

# Celebal Internship Final Project

## Hospitality Management System

### Project Title: “Room Availability Checking during Reservation”

```
CREATE TABLE Users (  
    UserID INT PRIMARY KEY AUTO_INCREMENT,  
    Username VARCHAR(50) UNIQUE NOT NULL,  
    PasswordHash VARCHAR(255) NOT NULL  
);
```

```
CREATE TABLE Hotels (  
    HotelID INT PRIMARY KEY AUTO_INCREMENT,  
    HotelName VARCHAR(100) NOT NULL,  
    Location VARCHAR(100)  
);
```

```
CREATE TABLE Rooms (  
    RoomID INT PRIMARY KEY AUTO_INCREMENT,  
    HotelID INT,  
    RoomNumber VARCHAR(10),  
    RoomType VARCHAR(50),  
    Price DECIMAL(10,2),  
    FOREIGN KEY (HotelID) REFERENCES Hotels(HotelID)  
);
```

```
CREATE TABLE Reservations (  
    ReservationID INT PRIMARY KEY AUTO_INCREMENT,  
    UserID INT,  
    RoomID INT,  
    CheckInDate DATE,
```

```
    CheckOutDate DATE,  
    FOREIGN KEY (UserID) REFERENCES Users(UserID),  
    FOREIGN KEY (RoomID) REFERENCES Rooms(RoomID)  
);
```

```
CREATE TABLE Bills (  
    BillID INT PRIMARY KEY AUTO_INCREMENT,  
    ReservationID INT,  
    Amount DECIMAL(10,2),  
    GeneratedDate DATETIME DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (ReservationID) REFERENCES Reservations(ReservationID)  
);
```

```
DELIMITER //
```

```
CREATE PROCEDURE CheckRoomAvailability(IN hotel_id INT, IN room_type VARCHAR(50), IN  
check_in DATE, IN check_out DATE)
```

```
BEGIN
```

```
    SELECT r.RoomID, r.RoomNumber
```

```
    FROM Rooms r
```

```
    WHERE r.HotelID = hotel_id AND r.RoomType = room_type AND r.RoomID NOT IN (
```

```
        SELECT RoomID FROM Reservations
```

```
        WHERE (check_in < CheckOutDate AND check_out > CheckInDate)
```

```
    );
```

```
END; //
```

```
DELIMITER ;
```

```
DELIMITER //
```

```
CREATE PROCEDURE LoginUser(IN username VARCHAR(50), IN password_hash VARCHAR(255))
```

```
BEGIN
```

```
    SELECT UserID FROM Users WHERE Username = username AND PasswordHash =  
password_hash;
```

```
END; //
```

```
DELIMITER ;
```

DELIMITER //

CREATE PROCEDURE RegisterHotel(IN name VARCHAR(100), IN location VARCHAR(100))

BEGIN

INSERT INTO Hotels (HotelName, Location) VALUES (name, location);

END; //

DELIMITER ;

DELIMITER //

CREATE PROCEDURE RegisterRoom(IN hotel\_id INT, IN room\_number VARCHAR(10), IN room\_type VARCHAR(50), IN price DECIMAL(10,2))

BEGIN

INSERT INTO Rooms (HotelID, RoomNumber, RoomType, Price) VALUES (hotel\_id, room\_number, room\_type, price);

END; //

DELIMITER ;

DELIMITER //

CREATE PROCEDURE GenerateBill(IN reservation\_id INT)

BEGIN

DECLARE total DECIMAL(10,2);

SELECT DATEDIFF(CheckOutDate, CheckInDate) \* r.Price INTO total

FROM Reservations res

JOIN Rooms r ON res.RoomID = r.RoomID

WHERE res.ReservationID = reservation\_id;

INSERT INTO Bills (ReservationID, Amount) VALUES (reservation\_id, total);

END; //

DELIMITER ;

DELIMITER //

CREATE PROCEDURE CheckIn(IN reservation\_id INT)

BEGIN

UPDATE Reservations SET CheckInDate = CURDATE() WHERE ReservationID = reservation\_id;

```
END; //
```

```
DELIMITER ;
```

```
DELIMITER //
```

```
CREATE PROCEDURE CheckOut(IN reservation_id INT)
```

```
BEGIN
```

```
    UPDATE Reservations SET CheckOutDate = CURDATE() WHERE ReservationID = reservation_id;
```

```
END; //
```

```
DELIMITER ;
```