VillaEase Backend API Documentation

## Overview

This document describes the RESTful API for the VillaEase room booking platform. Responses are JSON and JWT is used for protected/admin operations.

## Base

Base URL: https://room-booking-pjo6.onrender.com/api

Headers:

* Content-Type: application/json
* Authorization: Bearer <jwt\_token> (for protected routes)

Standard Response:

{  
 "success": true,  
 "data": { ... }  
}

Error Response:

{  
 "success": false,  
 "error": "Message",  
 "status": 400  
}

## Authentication

POST /auth/login

{  
 "username": "admin",  
 "password": "admin123"  
}

Response:

{  
 "success": true,  
 "data": {  
 "token": "<jwt>",  
 "refresh": "<token>",  
 "user": { "id": 1, "username": "admin", "role": "admin" }  
 }  
}

GET /auth/verify (JWT)

{  
 "success": true,  
 "data": {  
 "valid": true,  
 "user": { "id": 1, "username": "admin", "role": "admin" }  
 }  
}

POST /auth/logout (JWT)

{ "refresh": "<refresh\_token>" }

POST /auth/jwt/refresh

{ "refresh": "<refresh\_token>" } -> { "access": "<new\_access>" }

## Rooms

GET /rooms

Query params: location, check\_in, check\_out, guests, min\_price, max\_price, room\_type, amenities (repeat), page, page\_size

Response: array of rooms

GET /rooms/:id

Response: single room

POST /rooms (Admin only)

{ "name": "Luxury Ocean View Suite", "type": "Suite", "price": 250, "images": ["..."], "amenities": ["WiFi"], "description": "...", "location": "London", "maxGuests": 4, "bedrooms": 2, "bathrooms": 2, "size": 85, "available": true }

PUT /rooms/:id (Admin only) – same fields as create, all optional

DELETE /rooms/:id (Admin only)

## Bookings

POST /bookings

{  
 "roomId": "<room\_id>",  
 "checkIn": "2024-02-01",  
 "checkOut": "2024-02-05",  
 "guests": 2,  
 "guestInfo": { "name": "John Doe", "email": "john@example.com", "phone": "+1234567890" }  
}

Response includes totalPrice and status (pending by default)

GET /bookings (Admin only)

Returns list of bookings with embedded room { id, name, location }

PATCH /bookings/:id/status (Admin only)

{ "status": "confirmed" } # pending|confirmed|cancelled|completed

## Uploads

POST /upload/images (JWT)

multipart/form-data with images[]; jpg/jpeg/png/webp; max 5MB/file

Response returns absolute URLs

## Admin Stats

GET /admin/stats (Admin only)

Response: { totalRooms, totalBookings, totalRevenue, occupancyRate }

## Errors

* 401 Unauthorized – missing/invalid token
* 403 Forbidden – insufficient privileges
* 404 Not Found – resource not found
* 422 Validation Error – invalid input

## Notes

* Dates format: YYYY-MM-DD; checkIn < checkOut; checkIn must be in the future
* Bookings prevent overlaps for pending/confirmed
* totalPrice = price per night × nights
* Rooms list supports pagination: page, page\_size (default page\_size = 50)