CREATE TABLE Guest (

guestID INT PRIMARY KEY,

name VARCHAR(255),

email VARCHAR(255),

phone VARCHAR(15)

);

CREATE TABLE Room (

roomID INT PRIMARY KEY,

type VARCHAR(50),

price\_per\_night DECIMAL(10, 2)

);

CREATE TABLE Reservation (

reservationID INT PRIMARY KEY,

guestID INT,

roomID INT,

checkInDate DATE,

checkOutDate DATE,

FOREIGN KEY (guestID) REFERENCES Guest(guestID),

FOREIGN KEY (roomID) REFERENCES Room(roomID)

);

CREATE TABLE Staff (

staffID INT PRIMARY KEY,

name VARCHAR(255),

position VARCHAR(100)

);

CREATE TABLE Service (

serviceID INT PRIMARY KEY,

type VARCHAR(100),

description TEXT

);

INSERT INTO Guest (guestID, name, email, phone) VALUES

(1, 'John Doe', 'johndoe@example.com', '555-1234'),

(2, 'Alice Johnson', 'alicej@example.com', '555-5678'),

(3, 'Maria Gonzalez', 'maria.gonzalez@xyz.com', '555-8765');

INSERT INTO Room (roomID, type, price\_per\_night) VALUES

(101, 'Standard', 100.00),

(102, 'Deluxe', 150.00),

(103, 'Suite', 200.00);

INSERT INTO Reservation (reservationID, guestID, roomID, checkInDate, checkOutDate) VALUES

(1, 1, 101, '2024-05-01', '2024-05-03'),

(2, 2, 102, '2024-05-02', '2024-05-04'),

(3, 3, 103, '2024-05-05', '2024-05-07');

INSERT INTO Staff (staffID, name, position) VALUES

(1, 'Sarah Connors', 'Manager'),

(2, 'Roger Smith', 'Receptionist'),

(3, 'Linda Lee', 'Housekeeping');

INSERT INTO Service (serviceID, type, description) VALUES

(1, 'Room Service', 'Food and drink delivery to room'),

(2, 'Laundry', 'Clothes washing and pressing'),

(3, 'Spa', 'Wellness and relaxation treatments');

SELECT r.reservationID, r.checkInDate, r.checkOutDate, ro.type, ro.price\_per\_night

FROM Reservation r

JOIN Room ro ON r.roomID = ro.roomID

WHERE r.guestID = 1;

SELECT SUM(ro.price\_per\_night \* DATEDIFF(r.checkOutDate, r.checkInDate)) AS Total\_Revenue

FROM Reservation r

JOIN Room ro ON r.roomID = ro.roomID;

SELECT s.type, s.description

FROM Service s

JOIN Staff st ON s.serviceID = st.staffID

WHERE st.name = 'Sarah Connors';

SELECT type, COUNT(\*) as Available\_Rooms

FROM Room

WHERE roomID NOT IN (SELECT roomID FROM Reservation WHERE checkInDate <= '2024-05-10' AND checkOutDate >= '2024-05-01')

GROUP BY type;