



جامعة أم القرى
UMM AL-QURA UNIVERSITY

MOONLIT MARVELA

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Section Number: 2

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REVIEWS

The database is designed to manage hotel operations efficiently by organizing rooms, reservations, services, and billing. It ensures accurate tracking of room availability, reservation scheduling, and guest information while supporting additional services and flexible payment methods. This system enhances operational efficiency and improves the overall guest experience.

BUSINESS RULES:

Moonlit Marvela, a prestigious hotel, plans to develop a database system to efficiently manage information regarding its customers, staff, rooms, and services.

1. Reservation:

- Each reservation has a unique ID, check-in and check-out dates.
- Reservations are directly linked to specific customers and include one or more rooms.

2. Customer:

- Each customer is identified by a unique ID, along with their first name, last name, and phone number.
- Each email must be unique.

3. Room:

- Each room has a unique room ID, a room type (single, double, suite), its current status (available, reserved, or under maintenance), and price.
- A room can be reserved by multiple reservations at different times.

4. Bill:

- Each bill has a unique ID and includes room charges, service charges, and the payment method (cash or credit card).
- A bill is linked to one reservation through its reservation ID.
- A bill can include charges for one or more services requested by the customer during their stay.

5. Staff:

- Each staff member has a unique staff ID, name, position, phone number, email, working hours, and salary.
- Each staff member is assigned to a specific position and can only perform tasks related to their role (e.g., spa specialist, chef, driver).
- Each email must be unique.

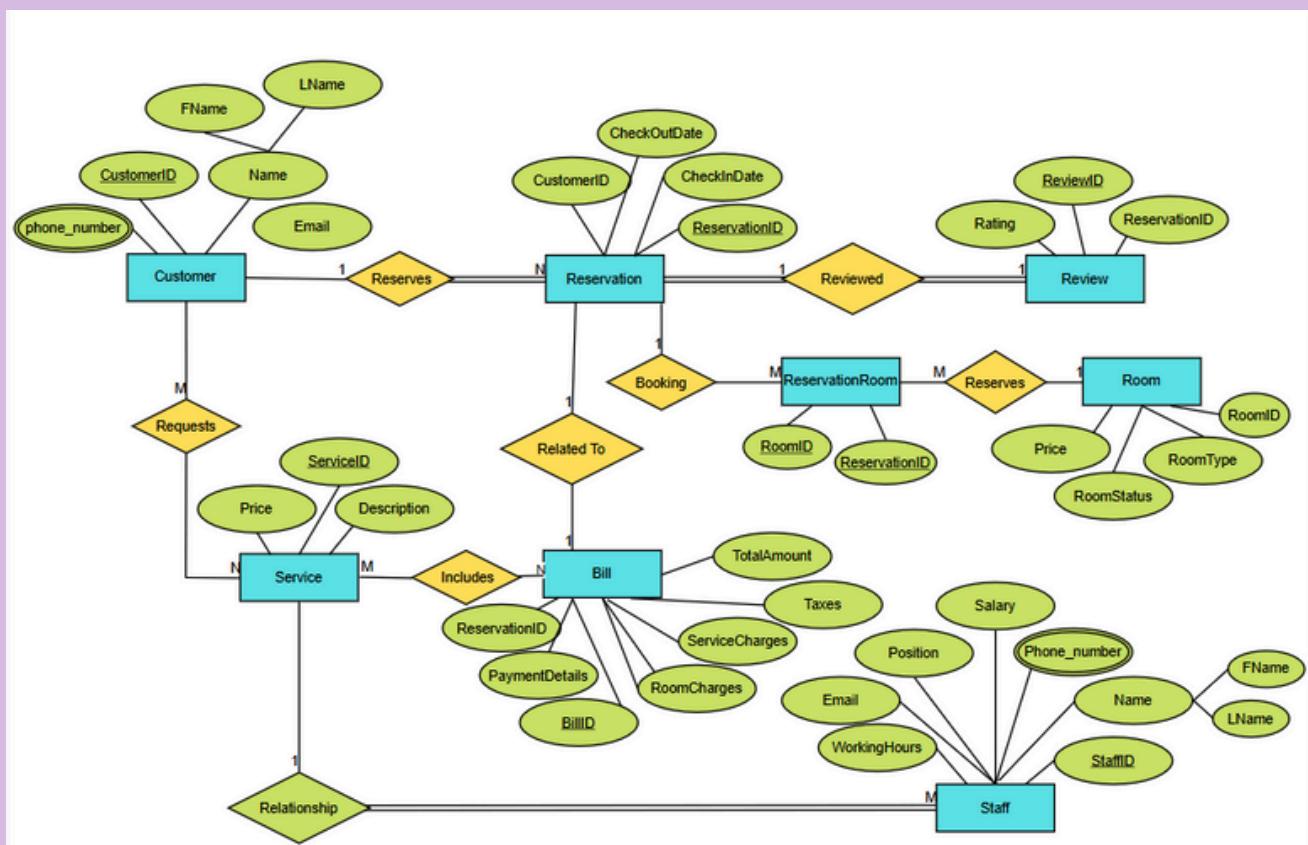
6. Service:

- Each service has a unique ID, description, and price.
- Services such as spa treatments, food delivery, and laundry are available to customers upon request.
- A service can be requested by one or more customers and is added to the customer's bill if used.

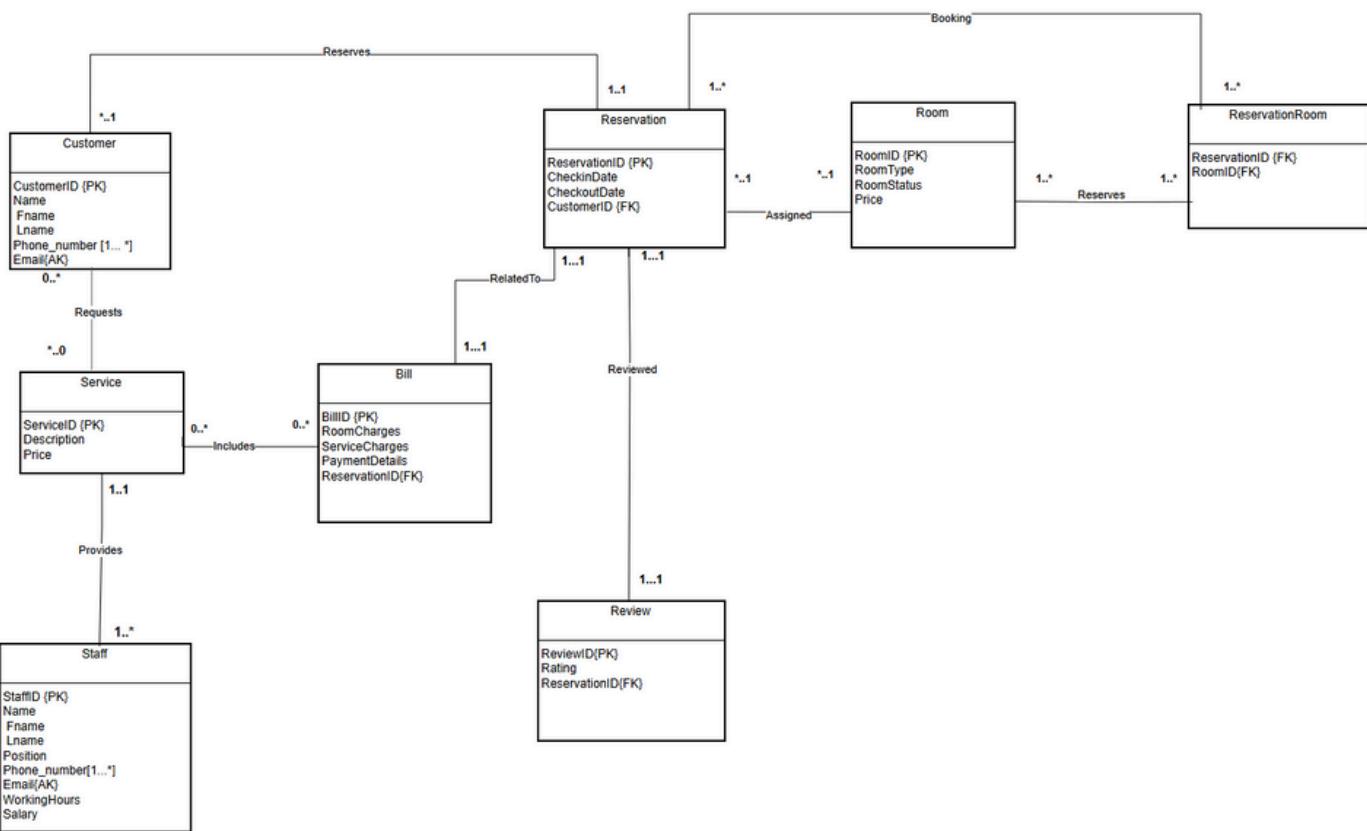
7. Review:

- Reviews have a unique review ID and a customer-provided rating.
- Every reservation must have exactly one review, and each review is tied to one specific reservation.

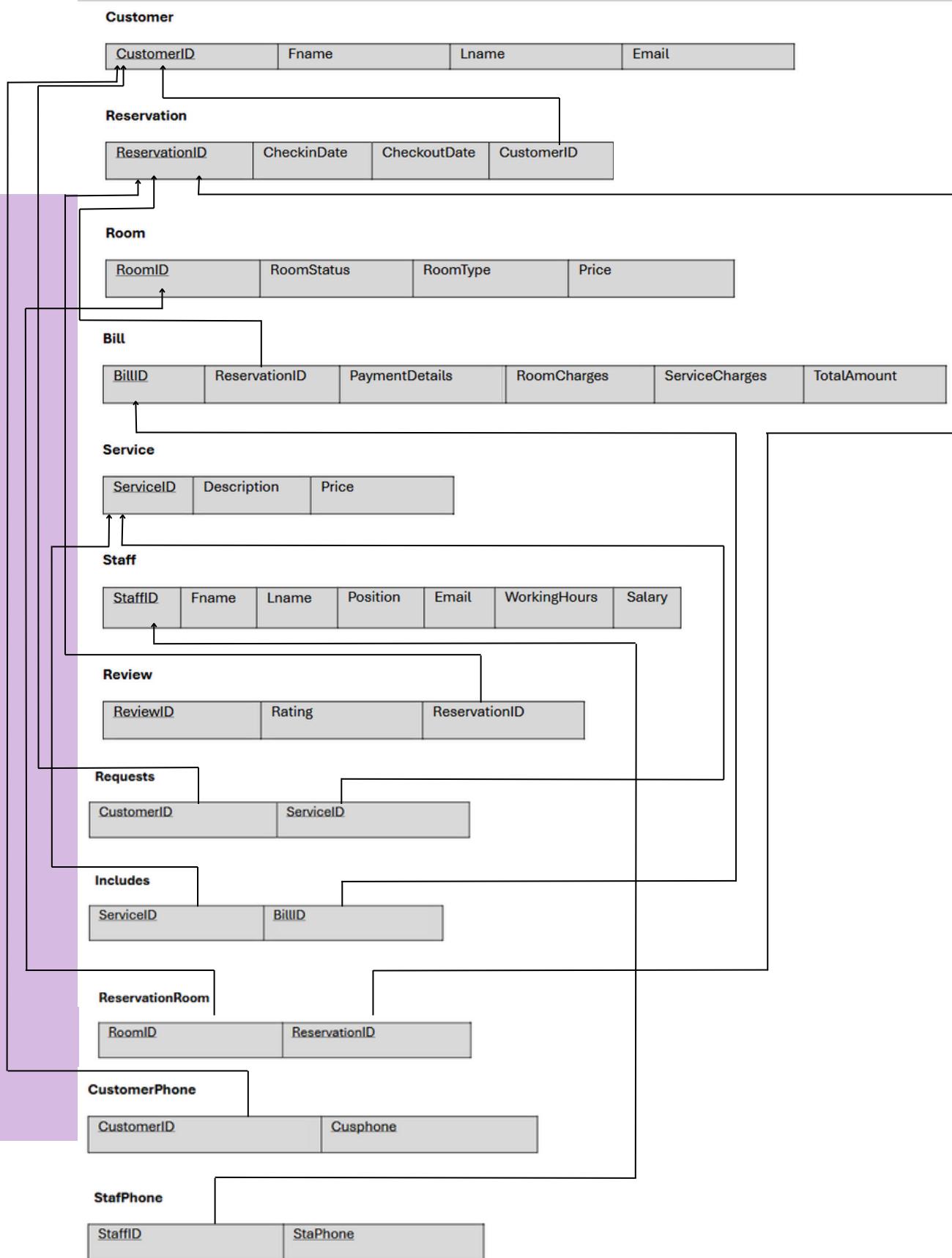
CHEN'S NOTATION :



UML DIAGRAM :



MAPPING OF ER INTO RELATIONAL SCHEMA:



TABLES :

```

1 EXISTS Customer (
    PRIMARY KEY,
    <0> NOT NULL,
    <0> NOT NULL,
    ICHAR(15) NOT NULL,
    <0> UNIQUE NOT NULL

    EXISTS Room (
        PRIMARY KEY CHECK (RoomID BETWEEN 1 AND 500),
        Single', 'Double', 'Suite') NOT NULL,
        ('Available', 'Reserved', 'Under Maintenance') DEFAULT 'Available',
        2) NOT NULL

    • CREATE TABLE IF NOT EXISTS Bill (
        BillID INT AUTO_INCREMENT PRIMARY KEY,
        ReservationID INT NOT NULL,
        RoomCharges DECIMAL(6, 2) NOT NULL,
        ServiceCharges DECIMAL(6, 2) DEFAULT 0.00,
        PaymentDetails VARCHAR(11) NOT NULL CHECK (PaymentDetails IN ('Cash', 'Credit Card')),
        FOREIGN KEY (ReservationID) REFERENCES Reservation(ReservationID)
    );

    • CREATE TABLE IF NOT EXISTS Staff (
        StaffID INT PRIMARY KEY,
        fname VARCHAR(50) NOT NULL,
        lname VARCHAR(50) NOT NULL,
        Position VARCHAR(50) NOT NULL,
        Phone_number VARCHAR(15) NOT NULL,
        Email VARCHAR(50) UNIQUE NOT NULL,
        Workinghours INT NOT NULL,
        Salary DECIMAL(7, 2) NOT NULL
    );

    • CREATE TABLE IF NOT EXISTS Reservation (
        ReservationID INT AUTO_INCREMENT PRIMARY KEY,
        CheckinDate DATE NOT NULL,
        CheckoutDate DATE NOT NULL,
        CustomerID INT NOT NULL,
        FOREIGN KEY (CustomerID) REFERENCES Customer(CustomerID)

    • CREATE TABLE IF NOT EXISTS ReservationRoom (
        ReservationID INT NOT NULL,
        RoomID INT NOT NULL,
        PRIMARY KEY (ReservationID, RoomID),
        FOREIGN KEY (ReservationID) REFERENCES Reservation(ReservationID),
        FOREIGN KEY (RoomID) REFERENCES Room(RoomID)
    );

    • CREATE TABLE IF NOT EXISTS Services (
        ServiceID INT AUTO_INCREMENT PRIMARY KEY,
        Description VARCHAR(50) NOT NULL,
        Price DECIMAL(6, 2) NOT NULL
    );

    • CREATE TABLE IF NOT EXISTS Includes (
        BillID INT NOT NULL,
        ServiceID INT NOT NULL,
        PRIMARY KEY (BillID, ServiceID),
        FOREIGN KEY (BillID) REFERENCES Bill(BillID),
        FOREIGN KEY (ServiceID) REFERENCES Services(ServiceID)
    );

    • CREATE TABLE IF NOT EXISTS Requests (
        CustomerID INT NOT NULL,
        ServiceID INT NOT NULL,
        PRIMARY KEY (CustomerID, ServiceID),
        FOREIGN KEY (CustomerID) REFERENCES Customer(CustomerID),
        FOREIGN KEY (ServiceID) REFERENCES Services(ServiceID)
    );

```

INSARTION & THIER RESULTS:

```

INSERT INTO Room (RoomID, RoomType, RoomStatus, Price)
VALUES
(101, 'Single', 'Reserved', 350.00),
(102, 'Double', 'Reserved', 500.00),
(103, 'Suite', 'Reserved', 750.00),
(104, 'Single', 'Reserved', 350.00),
(105, 'Double', 'Reserved', 500.00),
(106, 'Suite', 'Reserved', 750.00),
(107, 'Single', 'Reserved', 350.00),
(108, 'Double', 'Reserved', 500.00),
(201, 'Single', 'Reserved', 350.00),
(202, 'Double', 'Reserved', 500.00),
(203, 'Suite', 'Available', 750.00),
(204, 'Suite', 'Available', 750.00),
(301, 'Single', 'Under Maintenance', 350.00),
(302, 'Double', 'Under Maintenance', 500.00),
(303, 'Suite', 'Under Maintenance', 750.00),
(304, 'Suite', 'Under Maintenance', 750.00);

INSERT INTO Bill (ReservationID, RoomCharges, ServiceCharges, PaymentDetails)
VALUES
(1, 850.00, 350.00, 'Credit Card'),
(2, 850.00, 150.00, 'Cash'),
(3, 350.00, 50.00, 'Credit Card'),
(4, 1250.00, 145.00, 'Cash'),
(5, 350.00, 200.00, 'Credit Card'),
(6, 500.00, 50.00, 'Cash'),
(7, 750.00, 0.00, 'Credit Card');

INSERT INTO Staff (StaffID, fname, lname, Position, Phone_number, Email, WorkingHours, Salary)
VALUES
(2000000001, 'Lama', 'Alghandi', 'Receptionist', '0591234567', 'lama.alghandi@gmail.com', 40, 4000.00),
(2000000002, 'Noura', 'Alotaibi', 'Housekeeping', '0592345678', 'noura.alotaibi@hotmail.com', 38, 1500.00),
(2000000003, 'Reem', 'Alzahrani', 'Gyn coach', '0593456789', 'reem.alzahrani@yahoo.com', 45, 5000.00),
(2000000004, 'Aseel', 'Alqahtani', 'Chef', '0594567890', 'aseel.alqahtani@outlook.com', 40, 8000.00),
(2000000005, 'Raghad', 'Alshahrani', 'Driver', '0595678901', 'raghad.alshahrani@gmail.com', 35, 3500.00),
(2000000006, 'Sarah', 'Alshehri', 'Spa Specialist', '0596789012', 'sarah.alshehri@hotmail.com', 38, 2500.00);

► INSERT INTO Reservation (CheckinDate, CheckoutDate, CustomerID)
VALUES
('2025-02-01', '2025-02-05', 1000000001),
('2025-03-05', '2025-03-10', 1000000001),
('2025-02-10', '2025-02-15', 1000000002),
('2025-03-01', '2025-03-05', 1000000003),
('2025-03-10', '2025-03-12', 1000000004),
('2025-04-01', '2025-04-03', 1000000005),
('2025-04-05', '2025-04-08', 1000000006);

► INSERT INTO ReservationRoom (ReservationID, RoomID)
VALUES
(1, 101),
(1, 102),
(2, 201),
(2, 202),
(3, 104),
(4, 105),
(4, 106),
(5, 107),
(6, 108),
(7, 103);

```

INSARTION & THIER RESULTS:

```
INSERT INTO Services (Description, Price)
VALUES
('Spa treatment', 200.00),
('Buffet', 150.00),
('Buffet for kids', 50.00),
('Laundry', 50.00),
('Gym', 75.00),
('Food Delivery', 70.00);

INSERT INTO Includes (BillID, ServiceID)
VALUES
(1, 1),
(1, 2),
(2, 3),
(4, 4),
(4, 5),
(5, 6);
```

- `INSERT INTO Requests (CustomerID, ServiceID)`
VALUES
(1000000001, 1),
(1000000001, 2),
(1000000002, 3),
(1000000003, 4),
(1000000003, 5),
(1000000004, 5),
(1000000005, 6);

- `INSERT INTO Review (ReservationID, Rating)`
VALUES
(1, 5),
(2, 4),
(3, 5),
(4, 3),
(5, 4),
(6, 5);

- ```
33 • UPDATE Room
34 SET Price = 550
35 WHERE RoomID = 105;
36
37
38 • UPDATE staff
39 SET Salary = Salary * 1.10
40 WHERE StaffID = 2000000005;
41
```

# INSARTION & THIER RESULTS:

```

17 • SELECT * FROM Room
18 WHERE RoomStatus = 'Available'
19 OR RoomStatus = 'Under Maintenance';
20
21 • SELECT
22 RoomStatus, COUNT(RoomID) AS TotalRooms
23 FROM Room
24 GROUP BY RoomStatus;
25
26 • SELECT
27 StaffID,
28 CONCAT (s.fname , ' ',s.lname) as Full_Name,
29 WorkingHours
30 FROM
31 Staff as s
32 HAVING
33 WorkingHours >= 35
34 ORDER BY WorkingHours DESC;
35
36
37 • SELECT -- Select (Order BY)
38 CONCAT (s.fname , ' ',s.lname) as Full_Name,
39 StaffID,
40 Salary,
41 Position
42 FROM Staff as s
43 ORDER BY Salary DESC;
44

```

## The outputs

|   | RoomID | RoomType | RoomStatus        | Price  |
|---|--------|----------|-------------------|--------|
| ▶ | 203    | Suite    | Available         | 750.00 |
|   | 204    | Suite    | Available         | 750.00 |
|   | 301    | Single   | Under Maintenance | 350.00 |
|   | 302    | Double   | Under Maintenance | 500.00 |
|   | 303    | Suite    | Under Maintenance | 750.00 |
|   | 304    | Suite    | Under Maintenance | 750.00 |
| * | NULL   | NULL     | NULL              | NULL   |

|   | RoomStatus        | TotalRooms |
|---|-------------------|------------|
| ▶ | Reserved          | 10         |
|   | Available         | 2          |
|   | Under Maintenance | 4          |

|   | StaffID    | Full_Name         | WorkingHours |
|---|------------|-------------------|--------------|
| ▶ | 2000000003 | Reem Alzahrani    | 45           |
|   | 2000000001 | Lama Alghamdi     | 40           |
|   | 2000000004 | Aseel Alqahtani   | 40           |
|   | 2000000002 | Noura Alotaibi    | 38           |
|   | 2000000005 | Raghad Alshahrani | 35           |

|   | FullName        | PhoneNumber | ReservationID | DurationInDays | FinalAmount |
|---|-----------------|-------------|---------------|----------------|-------------|
| ▶ | Rana Anefaie    | 0501234567  | 1             | 4              | 3400.00     |
|   | Rana Anefaie    | 0501234567  | 2             | 5              | 4250.00     |
|   | Sarah Almatrafi | 0512345678  | 3             | 5              | 1750.00     |
|   | Tahani Albarqi  | 0523456789  | 4             | 4              | 5200.00     |
|   | Rawan Almtri    | 0534567890  | 5             | 2              | 700.00      |
|   | Doha Alnabati   | 0545678901  | 6             | 2              | 1000.00     |
|   | Mihad Alehdal   | 0556789012  | 7             | 3              | 2250.00     |

|   | BillID | RoomCharges | ServiceCharges | TotalCharges | Taxes    | Price     |
|---|--------|-------------|----------------|--------------|----------|-----------|
| ▶ | 1      | 850.00      | 350.00         | 1200.00      | 180.0000 | 1380.0000 |
|   | 2      | 850.00      | 150.00         | 1000.00      | 150.0000 | 1150.0000 |
|   | 3      | 350.00      | 50.00          | 400.00       | 60.0000  | 460.0000  |
|   | 4      | 1250.00     | 145.00         | 1395.00      | 209.2500 | 1604.2500 |
|   | 5      | 350.00      | 200.00         | 550.00       | 82.5000  | 632.5000  |
|   | 6      | 500.00      | 50.00          | 550.00       | 82.5000  | 632.5000  |
|   | 7      | 750.00      | 0.00           | 750.00       | 112.5000 | 862.5000  |

|   | Full_Name         | StaffID    | Salary  | Position       |
|---|-------------------|------------|---------|----------------|
| ▶ | Aseel Alqahtani   | 2000000004 | 8000.00 | Chef           |
|   | Reem Alzahrani    | 2000000003 | 5000.00 | Gyn coach      |
|   | Lama Alghamdi     | 2000000001 | 4000.00 | Receptionist   |
|   | Raghad Alshahrani | 2000000005 | 3850.00 | Driver         |
|   | Sarah Alshehri    | 2000000006 | 2500.00 | Spa Specialist |
|   | Noura Alotaibi    | 2000000002 | 1500.00 | Housekeeping   |

|   | Full_Name    | PhoneNumber |
|---|--------------|-------------|
| ▶ | Rana Anefaie | 0501234567  |

# INSARTION & THIER RESULTS:

```

100
101 • INSERT INTO Staff (StaffID, fname, lname, Position, Phone_number, Email, WorkingHours, Salary)
102 VALUES
103 ('2000000001', 'Lama', 'Alghamdi', 'Receptionist', '0591234567', 'lama.alghamdi@gmail.com', 40, 4000.00),
104 ('2000000002', 'Noura', 'Alotaibi', 'Housekeeping', '0592345678', 'noura.alotaibi@hotmail.com', 38, 1500.00),
105 ('2000000003', 'Reem', 'Alzahrani', 'Manager', '0593456789', 'reem.alzahrani@yahoo.com', 45, 10000.00),
106 ('2000000004', 'Aseel', 'Alqahtani', 'Chef', '0594567890', 'aseel.alqahtani@outlook.com', 40, 8000.00),
107 ('2000000005', 'Raghad', 'Alshahrani', 'Driver', '0595678901', 'raghad.alshahrani@gmail.com', 35, 2500.00),
108 ('2000000006', 'Sarah', 'Alsbehri', 'Spa Specialist', '0596789012', 'sarah.alsbehri@hotmail.com', 30, 3000.00);
109
110
111 • INSERT INTO Service (Description, Price)
112 VALUES
113 ('Spa treatment', 200.00),
114 ('Buffet', 150.00),
115 ('Room Cleaning', 8.00),
116 ('Laundry', 50.00),
117 ('Gym', 75.00),
118 ('Food Delivery', 70.00);
119
120

```

## Staff:

| StaffID    | fname  | lname      | Position       | Phone_number | Email                       | WorkingHours | Salary   |
|------------|--------|------------|----------------|--------------|-----------------------------|--------------|----------|
| 2000000001 | Lama   | Alghamdi   | Receptionist   | 0591234567   | lama.alghamdi@gmail.com     | 40           | 4000.00  |
| 2000000002 | Noura  | Alotaibi   | Housekeeping   | 0592345678   | noura.alotaibi@hotmail.com  | 38           | 1500.00  |
| 2000000003 | Reem   | Alzahrani  | Manager        | 0593456789   | reem.alzahrani@yahoo.com    | 45           | 10000.00 |
| 2000000004 | Aseel  | Alqahtani  | Chef           | 0594567890   | aseel.alqahtani@outlook.com | 40           | 8000.00  |
| 2000000005 | Raghad | Alshahrani | Driver         | 0595678901   | raghad.alshahrani@gmail.com | 35           | 2500.00  |
| 2000000006 | Sarah  | Alsbehri   | Spa Specialist | 0596789012   | sarah.alsbehri@hotmail.com  | 30           | 3000.00  |
| *          | HULL   | HULL       | HULL           | HULL         | HULL                        | HULL         | HULL     |

## Services:

| ServiceID | Description   | Price  |
|-----------|---------------|--------|
| 1         | Spa treatment | 200.00 |
| 2         | Buffet        | 150.00 |
| 3         | Room Cleaning | 0.00   |
| 4         | Laundry       | 50.00  |
| 5         | Gym           | 75.00  |
| 6         | Food Delivery | 70.00  |

.20  
.21 • INSERT INTO Review (ReservationID, Rating)

.22 VALUES  
.23 (1, 5),  
.24 (2, 4),  
.25 (3, 5),  
.26 (4, 3),  
.27 (5, 4),  
.28 (6, 2);  
.29

| ReviewID | ReservationID | Rating |
|----------|---------------|--------|
| 1        | 1             | 5      |
| 2        | 2             | 4      |
| 3        | 3             | 5      |
| 4        | 4             | 3      |
| 5        | 5             | 4      |
| 6        | 6             | 2      |
| *        | HULL          | HULL   |

# UPDATE AND DELETE :

```

132 • SELECT * FROM Room;
133 • SELECT * FROM Reservation;
134 • SELECT * FROM Bill;
135 • SELECT * FROM Staff;
136 • SELECT * FROM Service;
137 • SELECT * FROM Review;
138

```

```

UPDATE Room
SET RoomStatus = 'Under maintenance'
WHERE RoomID = 102;

```

```

UPDATE staff
SET Salary = Salary * 1.10
WHERE StaffID = 2000000005;

```

```

DELETE FROM Review
WHERE ReviewID = 6;

```

## Update room

| StaffID    | fname  | Iname      | Position       | Phone_number | Email                       | WorkingHours | Salary   |
|------------|--------|------------|----------------|--------------|-----------------------------|--------------|----------|
| 2000000001 | Lama   | Alghamdi   | Receptionist   | 0591234567   | lama.alghamdi@gmail.com     | 40           | 4000.00  |
| 2000000002 | Noura  | Alotaibi   | Housekeeping   | 0592345678   | noura.alotaibi@hotmail.com  | 38           | 1500.00  |
| 2000000003 | Reem   | Alzahrani  | Manager        | 0593456789   | reem.alzahrani@yahoo.com    | 45           | 10000.00 |
| 2000000004 | Aseel  | Alqahtani  | Chef           | 0594567890   | aseel.alqahtani@outlook.com | 40           | 8000.00  |
| 2000000005 | Raghad | Alshahrani | Driver         | 0595678901   | raghad.alshahrani@gmail.com | 35           | 2750.00  |
| 2000000006 | Sarah  | Raghad     | Spa Specialist | 0596789012   | sarah.alshehri@hotmail.com  | 30           | 3000.00  |
| *          | NULL   | NULL       | NULL           | NULL         | NULL                        | NULL         | NULL     |

## Update staff

| RoomID | RoomType | RoomStatus        | Price  |
|--------|----------|-------------------|--------|
| 101    | Single   | Available         | 350.00 |
| 102    | Double   | Under Maintenance | 500.00 |
| 103    | Suite    | Available         | 750.00 |
| 104    | Single   | Under Maintenance | 350.00 |
| 105    | Double   | Available         | 500.00 |
| 106    | Suite    | Available         | 750.00 |
| 204    | Single   | Under Maintenance | 350.00 |
| 205    | Double   | Under Maintenance | 500.00 |
| 206    | Suite    | Under Maintenance | 750.00 |
| 207    | Single   | Under Maintenance | 350.00 |
| 208    | Double   | Reserved          | 500.00 |
| 209    | Suite    | Available         | 750.00 |
| *      | NULL     | NULL              | NULL   |

## Delete review

| ReviewID | ReservationID | Rating |
|----------|---------------|--------|
| 1        | 1             | 5      |
| 2        | 2             | 4      |
| 3        | 3             | 5      |
| 4        | 4             | 3      |
| 5        | 5             | 4      |
| *        | NULL          | NULL   |

# SELECT COMMANDS:

```

151 • SELECT * FROM Room
152 WHERE RoomStatus = 'Available'
153 OR RoomStatus = 'Under Maintenance';
154
155 • SELECT
156 RoomStatus, COUNT(RoomID) AS TotalRooms
157 FROM Room
158 GROUP BY RoomStatus;
159

```

Result Grid | Filter Rows: Edit:

|   | RoomID | RoomType | RoomStatus        | Price  |
|---|--------|----------|-------------------|--------|
| ▶ | 101    | Single   | Available         | 350.00 |
|   | 102    | Double   | Under Maintenance | 500.00 |
|   | 103    | Suite    | Available         | 750.00 |
|   | 104    | Single   | Under Maintenance | 350.00 |
|   | 105    | Double   | Available         | 500.00 |
|   | 106    | Suite    | Available         | 750.00 |
|   | 204    | Single   | Under Maintenance | 350.00 |
|   | 205    | Double   | Under Maintenance | 500.00 |
|   | 206    | Suite    | Under Maintenance | 750.00 |
|   | 207    | Single   | Under Maintenance | 350.00 |
|   | 209    | Suite    | Available         | 750.00 |
| * | HULL   | HULL     | HULL              | HULL   |

Result Grid | Filter Rows:

|   | RoomStatus        | TotalRooms |
|---|-------------------|------------|
| ▶ | Available         | 5          |
|   | Under Maintenance | 6          |
|   | Reserved          | 1          |

```

160 • SELECT
161 StaffID,
162 fname AS FirstName,
163 lname AS LastName,
164 WorkingHours
165 FROM
166 Staff
167 HAVING
168 WorkingHours >= 35
169 ORDER BY WorkingHours DESC;
170

```

Result Grid | Filter Rows: Edit:

|   | StaffID    | FirstName | LastName   | WorkingHours |
|---|------------|-----------|------------|--------------|
| ▶ | 2000000003 | Reem      | Alzahrani  | 45           |
|   | 2000000001 | Lama      | Alghamdi   | 40           |
|   | 2000000004 | Aseel     | Alqahtani  | 40           |
|   | 2000000002 | Noura     | Alotaibi   | 38           |
|   | 2000000005 | Raghad    | Alshahrani | 35           |
| * | HULL       | HULL      | HULL       | HULL         |

# SELECT COMMANDS:

```

171
172 • SELECT
173 StaffID,
174 fname,
175 lname,
176 Salary,
177 Position
178 FROM Staff
179 ORDER BY Salary DESC;
180

```

|   | StaffID    | fname  | lname     | Salary   | Position       |
|---|------------|--------|-----------|----------|----------------|
| ▶ | 2000000003 | Reem   | Alzahrani | 10000.00 | Manager        |
|   | 2000000004 | Aseel  | Alqahtani | 10000.00 | Chef           |
|   | 2000000001 | Lama   | Alghamdi  | 4000.00  | Receptionist   |
|   | 2000000006 | Sarah  | Alshehri  | 3000.00  | Spa Specialist |
|   | 2000000005 | Raghad | Alshahran | 2750.00  | Driver         |
|   | 2000000002 | Noura  | Alotaibi  | 1500.00  | Housekeeping   |
| * | NULL       | NULL   | NULL      | NULL     | NULL           |

```

181
182 • SELECT -- Subquerie
183 fname AS FirstName,
184 lname AS LastName,
185 Phone_number AS PhoneNumber
186 FROM
187 Customer
188 WHERE
189 CustomerID IN (
190 SELECT
191 CustomerID
192 FROM
193 Reservation
194 WHERE
195 RoomID = 102
196);
197

```

|   | FirstName | LastName  | PhoneNumber |
|---|-----------|-----------|-------------|
| ▶ | Sarah     | Almatrafi | 0512345678  |

# SELECT COMMANDS:

```

199 • SELECT -- join
200 fname AS FirstName,
201 lname AS LastName,
202 Phone_number AS PhoneNumber,
203 DATEDIFF(r.CheckoutDate, r.CheckinDate) AS DurationInDays,
204 (DATEDIFF(r.CheckoutDate, r.CheckinDate) * (SELECT Price FROM Room WHERE RoomID = r.RoomID)) AS FinalAmount
205 FROM
206 Customer AS c
207 JOIN
208 Reservation AS r ON c.CustomerID = r.CustomerID;
209
210 • SELECT
211 BillID,
212 RoomCharges,
213 ServiceCharges,
214
215 (RoomCharges + ServiceCharges) AS TotalCharges,
216 (RoomCharges + ServiceCharges) * 0.15 AS Taxes,
217 (RoomCharges + ServiceCharges) + ((RoomCharges + ServiceCharges) * 0.15) AS Price
218 FROM Bill;

```

## Join command

|   | FirstName | LastName  | PhoneNumber | DurationInDays | FinalAmount |
|---|-----------|-----------|-------------|----------------|-------------|
| ▶ | Rana      | Alnefaie  | 0501234567  | 4              | 1400.00     |
|   | Sarah     | Almatrafi | 0512345678  | 5              | 2500.00     |
|   | Tahani    | Albarqi   | 0523456789  | 4              | 3000.00     |
|   | Rawan     | Almitiri  | 0534567890  | 2              | 700.00      |
|   | Doha      | Alnabati  | 0545678901  | 2              | 1000.00     |
|   | Mihad     | Alahdal   | 0556789012  | 3              | 2250.00     |

|   | BillID | RoomCharges | ServiceCharges | TotalCharges | Taxes    | Price     |
|---|--------|-------------|----------------|--------------|----------|-----------|
| ▶ | 1      | 1400.00     | 200.00         | 1600.00      | 240.0000 | 1840.0000 |
|   | 2      | 2500.00     | 150.00         | 2650.00      | 397.5000 | 3047.5000 |
|   | 3      | 3000.00     | 0.00           | 3000.00      | 450.0000 | 3450.0000 |
|   | 4      | 700.00      | 300.00         | 1000.00      | 150.0000 | 1150.0000 |
|   | 5      | 1000.00     | 100.00         | 1100.00      | 165.0000 | 1265.0000 |
|   | 6      | 2250.00     | 50.00          | 2300.00      | 345.0000 | 2645.0000 |

## THE ALLOCATION OF TASKS AND CLASSES :

14

| Tasks                                                             | student name |
|-------------------------------------------------------------------|--------------|
| Mapping the ER into Relational Schema and reviewing the diagrams. | Duha         |
| Coding and some commands.                                         | Sara         |
| Coding , Business roles, Prepared the report.                     | Rana         |
| Chin's notation and help in UML.                                  | Mehad        |
| UML diagram , Prepared the report.                                | Tahani       |
| Business roles and description of project                         | Rawan        |