

# Online Bus Ticket Booking Application

## Introduction:

The Online Bus Ticket Booking Application is a solution designed to Streamline the bus ticket booking process. It has features like User Registration and Sign-in, an Efficient booking process, viewing booking history, changing passwords, viewing and updating profiles, and downloading tickets.

## Technologies Used:

Frontend: HTML, CSS, Javascript

Backend: SpringBoot3

API: Ajax

1. Register a new user

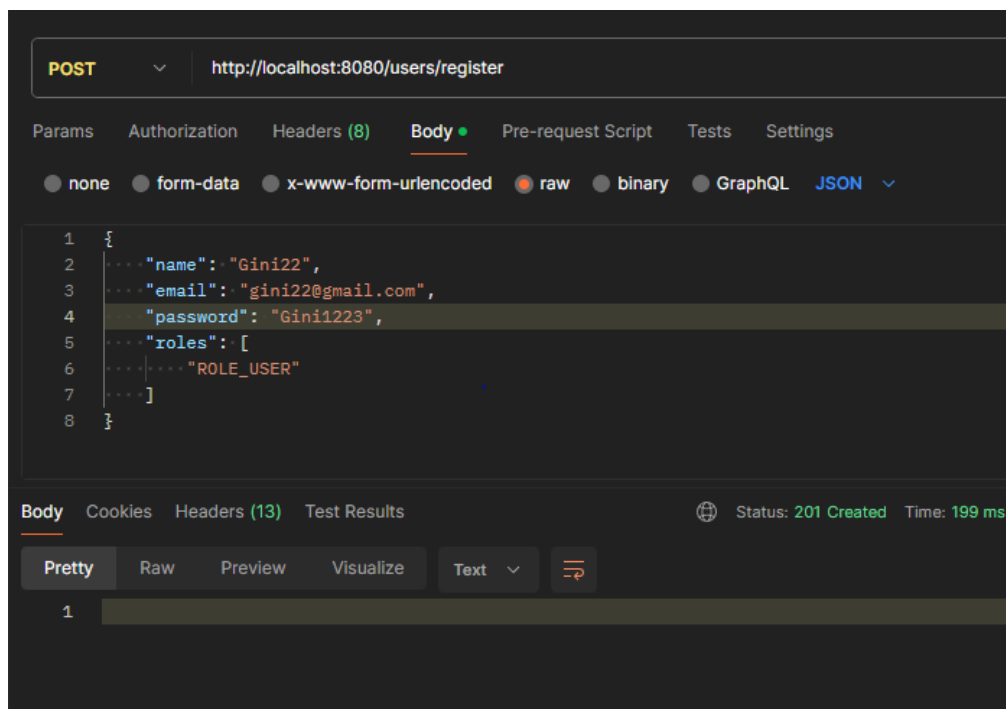
Endpoint: `http://localhost:8080/users/register`

Method: POST

Request Payload:

```
{
  "name": "Gini22",
  "email": "gini22@gmail.com",
  "password": "Gini1223",
  "roles": [
    "ROLE_USER"
  ]
}
```

Response: 201



## 2.Sign-In

Endpoint: <http://localhost:8080/auth/generateToken>

Method:POST

Request Payload: {

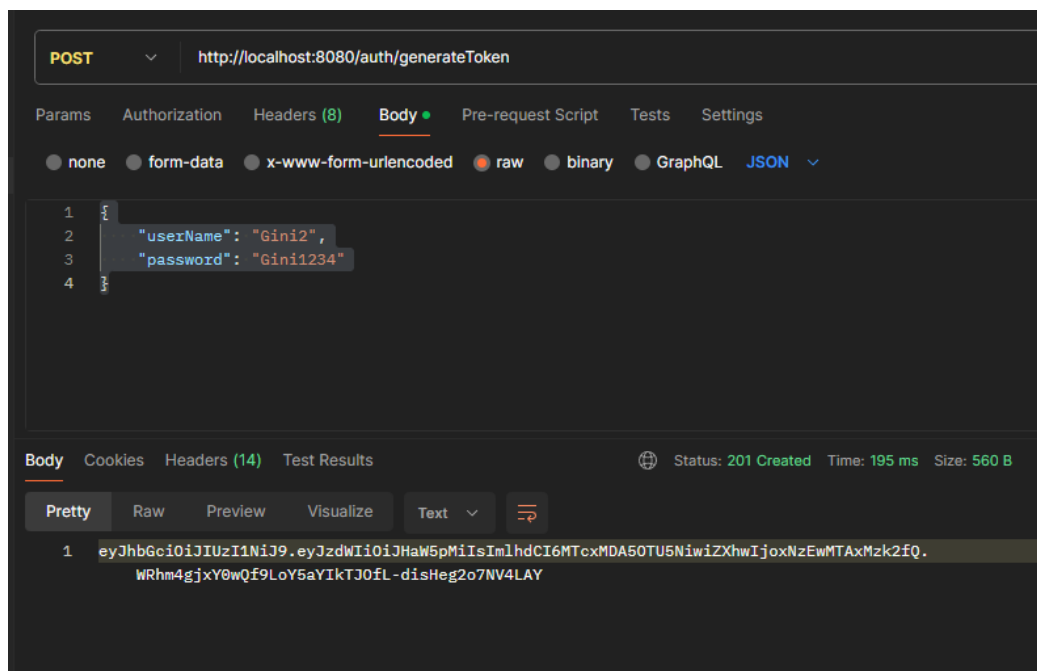
"userName": "Gini2",

"password": "Gini1234"

}

Response: (Token)

eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJHaW5pMiIsImhhdCI6MTcxMDA5ODAwNiwiZXhwIjoxNzEwMDk5ODA2fQ.TNiWPJfv82lcDriJXHB19dKE5pfl2a0g1CAzwryUtWI



## 2. Search buses based on from and to location

Request Endpoint: <http://localhost:8080/buses?from=Chennai&to=Nagercoil>

Method: GET

Response: [

{

"busId": 1,

"busName": "Tippu Sulthan Travels",

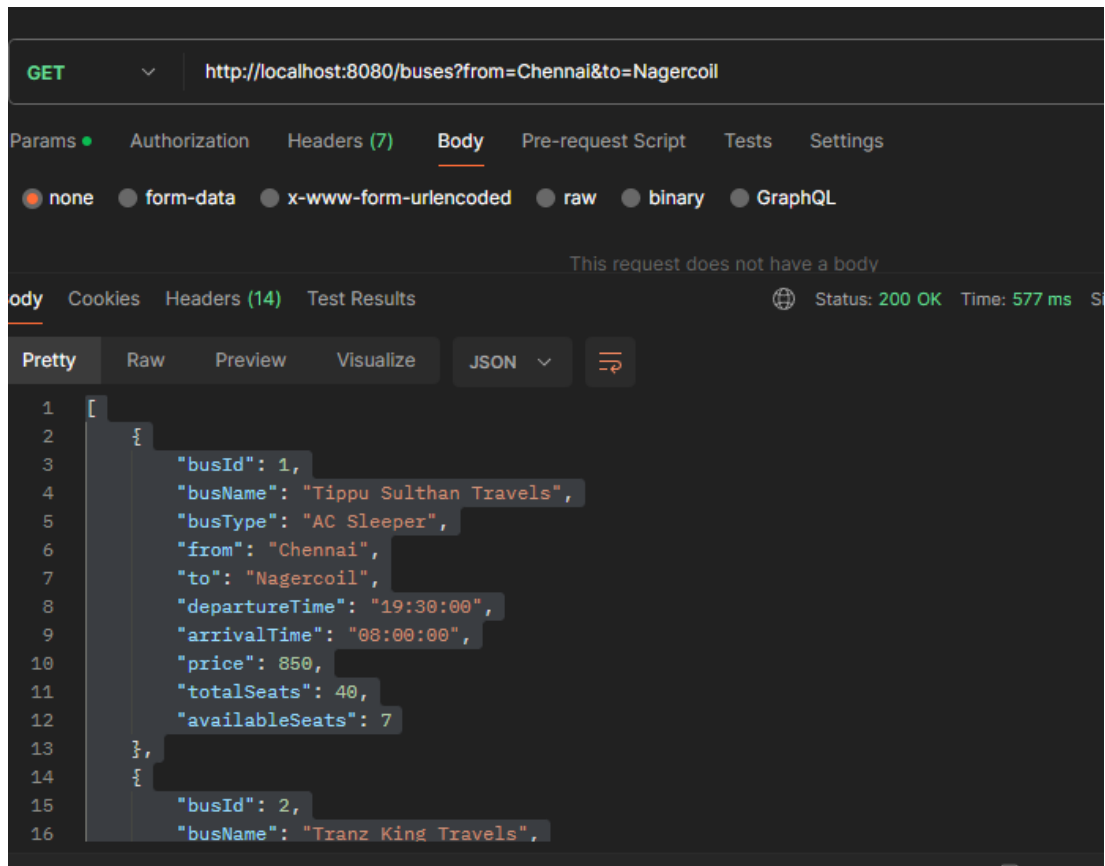
"busType": "AC Sleeper",

"from": "Chennai",

"to": "Nagercoil",

"departureTime": "19:30:00",

```
"arrivalTime": "08:00:00",
"price": 850,
"totalSeats": 40,
"availableSeats": 7
},
{
  "busId": 2,
  "busName": "Tranz King Travels",
  "busType": "Non-AC Seater",
  "from": "Chennai",
  "to": "Nagercoil",
  "departureTime": "17:15:00",
  "arrivalTime": "06:45:00",
  "price": 950,
  "totalSeats": 40,
  "availableSeats": 33
}
]
```



#### 4.Booking tickets

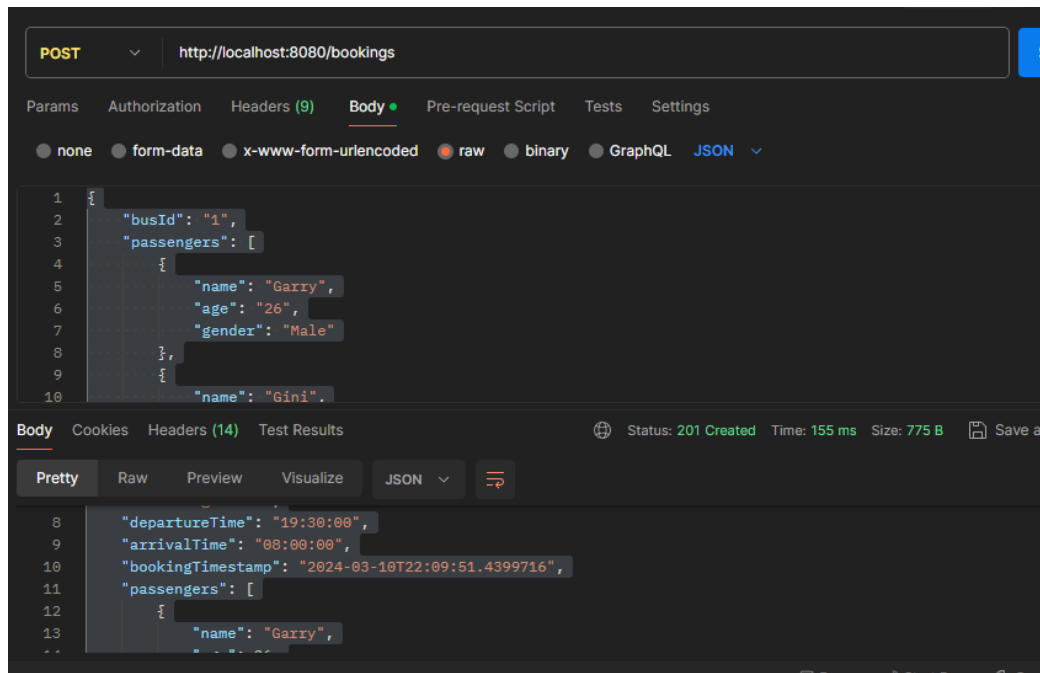
Endpoint: <http://localhost:8080/bookings>

Method:POST

Request Payload: {

```
"busId": "1",
"passengers": [
  {
    "name": "Garry",
    "age": "26",
    "gender": "Male"
  },
  {
    "name": "Gini",
    "age": "21",
    "gender": "Female"
  }
]
```

```
]
}
Response: {
  "bookingId": 5,
  "busId": 5,
  "busName": "Tippu Sulthan Travels",
  "busType": "AC Sleeper",
  "from": "Chennai",
  "to": "Nagercoil",
  "departureTime": "19:30:00",
  "arrivalTime": "08:00:00",
  "bookingTimestamp": "2024-03-10T22:09:51.4399716",
  "passengers": [
    {
      "name": "Garry",
      "age": 26,
      "gender": "Male",
      "seatNumber": 7
    },
    {
      "name": "Gini",
      "age": 21,
      "gender": "Female",
      "seatNumber": 8
    }
  ]
}
```



## 5.Booking History

Endpoint: http://localhost:8080/bookings

Method:GET

Response:

```
[
  {
    "bookingId": 2,
    "busId": 2,
    "busName": "Tippu Sulthan Travels",
    "busType": "AC Sleeper",
    "from": "Chennai",
    "to": "Nagercoil",
    "departureTime": "19:30:00",
    "arrivalTime": "08:00:00",
    "bookingTimestamp": "2024-03-10T21:02:53.526386",
    "passengers": [
      {
        "name": "Garry",
        "age": 26,
```

```
        "gender": "Male",
        "seatNumber": 1
    },
    {
        "name": "Gini",
        "age": 21,
        "gender": "Female",
        "seatNumber": 2
    }
]
},
{
    "bookingId": 3,
    "busId": 3,
    "busName": "Tippu Sulthan Travels",
    "busType": "AC Sleeper",
    "from": "Chennai",
    "to": "Nagercoil",
    "departureTime": "19:30:00",
    "arrivalTime": "08:00:00",
    "bookingTimestamp": "2024-03-10T21:04:00.821025",
    "passengers": [
        {
            "name": "Garry",
            "age": 26,
            "gender": "Male",
            "seatNumber": 3
        },
        {
            "name": "Gini",
```

```
        "age": 21,
        "gender": "Female",
        "seatNumber": 4
    }
]
},
{
    "bookingId": 4,
    "busId": 4,
    "busName": "Tippu Sulthan Travels",
    "busType": "AC Sleeper",
    "from": "Chennai",
    "to": "Nagercoil",
    "departureTime": "19:30:00",
    "arrivalTime": "08:00:00",
    "bookingTimestamp": "2024-03-10T21:45:40.951691",
    "passengers": [
        {
            "name": "Garry",
            "age": 26,
            "gender": "Male",
            "seatNumber": 5
        },
        {
            "name": "Gini",
            "age": 21,
            "gender": "Female",
            "seatNumber": 6
        }
    ]
}
```



```
},  
{  
  "bookingId": 5,  
  "busId": 5,  
  "busName": "Tippu Sulthan Travels",  
  "busType": "AC Sleeper",  
  "from": "Chennai",  
  "to": "Nagercoil",  
  "departureTime": "19:30:00",  
  "arrivalTime": "08:00:00",  
  "bookingTimestamp": "2024-03-10T22:09:51.439972",  
  "passengers": [  
    {  
      "name": "Garry",  
      "age": 26,  
      "gender": "Male",  
      "seatNumber": 7  
    },  
    {  
      "name": "Gini",  
      "age": 21,  
      "gender": "Female",  
      "seatNumber": 8  
    }  
  ]  
},  
{  
  "bookingId": 6,  
  "busId": 6,  
  "busName": "Tippu Sulthan Travels",
```

```
"busType": "AC Sleeper",
"from": "Chennai",
"to": "Nagercoil",
"departureTime": "19:30:00",
"arrivalTime": "08:00:00",
"bookingTimestamp": "2024-03-10T22:22:12.904325",
"passengers": [
  {
    "name": "gini",
    "age": 21,
    "gender": "Female",
    "seatNumber": 9
  },
  {
    "name": "garry",
    "age": 25,
    "gender": "Male",
    "seatNumber": 10
  },
  {
    "name": "kdjlf",
    "age": 23,
    "gender": "Female",
    "seatNumber": 11
  }
]
},
{
  "bookingId": 7,
  "busId": 7,
```

```
"busName": "Tippu Sulthan Travels",
"busType": "AC Sleeper",
"from": "Chennai",
"to": "Nagercoil",
"departureTime": "19:30:00",
"arrivalTime": "08:00:00",
"bookingTimestamp": "2024-03-10T22:22:47.960573",
"passengers": [
  {
    "name": "gini",
    "age": 23,
    "gender": "Female",
    "seatNumber": 12
  },
  {
    "name": "garry",
    "age": 23,
    "gender": "Male",
    "seatNumber": 13
  }
]
},
{
  "bookingId": 8,
  "busId": 8,
  "busName": "Tippu Sulthan Travels",
  "busType": "AC Sleeper",
  "from": "Chennai",
  "to": "Nagercoil",
  "departureTime": "19:30:00",
```

```
"arrivalTime": "08:00:00",
"bookingTimestamp": "2024-03-10T22:24:11.099459",
"passengers": [
  {
    "name": "gini",
    "age": 23,
    "gender": "Female",
    "seatNumber": 14
  },
  {
    "name": "garry",
    "age": 23,
    "gender": "Male",
    "seatNumber": 15
  },
  {
    "name": "antanin",
    "age": 10,
    "gender": "Male",
    "seatNumber": 16
  }
]
},
{
  "bookingId": 9,
  "busId": 9,
  "busName": "Tippu Sulthan Travels",
  "busType": "AC Sleeper",
  "from": "Chennai",
  "to": "Nagercoil",
```

```
"departureTime": "19:30:00",
"arrivalTime": "08:00:00",
"bookingTimestamp": "2024-03-10T22:25:35.054537",
"passengers": [
  {
    "name": "gini",
    "age": 21,
    "gender": "Male",
    "seatNumber": 17
  }
],
{
  "bookingId": 10,
  "busId": 10,
  "busName": "Tippu Sulthan Travels",
  "busType": "AC Sleeper",
  "from": "Chennai",
  "to": "Nagercoil",
  "departureTime": "19:30:00",
  "arrivalTime": "08:00:00",
  "bookingTimestamp": "2024-03-10T22:30:22.41362",
  "passengers": [
    {
      "name": "Gini",
      "age": 20,
      "gender": "Female",
      "seatNumber": 18
    },
    {
```

```
        "name": "Garry",
        "age": 25,
        "gender": "Male",
        "seatNumber": 19
    }
]
},
{
    "bookingId": 11,
    "busId": 11,
    "busName": "Tippu Sulthan Travels",
    "busType": "AC Sleeper",
    "from": "Chennai",
    "to": "Nagercoil",
    "departureTime": "19:30:00",
    "arrivalTime": "08:00:00",
    "bookingTimestamp": "2024-03-10T22:34:47.360825",
    "passengers": [
        {
            "name": "gini",
            "age": 20,
            "gender": "Female",
            "seatNumber": 20
        },
        {
            "name": "Garry",
            "age": 25,
            "gender": "Male",
            "seatNumber": 21
        }
    ]
}
```

```
]
},
{
  "bookingId": 12,
  "busId": 12,
  "busName": "Tippu Sulthan Travels",
  "busType": "AC Sleeper",
  "from": "Chennai",
  "to": "Nagercoil",
  "departureTime": "19:30:00",
  "arrivalTime": "08:00:00",
  "bookingTimestamp": "2024-03-10T22:37:32.923687",
  "passengers": [
    {
      "name": "gini",
      "age": 20,
      "gender": "Female",
      "seatNumber": 22
    },
    {
      "name": "Garry",
      "age": 25,
      "gender": "Male",
      "seatNumber": 23
    }
  ]
},
{
  "bookingId": 13,
  "busId": 13,
```

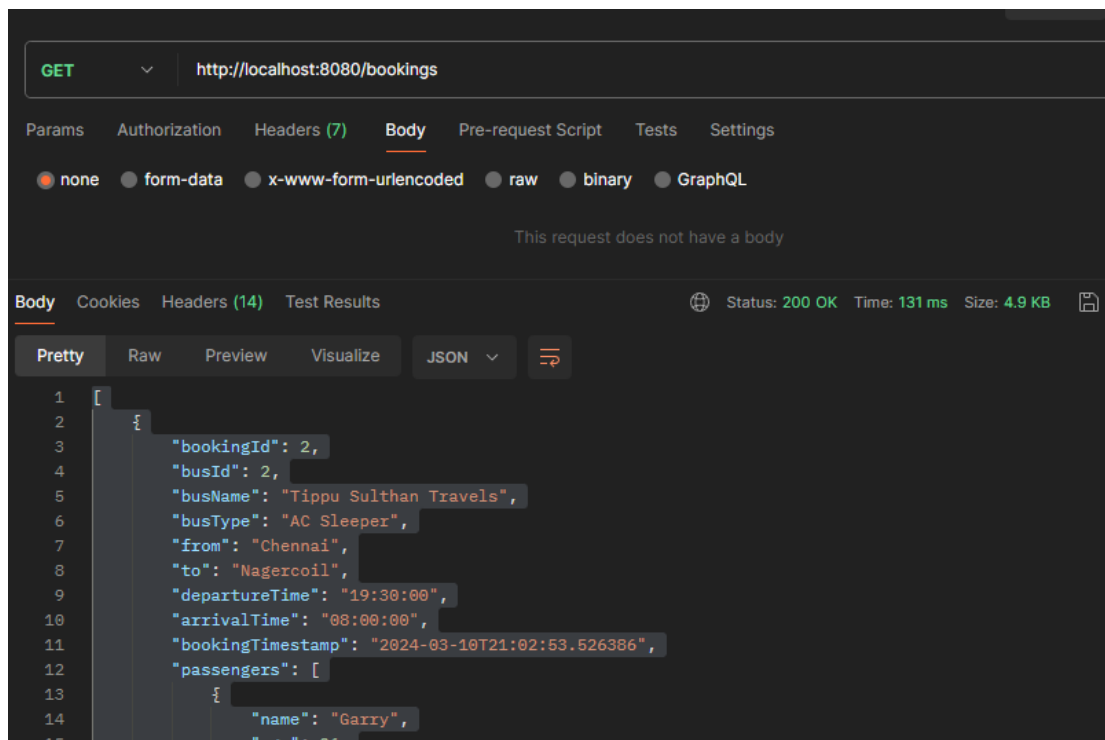
```
"busName": "Tippu Sulthan Travels",
"busType": "AC Sleeper",
"from": "Chennai",
"to": "Nagercoil",
"departureTime": "19:30:00",
"arrivalTime": "08:00:00",
"bookingTimestamp": "2024-03-10T22:44:49.098088",
"passengers": [
  {
    "name": "Gini",
    "age": 20,
    "gender": "Female",
    "seatNumber": 24
  },
  {
    "name": "Garry",
    "age": 25,
    "gender": "Male",
    "seatNumber": 25
  }
]
},
{
  "bookingId": 14,
  "busId": 14,
  "busName": "Tippu Sulthan Travels",
  "busType": "AC Sleeper",
  "from": "Chennai",
  "to": "Nagercoil",
  "departureTime": "19:30:00",
```



```

    "arrivalTime": "08:00:00",
    "bookingTimestamp": "2024-03-10T23:03:57.02962",
    "passengers": [
      {
        "name": "Gini",
        "age": 20,
        "gender": "Female",
        "seatNumber": 26
      },
      {
        "name": "Garry",
        "age": 25,
        "gender": "Male",
        "seatNumber": 27
      }
    ]
  }
}
]

```



## 6. Change Password

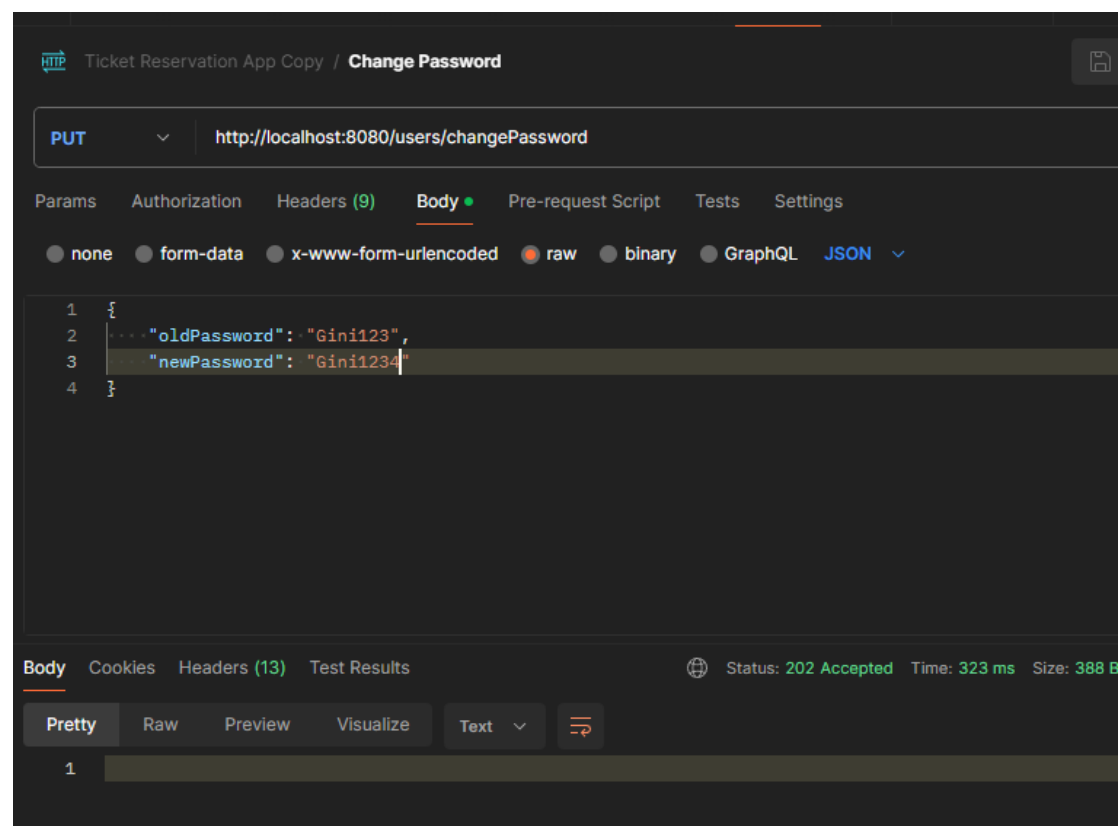
Endpoint: <http://localhost:8080/users/changePassword>

Method: PUT

Request Payload:

```
{
  "oldPassword": "Gini123",
  "newPassword": "Gini1234"
}
```

Response:



## 7. View Users

Endpoint: <http://localhost:8080/users>

Method: GET

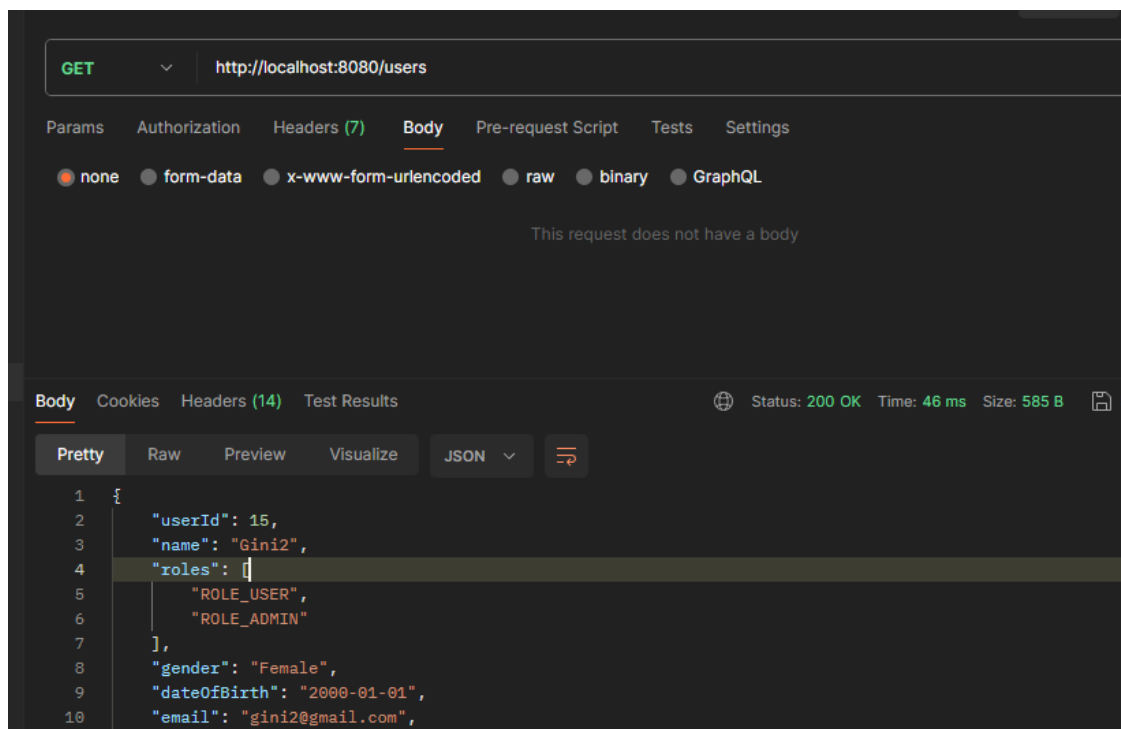
Response: {

```
  "userId": 15,
  "name": "Gini2",
  "roles": [
    "ROLE_USER",
```

```

        "ROLE_ADMIN"
    ],
    "gender": "Female",
    "dateOfBirth": "2000-01-01",
    "email": "gini2@gmail.com",
    "mobileNumber": "8888888888"
}

```



## 8.Update Users

Endpoint: <http://localhost:8080/users>

Method:PUT

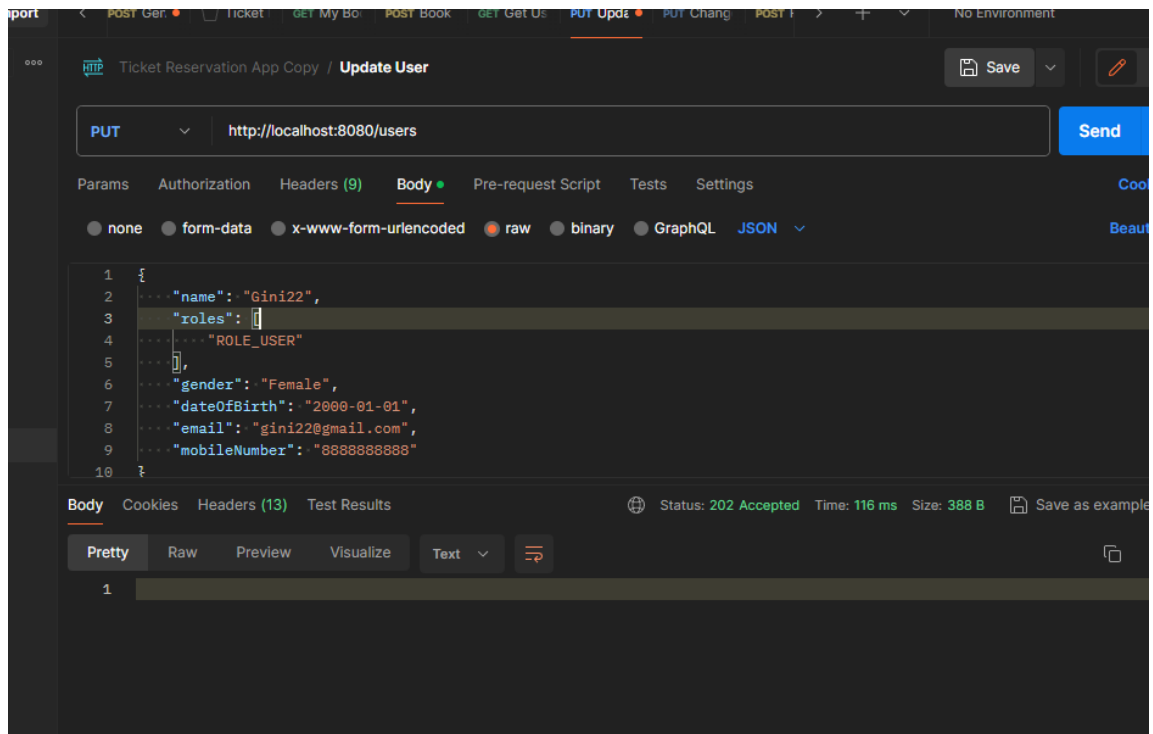
Request Payload: {

```

    "name": "Gini2",
    "roles": [
        "ROLE_USER"
    ],

```

```
"gender": "Female",  
"dateOfBirth": "2000-01-01",  
"email": "gini2@gmail.com",  
"mobileNumber": "8888888888"  
}
```



Authentication and Authorization



```

class BusTicketReservationApplicationTests {

    @Autowired
    private BusRepository busRepository;

    @Test
    void contextLoads() {
        /*Bus bus1 = new Bus();
        bus1.setBusName("Tippu Sulthan Travels");
        bus1.setBusType("AC Sleeper");
        bus1.setFrom("Chennai");
        bus1.setTo("Nagercoil");
        bus1.setDepartureTime(LocalTime.parse("19:30"));
        bus1.setArrivalTime(LocalTime.parse("08:00"));
        bus1.setPrice(850);
        bus1.setTotalSeats(40);
        bus1.setAvailableSeats(40);
        bus1.setLastSoldSeatNumber(0);
        busRepository.save(bus1);

        Bus bus2 = new Bus();
        bus2.setBusName("Tranz King Travels");
        bus2.setBusType("Non-AC Seater");
        bus2.setFrom("Chennai");
        bus2.setTo("Nagercoil");
        bus2.setDepartureTime(LocalTime.parse("17:15"));
        bus2.setArrivalTime(LocalTime.parse("06:45"));
        bus2.setPrice(950);
        bus2.setTotalSeats(40);
        bus2.setAvailableSeats(40);
        bus2.setLastSoldSeatNumber(0);
        busRepository.save(bus2);*/
    }
}

```

## Unit test cases:

The screenshot displays an IDE interface with the following components:

- Package Explorer:** Shows the package structure, including `com.guvi.ticket_reservation_app.service.UserServiceTest`.
- JUnit Runner:** Displays the status of test runs: `Runs: 28/28`, `Errors: 0`, and `Failures: 0`. A green progress bar indicates successful completion.
- Test Results List:**
  - `AuthenticationControllerTest [Runner: JUnit 5]`
  - `UserControllerTest [Runner: JUnit 5] (0.163 s)`
  - `AuthenticationServiceTest [Runner: JUnit 5]`
  - `BusServiceTest [Runner: JUnit 5] (0.568 s)`
  - `BookingServiceTest [Runner: JUnit 5] (0.759 s)`
  - `UserServiceTest [Runner: JUnit 5] (0.366 s)`
- Failure Trace:** A section for viewing details of any test failures.
- Code Editor:** Shows a snippet of Java code from `BusTicketReservationApplicationTests`, including annotations like `@Autowired`, `@Test`, and repository interactions.
- Problem View:** Located at the bottom right, it currently shows no issues.

**Conclusion:**

The Online Bus Ticket Booking Application aims to enhance the travel experience by providing a reliable platform for booking bus tickets anytime, anywhere. Whether for daily commutes or long-distance trips, users can rely on the application to meet their travel needs efficiently and effectively.

**Demo Url:**

[https://drive.google.com/file/d/1KcX3fXKlE1oJ0oSKkYTRng8o\\_HUSQ3hD/view?usp=drive\\_link](https://drive.google.com/file/d/1KcX3fXKlE1oJ0oSKkYTRng8o_HUSQ3hD/view?usp=drive_link)