**SQL ASSIGNMENT:**

**Create the database:**

Create database hotel\_db;

**Use the database:**

USE hotel\_db;

**Create the table hotel:**

CREATE TABLE hotel (Hotel\_Id INT PRIMARY KEY AUTO\_INCREMENT, Name VARCHAR(45) NOT NULL,

City VARCHAR(45) NOT NULL);

**Insert the values in hotel:**

INSERT INTO hotel (Name, City) VALUES

('Hotel Asoka', 'Mumbai'),

('The Taj', 'Mumbai'),

('Oberoi', 'Delhi'),

('Marriott', 'Bangalore');

**Create the table room:**

CREATE TABLE Room (Room\_No INT PRIMARY KEY AUTO\_INCREMENT, Hotel\_Id INT,

Type ENUM('Single', 'Double', 'Deluxe', 'Family', 'Suite') NOT NULL, Price DECIMAL(10, 2) NOT NULL,

FOREIGN KEY (Hotel\_Id) REFERENCES hotel(Hotel\_Id));

**Insert the values in room:**

INSERT INTO Room (Hotel\_Id, Type, Price) VALUES

(1, 'Single', 1500.00),

(1, 'Double', 2500.00),

(1, 'Family', 3000.00),

(2, 'Single', 2000.00),

(2, 'Double', 3500.00),

(3, 'Single', 1800.00),

(3, 'Suite', 5000.00),

(4, 'Deluxe', 4000.00),

(4, 'Family', 4500.00);

**Create the table guest:**

CREATE TABLE Guest (

Guest\_Id INT PRIMARY KEY AUTO\_INCREMENT,

Name VARCHAR(255) NOT NULL,

Address VARCHAR(255) NOT NULL,

Guest\_Type ENUM('Platinum', 'Gold', 'Regular') NOT NULL

);

**Insert the values in guest:**

INSERT INTO Guest (Name, Address, Guest\_Type) VALUES

('John Doe', '123 Main St, Mumbai', 'Regular'),

('Jane Smith', '456 Elm St, Mumbai', 'Gold'),

('Alice Johnson', '789 Maple St, Delhi', 'Platinum'),

('Bob Brown', '101 Oak St, Bangalore', 'Regular');

**Create the table booking:**

CREATE TABLE Booking (

Hotel\_Id INT,

Guest\_Id INT,

From\_Date DATE,

To\_Date DATE,

Room\_No INT,

Number\_of\_Guests INT,

Kids ENUM('Y', 'N'),

FOREIGN KEY (Hotel\_Id) REFERENCES Hotel(Hotel\_Id),

FOREIGN KEY (Guest\_Id) REFERENCES Guest(Guest\_Id),

FOREIGN KEY (Room\_No) REFERENCES Room(Room\_No)

);

**Insert the values in booking:**

INSERT INTO Booking (Hotel\_Id, Guest\_Id, From\_Date, To\_Date, Room\_No, Number\_of\_Guests, Kids) VALUES

(1, 1, '2010-06-14', '2016-06-6', 1, 2, 'N'),

(1, 2, '2024-06-14', '2024-06-17', 2, 2, 'Y'),

(2, 3, '2024-06-14', '2024-06-18', 4, 3, 'N'),

(3, 4, '2024-06-14', '2024-06-15', 6, 1, 'N');

**Activity 1:**

**1.** **List the names and addresses of all guests in particular city (example Mumbai), alphabetically ordered by guest name**

SELECT Name, Address FROM Guest WHERE Address LIKE '%Mumbai%' ORDER BY Name;

**2. What is the average price of a room in each hotel?**

SELECT h.Name AS Hotel\_Name, AVG(r.Price) AS Average\_Price FROM Room r JOIN Hotel h ON

r.Hotel\_Id = h.Hotel\_Id GROUP BY h.Name;

**3. What is the lost income from unoccupied rooms at all hotels today?**

SELECT SUM(r.Price) AS Lost\_Income FROM Room r LEFT JOIN Booking b ON r.Room\_No =

b.Room\_No AND CURDATE() BETWEEN b.From\_Date AND b.To\_Date WHERE b.Room\_No IS NULL;

**4. Get the count of hotels occupied by a guest in each city & sort from larger to smaller**

SELECT h.City, COUNT(DISTINCT h.Hotel\_Id) AS Hotel\_Count FROM Booking b JOIN Hotel h ON

b.Hotel\_Id = h.Hotel\_Id GROUP BY h.City ORDER BY Hotel\_Count DESC;

**5. Create a duplicate table from Booking table with same structure to hold archive records**

CREATE TABLE Booking\_Archive LIKE Booking;

**6. Copy the records from the Booking table to the archive table relating to bookings before a particular date (example 31-Dec-2017)**

INSERT INTO Booking\_Archive (Hotel\_Id, Guest\_Id, From\_Date, To\_Date, Room\_No, Number\_of\_Guests, Kids)

SELECT Hotel\_Id, Guest\_Id, From\_Date, To\_Date, Room\_No, Number\_of\_Guests, Kids

FROM Booking

WHERE To\_Date < '2017-12-31';

SELECT \* FROM Booking

WHERE To\_Date < '2017-12-31';

**7. Delete all bookings prior to a same date (example 31-Dec-2017) from the Booking table**

DELETE FROM Booking WHERE To\_Date < '2017-12-31';