



# Hotel Management System

Presented by **Team Five Stars** ★★★★★

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# Project Overview

Our Hotel Management System simulates modern hotel operations, efficiently managing guests, rooms, staff, bookings, and payments through a structured database.



## Guest Management

Track personal info and contact details.



## Room Management

Monitor status, type, and staff assignments.



## Booking & Payments

Handle reservations, meal plans, and payment records.



## Staff & Shifts

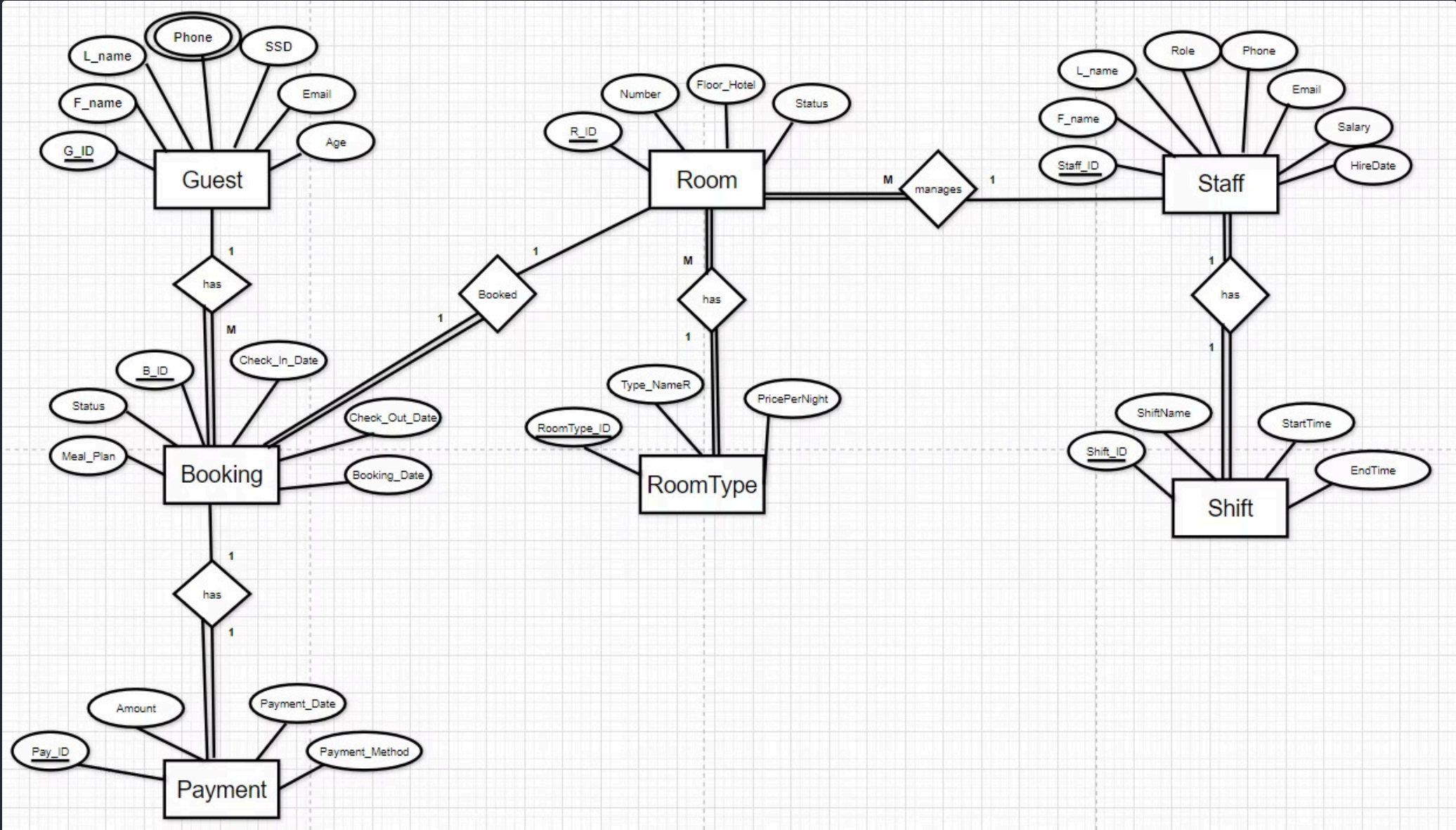
Organize employee roles, contacts, and work schedules.

# Entities & Relationships

The system is built on key interconnected tables, ensuring data integrity and efficient querying.



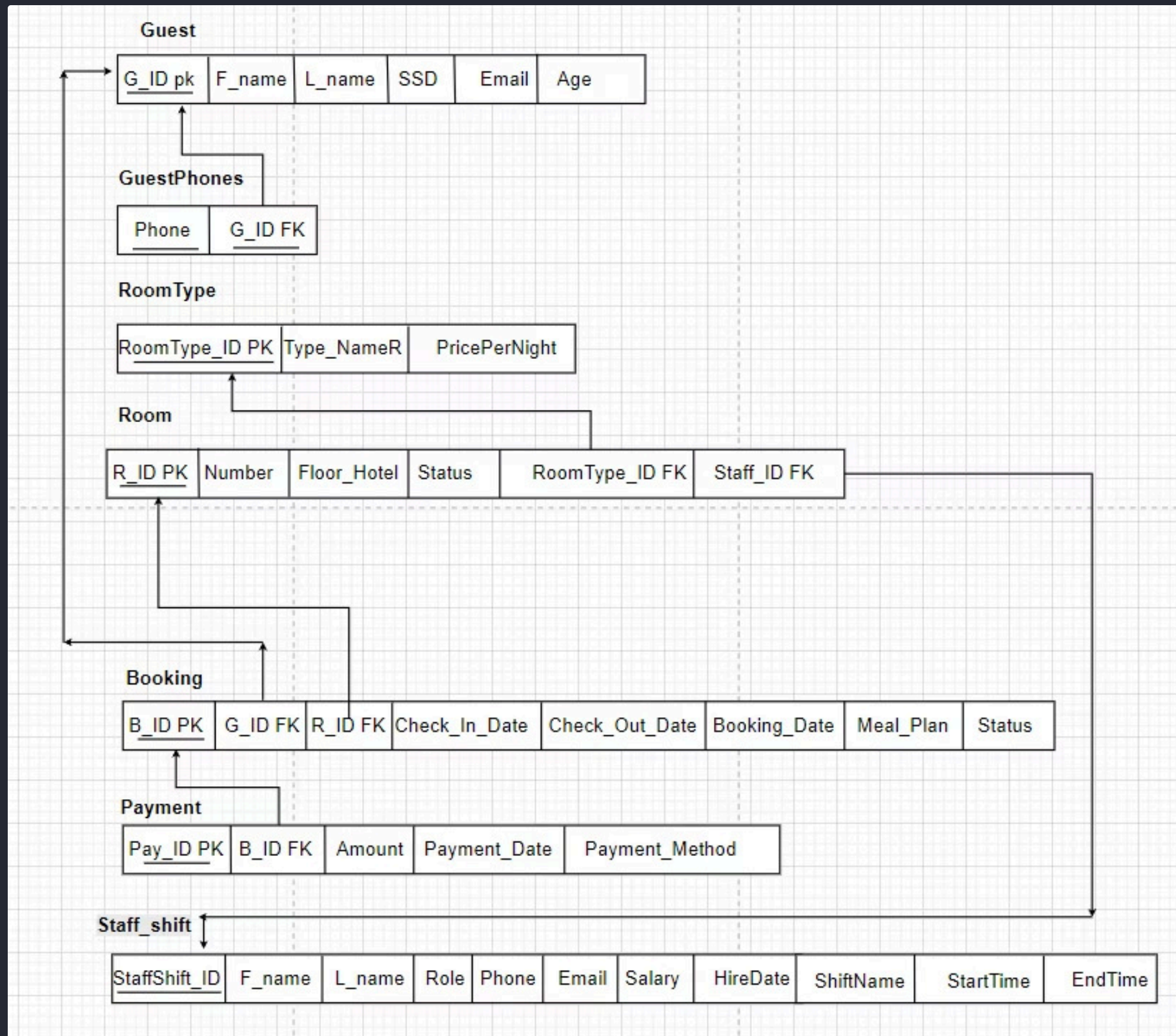
# ERD





# Relational Schema

Our ERD and Relational Schema illustrate the structure and relationships between all tables, ensuring data consistency and efficient operations.



# Data Dictionary

Detailed definitions for our core tables, including Guests, GuestPhones, RoomType, Room ,Booking , Payment and Staff\_Shift

## Guest

Stores personal info: G\_ID (PK), F\_name, L\_name, Email (Unique), SSD, Age ( $\geq 16$ ).

## GuestPhones

Maintains phone numbers: Phone (PK, composite with G\_ID), G\_ID (FK to Guest).

## RoomType

Defines room categories: RoomType\_ID (PK), Type\_NameR, PricePerNight ( $>0$ ).

## Room

Tracks room details: R\_ID (PK), Number ( $>0$ ), Floor\_Hotel ( $\geq 0$ ), Status, RoomType\_ID (FK), Staff\_ID (FK).

## Booking

Manages reservations: B\_ID (PK), G\_ID (FK), R\_ID (FK), Check\_In/Out\_Date, Booking\_Date, Meal\_Plan, Status.

## Payment

Records payment info: Pay\_ID (PK), B\_ID (FK), Amount ( $>0$ ), Payment\_Date, Payment\_Method.

## Staff\_Shift

Employee & shift details: StaffShift\_ID (PK), F\_name, L\_name, Role, Phone, Email, Salary ( $>0$ ), HireDate, ShiftName, Start/EndTime.

# Queries

Our system enables comprehensive reporting for better decision-making.



## Full Booking Details

Comprehensive overview of all reservations.



## Revenue per Room Type

Analyze income generated by different room categories.



## Average Stay Duration

Insights into guest stay patterns per room type.



## Upcoming Bookings

Monitor future reservations and plan resources.



## Top Guests by Payment

Identify high-value customers for loyalty programs.



## Staff Responsibilities

Track room assignments and staff workload.



## Guest Phone Directory

Easy access to guest contact information.



## Booking Meal Plan Summary

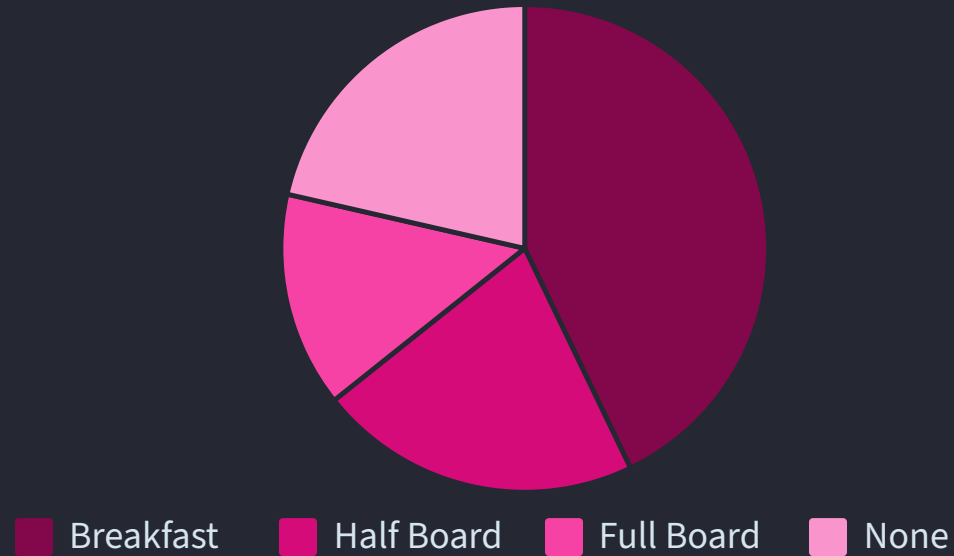
Overview of meal plan selections for booking.

# Performance Metrics

Key queries provide insights into booking trends and revenue generation.

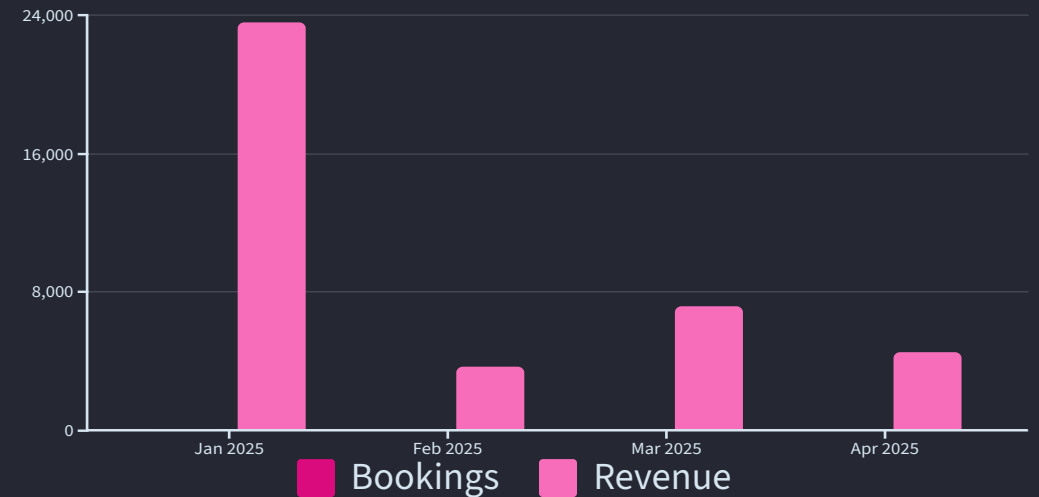
## Booking Count per Meal Plan

Analyzes the popularity of different meal plans.



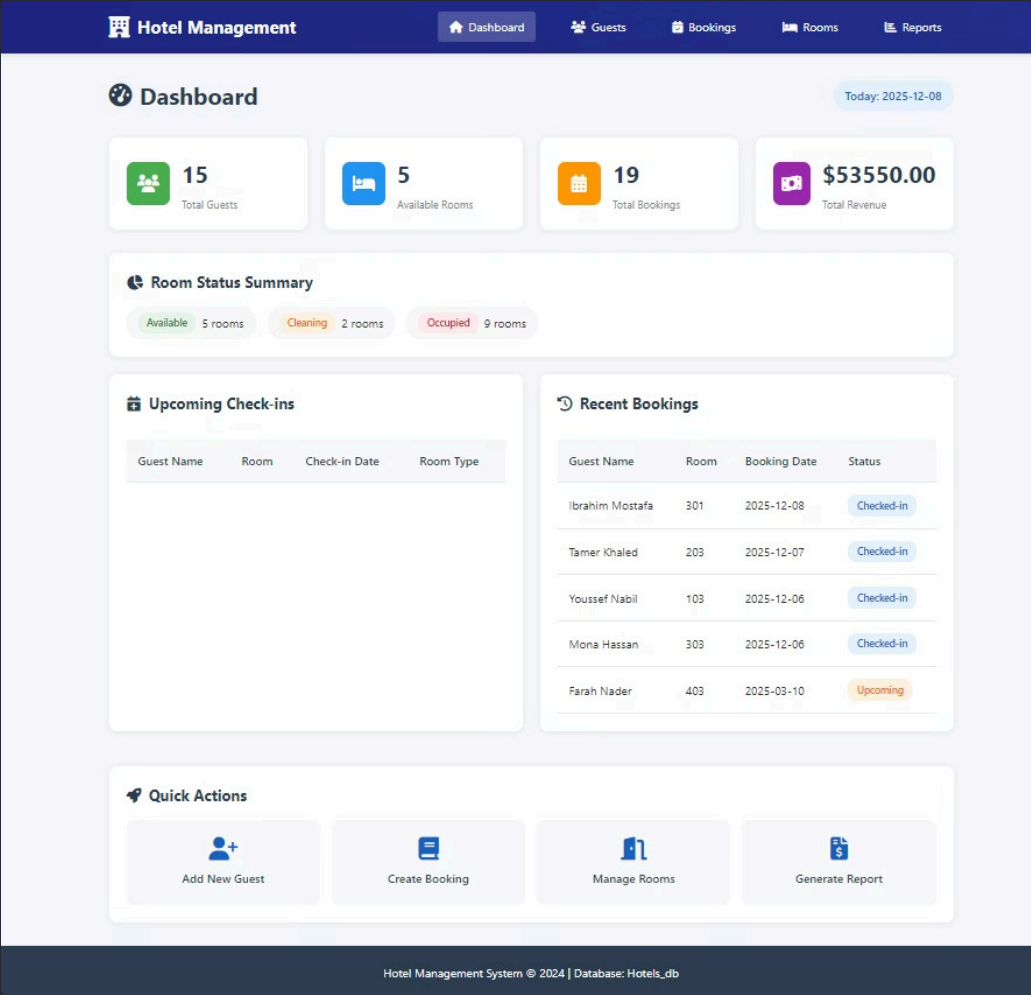
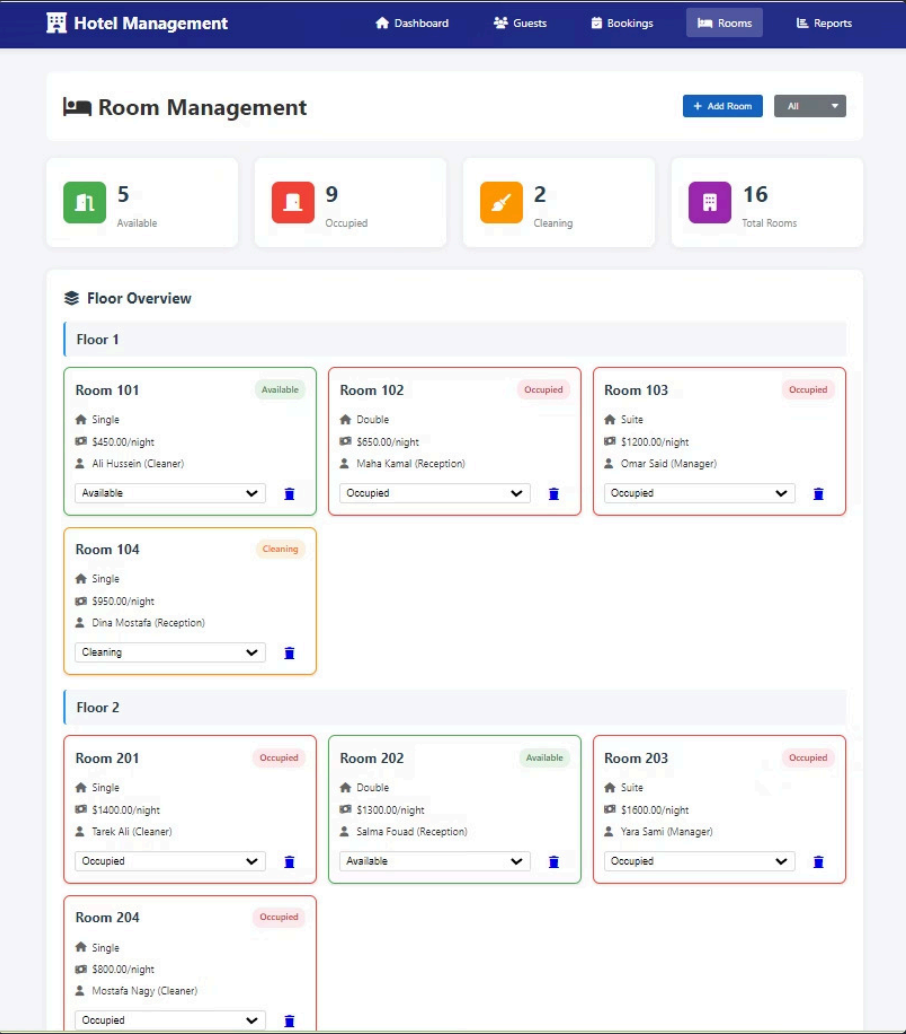
## Monthly Bookings & Revenue

Tracks booking volume and total revenue over time.

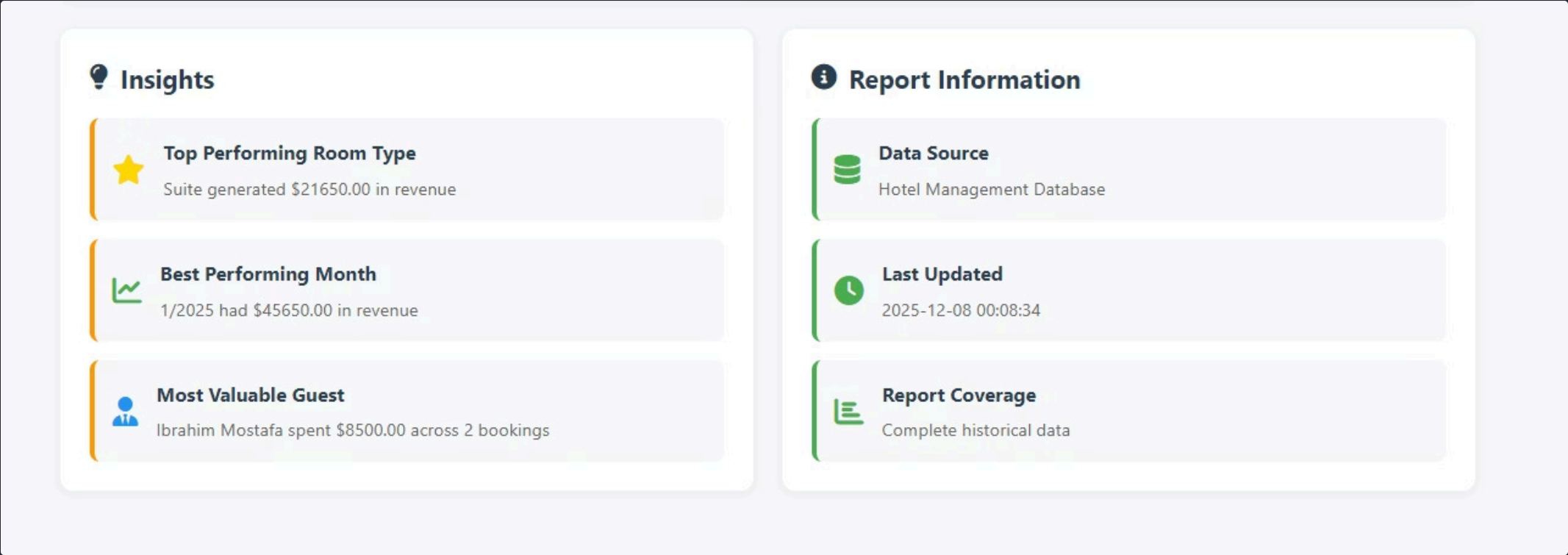





# GUI



# Conclusion & Future Outlook




Our Hotel Management System provides a robust, efficient, and scalable solution for modern hotel operations, enhancing guest experience and management efficiency.




### Enhanced Efficiency

Streamlined operations and reduced manual tasks.



### Improved Guest Experience

Faster check-ins, personalized services.



### Data-Driven Decisions

Comprehensive reports for strategic planning.