

1. List All Hotels

Endpoint: /api/hotels

Method: GET

Description: Retrieves a list of all hotels.

Response:

```
[
  {
    "id": 1,
    "name": "Hotel Sunshine",
    "location": "New York",
    "bookings": []
  },
  {
    "id": 2,
    "name": "Ocean View",
    "location": "Los Angeles",
    "bookings": []
  }
]
```

2. Filter Hotels by Location

Endpoint: /api/hotels/filter

Method: GET

Query Parameters:

- location (string): The location to filter hotels by.

Description: Retrieves a list of hotels filtered by the specified location.

Example Request:

GET /api/hotels/filter?location=New York

Response:

```
[
```

```
{  
  "id": 1,  
  "name": "Hotel Sunshine",  
  "location": "New York",  
  "bookings": []  
}  
]
```

3. Get Unique Locations

Endpoint: /api/hotels/locations

Method: GET

Description: Retrieves a list of unique hotel locations.

4. Create a Booking

Endpoint: /api/hotels/:hotelId/bookings

Method: POST

Path Parameters:

- hotelId (integer): The ID of the hotel to create a booking for.

Description: Creates a new booking for the specified hotel.

Request Body:

Response: 201 Created

5. List All Bookings

Endpoint: /api/bookings

Method: GET

Description: Retrieves a list of all bookings.

6. Update a Booking

Endpoint: /api/hotels/:hotelId/bookings/:bookingId

Method: PUT

Path Parameters:

- hotelId (integer): The ID of the hotel the booking belongs to.
- bookingId (integer): The ID of the booking to update.

Description: Updates the specified booking.

7. Delete a Booking

Endpoint: /api/hotels/:hotelId/bookings/:bookingId

Method: DELETE

Path Parameters:

- hotelId (integer): The ID of the hotel the booking belongs to.
- bookingId (integer): The ID of the booking to delete.

Description: Deletes the specified booking.

Response: 200 OK

Example Usage

Creating a Booking

To create a booking for a hotel with ID 1, make a POST request to /api/hotels/1/bookings with the following JSON body:

```
{
  "userName":
    string"John Doe"
  "userAddress":
    string"123 Main St, Springfield"
  "numberOfRooms":
    int2
  "checkInDate":
    string"2023-05-01"
  "checkOutDate":
    string"2023-05-05"
}
```

Listing All Bookings

To list all bookings, make a GET request to /api/bookings.

Updating a Booking

To update a booking with ID 1 for a hotel with ID 1, make a PUT request to /api/hotels/1/bookings/1 with the following JSON body:

```
{  
  "id":  
    int1  
  "hotelId":  
    int1  
  "userName":  
    string"John Doe"  
  "userAddress":  
    string"123 Main St, Springfield"  
  "numberOfRooms":  
    int2  
  "checkInDate":  
    string"2023-05-01"  
  "checkOutDate":  
    string"2023-05-05"  
}
```

Cancel Booking

To cancel a booking with ID 1 for a hotel with ID 1, make a DELETE request to /api/hotels/1/bookings/1.