# Overview

This documentation outlines the backend structure and functionality of the Bus Booking System. The backend is developed using Node.js and MongoDB with Mongoose for data modeling. The application allows users to manage bus bookings, check occupancy status, and ensures data integrity.

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# Getting Started

To set up the backend for the Bus Booking System, follow these steps:

1. Clone the repository.
2. Navigate to the project directory.
3. Install the required dependencies:

```
npm install
```

4. Start the server:

```
npm start
```

# Data Models

## Bus Model

The Bus model defines the schema for buses in the system. It includes details such as bus name, total seats, occupancy, operation days, and route information.

```
// Schema for each seat in the bus
const seatSchema = new mongoose.Schema({
  seatNumber: {
    type: String,
    required: true,
  },
  isBooked: { type: Boolean, default: false }, // Track if the seat is booked
  bookedBy: { type: mongoose.Schema.Types.ObjectId, ref: 'User', default: null }, // User who booked the seat
  lockUntil: { type: Date, default: null }, // Optional: Lock seat temporarily for booking
});
```

```
// Main Bus Schema
const busSchema = new mongoose.Schema({
  busName: { type: String, required: true },
  totalSeats: {
    type: Number,
    required: true,
    validate: {
      validator: function(value) {
        return value > 0; // Ensure total seats is greater than 0
      },
      message: 'Total seats must be a positive number.'
    }
  },
  seats: [seatSchema], // Array of seat objects
  currentOccupancy: {
    type: Number,
    default: 0,
    min: 0 // Ensure occupancy is non-negative
  },
  operationDays: [{
    type: String,
    enum: ['Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday', 'Sunday'], // Validate days
  }],
  route: {
    source: { type: String, required: true },
    destination: { type: String, required: true },
    distance: {
      type: Number,
      required: true,
      min: 0 // Distance must be non-negative
    },
    eta: { type: String, required: true, match: /^\d{2}:\d{2}$/ }, // Validate ETA (hh:mm format)
  },
}, { timestamps: true }); // Add createdAt and updatedAt timestamps

// Ensure that buses with the same name and route are unique
busSchema.index({ busName: 1, 'route.source': 1, 'route.destination': 1 }, { unique: true });
```

## Booking Model

The Booking model manages the details of each booking, associating users with specific seats on a bus.

```
const bookingSchema = new mongoose.Schema({
    userId: { type: mongoose.Schema.Types.ObjectId, ref: 'User', required: true },
    busId: { type: mongoose.Schema.Types.ObjectId, ref: 'Bus', required: true },
    seatNumber: { type: String, required: true }, // Store the seat number booked by the user
    bookedAt: { type: Date, default: Date.now }, // Timestamp for the booking
  });

  module.exports = mongoose.model('Booking', bookingSchema);
```

## User Model

The User schema is defined using Mongoose and provides a structured format for storing user data in the MongoDB database. The schema includes necessary fields for user identification, role management, and security features.

```
const crypto = require('crypto');
const { v1: uuidv1 } = require('uuid'); // Ensure you have uuid installed for salt generation

// Define the schema for a User model
const userSchema = new mongoose.Schema({
    username: { type: String, required: true }, // Username is required
    email: { type: String, required: true, unique: true }, // Email is required and must be unique
    role: {
        type: String,
        enum: ['customer', 'coach', 'operations'], // Role must be one of these options
        required: true
    },
    createdAt: { type: Date, default: Date.now }, // Default to the current date if not provided
    encry_password: {
        type: String,
        required: false
       },

       salt: String,
       role: {
        type: Number,
        default: 0
       }
});
```

```
  // Custom methods
  userSchema.methods = {
      securePassword: function(plainpassword) {
          if (!plainpassword) return "";
          try {
              return crypto.createHmac('sha256', this.salt).update(plainpassword).digest('hex');
          } catch (err) {
              console.error("Error in securePassword:", err);
              return null; // Handle error appropriately
          }
      },
      authenticate: function(plainpassword) {
          return this.securePassword(plainpassword) === this.encry_password;
      }
  };

  // Creating a virtual field to handle password
  userSchema.virtual("password")
      .set(function(password) {
          this._password = password;
          this.salt = uuidv1(); // Generate a unique salt for the user
          this.encry_password = this.securePassword(password); // Encrypt the password
      })
      .get(function() {
          return this._password; // Return the raw password
      });
```

# Controllers

## Bus Controller

This document provides an overview of the controller methods for managing buses and bookings in the Bus Booking System. Each method includes functionality for adding, updating, retrieving, and managing bus occupancy and bookings.

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# Add a New Bus

### Method: `addBus`

This method allows administrators to add a new bus to the system.

```
exports.addBus = async (req, res) => {
  try {
    const newBus = new Bus(req.body); // Assuming req.body contains bus details
    await newBus.save();
    res.status(201).json({ message: 'Bus added successfully!', bus: newBus });
  } catch (error) {
    res.status(500).json({ error: 'Failed to add bus.', details: error.message });
  }
};
```

**Request**: `POST /buses`

**Response**: Returns a success message and the newly added bus details.

# Update an Existing Bus

### Method: `updateBus`

This method updates the details of an existing bus based on its ID.

```
exports.updateBus = async (req, res) => {
  try {
    const { busId } = req.params; // Get busId from URL parameters
    const updatedBus = await Bus.findByIdAndUpdate(busId, req.body, { new: true });

    if (!updatedBus) {
      return res.status(404).json({ error: 'Bus not found.' });
    }

    res.status(200).json({ message: 'Bus updated successfully!', bus: updatedBus });
  } catch (error) {
    res.status(500).json({ error: 'Failed to update bus.', details: error.message });
  }
};
```

**Request**: `PUT /buses/:busId`

**Response**: Returns a success message and the updated bus details.

# Delete a Bus

### Method: `deleteBus`

This method deletes a bus from the system using its ID.

```
exports.deleteBus = async (req, res) => {
  try {
    const { busId } = req.params; // Get busId from URL parameters
    const deletedBus = await Bus.findByIdAndDelete(busId);

    if (!deletedBus) {
      return res.status(404).json({ error: 'Bus not found.' });
    }

    res.status(200).json({ message: 'Bus deleted successfully!' });
  } catch (error) {
    res.status(500).json({ error: 'Failed to delete bus.', details: error.message });
  }
};
```

**Request**: `DELETE /buses/:busId`
**Response**: Returns a success message upon successful deletion.

# Get Bus by ID

### Method: `getBusById`

This middleware retrieves a bus by its ID and attaches it to the request object for further use in other routes.

```
exports.getBusById = async (req, res, next) => {
  try {
    const { busId } = req.params; // Get busId from URL parameters

    const bus = await Bus.findById(busId);
    if (!bus) {
      return res.status(404).json({ error: 'Bus not found.' });
    }

    req.bus = bus; // Attach bus to req.bus for further use
    next();
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch bus.', details: error.message });
  }
};
```

**Request**: `GET /buses/:busId`
**Response**: No direct response; it attaches the bus object to the request for further processing.

# Get Bus Details

#### Method: `getBusByIdDetails`

This method retrieves detailed information about a bus, including its seat availability.

```
exports.getBusByIdDetails = async (req, res) => {
  try {
    const { busId } = req.params; // Get busId from URL parameters

    const bus = await Bus.findById(busId).populate('seats'); // Populate seats if needed
    if (!bus) {
      return res.status(404).json({ error: 'Bus not found.' });
    }

    res.status(200).json(bus);
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch bus details.', details: error.message }
  }
};
```

**Request**: `GET /buses/:busId/details`
**Response**: Returns the bus details, including seat availability.

# Get Available Buses

## Method: `getAvailableBuses`

This method retrieves all available buses based on the source and destination with pagination.

```
exports.getAvailableBuses = async (req, res) => {
  try {
    const { source, destination, page = 1, limit = 10 } = req.body;

    const buses = await Bus.find({
      'route.source': source,
      'route.destination': destination,
    })
      .skip((page - 1) * limit)
      .limit(Number(limit));

    if (!buses.length) {
      return res.status(404).json({ message: 'No buses available for this route.' });
    }

    res.status(200).json(buses);
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch available buses.', details: error.messa
  }
};
```

- **Request**: `POST /buses/available`
- **Response**: Returns an array of available buses based on the provided criteria.

# Get Seat Availability

## Method: `getSeatAvailability`

This method returns the availability status of seats for a specific bus.

```
exports.getSeatAvailability = async (req, res) => {
  try {
    const { busId } = req.params; // Get busId from URL parameters

    const bus = await Bus.findById(busId);
    if (!bus) {
      return res.status(404).json({ error: 'Bus not found.' });
    }

    const seatAvailability = bus.seats.map(seat => ({
      seatNumber: seat.seatNumber,
      isBooked: seat.isBooked,
      bookedBy: seat.bookedBy,
    }));

    res.status(200).json(seatAvailability);
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch seat availability.', details: error.mes
  }
};
```

**Request**: `GET /buses/:busId/seats`

**Response**: Returns an array of seat availability for the specified bus.

# Book a Seat

## Method: `bookSeat`

This method allows a user to book a seat on a bus.

```
exports.bookSeat = async (req, res) => {
  try {
    const { seatNumber } = req.body; // Get seatNumber from the request body
    const { userId } = req.params; // Get userId from the request parameters
    const bus = req.bus; // Use the bus information attached to req
    const seat = bus.seats.find(seat => seat.seatNumber === seatNumber);

    if (!seat) return res.status(404).json({ error: 'Seat not found.' });
    if (seat.isBooked) return res.status(400).json({ error: 'Seat already booked.' });

    // Book the seat
    seat.isBooked = true;
    seat.bookedBy = userId;
    bus.currentOccupancy += 1;

    const newBooking = new Booking({
      userId,
      busId: bus._id, // Reference the booked bus
      seatNumber,
    });

    const booking = await newBooking.save();

    await bus.save();
    res.status(200).json({ message: `Seat ${seatNumber} booked successfully!`, booking });
  } catch (error) {
    res.status(500).json({ error: 'Failed to book seat.', details: error.message });
  }
};
```

**Request**: `POST /buses/:busId/book-seat/:userId`

**Response**: Returns a success message and booking details upon successful seat booking.

# Cancel a Booked Seat

## Method: `cancelSeatBooking`

This method allows a user to cancel a previously booked seat.

```
exports.cancelSeatBooking = async (req, res) => {
  try {
    const { seatNumber } = req.body; // Get seatNumber from the request body
    const bus = req.bus; // Use the bus information attached to req

    const seat = bus.seats.find(seat => seat.seatNumber === seatNumber);

    if (!seat || !seat.isBooked) {
      return res.status(400).json({ error: 'Seat is not booked.' });
    }

    // Cancel the booking
    seat.isBooked = false;
    seat.bookedBy = null;
    bus.currentOccupancy -= 1;

    await bus.save();
    res.status(200).json({ message: `Seat ${seatNumber} booking canceled successfully!` })
  } catch (error) {
    res.status(500).json({ error: 'Failed to cancel booking.', details: error.message });
  }
};
```

**Request**: `POST /buses/:busId/cancel-seat`

**Response**: Returns a success message upon successful cancellation.

# Lock a Seat Temporarily

### Method: `lockSeat`

This method allows a user to temporarily lock a seat for booking.

```
exports.lockSeat = async (req, res) => {
  try {
    const { seatNumber } = req.body; // Get seatNumber from the request body
    const bus = req.bus; // Use the bus information attached to req
    const lockTime = 5 * 60 * 1000; // 5 minutes

    const seat = bus.seats.find(seat => seat.seatNumber === seatNumber);

    if (!seat) return res.status(404).json({ error: 'Seat not found.' });
    if (seat.isBooked || seat.lockUntil > new Date()) {
      return res.status(400).json({ error: 'Seat is already locked or booked.' });
    }

    // Lock the seat temporarily
    seat.lockUntil = new Date(Date.now() + lockTime);
    await bus.save();

    res.status(200).json({ message: `Seat ${seatNumber} locked for 5 minutes.` });
  } catch (error) {
    res.status(500).json({ error: 'Failed to lock seat.', details: error.message });
  }
};
```

**Request**: `POST /buses/:busId/lock-seat`

**Response**: Returns a message indicating the seat is locked for a specified duration.

# Get All Buses

### Method: `getAllBuses`

This method retrieves all bus records from the database, accessible only to admins.

```
exports.getAllBuses = async (req, res) => {
  try {
    const buses = await Bus.find();
    res.status(200).json(buses);
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch all buses.', details: error.message });
  }
};
```

**Request**: `GET /buses`
**Response**: Returns a list of all buses in the system.

# Get Bus Occupancy Color

## Method: `getBusOccupancyColor`

This method calculates the occupancy color of a bus based on its current occupancy percentage.

```
exports.getBusOccupancyColor = async (req, res) => {
  try {
    const { busId } = req.params; // Get the bus ID from the request parameters

    const bus = await Bus.findById(busId);
    if (!bus) {
      return res.status(404).json({ error: 'Bus not found.' });
    }

    // Calculate occupancy percentage
    const totalSeats = bus.totalSeats;
    const currentOccupancy = bus.currentOccupancy;

    const occupancyPercentage = (currentOccupancy / totalSeats) * 100;

    // Determine color based on occupancy percentage
    let color;
    if (occupancyPercentage <= 60) {
      color = 'Green'; // 60% or less
    } else if (occupancyPercentage > 60 && occupancyPercentage < 90) {
      color = 'Yellow'; // Between 60% and 90%
    } else {
      color = 'Red'; // 90% or more
    }

    res.status(200).json({
      busId,
      occupancyPercentage: occupancyPercentage.toFixed(2), // Round to two decimal places
      color
    });
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch bus occupancy.', details: error.message
  }
};
```

**Request**: `GET /buses/:busId/occupancy-color`
**Response**: Returns the occupancy percentage and corresponding color indicating seat availability.

## Booking Controller:

This document outlines the controller methods for managing bookings in the Bus Booking System. Each method includes functionality for creating, retrieving, updating, and deleting bookings, as well as additional methods for querying bookings based on various criteria.

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## Get Booking by ID

### Method: `getBookingById`

This middleware retrieves a specific booking by its ID and populates associated bus details.

```
exports.getBookingById = async (req, res, next, id) => {
  try {
    const booking = await Booking.findById(id).populate('busId', 'busName route');
    if (!booking) return res.status(404).json({ error: 'Booking not found.' });
    req.booking = booking;
    next();
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch booking.', details: error.message });
  }
};
```

- **Request**: Typically used in routes that require booking details.
- **Response**: No direct response; attaches the booking object to the request for further processing.

## Add a New Booking

### Method: `addBooking`

This method creates a new booking for a specified bus and seat.

```
exports.addBooking = async (req, res) => {
  try {
    const { busId, seatNumber } = req.body;
    const userId = req.params.userId;

    // Check if the seat is available
    const bus = await Bus.findOneAndUpdate(
      { _id: busId, 'seats.seatNumber': seatNumber, 'seats.isBooked': false },
      { $set: { 'seats.$.isBooked': true }, $inc: { currentOccupancy: 1 } },
      { new: true }
    );

    if (!bus) {
      return res.status(400).json({ error: 'Seat is already booked or bus not found.' });
    }

    // Create a new booking
    const booking = new Booking({ userId, busId, seatNumber });
    await booking.save();

    res.status(201).json({ message: 'Booking added successfully!', booking });
  } catch (error) {
    res.status(500).json({ error: 'Failed to add booking.', details: error.message });
  }
};
```

- **Request**: `POST /bookings/:userId`
- **Response**: Returns a success message and the newly created booking details.

## Get All Bookings for a User

### Method: `getAllBookings`

This method retrieves all bookings associated with a specific user.

```
exports.getAllBookings = async (req, res) => {
  try {
    const userId = req.params.userId;
    const bookings = await Booking.find({ userId }).populate('busId', 'busName route');

    if (!bookings.length) {
      return res.status(404).json({ message: 'No bookings found for this user.' });
    }

    res.status(200).json(bookings);
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch user bookings.', details: error.message
  }
};
```

**Request**: `GET /bookings/user/:userId`

**Response**: Returns an array of bookings for the specified user.

## Update a Booking

### Method: `updateBooking`

This method updates the details of an existing booking.

```
exports.updateBooking = async (req, res) => {
  try {
    const { bookingId } = req.params;
    const updates = req.body;

    const updatedBooking = await Booking.findByIdAndUpdate(bookingId, updates, { new: true })
      'busId',
      'busName route'
    );

    if (!updatedBooking) {
      return res.status(404).json({ error: 'Booking not found.' });
    }
    res.status(200).json({ message: 'Booking updated successfully!', booking: updatedBooking
  } catch (error) {
    res.status(500).json({ error: 'Failed to update booking.', details: error.message });
  }
};
```

**Request**: `PUT /bookings/:bookingId`

**Response**: Returns a success message and the updated booking details.

# Delete a Booking

## Method: `deleteBooking`

This method deletes a specified booking and updates the associated seat status.

```
exports.deleteBooking = async (req, res) => {
  try {
    const { bookingId } = req.params;

    // Find the booking to be deleted
    const booking = await Booking.findById(bookingId);
    if (!booking) return res.status(404).json({ error: 'Booking not found.' });

    // Update the seat status on the bus
    const bus = await Bus.findOne({ _id: booking.busId, 'seats.seatNumber': booking.seatNumbe
    if (!bus) return res.status(404).json({ error: 'Bus not found.' });

    const seat = bus.seats.find(seat => seat.seatNumber === booking.seatNumber);
    if (seat) {
      seat.isBooked = false; // Cancel the seat booking
      seat.bookedBy = null; // Clear the bookedBy field
      bus.currentOccupancy -= 1; // Decrease current occupancy
      await bus.save(); // Save the updated bus
    }

    // Delete the booking record
    await Booking.findByIdAndDelete(bookingId);

    res.status(200).json({ message: 'Booking deleted successfully!' });
  } catch (error) {
    res.status(500).json({ error: 'Failed to delete booking.', details: error.message });
  }
```

**Request**: `DELETE /bookings/:bookingId`
**Response**: Returns a success message upon successful deletion.

# Get Bookings for a Specific Date

## Method: `getBookingsForDate`

This method retrieves all bookings for a specific date, providing a start and end range for filtering.

```
exports.getBookingsForDate = async (req, res) => {
  try {
    const { date } = req.query;

    // Convert the date from the query to a start and end range
    const startDate = new Date(date);
    const endDate = new Date(startDate);
    endDate.setDate(startDate.getDate() + 1); // Set to the next day

    const bookings = await Booking.find({
      bookedAt: { $gte: startDate, $lt: endDate } // Filter for bookings within the date
    }).populate('busId', 'busName route');

    if (!bookings.length) {
      return res.status(404).json({ message: 'No bookings found for this date.' });
    }

    res.status(200).json(bookings);
  } catch (error) {
    res.status(500).json({ error: 'Failed to fetch bookings.', details: error.message });
  }
};
```

### User Authentication Controller

This document outlines the controller methods responsible for user authentication in the Bus Booking System. It includes methods for user signup and signin, middleware for route protection, and validation logic to ensure data integrity.

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# User Signup

## Method: `signup`

This method handles the registration of a new user. It validates the input data, creates a new user record in the database, generates a JWT token, and optionally stores it in a cookie.

```
exports.signup = async (req, res) => {
    const errors = validationResult(req);

    // Return error if validation fails
    if (!errors.isEmpty()) {
      return res.status(422).json({
        error: errors.array()[0].msg,
      });
    }

    try {
      // Create a new user
      const user = new User(req.body);
      const savedUser = await user.save(); // Save user to DB

      // Generate a JWT token
      const token = jwt.sign({ _id: savedUser._id }, process.env.SECRET);

      // Store token in cookie
      res.cookie("token", token, { expire: new Date() + 9999 });

      // Return token and basic user info
      const { _id, name, email, role } = savedUser;
      return res.json({
        token,
        user: { _id, name, email, role },
      });
    } catch (error) {
      console.error("Error saving user:", error);
      return res.status(400).json({
        error: "Not able to save user in DATABASE",
      });
    }
};
```

- **Request**: `POST /signup`
- **Response**: Returns a JSON object containing the JWT token and the user's basic information upon successful signup.

# User Signin

## Method: `signin`

This method authenticates an existing user by validating their credentials and generating a JWT token for session management.

```
exports.signin = (req, res) => {
    const errors = validationResult(req);
    const { email, password } = req.body;

    // Return error if validation fails
    if (!errors.isEmpty()) {
        return res.status(422).json({
            error: errors.array()[0].msg
        });
    }

    // Find user by email
    User.findOne({ email }).then((user, err) => {
        if (err || !user) {
            return res.status(400).json({
                error: "User email does not exist"
            });
        }

        // Authenticate the user by password
        if (!user.authenticate(password)) {
            return res.status(401).json({
                error: "Email and password do not match"
            });
        }

        // Generate JWT token
        const token = jwt.sign({ _id: user._id }, process.env.SECRET);

        // Store token in cookie
        res.cookie("token", token, { expire: new Date() + 9999 });

        // Send response with user details and token
        const { _id, name, email, role } = user;
        return res.json({ token, user: { _id, name, email, role } });
    });
};
```

**Request**: `POST /signin`
**Response**: Returns a JSON object containing the JWT token and the user's details upon successful signin.

# Middleware for Authentication

Middleware functions are used to protect routes and enforce authentication rules.

### Check if User is Signed In

### Method: `isSignedIn`

This middleware checks if the user is signed in by verifying the JWT token in the request.

```
exports.isSignedIn = expressJwt({
    secret: process.env.SECRET,
    algorithms: ["HS256"],
    userProperty: "auth"
});
```

- **Usage**: Applied to routes that require user authentication.
- **Response**: Automatically denies access to routes if the user is not signed in.

### Check if User is Authenticated

### Method: `isAuthenticated`

This middleware verifies whether the authenticated user matches the requested profile.

```
exports.isAuthenticated = (req, res, next) => {
    const check = req.profile && req.auth && req.profile._id == req.auth._id;
    if (!check) {
        return res.status(403).json({
            error: "Access Denied"
        });
    }
    next();
};
```

**Usage**: Applied to routes where user-specific actions are allowed.
**Response**: Denies access if the user is not the owner of the profile.

## Check if User is Admin

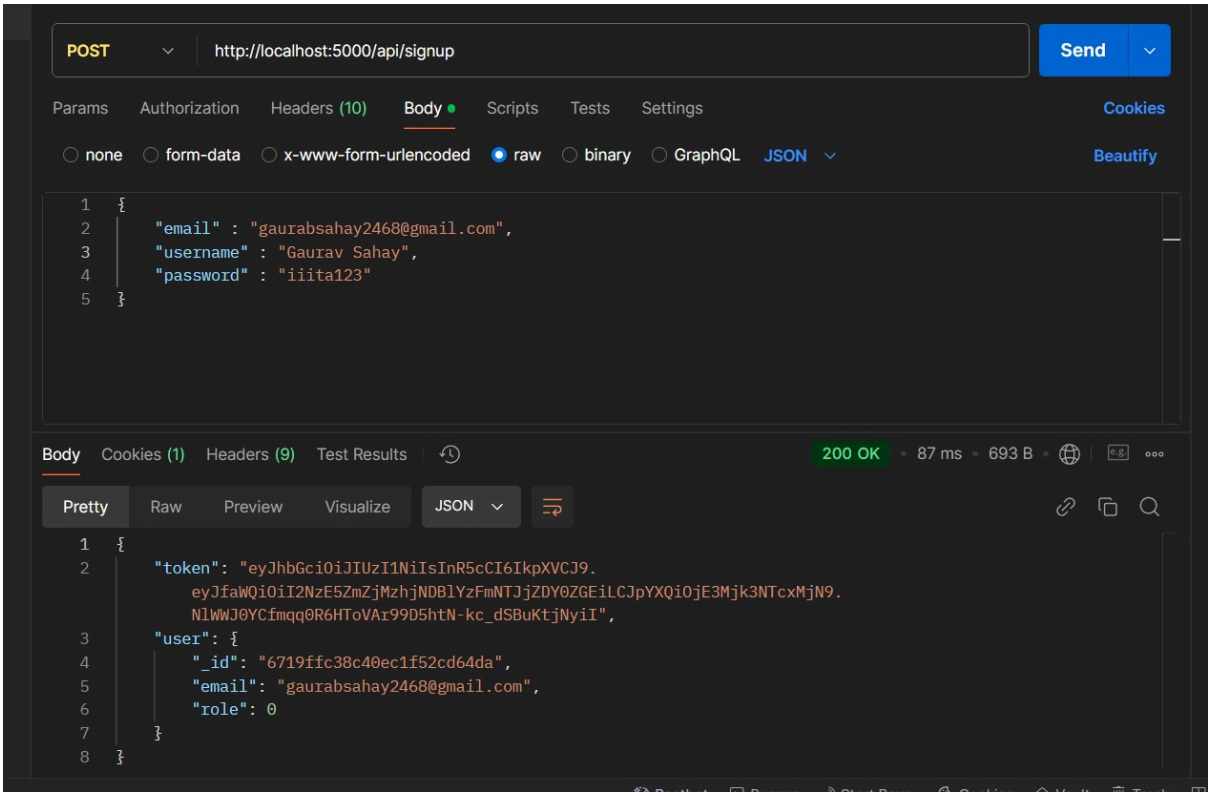
## Method: `isAdmin`

This middleware checks if the authenticated user has admin privileges.

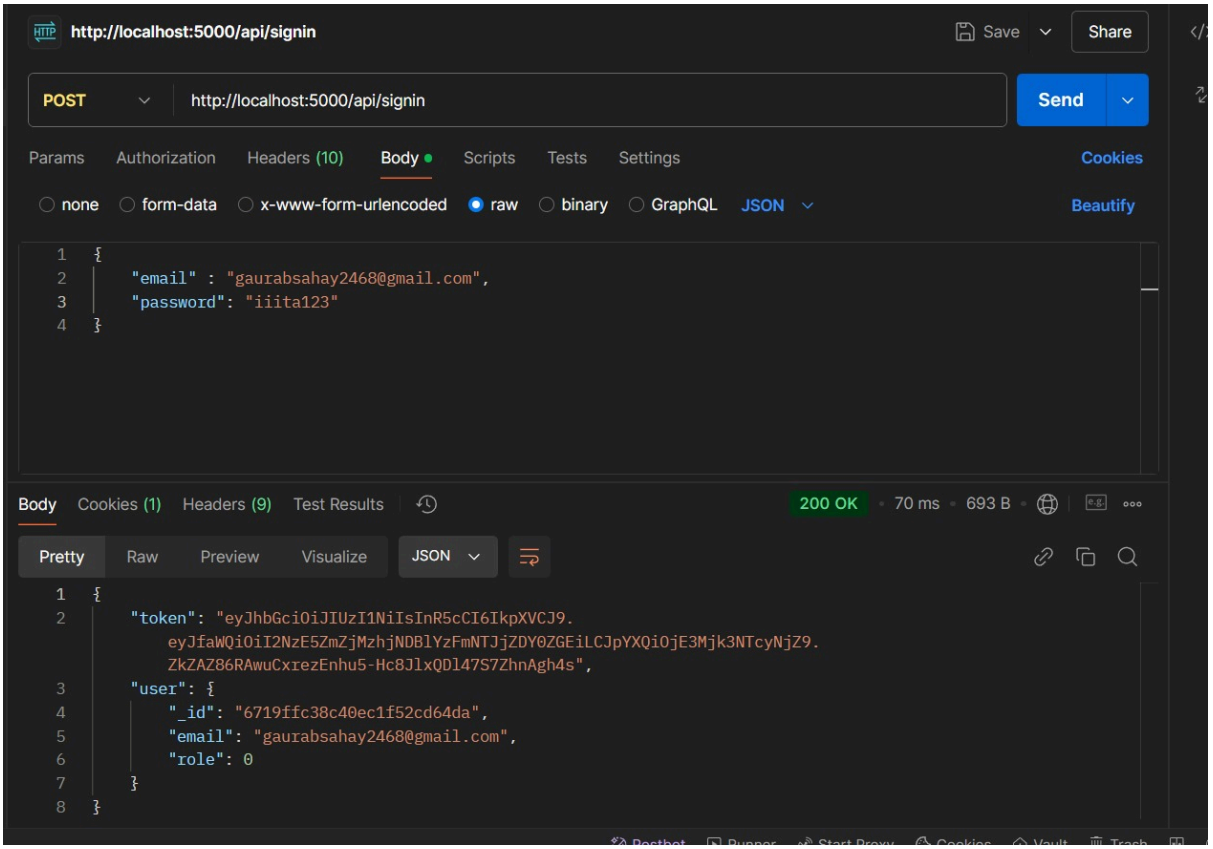
```
exports.isAdmin = (req, res, next) => {
    if (req.profile.role == 0) {
        return res.status(403).json({
            error: "You are not an admin"
        });
    }
    next();
};
```

- **Usage**: Applied to routes that require admin access.
- **Response**: Denies access if the user is not an admin.

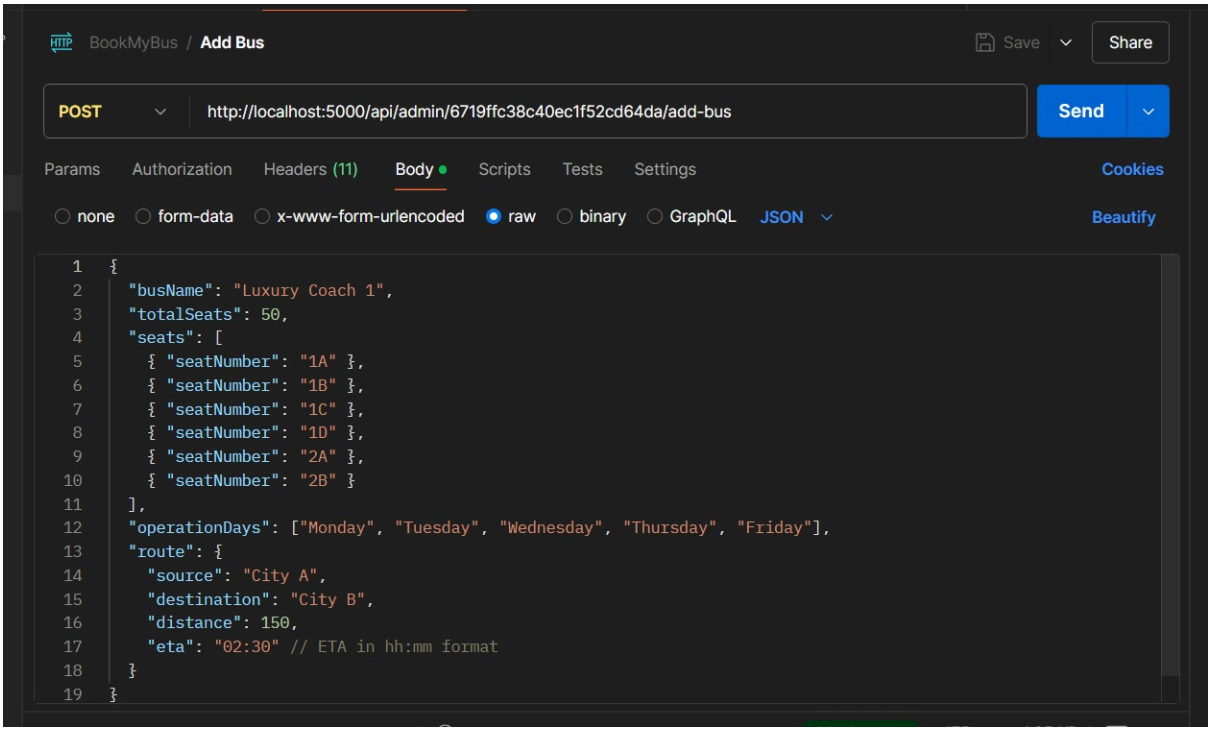
## Testing through Postman:




***Signup***



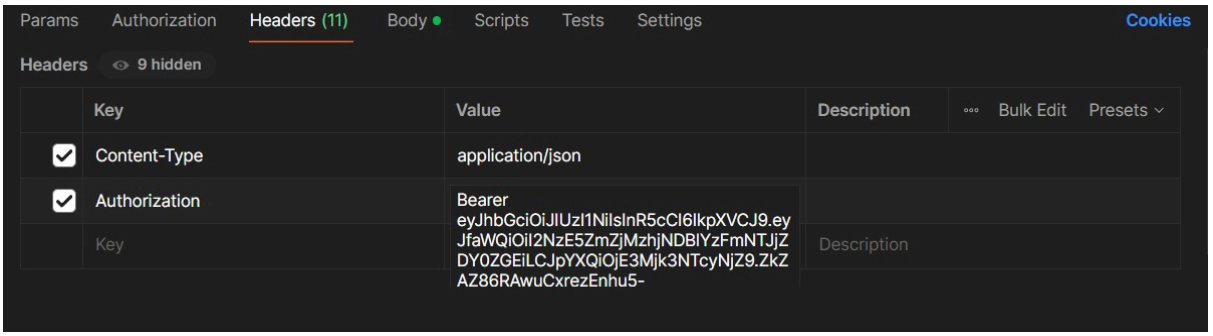

***Signin***




***Add new Bus (Request)***

```
{
    "message": "Bus added successfully!",
    "bus": {
        "busName": "Luxury Coach 1",
        "totalSeats": 50,
        "seats": [
            {
                "seatNumber": "1A",
                "isBooked": false,
                "bookedBy": null,
                "lockUntil": null,
                "_id": "671a0189acd960bd46fcced2"
            },
            {
                "seatNumber": "1B",
                "isBooked": false,
                "bookedBy": null,
                "lockUntil": null,
                "_id": "671a0189acd960bd46fcced3"
            },
            {
                "seatNumber": "1C",
                "isBooked": false,
```


***Add new Bus (Response)***




***Using JWT Token for authorization***

BookMyBus / **Update Bus**

Save | Share

PUT http://localhost:5000/api/admin/671a0189acd960bd46fcced1/6719ffc38c40ec1f52cd64da/update-bus **Send**

Params | Authorization | Headers (11) | Body | Scripts | Tests | Settings | Cookies

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON | Beautify

```
{
  "busName": "Luxury Coach 2",
  "totalSeats": 55,
  "seats": [
    { "seatNumber": "1A" }, // Include existing or new seats
    { "seatNumber": "1B" },
    { "seatNumber": "1C" },
    { "seatNumber": "1D" },
    { "seatNumber": "2A" },
    { "seatNumber": "2B" }
  ],
  "operationDays": ["Monday", "Tuesday", "Thursday"],
  "route": {
    "source": "City A",
    "destination": "City C",
    "distance": 200,
    "eta": "03:00"
  }
}
```

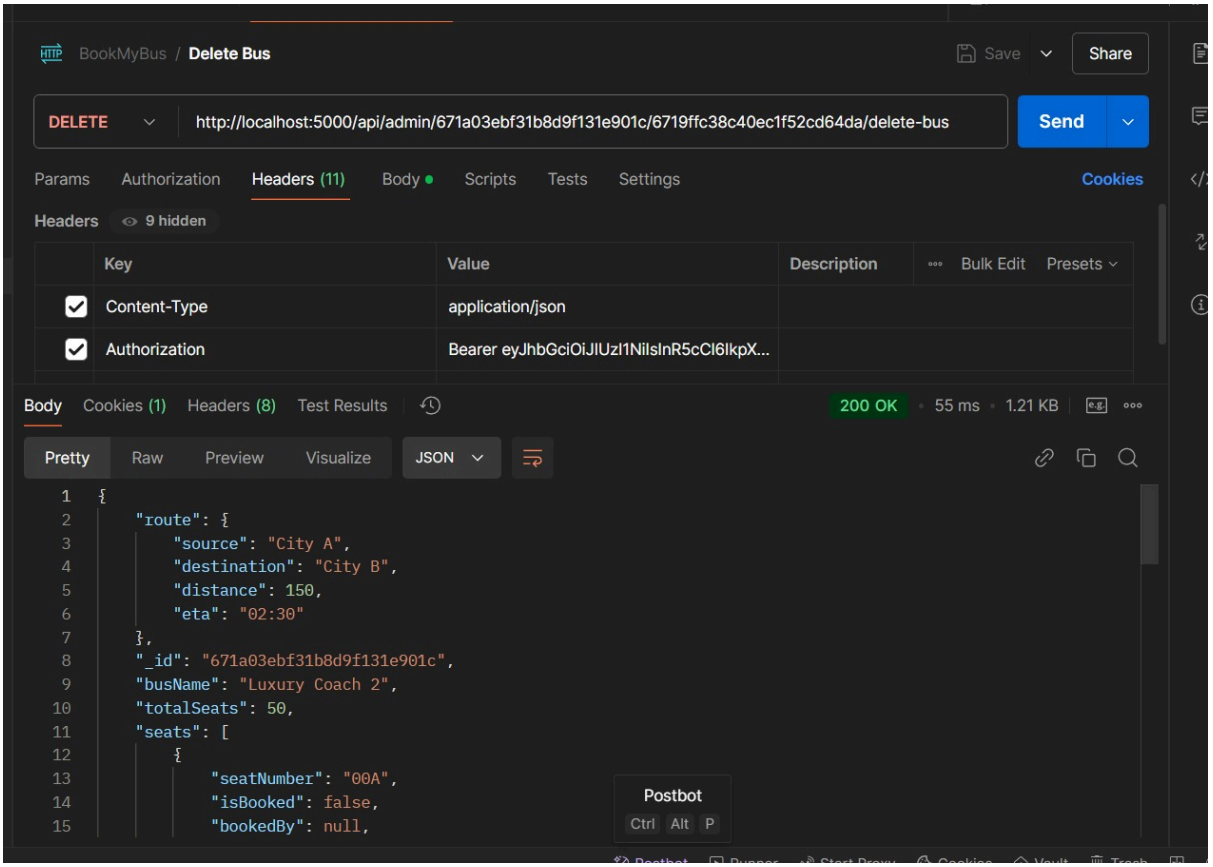
***Update Bus API (Request)***

Body | Cookies (1) | Headers (8) | Test Results | 200 OK | 65 ms | 1.2 KB

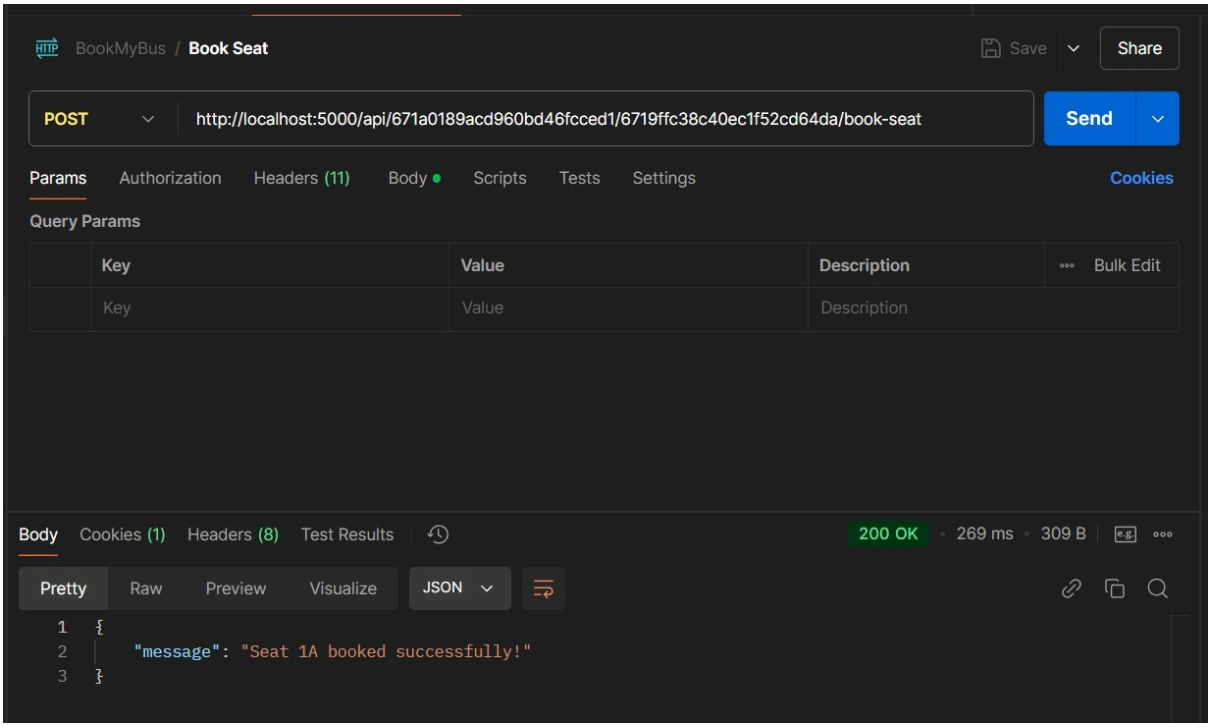
Pretty | Raw | Preview | Visualize | JSON


```
{
    "route": {
        "source": "City A",
        "destination": "City B",
        "distance": 150,
        "eta": "02:30"
    },
    "_id": "671a0189acd960bd46fcced1",
    "busName": "Luxury Coach 1",
    "totalSeats": 50,
    "seats": [
        {
            "seatNumber": "1A",
            "isBooked": false,
            "bookedBy": null,
            "lockUntil": null,
            "_id": "671a0189acd960bd46fcced2"
        },
        {
            "seatNumber": "1B",
            "isBooked": false,
            "bookedBy": null,
            "lockUntil": null,
```


***Update Bus API (Response)***



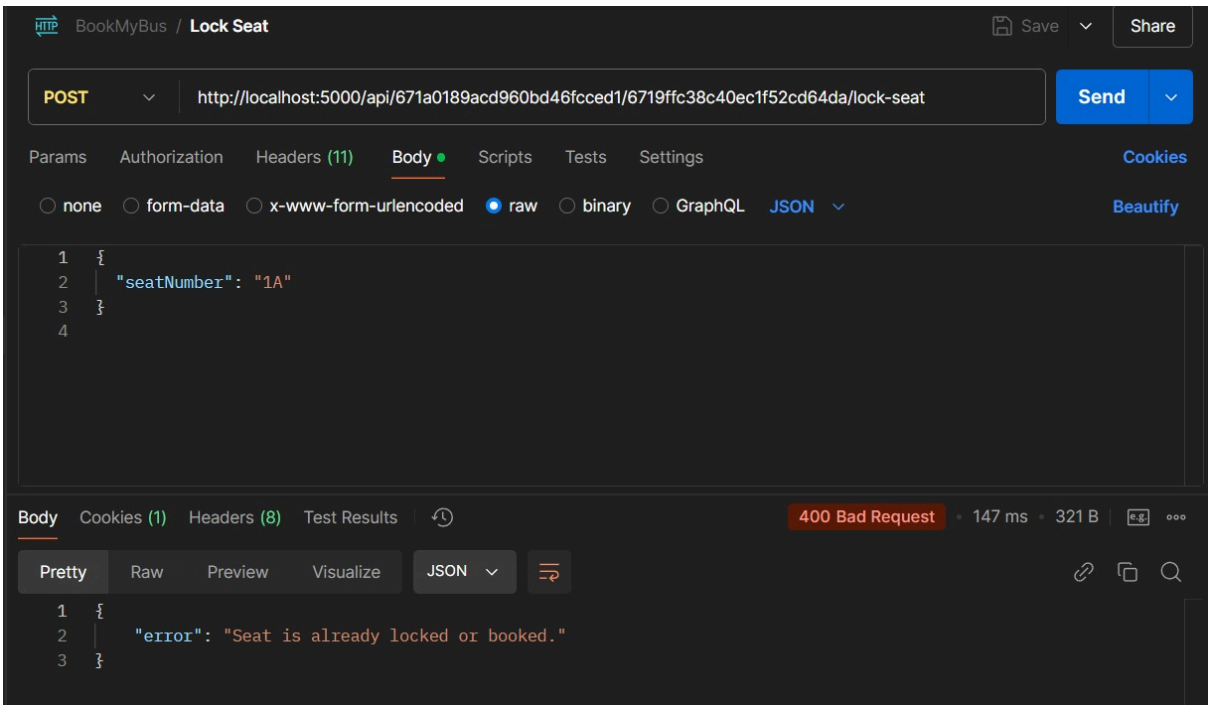

***Delete Bus API***



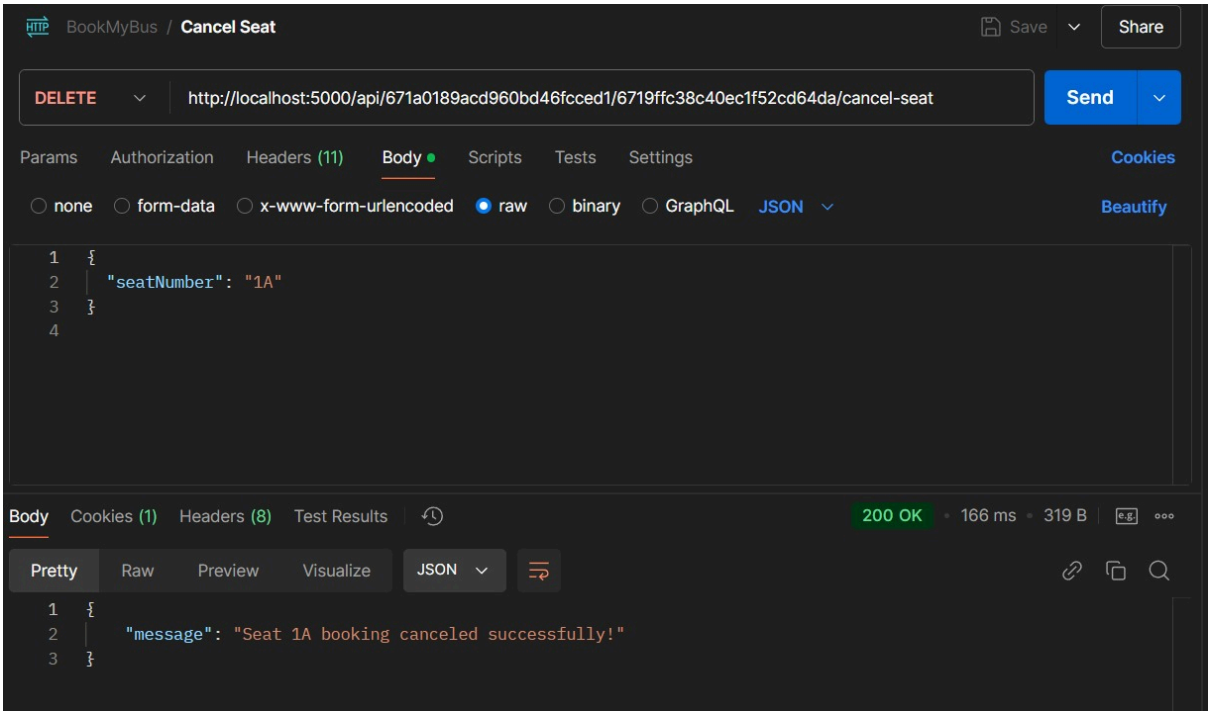

***Seat Booking API***

```
_id: ObjectId('671a0189acd960bd46fcced1')
busName : "Luxury Coach 1"
totalSeats : 50
seats : Array (6)
  0: Object
    seatNumber : "1A"
    isBooked : true
    lockUntil : null
    _id : ObjectId('671a0189acd960bd46fcced2')
  1: Object
  2: Object
  3: Object
  4: Object
  5: Object
currentOccupancy : 1
operationDays : Array (5)
route : Object
```

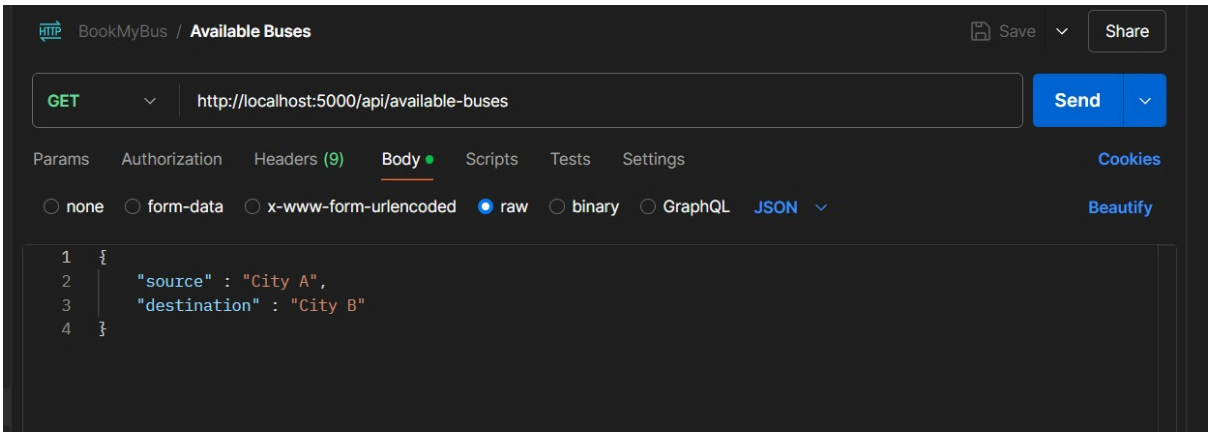

***MongoDB document after booking a seat(1A)***




***Lock Seat API***



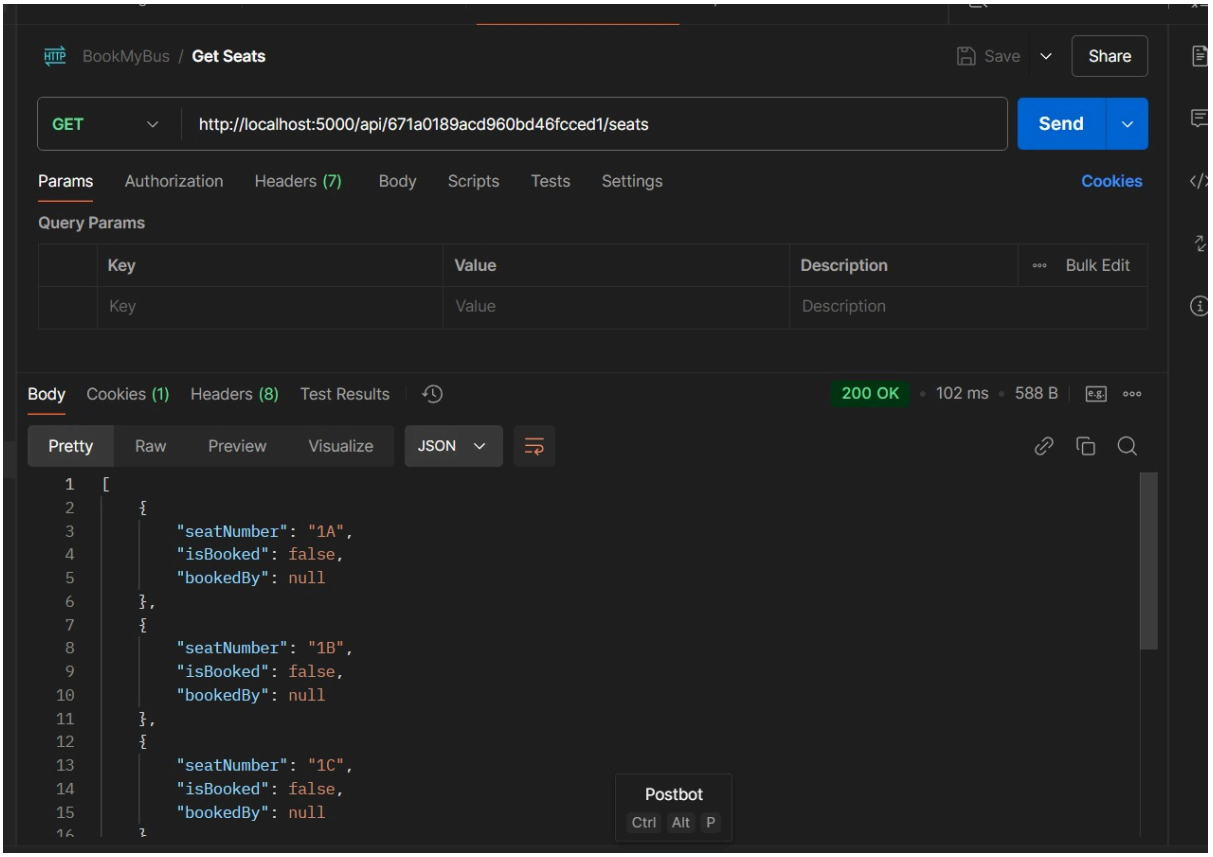

***Cancel a booked seat***



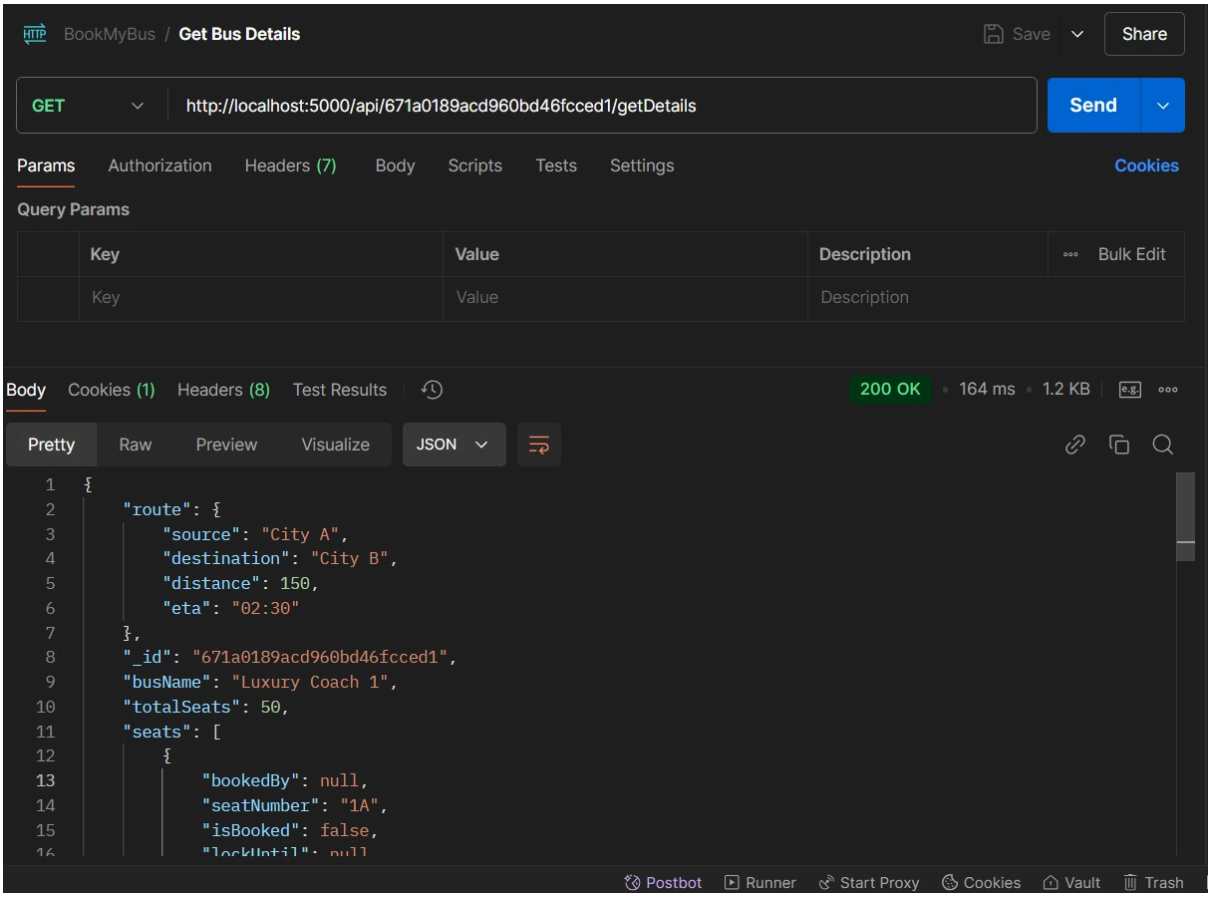

***Get Available Buses (Request)***

```
[
    {
        "route": {
            "source": "City A",
            "destination": "City B",
            "distance": 150,
            "eta": "02:30"
        },
        "_id": "671a0189acd960bd46fcced1",
        "busName": "Luxury Coach 1",
        "totalSeats": 50,
        "seats": [
            {
                "bookedBy": null,
                "seatNumber": "1A",
                "isBooked": false,
                "lockUntil": null,
                "_id": "671a0189acd960bd46fcced2"
            },
            {
                "seatNumber": "1B",
                "isBooked": false,
                "bookedBy": null
```

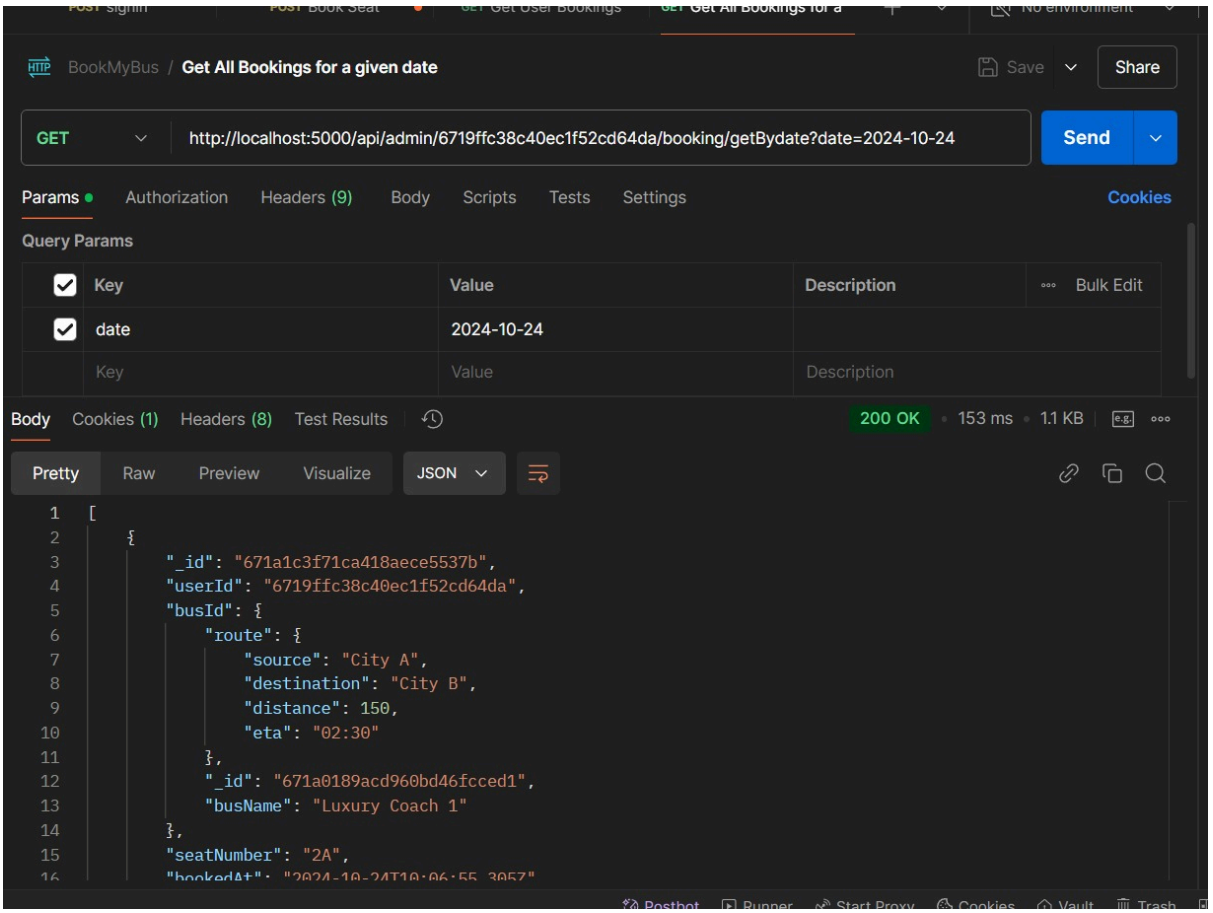

***Get Available buses (response)***



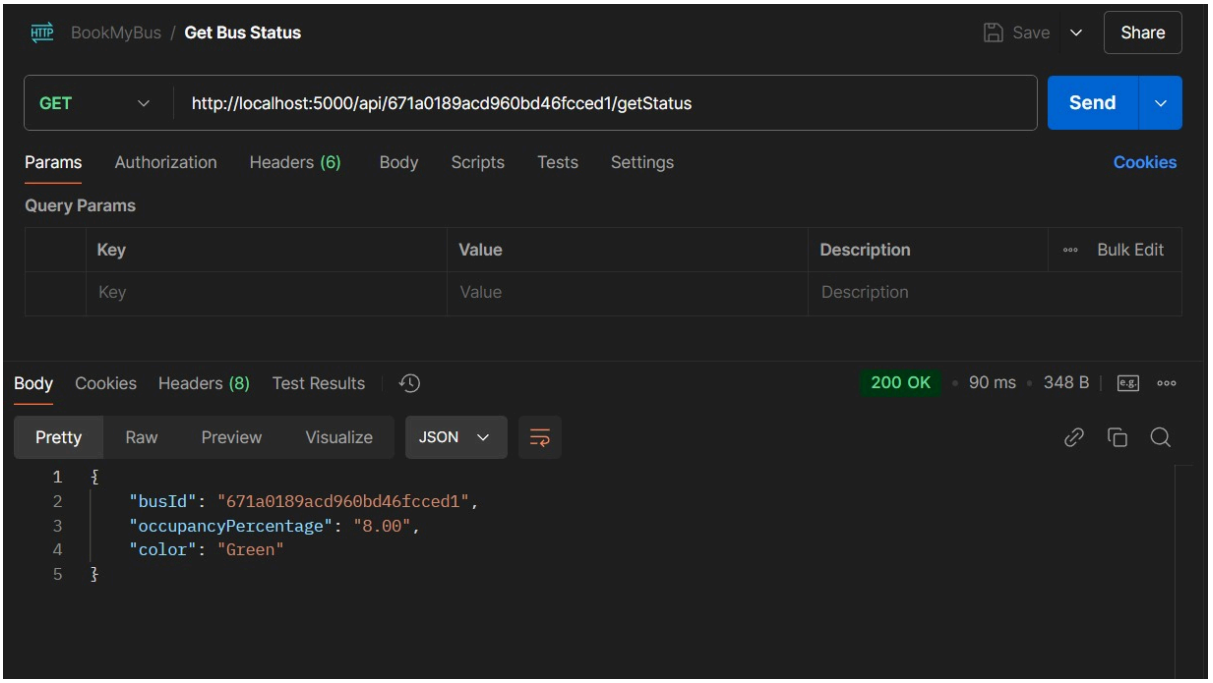

***Get seats in a bus***




***Get details of a Bus***




***Get All details of buses on a given date***




***Get the seat filled status of a Bus***