**Problem Statement 6:**

The following tables form part of a database held in a relational DBMS:

Hotel (HotelNo, Name, City)

Room (RoomNo, HotelNo, Type, Price)

Booking (HotelNo, GuestNo, DateFrom, DateTo, RoomNo)

Guest (GuestNo, GuestName, GuestAddress)

**Solve following queries by SQL**

create table hotel(hotelno number(3), hotelname varchar(20), city varchar(20), primary key(hotelno));

insert into hotel values(1,'GrosvenorHotel','London');

insert into hotel values(2,'SpringVilla','London');

insert into hotel values(3,'Jwmarriot','India');

insert into hotel values(4,'TajPalace','India');

create table room (roomno number(3), hotel\_num number(3),type varchar(20),price number(10), primary key(roomno), foreign key (hotel\_num) references hotel(hotelno));

alter table room modify price number(10);

insert into room values (101,1,'Suite',10000);

insert into room values (102,1,'Motel',20000);

insert into room values (103,2,'Resort',15000);

insert into room values (104,3,'Resort',15000);

insert into room values (105,4,'Motel',20000);

insert into room values (106,4,'Motel',20000);

insert into room values (107,3,'Double',20000);

insert into room values (108,2,'Double',20000);

create table guest (guestno number(3), guestname varchar(20), gaddress varchar(20), primary key(guestno) );

insert into guest values(11,'Isha','UK');

insert into guest values(12,'Avadhut','UK');

insert into guest values(13,'Sanjana','USA');

insert into guest values(14,'Adi','INDIA');

insert into guest values(15,'Samu','INDIA');

create table booking(

hotel\_no number(3),

guest\_no number(3),

room\_no number(3),

datefrom date,

dateto date,

foreign key (hotel\_no) references hotel(hotelno),

foreign key (guest\_no) references guest(guestno),

foreign key (room\_no) references room(roomno));

insert into booking values(1,11,101,date '2022-10-01',date '2022-10-05');

insert into booking values(1,12,101,date '2022-04-01',date '2022-04-05');

insert into booking values(2,13,102,date '2022-04-05',date '2022-04-09');

insert into booking values(3,14,103,date '2022-05-05',date '2022-06-09');

insert into booking values(4,15,104,date '2022-04-05',date '2022-04-09');

**1)List full details of all hotels.**

Select \* from hotel;

**2)List full details of all hotels in London.**

select \* from hotel where city='London';

**3)List all guests currently staying at the Grosvenor Hotel.**

SELECT \* FROM guest

WHERE guestno =

(SELECT guestno FROM booking

WHERE datefrom <= CURRENT\_DATE AND

dateto >= CURRENT\_DATE AND

hotel\_no =

(SELECT hotelno FROM hotel

WHERE hotelname = 'GrosvenorHotel'));

**4)List the names and addresses of all guests in London, alphabetically ordered by name.**

SELECT guestname, gaddress FROM guest WHERE gaddress LIKE '%London%'

ORDER BY guestname;

**5)List the bookings for which no date\_to has been specified.**

SELECT \* FROM booking WHERE dateto IS NULL;

**6)How many hotels are there?**

select count(\*) from hotel;

**7)List the rooms that are currently unoccupied at the Grosvenor Hotel.**

**8)What is the lost income from unoccupied rooms at each hotel today?**

**9)Create index on one of the field and show is performance in query.**

CREATE INDEX show ON Hotel (hotelno, name);

**10)Create one view on above database and query it.**

CREATE VIEW view1 AS

SELECT hotelno, hotelname FROM hotel where city='London';