



राष्ट्रीय प्रौद्योगिकी संस्थान वारंगल

National Institute of Technology | Department of Computer
Warangal Science and Engineering

End Project Course: DBMS

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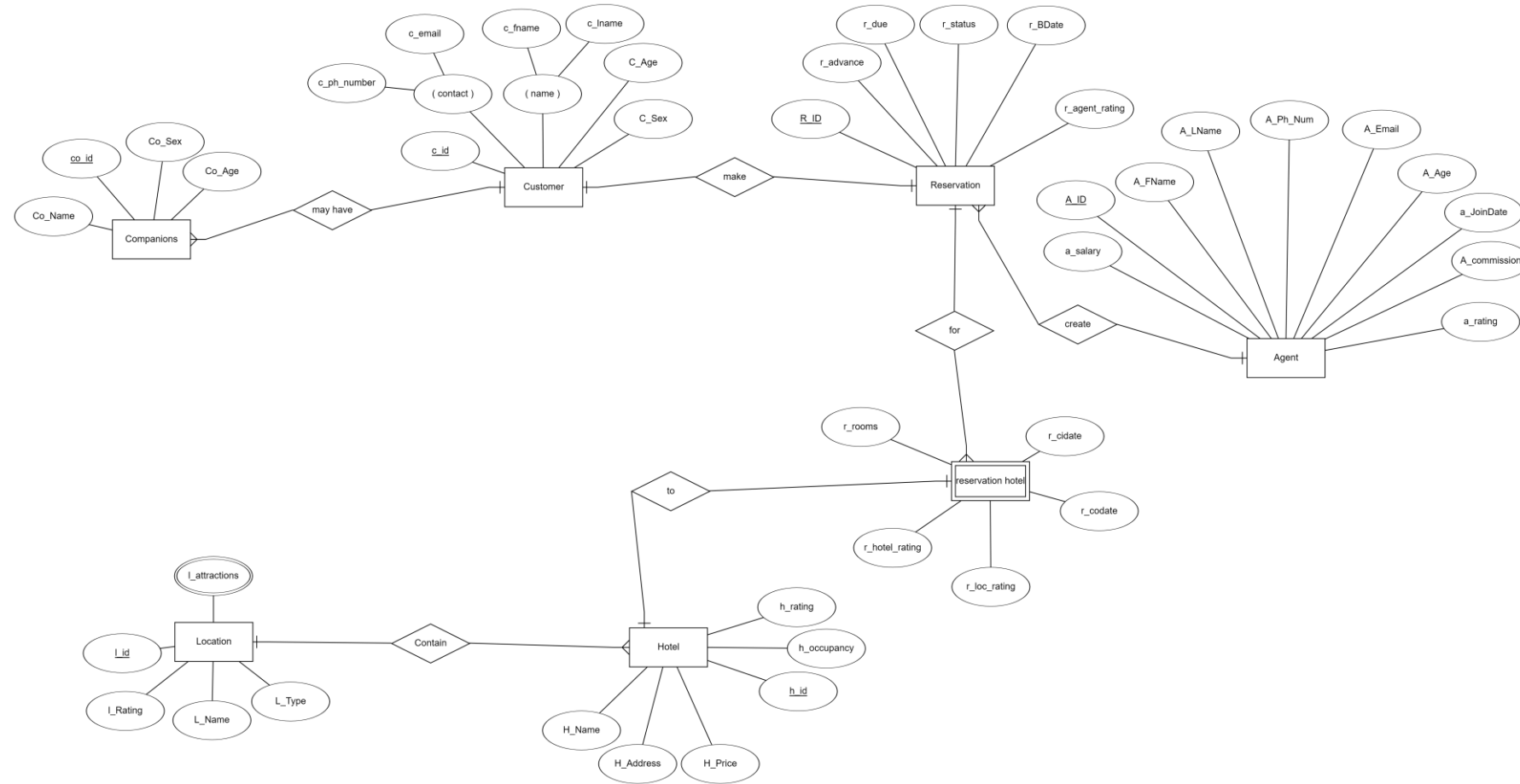
Problem Statement

A private travel agency wants to create a database storing information about the clients and agents. Information regarding them such as first name, last name, sex, age, contact details (email, contact number), salary, commission percentages, ratings (of agents), agent allotted if any, reservation if any (for the client). In case the client has already booked for a vacation, information about the agent allotted(if any) reservation date, return trip date, destination, charges will be stored.

The agency also wants to keep track of locations served by the agency by indexing location names, attractions near the location. A user can choose to mention their destination, vacation start date and end date. The reservations made will contain a list of hotels booked by the user, in turn the locations. There will be a list of hotels in partnership with the agency around the area along with their price, location, ratings.

Implement the backend for the project using Oracle SQL - creating and managing database tables.

Entity Relationship Diagram



Tables – customer table

c_id number primary key

c_fname varchar(50)

c_lname varchar(50)

c_age number

c_sex varchar(10)

c_ph_number varchar(20)

c_email varchar(50)

Tables – companion table

co_id number primary key

co_name varchar(50)

co_sex varchar(20)

co_age number

co_customer number

Tables – companion table

co_id number primary key

co_name varchar(50)

co_sex varchar(20)

co_age number

co_customer number references customer

Tables – location table

`l_id` number primary key,

`l_name` varchar(50),

`l_type` varchar(50),

`l_rating` number(2,1)

Tables – l_attractions table

loc_id number references “location”

l_attr varchar(200),

Tables – hotel table

h_id number primary key,

h_name varchar(50),

h_address varchar(200),

h_price decimal,

h_occupancy number,

h_rating number(2,1),

h_location number references "location"

Tables – agent table

a_id number primary key,

a_fname varchar(50),

a_lname varchar(50),

a_age number,

a_hiredate date,

a_salary decimal,

a_phone_number varchar(20),

a_email varchar(50),

a_commission decimal,

a_rating number(2,1)

Tables – reservation table

r_id number primary key,

r_advance decimal,

r_due decimal,

r_bdate date,--*booking date*

r_status varchar(50),

r_agent_rating number(2,1),

r_customer number references customer

r_agent number references agent

Tables – reservation_hotel table

r_reservation number references reservation

r_cdate date,--*check in date*

r_codate date,--*check out date*

r_hotel number references hotel

r_loc_rating number(2,1),

r_hotel_rating number(2,1)

r_rooms number,

Functional dependencies

1. Customer table

- $c_id \rightarrow (c_fname, c_lname, c_age, c_sex, c_ph_number, c_email)$
- $c_ph_number \rightarrow (c_fname, c_lname, c_email)$
- $c_email \rightarrow (c_fname, c_lname)$

Since all other attributes are dependent on c_id , $c_id^+ = R$. It is a candidate key and hence can be primary key.

2. Companion table

- $co_id \rightarrow (co_name, co_sex, co_age, co_customer)$

From above, $co_id^+ = R$. It is a candidate key, hence can be chosen as a primary key.

3. location table

- $l_id \rightarrow (l_name, l_type, l_rating)$

$l_id^+ = R$.

prime attributes = l_id , non prime attributes = l_type, l_rating .

Hence it is a primary key.

Functional dependencies

4. l_attractions

- loc_id -> (l_attr)

(loc_id, l_attr) will be the super key.

5. hotel

- h_id -> (h_name, h_address, h_price, h_occupancy, h_rating, h_location)
- h_address -> (h_id, h_name, h_location)

prime attributes = h_id, h_address

non prime attributes = h_name, h_price, h_occupancy, h_rating, h_location

primary key = h_id

Functional dependencies

6. Agent table

- $a_id \rightarrow (a_fname, a_lname, a_age, a_joindate, a_salary, a_ph_number, a_email, a_commission, a_rating)$
- $a_ph_number \rightarrow (a_id, a_email)$
- $a_email \rightarrow (a_id, a_fname, a_lname)$

prime attributes = $a_id, a_ph_number, a_email$

non prime attributes = $a_fname, a_lname, a_age, a_joindate, a_salary, a_commission, a_rating$

primary key = a_id

7. reservation table

- $r_id \rightarrow (r_advance, r_due, r_bdate, r_status, r_agent, r_customer)$

prime attributes = r_id

non prime attributes = $r_advance, r_due, r_bdate, r_status, r_agent_rating, r_customer, r_agent$

Functional dependencies

8. reservation_hotel table

- $(r_reservation, r_hotel) \rightarrow (r_cidate, r_codate, r_loc_rating, r_hotel_rating, r_rooms)$

$(r_reservation, r_hotel)$ will be the super key.

Normalisation – customer table

1) Customer

Primary key : c_id

All attributes depend on the c_id, hence the table is in 2NF.

All attributes depend directly on c_id, hence the table is in 3NF.

All determinants (c_id) is Super key, hence the table is in BCNF.

Normalisation – companion table

2) Companion

Primary key : co_id

All attributes depend on the co_id, hence the table is in 2NF.

All attributes depend directly on co_id, hence the table is in 3NF.

All determinants (co_id) is Super key, hence the table is in BCNF.

Normalisation – location table

3) Location

Primary key : l_id

All attributes depend on the l_id, hence the table is in 2NF.

All attributes depend directly on l_id, hence the table is in 3NF.

All determinants (l_id) is Super key, hence the table is in BCNF.

Normalisation – hotel table

5) Hotel

Primary key : h_id

All attributes depend on the h_id, hence the table is in 2NF.

All attributes depend directly on h_id, hence the table is in 3NF.

All determinants (h_id) is Super key, hence the table is in BCNF.

Normalisation – agent table

6) Agent

Primary key : a_id

All attributes depend on the a_id, hence the table is in 2NF.

All attributes depend directly on a_id, hence the table is in 3NF.

All determinants (a_id) is Super key, hence the table is in BCNF.

Normalisation – reservation table

7) Reservation

Primary key : r_id

All attributes depend on the r_id, hence the table is in 2NF.

All attributes depend directly on r_id, hence the table is in 3NF.

All determinants (r_id) is Super key, hence the table is in BCNF.

Normalisation – reservation_hotel table

8) Reservation_Hotel

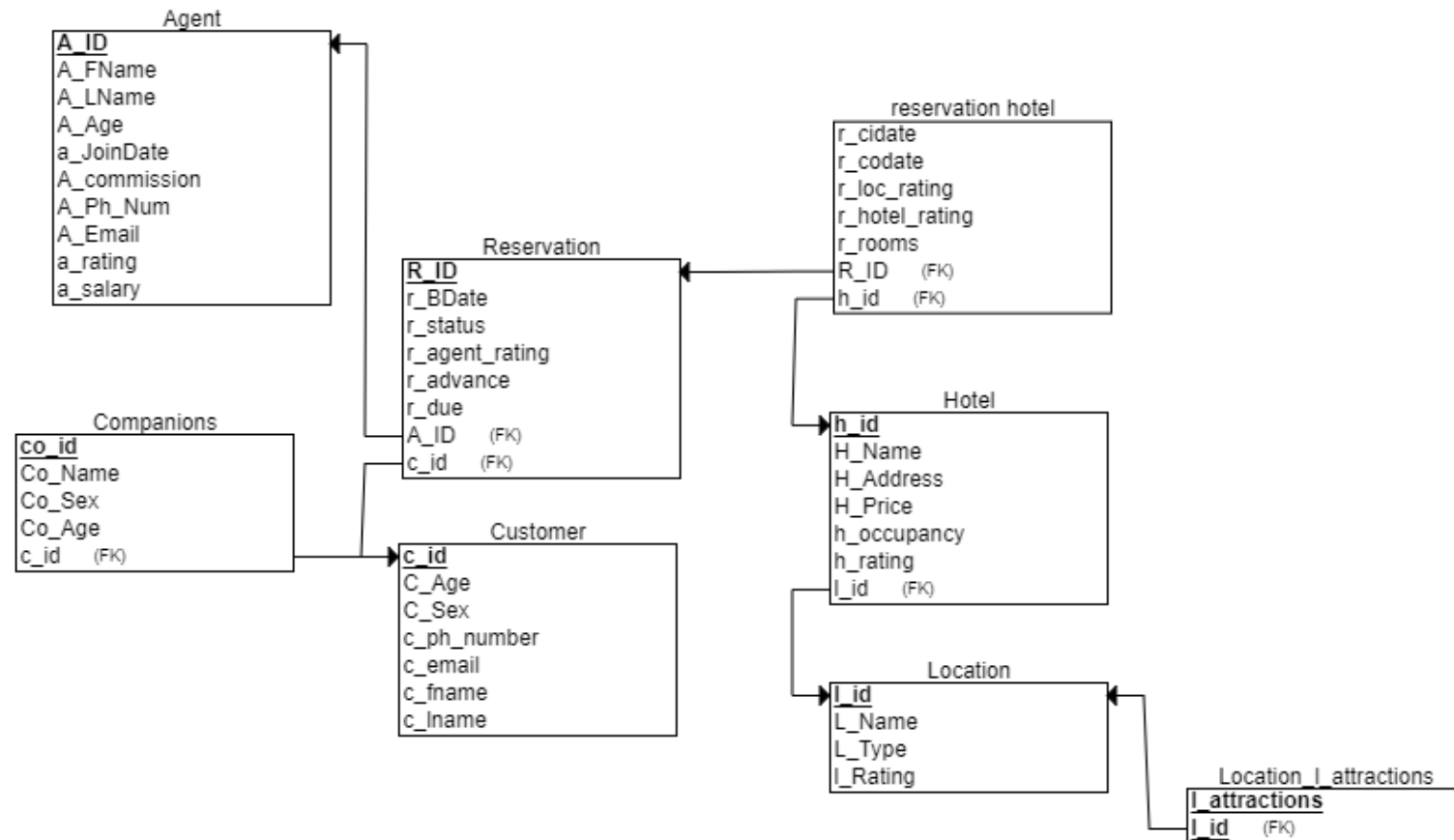
Primary key : (r_id,h_id)

All attributes depend on the (r_id,h_id), hence the table is in 2NF.

All attributes depend directly on (r_id,h_id), hence the table is in 3NF.

All determinants (r_id,h_id) is Super key, hence the table is in BCNF.

Relational Schema



Creation of tables – customer

```
create table customer(  
    c_id number primary key,  
    c_fname varchar(50),  
    c_lname varchar(50),  
    c_age number,  
    c_sex varchar(10),  
    c_ph_number varchar(20),  
    c_email varchar(50)  
);
```

Creation of tables – companion

```
create table companion(  
    co_id number primary key,  
    co_name varchar(50),  
    co_sex varchar(20),  
    co_age number,  
    co_customer number,  
    foreign key (co_customer) references customer  
);
```

Creation of tables – location

```
create table "location"(  
    l_id number primary key,  
    l_name varchar(50),  
    l_type varchar(50),  
    l_rating number(2,1)  
);
```

Creation of tables – l_attractions

```
create table l_attractions(  
    loc_id number,  
    l_attr varchar(200),  
    foreign key(loc_id) references "location"(l_id)  
);
```

Creation of tables – hotel

```
create table hotel(  
    h_id number primary key,  
    h_name varchar(50),  
    h_address varchar(200),  
    h_price decimal,  
    h_occupancy number,  
    h_rating number(2,1),  
    h_location number,  
    foreign key (h_location) references "location"  
);
```

Creation of tables – agent

```
create table agent(  
    a_id number primary key,  
    a_fname varchar(50),  
    a_lname varchar(50),  
    a_age number,  
    a_joindate date,  
    a_salary decimal,  
    a_ph_number varchar(20),  
    a_email varchar(50),  
    a_commission decimal,  
    a_rating number(2,1)  
);
```

Creation of tables – reservation

```
create table reservation(  
    r_id number primary key,  
    r_advance decimal,  
    r_due decimal,  
    r_bdate date,--booking date  
    r_status varchar(50),  
    r_agent_rating number(2,1),  
    r_customer number,  
    r_agent number,  
    foreign key (r_customer) references customer,  
    foreign key (r_agent) references agent  
);
```

Creation of tables – reservation_hotel

```
create table reservation_hotel(  
    r_reservation number,  
    r_cdate date,--check in date  
    r_codate date,--check out date  
    r_hotel number,  
    r_loc_rating number(2,1),  
    r_hotel_rating number(2,1),  
    r_rooms number,  
    foreign key (r_hotel) references hotel,  
    foreign key (r_reservation) references reservation  
);
```


Insertion of data - customer

```
insert into customer values(10001,'DIVYA','JOSHI',29,'FEMALE','9345678190','dj@gmail.com');
```

```
insert into customer values(10002,'VED','DIXIT',25,'MALE','9879278190','vd@gmail.com');
```

```
insert into customer values(10003,'KRISH','AGARWAL',27,'MALE','6745678190','ka@gmail.com');
```

```
insert into customer values(10004,'ANISHA','BAID',19,'FEMALE','7845678190','db@gmail.com');
```

```
insert into customer values(10005,'NIRAV','NUNE',20,'MALE','7653478190','nn@gmail.com');
```

```
insert into customer values(10006,'SIRI','SOLA',28,'FEMALE','9897678190','ss@gmail.com');
```

```
insert into customer values(10007,'THANUJA','VARNAM',22,'FEMALE','9366678190','tv@gmail.com');
```

```
insert into customer values(10008,'VIKRAM','JAIN',23,'MALE','7892378190','vj@gmail.com');
```

```
insert into customer values(10009,'SHIVANI','RAJPUT',21,'FEMALE','7895678190','sr@gmail.com');
```

```
insert into customer values(10010,'SREYA','GOPU',26,'FEMALE','8901238190','sg@gmail.com');
```

Insertion of data - customer

C_ID	C_FNAME	C_LNAME	C_AGE	C_SEX	C_PH_NUMBER	C_EMAIL
10001	DIVYA	JOSHI	29	FEMALE	9345678190	dj@gmail.com
10002	VED	DIXIT	25	MALE	9879278190	vd@gmail.com
10003	KRISH	AGARWAL	27	MALE	6745678190	ka@gmail.com
10004	ANISHA	BAID	19	FEMALE	7845678190	db@gmail.com
10005	NIRAV	NUNE	20	MALE	7653478190	nn@gmail.com
10006	SIRI	SOLA	28	FEMALE	9897678190	ss@gmail.com
10007	THANUJA	VARNAM	22	FEMALE	9366678190	tv@gmail.com
10008	VIKRAM	JAIN	23	MALE	7892378190	vj@gmail.com
10009	SHIVANI	RAJPUT	21	FEMALE	7895678190	sr@gmail.com
10010	SREYA	GOPU	26	FEMALE	8901238190	sg@gmail.com

Insertion of data - companion

```
insert into companion values(10011,'VIDYA','FEMALE',26,10001);
```

```
insert into companion values(10012,'VANSI','MALE',25,10003);
```

```
insert into companion values(10013,'VATSAL','MALE',27,10002);
```

```
insert into companion values(10014,'HASVIKA','FEMALE',19,10004);
```

```
insert into companion values(10015,'SUJEETH','MALE',22,10006);
```

```
insert into companion values(10016,'NAMRATH','MALE',28,10005);
```

```
insert into companion values(10017,'JATIN','MALE',23,10007);
```

```
insert into companion values(10018,'DEETYA','FEMALE',29,10008);
```

```
insert into companion values(10019,'PRANAY','MALE',21,10010);
```

```
insert into companion values(10020,'VIRAT','MALE',20,10009);
```

```
insert into companion values(10021,'KSHITIJ','MALE',25,10009);
```

Insertion of data - companion

```
insert into companion values(10023,'KAVYA','FEMALE',23,10008);
```

```
insert into companion values(10024,'ADITHYA','MALE',25,10007);
```

```
insert into companion values(10025,'SAKSHI','FEMALE',19,10007);
```

```
insert into companion values(10026,'PRANAV','MALE',20,10006);
```

```
insert into companion values(10027,'CHARAN','MALE',22,10006);
```

```
insert into companion values(10028,'AKSHAT','MALE',23,10004);
```

```
insert into companion values(10029,'DEEKSHA','FEMALE',27,10004);
```

```
insert into companion values(10030,'PRAMUKH','MALE',20,10005);
```

```
insert into companion values(10031,'ARJUN','MALE',24,10006);
```

```
insert into companion values(10032,'AKSHAY','MALE',27,10005);
```

```
insert into companion values(10022,'POOJA','FEMALE',22,10009);
```

Insertion of data - companion

```
insert into companion values(10033,'SHRADDA','FEMALE',26,10001);
```

```
insert into companion values(10034,'LIKITH','MALE',25,10003);
```

```
insert into companion values(10035,'ARYAN','MALE',27,10002);
```

```
insert into companion values(10036,'SNIKKI','FEMALE',19,10004);
```

```
insert into companion values(10037,'DAKSH','MALE',22,10006);
```

```
insert into companion values(10038,'SOHAN','MALE',28,10005);
```

```
insert into companion values(10040,'VIMAL','MALE',23,10007);
```

```
insert into companion values(10041,'CHARVI','FEMALE',29,10008);
```

```
insert into companion values(10042,'SALEEM','MALE',21,10010);
```

```
insert into companion values(10043,'AYAAN','MALE',20,10009);
```

```
insert into companion values(10044,'AAKASH','MALE',25,10009);
```

Insertion of data - companion

CO_ID	CO_NAME	CO_SEX	CO_AGE	CO_CUSTOMER
10011	VIDYA	FEMALE	26	10001
10012	VANSH	MALE	25	10003
10013	VATSAL	MALE	27	10002
10014	HASVIKA	FEMALE	19	10004
10015	SUJEETH	MALE	22	10006
10016	NAMPATH	MALE	28	10005
10017	JATIN	MALE	23	10007
10018	DEETYA	FEMALE	29	10008
10019	PRANAY	MALE	21	10010
10020	VIRAT	MALE	20	10009
10021	KSHITIJ	MALE	25	10009

Insertion of data - companion

CO_ID	CO_NAME	CO_SEX	CO_AGE	CO_CUSTOMER
10022	P00JA	FEMALE	22	10009
10023	KAVYA	FEMALE	23	10008
10024	ADITHYA	MALE	25	10007
10025	SAKSHI	FEMALE	19	10007
10026	PRANAV	MALE	20	10006
10027	CHARAN	MALE	22	10006
10028	AKSHAT	MALE	23	10004
10029	DEEKSHA	FEMALE	27	10004
10030	PRAMUKH	MALE	20	10005
10031	ARJUN	MALE	24	10006
10032	AKSHAY	MALE	27	10005

Insertion of data - companion

CO_ID	CO_NAME	CO_SEX	CO_AGE	CO_CUSTOMER
10033	SHRADDHA	FEMALE	26	10001
10034	LIKITH	MALE	25	10003
10035	ARYAN	MALE	27	10002
10036	SHIKKI	FEMALE	19	10004
10037	DAKSH	MALE	22	10006
10038	SOHAN	MALE	28	10005
10040	VIMAL	MALE	23	10007
10041	CHARVI	FEMALE	29	10008
10042	SALEEM	MALE	21	10010
10043	AYAAN	MALE	20	10009
10044	AAKASH	MALE	25	10009

Insertion of data - location

insert into "location" values (897801,'Munnar' , 'Hill Station' , 4.2);

insert into "location" values (897802, 'Kochi', 'Port', 3.9);

insert into "location" values (897803, 'Alappuzha', 'Backwaters' , 3.8);

insert into "location" values (897806, 'Alleppey', 'Beach' , 2.7);

insert into "location" values (897804, 'Warangal' , 'Historic' , 3.9);

insert into "location" values (897805, 'Hyderabad', 'City', 3.4);

insert into "location" values (897808, 'Ooty', 'Hill Station', 2.1);

insert into "location" values (897809, 'Chennai', 'City', 3.6);

Insertion of data - location

insert into "location" values (897813, 'Nainital', 'Hill Station', 4.2);

insert into "location" values (897814, 'Rishikesh', 'Pilgrim Site', 3.9);

insert into "location" values (897816, 'Kedarnath', 'Pilgrim Site' , 3.6);

insert into "location" values (897810, 'Jaisalmer', 'Desert' , 4.6);

insert into "location" values (897811, 'Chittorgarh', 'Fort', 2.8);

insert into "location" values (897812, 'Jaipur', 'City', 3.6);

insert into "location" values (897815, 'Goa', 'Beach', 3.8);

insert into "location" values (897819, 'Andaman Islands', 'Islands', 4.3);

Insertion of data - location

	⚡ L_ID	⚡ L_NAME	⚡ L_TYPE	⚡ L_RATING
1	897801	Munnar	Hill Station	4.2
2	897802	Kochi	Port	3.9
3	897803	Alappuzha	Backwaters	3.8
4	897806	Alleppey	Beach	2.7
5	897804	Warangal	Historic	3.9
6	897805	Hyderabad	City	3.4
7	897808	Ooty	Hill Station	2.1
8	897809	Chennai	City	3.6
9	897813	Nainital	Hill Station	4.2
10	897814	Rishikesh	Pilgrim Site	3.9
11	897816	Kedarnath	Pilgrim Site	3.6
12	897810	Jaisalmer	Desert	4.6
13	897811	Chittorgarh	Fort	2.8
14	897812	Jaipur	City	3.6
15	897815	Goa	Beach	3.8
16	897819	Andaman Islands	Islands	4.3

Insertion of data – l_attractions

```
insert into l_attractions values(897801, 'Attukal Waterfalls');  
insert into l_attractions values(897801, 'Pothamedu View Point');  
insert into l_attractions values(897802, 'LuLu Mall ');  
insert into l_attractions values(897802, 'Kerala Folklore Museum');  
insert into l_attractions values(897802, 'Chottanikkara Temple');  
insert into l_attractions values(897803, 'Kuttanad');  
insert into l_attractions values(897803, 'Alappuzha backwaters');  
insert into l_attractions values(897806, 'Alleppey HouseBoat');  
insert into l_attractions values(897806, 'Pathiramanal');  
insert into l_attractions values(897806, 'Vembanad Lake');
```

Insertion of data – l_attractions

```
insert into l_attractions values(897804, 'Laknavaram Cheruvu');
```

```
insert into l_attractions values(897804, 'Bhadrakali Temple');
```

```
insert into l_attractions values(897805, 'Hussain Sagar Lake');
```

```
insert into l_attractions values(897805, 'Chowmahalla Palace');
```

```
insert into l_attractions values(897805, 'Qutub Shahi Tombs');
```

```
insert into l_attractions values(897808, 'Doddabetta Peak');
```

```
insert into l_attractions values(897808, 'Kalhatty Waterfalls');
```

```
insert into l_attractions values(897809, 'Kapaleeshwarar Temple');
```

```
insert into l_attractions values(897813, 'Tiffin Top');
```

```
insert into l_attractions values(897813, 'Snow View Point');
```

Insertion of data – l_attractions

```
insert into l_attractions values(897814, 'Triveni Ghat');  
insert into l_attractions values(897814, 'Kunjapuri Devi Temple');  
insert into l_attractions values(897816, 'Ukhimath');  
insert into l_attractions values(897816, 'Gauri Kund');  
insert into l_attractions values(897810, 'Jaisalmer Fort ');  
insert into l_attractions values(897811, 'Jaisalmer Fort ');  
insert into l_attractions values(897811, 'Fateh Prakash Palace');  
insert into l_attractions values(897812, 'Bassi Wildlife Sanctuary');  
insert into l_attractions values(897815, 'Calangute Beach');  
insert into l_attractions values(897815, 'Dudhsagar Falls');
```

Insertion of data – l_attractions

```
insert into l_attractions values(897819, 'Makruzz');
```

```
insert into l_attractions values(897819, 'Jolly Buoy');
```

```
insert into l_attractions values(897819, 'Radhanagar Beach');
```

Insertion of data – l_attractions

LOC_ID	L_ATTR
897801	Attukal Waterfalls
897801	Pothamedu View Point
897802	LuLu Mall
897802	Kerala Folklore Museum
897802	Chottanikkara Temple
897803	Kuttanad
897803	Alappuzha backwaters
897806	Alleppey HouseBoat
897806	Pathiramanal
897806	Vembanad Lake
897804	Ramappa Temple

Insertion of data – l_attractions

LOC_ID	L_ATTR
897804	Laknavaram Cheruvu
897804	Bhadrakali Temple
897805	Hussain Sagar Lake
897805	Chowmahalla Palace
897805	Qutub Shahi Tombs
897808	Doddabetta Peak
897808	Kalhatty Waterfalls
897809	Kapaleeshwarar Temple
897813	Tiffin Top
897813	Snow View Point
897814	Triveni Ghat

Insertion of data – l_attractions

LOC_ID	L_ATTR
--------	--------

897814	Kunjapuri Devi Temple
--------	-----------------------

897816	Ukhimath
--------	----------

897816	Gauri Kund
--------	------------

897810	Jaisalmer Fort
--------	----------------

897811	Jaisalmer Fort
--------	----------------

897811	Fateh Prakash Palace
--------	----------------------

897812	Bassi Wildlife Sanctuary
--------	--------------------------

897815	Calangute Beach
--------	-----------------

897815	Dudhsagar Falls
--------	-----------------

897819	Makruzz
--------	---------

897819	Jolly Buoy
--------	------------

Insertion of data – l_attractions

LOC_ID	L_ATTR
--------	--------

897819	Radhanagar Beach
--------	------------------

Insertion of data – hotel

insert into hotel values (5699, 'Hotel La Sagrita', 'Silent Valley Road, Near, NH-49, Munnar', 3500, 30, 3.8, 897801);

insert into hotel values (5701, 'Sagar Residency', 'Chithirapuram,Munnar,Idukki District', 3000, 30, 2.8, 897801);

insert into hotel values (5703, 'The Emerald,', 'Sahodaran Ayappan Road, Elamkulam Junction', 4000, 30, 4.2, 897802);

insert into hotel values (5704, 'Rutt Deen Hotel', 'Infopark Road, Kakkanad, Kochi', 4000, 30, 3.4, 897802);

insert into hotel values (5705, 'Hotel Lindsay', '1/55, Malampuzha south, Palakkad, Palakkad', 4500, 30, 3.78, 897803);

insert into hotel values (5706, 'Orchid Park Plaza', '12/600, Hotel Cnanakya, Arumugnan Garden, Cnandranagar', 4200, 30,3.9, 897803);

insert into hotel values (5711, 'Rainforest retreat', '1, Oyitty Road, Near Railway Station, Palayam', 4200, 30, 3.6, 897806);

insert into hotel values (5708, 'The Broadview Hotel', '6-3-563/2nd Floor/A Erranmanzil Colony, Somajiguda, Banjara Hills, Hyderabad', 3780, 30, 3.5, 897804);

insert into hotel values (5709, 'Mayfair Hotel', 'CC5X+H48, Sri Ram Nagar Colony, Banjara Hills', 3890, 30, 3.3, 897805);

Insertion of data – hotel

insert into hotel values (5710, 'Crown Towers', 'XJQ2+745, MG Rd, opp Indian Oil Petrol Bunk, Pochamma Maidan, Venu Rao Colony, Sherpura', 4130, 30, 4.2, 897805);

insert into hotel values (5715, 'Cura Hospitality', 'XJQ2+745, MG Rd, opp Indian Oil Petrol Bunk, Pochamma Maidan, Venu Rao Colony, Sherpura', 4200, 30, 3.8, 897808);

insert into hotel values (5716, 'Hotel Joy Stick', 'Door 72H. 5h Cross, Arni House Rd, near Hotel The Abode, Ooty', 4350, 30, 3.6, 897808);

insert into hotel values (5717, 'Royal Palm', '115, Sir Theagaraya Rd, Parthasarathi Puram, T. Nagar, Chennai', 3650, 30, 2.6, 897809);

insert into hotel values (5707, 'LMB Hotel', '124, 1, Jawaharlal Nehru Rd, Poomagal Nagar, Guindy, Chennai', 3200, 30, 3.4, 897809);

insert into hotel values (5724, 'Proximity Apartments', 'Ramniwas,52 Haiz Warton Compound,Rajbhawan, road, Tallital, Nainital', 3550, 30, 2.9, 897813);

insert into hotel values (5725, 'Greenlane Suites', 'Shesdhara, Laxman Jhula Rd, Tapovan, Rishikesh', 4500, 30, 3.1, 897814);

insert into hotel values (5726, 'The Better Inn', '49PV+Q6W, Shivpuri, Rishikesh-Badrinath Highway, Rishikesh', 5300, 30, 3.2, 897814);

insert into hotel values (5728, 'Breeze Blows Hotel', 'Kedarnath Rd, Guptkashi', 2300, 30,4.8, 897816);

Insertion of data – hotel

insert into hotel values (5712, 'All Stars Inn', 'Near Temple, Kedarnath', 3750, 30, 3.7, 897816);

insert into hotel values (5718, 'Seagull Hotel', '1-C V Singh Colony, opp. District Collectrate, near Hanuman Circle, Jaisalmer,', 2500, 30, 3.9, 897810);

insert into hotel values (5719, 'Ocean Breeze Hotel', 'Barmer Road, NH15, opposite Maheshwari Hospital, Jaisalmer', 1800, 30, 3.5, 897810);

insert into hotel values (5720, 'City Lodge', 'Near Fort 1st Gate, Shiv Road', 1950, 30, 3.8, 897811);

insert into hotel values (5721, 'Pinnacle Lodge', 'AC-4-C, Gayatri Marg, Sawai Jai Singh Hwy, Bani Park, Jaipur', 2400, 30, 2.6, 897812);

insert into hotel values (5723, 'Heartland Hotel', '315, Survey No 18/4 Bamon Vaddo, Candolim, Goa', 3120, 30, 2.1, 897815);

insert into hotel values (5713, 'Spa Paws Hotel', 'Opp Taj Holiday Village, Candolim, Goa', 3500, 30, 4.1, 897815);

insert into hotel values (5714, 'Gourmet Stay', 'Fort Aguada Road, Candolim Beach Rd, Candolim, Goa', 4150, 30, 4.3, 897815);

insert into hotel values (5722, 'Hot Springs Hotel', '10 MD Lane, Foreshore Road, Haddo, Port Blair, Andaman and Nicobar Islands', 3180, 30, 4.8, 897809);

insert into hotel values (5727, 'Juhu Plaza', 'Ram Nagar Beach, Neil Island, Ram Nagar, Andaman and Nicobar Islands', 5100, 30, 4.5, 897809);

Insertion of data – hotel

H_ID	H_NAME	H_ADDRESS
5699	Hotel La Sagrita	Silent Valley Road, Near, NH-49, Munnar
5701	Sagar Residency	Chithirapuram, Munnar, Idukki District
5703	The Emerald,	Sahodaran Ayappan Road, Elamkulam Junction
5704	Rutt Deen Hotel	Infopark Road, Kakkanad, Kochi
5705	Hotel Lindsay	1/55, Malampuzha south, Palakkad, Palakkad
5706	Orchid Park Plaza	12/600, Hotel Cnanakya, Arumugnan Garden, Cnandranagar
5711	Rainforest retreat	1, Oyitty Road, Near Railway Station, Palayam
5708	The Broadview Hotel	6-3-563/2nd Floor/A Erranmanzil Colony, Somajiguda, Banjara Hills, Hyderabad
5709	Mayfair Hotel	CC5X+H48, Sri Ram Nagar Colony, Banjara Hills
5710	Crown Towers	XJQ2+745, MG Rd, opp Indian Oil Petrol Bunk, Pochamma Maidan, Venu Rao Colony, Sherpura
5715	Cura Hospitality	XJQ2+745, MG Rd, opp Indian Oil Petrol Bunk, Pochamma Maidan, Venu Rao Colony, Sherpura

Insertion of data – hotel

H_ID	H_NAME	H_ADDRESS
5716	Hotel Joy Stick	Door 72H. 5h Cross, Arni House Rd, near Hotel The Abode, Ooty
5717	Royal Palm	115, Sir Theagaraya Rd, Parthasarathi Puram, T. Nagar, Chennai
5707	LMB Hotel	124, 1, Jawaharlal Nehru Rd, Poomagal Nagar, Guindy, Chennai
5724	Proximity Apartments	Ramniwas, 52 Haiz Warton Compound, Rajbhawan, road, Tallital, Nainital
5725	Greenlane Suites	Shesdhara, Laxman Jhula Rd, Tapovan, Rishikesh
5726	The Better Inn	49PV+Q6W, Shivpuri, Rishikesh-Badrinath Highway, Rishikesh
5728	Breeze Blows Hotel	Kedarnath Rd, Guptkashi
5712	All Stars Inn	Near Temple, Kedarnath
5718	Seagull Hotel	1-C V Singh Colony, opp. District Collectrate, near Hanuman Circle, Jaisalmer,
5719	Ocean Breeze Hotel	Barmer Road, NH15, opposite Maheshwari Hospital, Jaisalmer
5720	City Lodge	Near Fort 1st Gate, Shiv Road

Insertion of data – hotel

H_ID	H_NAME	H_ADDRESS
5721	Pinnacle Lodge	AC-4-C, Gayatri Marg, Sawai Jai Singh Hwy, Bani Park, Jaipur
5723	Heartland Hotel	315, Survey No 18/4 Bamon Vaddo, Candolim, Goa
5713	Spa Paws Hotel	Opp Taj Holiday Village, Candolim, Goa
5714	Gourmet Stay	Fort Aguada Road, Candolim Beach Rd, Candolim, Goa
5722	Hot Springs Hotel	10 MD Lane, Foreshore Road, Haddo, Port Blair, Andaman and Nicobar Islands
5727	Juhu Plaza	Ram Nagar Beach, Neil Island, Ram Nagar, Andaman and Nicobar Islands

Insertion of data – agent

```
insert into agent values(1234,'DIVISHA','EMMADI',23,'27 MAY 2007',50000,'7894768799','de@gmail.com',60,3.5);
insert into agent values(1235,'ANMOL','BANSAL',22,'28 APRIL 2002',75000,'8784768799','ab@gmail.com',40,4.5);
insert into agent values(1236,'NAKSH','JOSHI',20,'2 JANUARY 2010',25000,'6542768799','nj@gmail.com',50,2.5);
insert into agent values(1237,'ABHIMANYU','BIRLA',29,'8 MARCH 2015',60000,'7894177890','abb@gmail.com',20,3.8);
insert into agent values(1238,'KOUSHIK','KOLLU',28,'18 JANUARY 2003',80000,'7176768799','kk@gmail.com',30,3.9);
insert into agent values(1239,'RACHANA','GADDAM',25,'27 MAY 2007',150000,'9224768799','rg@gmail.com',70,4.5);
insert into agent values(1240,'AASHRITHA','RAVULA',24,'16 APRIL 2017',70000,'6894768799','ar@gmail.com',25,4);
insert into agent values(1241,'ANJALI','SHARMA',27,'28 FEBRUARY 2014',35000,'9465768799','as@gmail.com',15,2.2);
insert into agent values(1242,'SHIV','SOMISETTY',22,'19 JUNE 2016',65000,'6785465799','ss@gmail.com',20,4.2);
insert into agent values(1243,'KARTHIK','VEDIRE',21,'20 JULY 2018',75000,'8764768799','kv@gmail.com',40,3.5);
```

Insertion of data – agent

A_ID	A_FNAME	A_LNAME	A_AGE	A_JOIN_DATE	A_SALARY	A_PHONE_NUMBER	A_EMAIL	A_COMMISSION	A_RATING
1234	DIVISHA	EMMADI	23	27-05-07	50000	7894768799	de@gmail.com	60	3.5
1235	ANMOL	BANSAL	22	28-04-02	75000	8784768799	ab@gmail.com	40	4.5
1236	NAKSH	JOSHI	20	02-01-10	25000	6542768799	nj@gmail.com	50	2.5
1237	ABHIMANYU	BIRLA	29	08-03-15	60000	7894177890	abb@gmail.com	20	3.8
1238	KOUSHIK	KOLLU	28	18-01-03	80000	7176768799	kk@gmail.com	30	3.9
1239	RACHANA	GADDAM	25	27-05-07	150000	9224768799	rg@gmail.com	70	4.5
1240	AASHRITHA	PAVULA	24	16-04-17	70000	6894768799	ar@gmail.com	25	4
1241	ANJALI	SHARMA	27	28-02-14	35000	9465768799	as@gmail.com	15	2.2
1242	SHIV	SOMISETTY	22	19-06-16	65000	6785465799	ss@gmail.com	20	4.2
1243	KARTHIK	VEDIRE	21	20-07-18	75000	8764768799	kv@gmail.com	40	3.5

Insertion of data – reservation

```
insert into reservation values(50023,10000,20000,'22 MAY 2022','SUCCESS',4.2,10001,1235);  
insert into reservation values(50024,5000,30000,'27 APRIL 2022','IN PROGRESS',2.2,10003,1236);  
insert into reservation values(30045,10000,25000,'25 MARCH 2022','SUCCESS',3.4,10002,1239);  
insert into reservation values(50034,20000,40000,'12 AUGUST 2021','WAITING LIST',4.1,10005,1240);  
insert into reservation values(50123,15000,50000,'2 JULY 2022','SUCCESS',3.9,10004,1242);  
insert into reservation values(50243,10000,20000,'19 MARCH 2021','IN PROGRESS',4.1,10007,1243);  
insert into reservation values(62313,10000,25000,'20 JANUARY 2022','CANCEL',2.5,10006,1234);  
insert into reservation values(78913,15000,40000,'17 MAY 2022','SUCCESS',4.5,10008,1236);  
insert into reservation values(23563,12000,50000,'21 JUNE 2022','SUCCESS',3.2,10009,1238);  
insert into reservation values(52673,20000,60000,'22 DECEMBER 2021','SUCCESS',3.8,10010,1241);
```

Insertion of data – reservation

	...	R_ADVANCE	R_DUE	R_BDATE	R_STATUS	R_AGENT_RATING	R_CUSTOMER	R_AGENT
1	50023	10000	20000	22-MAY-22	SUCCESS	4.2	10001	1235
2	50024	5000	30000	27-APR-22	IN PROGRESS	2.2	10003	1236
3	30045	10000	25000	25-MAR-22	SUCCESS	3.4	10002	1239
4	50034	20000	40000	12-AUG-21	WAITING LIST	4.1	10005	1240
5	50123	15000	50000	02-JUL-22	SUCCESS	3.9	10004	1242
6	50243	10000	20000	19-MAR-21	IN PROGRESS	4.1	10007	1243
7	62313	10000	25000	20-JAN-22	CANCEL	2.5	10006	1234
8	78913	15000	40000	17-MAY-22	SUCCESS	4.5	10008	1236
9	23563	12000	50000	21-JUN-22	SUCCESS	3.2	10009	1238
10	52673	20000	60000	22-DEC-21	SUCCESS	3.8	10010	1241

Insertion of data – reservation_hotel

```
insert into reservation_hotel values(50023,'22 MARCH 2022','28 MARCH 2022',5699,4.2,3.5,20);
```

```
insert into reservation_hotel values(50023,'8 MARCH 2022','18 MARCH 2022',5701,4.1,3.8,50);
```

```
insert into reservation_hotel values(50024,'18 FEB 2022','10 MARCH 2022',5703,2.8,3.5,50);
```

```
insert into reservation_hotel values(50024,'18 JANUARY 2022','28 JANUARY 2022',5704,2.2,3.8,40);
```

```
insert into reservation_hotel values(30045,'7 APRIL 2022','8 APRIL 2022',5715,3.2,3.5,60);
```

```
insert into reservation_hotel values(30045,'18 APRIL 2022','20 APRIL 2022',5717,3.2,4.5,50);
```

```
insert into reservation_hotel values(30045,'7 JUNE 2022','14 JUNE 2022',5728,3.2,3.5,60);
```

```
insert into reservation_hotel values(50034,'12 MARCH 2022','13 MARCH 2022',5712,4.2,3.5,80);
```

Insertion of data – reservation_hotel

```
insert into reservation_hotel values(50034,'2 JANUARY 2022','14 JANUARY 2022',5726,3.8,4.5,40);
```

```
insert into reservation_hotel values(50034,'14 FEBRUARY 2022','20 FEBRUARY 2022',5724,4.2,3.5,20);
```

```
insert into reservation_hotel values(50123,'7 MARCH 2022','8 MARCH 2022',5724,3.4,3.5,70);
```

```
insert into reservation_hotel values(50243,'9 MARCH 2022','10 MARCH 2022',5724,3.1,3.5,60);
```

```
insert into reservation_hotel values(62313,'12 MARCH 2022','16 MARCH 2022',5724,1.2,3.5,40);
```

```
insert into reservation_hotel values(78913,'24 FEBRUARY 2022','28 FEBRUARY 2022',5721,3.2,4.5,40);
```

```
insert into reservation_hotel values(23563,'12 MARCH 2022','15 MARCH 2022',5723,3.2,3.1,40);
```

```
insert into reservation_hotel values(52673,'1 MAY 2022','16 MAY 2022',5727,2.1,3.8,20);
```

Insertion of data – reservation_hotel

R_RESERVATION	R_CIDATE	R_CODATE	R_HOTEL	R_LOC_RATING	R_HOTEL_RATING	R_ROOMS
50023	22-03-22	28-03-22	5699	4.2	3.5	20
50023	08-03-22	18-03-22	5701	4.1	3.8	50
50024	18-02-22	10-03-22	5703	2.8	3.5	50
50024	18-01-22	28-01-22	5704	2.2	3.8	40
30045	07-04-22	08-04-22	5715	3.2	3.5	60
30045	18-04-22	20-04-22	5717	3.2	4.5	50
30045	07-06-22	14-06-22	5728	3.2	3.5	60
50034	12-03-22	13-03-22	5712	4.2	3.5	80
50034	02-01-22	14-01-22	5726	3.8	4.5	40
50034	14-02-22	20-02-22	5724	4.2	3.5	20
50123	07-03-22	08-03-22	5724	3.4	3.5	70

Insertion of data – reservation_hotel

R_RESERVATION	R_CIDATE	R_CODATE	R_HOTEL	R_LOC_RATING	R_HOTEL_RATING	R_ROOMS
50243	09-03-22	10-03-22	5724	3.1	3.5	60
62313	12-03-22	16-03-22	5724	1.2	3.5	40
78913	24-02-22	28-02-22	5721	3.2	4.5	40
23563	12-03-22	15-03-22	5723	3.2	3.1	40
52673	01-05-22	16-05-22	5727	2.1	3.8	20

Queries

-- list customer IDs whose trip includes only one city

```
select distinct c.c_id--,count(l.l_name) cnt
```

```
from customer c,reservation r,reservation_hotel rh, hotel h,"location" l
```

```
where c.c_id=r.r_customer and r.r_id=rh.r_reservation and rh.r_hotel=h.h_id and h.h_location=l.l_id
```

```
group by c.c_id
```

```
having count(l.l_name)=1;
```

C_ID
10006
10004
10007
10008
10009
10010

6 rows selected.

Queries

-- List customer IDs whose trip includes more than one city

```
select distinct c.c_id,count(l.l_name) cnt
```

```
from customer c,reservation r,reservation_hotel rh, hotel h,"location" l
```

```
where c.c_id=r.r_customer and r.r_id=rh.r_reservation and rh.r_hotel=h.h_id and h.h_location=l.l_id
```

```
group by c.c_id
```

```
having count(l.l_name)!=1;
```

C_ID	CNT
10003	2
10001	2
10002	3
10005	3

Queries

--List customer ids that only booked rooms with rating less than 3

```
select c.c_id from customer c where c.c_id not in
```

```
(select distinct c.c_id --,count(h.h_id)
```

```
from customer c,reservation r,reservation_hotel rh, hotel h,"location" l
```

```
where c.c_id=r.r_customer and r.r_id=rh.r_reservation and rh.r_hotel=h.h_id and h.h_location=l.l_id and h.h_rating>3
```

```
group by c.c_id)
```

C_ID
10004
10006
10007
10008
10009

Queries

--List all overbooked hotels with their occupancy and number of booked rooms

```
select h.h_id,h.h_occupancy,sum(rh.r_rooms) booked_rooms
```

```
from customer c,reservation r,reservation_hotel rh, hotel h,"location" l
```

```
where c.c_id=r.r_customer and r.r_id=rh.r_reservation and rh.r_hotel=h.h_id and h.h_location=l.l_id
```

```
group by h.h_id,h.h_occupancy
```

```
having sum(rh.r_rooms)>h.h_occupancy
```

H_ID	H_OCCUPANCY	BOOKED_ROOMS
5723	30	40
5704	30	40
5715	30	60
5724	30	190
5728	30	60
5726	30	40
5703	30	50
5717	30	50
5712	30	80
5701	30	50
5721	30	40

Queries

--number of people checked into a hotel between 10th and 20th January

```
select count(*)
```

```
from reservation_hotel rh
```

```
where rh.r_cidate BETWEEN '10-01-2022' and '20-01-2022' or rh.r_codate BETWEEN '10-01-2022' and '20-01-2022'
```

NUM_OF_PEOPLE_CHECKED_IN

2

Queries

--give a rounded integer value of the average people in a group

```
select round(avg(cnt)) avg_people_in_group from  
  
(select count(*)+1 cnt  
  
from customer c, companion co  
  
where co.co_customer=c.c_id  
  
group by c.c_id);
```

AVG_PEOPLE_IN_GROUP
4

Queries

--list all locations with the number of people visiting them in descending order

```
drop view group_count;

create view group_count as

select c.c_id c_id,count(*)+1 cnt

from customer c, companion co

where co.co_customer=c.c_id

group by c.c_id;
```

```
select l.l_id,l.l_name, sum(cnt)

from group_count gc,customer c,companion co,reservation r,reservation_hotel rh, hotel h,"location" l

where gc.c_id=c.c_id and c.c_id=r.r_customer and r.r_id=rh.r_reservation and rh.r_hotel=h.h_id and h.h_location=l.l_id

group by l.l_id,l.l_name

order by sum(cnt) desc;
```

L_ID	L_NAME	SUM(CNT)
897813	Nainital	693
897816	Kedarnath	264
897809	Chennai	198
897801	Munnar	198
897802	Kochi	198
897815	Goa	198
897814	Rishikesh	165
897812	Jaipur	132
897808	Ooty	99