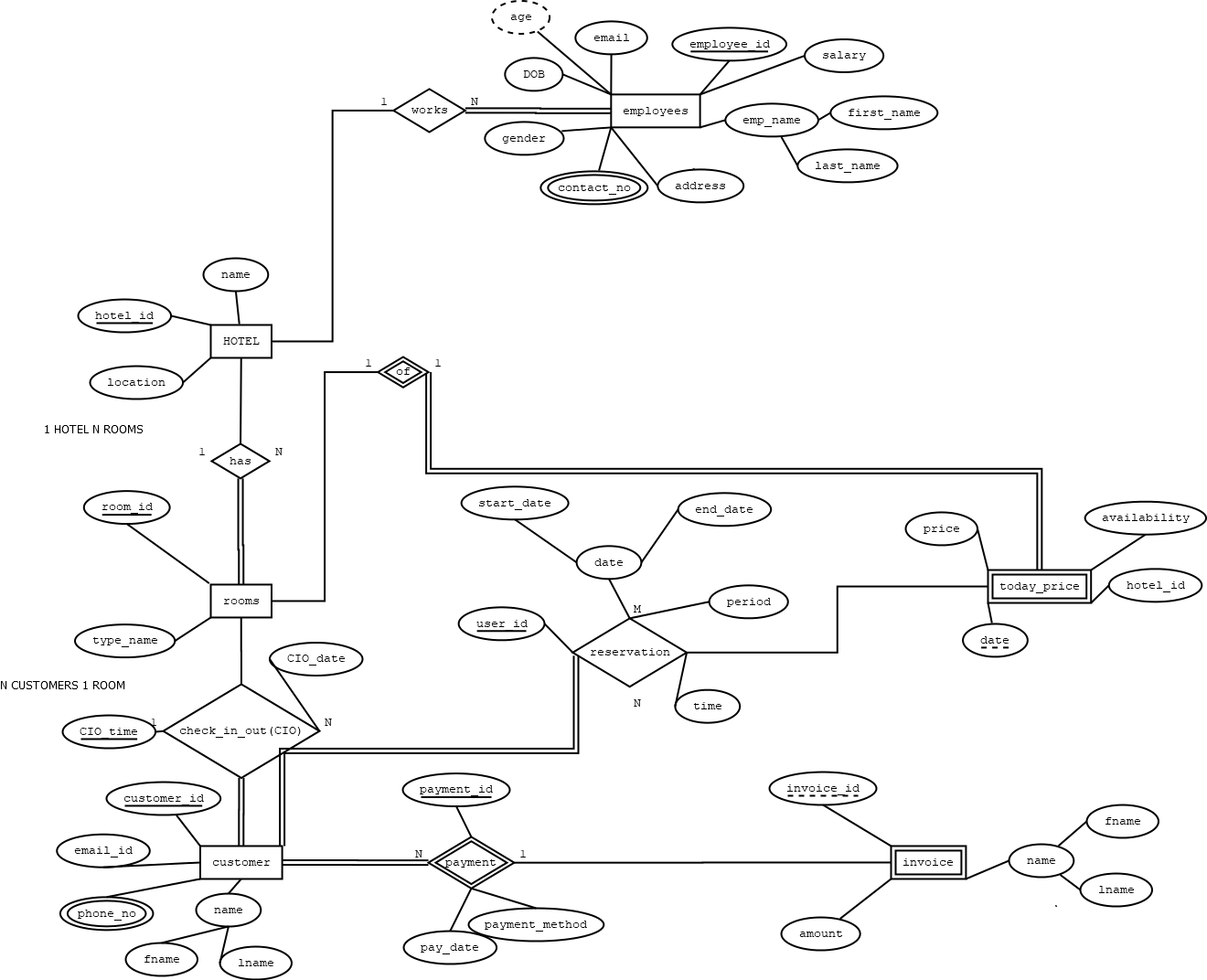
**Hotel Management System**

**DBMS LAB Mini Project**

|  |  |
| --- | --- |
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**ER Diagram:**

**Schema:**

Diagram, schematic

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**SQL Commands to Create Table and the Output of Schema and Data:**

CREATE TABLE Hotel

(

name varchar(50) NOT NULL,

location varchar(50) NOT NULL,

hotel\_id int primary key

);

Graphical user interface

Description automatically generated

A picture containing diagram

Description automatically generated

CREATE TABLE Employee

(

employee\_id int primary key,

email varchar(50) NOT NULL,

DOB date NOT NULL,

Fname varchar(20) NOT NULL,

LName varchar(20) NOT NULL,

address varchar(50) NOT NULL,

salary numeric(10,2),

gender char NOT NULL,

e\_h\_id int,

foreign key(e\_h\_id) references Hotel(hotel\_id)

);

Text

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A computer screen capture

Description automatically generated with medium confidence

CREATE TABLE Rooms(

room\_id int primary key,

room\_type char(10),

r\_h\_id int,

foreign key(r\_h\_id) references Hotel(hotel\_id)

);

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CREATE TABLE Employee\_PhNo(

e\_id int,

foreign key(e\_id) references Employee(employee\_id),

phone\_num bigint,

primary key(e\_id,phone\_num)

);

A picture containing text

Description automatically generated

Graphical user interface, text

Description automatically generated

CREATE TABLE Customer(

customer\_id varchar(10) primary key,

email\_customer varchar(30) NOT NULL,

customer\_Fname varchar(30) NOT NULL,

customer\_Lname varchar(30) NOT NULL,

customer\_payment\_id varchar(15) NOT NULL,

customer\_payment\_method char(10) NOT NULL,

customer\_pay\_date date NOT NULL,

customer\_checkin\_date date NOT NULL,

customer\_checkout\_date date NOT NULL,

customer\_room\_id int,

foreign key(customer\_room\_id) references Rooms(room\_id)

);

ALTER TABLE Customer ADD CONSTRAINT unique\_fname UNIQUE (customer\_Fname);

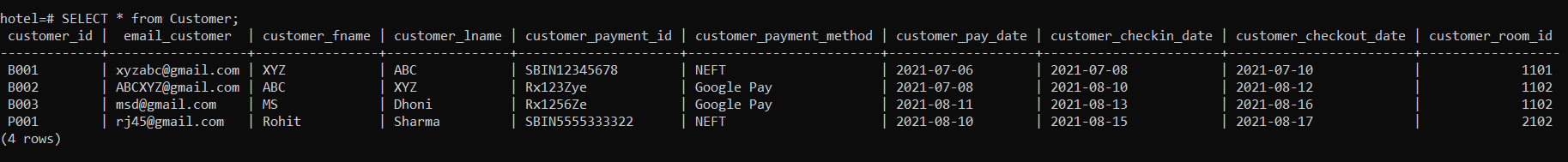
ALTER TABLE Customer ADD CONSTRAINT unique\_lname UNIQUE (customer\_Lname);

ALTER TABLE Customer ADD CONSTRAINT unique\_checkin UNIQUE (customer\_checkin\_date);

ALTER TABLE Customer ADD CONSTRAINT unique\_checkout UNIQUE (customer\_checkout\_date);

Text

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CREATE TABLE Today\_Price(

t\_h\_id int,

foreign key(t\_h\_id) references Hotel(hotel\_id),

room\_t\_p\_id int,

foreign key(room\_t\_p\_id) references Rooms(room\_id),

price decimal(10,2) NOT NULL,

availability char NOT NULL,

today\_date date NOT NULL,

primary key(today\_date,room\_t\_p\_id)

);

Text

Description automatically generated

A picture containing table

Description automatically generated

CREATE TABLE Reservation(

r\_room\_t\_p\_id int,

r\_date date,

r\_c\_id varchar(10),

primary key(r\_room\_t\_p\_id,r\_date,r\_c\_id),

start\_date date NOT NULL,

end\_date date NOT NULL

);

A picture containing text

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

CREATE Table Invoice(

invoice\_id varchar(10),

i\_c\_id varchar(10),

primary key(invoice\_id,i\_c\_id),

foreign key(i\_c\_id) references Customer(customer\_id),

i\_fname varchar(30),

i\_lname varchar(30),

amount decimal(10,2)

);

ALTER Table Invoice

ADD CONSTRAINT fk\_ifname

FOREIGN KEY(i\_fname)

References Customer(customer\_Fname);

ALTER Table Invoice

ADD CONSTRAINT fk\_ilname

FOREIGN KEY(i\_lname)

References Customer(customer\_Lname);

Text

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CREATE TABLE Customer\_Contact(

customer\_contact\_id varchar(10),

contact\_number bigint,

primary key(customer\_contact\_id,contact\_number),

foreign key(customer\_contact\_id) references Customer(customer\_id)

);

Graphical user interface

Description automatically generated with medium confidence

Text

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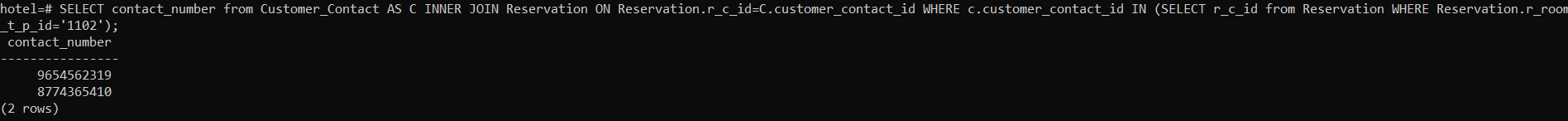
**Queries:**

1. Query to display employee names whose salary >45000;

Text

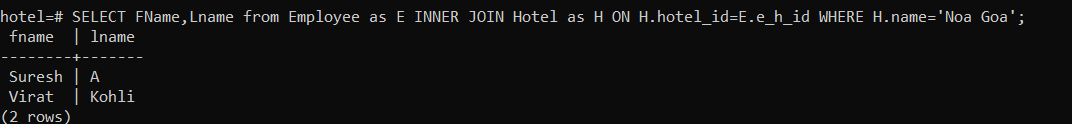
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1. SELECT contact\_number from Customer\_Contact AS C INNER JOIN Reservation ON Reservation.r\_c\_id=C.customer\_contact\_id WHERE c.customer\_contact\_id IN (SELECT r\_c\_id from Reservation WHERE Reservation.r\_room\_t\_p\_id='1102');

This query displays contact number of all customers who have reserved a room in hotel whose id is 1102.

1. Text

   Description automatically generatedQuery to display names of all employees who are located in bangalore.
2. Text

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3. Query to display name of employees who work in a hotel named Noa Goa.
4. This query displays names of all customers who has reserved an AC Room.

Text

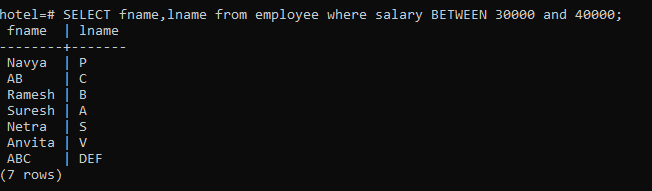
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1. This query displays the contact number of the customer along with the amount they have paid

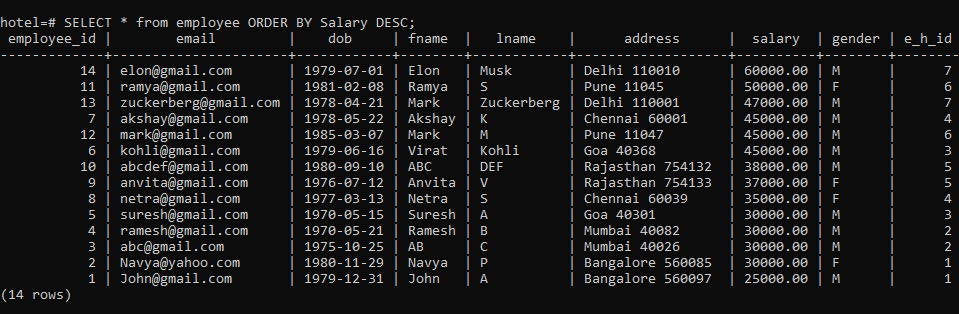
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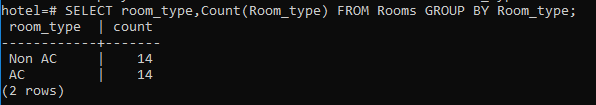
1. Display names of all employees whose salary is in the range of 30000 and 40000.



1. Query to display the employee table with the salaries sorted in descending order.



1. Query returns the number of AC and Non AC Rooms available from the list of all hotels.



1. Query using Limit and Offset

