

## **CREATE TABLE**

```
CREATE TABLE Visitors (  
    visitor_id INT PRIMARY KEY,  
    first_name VARCHAR(50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    phone VARCHAR(20) UNIQUE,  
    email VARCHAR(100) UNIQUE,  
    passport_number VARCHAR(20) UNIQUE  
);
```

## **CREATE TABLE** Rooms (

```
    room_id INT PRIMARY KEY,  
    room_number INT UNIQUE NOT NULL,  
    room_type ENUM('Single', 'Double', 'Suite') NOT NULL,  
    price_per_night DECIMAL(10,2) NOT NULL,  
);
```

## **CREATE TABLE** Bookings (

```
    booking_id INT PRIMARY KEY,  
    visitor_id INT,  
    room_id INT,  
    check_in DATE NOT NULL,  
    check_out DATE NOT NULL,  
    total_price DECIMAL(10,2),
```

```
    status ENUM('Booked', 'Checked-in', 'Checked-out', 'Cancelled') DEFAULT
'Booked',
    FOREIGN KEY (visitor_id) REFERENCES Visitors(visitor_id),
    FOREIGN KEY (room_id) REFERENCES Rooms(room_id)
);
```

### **INSERT**

```
INSERT INTO Visitors (first_name, last_name, phone, email, passport_number)
VALUES
('Іван', 'Петренко', '+380501234567', 'ivan.petrenko@gmail.com', 'PP123456'),
('Олена', 'Коваленко', '+380671112233', 'olena.kovalenko@gmail.com',
'PP654321'),
('John', 'Smith', '+441234567890', 'john.smith@yahoo.com', 'UK987654') ;
```

### **UPDATE**

```
UPDATE Visitors SET email = 'olena.kovalenko2@gmail.com'
WHERE visitor_id = 2;
```

### **DELETE**

```
DELETE FROM Visitors WHERE visitor_id =1;
```

### **ORDER BY**

```
SELECT * FROM Rooms WHERE room_type = 'Single'
ORDER BY room_id;
```

### **AND**

```
SELECT * FROM Visitors
WHERE first_name = 'John'
AND last_name = 'Smith';
```

**OR**

```
SELECT * FROM Rooms  
WHERE room_type = 'Single' OR room_type = 'Suite';
```

**TOP**

```
SELECT TOP 3 * FROM Visitors;
```

**MIN**

```
SELECT MIN (total_price) FROM Bookings;
```

**MAX**

```
SELECT MAX (total_price) FROM Bookings;
```

**COUNT**

```
SELECT COUNT(*) FROM Bookings;
```

**SUM**

```
SELECT SUM (total_price) FROM Bookings  
WHERE status = 'Checked-in';
```

**GROUP BY**

```
SELECT room_type, AVG(price)  
FROM Rooms  
GROUP BY room_type;
```

**AVG**

```
SELECT AVG(total_price) FROM Bookings;
```

**LIKE**

```
SELECT * FROM Visitors WHERE first_name LIKE '%e%';  
SELECT * FROM Visitors WHERE first_name LIKE ' J_h_';  
SELECT * FROM Visitors WHERE last_name LIKE 'K__b%';
```

## BETWEEN

```
SELECT * FROM Rooms  
WHERE price_per_night BETWEEN 800.00 AND 1500.00;
```

## JOIN

```
SELECT v.first_name, v.last_name, r.room_number  
FROM Visitors v  
INNER JOIN Bookings b ON v.visitor_id = b.visitor_id  
INNER JOIN Rooms r ON b.room_id = r.room_id;
```

```
SELECT v.first_name, v.last_name, b.booking_id  
FROM Visitors v  
LEFT JOIN Bookings b ON v.visitor_id = b.visitor_id;
```

```
SELECT b.booking_id, v.first_name  
FROM Visitors v  
RIGHT JOIN Bookings b ON v.visitor_id = b.visitor_id;
```