

PROJECT 6: HOTELIO – Hotel Room Booking & Management System

Description

A simple CLI-based system for managing hotel rooms, guests, and bookings. It handles check-in, check-out, and calculates bills including taxes and discounts.

▮ Scenario

Hotel front desk staff can use this to manage room availability, track guest stays, and generate bills – all without a GUI or database.

Menu

```
===== HOTELIO - Hotel Room Booking System
=====
```

- 1. Add Room
- 2. View Available Rooms
- 3. Register Guest
- 4. Book a Room
- 5. Check-Out Guest
- 6. Generate Bill
- 7. View All Current Bookings
- 8. Search Guest by Name
- 9. View Room History
- 10. Exit

Enter your choice:

Functions Needed

```
def add_room(room_id, room_type, price_per_night) def view_available_rooms() def
register_guest(guest_id, name, contact) def book_room(guest_id, room_id,
check_in_date, nights) def checkout_guest(guest_id, checkout_date) def
generate_bill(guest_id) def view_all_bookings() def search_guest(name) def
view_room_history(room_id)
```

Sample Output

```
=== BILL SUMMARY === Guest: Ananya Patel (G104) Room: 203 (Deluxe) Stay: 3 nights
(Check-in: 2025-10-12) Room Rate: ₹2,000/night Total: ₹6,000 Taxes (12%): ₹720 Final
Amount: ₹6,720 Status:  ▮  Checked Out
```

Edge Cases

Double-booking the same room Booking non-existent room ID Checkout before check-in date Guest not registered but trying to book Bill generation after checkout