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# **PART I: Business Rules and Data Modeling**

## **Executive Summary**

Hotel Management System is an information system which streamlines day to day business operations in hotels and helps the management team deliver excellent guest experience. In this project, we will explore the business case operations, the main actors, processes, and events of the system database. The Hotel Management System has transformed the hotel industry to become more efficient and provide better services at minimized cost. It allowed a hotel or group of hotels to handle functions such as reservation booking, guest check-in/out, room pricing, and invoicing.

Traditionally, hotel management systems were restricted to on-premises solutions, which required clients to install it on PCs at their physical location. Recently, service users have been able to operate their software system in its entirety from anywhere they have access to internet connection.

The key features and functionalities include, Hotel Web Booking Engine Software, Front Desk System, Housekeeping Solution, Billing and Invoicing System, Reporting and Analytics Solutions, etc. A sophisticated hotel management system can combine all that complexity into one centralized location by keeping precise records of all the work that have to be done. It will allow the hotel customers the ability to select the options they desire in an easy-to-use way. Further, reservations are received from numerous channels, which must all be linked to a centralized hotel payment and invoicing system.

In this project, we have developed a database system which is one of the most crucial aspects of the hotel management system.

### **Business Rules**

In the Hotel Management System database, there are the following core primary building blocks i.e., entity and their attributes.

**Hotel**– This entity comprises details of hotel attributes that include Hotel ID, Hotel Name, and Hotel Location. The Hotel ID uniquely identifies the hotel which makes it the primary key of this entity.

**Customer**– Customer entity contains important attributes applicable to this service such as Customer ID, Customer First Name, Customer Last Name, Customer Email Address, Customer Phone Number, and Customer Address. Customer ID has to always be unique to represent each customer distinctively.

**Room**– This entity consists of room-related data that mostly includes Room ID, Room Number, Room Type, Room Price, Room Availability, and Hotel ID. Each room is assigned a different Room ID that serves as a primary key.

**Reservation**- Any data related to bookings fall under this entity. The attributes consist of Reservation ID, Reservation Date, and Reservation Period. The Reservation ID is a primary key of this entity.

**Payment-** This entity is composed of payment attributes, namely Payment ID, Payment Date, and Payment Method. The Payment ID is a unique identifier of the Payment entity, so primary key.

**Review –** Customer Reviews will be stored in this entity. It consists of Review ID, Feedback, Rate. The Review ID will be assigned to identify the table.

**Invoice –** This entity contains details of invoice. Invoice ID, Issue Date will be attributes, and while Invoice ID is primary key.

|  |  |
| --- | --- |
| **Entities** | **Business Rule that describes the attributes of the given entities** |
| **Hotel** | Hotel ID: Identification code given for each hotel. |
| Hotel Name: The name of the hotel |
| Hotel Location: The location of the hotel |
| **Customer** | Customer ID: Identity code assigned to a person |
| Customer First Name: The first name of the customer |
| Customer Last Name: The last name of the customer |
| Customer Email Addres: Email address of the person |
| Customer Phone Number: Phone number of the customer |
| Customer Address: An address the person currently lives in |
| **Room** | Room ID: A code given to each room |
| Room Number: Hotel room number |
| Room Type: Whether the room is family or standard |
| Room Price : The price set for each room |
| Room Availability : Whether the room is available at the moment |
| **Reservation** | Reservation ID : The generated code while making reservation and unique for every reservation |
| Reservation Date : The date on which the reservation is made |
| Reservation Period : For how long the customer is staying |
| **Payment** | Payment ID : The Unique ID for each payment |
| Payment Date : The date which the payment completed on |
| Payment Method: How the payment took place |

|  |  |  |
| --- | --- | --- |
| **Relationships** | | |
| **Customer Vs Reservation** | Customer can make many Reservations:|o ----|< | 1-M |
| **Hotel Vs Room** | Hotel can have many Rooms :||-----o< | 1-M |
| **Room vs Reservation** | Room can be reserved many times: ||-----o< | 1-M |
| **Customer vs Payment** | Customer can make many Payments ||-----o< | 1-M |
| **Customer vs Review** | Customer can make many Reviews ||-----o< | 1-M |
| **Payment vs Reservation** | One Payment is made for one Reservation ||----|| | 1-1 |
| **Payment vs Invoice** | One Payment can generate one Invoice :||-----o| | 1-1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Entity** | **Attributes** | **Column Name** | **Types** | **Identifiers** |
| **Hotel** | Hotel ID | **Hotel\_ID** | **Char(20)** | **PK** |
| Hotel Name | **Hotel\_Name** | **Varchar(40)** |  |
| Hotel Location | **Hotel\_Loc** | **Varchar(40)** |  |
| **Customer** | Customer ID | **Cust\_ID** | **Char(8)** | **PK** |
| Customer First Name | **Cust\_FName** | **Varchar(30)** |  |
| Customer Last Name | **Cust\_LName** | **Varchar(30)** |  |
| Customer Email Address | **Cust\_Email** | **Varchar(30)** |  |
| Customer Phone Number | **Cust\_Phone\_No** | **Varchar(20)** |  |
| Customer Address | **Cust\_Address** | **Varchar(20)** |  |
| **Room** | Room ID | **Room\_ID** | **Char(8)** | **PK** |
| Room Number | **Room\_No** | **Varchar(10)** |  |
| Room Type | **Room\_Type** | **Varchar(10)** |  |
| Room Price | **Room\_Price** | **Number(7,2)** |  |
| Room Availability | **Room\_Availability** | **BIT** |  |
| Hotel ID | **Hotel\_ID** | **Char(8)** | **FK** |
| **Reservation** | Reservation ID | **Reserv\_ID** | **Char(8)** | **PK** |
| Reservation Date | **Reserv\_Date** | **date** |  |
| Reservation Period | **Reserv\_Period** | **Number(4)** |  |
| Customer ID | **Cust\_ID** | **Char(8)** | **FK** |
| Room ID | **Room\_ID** | **Char(8)** | **FK** |
| **Payment** | Payment ID | **Payment\_ID** | **Char(8)** | **PK** |
| Payment Date | **Payment\_Date** | **Date** |  |
| Payment Method | **Payment\_Method** | **Varchar(10)** |  |
| Customer ID | **Cust\_ID** | **Char(8)** | **FK** |
| Reservation ID | **Reserv\_ID** | **Char(8)** | **FK** |
| **Review** | Review Id | **Review\_ID** | **Char(8)** | **PK** |
| Feedback | **Feedback** | **Varchar(256)** |  |
| Rate | **Rate** | **Varchar(10)** |  |
| Customer ID | **Cust\_ID** | **Char(8)** | **FK** |
| Reservation ID | **Reserv\_ID** | **Char(8)** | **FK** |
| **Invoice** | Invoice ID | **Invoice\_ID** | **Char(8)** | **PK** |
| Issue Date | **Issue\_Date** | **Date** |  |
| Payment ID | **Payment\_ID** | **Char(8)** | **FK** |

## **Entity Relationship Diagram (ERD)**

Diagram

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## **Relational Notation**

**Hotel**(**Hotel ID,** Hotel Name, Hotel Location)

**Customer**(**Customer ID,** Customer First Name, Customer Last Name, Customer Email Address, Customer Phone Number, Customer Address)

**Room**(**Room ID**, Room Number, Room Type, Room Price, Room Availability, Hotel ID\*)

**Reservation**(**Reservation ID**, Reservation Date, Reservation Period, Customer ID\*,Room ID\*)

**Payment**(**Payment ID**, Payment Date, Payment Method, Customer ID\*, Reservation ID\*)

Review(**Review\_ID**, Feedback, Rate, Customer ID\*, Reservation ID\*)

Invoice(**Invoice ID**, Issue Date, Payment ID\*)

## **The Schema Data Dictionary**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table Name | Attribute Name | Contents | Type | Format | Range | Required | PK or FK | FK Referenced Table |
| Customer | Cust\_ID  Cust\_FName  Cust\_LName  Cust\_Email  Cust\_Phone\_No  Cust\_Address | Customer ID  Customer Frist Name  Customer Last Name  Customer Email Customer Phone Number  Customer Address | Char(8)  Varchar(30)  Varchar(30)  Varchar(30)  Varchar(20)  Varchar(20) |  |  | Yes  Yes  Yes  Yes | PK |  |
| Hotel | Hotel\_ID  Hotel\_Name  Hotel\_Loc | Hotel ID  Hotel Name  Hotel Location | Char(8)  Varchar(40)  Varchar(40) |  |  | Yes  Yes  Yes | PK |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Room | Room\_ID  Room\_No  Room\_Type  Room\_Price  Room\_Availability  Hotel\_ID | Room ID  Room Number  Room Type  Room Price  Room Availability  Hotel ID | Char(8)  Varchar(10)  Varchar(10)  Number(7,2)  BIT  Char(8) |  |  | Yes  Yes  Yes  Yes  Yes  Yes | PK  FK | Hotel |
| Reservation | Reserv\_ID  Reserv\_Date  Reserv\_Period  Cust\_ID  Room\_ID | Reservation ID  Reservation Date  Reservation Period  Customer ID  Room ID | Char(8)  Date  Number(4)  Char(8)  Char(8) | dd-mmm-yyyy |  | Yes  Yes  Yes  Yes  Yes | PK  FKFK | Customer  Room |
| Payment | Payment\_ID  Payment\_Date  Payment\_Method  Cust\_ID  Reserv\_ID | Payment ID  Payment Date  Payment Method  Customer ID | Char(8)  Date  Varchar(10)  Char(8)  Char(8) | dd-mmm-yyyy |  | Yes  Yes  Yes  Yes  Yes | PK  FK FK | Customer  Reservation |
| Invoice | Invoice\_ID  Issue\_Date  Payment\_ID | Invoice ID  Issue Date  Payment ID | Char(8)  Date  Char(8) | dd-mmm-yyyy |  | Yes  Yes  Yes | PK  FK | Payment |
| Review | Review\_ID Feedback  Rate  Cust\_ID | Review ID  Feedback  Rate  Customer ID | Char(8)  Varchar(256)  Number(1)  Char(8)  Char(8) |  |  | Yes  No  No  Yes | PK  FK | Customer |
| FK= Foreign Key  PK=Primary Key  Varchar = The Varchar data type can store a character string of a maximum length of 65535 bytes of characters.  Char = The Varchar data type can store a character string of a maximum length of 8,000, bytes of characters. | | | | | | | | |

# **PART II: Implementation -SQL Related**

## **Table Creation & Insertion**

CREATE TABLE Customer (

cust\_id char(8) not null,

cust\_Fname varchar(30) not null,

cust\_Lname varchar(30) not null,

cust\_Email varchar(30) not null,

cust\_Phone\_No varchar(20),

cust\_Address varchar(20),

constraint pk\_customer primary key(cust\_id)

);

INSERT INTO Customer VALUES('1','Emmalynn','Pimerick','epimerick0@hostgator.com','311-315-8577','Poland');

INSERT INTO Customer VALUES('2','Brnaba','Gorry','bgorry1@canalblog.com','459-614-7277','Philippines');

INSERT INTO Customer VALUES('3','Jerrine','Gorman','jgorman2@mashable.com','663-243-7418','France');

INSERT INTO Customer VALUES('4','Joey','Hatwell','jhatwell3@intel.com','264-985-0938','China');

INSERT INTO Customer VALUES('5','Poul','Fuge','pfuge4@vinaora.com','304-838-7585','Tunisia');

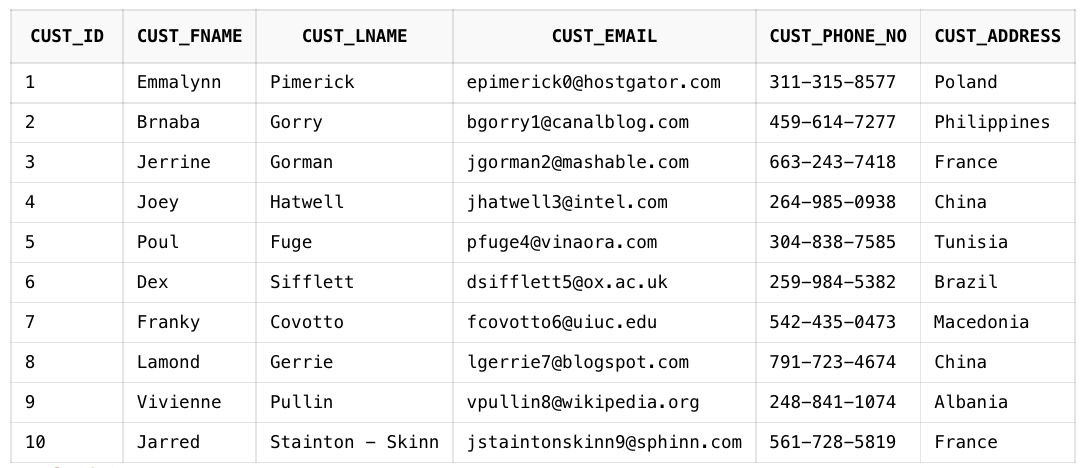
INSERT INTO Customer VALUES('6','Dex','Sifflett','dsifflett5@ox.ac.uk','259-984-5382','Brazil');

INSERT INTO Customer VALUES('7','Franky','Covotto','fcovotto6@uiuc.edu','542-435-0473','Macedonia');

INSERT INTO Customer VALUES('8','Lamond','Gerrie','lgerrie7@blogspot.com','791-723-4674','China');

INSERT INTO Customer VALUES('9','Vivienne','Pullin','vpullin8@wikipedia.org','248-841-1074','Albania');

INSERT INTO Customer VALUES('10','Jarred','Stainton - Skinn','jstaintonskinn9@sphinn.com','561-728-5819','France');



CREATE TABLE Review(

review\_id char(8) not null,

feedback varchar(255),

rate number(1) check(rate <= 5),

cust\_id char(8) not null,

constraint pk\_review primary key(review\_id),

constraint fk\_review\_customer foreign key(cust\_id) references Customer(cust\_id)

);

INSERT INTO REVIEW VALUES('1','Great view of Dubai skyline,pool area is very relaxing and clean. The room is very luxurious with a big bath and modern decor room. The gym is great, has a lot of equipment',5,'1');

INSERT INTO REVIEW VALUES('2','The beds are comfortable and there is plenty of drawers and closets for a full week or more for a family in the room.',4,'10');

INSERT INTO REVIEW VALUES('3','Gorgeous design, friendly staff, clean and safe atmosphere. Fantastic restaurants and cafe within. We also booked couples massages. We enjoyed the pool and variety of options if we stayed in.',5,'3');

INSERT INTO REVIEW VALUES('4','The lobby is just breathtaking and we had gone through the VIP check in majlis. Our room (regal suite) is very spacious and elegant. The bathroom and Closet room was just marvelous.',4,'8');

INSERT INTO REVIEW VALUES('5','Clean, fun, great breakfast, and fantastic service! Nice central location as well. Highly recommend as it is a great price you can’t beat for the quality received. Cinema and dining added bonus.',3,'5');

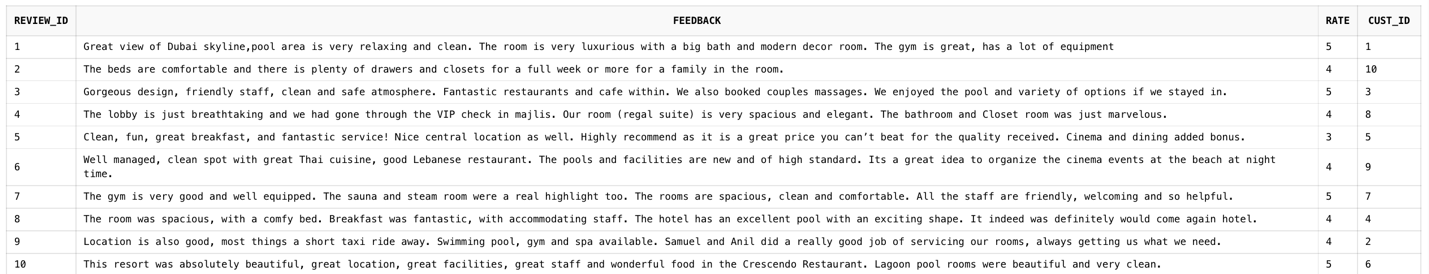
INSERT INTO REVIEW VALUES('6','Well managed, clean spot with great Thai cuisine, good Lebanese restaurant. The pools and facilities are new and of high standard. Its a great idea to organize the cinema events at the beach at night time.',4,'9');

INSERT INTO REVIEW VALUES('7','The gym is very good and well equipped. The sauna and steam room were a real highlight too. The rooms are spacious, clean and comfortable. All the staff are friendly, welcoming and so helpful.',5,'7');

INSERT INTO REVIEW VALUES('8','The room was spacious, with a comfy bed. Breakfast was fantastic, with accommodating staff. The hotel has an excellent pool with an exciting shape. It indeed was definitely would come again hotel.',4,'4');

INSERT INTO REVIEW VALUES('9','Location is also good, most things a short taxi ride away. Swimming pool, gym and spa available. Samuel and Anil did a really good job of servicing our rooms, always getting us what we need.',4,'2');

INSERT INTO REVIEW VALUES('10','This resort was absolutely beautiful, great location, great facilities, great staff and wonderful food in the Crescendo Restaurant. Lagoon pool rooms were beautiful and very clean.',5,'6');



CREATE TABLE Hotel (

hotel\_id char(8) not null,

hotel\_name varchar(40) not null,

hotel\_loc varchar(40) not null,

Constraint pk\_hotel primary key(hotel\_id)

);

INSERT INTO HOTEL VALUES('1','Scarlet Horizon Hotel','45 Buell Plaza');

INSERT INTO HOTEL VALUES('2','Lord Monarch Hotel','74 Summerview Drive');

INSERT INTO HOTEL VALUES('3','Rau, Schiller & Crooks','78416 Rowland Avenue');

INSERT INTO HOTEL VALUES('4','Dual Aegis Resort','58 Dennis Lane');

INSERT INTO HOTEL VALUES('5','Mellow Cosmos Hotel','8 Dryden Hill');

INSERT INTO HOTEL VALUES('6','Twin Phoenix Hotel','81 Browning Road');

INSERT INTO HOTEL VALUES('7','Riverside Bliss Hotel','0 Cardinal Road');

INSERT INTO HOTEL VALUES('8','Nicolas-Nitzsche','490 Coolidge Drive');

INSERT INTO HOTEL VALUES('9','Sunny Estate Hotel & Spa','222 Vidon Pass');

INSERT INTO HOTEL VALUES('10','Serene Gem Hotel','0000 Esker Parkway');

Table

Description automatically generated

CREATE TABLE Room (

room\_id char(8) not null,

room\_no varchar(10) not null,

room\_type varchar(10) not null,

room\_price number(7,2) not null,

room\_availability char(1) not null,

hotel\_id char(8) not null,

constraint pk\_room primary key(room\_id),

constraint fk\_room\_hotel foreign key(hotel\_id) references Hotel(hotel\_id)

);

INSERT INTO ROOM VALUES('1','2-01','Single',181.76,'T','1');

INSERT INTO ROOM VALUES('2','2-02','Double',222.82,'F','2');

INSERT INTO ROOM VALUES('3','2-11','Triple',265.03,'F','3');

INSERT INTO ROOM VALUES('4','2-42','King',1137.79,'T','4');

INSERT INTO ROOM VALUES('5','3-15','Queen',782.72,'T','5');

INSERT INTO ROOM VALUES('6','2-23','Twin',569.74,'T','6');

INSERT INTO ROOM VALUES('7','4-09','Quad',1073.14,'T','7');

INSERT INTO ROOM VALUES('8','4-01','Double',2254.51,'F','8');

INSERT INTO ROOM VALUES('9','3-19','Suite',3419.20,'F','9');

INSERT INTO ROOM VALUES('10','2-13','Single',395.92,'T','10');

Table

Description automatically generated

CREATE TABLE Reservation (

reserv\_id char(8) not null,

reserv\_date date not null,

reserv\_period number(2) not null,

room\_id char(8) not null,

cust\_id char(8) not null,

constraint pk\_reservation primary key(reserv\_id),

constraint fk\_reservation\_customer foreign key(cust\_id) references Customer(cust\_id),

constraint fk\_reservation\_room foreign key(room\_id) references Room(room\_id)

);

INSERT INTO RESERVATION VALUES('1','24-JAN-22',23,'1','1');

INSERT INTO RESERVATION VALUES('2','15-Nov-2022',11,'2','2');

INSERT INTO RESERVATION VALUES('3','07-Dec-2022',28,'3','3');

INSERT INTO RESERVATION VALUES('4','15-Jan-2023',28,'4','4');

INSERT INTO RESERVATION VALUES('5','07-Dec-2022',14,'5','5');

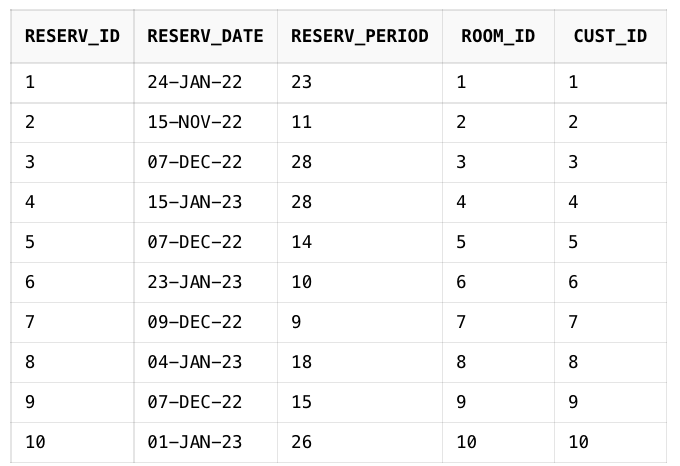
INSERT INTO RESERVATION VALUES('6','23-Jan-2023',10,'6','6');

INSERT INTO RESERVATION VALUES('7','09-Dec-2022',9,'7','7');

INSERT INTO RESERVATION VALUES('8','04-Jan-2023',18,'8','8');

INSERT INTO RESERVATION VALUES('9','07-Dec-2022',15,'9','9');

INSERT INTO RESERVATION VALUES('10','01-Jan-2023',26,'10','10');



CREATE Table Payment (

payment\_id char(8) not null,

payment\_date date not null,

payment\_method varchar(10) not null,

cust\_id char(8) not null,

reserv\_id char(8) not null,

constraint pk\_payment primary key(payment\_id),

constraint fk\_payment\_customer foreign key(cust\_id) references Customer(cust\_id),

constraint fk\_payment\_reservation foreign key(reserv\_id) references Reservation(reserv\_id)

);

INSERT INTO PAYMENT VALUES('1','31-Dec-2022','card',1,1);

INSERT INTO PAYMENT VALUES('2','07-Jan-2023','cash',2,2);

INSERT INTO PAYMENT VALUES('3','13-Dec-2022','cash',3,3);

INSERT INTO PAYMENT VALUES('4','29-Jan-2023','card',4,4);

INSERT INTO PAYMENT VALUES('5','13-Dec-2022','cash',5,5);

INSERT INTO PAYMENT VALUES('6','08-Jan-2023','card',6,6);

INSERT INTO PAYMENT VALUES('7','11-Nov-2022','card',7,7);

INSERT INTO PAYMENT VALUES('8','18-Jan-2023','cash',8,8);

INSERT INTO PAYMENT VALUES('9','03-Nov-2022','card',9,9);

INSERT INTO PAYMENT VALUES('10','12-Dec-2022','card',10,10);

Table

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CREATE TABLE Invoice (

invoice\_id char(8) not null,

issue\_date date not null,

payment\_id char(8) not null,

constraint pk\_invoice primary key(invoice\_id),

constraint fk\_invoice\_payment foreign key(payment\_id) references Payment(payment\_id)

);

INSERT INTO INVOICE VALUES('1','01-Feb-2023','1');

INSERT INTO INVOICE VALUES('2','15-Dec-2022','2');

INSERT INTO INVOICE VALUES('3','28-Dec-2022','3');

INSERT INTO INVOICE VALUES('4','02-Dec-2022','4');

INSERT INTO INVOICE VALUES('5','27-Dec-2022','5');

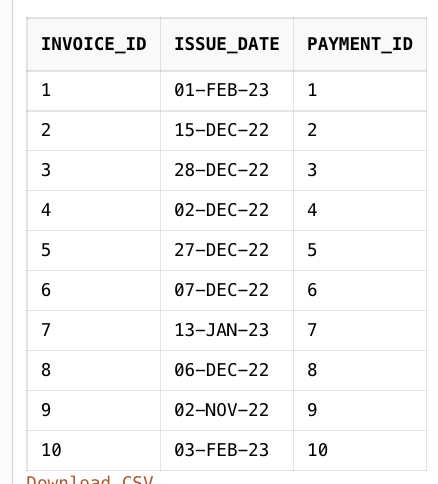
INSERT INTO INVOICE VALUES('6','07-Dec-2022','6');

INSERT INTO INVOICE VALUES('7','13-Jan-2023','7');

INSERT INTO INVOICE VALUES('8','06-Dec-2022','8');

INSERT INTO INVOICE VALUES('9','02-Nov-2022','9');

INSERT INTO INVOICE VALUES('10','03-Feb-2023','10');



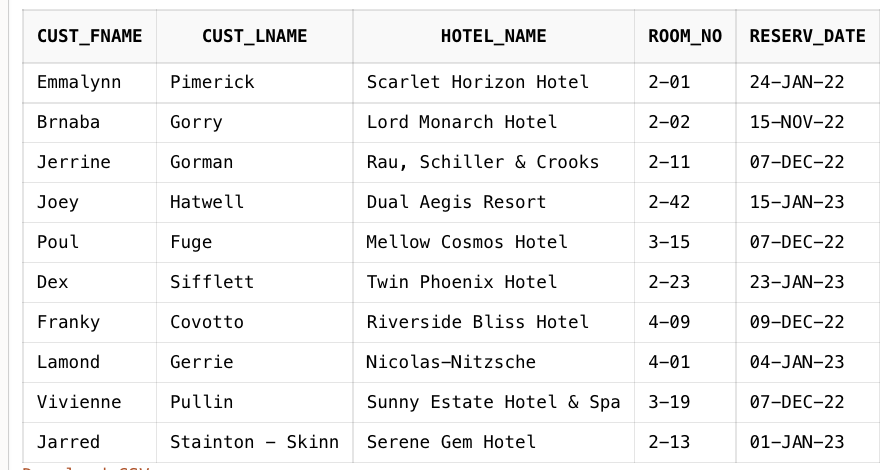
## **15 Queries**

1. Display Customer along with the hotel and room number as well as the day they booked.

select \* from Reservation;

select customer.cust\_fname,customer.cust\_lname, hotel.hotel\_name, room.room\_no, reservation.reserv\_date

from customer, hotel, room, reservation

where reservation.cust\_id = customer.cust\_id and reservation.room\_id = room.room\_id and room.hotel\_id = hotel.hotel\_id;

1. Create a view table which consists of query #1.

create view hotel\_reservation as

select customer.cust\_fname,customer.cust\_lname, hotel.hotel\_name, room.room\_no, reservation.reserv\_date

from customer, hotel, room, reservation

where reservation.cust\_id = customer.cust\_id and reservation.room\_id = room.room\_id and room.hotel\_id = hotel.hotel\_id;

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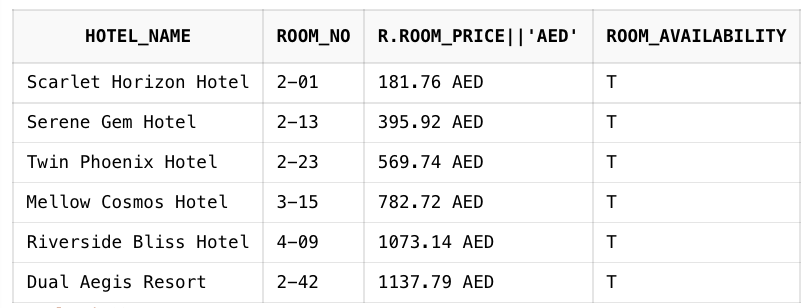
1. Display only available rooms in hotels ordered by their prices in AED.

select h.hotel\_name, r.Room\_no,r.room\_price || ' AED', r.room\_availability

from hotel h, room r

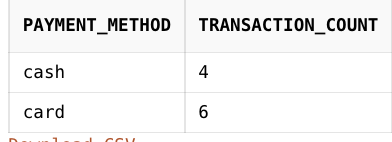
where r.hotel\_id = h.hotel\_id and r.room\_availability= 'T'

order by r.room\_price;



1. Count and group by customers depending on the payment method used.

select payment\_method, count(\*) as Transaction\_Count from payment group by payment\_method;



1. Display rooms with price ranging from 500 to 1500 and type in 'Triple','King','Queen','Suite.

select h.hotel\_name,r.room\_type,r.room\_price

from hotel h, room r

where h.hotel\_id = r.hotel\_id and r.room\_type in ('Triple','King','Queen','Suite') and r.room\_price between 500 and 1500;

Table

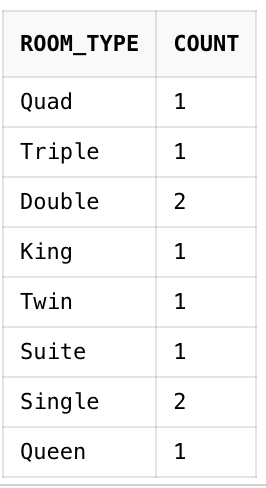
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1. Display all the room types and their respective counts

select room\_type, count(\*) AS count

from room

Group by room\_type



1. Calculate the total prices of a reservation period of a specific period for all the rooms with prices above 500

select d.reserv\_date ,r.room\_no, r.room\_type, h.hotel\_name,(d.reserv\_period \* r.room\_price) AS total

from reservation d, room r, hotel h

where (d.room\_id = r.room\_id AND r.hotel\_id = h.hotel\_id) AND r.room\_type in (select room\_type From room Where room\_price >= 500)

Table

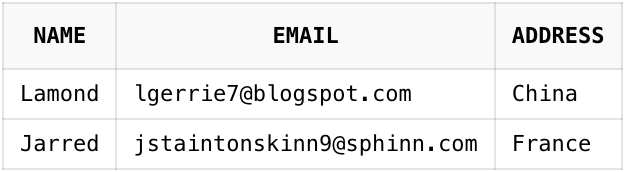
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1. Display all customers from France, china, Brazil and Albania whose first name includes ‘a’

select cust\_fname AS name, cust\_email AS email,cust\_address AS address

from customer

Where cust\_fname Like '%a%' and cust\_address in ('China','France','Albania','Brazil')



1. Update the availability of room number ‘2-01’ to F

Update room set room\_availability = 'F' where room\_no = '2-01';

select \* from room where room\_no = '2-01';

Table

Description automatically generated

1. Display all payments made between January 8, 2022, and November 28, 2022

select \* from payment where payment\_date between '08-Jan-2022' and '28-Nov-2022'

Table

Description automatically generated

1. Display the average prices of each room types

select room\_type, Avg(room\_price)

from room

Group by room\_type;

Table

Description automatically generated

1. Display the maxium times a single room is booked.

select max(count(room\_id)) from reservation group by room\_id;

Graphical user interface, text, application

Description automatically generated

1. Group Rooms by their booking frequency and display only those which have been booked 2 and more times.

select Room\_Type, count(Room\_Type) from Room group by Room\_Type having count(room\_type) >=2;



1. Display the date on which invoice is generated in descending order.

Sselect Issue\_Date from invoice order by Issue\_Date desc;

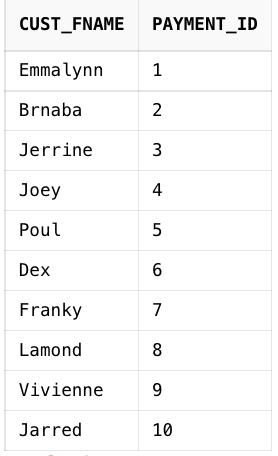


1. Join Customer and their Payment Info

SELECT Customer.Cust\_FNAME, Payment.Payment\_ID

FROM Customer

INNER JOIN Payment ON Customer.Cust\_ID = Payment.Cust\_ID;



# **PART III: Implementation - Advanced SQL Related**

1. If reserve period is more than five days, reduce the price by 5% for each booking after the 5th day, and calculate total price based on the reserve duration.

CREATE OR REPLACE PROCEDURE DURATION\_OFFER(stay in number, room\_booked in varchar)

IS

one\_night number;

total\_amount number;

BEGIN

select room\_price into one\_night from room where room\_id = room\_booked;

if (stay > 5) then

total\_amount := 0.95 \* (stay - 5) \* one\_night;

DBMS\_OUTPUT.PUT\_LINE('The Total Price after the offer is: '|| total\_amount);

else

DBMS\_OUTPUT.PUT\_LINE('Sorry, the offer does not apply to reserve period less than 5 days!');

end if;

END;

To call:

DECLARE

aa number;

bb char(8);

BEGIN

aa := 10;

bb := '3';

DURATION\_OFFER(aa,bb);

END;

Graphical user interface, text, application

Description automatically generated

1. Create Trigger, Function and Procedure

**#Trigger**

Give 15% discount on weekends for room.

Create or Replace Trigger Discount\_on\_Weekend

before insert on room

for each row

begin

IF TO\_CHAR(SYSDATE, 'DAY') BETWEEN 'SATURDAY' AND 'MONDAY'

THEN

:new.room\_price := :new.room\_price - .15 \* :new.room\_price;

end if;

end;

Graphical user interface, application

Description automatically generated

1. **#Trigger**

Create or Replace Trigger Sanitation

before insert or update on reservation

for each row

begin

if TO\_CHAR(SYSDATE, 'HH12:MI') between '7:00 PM' and '12:00 AM' THEN

RAISE\_APPLICATION\_ERROR(-20001,'The booking is closed');

end if;

end;

1. FUNCTION

Create a function which computes the total number of bookings in a given month.

CREATE OR REPLACE FUNCTION RESERVATION\_IN\_MONTH(mnth in varchar)

RETURN NUMBER

IS

times NUMBER(4);

BEGIN

select COUNT(reserv\_date) INTO TIMES from reservation where TO\_CHAR(reserv\_date, 'MON') = mnth;

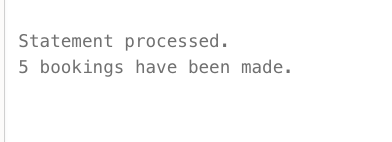
RETURN TIMES;

END;

BEGIN

DBMS\_OUTPUT.PUT\_LINE(RESERVATION\_IN\_MONTH('JAN') || ' bookings have been made.');

END;



# **PART IV: Setup MySQL Database Server and PHP Web App**

## **MySQL Scripts**

*--*

*-- Database: `hotel\_management\_system`*

*--*

CREATE DATABASE IF NOT EXISTS `hotel\_management\_system` DEFAULT CHARACTER SET utf8mb4 COLLATE utf8mb4\_general\_ci;

USE `hotel\_management\_system`;

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Customer`*

*--*

CREATE TABLE `Customer` (

`cust\_id` char(8) NOT NULL,

`cust\_Fname` varchar(30) NOT NULL,

`cust\_Lname` varchar(30) NOT NULL,

`cust\_Email` varchar(30) NOT NULL,

`cust\_Phone\_No` varchar(20) DEFAULT NULL,

`cust\_Address` varchar(20) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Customer`*

*--*

INSERT INTO `Customer` (`cust\_id`, `cust\_Fname`, `cust\_Lname`, `cust\_Email`, `cust\_Phone\_No`, `cust\_Address`) VALUES

('1', 'Emmalynn', 'Pimerick', 'epimerick0@hostgator.com', '311-315-8577', 'Poland'),

('10', 'Jarred', 'Stainton - Skinn', 'jstaintonskinn9@sphinn.com', '561-728-5819', 'France'),

('2', 'Brnaba', 'Gorry', 'bgorry1@canalblog.com', '459-614-7277', 'Philippines'),

('3', 'Jerrine', 'Gorman', 'jgorman2@mashable.com', '663-243-7418', 'France'),

('4', 'Joey', 'Hatwell', 'jhatwell3@intel.com', '264-985-0938', 'China'),

('5', 'Poul', 'Fuge', 'pfuge4@vinaora.com', '304-838-7585', 'Tunisia'),

('6', 'Dex', 'Sifflett', 'dsifflett5@ox.ac.uk', '259-984-5382', 'Brazil'),

('7', 'Franky', 'Covotto', 'fcovotto6@uiuc.edu', '542-435-0473', 'Macedonia'),

('8', 'Lamond', 'Gerrie', 'lgerrie7@blogspot.com', '791-723-4674', 'China'),

('9', 'Vivienne', 'Pullin', 'vpullin8@wikipedia.org', '248-841-1074', 'Albania');

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Hotel`*

*--*

CREATE TABLE `Hotel` (

`hotel\_id` char(8) NOT NULL,

`hotel\_name` varchar(40) NOT NULL,

`hotel\_loc` varchar(40) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Hotel`*

*--*

INSERT INTO `Hotel` (`hotel\_id`, `hotel\_name`, `hotel\_loc`) VALUES

('1', 'Scarlet Horizon Hotel', '45 Buell Plaza'),

('10', 'Serene Gem Hotel', '0000 Esker Parkway'),

('2', 'Lord Monarch Hotel', '74 Summerview Drive'),

('3', 'Rau, Schiller & Crooks', '78416 Rowland Avenue'),

('4', 'Dual Aegis Resort', '58 Dennis Lane'),

('5', 'Mellow Cosmos Hotel', '8 Dryden Hill'),

('6', 'Twin Phoenix Hotel', '81 Browning Road'),

('7', 'Riverside Bliss Hotel', '0 Cardinal Road'),

('8', 'Nicolas-Nitzsche', '490 Coolidge Drive'),

('9', 'Sunny Estate Hotel & Spa', '222 Vidon Pass');

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Invoice`*

*--*

CREATE TABLE `Invoice` (

`invoice\_id` char(8) NOT NULL,

`issue\_date` datetime NOT NULL,

`payment\_id` char(8) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Invoice`*

*--*

INSERT INTO `Invoice` (`invoice\_id`, `issue\_date`, `payment\_id`) VALUES

('1', '2023-02-09 00:00:00', '1'),

('10', '2023-02-08 00:00:00', '10'),

('2', '2023-12-12 00:00:00', '2'),

('3', '2022-12-20 00:00:00', '3'),

('4', '2022-12-27 00:00:00', '4'),

('5', '2022-12-12 00:00:00', '5'),

('6', '2022-12-10 00:00:00', '6'),

('7', '2023-01-23 00:00:00', '7'),

('8', '2022-12-27 00:00:00', '8'),

('9', '2022-11-24 00:00:00', '9');

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Payment`*

*--*

CREATE TABLE `Payment` (

`payment\_id` char(8) NOT NULL,

`payment\_date` datetime NOT NULL,

`payment\_method` varchar(10) NOT NULL,

`cust\_id` char(8) NOT NULL,

`reserv\_id` char(8) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Payment`*

*--*

INSERT INTO `Payment` (`payment\_id`, `payment\_date`, `payment\_method`, `cust\_id`, `reserv\_id`) VALUES

('1', '2022-12-20 00:00:00', 'card', '1', '1'),

('10', '2022-12-22 00:00:00', 'card', '10', '10'),

('2', '2023-01-23 00:00:00', 'cash', '2', '2'),

('3', '2022-12-22 00:00:00', 'cash', '3', '3'),

('4', '2023-01-12 00:00:00', 'card', '4', '4'),

('5', '2022-12-18 00:00:00', 'cash', '5', '5'),

('6', '2023-01-15 00:00:00', 'card', '6', '6'),

('7', '2022-11-02 00:00:00', 'card', '7', '7'),

('8', '2023-01-27 00:00:00', 'cash', '8', '8'),

('9', '2022-11-15 00:00:00', 'card', '9', '9');

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Reservation`*

*--*

CREATE TABLE `Reservation` (

`reserv\_id` char(8) NOT NULL,

`reserv\_date` datetime NOT NULL,

`reserv\_period` tinyint(4) NOT NULL,

`room\_id` char(8) NOT NULL,

`cust\_id` char(8) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Reservation`*

*--*

INSERT INTO `Reservation` (`reserv\_id`, `reserv\_date`, `reserv\_period`, `room\_id`, `cust\_id`) VALUES

('1', '2022-01-22 00:00:00', 23, '1', '1'),

('10', '2022-01-23 00:00:00', 26, '10', '10'),

('2', '2022-11-20 00:00:00', 11, '2', '2'),

('3', '2022-12-22 00:00:00', 28, '3', '3'),

('4', '2022-01-23 00:00:00', 28, '4', '4'),

('5', '2022-12-20 00:00:00', 14, '5', '5'),

('6', '2022-01-23 00:00:00', 10, '6', '6'),

('7', '2022-12-22 00:00:00', 9, '7', '7'),

('8', '2022-01-20 00:00:00', 18, '8', '8'),

('9', '2022-12-22 00:00:00', 15, '9', '9');

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Review`*

*--*

CREATE TABLE `Review` (

`review\_id` char(8) NOT NULL,

`feedback` varchar(255) DEFAULT NULL,

`rate` tinyint(4) DEFAULT NULL CHECK (`rate` <= 5),

`cust\_id` char(8) NOT NULL,

`hotel\_id` int(11) NOT NULL DEFAULT 4

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Review`*

*--*

INSERT INTO `Review` (`review\_id`, `feedback`, `rate`, `cust\_id`, `hotel\_id`) VALUES

('1', 'Great view of Dubai skyline,pool area is very relaxing and clean. The room is very luxurious with a big bath and modern decor room. The gym is great, has a lot of equipment', 5, '1', 4),

('10', 'This resort was absolutely beautiful, great location, great facilities, great staff and wonderful food in the Crescendo Restaurant. Lagoon pool rooms were beautiful and very clean.', 5, '6', 1),

('2', 'The beds are comfortable and there is plenty of drawers and closets for a full week or more for a family in the room.', 4, '10', 4),

('3', 'Gorgeous design, friendly staff, clean and safe atmosphere. Fantastic restaurants and cafe within. We also booked couples massages. We enjoyed the pool and variety of options if we stayed in.', 5, '3', 8),

('4', 'The lobby is just breathtaking and we had gone through the VIP check in majlis. Our room (regal suite) is very spacious and elegant. The bathroom and Closet room was just marvelous.', 4, '8', 2),

('5', 'Clean, fun, great breakfast, and fantastic service! Nice central location as well. Highly recommend as it is a great price you can’t beat for the quality received. Cinema and dining added bonus.', 3, '5', 4),

('6', 'Well managed, clean spot with great Thai cuisine, good Lebanese restaurant. The pools and facilities are new and of high standard. Its a great idea to organize the cinema events at the beach at night time.', 4, '9', 7),

('7', 'The gym is very good and well equipped. The sauna and steam room were a real highlight too. The rooms are spacious, clean and comfortable. All the staff are friendly, welcoming and so helpful.', 5, '7', 4),

('8', 'The room was spacious, with a comfy bed. Breakfast was fantastic, with accommodating staff. The hotel has an excellent pool with an exciting shape. It indeed was definitely would come again hotel.', 4, '4', 10),

('9', 'Location is also good, most things a short taxi ride away. Swimming pool, gym and spa available. Samuel and Anil did a really good job of servicing our rooms, always getting us what we need.', 4, '2', 4);

*-- --------------------------------------------------------*

*--*

*-- Table structure for table `Room`*

*--*

CREATE TABLE `Room` (

`room\_id` char(8) NOT NULL,

`room\_no` varchar(10) NOT NULL,

`room\_type` varchar(10) NOT NULL,

`room\_price` decimal(7,2) NOT NULL,

`room\_availability` char(1) NOT NULL,

`img` text NOT NULL,

`hotel\_id` char(8) NOT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

*--*

*-- Dumping data for table `Room`*

*--*

INSERT INTO `Room` (`room\_id`, `room\_no`, `room\_type`, `room\_price`, `room\_availability`, `img`, `hotel\_id`) VALUES

('1', '201', 'Single', '181.76', 'T', 'single1.jpeg', '1'),

('10', '2-13', 'Single', '395.92', 'T', 'single10.jpeg', '10'),

('11', '1-50', 'twin', '569.74', 'T', 'twin4.jpg', '4'),

('12', '0-45', 'double', '2400.00', 'T', 'double4.jpg', '4'),

('13', '2-10', 'single', '395.92', 'F', 'single4.jpeg', '4'),

('2', '2-02', 'Double', '222.82', 'F', 'double2.jpg', '2'),

('3', '2-11', 'Triple', '265.03', 'F', 'triple3.jpeg', '3'),

('4', '2-42', 'King', '1137.79', 'T', 'king4.jpg', '4'),

('5', '3-15', 'Queen', '782.72', 'T', 'queen5.jpeg', '5'),

('6', '2-23', 'Twin', '569.74', 'T', 'twin6.jpg', '6'),

('7', '4-09', 'Quad', '1073.14', 'T', 'quad7.jpeg', '7'),

('8', '4-01', 'Double', '2254.51', 'F', 'double8.jpg', '8'),

('9', '3-19', 'Suite', '3419.20', 'F', 'suite9.jpg', '9');

*--*

*-- Indexes for dumped tables*

*--*

*--*

*-- Indexes for table `Customer`*

*--*

ALTER TABLE `Customer`

ADD PRIMARY KEY (`cust\_id`);

*--*

*-- Indexes for table `Hotel`*

*--*

ALTER TABLE `Hotel`

ADD PRIMARY KEY (`hotel\_id`);

*--*

*-- Indexes for table `Invoice`*

*--*

ALTER TABLE `Invoice`

ADD PRIMARY KEY (`invoice\_id`),

ADD KEY `fk\_invoice\_payment` (`payment\_id`);

*--*

*-- Indexes for table `Payment`*

*--*

ALTER TABLE `Payment`

ADD PRIMARY KEY (`payment\_id`),

ADD KEY `fk\_payment\_customer` (`cust\_id`),

ADD KEY `fk\_payment\_reservation` (`reserv\_id`);

*--*

*-- Indexes for table `Reservation`*

*--*

ALTER TABLE `Reservation`

ADD PRIMARY KEY (`reserv\_id`),

ADD KEY `fk\_reservation\_customer` (`cust\_id`),

ADD KEY `fk\_reservation\_room` (`room\_id`);

*--*

*-- Indexes for table `Review`*

*--*

ALTER TABLE `Review`

ADD PRIMARY KEY (`review\_id`),

ADD KEY `fk\_review\_customer` (`cust\_id`);

*--*

*-- Indexes for table `Room`*

*--*

ALTER TABLE `Room`

ADD PRIMARY KEY (`room\_id`),

ADD UNIQUE KEY `room\_id` (`room\_id`),

ADD KEY `fk\_room\_hotel` (`hotel\_id`);

*--*

*-- Constraints for dumped tables*

*--*

*--*

*-- Constraints for table `Invoice`*

*--*

ALTER TABLE `Invoice`

ADD CONSTRAINT `fk\_invoice\_payment` FOREIGN KEY (`payment\_id`) REFERENCES `Payment` (`payment\_id`);

*--*

*-- Constraints for table `Payment`*

*--*

ALTER TABLE `Payment`

ADD CONSTRAINT `fk\_payment\_customer` FOREIGN KEY (`cust\_id`) REFERENCES `Customer` (`cust\_id`),

ADD CONSTRAINT `fk\_payment\_reservation` FOREIGN KEY (`reserv\_id`) REFERENCES `Reservation` (`reserv\_id`);

*--*

*-- Constraints for table `Reservation`*

*--*

ALTER TABLE `Reservation`

ADD CONSTRAINT `fk\_reservation\_customer` FOREIGN KEY (`cust\_id`) REFERENCES `Customer` (`cust\_id`),

ADD CONSTRAINT `fk\_reservation\_room` FOREIGN KEY (`room\_id`) REFERENCES `Room` (`room\_id`);

*--*

*-- Constraints for table `Review`*

*--*

ALTER TABLE `Review`

ADD CONSTRAINT `fk\_review\_customer` FOREIGN KEY (`cust\_id`) REFERENCES `Customer` (`cust\_id`);

*--*

*-- Constraints for table `Room`*

*--*

ALTER TABLE `Room`

ADD CONSTRAINT `fk\_room\_hotel` FOREIGN KEY (`hotel\_id`) REFERENCES `Hotel` (`hotel\_id`);

COMMIT;

*/\*!40101 SET CHARACTER\_SET\_CLIENT=@OLD\_CHARACTER\_SET\_CLIENT \*/*;

*/\*!40101 SET CHARACTER\_SET\_RESULTS=@OLD\_CHARACTER\_SET\_RESULTS \*/*;

*/\*!40101 SET COLLATION\_CONNECTION=@OLD\_COLLATION\_CONNECTION \*/*;

## **PHP Scripts**

**db.php**

<?php

// constants for connection

define('HOSTNAME', 'localhost');

define('DATABASE', 'id19831983\_hotel\_management\_system');

define('USERNAME', 'id19831983\_mekson');

define('PASSWORD', 'yA%]QU+gbwm5n]3~');

$connection = mysqli\_connect(HOSTNAME, USERNAME, PASSWORD, DATABASE);

if (!$connection) die('Database Access Failed no connection ' . mysqli\_connect\_errno());

**controller.php**

<?php require\_once('../db/db.php');

header('Access-Control-Allow-Origin:\*');

header('Content-Type:application/json');

header('Access-Control-Allow-Methods: POST, GET, PUT, OPTIONS, PATCH, DELETE');

header('Access-Control-Allow-Headers: \*');

$request = $\_POST['request'];

$result = "";

switch ($request) {

case "GET\_ALL\_ROOMS":

$result = get\_all\_rooms($connection);

break;

case "BOOK\_A\_ROOM":

$result = book\_a\_room($connection,$\_POST['id'],$\_POST['custId'],$\_POST['roomId'],$\_POST['date'],$\_POST['period']);

break;

case "GET\_HOTEL\_DETAILS":

$result = get\_hotel\_details($connection,$\_POST['name']);

break;

case "GET\_HOTELS":

$result = get\_hotels($connection);

break;

case "GET\_ROOMS":

$result = get\_rooms($connection,$\_POST['id']);

break;

default:

return '';

}

echo $result;

function get\_all\_rooms($connection)

{

$query = "SELECT R.room\_no AS no, R.room\_type AS type, R.room\_price AS price, R.room\_availability As availability,H.hotel\_name As hotel\_name,H.hotel\_loc AS location ";

$query .= "FROM Room R, Hotel H ";

$query .= "WHERE H.hotel\_id = R.hotel\_id";

$result = mysqli\_query($connection, $query);

if (!$result) die('Database operation failed get all rooms' . mysqli\_connect\_errno());

$data =array();

while ($row = mysqli\_fetch\_assoc($result)) {

$room = array();

$room['room\_no'] = $row['no'];

$room['type'] = $row['type'];

$room['price'] = $row['price'];

$room['availability'] = $row['availability'];

$room['hotel\_name'] = $row['hotel\_name'];

$room['location'] = $row['location'];

$data[] = $room;

}

return json\_encode($data);

}

function book\_a\_room($connection,$id,$customer,$room,$date,$period)

{

$query = "INSERT INTO Reservation (reserv\_id,reserv\_date,reserv\_period,room\_id,cust\_id) ";

$query .= "VALUES ($id,'$date',$period,$room,$customer)";

$result = mysqli\_query($connection, $query);

if (!$result) die('Database operation failed' . mysqli\_connect\_error());

return json\_encode(array('success'=>true));

}

function get\_rooms($connection,$id){

$query = "SELECT r.room\_id AS id, r.room\_no AS no FROM Room r, Hotel h WHERE r.hotel\_id = h.hotel\_id AND h.hotel\_id = '$id'";

$result = mysqli\_query($connection,$query);

if (!$result) die('Database operation failed ' . mysqli\_connect\_errno());

$data = array();

while ($row = mysqli\_fetch\_assoc($result)) {

$room = array();

$room['id'] = $row['id'];

$room['no'] = $row['no'];

$data[] = $room;

}

return json\_encode($data);

}

function get\_hotels($connection){

$query = "SELECT hotel\_id, hotel\_name FROM Hotel";

$result = mysqli\_query($connection,$query);

if (!$result) die('Database operation failed ' . mysqli\_connect\_errno());

$data = array();

while ($row = mysqli\_fetch\_assoc($result)) {

$hotel = array();

$hotel['id'] = $row['hotel\_id'];

$hotel['name'] = $row['hotel\_name'];

$data[] = $hotel;

}

return json\_encode($data);

}

function get\_hotel\_details($connection,$name){

$query = "SELECT R.room\_type AS type, R.room\_price AS price, H.hotel\_name As name, R.img,R.hotel\_id As id ";

$query .= "FROM Room R, Hotel H ";

$query .= "WHERE R.hotel\_id = H.hotel\_id && H.hotel\_name = '$name'" ;

$result = mysqli\_query($connection,$query);

if (!$result) die('Database operation failed ' . mysqli\_connect\_errno());

$data =array();

$review = array();

$id = '';

while ($row = mysqli\_fetch\_assoc($result)) {

$room = array();

$room['type'] = $row['type'];

$room['price'] = $row['price'];

$room['hotel\_name'] = $row['name'];

$room['img'] = $row['img'];

$id = $row['id'];

$data[] = $room;

}

$query2 = "SELECT R.feedback AS feedback, R.rate AS rate, C.cust\_Fname AS name ";

$query2 .= "FROM Review R, Customer C ";

$query2 .= "WHERE C.cust\_id = R.cust\_id && R.hotel\_id = '$id' ";

$result2 = mysqli\_query($connection,$query2);

if (!$result2) die('Database operation failed ' . mysqli\_error($connection));

while ($row2 = mysqli\_fetch\_assoc($result2)) {

$item = array();

$item['feedback'] = $row2['feedback'];

$item['rate'] = $row2['rate'];

$item['name'] = $row2['name'];

$review[] = $item;

}

$final\_result = array($data,$review);

return json\_encode($final\_result);

}

## **Javascript**

const getAllRooms = () => {

$.ajax({

method: "POST",

url: "https://hotelmanagementbooking.000webhostapp.com/controller/controller.php",

dataType: "json",

data: { request: "GET\_ALL\_ROOMS" },

success: function (data) {

generateTable(data);

},

});

};

const getHotelDetails = () => {

let params = new URLSearchParams(location.search);

const hotel = params.get("hotel");

$.ajax({

method: "POST",

url: "https://hotelmanagementbooking.000webhostapp.com/controller/controller.php",

dataType: "json",

data: { request: "GET\_HOTEL\_DETAILS", name: hotel },

success: function (data) {

generateHotelDetails(data[0], hotel);

generateReviews(data[1]);

},

});

};

const bookRoom = (e) => {

e.preventDefault();

console.log('adf')

const custId = $('#cust\_id').val();

const roomId = $('#rooms').val();

const date = $('#date').val();

const period = $('#period').val();

$.ajax({

method: "POST",

url: "https://hotelmanagementbooking.000webhostapp.com/controller/controller.php",

dataType: "json",

data: { request: "BOOK\_A\_ROOM",id:Math.floor(Math.random() \* 1000), custId,roomId,date,period },

success: function (data) {

*if* (data['success']){

alert("Thanks for booking with us")

}

},

});

}

const getHotels = () => {

$.ajax({

method: "POST",

url: "https://hotelmanagementbooking.000webhostapp.com/controller/controller.php",

dataType: "json",

data: { request: "GET\_HOTELS" },

success: function (data) {

let html = "";

data.forEach((hotel) => {

html += `<option value=${hotel.id} >${hotel.name}</option>`;

});

$("#hotels").html(html);

},

});

};

const getRooms = () => {

const id = $('#hotels').val() || '1';

$.ajax({

method: "POST",

url: "https://hotelmanagementbooking.000webhostapp.com/controller/controller.php",

dataType: "json",

data: { request: "GET\_ROOMS",id },

success: function (data) {

let html = "";

data.forEach((room) => {

html += `<option value=${room.id} >${room.no}</option>`;

});

$("#rooms").html(html);

},

});

}

const generateTable = (data) => {

let html = "";

data.forEach((room) => {

const no = room.room\_no;

const availability = room.availability === "T" ? "Yes" : "No";

const location = room.location;

const price = room?.price;

const type = room?.type;

const hotel = room?.hotel\_name;

const style =

availability === "Yes" ? "background:#80de64" : "background:#eb4c46";

html += ` <tr >

<td>${no}</td>

<td>${type}</td>

<td>$${price}</td>

<td style='${style}'>${availability}</td>

<td><a href="./hotel.html?hotel=${hotel}">${hotel}</a></td>

<td>${location}</td>

</tr>`;

});

$("#table\_body").html(html);

};

const generateHotelDetails = (data, name) => {

let html = "";

data.forEach((hotelRoom) => {

const type = hotelRoom?.type;

const price = hotelRoom?.price;

const hotel = hotelRoom?.hotel\_name;

const image = hotelRoom?.img;

html += `

<div class="col-lg-3 col-sm-6">

<div class="accomodation\_item text-center">

<div class="hotel\_img">

<img src="https://hotelmanagementbooking.000webhostapp.com/assets/${image}" alt="" width='400px' />

<a href="#" class="btn theme\_btn button\_hover">Book Now</a>

</div>

<a href="#"><h4 class="sec\_h4">${type}</h4></a>

<h5>$${price}<small>/night</small></h5>

</div>

</div>`;

});

$("#title").text(name);

$("#rooms").html(html);

};

const generateReviews = (data) => {

let html = "";

data.forEach((review) => {

const feedback = review?.feedback;

const rate = review?.rate;

const name = review?.name;

html += `

<div class="media testimonial\_item">

<div class="media-body">

<p>

${feedback}

</p>

<a href="#"><h4 class="sec\_h4">${name}</h4></a>

<div class="star">

${rate} <a href="#"><i class="fa fa-star"></i></a>

</div>

</div>

</div>

`;

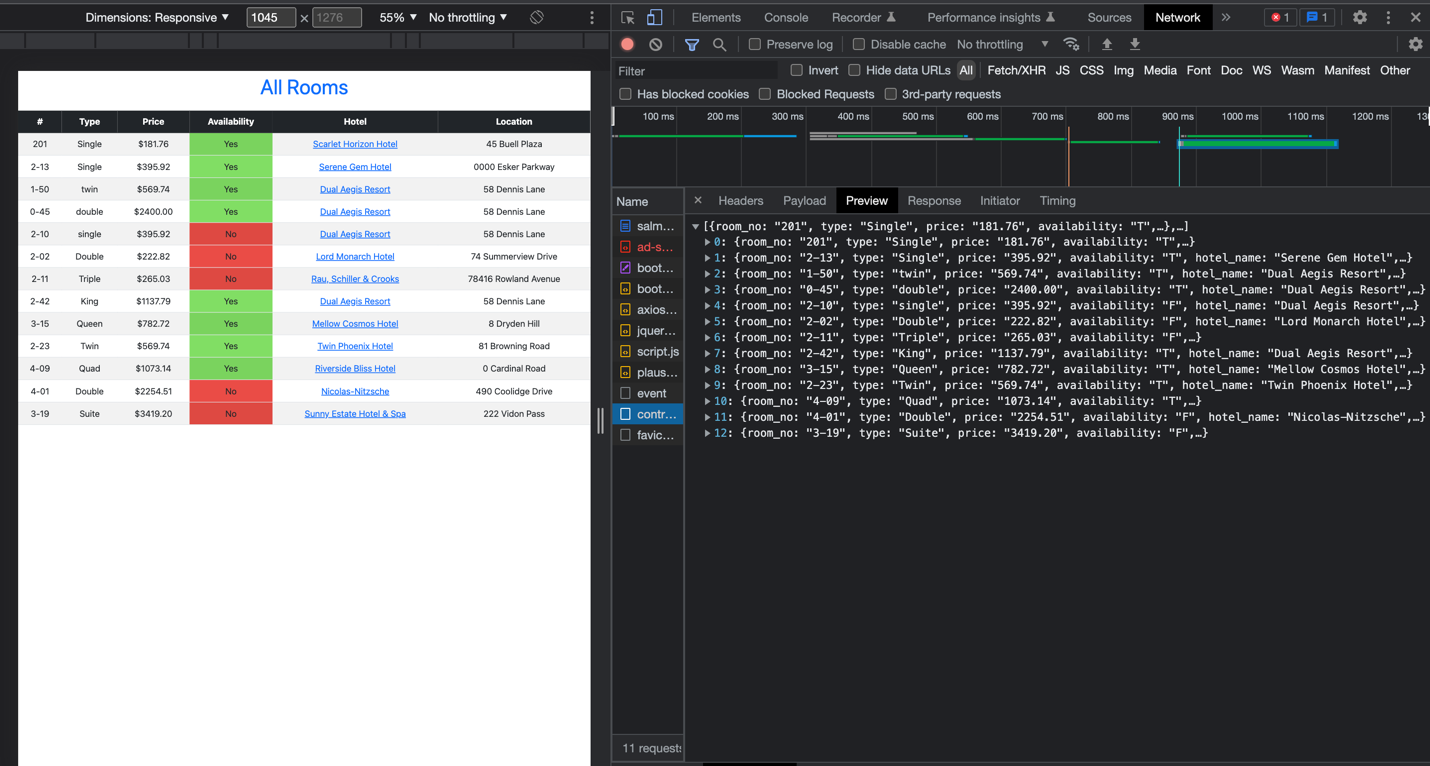
});

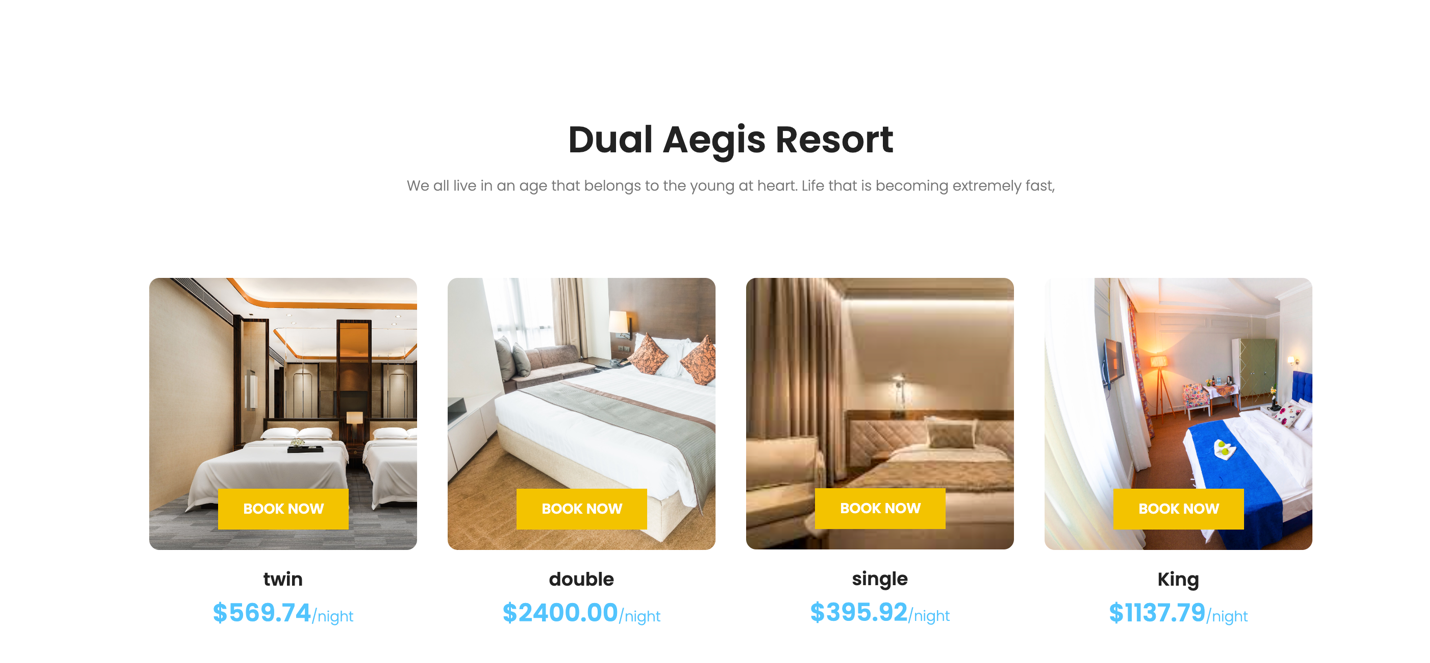
$("#testimony").html(html);

};

## **PHP Web App**

NB. Website link

**https://salmon-carlotta-75.tiiny.site/**



Graphical user interface, application, Teams

Description automatically generated

Graphical user interface, application

Description automatically generated