

HOTEL MANAGEMENT SYSTEM

Database Management System



GROUP MEMBERS

- **ALP BORA EMİRZE – 20220808014**
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- Mission
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Design of the System

- Fact-Finding Techniques
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USER INTERFACE



PURPOSE

To ensure reliable, structured data management for hotel operations.



To deliver effective customer data, guest tracking, reservation, and room inventory/category management.



TARGET AUDIENCE



**Small and
medium-sized
hotels**



**Resorts and
guesthouses**



**Hotel managers
and staff**



**Customers
looking for easy
reservations**



MISSION

**Provide a system
that simplifies hotel
management,
enhances customer
satisfaction, and
ensures efficiency.**





FEATURES



Guest and Room Reporting

List all customers (guests) staying at a particular Room in a given month

Room Utilization Analysis

List all rooms and how many bookings there have been for each

Reservation Management

Change the date for a reservation

Remove a reservation :

`DELETE FROM Reservations , UPDATE Reservations`

`SET ReservationStatus = 'CancelledByCustomer'`

Customer Management

Add a new customer



PROBLEM

- Manual management leads to errors and time loss.

- Issues like double bookings, missing information, and customer dissatisfaction occur.





SURVEYS

- Quick, effective data collection from large groups.

OBSERVATION

- Understand real work processes and user-system interaction.

INTERVIEWS

- Learn system requirements and expectations firsthand.

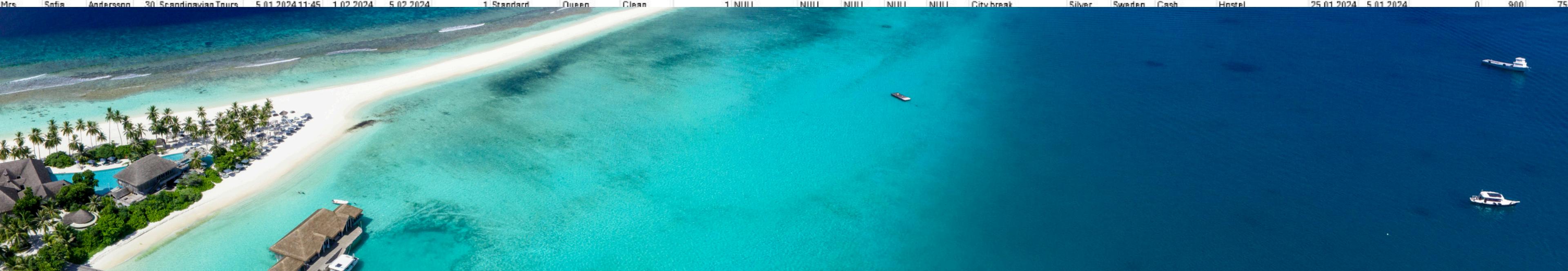
DOCUMENT ANALYSIS

- Understand system workings and required information.

FACT-FINDING TECHNIQUES

UNNORMALIZED FORM

title	firstName	lastName	id	travelagency	bookTime	check_in	check_out	room_Amount	room_Type	bed_Type	room_Status	adult_Amount	ageOf_1st_Child	ageOf_2nd_Child	ageOf_3rd_Child	ageOf_4th_Child	ageOf_5th_Child	explanation	vip_type	country	pay_type	accommodation_typ	option_date	date_of_rati	group_reservation	Total_fee	discount
Mr	John	Doe	1	Corporate Travel	15.01.2024 10:00	1.02.2024	5.02.2024	2	Standard,Suite	Queen,King	Clean	2	NULL	NULL	NULL	NULL	NULL	Group booking	Gold	France	Invoice	Hotel	25.01.2024	15.01.2024	1	2400	200
Ms	Jane	Smith	2	Corporate Travel	15.01.2024 10:05	1.02.2024	5.02.2024	1	Standard	King	Clean	1	NULL	NULL	NULL	NULL	NULL	Group booking	NULL	France	Invoice	Hotel	25.01.2024	15.01.2024	1	1200	100
Dr	Mike	Brown	3	Corporate Travel	15.01.2024 10:10	1.02.2024	5.02.2024	1	Suite	King	Clean	1	NULL	NULL	NULL	NULL	NULL	Group booking	Silver	France	Invoice	Hotel	25.01.2024	15.01.2024	1	1500	150
Mrs	Sarah	Wilson	4	Corporate Travel	15.01.2024 10:15	1.02.2024	5.02.2024	2	Standard,Suite	Queen,King	Dirty	2	NULL	NULL	NULL	NULL	NULL	Group booking	NULL	France	Invoice	Hotel	25.01.2024	15.01.2024	1	2400	200
Mr	Tom	Taylor	5	Corporate Travel	15.01.2024 10:20	1.02.2024	5.02.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	Group booking	NULL	France	Invoice	Hotel	25.01.2024	15.01.2024	1	1200	100
Mr	Carlos	Santos	6	World Travel	10.02.2024 14:30	10.03.2024	15.03.2024	3	Suite	King	Clean	2	8	5	NULL	NULL	NULL	Executive group	Platinum	Japan	Credit Card	Resort	28.02.2024	10.02.2024	1	4500	300
Ms	Aiko	Tanaka	7	World Travel	10.02.2024 14:35	10.03.2024	15.03.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	Executive group	NULL	Japan	Credit Card	Resort	28.02.2024	10.02.2024	1	1500	100
Mr	James	Bond	8	World Travel	10.02.2024 14:40	10.03.2024	15.03.2024	2	Standard,Suite	King,King	Clean	1	NULL	NULL	NULL	NULL	NULL	Executive group	Platinum	Japan	Credit Card	Resort	28.02.2024	10.02.2024	1	3000	200
Mr	David	Johnson	9	FamilyTrips	20.01.2024 09:00	15.06.2024	20.06.2024	2	Family Suite	Queen,Double	Clean	2	7	5	3	NULL	NULL	Family vacation	NULL	USA	Cash	Resort	30.05.2024	20.01.2024	0	3500	500
Mrs	Emma	Johnson	10	FamilyTrips	20.01.2024 09:05	15.06.2024	20.06.2024	2	Family Suite	Queen,Double	Clean	2	7	5	3	NULL	NULL	Family vacation	NULL	USA	Cash	Resort	30.05.2024	20.01.2024	0	3500	500
Ms	Anna	Kowalski	11	Sun Tours	1.03.2024 11:00	10.04.2024	15.04.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	Business trip	Silver	Germany	Credit Card	Hotel	25.03.2024	1.03.2024	0	1200	100
Mr	Luca	Rossi	12	Med Travel	5.02.2024 16:45	1.05.2024	7.05.2024	1	Double	King	Dirty	2	9	6	NULL	NULL	NULL	Family holiday	NULL	Italy	Travel Voucher	Hotel	20.04.2024	5.02.2024	0	1800	150
Dr	Sophie	Martin	13	ParisTours	10.01.2024 12:30	14.02.2024	16.02.2024	1	Suite	King	Clean	1	NULL	NULL	NULL	NULL	NULL	Romantic getaway	Gold	France	Credit Card	Boutique	1.02.2024	10.01.2024	0	2500	200
Ms	Linda	Chan	14	Asia Travel	12.03.2024 08:20	5.04.2024	10.04.2024	2	Standard,Suite	Queen,King	Clean	2	NULL	NULL	NULL	NULL	NULL	Conference attendance	NULL	China	Invoice	Hotel	28.03.2024	12.03.2024	0	3200	250
Mr	Ahmed	Khan	15	Desert Travel	20.02.2024 17:00	10.03.2024	15.03.2024	3	Standard	Double	Clean	4	10	8	5	3	1	Large family trip	NULL	UAE	Cash	Resort	1.03.2024	20.02.2024	0	4800	400
Mrs	Maria	Garcia	16	Spain Tours	25.01.2024 10:30	1.05.2024	7.05.2024	1	Standard	Queen	Clean	2	NULL	NULL	NULL	NULL	NULL	Anniversary trip	Gold	Spain	Credit Card	Villa	20.04.2024	25.01.2024	0	4200	300
Mr	Ivan	Petrov	17	Baltic Travel	5.03.2024 13:15	12.04.2024	15.04.2024	2	Standard,Suite	King,Queen	Clean	2	NULL	NULL	NULL	NULL	NULL	Business meeting	NULL	Russia	Invoice	Hotel	5.04.2024	5.03.2024	0	2800	200
Ms	Yuki	Nakamura	18	Tokyo Travel	28.02.2024 09:45	20.03.2024	25.03.2024	1	Suite	King	Clean	1	NULL	NULL	NULL	NULL	NULL	Solo trip	Silver	Japan	Cash	Ryokan	15.03.2024	28.02.2024	0	2000	150
Mr	Omar	Hassan	19	Cairo Tours	30.01.2024 14:00	15.02.2024	20.02.2024	1	Standard	Double	Dirty	2	6	4	NULL	NULL	NULL	Family visit	NULL	Egypt	Cash	Hotel	10.02.2024	30.01.2024	0	900	50
Mrs	Fatima	Alli	20	Marrakech Travel	10.02.2024 11:30	1.03.2024	7.03.2024	2	Suite	King	Clean	2	NULL	NULL	NULL	NULL	NULL	Honeymoon	Gold	Morocco	Credit Card	Resort	25.02.2024	10.02.2024	0	3500	250
Mr	Hans	Muller	21	Alpine Travel	18.01.2024 16:20	10.02.2024	15.02.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	Ski trip	NULL	Austria	Travel Voucher	Hotel	5.02.2024	18.01.2024	0	1500	100
Ms	Elena	Ivanova	22	BalkanTours	8.03.2024 12:00	1.04.2024	5.04.2024	1	Standard	Double	Clean	2	8	NULL	NULL	NULL	NULL	Weekend getaway	NULL	Bulgaria	Cash	Hostel	25.03.2024	8.03.2024	0	800	50
Mr	Raj	Patel	23	India Travel	12.02.2024 10:15	5.03.2024	12.03.2024	2	Standard,Suite	Queen,King	Clean	4	12	9	6	NULL	NULL	Family reunion	Silver	India	Invoice	Resort	28.02.2024	12.02.2024	0	4500	300
Mrs	Mei	Wong	24	HongKongTravel	22.01.2024 09:30	14.02.2024	16.02.2024	1	Suite	King	Clean	2	NULL	NULL	NULL	NULL	NULL	Valentine's Day	Gold	China	Credit Card	Boutique	10.02.2024	22.01.2024	0	2800	200
Mr	Giuseppe	Conti	25	Mediterranean Tours	1.03.2024 17:45	10.04.2024	15.04.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	Business seminar	NULL	Italy	Invoice	Hotel	28.03.2024	1.03.2024	0	1600	100
Ms	Anya	Volkova	26	SiberianTravel	5.02.2024 08:00	1.03.2024	5.03.2024	1	Standard	Double	Clean	2	7	NULL	NULL	NULL	NULL	Winter vacation	NULL	Russia	Cash	Lodge	25.02.2024	5.02.2024	0	1200	100
Mr	Peter	Schmidt	27	Nordic Travel	28.01.2024 13:20	20.02.2024	25.02.2024	2	Standard,Suite	King,Queen	Clean	2	NULL	NULL	NULL	NULL	NULL	Northern light tour	Platinum	Iceland	Credit Card	Lodge	15.02.2024	28.01.2024	0	3800	300
Ms	Zara	Khan	28	Pak Travel	10.03.2024 10:10	1.04.2024	5.04.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	Business trip	NULL	Pakistan	Invoice	Hotel	25.03.2024	10.03.2024	0	1100	50
Mr	Miguel	Lopez	29	Mexico Travel	14.02.2024 15:30	12.03.2024	15.03.2024	1	Suite	King	Clean	2	NULL	NULL	NULL	NULL	NULL	Anniversary	Gold	Mexico	Credit Card	Resort	5.03.2024	14.02.2024	0	3200	250
Mrs	Sofia	Andersson	30	Scandinavian Tours	5.01.2024 11:45	1.02.2024	5.02.2024	1	Standard	Queen	Clean	1	NULL	NULL	NULL	NULL	NULL	City break	Silver	Sweden	Cash	Hostel	25.01.2024	5.01.2024	0	900	75



3NF

CustomerID	FirstName	LastName	Title	Email	PhoneNumber	Birthdate	AnniversaryDate	CountryID	AddressLine1	AddressLine2	City	PostalCode	Notes	DateRegistered
1	Ahmet	Yilmaz	Mr.	ahmet.yilmaz@example.com	555-123456	15.03.1985	NULL	NULL	123 Test Sokak	NULL	Ankara	6500	New VIP Customer	14.05.2025 19:05
2	Ayse	Kara	Ms.	ayse.kara@example.com	555-0001	20.05.1990	NULL	1	Elma Sok. No:5	NULL	Istanbul	34700	NULL	14.05.2025 19:05
3	John	Doe	Mr.	john.doe@example.com	555-0002	10.11.1982	15.06.2005	3	123 Main St	NULL	New York	10001	NULL	14.05.2025 19:05
4	Hans	Muller	Mr.	hans.muller@example.de	555-0003	3.09.1975	NULL	2	Hauptstrasse 10	NULL	Berlin	10115	NULL	14.05.2025 19:05
5	Zeynep	Ozturk	Dr.	zeynep.ozturk@example.com	555-0004	1.12.1988	20.10.2015	1	Menekse Cad. No:12 D:3	NULL	Ankara	6500	NULL	14.05.2025 19:05
6	Kenji	Tanaka	Mr.	kenji.tanaka@example.jp	555-0005	22.07.1995	NULL	6	2-3-5 Shinjuku	NULL	Tokyo	160-0022	NULL	14.05.2025 19:05

ReservationGuestID	ReservationID	BookedRoomID	FirstName	LastName	Birthdate	RelationshipToBookingCustomer	IsPrimaryGuestForRoom	Notes
1	1	1	Ayse	Kara	20.05.1990	Self	1	NULL
2	1	1	Ali	Kara	10.02.1988	Spouse	0	NULL
3	2	2	John	Doe	10.11.1982	Self	1	NULL
4	3	4	Hans	Muller	3.09.1975	Self	1	NULL
5	3	4	Gretchen	Muller	15.04.1978	Spouse	0	NULL
6	3	4	Max	Muller	20.06.2010	Child	0	NULL
7	3	4	Lena	Muller	5.09.2012	Child	0	NULL
8	4	3	Zeynep	Ozturk	1.12.1988	Self	1	NULL
9	4	3	Emir	Ozturk	30.03.2018	Child	0	NULL

RoomCategoryID	CategoryName	Description
1	Standard	Comfortable room with essential amenities
2	Deluxe	More spacious room with upgraded amenities
3	Suite	Separate living area and premium features
4	Family Room	Large room suitable for families, multiple beds
5	Penthouse	Luxury top-floor suite with exclusive amenities

BookedRoomID	ReservationID	RoomID	AssignedDate	Notes
1	1	1	14.05.2025 19:07	Guest preferred garden view.
2	2	3	14.05.2025 19:07	Ocean view confirmed for anniversary.
3	4	5	14.05.2025 19:07	Suite assigned as per Gold Member status.

CountryID	CountryName
1	Türkiye
2	Germany
3	USA
4	United Kingdom
5	France
6	Japan
7	Canada

PaymentTypeID	PaymentTypeName
1	Credit Card
2	Cash
3	Bank Transfer
4	Online Payment

RoomID	RoomNumber	RoomCategory	BedConfigurationID	Floor	MaxOccupancy	RoomView	CurrentRoomStatus
1	101	1	1	2	1	2 Garden View	Clean
2	102	1	1	3	1	2 Garden View	Clean
3	201	2	2	1	2	2 Ocean View	Clean
4	205	2	2	1	2	3 City View	Maintenance
5	301	3	3	4	3	4 Ocean Front	Clean
6	PH-1	5	5	4	10	4 Panoramic Ocean	Clean

TravelAgencyID	TravelAgencyName	Description
1	Büyükelçi Tours	Local and International tours
2	Global Escapes	Luxury travel packages
3	Anadolu Seyahat	Domestic travel specialist

VipTypeID	VipTypeName
1	StandardMember
2	SilverMember
3	GoldMember
4	PlatinumMember

AccommodationTypeID	AccommodationTypeName	Description
1	Hotel Room	Standard hotel room booking
2	All-Inclusive Package	Includes meals and some activities
3	Bed and Breakfast	Room and breakfast only

BedConfigurationID	ConfigurationName	Description
1	King	One king-sized bed
2	Queen	One queen-sized bed
3	2 Twin Beds	Two twin-sized beds
4	1 King + 1 Sofa Bed	One king bed and a convertible sofa bed
5	2 Queen Beds	Two queen-sized beds

```
CREATE TABLE Reservations (
    ReservationID INT AUTO_INCREMENT PRIMARY KEY,
    BookingCustomerID INT NOT NULL,
    TravelAgencyID INT,
    BookingTime TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    ExpectedCheckInDate DATE NOT NULL,
    ExpectedCheckOutDate DATE NOT NULL,
    ActualCheckInTime DATETIME,
    ActualCheckOutTime DATETIME,
    NumberOfAdults INT NOT NULL DEFAULT 1,
    NumberOfChildren INT DEFAULT 0,
    SpecialRequests TEXT,
    VipTypeID INT,
    PaymentTypeID INT,
    AccommodationTypeID INT,
    GroupReservationFlag BOOLEAN DEFAULT FALSE,
    TotalFee DECIMAL(10, 2) NOT NULL,
    DiscountAmount DECIMAL(10, 2) DEFAULT 0.00,
    FinalAmount DECIMAL(10,2) GENERATED ALWAYS AS (TotalFee - DiscountAmount) STORED,
    ReservationStatus ENUM('Pending', 'Confirmed', 'CancelledByCustomer', 'CancelledByHotel',
    'CheckedIn', 'CheckedOut', 'NoShow') DEFAULT 'Pending',
    DateOfRate DATE,
    OptionDate DATE,
    Notes TEXT,
    LastUpdated TIMESTAMP DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
    FOREIGN KEY (BookingCustomerID) REFERENCES Customers(CustomerID),
    FOREIGN KEY (TravelAgencyID) REFERENCES TravelAgencies(TravelAgencyID) ON DELETE SET
NULL,
    FOREIGN KEY (VipTypeID) REFERENCES VipTypes(VipTypeID) ON DELETE SET NULL,
    FOREIGN KEY (PaymentTypeID) REFERENCES PaymentTypes(PaymentTypeID) ON DELETE SET
NULL,
    FOREIGN KEY (AccommodationTypeID) REFERENCES
AccommodationTypes(AccommodationTypeID) ON DELETE SET NULL,
    CONSTRAINT chk_dates CHECK (ExpectedCheckOutDate > ExpectedCheckInDate),
    CONSTRAINT chk_actual_dates CHECK (ActualCheckOutTime IS NULL OR
ActualCheckInTime IS NULL OR ActualCheckOutTime > ActualCheckInTime)
);
```

RESERVATION

```
CREATE TABLE Rooms (
    RoomID INT AUTO_INCREMENT PRIMARY KEY,
    RoomNumber VARCHAR(10) NOT NULL UNIQUE,
    RoomCategoryID INT NOT NULL,
    BedConfigurationID INT NOT NULL,
    Floor INT,
    MaxOccupancy INT NOT NULL DEFAULT 2,
    RoomView VARCHAR(100),
    CurrentRoomStatus ENUM('Clean', 'Dirty', 'OutOfOrder',
    'Maintenance', 'Inspected') DEFAULT 'Clean',
    Notes TEXT,
    FOREIGN KEY (RoomCategoryID) REFERENCES
    RoomCategories(RoomCategoryID),
    FOREIGN KEY (BedConfigurationID) REFERENCES
    BedConfigurations(BedConfigurationID)
);
```

ROOM

```
CREATE TABLE Customers (
    CustomerID INT AUTO_INCREMENT PRIMARY KEY,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Title VARCHAR(20),
    Email VARCHAR(100) NOT NULL UNIQUE,
    PhoneNumber VARCHAR(20),
    Birthdate DATE,
    AnniversaryDate DATE,
    CountryID INT,
    AddressLine1 VARCHAR(255),
    AddressLine2 VARCHAR(255),
    City VARCHAR(100),
    PostalCode VARCHAR(20),
    Notes TEXT,
    DateRegistered TIMESTAMP DEFAULT
CURRENT_TIMESTAMP,
    FOREIGN KEY (CountryID) REFERENCES
Countries(CountryID) ON DELETE SET NULL
);
```

CUSTOMER

```
CREATE TABLE BookedRooms (
    BookedRoomID INT AUTO_INCREMENT PRIMARY KEY,
    ReservationID INT NOT NULL,
    RoomID INT NOT NULL,
    AssignedDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
    Notes TEXT,
    UNIQUE (ReservationID, RoomID),
    FOREIGN KEY (ReservationID) REFERENCES Reservations(ReservationID) ON DELETE CASCADE,
    FOREIGN KEY (RoomID) REFERENCES Rooms(RoomID)
);
```

```
CREATE TABLE ReservationGuests (
    ReservationGuestID INT AUTO_INCREMENT PRIMARY KEY,
    ReservationID INT NOT NULL,
    BookedRoomID INT,
    FirstName VARCHAR(50) NOT NULL,
    LastName VARCHAR(50) NOT NULL,
    Birthdate DATE,
    RelationshipToBookingCustomer VARCHAR(50),
    IsPrimaryGuestForRoom BOOLEAN DEFAULT FALSE,
    Notes TEXT,
    FOREIGN KEY (ReservationID) REFERENCES Reservations(ReservationID) ON DELETE CASCADE,
    FOREIGN KEY (BookedRoomID) REFERENCES BookedRooms(BookedRoomID) ON DELETE SET NULL
);
```

BOOKEDROOM

RESERVATIONGUESTS

```
CREATE TABLE Countries (
    CountryID INT AUTO_INCREMENT PRIMARY KEY,
    CountryName VARCHAR(100) NOT NULL UNIQUE
);
```

COUNTRY

```
CREATE TABLE TravelAgencies (
    TravelAgencyID INT AUTO_INCREMENT PRIMARY KEY,
    TravelAgencyName VARCHAR(100) NOT NULL UNIQUE,
    Description TEXT
);
```

TRAVEL AGENCY

```
CREATE TABLE PaymentTypes (
    PaymentTypeID INT AUTO_INCREMENT PRIMARY KEY,
    PaymentTypeName VARCHAR(50) NOT NULL UNIQUE
);
```

PAYMENT TYPE

```
CREATE TABLE AccommodationTypes (
    AccommodationTypeID INT AUTO_INCREMENT PRIMARY KEY,
    AccommodationTypeName VARCHAR(50) NOT NULL UNIQUE,
    Description TEXT
);
```

ACCOMMODATION
TYPE

```
CREATE TABLE VipTypes (
    VipTypeID INT AUTO_INCREMENT PRIMARY KEY,
    VipTypeName VARCHAR(50) NOT NULL UNIQUE
);
```

```
CREATE TABLE RoomCategories (
    RoomCategoryID INT AUTO_INCREMENT PRIMARY KEY,
    CategoryName VARCHAR(50) NOT NULL UNIQUE,
    Description TEXT
);
```

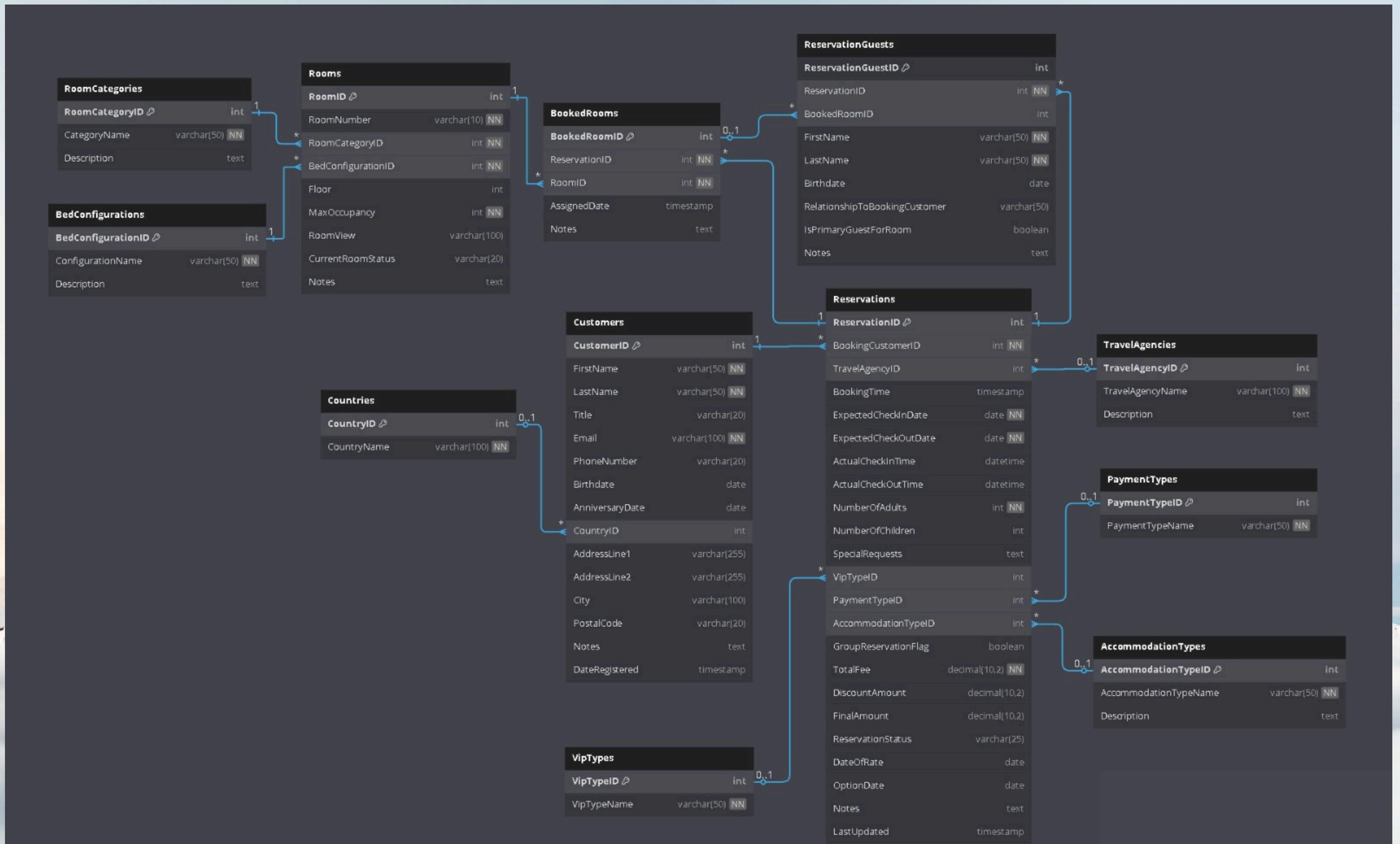
```
CREATE TABLE BedConfigurations (
    BedConfigurationID INT AUTO_INCREMENT PRIMARY KEY,
    ConfigurationName VARCHAR(50) NOT NULL UNIQUE,
    Description TEXT
);
```

VIP TYPE

ROOM CATEGORY

BED CONFIGURATION

ER DIAGRAM





ONE TO MANY RELATIONSHIPS

- RoomCategories (One) and Rooms (Many)
- BedConfigurations (One) and Rooms (Many)
- Rooms (One) and BookedRooms (Many)
- Reservations (One) and BookedRooms (Many)
- Reservations (One) and ReservationGuests (Many)
- BookedRooms (One) and ReservationGuests (Many)
- Customers (One) and Reservations (Many)
- TravelAgencies (One) and Reservations (Many)
- VipTypes (One) and Reservations (Many)
- PaymentTypes (One) and Reservations (Many)
- AccommodationTypes (One) and Reservations (Many)
- Countries (One) and Customers (Many)

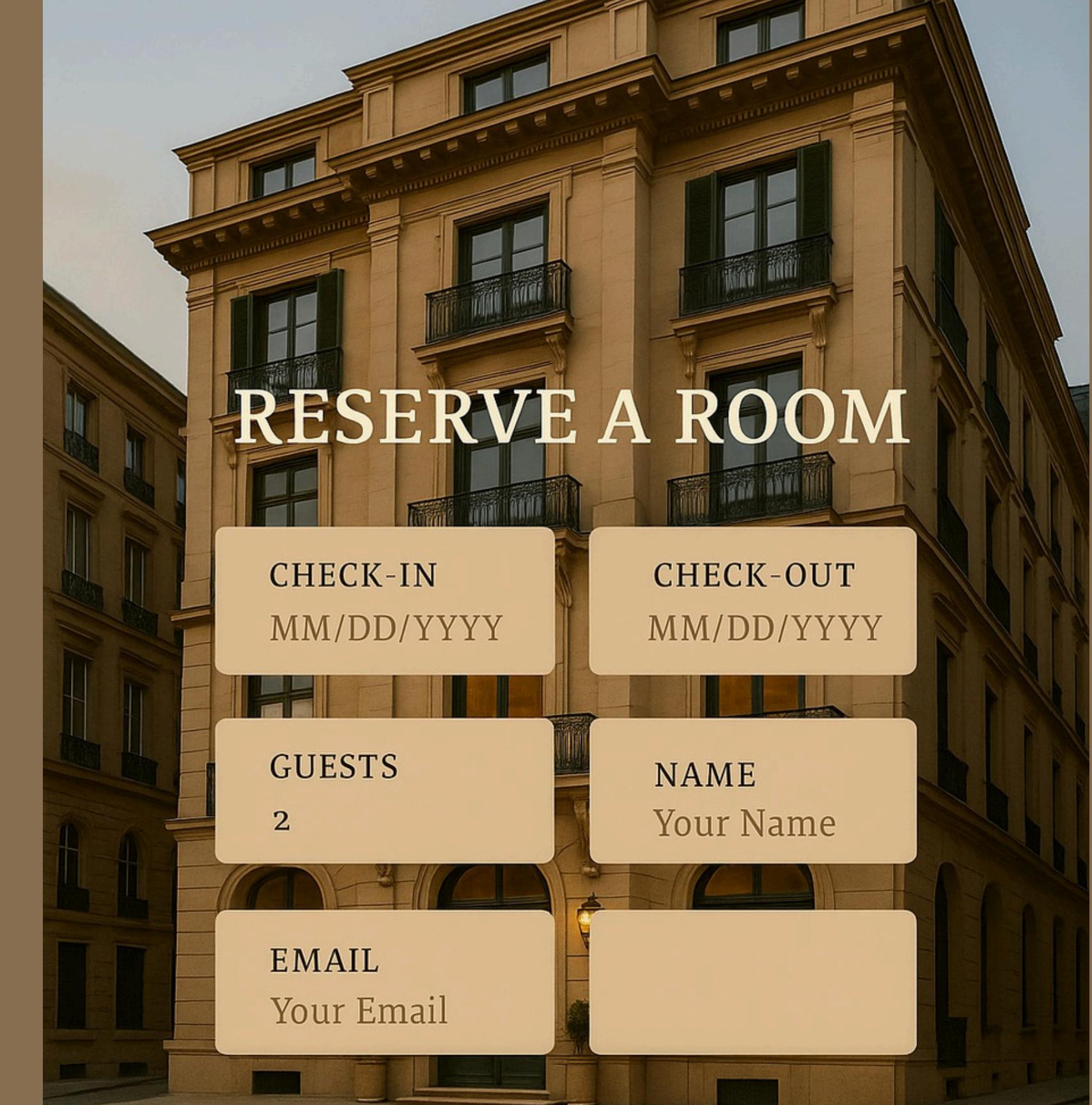
MANY TO MANY RELATIONSHIP

- Reservations (Many) and Rooms (Many)

USER INTERFACE



WELCOME TO BÜYÜKELÇİ OTEL



BÜYÜKELÇİ OTEL

OUR ROOMS



Deluxe Room

Spacious room, large
implement, spacious
allure.

[VIEW ROOM](#)

Superior Room

A spacious room, ample
space. Large.

[VIEW ROOM](#)



Suite

Luxury room implement
spacious, ample
and comfortable.

[VIEW ROOM](#)



DELUXE ROOMS

3 rooms available



Room 1

25 m², Double bed
Breakfast

[BOOK NOW](#)



Room 2

25 m², Double bed
Breakfast

[BOOK NOW](#)

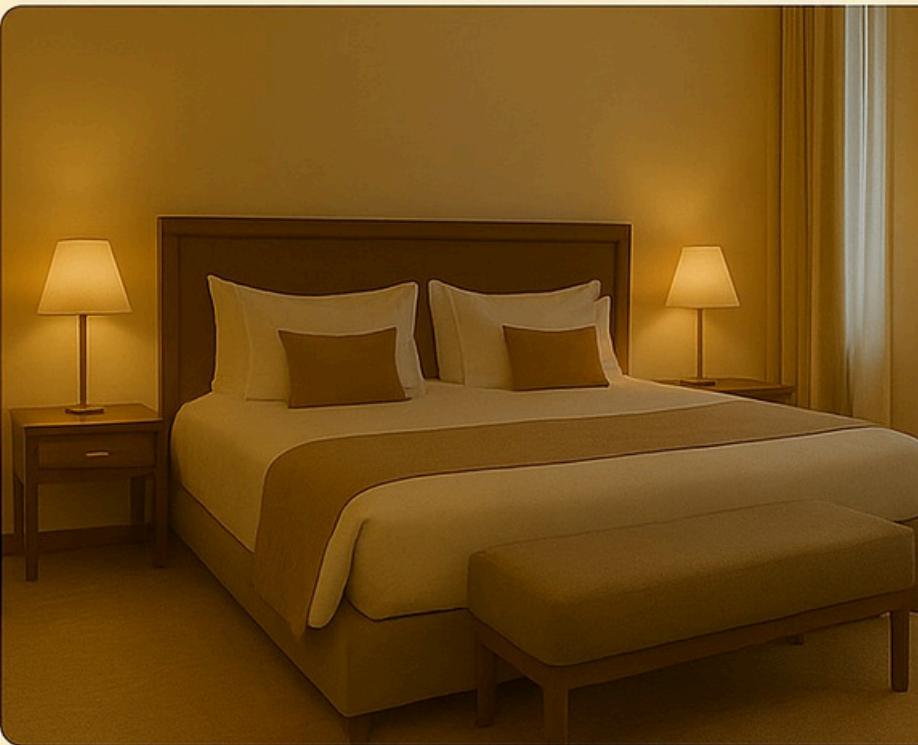


Room 3

30 m², Double bed
Breakfast

[BOOK NOW](#)

CONFIRM BOOKING



Room 1

25 m², Double bed

Check-in	04/12/2024
Check-out	04/14/2024
Guests	2
Name	Ali Yilmaz
Email	ali.yilmaz@email.com

CONFIRM BOOKING

CONFIRM & PAY

PAYMENT DETAILS

CARD NUMBER

1234 5678 9012 3456

MM/YY

12/24

CVC

123

BILLING ADDRESS

COUNTRY

United States

ADDRESS

CITY

Anytown

ZIP CODE

12345

ORDER SUMMARY

Room 1 \$300.00

Total

PAY \$300.00

ADMIN INTERFACE

Room Occupancy

Room

101

Month

April 2024

Name	Check-in
John Smith	April 3, 2024
Alice Johnson	April 7, 2024
Michael Brown	April 12, 2024
Emily Davis	April 15, 2024
David Wilson	April 20, 2024
Sarah Miller	April 25, 2024

Rooms

Room	Bookings
Standard Room	45
Deluxe Room	32
Suite	20
Single Room 101	12
Single Room 102	18
Single Room 103	9
Single Room 104	25
Single Room 105	14

ADMIN UI

Change Reservation Date

Reservation ID

4829

Name

John Smith

Reservation Date

03/25/2024



New Date

04/12/2024



Update

Add New Customer

First name

Last name

Email

Phone

Address

City

 ▾

City

State

Remove Reservation

Reservation ID

Guest Name

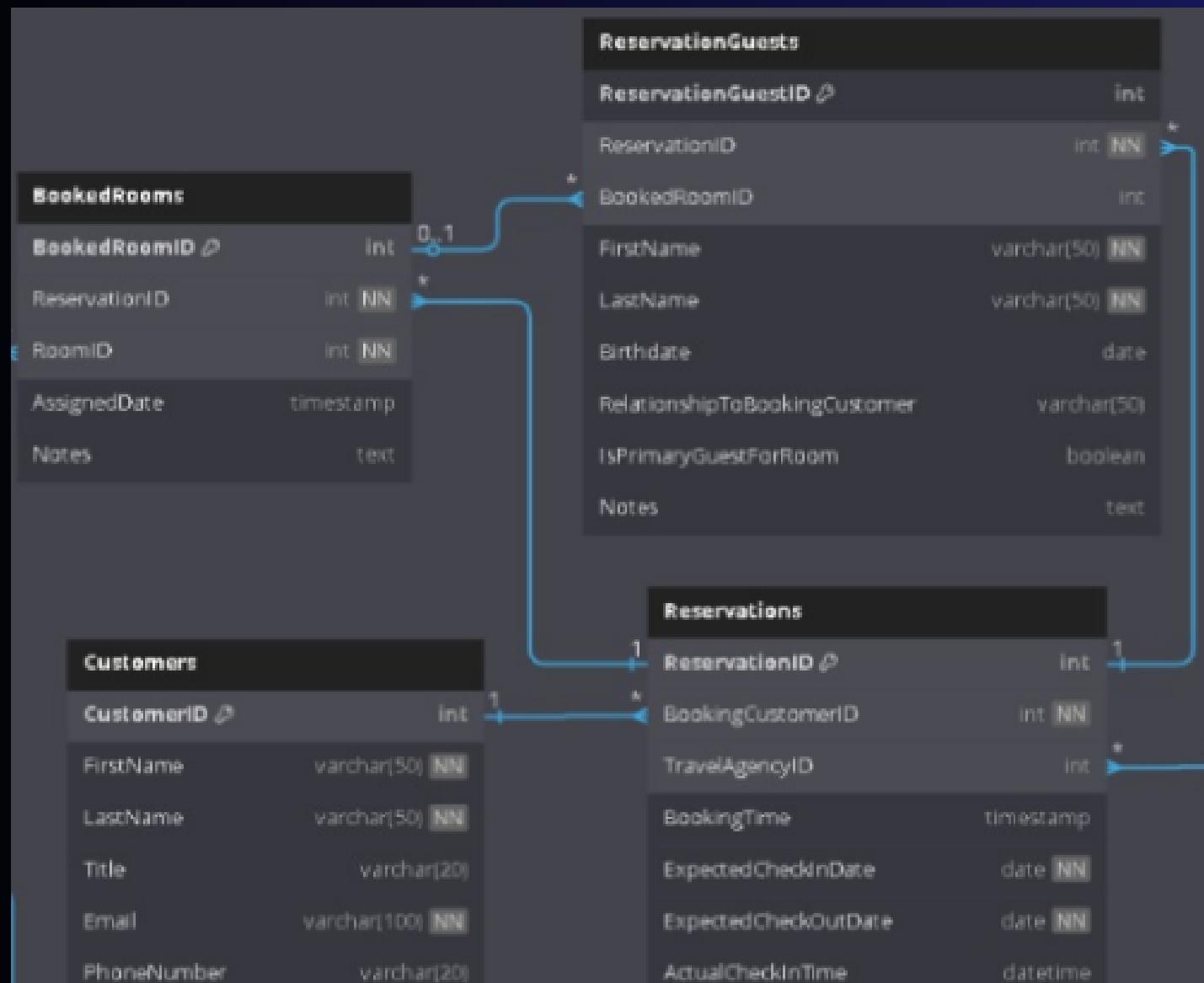
Reservation Date

QUERY – 1

List all customers staying at a particular Room in a given month

```
SET @StartOfMonth =  
STR_TO_DATE(CONCAT(@TargetYear, '-',
    @TargetMonth, '-01'), '%Y-%m-%d');  
SET @EndOfMonth = LAST_DAY(@StartOfMonth);
```



```
SELECT  
    r.RoomNumber,  
    g.FirstName AS GuestFirstName,  
    g.LastName AS GuestLastName,  
    g.Birthdate AS GuestBirthdate,  
    res.ExpectedCheckInDate,  
    res.ExpectedCheckOutDate,  
    res.ReservationID  
FROM Rooms r  
JOIN BookedRooms br  
    ON r.RoomID = br.RoomID  
JOIN Reservations res  
    ON br.ReservationID = res.ReservationID  
JOIN ReservationGuests g  
    ON res.ReservationID = g.ReservationID  
    AND br.BookedRoomID = g.BookedRoomID  
WHERE  
    r.RoomNumber = @RoomNumber  
    AND res.ReservationStatus IN ('Confirmed', 'CheckedIn')  
    AND res.ExpectedCheckInDate <= @EndOfMonth  
    AND res.ExpectedCheckOutDate >= @StartOfMonth  
ORDER BY  
    res.ExpectedCheckInDate,  
    g.LastName,  
    g.FirstName;
```

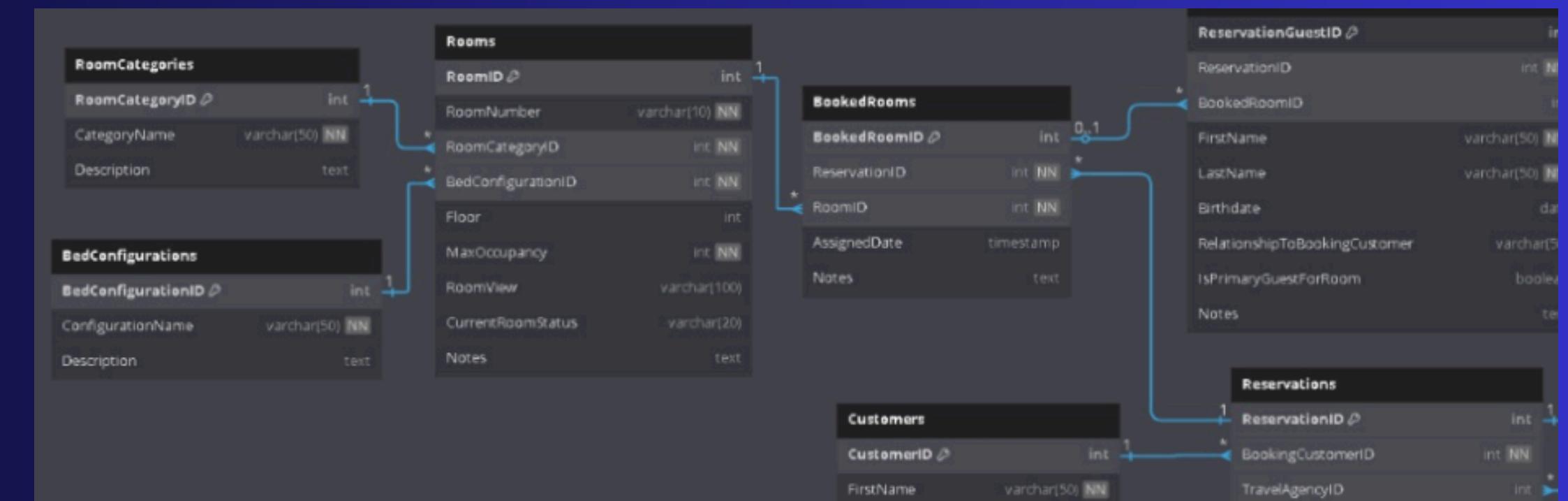
QUERY - 2

List all rooms and how many bookings there have been for each

```

SELECT
    r.RoomID,
    r.RoomNumber,
    rc.CategoryName AS RoomCategory,
    COUNT(DISTINCT res.ReservationID) AS NumberOfBookings
FROM Rooms r
JOIN RoomCategories rc
    ON r.RoomCategoryID = rc.RoomCategoryID
LEFT JOIN BookedRooms br
    ON r.RoomID = br.RoomID
LEFT JOIN Reservations res
    ON br.ReservationID = res.ReservationID
    AND res.ReservationStatus NOT IN (
        'CancelledByCustomer',
        'CancelledByHotel',
        'NoShow'
    )
GROUP BY
    r.RoomID,
    r.RoomNumber,
    rc.CategoryName
ORDER BY
    r.RoomNumber;

```



QUERY - 3

Change the date for a reservation

```
UPDATE Reservations  
SET  
    ExpectedCheckInDate = '2025-07-10',  
    @NewExpectedCheckInDate  
    ExpectedCheckOutDate = '2025-07-15',  
    @NewExpectedCheckOutDate  
    ReservationStatus = 'Confirmed',  
    LastUpdated = CURRENT_TIMESTAMP  
WHERE  
    ReservationID = 1;  
@ReservationID  
SELECT ROW_COUNT() AS UpdatedRows;
```

Reservations	
1	ReservationID
*	BookingCustomerId
	TravelAgencyID
	BookingTime
	ExpectedCheckInDate
	ExpectedCheckOutDate
	ActualCheckInTime
	ActualCheckOutTime
	NumberOfAdults
	NumberOfChildren
	SpecialRequests
*	VipTypeID
	PaymentTypeID
	AccommodationTypeID
	GroupReservationFlag
	TotalFee
	DiscountAmount
	FinalAmount
	ReservationStatus
	DateOfRate
	OptionDate
	Notes
	LastUpdated

QUERY - 4

Add a new customer

```
SELECT @CustCountryID = CountryID FROM Countries WHERE CountryName =  
'Türkiye';
```

```
INSERT INTO Customers (  
    FirstName, LastName, Title, Email, PhoneNumber, Birthdate, AnniversaryDate,  
    CountryID, AddressLine1, City, PostalCode, Notes  
) VALUES (  
    'Ahmet', 'Yılmaz', 'Mr.', 'ahmet.yilmaz.yeni@example.com',  
    '555-987654', '1992-08-25', NULL,  
    (SELECT CountryID FROM Countries WHERE CountryName = 'Türkiye'),  
    '456 Yeni Cadde', 'İzmir', '35000', 'İlk kez gelen müşteri.'  
);  
-- SELECT LAST_INSERT_ID() AS NewCustomerID;
```

Customers	
CustomerID	int
FirstName	varchar(50) [NN]
LastName	varchar(50) [NN]
Title	varchar(20)
Email	varchar(100) [NN]
PhoneNumber	varchar(20)
Birthdate	date
AnniversaryDate	date
CountryID	int
AddressLine1	varchar(255)
AddressLine2	varchar(255)
City	varchar(100)
PostalCode	varchar(20)
Notes	text
DateRegistered	timestamp

QUERY - 5

Remove a reservation

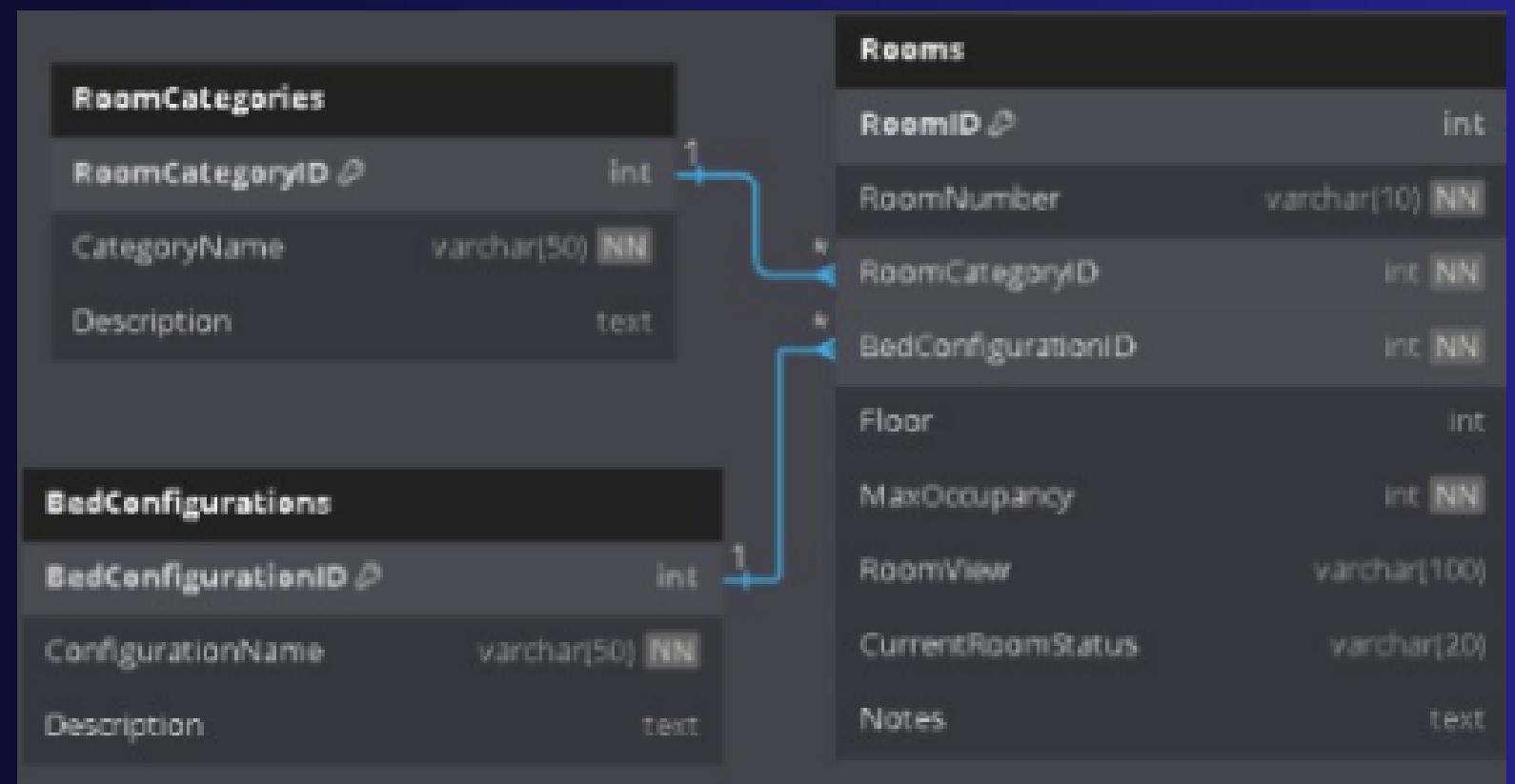
```
UPDATE Reservations  
SET  
    ReservationStatus = 'CancelledByCustomer',  
    LastUpdated = CURRENT_TIMESTAMP  
WHERE  
    ReservationID = 1;
```

Reservations	
1	ReservationID
	int
*	BookingCustomerID
	int NN
	TravelAgencyID
	int
	BookingTime
	timestamp
	ExpectedCheckInDate
	date NN
	ExpectedCheckOutDate
	date NN
	ActualCheckInTime
	datetime
	ActualCheckOutTime
	datetime
	NumberOfAdults
	int NN
	NumberOfChildren
	int
	SpecialRequests
	text
*	VipTypeID
	int
	PaymentTypeID
	int
	AccommodationTypeID
	int
	GroupReservationFlag
	boolean
	TotalFee
	decimal(10,2) NN
	DiscountAmount
	decimal(10,2)
	FinalAmount
	decimal(10,2)
	ReservationStatus
	varchar(25)
	DateOfRate
	date
	OptionDate
	date
	Notes
	text
	LastUpdated
	timestamp

QUERY - 6

Room lister

```
select R.roomnumber  
from rooms R  
join roomtype RT  
on R.roomCategoryId = RT.roomCategoryId  
where RT.roomCategoryId =1 and R.currentroomstatus = "empty";
```



QUERY - 7

Customer reservation

```
SET @check_in_date = '2025-12-24';
SET @check_out_date = '2025-12-26';
SET @guest_amount = 2;
SET @full_name = 'Ali Yılmaz';
SET @email_address = 'ali.yilmaz@email.com';
SET @firstName_value = SUBSTRING_INDEX(@full_name, ',', 1);
SET @lastName_value = SUBSTRING(@full_name, LENGTH(@firstName_value) +
2);
INSERT INTO Reservations (
    id,
    firstName,
    lastName,
    bookTime,
    check_in,
    check_out,
    adult_Amount,
    explanation
)
VALUES (
    @new_reservation_id,
    @firstName_value,
    @lastName_value,
    NOW(),
    @check_in_date,
    @check_out_date,
    @guest_amount,
    CONCAT('Email: ', @email_address
);
```

Reservations	
1	ReservationID
	int
*	BookingCustomerId
	int NN
	TravelAgencyId
	int
	BookingTime
	timestamp
	ExpectedCheckInDate
	date NN
	ExpectedCheckOutDate
	date NN
	ActualCheckInTime
	datetime
	ActualCheckOutTime
	datetime
	NumberOfAdults
	int NN
	NumberOfChildren
	int
	SpecialRequests
	text
*	VipTypeID
	int
*	PaymentTypeID
	int
*	AccommodationTypeID
	int
	GroupReservationFlag
	boolean
	TotalFee
	decimal(10,2) NN
	DiscountAmount
	decimal(10,2)
	FinalAmount
	decimal(10,2)
	ReservationStatus
	varchar(25)
	DateOfRate
	date
	OptionDate
	date
	Notes
	text
	LastUpdated
	timestamp

QUERY - 8

Booked Room

```
SET @VarReservationID = 125;  
SET @VarRoomID = 103;  
SET @VarAssignDate = NOW();  
SET @VarNotes = 'Müşteri tarafından özellikle bu oda talep edildi.';  
INSERT INTO BookedRooms (  
    ReservationID,  
    RoomID,  
    AssignDate,  
    Notes  
)  
VALUES (  
    @VarReservationID,  
    @VarRoomID,  
    @VarAssignDate,  
    @VarNotes  
);
```

BookedRooms		
	BookedRoomID	int
	ReservationID	int [NN]
	RoomID	int [NN]
	AssignedDate	timestamp
	Notes	text



Aerial view of a tropical island with a beach and turquoise water.

Thank
You for
listening!

