**Date: 21-07-2025**

**CODING ASSIGNMENT**

**HOTEL BOOKING SYSTEM**

**SQL Query:**

CREATE DATABASE Hotel\_Booking\_System;

USE Hotel\_Booking\_System;

CREATE TABLE hotels (

hotel\_id INT PRIMARY KEY NOT NULL,

hotel\_name VARCHAR(100),

city VARCHAR(100)

);

CREATE TABLE rooms (

room\_id INT PRIMARY KEY NOT NULL,

hotel\_id INT,

room\_type VARCHAR(50),

price\_per\_night DECIMAL(10,2),

FOREIGN KEY (hotel\_id) REFERENCES hotels(hotel\_id)

);

CREATE TABLE bookings (

booking\_id INT PRIMARY KEY NOT NULL,

room\_id INT,

customer\_name VARCHAR(100),

check\_in DATE,

check\_out DATE,

no\_of\_nights INT,

FOREIGN KEY (room\_id) REFERENCES rooms(room\_id)

);

INSERT INTO hotels (hotel\_id, hotel\_name, city) VALUES

(1, 'The Grand Hotel', 'Mumbai'),

(2, 'Seaside Resort', 'Goa'),

(3, 'Hilltop Retreat', 'Manali');

INSERT INTO rooms (room\_id, hotel\_id, room\_type, price\_per\_night) VALUES

(1, 1, 'Deluxe', 4000.00),

(2, 1, 'Standard', 3000.00),

(3, 2, 'Suite', 6000.00),

(4, 3, 'Standard', 2500.00);

INSERT INTO bookings (booking\_id, room\_id, customer\_name, check\_in, check\_out, no\_of\_nights) VALUES

(1, 1, 'Aksha', '2025-07-01', '2025-07-03', 2),

(2, 2, 'Bickin', '2025-07-02', '2025-07-04', 2),

(3, 3, 'Griffin', '2025-07-01', '2025-07-05', 4),

(4, 4, 'Violet', '2025-07-03', '2025-07-04', 1);

**-- Q1: What is the total revenue generated by each hotel?**

SELECT

h.hotel\_name,

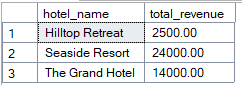
SUM(r.price\_per\_night \* b.no\_of\_nights) AS total\_revenue

FROM bookings b

JOIN rooms r ON b.room\_id = r.room\_id

JOIN hotels h ON r.hotel\_id = h.hotel\_id

GROUP BY h.hotel\_name;



**-- Q2: What is the average room price per hotel?**

SELECT

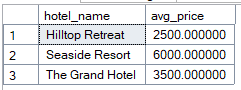
h.hotel\_name,

AVG(r.price\_per\_night) AS avg\_price

FROM rooms r

JOIN hotels h ON r.hotel\_id = h.hotel\_id

GROUP BY h.hotel\_name;



**-- Q3: Which city had the highest total bookings (by nights)?**

SELECT TOP 1

h.city,

SUM(no\_of\_nights) AS total\_nights

FROM bookings b

JOIN rooms r ON b.room\_id = r.room\_id

JOIN hotels h ON r.hotel\_id = h.hotel\_id

GROUP BY h.city

ORDER BY total\_nights DESC;



**-- Q4: How many bookings were made for each room type across all hotels?**

SELECT

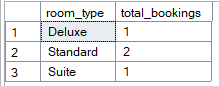
r.room\_type,

COUNT(b.booking\_id) AS total\_bookings

FROM bookings b

JOIN rooms r ON b.room\_id = r.room\_id

GROUP BY r.room\_type;



**-- Q5: What is the total number of bookings and average stay duration for each hotel?**

SELECT

hotel\_name,

COUNT(b.booking\_id) AS total\_bookings,

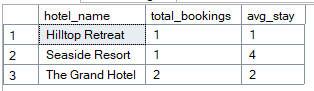
AVG(b.no\_of\_nights) AS avg\_stay

FROM bookings b

JOIN rooms r ON b.room\_id = r.room\_id

JOIN hotels h ON r.hotel\_id = h.hotel\_id

GROUP BY h.hotel\_name;



**-- Q6: Which hotel has the most expensive room?**

SELECT TOP 1

h.hotel\_name,

r.room\_type,

r.price\_per\_night

FROM rooms r

JOIN hotels h ON r.hotel\_id = h.hotel\_id

ORDER BY r.price\_per\_night DESC;



**-- Q7: What is the cheapest room type available and in which hotel?**

SELECT TOP 1

h.hotel\_name,

r.room\_type,

r.price\_per\_night

FROM rooms r

JOIN hotels h ON r.hotel\_id = h.hotel\_id

ORDER BY r.price\_per\_night;



**-- Q8: Which customer stayed the longest (most nights) in a single booking?**

SELECT TOP 1

b.customer\_name,

b.no\_of\_nights

FROM bookings b

ORDER BY b.no\_of\_nights DESC;



**-- Q9: Which hotel has the highest number of total bookings?**

SELECT TOP 1

h.hotel\_name,

COUNT(b.booking\_id) AS total\_bookings

FROM bookings b

JOIN rooms r ON b.room\_id = r.room\_id

JOIN hotels h ON r.hotel\_id = h.hotel\_id

GROUP BY h.hotel\_name

ORDER BY total\_bookings DESC;

