API DESIGN FOR A ROOM BOOKING WEB APPLICATION

The API Design we have come up with is for room bookings for an inn located on a hiking trail. The inn will be called "Take a Brek" and will basically provide rooms for the night for hikers. The REST operations we have planned to include are GET, POST and DELETE.

The GET Operation will be used for listing the rooms available with different views (Mountain view, Garden view)

The POST operation will used to select the number of rooms and the view. This operation was chosen as on repeating this operation multiple times, we will be able to book multiple rooms at once.
The DELETE operation will be used to cancel a booking

API design:

1. **Listing all rooms with different views available with their respective prices**
   Route: /api/v1/Room
   HTTP Request Method: GET
   Relevant HTTP Response codes: 200, 204, 205
   Request: {}
   Response:
   {
          "MountainViewPrice": 2500, //Price of a room with Mountain view
          "GardenViewPrice": 2000, //Price of a room with Garden view
          "MountainViewTotCount" : 10 // total number of rooms available with a Mountain view
          "GardenViewTotCount" : 10 // total number of rooms available with a Garden view
          "MountainViewBooked" : 0 //Number of rooms booked for a Mountain View
          "GardenViewBooked" : 0 //Number of rooms booked for a Garden View
   }

2. **Selecting the rooms to be booked**
   Route: /api/v1/bookRoom
   HTTP Request Method: POST
   Relevant HTTP Response codes: 201, 400, 500, 205
   Request:
   {
          "RoomChoice" : "Mountain View" //choice of room
          "MountainViewBooked" : "1" //number of rooms to be booked
   }
   Response: {}

3. **Viewing the bookings**
   Route: /api/v1/bookedRoom
   HTTP Request Method: GET
   Relevant HTTP Response Codes: 200, 204, 405
   Request: {}
   Response:
   {
          "RoomChoice" : "Mountain View" //choice of room
          "MountainViewBooked" : "1" //number of rooms booked

"MountainViewPrice": 2500 //Price for the room booked

}

4. **Delete a booking**
   Route: /api/v1/bookedRoom
   HTTP Request Method: DELETE
   Relevant HTTP Response Codes: 200
   Request: {}
   Response:
   {

   "RoomChoice" : "Mountain View" //choice of room
   "MountainViewBooked" : "1" //number of rooms booked

   }

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