time: 11:00
Total price: 2000
Booking status: confirmed
Cancel Ticket
Booking ID: 6731b28f21ddc09b24394d93
Mobile: 902565207
Email: gpkpraveenkumar143@gmail.com
Flight Id: FD8479
Flight name: Operator_2
On-boarding: Chennai
Destination: Banglore
Passengers:
1. Name: Praveen, Age: 21
2. Name: yuvaraj, Age: 21
Booking date: 2024-11-11
Journey date: 2024-11-12
Journey Time: 12:56
Total price: 13800
Booking status: cancelled

MONGO DB


MongoDB Compass
Connections Edit View Help
Compass
My Queries
CONNECTIONS (1)
Search connections
Praveen
FlightBookingMERN
Freelancing
HouseRent
admin
config
local
shopEZ
Welcome
Welcome to MongoDB Compass
To get started, connect to an existing server or
Add new connection
New to Compass and don't have a cluster?
If you don't already have a cluster, you can create one for free using MongoDB Atlas
CREATE FREE CLUSTER


MongoDB Compass - Praveen/FlightBookingMERN
Connections Edit View Help
Compass
My Queries
CONNECTIONS (1)
Search connections
Praveen
FlightBookingMERN
bookings
flights
users
Freelancing
HouseRent
admin
config
local
shopEZ
FlightBookingMERN
Praveen > FlightBookingMERN
Open MongoDB shell
Create collection
Refresh
Sort by
Collection Name
View
bookings
Storage size: 20.48 kB
Documents: 5
Avg. document size: 499.00 B
Indexes: 1
Total index size: 36.86 kB
flights
Storage size: 20.48 kB
Documents: 10
Avg. document size: 202.00 B
Indexes: 1
Total index size: 36.86 kB
users
Storage size: 20.48 kB
Documents: 10
Avg. document size: 211.00 B
Indexes: 2
Total index size: 73.73 kB


MongoDB Compass - Praveen/FlightBookingMERN.bookings
Connections Edit View Collection Help
Compass
My Queries
CONNECTIONS (1)
Search connections
Praveen
FlightBookingMERN
bookings
flights
users
Freelancing
HouseRent
admin
config
local
shopEZ
bookings
Praveen > FlightBookingMERN > bookings
Open MongoDB shell
Documents 5
Aggregations
Schema
Indexes 1
Validation
Type a query: { field: 'value' } or Generate query
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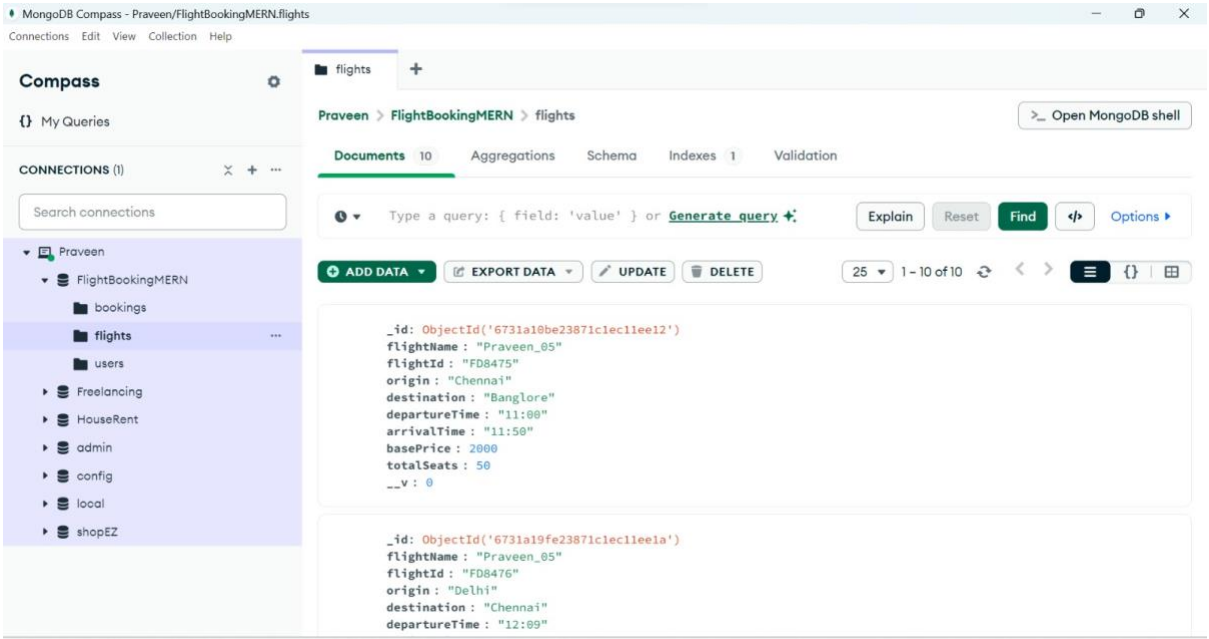
_id: ObjectId('6731ab5d5e7c883a768168f8')
user : ObjectId('67319e6be23871c1ec11edea')
flight : ObjectId('6731a10be23871c1ec11ee12')
flightName : "Praveen_05"
flightId : "FD8475"
departure : "Chennai"
destination : "Banglore"
email : "gpkpraveenkumar143@gmail.com"
mobile : "902565207"
seats : "A-1"
passengers : Array (1)
totalPrice : 8000
journeyDate : 2024-11-29T00:00:00.000+00:00
journeyTime : "11:00"
seatClass : "first-class"
bookingStatus : "cancelled"
bookingDate : 2024-11-11T06:59:41.295+00:00
__v : 0


MongoDB Compass - Praveen/FlightBookingMERN.flights
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CONNECTIONS (1)
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FlightBookingMERN
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Freelancing
HouseRent
admin
config
local
shopEZ
flights
Praveen > FlightBookingMERN > flights
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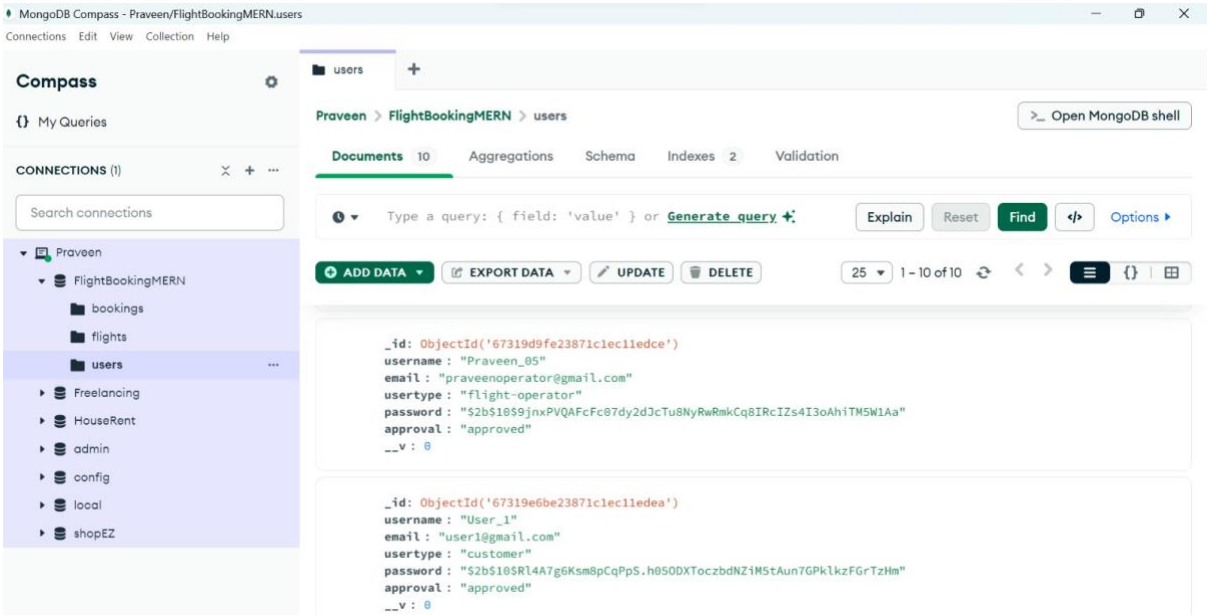
1 - 10 of 10
_id: ObjectId('6731a10be23871c1ec11ee12')
flightName : "Praveen_05"
flightId : "FD8475"
origin : "Chennai"
destination : "Banglore"
departureTime : "11:00"
arrivalTime : "11:50"
basePrice : 2000
totalSeats : 50
__v : 0
_id: ObjectId('6731a19fe23871c1ec11ee1a')
flightName : "Praveen_05"
flightId : "FD8476"
origin : "Delhi"
destination : "Chennai"
departureTime : "12:09"


MongoDB Compass - Praveen/FlightBookingMERN.users
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_id: ObjectId('67319d9fe23871c1ec11edce')
username : "Praveen_05"
email : "praveenoperator@gmail.com"
usertype : "flight-operator"
password : "$2b$10$9jnxPVQAFcFc07dy2dJcTu8NyRwRmkCq8IRcIZs4I3oAhiTM5W1Aa"
approval : "approved"
__v : 0
_id: ObjectId('67319e6be23871c1ec11edea')
username : "User_1"
email : "user1@gmail.com"
usertype : "customer"
password : "$2b$10$Rl4A7gGKsm8pCqPpS.h05ODXToczbdNZiM5tAun7GPklkzFGrTzHm"
approval : "approved"
__v : 0