



Hotel Management System - Database Design Document

Database Name: `Hotel_management_system`

Entities and Attributes

1. Hotel

- `hotel_code` (INT, PRIMARY KEY)
- `name` (VARCHAR(255))
- `city` (VARCHAR(100))
- `manager_id` (INT, FOREIGN KEY → Employee.employee_id)
- `num_rooms` (INT)
- `star_rating` (INT)

2. Employee

- `employee_id` (INT, PRIMARY KEY)
- `name` (VARCHAR(255))
- `role` (VARCHAR(100))
- (other attributes unspecified)

3. Room

- `room_number` (INT)
- `hotel_code` (INT, FOREIGN KEY → Hotel.hotel_code)
- `type` (VARCHAR(100))
- `price_per_night` (DECIMAL(10,2))
- `availability_status` (VARCHAR(20))
- **Primary Key:** (`room_number` , `hotel_code`)

4. Guest

- `guest_id` (INT, PRIMARY KEY)
- `name` (VARCHAR(255))
- `loyalty_level` (VARCHAR(50))

5. Booking

- `booking_id` (INT, PRIMARY KEY)
- `guest_id` (INT, FOREIGN KEY → Guest.guest_id)
- `hotel_code` (INT, FOREIGN KEY → Hotel.hotel_code)
- `room_number` (INT, FOREIGN KEY → Room.room_number)
- `check_in_date` (DATE)
- `check_out_date` (DATE)
- `total_bill` (DECIMAL(10,2))

6. Feedback

- `feedback_id` (INT, PRIMARY KEY)
 - `booking_id` (INT, UNIQUE, FOREIGN KEY → Booking.booking_id)
 - `rating` (INT, CHECK rating BETWEEN 1 AND 5)
 - `comments` (TEXT)
-

Relationships

- **Hotel – Employee:** One hotel is managed by one employee (`manager_id`).
 - **Hotel – Room:** One-to-many (one hotel has many rooms).
 - **Room – Booking:** A booking is for a specific room.
 - **Guest – Booking:** A guest can have multiple bookings.
 - **Booking – Feedback:** One-to-one (each booking can have at most one feedback).
-

SQL Commands Snapshot (from logs)

1. `CREATE DATABASE Hotel_management_system;`
 2. `USE Hotel_management_system;`
 3. `CREATE TABLE Hotel (...);`
 4. `CREATE TABLE Employee (...);`
 5. `ALTER TABLE Hotel ADD CONSTRAINT fk_manager FOREIGN KEY (manager_id) REFERENCES Employee(employee_id);`
 6. `CREATE TABLE Room (...);`
 7. `CREATE TABLE Guest (...);`
 8. `CREATE TABLE Booking (...);`
 9. `CREATE TABLE Feedback (...);`
-

This schema is suitable for managing a hotel chain across multiple cities, capturing guests, bookings, feedback, room availability, and employee assignments.