

Property Rental Management System – Backend Flow & REST API

1. System Flow Overview

The platform follows a real-world rental lifecycle:

- 1) User browses properties.
- 2) Tenant creates a booking request.
- 3) Property manager approves or rejects the booking.
- 4) If approved, a rental (active lease or stay) is created.
- 5) Payments are made against the rental over time.
- 6) Rental eventually completes or is terminated.

Core relationship:

PROPERTY → BOOKING → RENTAL → PAYMENTS

2. Role-Based Access Summary

Admin:

- Manage all users
- Approve property manager applications
- Manage categories
- View all bookings, rentals, and payments
- Delete any property

Property Manager:

- Manage only their properties
- Upload images
- Approve/reject bookings for their properties
- View rentals and payments for their properties

Tenant:

- Register and login
- Browse properties
- Create bookings
- Make payments
- View their own rentals and payments

3. Booking → Rental → Payment Explanation

Booking:

A reservation request for a date range. No money is finalized yet.

Rental:

Created only after booking approval. Represents real occupancy or lease.

Payments:

Each row is a financial transaction tied to a rental.

Supports:

- Monthly payments
- Partial payments
- Deposits
- Full payments

4. Full REST API Endpoints

AUTH

POST /auth/register
POST /auth/login
GET /auth/me

ADMIN

GET /users
PATCH /users/:id/role
PATCH /users/:id
POST /categories
PATCH /categories/:id
DELETE /categories/:id
GET /admin/manager-applications
GET /admin/manager-applications/:id
PATCH /admin/manager-applications/:id/approve
PATCH /admin/manager-applications/:id/reject
PATCH /admin/property/:id/approve
PATCH /admin/property/:id/reject
PATCH /admin/property/:id/suspend
GET /reports/payments
GET /admin/payments
GET /admin/payments/summary

PROPERTY MANAGER

POST /properties
PATCH /properties/:id
DELETE /properties/:id
GET /properties/mine
POST /properties/:id/images
PATCH /bookings/:id/approve
PATCH /bookings/:id/reject

```
GET /rentals/property/:propertyId  
GET /payments/property/:propertyId  
GET /payments/summary/mine
```

USER

```
GET /properties  
GET /properties/:id  
POST /bookings  
GET /bookings/me  
POST /rentals/:id/payments  
GET /payments/me  
POST /manager-applications  
GET /manager-applications/me  
GET /payments/me  
GET /payments/:id
```