

# Airline Ticket Reservation System





# About Project


Environment used: NodeJS

Languages used: HTML, CSS and JS

Frontend Framework: Bootstrap

Backend Framework: ExpressJS

Database used: MySQL



# Databases Schema

```
create table users
(
  user_id int primary key,
  user_name varchar(50),
  user_password varchar(50),
  user_mobile varchar(50),
  user_email varchar(50),
  user_address varchar(100)
);
```

```
create table admins
(
  admin_id int primary key ,
  admin_username varchar(50),
  admin_password varchar(50)
);

insert into admins
values(1,'Om','om_admin');
```

```
create table flights
(
  f_id int primary key,
  f_number varchar(50),
  f_type varchar(50),
  f_date varchar(50),
  f_source varchar(50),
  f_dest varchar(50),
  f_dept_time varchar(50),
  f_arr_time varchar(50),
  f_fare int,
  f_remseats int
);
```

```
alter table bookings
add constraint flight_fk
foreign key (b_f_id)
references flights(f_id)
on delete cascade;
```

```
alter table bookings
add constraint user_fk
foreign key (b_user_id)
references users(user_id)
on delete cascade;
```

```
create table bookings
(
  b_id int primary key,
  b_user_id int,
  b_f_id int,
  b_f_number int,
  b_f_type varchar(50),
  b_f_date varchar(50),
  b_pas_name varchar(50),
  b_pas_age varchar(50),
  b_pas_gender varchar(50)
);
```



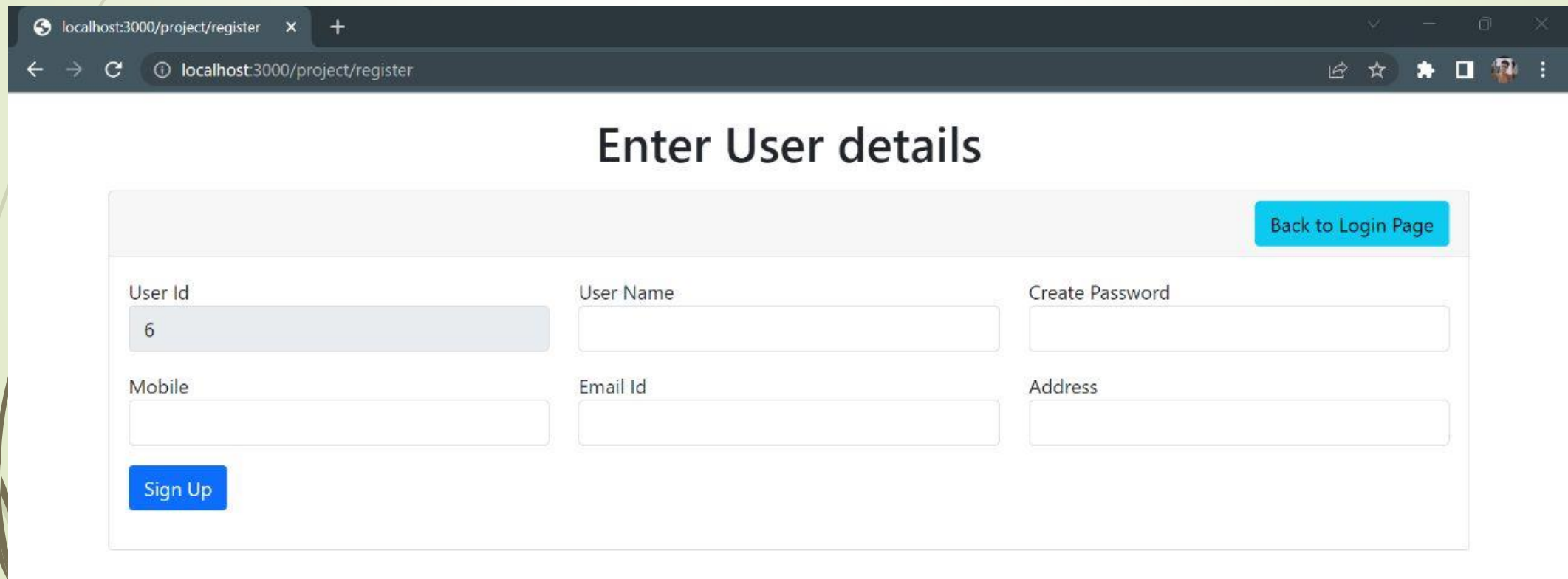
# Login Page

- This is the home page of our Website in which the user has to enter his login credentials in order to access his user portal.
- The entered credentials are matched in the Users database table using select query. If those credentials are found in table, the user is directed to his personalized user portal.
- If the entered credentials are not present in the table, it throws incorrect username/password error using flash messages.
- If the user visits the site for the first time, he can register as a user using the sign up button. The entered details would be then added to the Users table using the insert query.



# User Sign Up page

- As mentioned in previous slides, this page will allow the user to register him as an authenticated user.
- It takes the details using a form and then inserts in the Users database using the `express.post` module.
- It generates an unique user id automatically to each new user.



The screenshot shows a web browser window with the address bar displaying `localhost:3000/project/register`. The page title is "Enter User details". The form contains the following fields and buttons:

- User Id:** A text input field containing the value "6".
- User Name:** A text input field.
- Create Password:** A text input field.
- Mobile:** A text input field.
- Email Id:** A text input field.
- Address:** A text input field.
- Sign Up:** A blue button located at the bottom left of the form.
- Back to Login Page:** A blue button located at the top right of the form.





## This website has two separate login privileges: User and Admin

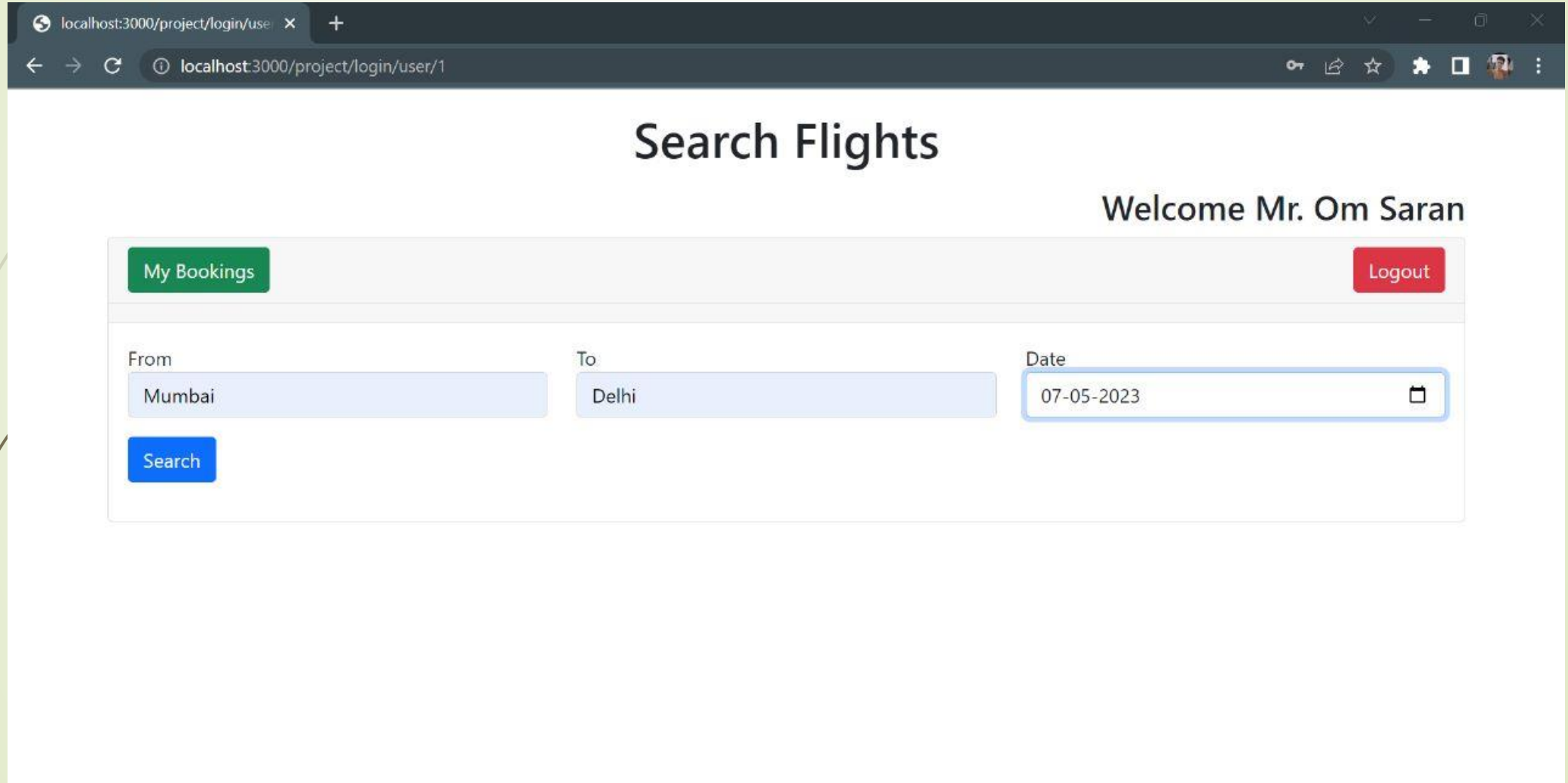
- **User:** This login privilege allows the users to get access to their personalized user portal where they can search flights, book tickets for the needed flights and view their bookings and cancel them if needed.
- **Admin:** There is no option to sign up as an admin. It is decided by the organization. The admin has the privilege to edit some of the flight details.

# Personalized User Portal

- The user portal is unique for each user because on login each user is directed to a new route identified by an unique user id.
- The portal has following functionalities:
  - ❖ Flight search: user can enter the source and destination and date of the flight and can get the list of all required available flights.
  - ❖ My bookings: user can view all the previously booked tickets by him.
  - ❖ Logout: to go back to login home page.



# Personalized User Portal



The screenshot shows a web browser window with the address bar displaying `localhost:3000/project/login/user/1`. The page title is "Search Flights". On the right side, there is a welcome message: "Welcome Mr. Om Saran". Below this, there is a navigation bar with a green button labeled "My Bookings" and a red button labeled "Logout". The main content area contains a flight search form with three input fields: "From" (containing "Mumbai"), "To" (containing "Delhi"), and "Date" (containing "07-05-2023"). A blue "Search" button is located below the "From" field. The browser's address bar also shows navigation icons and a search icon.

localhost:3000/project/login/user/1

## Search Flights

Welcome Mr. Om Saran

My Bookings Logout

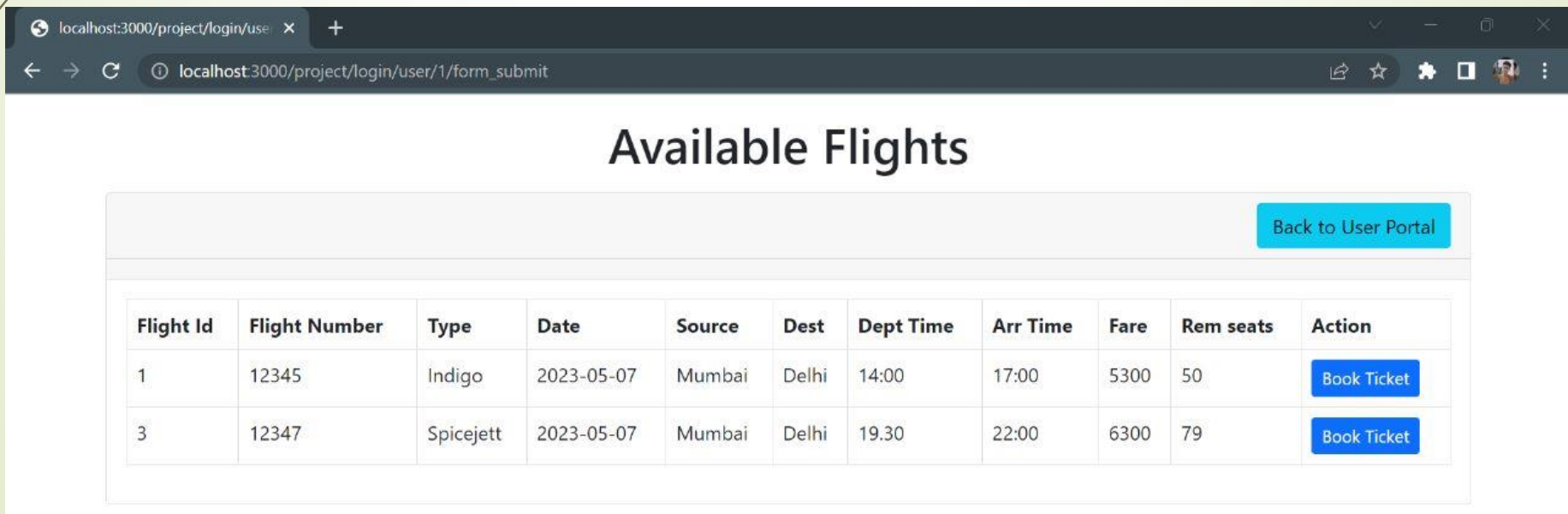
From To Date

Mumbai Delhi 07-05-2023

Search

# 1. Search Flights

- This webpage will take input from the user from form in previous user portal page using post module and then run a search query on the flights database and display the available flights.
- Each flight will have a separate book ticket button corresponding to it which would take the user to booking page with the flight details automatically entered if seats are available.
- It has a back to home page button to go back to user portal.

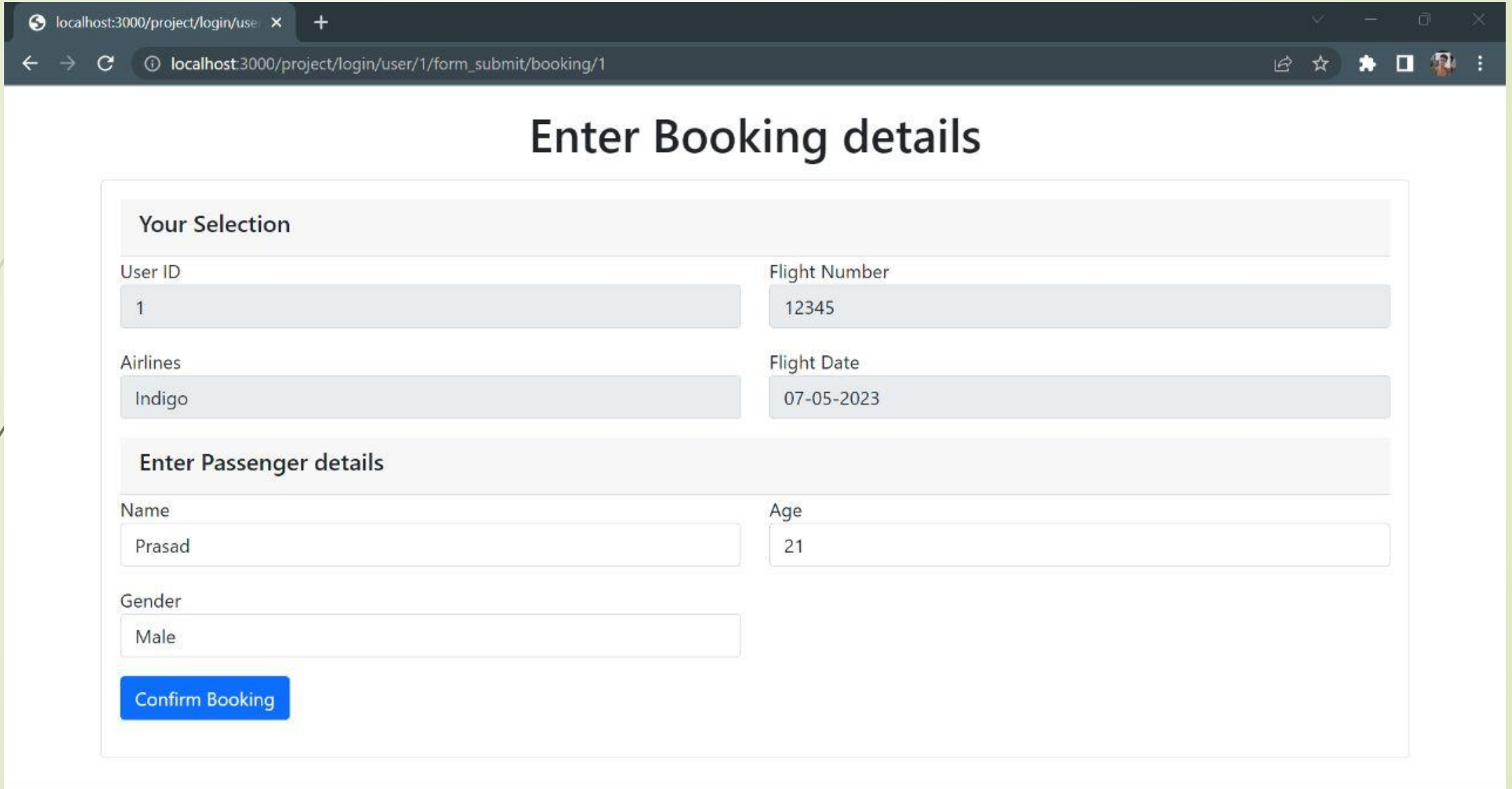


Flight Id	Flight Number	Type	Date	Source	Dest	Dept Time	Arr Time	Fare	Rem seats	Action
1	12345	Indigo	2023-05-07	Mumbai	Delhi	14:00	17:00	5300	50	<a href="#">Book Ticket</a>
3	12347	Spicejett	2023-05-07	Mumbai	Delhi	19.30	22:00	6300	79	<a href="#">Book Ticket</a>

# Booking Portal

- Each flight has an unique booking portal with the details of the flight chosen by the user are already entered in the booking form in read only mode.
- The user just has to enter the passenger details and click on confirm booking button to book his ticket.
- The data from the form would be entered into the bookings database using insert query.
- Each booking would be given a new unique booking id automatically. For this we create and save state of variable book\_id in a .json file.
- On each successful booking the number of remaining seats in the corresponding flight would decrease by one using update query on the flights database.
- The user would be redirected to user portal and a flash message confirming booking would be displayed.

# Booking Portal



The screenshot shows a web browser window with the address bar displaying `localhost:3000/project/login/user/1/form_submit/booking/1`. The page title is "Enter Booking details". The form is divided into two main sections: "Your Selection" and "Enter Passenger details".

**Your Selection**

User ID	Flight Number
1	12345
Airlines	Flight Date
Indigo	07-05-2023

**Enter Passenger details**

Name	Age
Prasad	21
Gender	
Male	

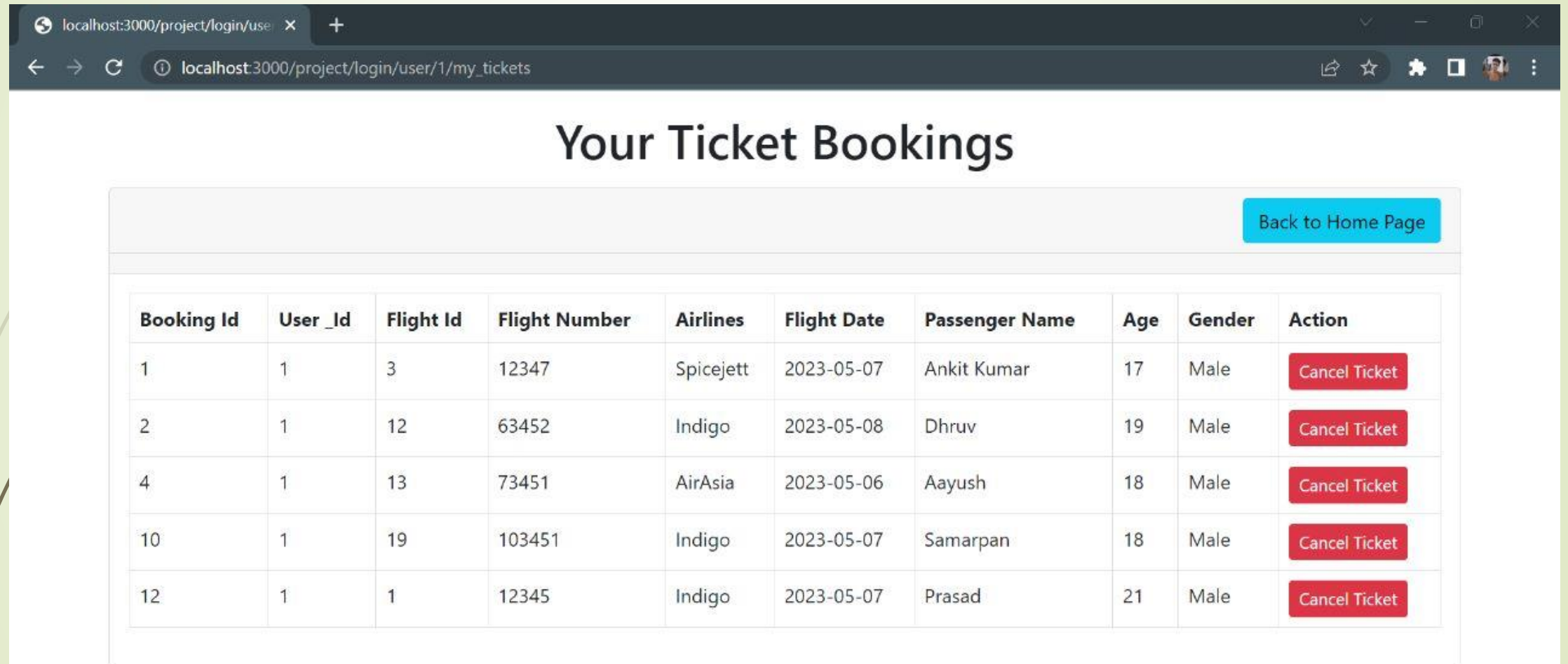
**Confirm Booking**



## 2. My Bookings

- This webpage will display all the tickets booked by the current logged in user by running a search query using user id from the route name of the user portal.
- Each booking will have a cancel ticket button which would delete the corresponding booking from the bookings database using the unique booking id.
- On cancel ticket the number of remaining seats in the corresponding flight would be increased by one using update query on flights database using the unique flight id.

## 2. My Bookings



Your Ticket Bookings									
									<a href="#">Back to Home Page</a>
Booking Id	User_Id	Flight Id	Flight Number	Airlines	Flight Date	Passenger Name	Age	Gender	Action
1	1	3	12347	Spicejett	2023-05-07	Ankit Kumar	17	Male	<a href="#">Cancel Ticket</a>
2	1	12	63452	Indigo	2023-05-08	Dhruv	19	Male	<a href="#">Cancel Ticket</a>
4	1	13	73451	AirAsia	2023-05-06	Aayush	18	Male	<a href="#">Cancel Ticket</a>
10	1	19	103451	Indigo	2023-05-07	Samarpan	18	Male	<a href="#">Cancel Ticket</a>
12	1	1	12345	Indigo	2023-05-07	Prasad	21	Male	<a href="#">Cancel Ticket</a>





# Admin Privilege Portal

- The login as admin button takes the user to admin login page where the user can login only using the admin login credentials and there is no facility to sign up as an admin.
- A new admin can be created only directly in the database by the organisation.
- The entered credentials will be matched with the entries in the admin database using search query. If corresponding details is found, the user would be directed to admin portal else it would throw incorrect username/password error.
- The admin portal allows the admin to edit some selected details such as departure and arrival time, of a flight by entering the flight number.
- The corresponding details are updated in the flights database using update query and flash message is displayed confirming the changes.

## Admin Login

Username

Password

Admin Login

Login as User

## Edit Flight Details

Welcome Admin Mr. Om

Logout

Enter Flight Number

Enter new details for the Flight :

Departure Time

Arrival Time

Fare

Confirm Changes



Thank you....