***DBMS***

***RESORT MONITORING AND RESERVATION SYSTEM.***

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***System Description***

***RESORT MONITORING AND RESERVATION SYSTEM.***

This project is an enhanced resort management system that consists of all the features and functions required for effectively managing a resorts. The system allows to check for room reservations, advance bookings, current bookings, free rooms, status of the restaurant . The system also sends room status notification and when the room was last cleaned or about when last maintenance check was performed on it to the manager or concerned staff. This system can be used to effectively manage large resorts with ease. This system is very user-friendly. User with basic computer knowledge can use this system Databases in Resort management are very dynamic and scalable.

The system has the following table:

1. **Customer table:**

In this table detail of customer are display for the resort reservation.

1. **Reservation table**:

In this table detail of reservation are display.

1. **Room table:**

The table store the detail of customer who book the room.

1. **Cancellation table**:

The table contents the cancellation detail of the customer.

1. **Payment table:**

This table define the payment of the reservation.

***Data dictionaries***

***Customer table***

1. Cust\_id: Customer id id a primary key which uniquely define the customer table.
2. Cust\_fname: cust\_fname refer to customer first name. the data type of cust\_fname is varchar(20).
3. Cust\_lname: cust\_lname refer to customer last name. The data type of cust\_lname is varchar(20).
4. Cust\_age: the cust\_age refer to customer age .the data type of cust\_age id varchar(2).
5. Cust\_contact: cust\_contact refer to customer contact number. The data type of cust\_contact is number(10).
6. Cust\_address: cust\_address refer to customer address. The data type of cust\_address is varchar(30).
7. Cust\_adharNo: cust\_adharNo refer to customer adhar card number. The data type of cust\_adharNo is varchar(12).
8. Cust\_country: cust\_country refer to country where customer live. The data type of cust\_country is varchar(20).
9. Cust\_email: cust\_email refer to customer unique email id. The data type of cust\_email is varchar(20).
10. Cust\_zipcode: cust\_zipcode refer to customer zipcode. The data type of cust\_zipcode is varchar(6).
11. Payment\_id: payment\_id refer to payment id number which is uniquely define. The data type of payment\_id is varchar(20) and it has not null constraint.
12. Reservation\_id: reservation\_id refer to reservation id number which is uniquely define. The data type of reservation\_id is varchar(20) and it has not null constraint.

***Reservation table***

1. Reservation\_id: reservation\_id refer to reservation id number which is uniquely define. The data type of reservation\_id is varchar(20) and it has not null constraint.
2. ArrivalDate: arrivalDate refer to the customer who will arrive at that date. The data type of arrivelDate Is date.
3. departureDate: departureDate refer to the customer who will departure from the resort at that date. The data of the departureDate is date.
4. Cust\_id: Customer id id a primary key which uniquely define the customer table.
5. Payment\_id: payment\_id refer to payment id number which is uniquely define. The data type of payment\_id is varchar(20) and it has not null constraint.
6. Cancel\_id: cancel\_id refer to cancellation of the reservation of the resort. The data type of the cancel\_id id varchar(20).
7. Totaldays: totaldays refer to how many days the customer would live in resort. The data type of totaldays is number(2).
8. Room\_no: room\_no refer to the number of room where customer would live. The data type of room\_no is varchar(5).

***Room table***

1. Room\_no: room\_no refer to the number of room where customer would live. The data type of room\_no is varchar(5).
2. Room\_type: room\_type refer to the the type of room like general delux and full delux. The data type of room\_type is varchar(10).
3. Room\_charges: Room\_charges refer to the charge of the room. Thr data type of the Room\_charges is int.
4. Availability: Availability refer to available room in the resort. The4 data type of the is varchar(10).

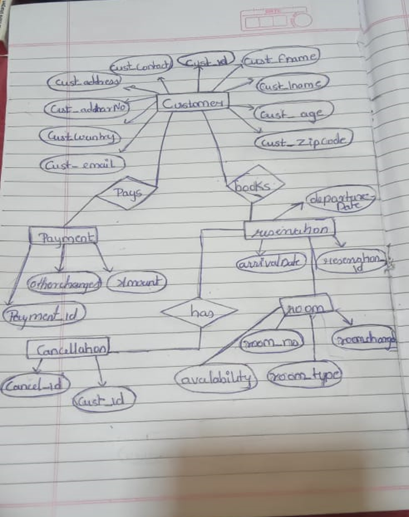
***Cancellation table***

1. Cancel\_id: cancel\_id refer to cancellation of the reservation of the resort. The data type of the cancel\_id id varchar(20).
2. Cust\_id: Customer id id a primary key which uniquely define the customer table.

***Payment table***

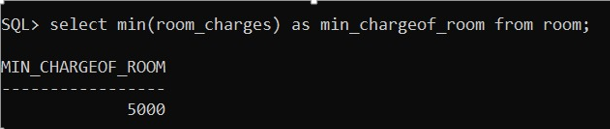
1. Payment\_id: payment\_id refer to payment id number which is uniquely define. The data type of payment\_id is varchar(20) and it has not null constraint.
2. Othercharge: othercharge refer to the other charges. Thr data type of othercharges id int.
3. Amount: amount refer to total amount of the resort. The data type of amount is int.

***ER(Entity Relationship) diagram***

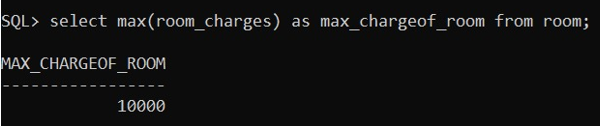


***Select statement queries***

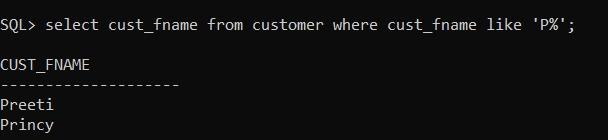
1. select min(room\_charges) as min\_chargeof\_room from room;



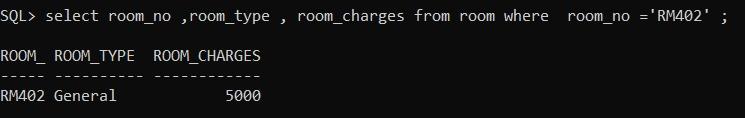
1. select max(room\_charges) as max\_chargeof\_room from room;



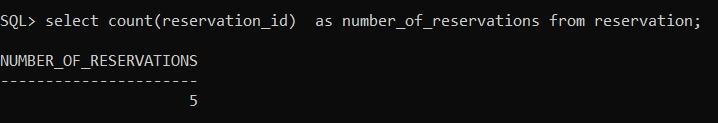
1. select cust\_fname from customer where cust\_fname like’P%';



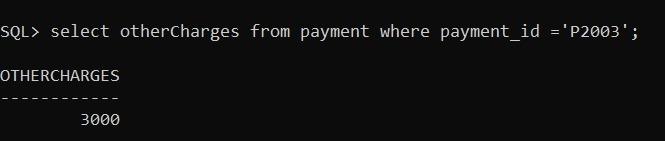
1. select room\_no ,room\_type , room\_charges from room where room\_no =' RM402' ;



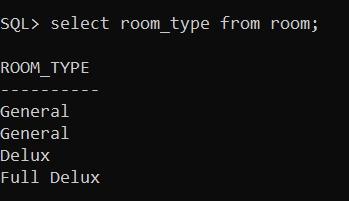
1. select count(reservation\_id) as number\_of\_reservations from reservation;



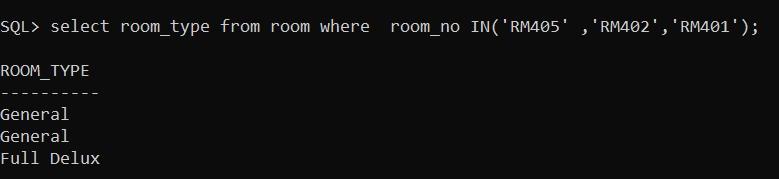
1. select other\_charges from payment where payment\_id ='P2003';



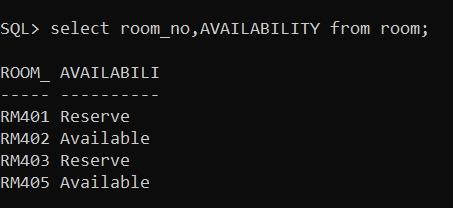
1. select room\_type from room;



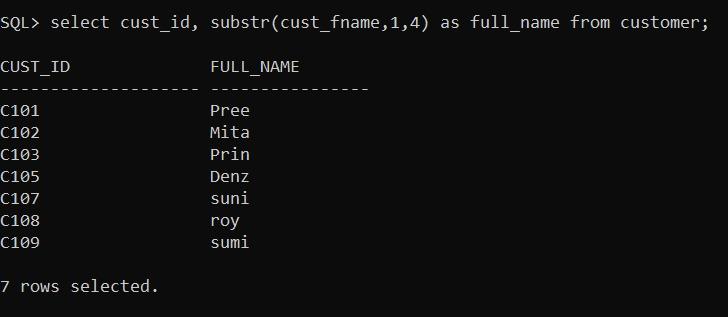
1. select room\_type from room where room\_no IN('RM405' ,'RM402','RM401');



1. select room\_no,AVAILABILITY from room;

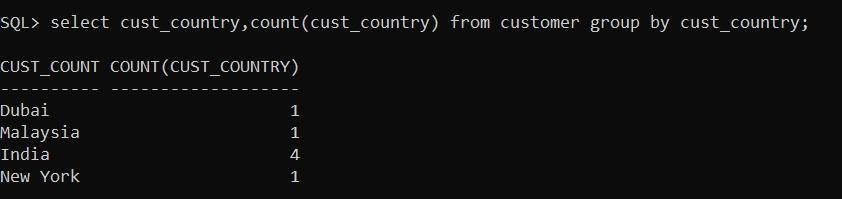


1. select cust\_id, substr(cust\_fname,1,4) as full\_name from customer;

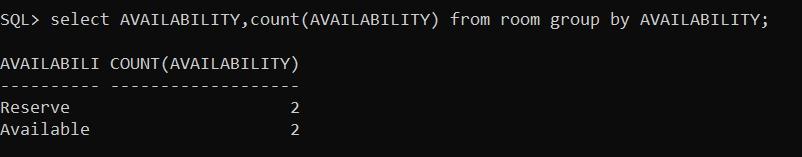


***Count and group function queries***

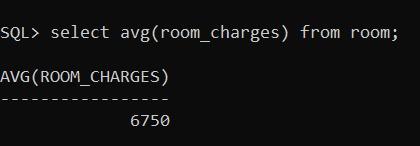
1. select cust\_country,count(cust\_country) from customer group by cust\_country;



1. select AVAILABILITY,count(AVAILABILITY) from room group by AVAILABILITY;



1. select avg(room\_charges) from room;



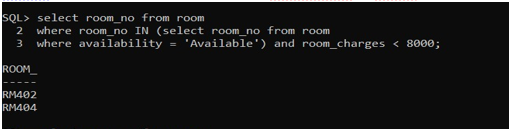
***Subqueries***

1. Show all room no of rooms which are 'available' and whose room\_charges<8000

select room\_no from room

where room\_no IN (select room\_no from room

where availability = 'Available') and room\_charges < 8000;

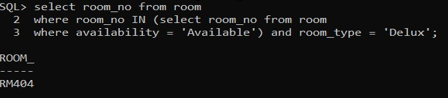


2. Show all room no of rooms which are 'available' and whose room\_type = 'Deluxe'

select room\_no from room

where room\_no IN (select room\_no from room

where availability = 'Available') and room\_type = 'Delux';



3. Show name of customer staying in room\_no = 'RM420'

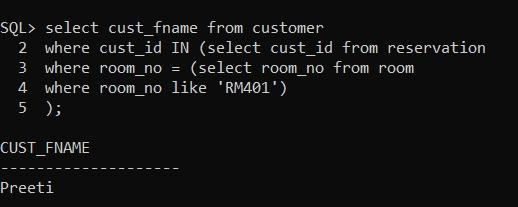
select cust\_fname from customer

where cust\_id IN (select cust\_id from reservation

where room\_no IN (select room\_no from room

where room\_no like 'RM401')

);

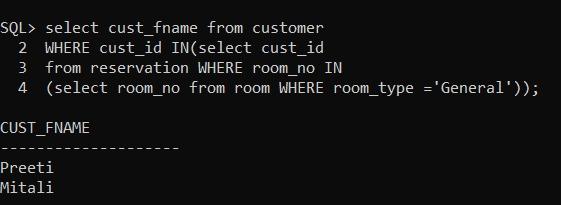


1. select cust\_fname from customer

WHERE cust\_id IN(select cust\_id

from reservation WHERE room\_no IN

(select room\_no from room WHERE room\_type ='General'));



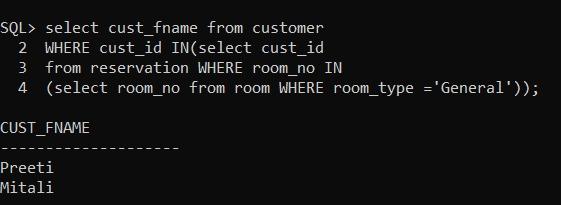
5. Show other charges of customer whose cust\_fname = 'Preeti'

select othercharges from payment

where payment\_id = (select payment\_id

from reservation where cust\_id = (select cust\_id from customer

where cust\_fname = 'Preeti'));



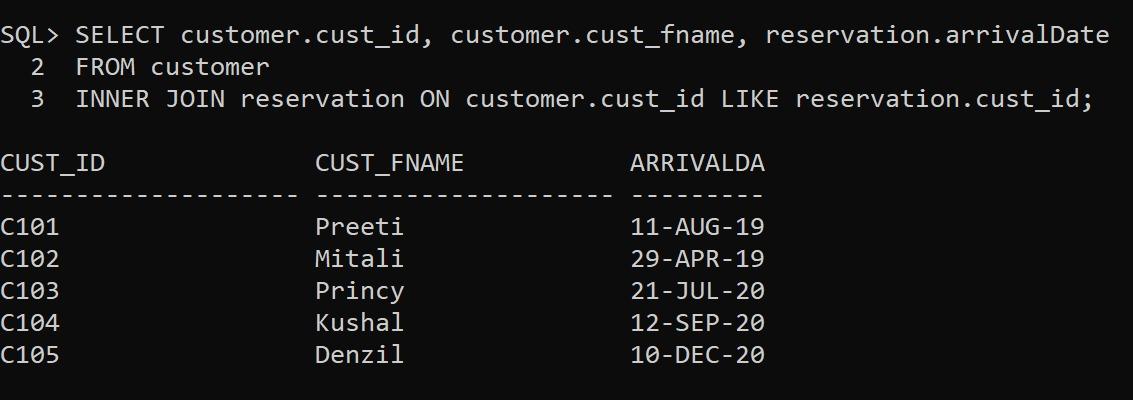
***Joins***

1. Arrival date of each customer.

SELECT customer.cust\_id, customer.cust\_fname, reservation.arrivalDate

FROM customer

INNER JOIN reservation ON customer.cust\_id LIKE reservation.cust\_id;

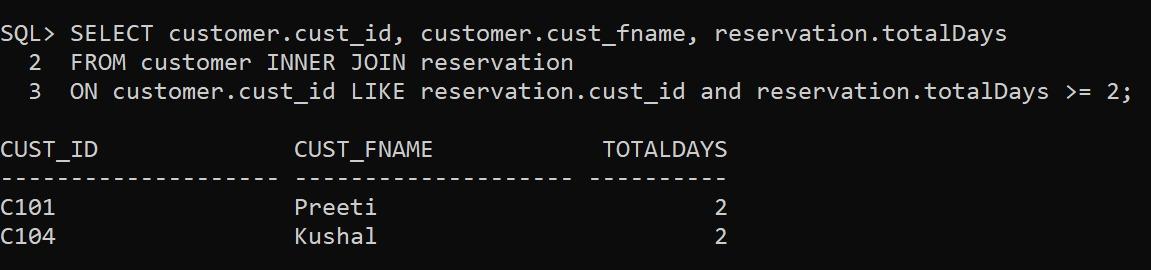


2. Name of customer whose total days are greater than equal to 2.

SELECT customer.cust\_id, customer.cust\_fname, reservation.totalDays

FROM customer INNER JOIN reservation

ON customer.cust\_id LIKE reservation.cust\_id and reservation.totalDays >= 2;



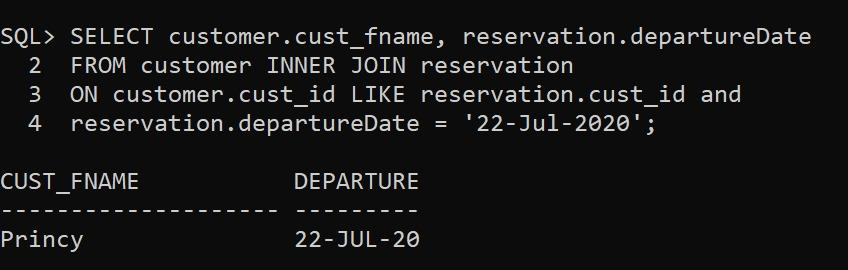
3. Name of customer whose checkout is 22-Jul-2020

SELECT customer.cust\_fname, reservation.departureDate

FROM customer INNER JOIN reservation

ON customer.cust\_id LIKE reservation.cust\_id and

reservation.departureDate = '22-Jul-2020';



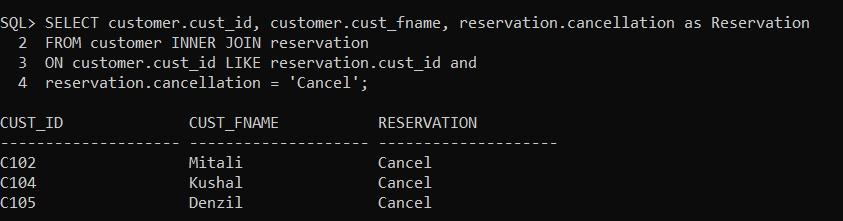
4.Name of customer who have cancelled the reservation.

SELECT customer.cust\_id, customer.cust\_fname, reservation.cancellation as Reservation

FROM customer INNER JOIN reservation

ON customer.cust\_id LIKE reservation.cust\_id and

reservation.cancellation = 'Cancel';

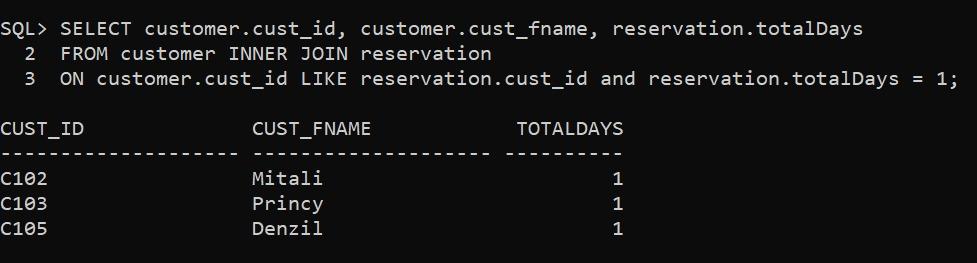


5. Name of customer whose total days are equal to 1.

SELECT customer.cust\_id, customer.cust\_fname, reservation.totalDays

FROM customer INNER JOIN reservation

ON customer.cust\_id LIKE reservation.cust\_id and reservation.totalDays = 1;

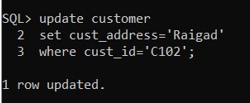


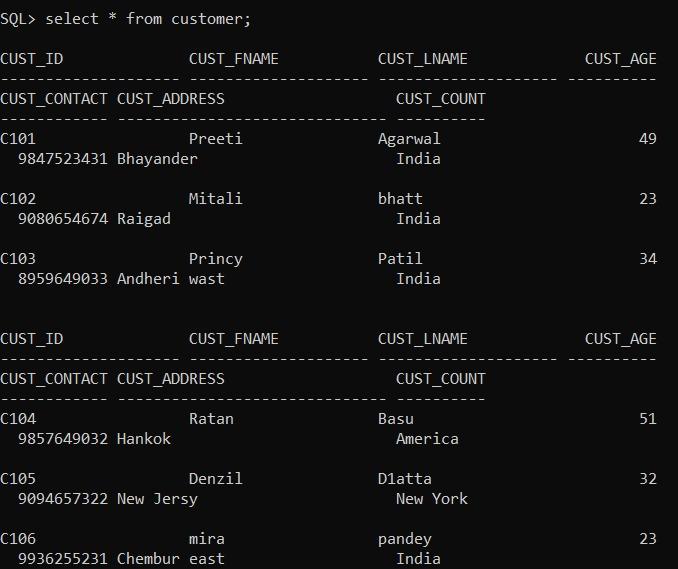
***Update queries***

1. update customer

set cust\_address='Raigad'

where cust\_id='C102';





1. update customer

set cust\_fname='Ratan'

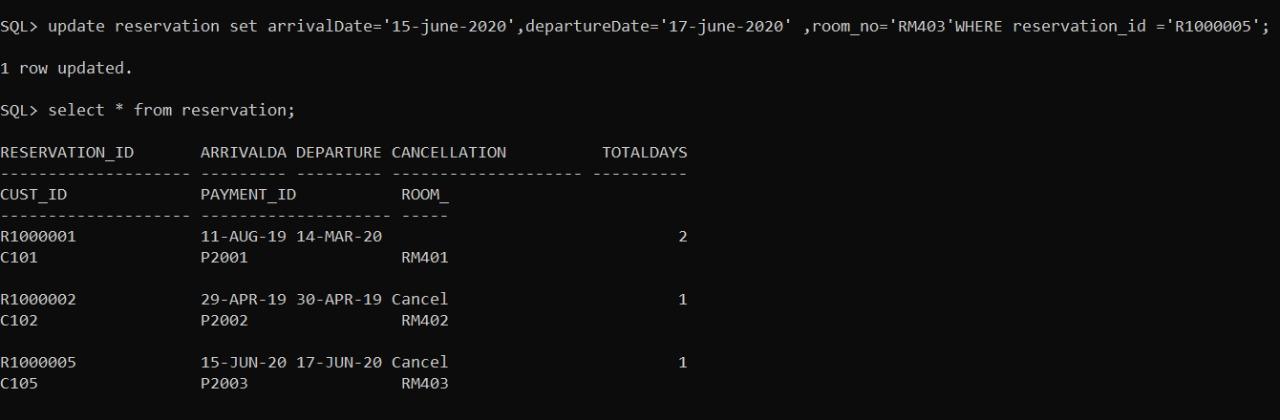
where cust\_id='C104';



1. update reservation

set departureDate=' 14-mar-2020'

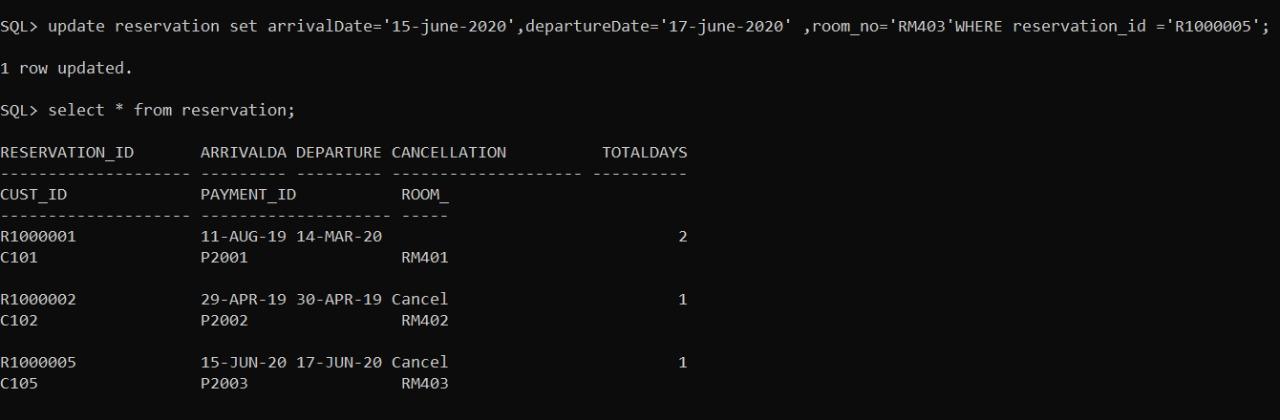
where room\_no =' RM401';



1. update reservation

set arrivalDate='15-june-2020',departure\_Date='17-june-2020' ,room\_no=' RM403'

WHERE reservation\_id ='R1000005';

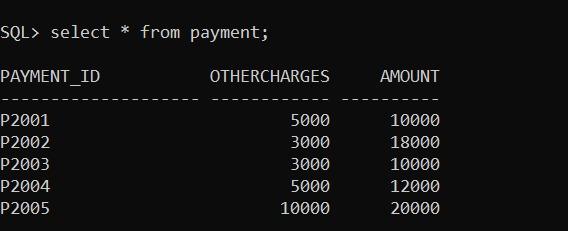


1. update payment

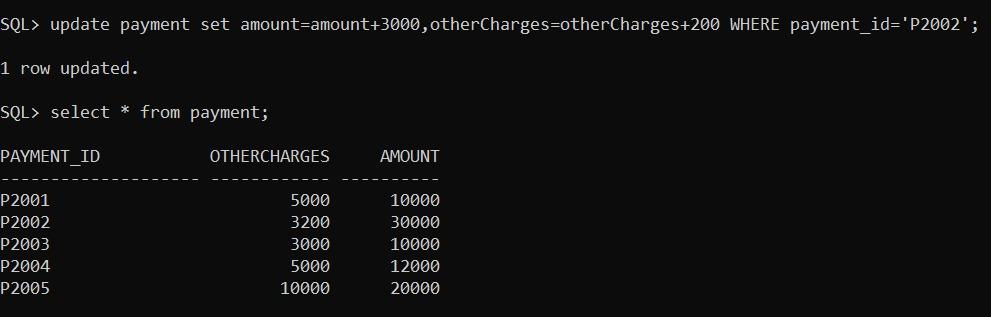
set amount=amount+3000,otherCharges=otherCharges\*2000

WHERE payment\_id='P2002';

BEFORE UPDATE:



AFTER UPADTE:



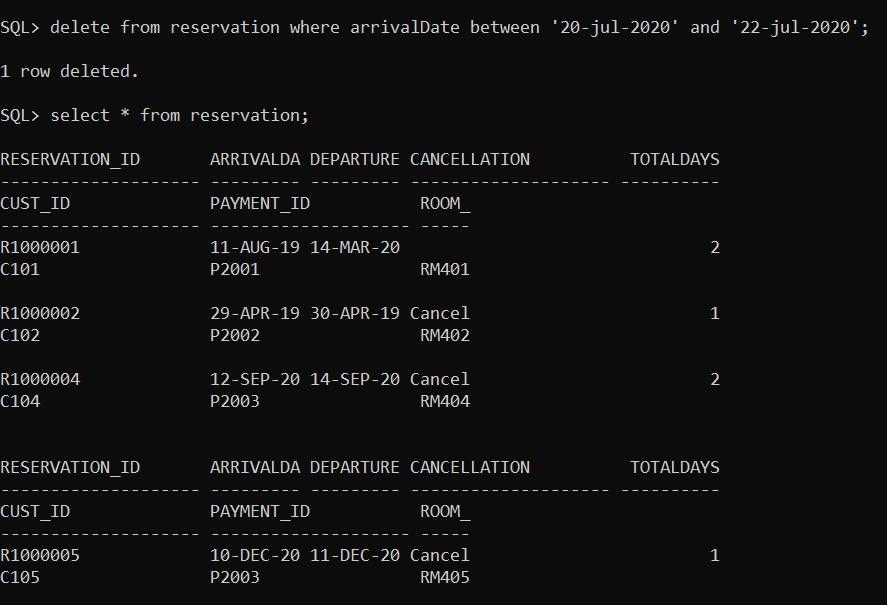
***Delete queries***

1. delete from customer where cust\_id='C106';





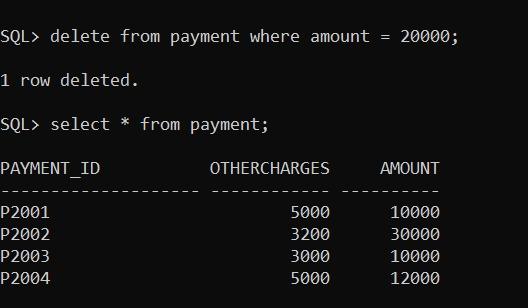
1. delete from reservation where arrivalDate between ' 20-july-2020' and '22-july-20 delete from reservation where arrivalDate between ' 20-july-2020' and '22-july-2020';



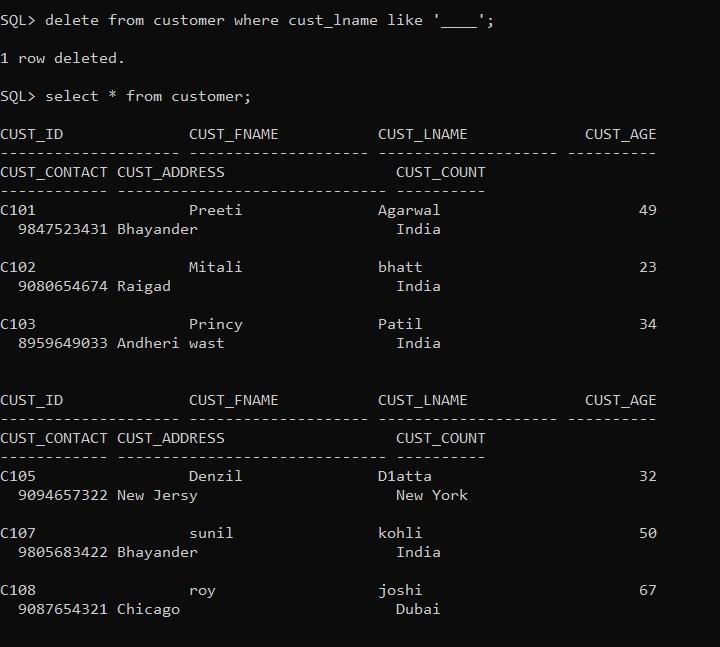
1. delete from reservation where reservation\_id='R1000004';

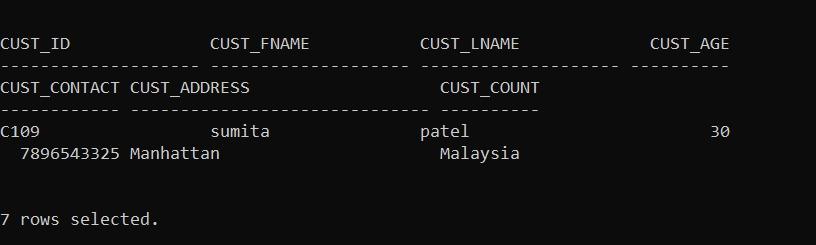


1. delete from payment where amount >20000;

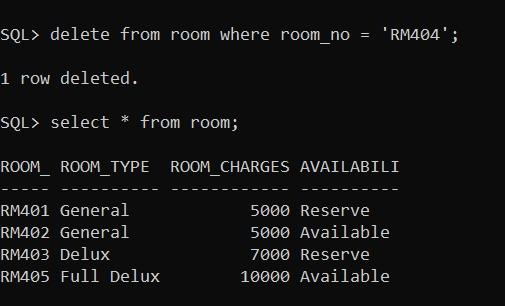


1. delete from customer where cust\_lname like '\_\_\_';





1. delete from room where room\_no = 'RM404';



***References***

https://nevonprojects.com/enhanced-resort-management-system/