

# SQL Internship Task 2: Hotel Booking System

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## Step 1: Create the Database

### Query:

```
CREATE DATABASE HotelBookingSystem;
```

### Explanation:

This query creates a new database named 'HotelBookingSystem'.

### Output:

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
✓ 23	20:27:50	drop database HotelBookingSystem	0 row(s) affected	0.016 sec	
✓ 24	20:28:08	CREATE DATABASE HotelBookingSystem	1 row(s) affected	0.016 sec	

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## Step 2: Use the Created Database

### Query:

```
USE HotelBookingSystem;
```

### Explanation:

Switches the active database context to 'HotelBookingSystem'.

### Output:

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
✓ 24	20:28:08	CREATE DATABASE HotelBookingSystem	1 row(s) affected	0.016 sec	
✓ 25	20:28:21	USE HotelBookingSystem	0 row(s) affected	0.000 sec	

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## Step 3: Create the Tables

### Query:

```
-- Rooms Table
CREATE TABLE Rooms (
    RoomID INT AUTO_INCREMENT PRIMARY KEY,
    RoomNumber VARCHAR(10) UNIQUE NOT NULL,
    RoomType VARCHAR(50) NOT NULL,
    Capacity INT NOT NULL,
    PricePerNight FLOAT NOT NULL,
    Availability BOOLEAN DEFAULT TRUE
);
```

```

-- Customers Table
CREATE TABLE Customers (
    CustomerID INT AUTO_INCREMENT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Email VARCHAR(100) UNIQUE NOT NULL,
    Phone VARCHAR(15) NOT NULL,
    Address VARCHAR(255)
);

-- Reservations Table
CREATE TABLE Reservations (
    ReservationID INT AUTO_INCREMENT PRIMARY KEY,
    CustomerID INT,
    RoomID INT,
    CheckInDate DATE NOT NULL,
    CheckOutDate DATE NOT NULL,
    TotalAmount FLOAT NOT NULL,
    Status VARCHAR(20) DEFAULT 'Confirmed',
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID),
    FOREIGN KEY (RoomID) REFERENCES Rooms(RoomID)
);

-- Payments Table
CREATE TABLE Payments (
    PaymentID INT AUTO_INCREMENT PRIMARY KEY,
    ReservationID INT,
    PaymentDate DATE NOT NULL,
    AmountPaid FLOAT NOT NULL,
    PaymentMethod VARCHAR(50) NOT NULL,
    PaymentStatus VARCHAR(20) DEFAULT 'Pending',
    FOREIGN KEY (ReservationID) REFERENCES Reservations(ReservationID)
);

```

### Explanation:

Creates the 'Rooms', 'Customers', 'Reservations', and 'Payments' tables with appropriate relationships and constraints.

### Output:

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
✓ 27	20:28:47	CREATE TABLE Rooms ( RoomID INT AUTO_...	0 row(s) affected	0.047 sec	
✓ 28	20:28:53	CREATE TABLE Customers ( CustomerID INT ...	0 row(s) affected	0.047 sec	
✓ 29	20:28:58	CREATE TABLE Reservations ( ReservationID...	0 row(s) affected	0.078 sec	
✓ 30	20:29:03	CREATE TABLE Payments ( PaymentID INT A...	0 row(s) affected	0.063 sec	

## Step 4: Insert Data into Table

### Query:

-- Insert Rooms

```
INSERT INTO Rooms (RoomNumber, RoomType, Capacity, PricePerNight, Availability) VALUES  
(101, 'Single', 1, 1000.00, TRUE),  
(102, 'Double', 2, 2000.00, TRUE);
```

-- Insert Customers

```
INSERT INTO Customers (FirstName, LastName, Email, Phone, Address) VALUES  
(Riya, 'Kharade', 'riya@gmail.com', '8275005788', 'Kolhapur');
```

-- Insert Reservations

```
INSERT INTO Reservations (CustomerID, RoomID, CheckInDate, CheckOutDate, TotalAmount,  
Status) VALUES  
(1, 1, '2024-06-05', '2024-06-10', 5000.00, 'Confirmed');
```

-- Insert Payments

```
INSERT INTO Payments (ReservationID, PaymentDate, AmountPaid, PaymentMethod,  
PaymentStatus) VALUES  
(1, '2024-06-05', 5000.00, 'Credit Card', 'Paid');
```

### Explanation:

Populates the 'Rooms', 'Customers', 'Reservations', and 'Payments' tables with sample data.

### Output:

Output					
Action Output					
#	Time	Action	Message	Duration / Fetch	
31	20:29:25	INSERT INTO Rooms (RoomNumber, RoomType...	2 row(s) affected Records: 2 Duplicates: 0 Wami...	0.016 sec	
32	20:29:31	INSERT INTO Customers (FirstName, LastName, ...	1 row(s) affected	0.000 sec	
33	20:29:36	INSERT INTO Reservations (CustomerID, RoomID...	1 row(s) affected	0.016 sec	
34	20:29:41	INSERT INTO Payments (ReservationID, Paymen...	1 row(s) affected	0.000 sec	

## Step 5: Fetch Available Data

### Query:

```
SELECT RoomNumber, RoomType, PricePerNight
FROM Rooms
WHERE Availability = TRUE;
```

### Explanation:

Fetches all available rooms.

### Output:

The screenshot displays a database management interface. At the top, a 'Result Grid' shows the results of a query. Below it, a tab labeled 'Rooms 7' is active. The 'Output' pane at the bottom shows a list of actions performed, including inserts and a select query.

	RoomNumber	RoomType	PricePerNight
▶	101	Single	1000
	102	Double	2000

Rooms 7 x Read Only Context Help Snippets

Output

#	Time	Action	Message	Duration / Fetch
✓ 32	20:29:31	INSERT INTO Customers (FirstName, LastName, ...	1 row(s) affected	0.000 sec
✓ 33	20:29:36	INSERT INTO Reservations (CustomerID, RoomID, ...	1 row(s) affected	0.016 sec
✓ 34	20:29:41	INSERT INTO Payments (ReservationID, PaymentID, ...	1 row(s) affected	0.000 sec
✓ 35	20:29:56	SELECT RoomNumber, RoomType, PricePerNight...	2 row(s) returned	0.000 sec / 0.000