---SELECT STATEMENTS---

1. Dream Home-Maximum cost of flat

```
SELECT  floor_no AS FLOOR_NO,MAX(cost_inlakh) AS MAX_PRICE FROM
t_flat_details
GROUP BY floor_no
ORDER BY floor_no DESC
```

2. Event Hall-Halls booked more than once

```
select a.hall_name, count(b.hall_id) as no_of_times_booked
from t_hall_details a join t_hall_booking b on a.hall_id = b.hall_id
group by a.hall_name
having length(a.hall_name)>5 and count(b.hall_id)>1
order by a.hall_name desc
;
```

3. Event Hall-Number of booking customer wise

```
select  distinct c.customer_id,c.customer_name,count(h.hall_id) as
NO_OF_BOOKING
from t_customer_details c
right join t_hall_booking h
on c.customer_id = h.customer_id
where h.event_date like '2020%'
group by c.customer_id
having c.customer_name like 'S%'
order by 2;
```

3) Event hall average cost of not booked halls sql

```
select CITY, round(avg(cost_perday),0) as AVERAGE_COST
from t_hall_details
where hall_id not in(select hall_id from t_hall_booking) and capacity>100
group by CITY
order by AVERAGE_COST asc;
```

4.Car pooling-Driver booking details based on name

```
select a.booking_no,b.user_name,c.driver_name,a.pickup_from,a.drop_at,d.distance
from booking a join customer b on a.customer_id=b.id
            join driver c on a.driver_id=c.id
            join city_locations d on ((a.pickup_from=d.city1 and
a.drop_at=d.city2)or(a.pickup_from=d.city2 and a.drop_at=d.city1))
            where upper(c.driver_name)='JOE AMAL'
            order by d.distance
```

5.Cricket-Number of players in each city

```
select player_city as PLAYER_CITY, count(player_id) as NUMBER_OF_PLAYERS from
t_player where player_city not in
(select distinct played_city from t_match_record)
group by player_city
order by NUMBER_OF_PLAYERS,PLAYER_CITY;
```

6.Hospital-Number of doctors based on shift

```
select h.shift_time as SHIFT_TIME,count(h.available_doctor) AS
NUMBER_OF_DOCTORS from t_hospital h
join t_doctor d on d.doctor_id=h.available_doctor
where specialization = 'SURGEON'
group by shift_time
having count(available_doctor)>=1
order by shift_time desc;
```

7.Insurance-List of Policies

```
select distinct p.policy_name, p.policy_type
from t_policy p, t_member m
where p.policy_id = m.policy_id
```

```
 and m.member_id >= '1'
order by  policy_name, policy_type asc;
```

8.Movie details based on Certification and Duration

```
select movie_id,movie_name,director_name,language from movie_master where
certification='U'
     and duration>130
     order by movie_id;
```

9. Patient Appointment Details based on reason

```
select p.patient_id,p_first_name,p_age,app_number,app_date
from appointment a join patient p on a.patient_id=p.patient_id
where app_reason='FEVER' order by 1;
```

10. Student-Room Details

```
select s.student_id,student_name,department,DOJ,r.room_id,
room_type from student_details s join admission_details a
on s.student_id=a.student_id join room_details r
on r.room_id=a.room_id order by 1;
```

----FUNCTIONS AND SUBQUERIES---

11.Car Pooling-Vehicle details

```
select c.vehicle_model,c.vehicle_type,sum(ci.distance)from car c
join booking b on b.vehicle_no=c.vehicle_no
join city_locations ci on (ci.city1=b.pickup_from and
ci.city2=b.drop_at)or(ci.city2=b.pickup_from and ci.city1=b.drop_at)
group by c.vehicle_type,c.vehicle_model
order by sum(ci.distance);
```

11. Cricket-Average runs of players based on name

```
select m.player_id, round(avg(m.player_runs)) as average_runs from
t_match_score_card m
join t_player p
on p.player_id=m.player_id where player_name like 'S%'
group by m.player_id
order by average_runs desc;
```

12. Dream Home-Customer name details based on total cost

```
SELECT c.customer_name,SUM(f.cost_inlakh) FROM t_flat_booking b
JOIN t_flat_details f ON b.flat_no=f.flat_no
JOIN t_customer_details C ON c.customer_id=b.customer_id
WHERE LENGTH(c.customer_name)>'10'
GROUP BY c.customer_name
ORDER BY customer_name
```

13. Event Hall-Average cost of booked halls

```
select CITY,round(avg(cost_perday),0) as AVERAGE_COST from t_hall_details
where hall_id in(Select hall_id from t_hall_booking) and capacity>150
group by CITY
order by average_cost;
```

14. Hospital-Total fees received based on gender and shift

```
SELECT t_patient.gender, sum(t_doctor.fees) FEES_RECEIVED
FROM t_patient
JOIN t_doctor on t_doctor.doctor_id=t_patient.doctor_id
JOIN t_hospital on t_hospital.available_doctor=t_doctor.doctor_id
WHERE upper(t_hospital.shift_time)="MORNING"
GROUP BY t_patient.gender
ORDER BY t_patient.gender DESC;
```

15. Insurance-List of Agents

```
select a.agent_id,p.policy_name,sum(p.policy_sum)as policy_sum from t_agent a
join t_member m on m.agent_id=a.agent_id
join t_policy p on p.policy_id=m.policy_id
group by a.agent_id,p.policy_name
having count(m.member_id) >=1
order by a.agent_id,p.policy_name,policy_sum;
```

16 .Minimum _ Maximum Discount Amount

```
SELECT MIN(DISCOUNT_AMOUNT) AS MIN_DISCOUNT,
MAX(DISCOUNT_AMOUNT) AS MAX_DISCOUNT
FROM DISCOUNT_MASTER;
```

17 **.Number of Appointments**

```
SELECT doctor_id, COUNT(app_number) as APPOINTMENT_COUNT
FROM appointment
GROUP BY doctor_id
ORDER BY doctor_id;
```

18. Student Details In Capital Case

```
select student_id,upper(student_name) as NAME,department,phone_no
from student_details
where address='BANGALORE'
order by student_id;
```

19. Car Pooling-Maximum time driven driver details

```
select b.driver_id, d.driver_name, count(driver_id) as MaxTimesDriven
from driver d
inner join booking b on d.id=b.driver_id
group by b.driver_id
having count(driver_id)>2
```

```
order by b.driver_id;
```

20. Cricket-Player details

```
SELECT DISTINCT p.PLAYER_ID,p.PLAYER_NAME,p.PLAYER_CITY from t_player p
join t_match_score_card s on p.player_id=s.player_id
join t_match_record r on r.match_id=s.match_id
WHERE s.waysof_dismissal='STUMPED' AND r.played_city='BANGALORE'
order by player_name desc;
```

21. Dream Home -Flat details based on year

```
select a.flat_no FLAT_NO, b.size SIZE, b.area area
from t_flat_booking a
join t_flat_details b
on a.flat_no = b.flat_no
where year(a.registration_date)
in (select year(b.registration_date)
from t_customer_details a
join t_flat_booking b
on a.customer_id=b.customer_id
where upper(a.customer_name='Niraj Kumar'))
order by area asc,a.flat_no desc;
```

22. Hospital-Maximum fees paid patient details

```
select p.patient_name , d.doctor_name , d.fees as 'fees_paid' , h.shift_time as
'checkup_done'
from t_patient p
join  t_doctor d on p.doctor_id = d.doctor_id
join t_hospital h on h.available_doctor = d.doctor_id
where d.fees>( select max(fees) from t_doctor where specialization = 'DERMA')
order by d.doctor_name , p.patient_name;
```

23.Insurance-Agent details

```
select count(b.member_id) as NUMBER_OF_MEMBERS,a.agent_name as
AGENT_NAME
from t_agent a join t_member b
on a.agent_id=b.agent_id
where a.agent_name like 'S%' or a.agent_name like 's%'
group by a.agent_name
order by AGENT_NAME,NUMBER_OF_MEMBERS asc;
```

23. Concatenating Details

```
SELECT CONCAT(MOVIE_NAME," is a ",LANGUAGE," Movie") AS MOVIE_DETAILS
FROM MOVIE_MASTER
ORDER BY MOVIE_DETAILS DESC;
```

24. Patient Appointment details Based On Month

```
SELECT
DISTINCT(PATIENT_ID),P_FIRST_NAME,P_AGE,ADDRESS,CONTACT_NUMBER
FROM PATIENT
WHERE PATIENT_ID IN(SELECT PATIENT_ID FROM APPOINTMENT WHERE
APP_DATE BETWEEN '2019-06-01' AND '2019-06-31')
ORDER BY PATIENT_ID;
```

25. Room Details Based On Location

```
select
ROOM_DETAILS.ROOM_ID,ROOM_DETAILS.ROOM_TYPE,ROOM_DETAILS.MEMBER_CAPACITY,R
OOM_DETAILS.ROOM_RENT
from ROOM_DETAILS
   inner join HOSTEL_DETAILS
      on ROOM_DETAILS.HOSTEL_ID=HOSTEL_DETAILS.HOSTEL_ID
where HOSTEL_DETAILS.LOCATION = 'PHASE-A'
    order by ROOM_DETAILS.ROOM_ID;
```

----

26 .Update t_flat_details

```
Set cost_inlakh = cost_inlakh +(cost_inlakh 0.01)
 Where size=”1BHK” and floor_no =3;

Update t_flat_details Set cost_inlakh = cost_inlakh +(cost_inlakh 0.02)
Where size=”2BHK” and floor_no =3;


Or

Update
        t_flat_details
Set
        Cost_in_lakh=case
        When size=”1BHK” THEN cost_in_lakh+(cost_in_lakh*0.01)
        ELSE cost_in_lakh+(cost_in_lakh *0.02)
Where
       Floor_no=3 and size in(“1BHK”,”2BHK”);
```

27 .Flat details based on year

```
Select a.flat_no FLAT_NO,b.size SIZE,b.area AREA
From t_flat_booking a
Join t_flat_details b
On a.flat_no=b.flat_no
Where
Datepart(year,a.registeratio n_date) in

(Select Datepart(year,b.registeratio n_date)
Or
WHERE EXTRACT (YEAR FROM a.registration_date)
 IN (SELECT
EXTRACT(YEAR FROM b.registration date)
From t_customer_details a Join t_flat booking b. On
a.customer id=b.customer
Where
Upper(a.customer_name)=’ NIRAJ KUMAR’)
Order by b.area asc,
a.   flat_no desc
```

28. Total cost

```
Select a.customer_name CUSTOMER_NAME,Sum(c.cost_inlakh)
TOTAL_COST
From
T customer_details a
Join T_flat booking b
a.customer_id=b.customer_id
Join T_flat_details c
c.flat_no=b.flat_no Where
length(a.customer_name)>10
Group by
a.customer_name
```

```
Order by
a.customer_name
```

Or

```
Select a.customer_name as CUSTOMER_NAME,sum(c.cost_inlakh)
 as TOTAL_COST from t_customer_detials a
join
T_flat_booking b
 on a.customer_id=b.customer_id
join
 t_flat_details c
 on
 c.flat_no-b.flat_no
  Where
Length(a.customer_name)>10
 group by a.customer_name
order by a.customer_name
```

29 .Max cost of flat

```
Select FLOOR_NO,max(COST_INLAKH) AS MAX_PRICE FROM t_flat_details
Group by FLOOR_NO
Order by FLOOR_NO desc;
```

30 . alter table

```
Alter table[tablename] Add [column name][data type]
                       Drop Column[column_name]
                      Alter column[column_name] data type
```

-----PIZZA SQL-----

31)PIZZA STORE-ALTER TABLE FOREIGN KEY

```
ALTER TABLE PIZZA ADD FOREIGN KEY (cust_id) REFERENCES CUSTOMER(cust_id),
ADD FOREIGN KEY (partner_id) REFERENCES DELIVERY_PARTNER(partner_id);
```

32)UPDATE PIZZA TABLE DISCOUNT

```
UPDATE pizza set amount  = (amount * 95)/100
Where pizza_type = " Extra Large" ;
```

OR

```
UPDATE pizza set amount  = 0.96*amount
Where pizza_type = " Extra Large" ;
```

33) PIZZA STORE-ALTER TABLE PIZZA 1.1

```
alter  table pizza add constraint fk_cid foreign key(cust_id) references customer(cust_id)

alter  table pizza add constraint fk_pid foreign key(partner_id) references
delivery_partner(partner_id)
```

34)Total cost OF PIZZA ORDERED -FUNCTION ANS SUBQUERY

```
select cust_id, pizza_name, count(*) as 'Times taken', sum(amount) as 'Total cost'
from pizza
where amount > 1200 group by pizza_name , cust_id order by 1;
```

35)PIZZA-Delivery partner details-RDBMS SELECT

```
Select partner_id,cust_id,count(cust_id) as times_required from pizza  group by
partner_id, cust_id having count(cust_id)>1
Order by partner_id
```

36) PIZZA FRAMING Password-SCALAR & AGGREGATE

```
SELECT CONCAT(cust_name,cust_id) AS USERNAME,
CONCAT(SUBSTRING(cust_name, 1, 3), SUBSTR(cust_phone, -4)) AS PASSWORD
FROM customer
ORDER BY USERNAME;
```

37)Extra large pizza

```
Select c.cust_id, c.cust_name, p.pizza_name, count(p.pizza_id) as "# times",
sum(p.amount) as total_Amount
From pizza p, customer c Where p.cust_id = c.cust_id
And  lower(p.pizza_type) like 'extra%'
Group by c.cust_name, c.cust_id, p.pizza_name
having sum(p.amount) > 4*(select min(amount) from pizza)
Order by c.cust_id desc;
```

38)pizza low cost and High cost pizza

```
SELECT distinct pizza_name,pizza_type, amount from pizza
where amount IN(SELECT MAX(amount) from pizza) or
amount IN(SELECT MIN(amount) from pizza)
limit 2;
```

OR

```
select distinct pizza_name, pizza_type, amount from pizza where amount = (select max(amount) from pizza) and amount = (select min(amount) from pizza)
```

39)Pizza highest selling pizza

```
select  pizza_name, count(amount) as No.sold
from pizza
where pizza.pizza_id= pizza_id
group by pizza.pizza_name
order by count(amount) desc
limit 1;
```

OR

```
select  pizza_name, count(amount) as Highest_selling
from pizza
where pizza.pizza_id= pizza_id
group by pizza.pizza_name
order by count(amount) desc
limit 1;
```

40)pizza highest business date

```
SELECT order_date , SUM(amount) as "Highest Business" FROM pizza
GROUP BY order_date
 ORDER BY SUM(amount) DESC
 limit 1;
```

41) Pizza highest business customer details

```
Select distinct customer.cust_id, customer.cust_name, sum(pizza.amount) as Max_Amount
From customer join pizza
On customer.cust_id=pizza.cust_id
Group by pizza.cust_id
Order by sum(pizza.amount) desc
Limit 1;
```

42)Password generation pizza

```
select concat(cust_name,cust_id) as USERNAME,
concat(left(cust_name,3),right(cust_phone,4)) as PASSWORD
from customer
order by 1;
```

-----------QUESTION NOT THERE-----------

```
select shift_time,count(available_doctor) as NUMBER_OF_DOCTORS
from t_hospital join t_doctor on available_doctor=doctor_id
where available_doctor in
(select doctor_id from t_doctor
where specialization='SURGEON')
group by shift_time
order by shift_time desc;
```

----

43)EVENT HALL NUMBER OF BOOKING CUSTOMER WISE

```
select b.customer_id as CUSTOMER_ID , c.customer_name as CUSTOMER_NAME, count(b.hall_id) as NO_OF_BOOKING
FROM t_customer_details c
join t_hall_booking b on b.customer_id  = c.customer_id
where c.customer_name like 'S%' and b.event_date between '2020-01-01' and '2020-12-31'
group by b.customer_id
order by c.customer_name;
```

-----DDL SQL-----

44)Car Pooling - Update booking table1.2

```
update booking
set fare=(select min(distance)*11 from city_locations ct
join booking b On b.pickup_from=ct.city1 AND b.drop_at=ct.city2);
```

45) Car Pooling- Create BOOKING table 1.1

```
create table booking (
booking_no varchar(50),
pickup_from varchar(50),
drop_at varchar(50),
customer_id varchar(50),
vehicle_no varchar(50),
driver_id varchar(50),
fare decimal(7,2),
primary key (booking_no),
foreign key (customer_id) references customer(id),
foreign key (vehicle_no) references car(vehicle_no),
foreign key (driver_id) references driver(id)
);
```

46)Create Movie_Master table set1

```
create table Movie_Master(
MOVIE_ID varchar(5) primary key,
MOVIE_NAME varchar(4) not null,
DIRECTOR_NAME varchar(4) not null,
CERTIFICATION varchar(4) not null,
DURATION INT(3),
LANGUAGE varchar(10)
);
```

47)Cricket -Alter T_MATCH_SCORE_CARD table(1.1)

```
alter table t_match_score_card add foreign key (match_id) references
t_match_record (match_id);
alter table t_match_score_card add foreign key (player_id) references
t_player(player_id);
```

48)Cricket-Update T_PLAYER table(1.2)

```
update t_player
set total_wickets=case
when(player_city='BANGALORE' and player_name like 'A%')
THEN total_wickets+5
when(player_city='DELHI' and player_name like 'A%')
THEN total_wickets+7
ELSE total_wickets
END;
```

49)Dream Home- Alter table t_flat_booking1.1

```
alter table t_flat_booking modify payment_completed varchar(5) not null;
```

50)Event Hall- Alter table Hall Booking 1.1

```
alter table t_hall_booking
modify hall_id varchar(10) not null;
alter table t_hall_booking
add foreign key(hall_id) references t_hall_details(hall_id);
```

51)Event Hall-Alter T_HALL_BOOKING table1.1

```
alter table t_hall_booking
modify hall_id varchar(10) not null;
alter table t_hall_booking
add foreign key(hall_id) references t_hall_details(hall_id);
alter table t_hall_booking
modify customer_id varchar(10) not null;
alter table t_hall_booking
add foreign key(customer_id) references t_customer_details(customer_id);
```

52)Event Hall Customer details with booking

```
select  distinct c.customer_id,c.customer_name,count(h.hall_id) as
NO_OF_BOOKING
from t_customer_details c
right join t_hall_booking h
on c.customer_id = h.customer_id
where h.event_date like '2020%'
group by c.customer_id
having c.customer_name like 'S%'
order by 2;
```

OR

```
SELECT customer_id
 ,customer_name
 ,mobile_no
FROM t_customer_details
WHERE length(customer_name) > 10
 AND customer_id IN (
  SELECT customer_id
  FROM (
   SELECT customer_id
    ,count(hall_id)
   FROM t_hall_booking
   GROUP BY customer_id
   HAVING count(hall_id) > (
     SELECT count(h.hall_id)
     FROM t_hall_booking h
     INNER JOIN t_customer_details c ON c.customer_id = h.customer_id
     WHERE c.customer_name = 'Suman Singh'
     GROUP BY h.customer_id )) AS T1)
ORDER BY customer_name;
```

53)**Hospital- Add a new column set1**

```
alter table doctor add column dr_contact_number int(10);
```

54)Hospital- Alter T_HOSPITAL table 1.1

```
alter table t_hospital
add foreign key (available_doctor) references t_doctor(doctor_id);
```

55)Hospital- Change the datatype_column

```
alter table patient modify
contact_number int(10);
alter table patient change p_age patient_age int;
```

56)Hospital-Update T_DOCTOR table 1.2

```
update t_doctor set fees=350
where specialization="ENT" and doctor_name like "J%";
update t_doctor set fees=600
where specialization="DERMA" and doctor_name like "J%";
update t_doctor set fees=null
where specialization="SURGEON" and doctor_name like "J%";
update t_doctor set fees=null
where specialization="ORTHO" and doctor_name like "J%";
```

57)Hostel-Insert Student Records

```
insert into Student_details values
('S1001','Varsha','ECE','1999-06-12','CHENNAI',9845712345,'varsha123@gmail.com'),
('S1002','William','ECE','1999-02-04','CALCUTTA',6845712345,'william123@gmail.com'),
('S1003','Basha','EEE','1999-06-14','DELHI',9945712345,'basha222@gmail.com'),
('S1004','Catherine','CSE','1998-08-16','DELHI',6785712345,'cathu123@gmail.com'),
('S1005','Kate','ECE','1999-06-30','BANGALORE',7685712345,'katedd@gmail.com'),
('S1006','Michel','ECE','1998-06-04','COIMBATORE',6645712345,'michel000@gmail.com');
```

58) Hostel-Update Student Record

```
UPDATE STUDENT_DETAILS
SET EMAIL_ID='mic.hudson@gmail.com'
WHERE STUDENT_ID='S1006';
```

59)Insurance- Alter table-add constraint(1.1)

```
alter table T_MEMBER
ADD foreign key(AGENT_ID) references T_AGENT(agent_id),
ADD foreign key(POLICY_ID) references T_POLICY(policy_id);
```

60)Insurance-Update Agent details(1.2)

```
Update t_agent
set target_policy_sum=case
when upper(agent_city)='PUNE' and upper(agent_id) like 'M%'
then 400000
when upper(agent_city)='CHENNAI' and upper(agent_id) like 'M%'
then 250000
else target_policy_sum
end;
```

61)Movie - Modify the datatype

```
ALTER TABLE CUSTOMER_MASTER MODIFY COLUMN PHONE_NO INT(10);
```

BANK

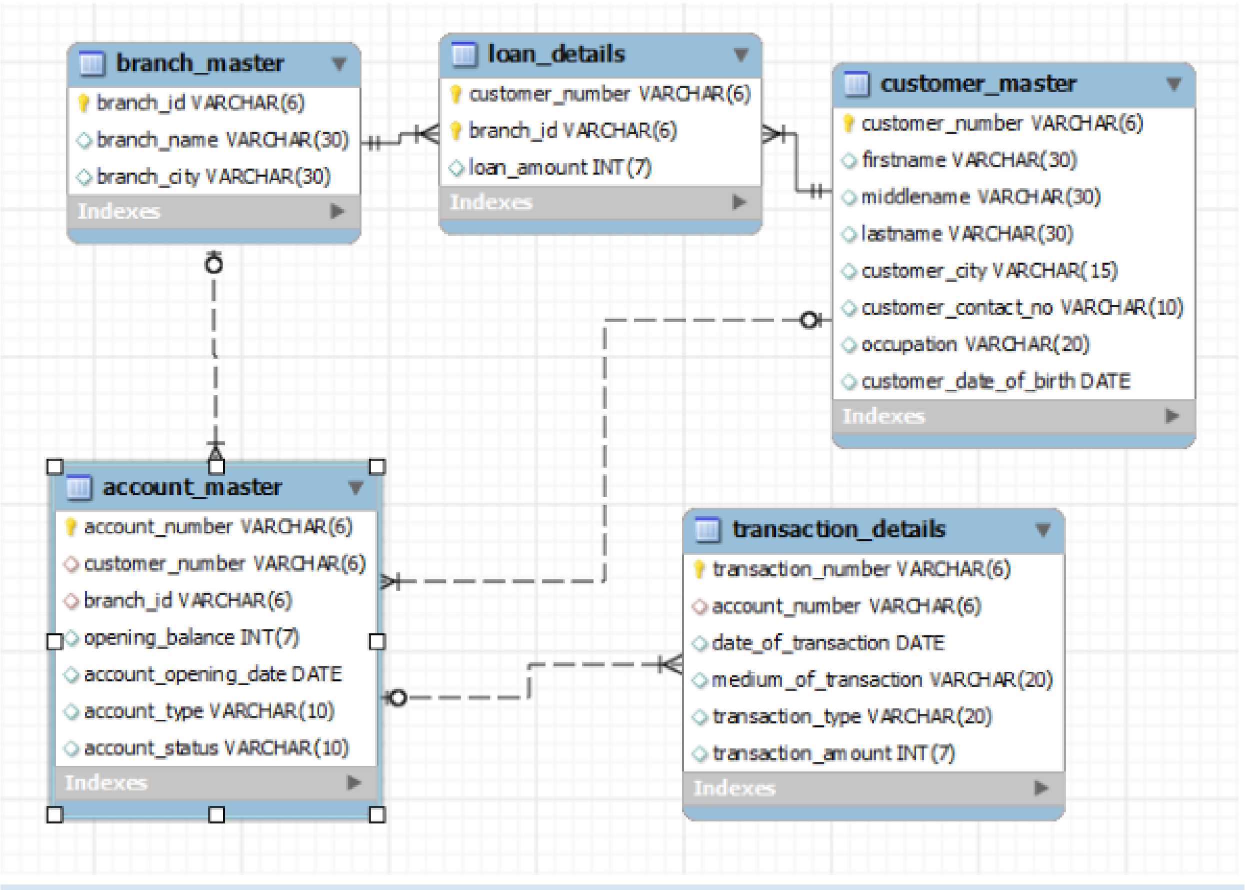
```
create database bank;
use bank;

CREATE TABLE customer_master(
CUSTOMER_NUMBER VARCHAR(6),
FIRSTNAME VARCHAR(30),
middlename VARCHAR(30),
lastname VARCHAR(30),
CUSTOMER_CITY VARCHAR(15),
CUSTOMER_CONTACT_NO VARCHAR(10),
occupation VARCHAR(10),
CUSTOMER_DATE_OF_BIRTH DATE,
CONSTRAINT customer_custid_pk PRIMARY KEY (CUSTOMER_NUMBER));



CREATE TABLE branch_master(
branch_id VARCHAR(6),
branch_name VARCHAR(30),
branch_city VARCHAR(30),
CONSTRAINT branch_bid_pk PRIMARY KEY (branch_id));
```

```
CREATE TABLE account_master
(account_number VARCHAR(255),
customer_number VARCHAR(255),
branch_id VARCHAR(255),
opening_balance INT(20),
account_opening_date DATE,
account_type VARCHAR(10),
account_status VARCHAR(10),
PRIMARY KEY (account_number),
FOREIGN KEY (customer_number) references customer_master(customer_number),
FOREIGN KEY (branch_id) references branch_master(branch_id));

CREATE TABLE transaction_details(
transaction_number VARCHAR(6),
account_number VARCHAR(6),
date_of_transaction DATE,
medium_of_transaction VARCHAR(20),
transaction_type VARCHAR(20),
transaction_amount INT(7),
CONSTRAINT transaction_details_tnumber_pk PRIMARY KEY (transaction_number),
CONSTRAINT transaction_details_acnumber_fk FOREIGN KEY (account_number)
REFERENCES account_master (account_number));

CREATE TABLE loan_details
(customer_number varchar(255),
branch_id varchar(255),
loan_amount bigint(20),
foreign key(customer_number) references customer_master(customer_number));
```

```
insert into customer_master values('C00001',    'RAMESH',       'CHANDRA',     'SHARMA',       'DELHI',
            '9543198345',   'SERVICE'         ,'1976-12-06');

insert into customer_master values('C00002',    'AVINASH',      'SUNDER',      'MINHA',        'DELHI',
            '9876532109'    ,'SERVICE',       '1974-10-16');

insert into customer_master values('C00003',    'RAHUL',        'NULL',  'RASTOGI',     'DELHI',
            '9765178901',   'STUDENT',        '1981-09-26');

insert into customer_master values('C00004',    'PARUL',        'NULL',  'GANDHI',      'DELHI',
            '9876532109'    ,'HOUSEWIFE','1976-11-03');

insert into customer_master values('C00005',    'NAVEEN'        ,'CHANDRA',    'AEDEKAR',
            'MUMBAI',       '8976523190',   'SERVICE'         ,'1976-09-19');

insert into customer_master values('C00006',    'CHITRESH',     'NULL',  'BARWE',       'MUMBAI',
            '7651298321',   'STUDENT'         ,'1992-11-06');

insert into customer_master values('C00007',    'AMIT'   ,'KUMAR',      'BORKAR',      'MUMBAI',
            '9875189761',   'STUDENT',        '1981-09-06');

insert into customer_master values('C00008',    'NISHA',NULL,   'DAMLE',        'MUMBAI',
            '7954198761',   'SERVICE',        '1975-12-03');

insert into customer_master values('C00009',    'ABHISHEK',     NULL,    'DUTTA',        'KOLKATA'
            ,'9856198761',  'SERVICE'         ,'1973-05-22');

insert into customer_master values('C00010','SHANKAR' ,NULL,   'NAIR',  'CHENNAI',     '8765489076',
            'SERVICE',      '1976-07-12');


insert into branch_master values('B00001',      'ASAF ALI ROAD','DELHI');

insert into branch_master values('B00002','NEW DELHI MAIN BRANCH','DELHI');

insert into branch_master values('B00003'       ,'DELHI CANTT', 'DELHI');

insert into branch_master values('B00004'       ,'JASOLA',      'DELHI');

insert into branch_master values('B00005'       ,'MAHIM'        ,'MUMBAI');

insert into branch_master  values('B00006'      ,'VILE PARLE',  'MUMBAI');

insert into branch_master  values('B00007',     'MANDVI'        ,'MUMBAI');

insert into branch_master  values('B00008'      ,'JADAVPUR',    'KOLKATA');

insert into branch_master values('B00009'       ,'KODAMBAKKAM',     'CHENNAI');
insert into account_master values('A00001' ,'C00001','B00001',1000       ,'2012-12-15',    'SAVING',
          'ACTIVE');

insert into account_master  values('A00002'      ,'C00002','B00001',1000,'2012-06-12'     ,'SAVING',
          'ACTIVE');

insert into account_master  values('A00003'      ,'C00003',         'B00002',          1000     ,'2012-05-17'
          ,'SAVING',          'ACTIVE');

insert into account_master values('A00004'       ,'C00002',         'B00005',          1000     ,'2013-01-27'
          ,'SAVING            ','ACTIVE');

insert into account_master  values('A00005'      ,'C00006',         'B00006',          1000     ,'2012-12-17'
          ,'SAVING','ACTIVE');

insert into account_master  values('A00006'      ,'C00007',         'B00007',          1000     ,'2010-08-12'
          ,'SAVING            ','SUSPENDED');

insert into account_master values('A00007'       ,'C00007',         'B00001',          1000     ,'2012-10-02'
          ,'SAVING            ','ACTIVE');

insert into account_master  values('A00008'      ,'C00001','B00003',         1000     ,'2009-11-09'
          ,'SAVING            ','TERMINATED');

insert into account_master values('A00009'       ,'C00003',         'B00007',          1000     ,'2008-11-30'
          ,'SAVING',          'TERMINATED');

insert into account_master  values('A00010'      ,'C00004',         'B00002',          1000     ,'2013-03-01'
          ,'SAVING',          'ACTIVE');


insert into transaction_details  values('T00001',  'A00001',          '2013-01-01',     'CHEQUE',
          'DEPOSIT',          2000);

insert into transaction_details  values('T00002'   ,'A00001'          ,'2013-02-01'     ,'CASH'
          ,'WITHDRAWAL',            1000);

insert into transaction_details  values('T00003',  'A00002            ', '2013-01-01',  'CASH'   ,'DEPOSIT',
          2000);

insert into transaction_details  values('T00004',  'A00002',          '2013-02-01' , 'CASH'      ,'DEPOSIT',
          3000);

insert into transaction_details  values('T00005',  'A00007',          '2013-01-11',     'CASH'   ,'DEPOSIT',
          7000);

insert into transaction_details  values('T00006',  'A00007',          '2013-01-13',     'CASH'   ,'DEPOSIT',
          9000);

insert into transaction_details  values('T00007',  'A00001',          '2013-03-13',     'CASH'   ,'DEPOSIT'
          ,4000);
```

```
insert into transaction_details  values('T00008',  'A00001',          '2013-03-14',     'CHEQUE'
           ,'DEPOSIT'          ,3000);

insert into transaction_details  values('T00009',  'A00001',          '2013-03-21',     'CASH'
           ,'WITHDRAWAL'            ,9000);

insert into transaction_details  values('T00010',  'A00001',          '2013-03-22',     'CASH'
           ,'WITHDRAWAL'            ,2000);

insert into transaction_details  values('T00011',  'A00002',          '2013-03-25',     'CASH'
           ,'WITHDRAWAL'            ,7000);

insert into transaction_details  values('T00012',  'A00007',          '2013-03-26',     'CASH'
           ,'WITHDRAWAL'            ,2000);


insert into Loan_details  values('C00001',          'B00001',          100000);

insert into Loan_details  values('C00002',          'B00002',          200000);

insert into Loan_details  values('C00009',          'B00008',          400000);

insert into Loan_details  values('C00010',          'B00009',          500000);

insert into Loan_details  values('C00001',          'B00003',          600000);

insert into Loan_details  values('C00002',          'B00001',          600000);
```

ANSI SQL Bank Management Schema



branch_master
branch_id VARCHAR(6)
branch_name VARCHAR(30)
branch_city VARCHAR(30)
Indexes

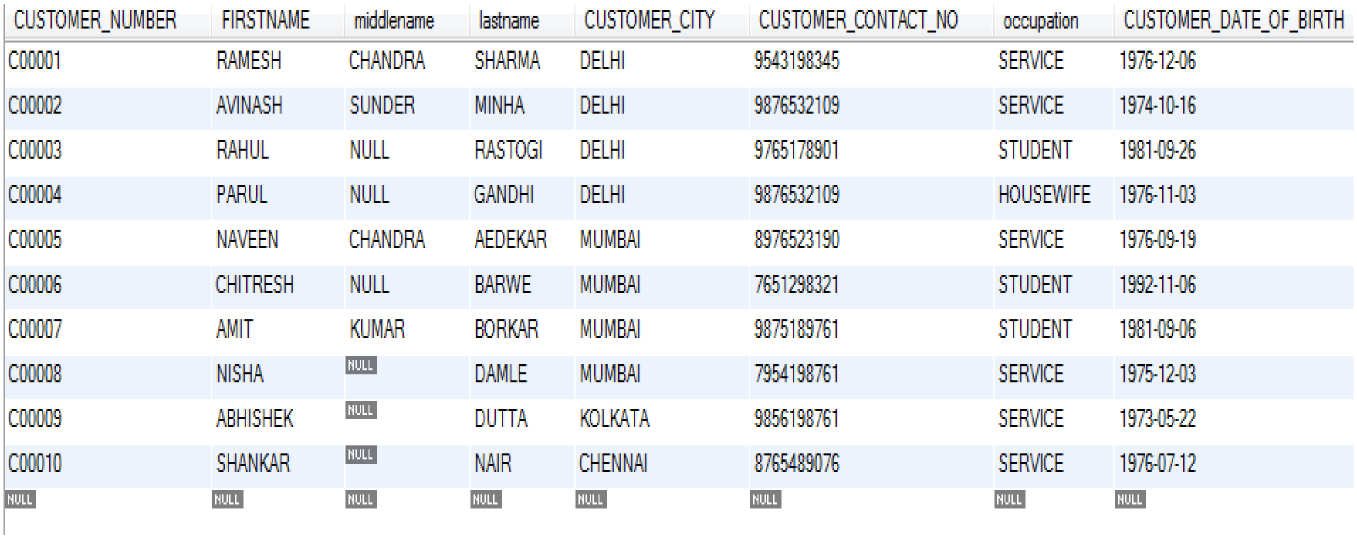
loan_details
customer_number VARCHAR(6)
branch_id VARCHAR(6)
loan_amount INT(7)
Indexes

customer_master
customer_number VARCHAR(6)
firstname VARCHAR(30)
middlename VARCHAR(30)
lastname VARCHAR(30)
customer_city VARCHAR(15)
customer_contact_no VARCHAR(10)
occupation VARCHAR(20)
customer_date_of_birth DATE
Indexes

account_master
account_number VARCHAR(6)
customer_number VARCHAR(6)
branch_id VARCHAR(6)
opening_balance INT(7)
account_opening_date DATE
account_type VARCHAR(10)
account_status VARCHAR(10)
Indexes

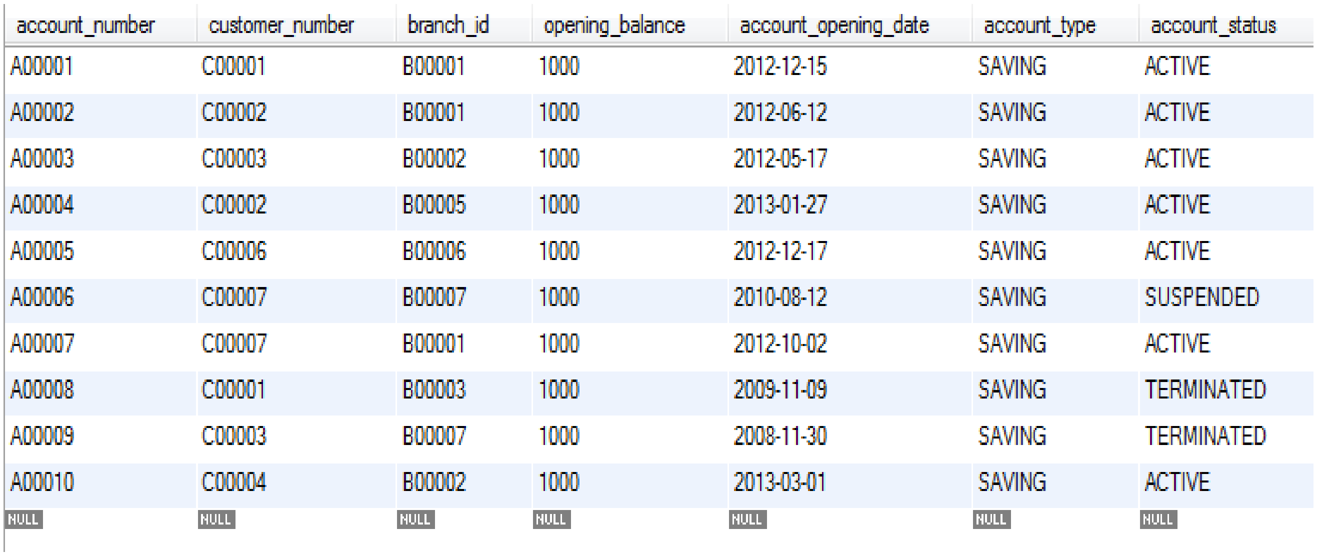
transaction_details
transaction_number VARCHAR(6)
account_number VARCHAR(6)
date_of_transaction DATE
medium_of_transaction VARCHAR(20)
transaction_type VARCHAR(20)
transaction_amount INT(7)
Indexes

CUSTOMER MASTER



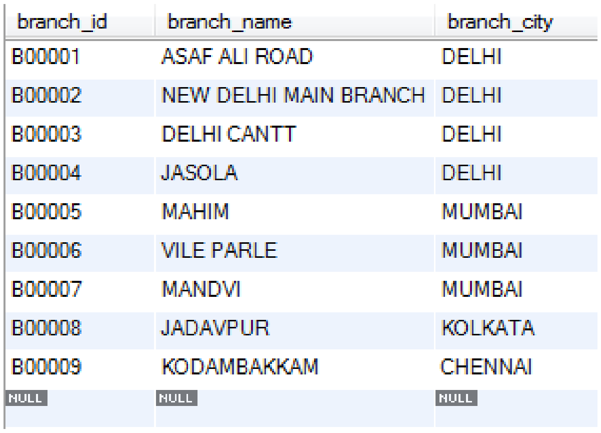
CUSTOMER_NUMBER	FIRSTNAME	middlename	lastname	CUSTOMER_CITY	CUSTOMER_CONTACT_NO	occupation	CUSTOMER_DATE_OF_BIRTH
C00001	RAMESH	CHANDRA	SHARMA	DELHI	9543198345	SERVICE	1976-12-06
C00002	AVINASH	SUNDER	MINHA	DELHI	9876532109	SERVICE	1974-10-16
C00003	RAHUL	NULL	RASTOGI	DELHI	9765178901	STUDENT	1981-09-26
C00004	PARUL	NULL	GANDHI	DELHI	9876532109	HOUSEWIFE	1976-11-03
C00005	NAVEEN	CHANDRA	AEDEKAR	MUMBAI	8976523190	SERVICE	1976-09-19
C00006	CHITRESH	NULL	BARWE	MUMBAI	7651298321	STUDENT	1992-11-06
C00007	AMIT	KUMAR	BORKAR	MUMBAI	9875189761	STUDENT	1981-09-06
C00008	NISHA	NULL	DAMLE	MUMBAI	7954198761	SERVICE	1975-12-03
C00009	ABHISHEK	NULL	DUTTA	KOLKATA	9856198761	SERVICE	1973-05-22
C00010	SHANKAR	NULL	NAIR	CHENNAI	8765489076	SERVICE	1976-07-12
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

ACCOUNT MASTER



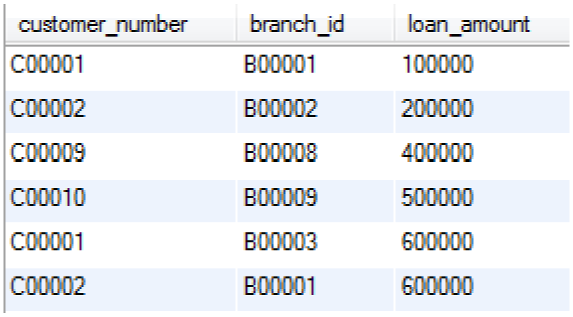
account_number	customer_number	branch_id	opening_balance	account_opening_date	account_type	account_status
A00001	C00001	B00001	1000	2012-12-15	SAVING	ACTIVE
A00002	C00002	B00001	1000	2012-06-12	SAVING	ACTIVE
A00003	C00003	B00002	1000	2012-05-17	SAVING	ACTIVE
A00004	C00002	B00005	1000	2013-01-27	SAVING	ACTIVE
A00005	C00006	B00006	1000	2012-12-17	SAVING	ACTIVE
A00006	C00007	B00007	1000	2010-08-12	SAVING	SUSPENDED
A00007	C00007	B00001	1000	2012-10-02	SAVING	ACTIVE
A00008	C00001	B00003	1000	2009-11-09	SAVING	TERMINATED
A00009	C00003	B00007	1000	2008-11-30	SAVING	TERMINATED
A00010	C00004	B00002	1000	2013-03-01	SAVING	ACTIVE
NULL	NULL	NULL	NULL	NULL	NULL	NULL

BRANCH MASTER



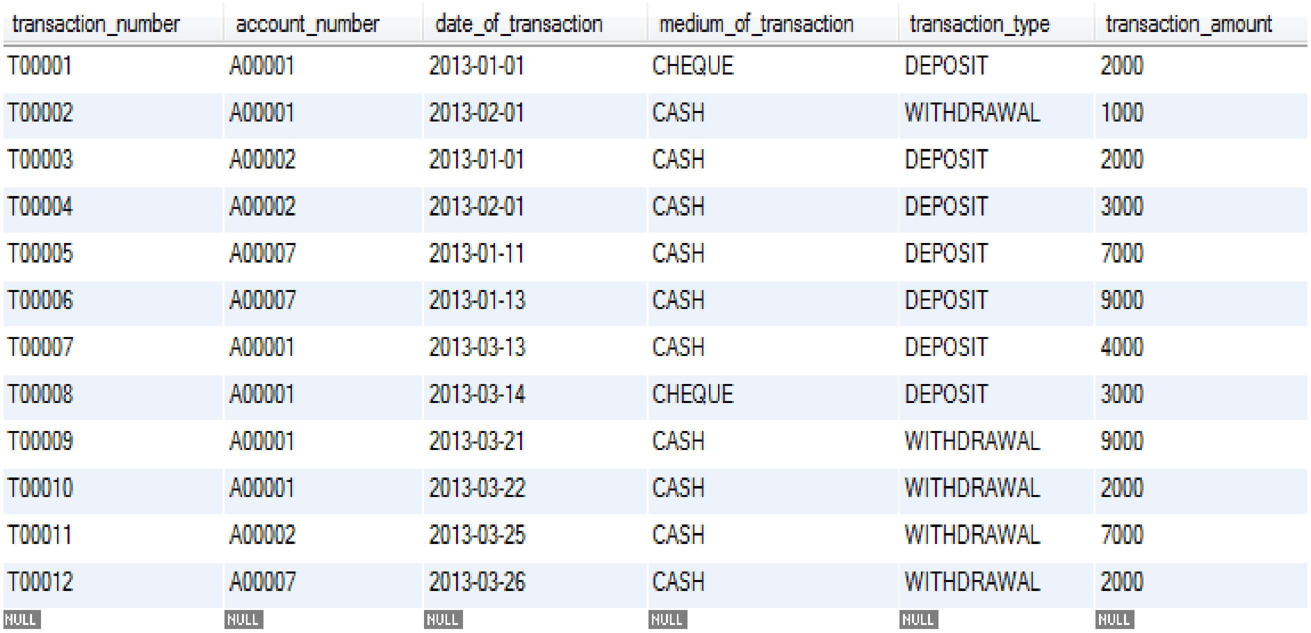
branch_id	branch_name	branch_city
B00001	ASAF ALI ROAD	DELHI
B00002	NEW DELHI MAIN BRANCH	DELHI
B00003	DELHI CANTT	DELHI
B00004	JASOLA	DELHI
B00005	MAHIM	MUMBAI
B00006	VILE PARLE	MUMBAI
B00007	MANDVI	MUMBAI
B00008	JADAVPUR	KOLKATA
B00009	KODAMBAKKAM	CHENNAI
NULL	NULL	NULL

LOAN DETAILS



customer_number	branch_id	loan_amount
C00001	B00001	100000
C00002	B00002	200000
C00009	B00008	400000
C00010	B00009	500000
C00001	B00003	600000
C00002	B00001	600000

TRANSACTION DETAILS

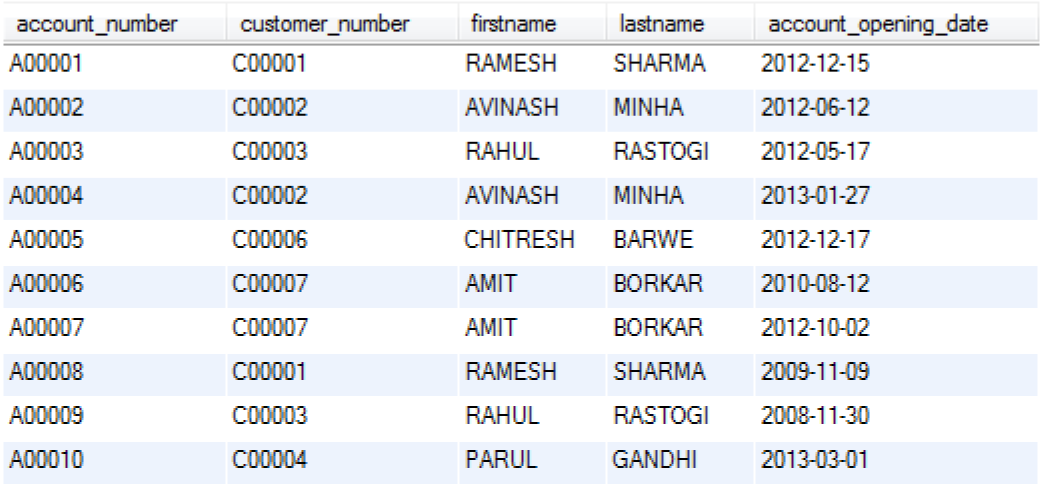


transaction_number	account_number	date_of_transaction	medium_of_transaction	transaction_type	transaction_amount
T00001	A00001	2013-01-01	CHEQUE	DEPOSIT	2000
T00002	A00001	2013-02-01	CASH	WITHDRAWAL	1000
T00003	A00002	2013-01-01	CASH	DEPOSIT	2000
T00004	A00002	2013-02-01	CASH	DEPOSIT	3000
T00005	A00007	2013-01-11	CASH	DEPOSIT	7000
T00006	A00007	2013-01-13	CASH	DEPOSIT	9000
T00007	A00001	2013-03-13	CASH	DEPOSIT	4000
T00008	A00001	2013-03-14	CHEQUE	DEPOSIT	3000
T00009	A00001	2013-03-21	CASH	WITHDRAWAL	9000
T00010	A00001	2013-03-22	CASH	WITHDRAWAL	2000
T00011	A00002	2013-03-25	CASH	WITHDRAWAL	7000
T00012	A00007	2013-03-26	CASH	WITHDRAWAL	2000
NULL	NULL	NULL	NULL	NULL	NULL

QUERIES

1. **Write a query to display account number, customer's number, customer's firstname, lastname, account opening date. Display the records sorted in ascending order based on account number.**

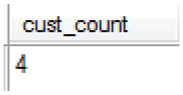
```
SELECT a.account_number,c.customer_number,c.firstname,c.lastname,a.account_number
FROM customer_master c JOIN account_master a ON
c.customer_number=a.customer_number
ORDER BY a.account_number;
```



account_number	customer_number	firstname	lastname	account_opening_date
A00001	C00001	RAMESH	SHARMA	2012-12-15
A00002	C00002	AVINASH	MINHA	2012-06-12
A00003	C00003	RAHUL	RASTOGI	2012-05-17
A00004	C00002	AVINASH	MINHA	2013-01-27
A00005	C00006	CHITRESH	BARWE	2012-12-17
A00006	C00007	AMIT	BORKAR	2010-08-12
A00007	C00007	AMIT	BORKAR	2012-10-02
A00008	C00001	RAMESH	SHARMA	2009-11-09
A00009	C00003	RAHUL	RASTOGI	2008-11-30
A00010	C00004	PARUL	GANDHI	2013-03-01

2. **Write a query to display the number of customer's from Delhi. Give the count an alias name of Cust_Count.**

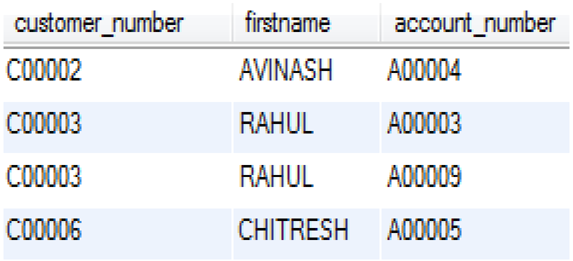
SELECT count(customer_number) Cust_Count FROM customer_master WHERE customer_city='Delhi';



cust_count
4

3. Write a query to display the customer number, customer firstname, account number for the customer's whose accounts were created after 15th of any month. Display the records sorted in ascending order based on customer number and then by account number.

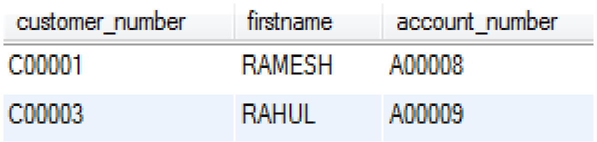
SELECT c.customer_number,c.firstname,a.account_number FROM account_master a join customer_master c ON c.customer_number=a.customer_number WHERE day(a.account_opening_date)>'15' ORDER BY c.customer_number,a.account_number;



customer_number	firstname	account_number
C00002	AVINASH	A00004
C00003	RAHUL	A00003
C00003	RAHUL	A00009
C00006	CHITRESH	A00005

4. Write a query to display customer number, customer's first name, account number where the account status is terminated. Display the records sorted in ascending order based on customer number and then by account number.

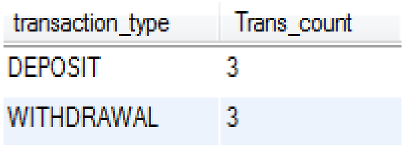
```
SELECT c.customer_number,c.firstname,a.account_number

FROMaccount_master a JOIN customer_master c

ON c.customer_number=a.customer_number

WHERE a.account_status='Terminated'

ORDER BY c.customer_number,a.account_number;
```



customer_number	firstname	account_number
C00001	RAMESH	A00008
C00003	RAHUL	A00009

5. Write a query to display the total number of withdrawals and total number of deposits being done by customer whose customer number ends with 001. The query should display transaction type and the number of transactions. Give an alias name as Trans_Count for number of transactions. Display the records sorted in ascending order based on transaction type.

```
SELECT transaction_type,count(transaction_number) Trans_Count

FROM account_master am JOIN transaction_details td

ON am.account_number=td.account_number

WHERE customer_number like '%001'

GROUP BY transaction_type

ORDER BY transaction_type;
```

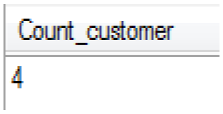


transaction_type	Trans_count
DEPOSIT	3
WITHDRAWAL	3

6. Write a query to display the number of customers who have registration but no account in the bank. Give the alias name as Count_Customer for number of customers.

SELECT count(customer_number) Count_Customer FROM customer_master

WHERE customer_number NOT IN (SELECT customer_number FROM account_master);



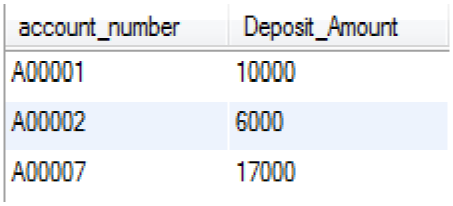
Count_customer
4

7. Write a query to display account number and total amount deposited by each account holder (Including the opening balance). Give the total amount deposited an alias name of Deposit_Amount. Display the records in sorted order based on account number.

SELECT a.account_number,a.opening_balance+sum(t.transaction_amount)

FROM account_master a JOIN transaction_details t ON a.account_number=t.account_number

WHERE t.transaction_type='Deposit' GROUP BY t.account_number;



account_number	Deposit_Amount
A00001	10000
A00002	6000
A00007	17000

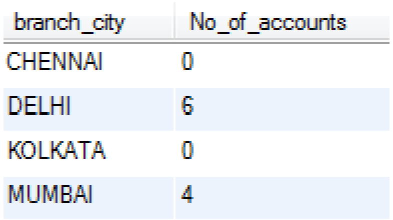
8. Write a query to display the number of accounts opened in each city .The Query should display Branch City and number of accounts as No_of_Accounts.For the branch city where we don’t have any accounts opened display 0. Display the records in sorted order based on branch city.

SELECT branch.branch_city, count(account.account_number) No_of_Accounts

FROM branch_master LEFT JOIN account_master

ON account.branch_id=branch.branch_id

GROUP BY branch.branch_city ORDER BY branch_city;



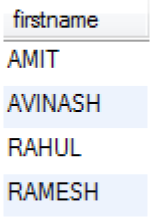
branch_city	No_of_accounts
CHENNAI	0
DELHI	6
KOLKATA	0
MUMBAI	4

9. Write a query to display the firstname of the customers who have more than 1 account. Display the records in sorted order based on firstname.

SELECT c.firstname FROM

customer_master c JOIN account_master a ON a.customer_number=c.customer_number

GROUP BY a.customer_number HAVING count(a.account_number)>1;



firstname
AMIT
AVINASH
RAHUL
RAMESH

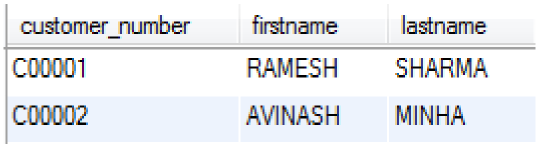
10. Write a query to display the customer number, customer firstname, customer lastname who has taken loan from more than 1 branch. Display the records sorted in order based on customer number.

SELECT c.customer_number,c.firstname,c.lastname FROM

customer_master c JOIN loan_details l ON c.customer_number=l.customer_number

GROUP BY l.customer_number HAVING count(l.branch_id)>1

ORDER BY c.customer_number;



customer_number	firstname	lastname
C00001	RAMESH	SHARMA
C00002	AVINASH	MINHA

11. **Write a query to display the customer's number, customer's firstname, customer's city and branch city where the city of the customer and city of the branch is different. Display the records sorted in ascending order based on customer number.**

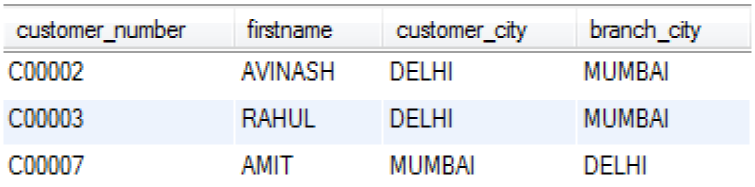
SELECT c.customer_number,c.firstname,c.customer_city,b.branch_city FROM

Customer_master c JOIN Account_master a ON c.customer_number=a.customer_number

JOIN Branch_master b ON b.branch_id=a.branch_id

WHERE b.branch_city<>c.customer_city

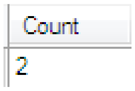
ORDER BY c.customer_number;



customer_number	firstname	customer_city	branch_city
C00002	AVINASH	DELHI	MUMBAI
C00003	RAHUL	DELHI	MUMBAI
C00007	AMIT	MUMBAI	DELHI

12. **Write a query to display the number of clients who have asked for loans but they don't have any account in the bank though they are registered customers. Give the count an alias name of Count.**

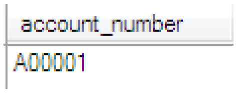
```
SELECT count(c.customer_number)Count FROM customer_master c JOIN loan_details l

ON c.customer_number=l.customer_number

WHERE c.customer_number NOT IN (SELECT customer_number FROM account_master);
```



Count
2

13. **Write a query to display the account number who has done the highest transaction. For example the account A00023 has done 5 transactions i.e. suppose 3 withdrawal and 2 deposits. Whereas the account A00024 has done 3 transactions i.e. suppose 2 withdrawals and 1 deposit. So account number of A00023 should be displayed. In case of multiple records, display the records sorted in ascending order based on account number.**

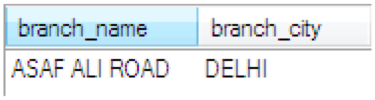
```
SELECT account_number FROM transaction_details

GROUP BY account_number

HAVING count(transaction_number)>=ALL

(SELECT count(transaction_number) FROM transaction_details

GROUP BY account_number) ORDER BY account_number;
```



account_number
A00001

14. **Write a query to show the branch name,branch city where we have the maximum customers. For example the branch B00019 has 3 customers, B00020 has 7 and B00021 has 10. So branch id B00021 is having maximum customers. If B00021 is Koramangla branch Bangalore, Koramangla branch should be displayed along with city name Bangalore. In case of multiple records, display the records sorted in ascending order based on branch name.**

```
SELECT b.branch_name,b.branch_city FROM

Branch_master b JOIN account a ON a.branch_id=b.branch_id

GROUP BY a.branch_id HAVING count(a.customer_number)>=ALL

(SELECT count(customer_number) FROM

Account_master GROUP BY branch_id)

ORDER BY b.branch_name;
```



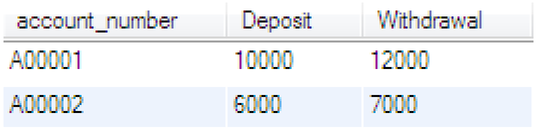
branch_name	branch_city
ASAF ALI ROAD	DELHI

15. **Write a query to display all those account number, deposit, withdrawal where withdrawal is more than deposit amount. Hint: Deposit should include opening balance as well. For example A00011 account opened with Opening Balance 1000 and A00011 deposited 2000 rupees on 2012-12-01 and 3000 rupees on 2012-12-02. The same account i.e A00011 withdrawn 3000 rupees on 2013-01-01 and 7000 rupees on 2013-01-03. So the total deposited amount is 6000 and total withdrawal amount is 10000. So withdrawal amount is more than deposited amount for account number A00011. Display the records sorted in ascending order based on account number.**

```
SELECT td.account_number,
sum(CASE WHEN  transaction_type='Deposit' THEN transaction_amount END)
+(SELECT opening_balance
FROM account_master where account_number=td.account_number) Deposit,
sum(CASE WHEN transaction_type='Withdrawal' THEN transaction_amount END) Withdrawal
FROM transaction_details td
GROUP BY td.account_number
HAVING Withdrawal > Deposit
ORDER BY td.account_number;
```

(or)

```
SELECT ifnull(t1.account_number,t2.account_number) account_number,
t2.d Deposit,ifnull(t1.w,0) Withdrawal FROM
(SELECT account_number,transaction_type,sum(transaction_amount) w from transaction_details
WHERE transaction_type='Withdrawal' GROUP BY account_number) t1
RIGHT JOIN
(SELECT a.account_number,a.opening_balance+sum(t.transaction_amount) d
FROM account_master a JOIN transaction_details t ON a.account_number=t.account_number
WHERE t.transaction_type='Deposit'GROUP BY t.account_number) t2
ON t1.account_number=t2.account_number
WHERE ifnull(t1.w,0)>t2.d
ORDER BY account_number;
```



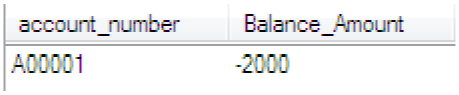
account_number	Deposit	Withdrawal
A00001	10000	12000
A00002	6000	7000

16. **Write a query to show the balance amount for account number that ends with 001. Note: Balance amount includes account opening balance also. Give alias name as Balance_Amount. For example A00015 is having an opening balance of 1000. A00015 has deposited 2000 on 2012-06-12 and deposited 3000 on 2012-07-13. The same account has drawn money of 500 on 2012-08-12 , 500 on 2012-09-15, 1000 on 2012-12-17. So balance amount is 4000 i.e (1000 (opening balance)+2000+3000) – (500+500+1000).**

```
SELECT  ifnull((SUM(CASE WHEN transaction_type='Deposit'

THEN transaction_amount END)) -

(SUM(CASE WHEN transaction_type='Withdrawal'

THEN transaction_amount END))+(select opening_balance

from account_master where account_number like '%001'),(SUM(CASE WHEN transaction_type='Deposit'

THEN transaction_amount END))+(select opening_balance

from account_master where account_number like '%001'))  AS Balance_Amount

FROM transaction_details where account_number like '%001';
```

(or)

```
SELECT ifnull(t1.account_number,t2.account_number) account_number,

t2.d-ifnull(t1.w,0) Balance_Amount FROM

(SELECT account_number,transaction_type,sum(transaction_amount) w from transaction_details

WHERE transaction_type='Withdrawal' GROUP BY account_number) t1

RIGHT JOIN

(SELECT a.account_number,a.opening_balance+sum(t.transaction_amount) d

FROM account a JOIN transaction_details t ON a.account_number=t.account_number

WHERE t.transaction_type='Deposit'GROUP BY t.account_number) t2

ON t1.account_number=t2.account_number

WHERE ifnull(t1.account_number,t2.account_number) LIKE '%001'

ORDER BY account_number;
```

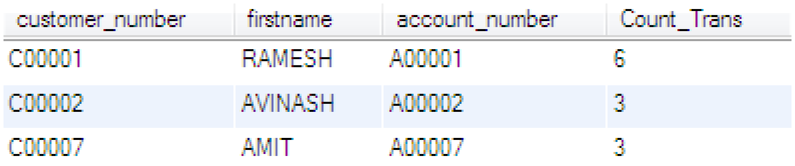


account_number	Balance_Amount
A00001	-2000

17. **Display the customer number, customer's first name, account number and number of transactions being made by the customers from each account. Give the alias name for number of transactions as**

Count_Trans. Display the records sorted in ascending order based on customer number and then by account number.

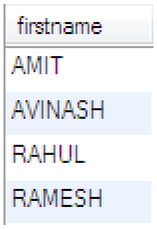
```
SELECT c.customer_number,c.firstname,t.account_number, count(t.account_number) Count_Trans

FROM transaction_details t JOIN account_master a ON a.account_number=t.account_number

JOIN customer c ON c.customer_number=a.customer_number

GROUP BY t.account_number ORDER BY c.customer_number, a.account_number;
```



customer_number	firstname	account_number	Count_Trans
C00001	RAMESH	A00001	6
C00002	AVINASH	A00002	3
C00007	AMIT	A00007	3

18. **Write a query to display the customer's firstname who have multiple accounts (atleast 2 accounts). Display the records sorted in ascending order based on customer's firstname.**

```
SELECT c.firstname FROM

Customer_master c JOIN account_master a ON c.customer_number=a.customer_number

GROUP BY a.customer_number HAVING count(a.account_number)>1

ORDER BY c.firstname;
```

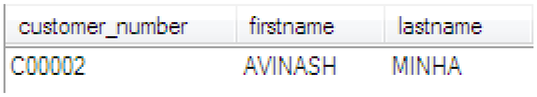


firstname
AMIT
AVINASH
RAHUL
RAMESH

19. **Write a query to display the customer number, firstname, lastname for those client where total loan amount taken is maximum and at least taken from 2 branches. For example the customer C00012 took a loan of 100000 from bank branch with id B00009 and C00012 Took a loan of 500000 from bank branch with id B00010. So total loan amount for customer C00012 is 600000. C00013 took a loan of 100000 from bank branch B00009 and 200000 from bank branch B00011. So total loan taken is 300000. So loan taken by C00012 is more then C00013.**

```
SELECT ld.customer_number, firstname, lastname

FROM customer_master cm JOIN loan_details ld

ON cm.customer_number=ld.customer_number

GROUP BY customer_number

HAVING count(branch_id)>=2 AND sum(loan_amount)>=
```

ALL(SELECT sum(loan_amount) FROM loan GROUP BY customer_number);



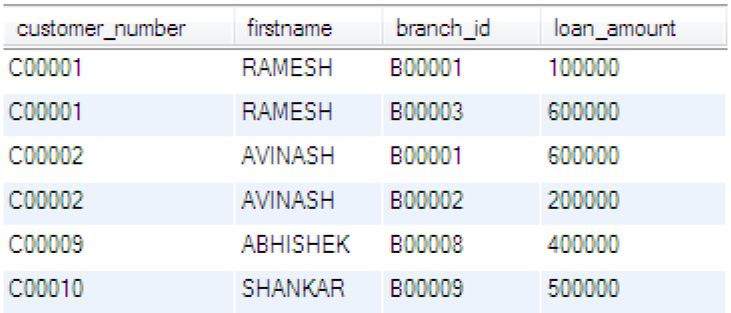
customer_number	firstname	lastname
C00002	AVINASH	MINHA

20. **Write a query to display the customer's number, customer's firstname, branch id and loan amount for people who have taken loans. Display the records sorted in ascending order based on customer number and then by branch id and then by loan amount.**

SELECT c.customer_number,c.firstname,l.branch_id,l.loan_amount FROM

Customer_master c JOIN loan_details l ON c.customer_number=l.customer_number

ORDER BY c.customer_number,l.branch_id,l.loan_amount;



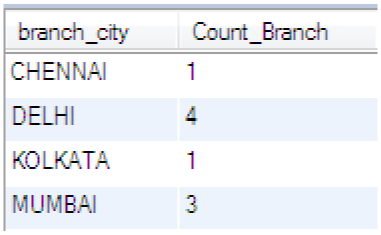
customer_number	firstname	branch_id	loan_amount
C00001	RAMESH	B00001	100000
C00001	RAMESH	B00003	600000
C00002	AVINASH	B00001	600000
C00002	AVINASH	B00002	200000
C00009	ABHISHEK	B00008	400000
C00010	SHANKAR	B00009	500000

21. **Write a query to display city name and count of branches in that city. Give the count of branches an alias name of Count_Branch. Display the records sorted in ascending order based on city name.**

SELECT branch_city,count(branch_id) Count_Branch FROM

Branch_master GROUP BY branch_city

ORDER BY branch_city;



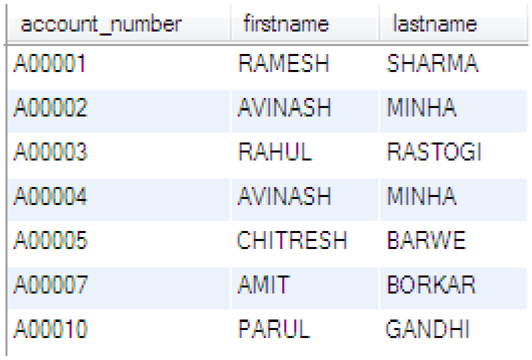
branch_city	Count_Branch
CHENNAI	1
DELHI	4
KOLKATA	1
MUMBAI	3

22. **Write a query to display account id, customer's firstname, customer's lastname for the customer's whose account is Active. Display the records sorted in ascending order based on account id /account number.**

SELECT a.account_number,c.firstname,c.lastname FROM

Customer_master c JOIN account_master a ON c.customer_number=a.customer_number and a.account_status='Active'

ORDER BY a.account_number;

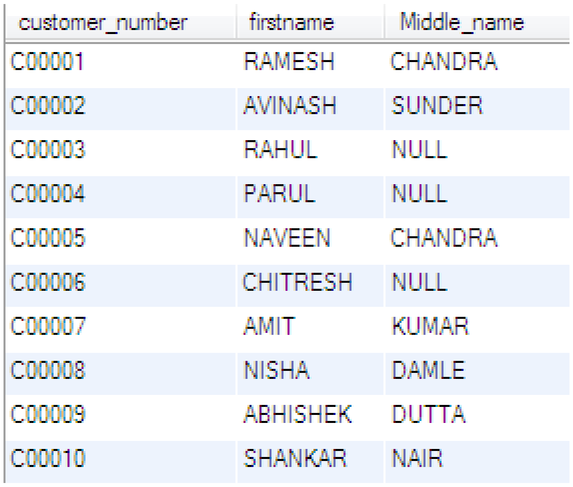


account_number	firstname	lastname
A00001	RAMESH	SHARMA
A00002	AVINASH	MINHA
A00003	RAHUL	RASTOGI
A00004	AVINASH	MINHA
A00005	CHITRESH	BARWE
A00007	AMIT	BORKAR
A00010	PARUL	GANDHI

23. **Write a query to display customer's number, first name and middle name. For the customers who don't have middle name, display their last name as middle name. Give the alias name as Middle_Name. Display the records sorted in ascending order based on customer number.**

SELECT customer_number,firstname,ifnull(middlename,lastname) Middle_name FROM

Customer_master ORDER BY customer_number;

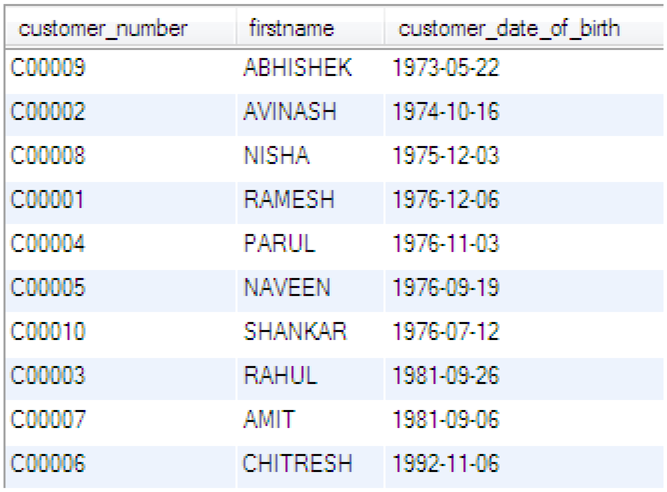


customer_number	firstname	Middle_name
C00001	RAMESH	CHANDRA
C00002	AVINASH	SUNDER
C00003	RAHUL	NULL
C00004	PARUL	NULL
C00005	NAVEEN	CHANDRA
C00006	CHITRESH	NULL
C00007	AMIT	KUMAR
C00008	NISHA	DAMLE
C00009	ABHISHEK	DUTTA
C00010	SHANKAR	NAIR

24. **Write a query to display the customer number , firstname, customer's date of birth . Display the records sorted in ascending order of date of birth year and within that sort by firstname in ascending order.**

SELECT customer_number,firstname,customer_date_of_birth FROM

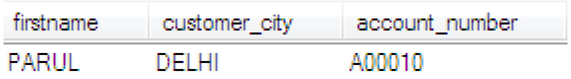
Customer_master ORDER BY year(customer_date_of_birth),customer_number;



customer_number	firstname	customer_date_of_birth
C00009	ABHISHEK	1973-05-22
C00002	AVINASH	1974-10-16
C00008	NISHA	1975-12-03
C00001	RAMESH	1976-12-06
C00004	PARUL	1976-11-03
C00005	NAVEEN	1976-09-19
C00010	SHANKAR	1976-07-12
C00003	RAHUL	1981-09-26
C00007	AMIT	1981-09-06
C00006	CHITRESH	1992-11-06

25. **Write a query to display the customers firstname, city and account number whose occupation are not into Business, Service or Student. Display the records sorted in ascending order based on customer first name and then by account number.**

```
SELECT c.firstname,c.customer_city,a.account_number FROM

Customer_master c JOIN account_master a ON a.customer_number=c.customer_number

WHERE c.occupation NOT IN ('Service','Student','Business')

ORDER BY c.firstname,a.account_number;
```



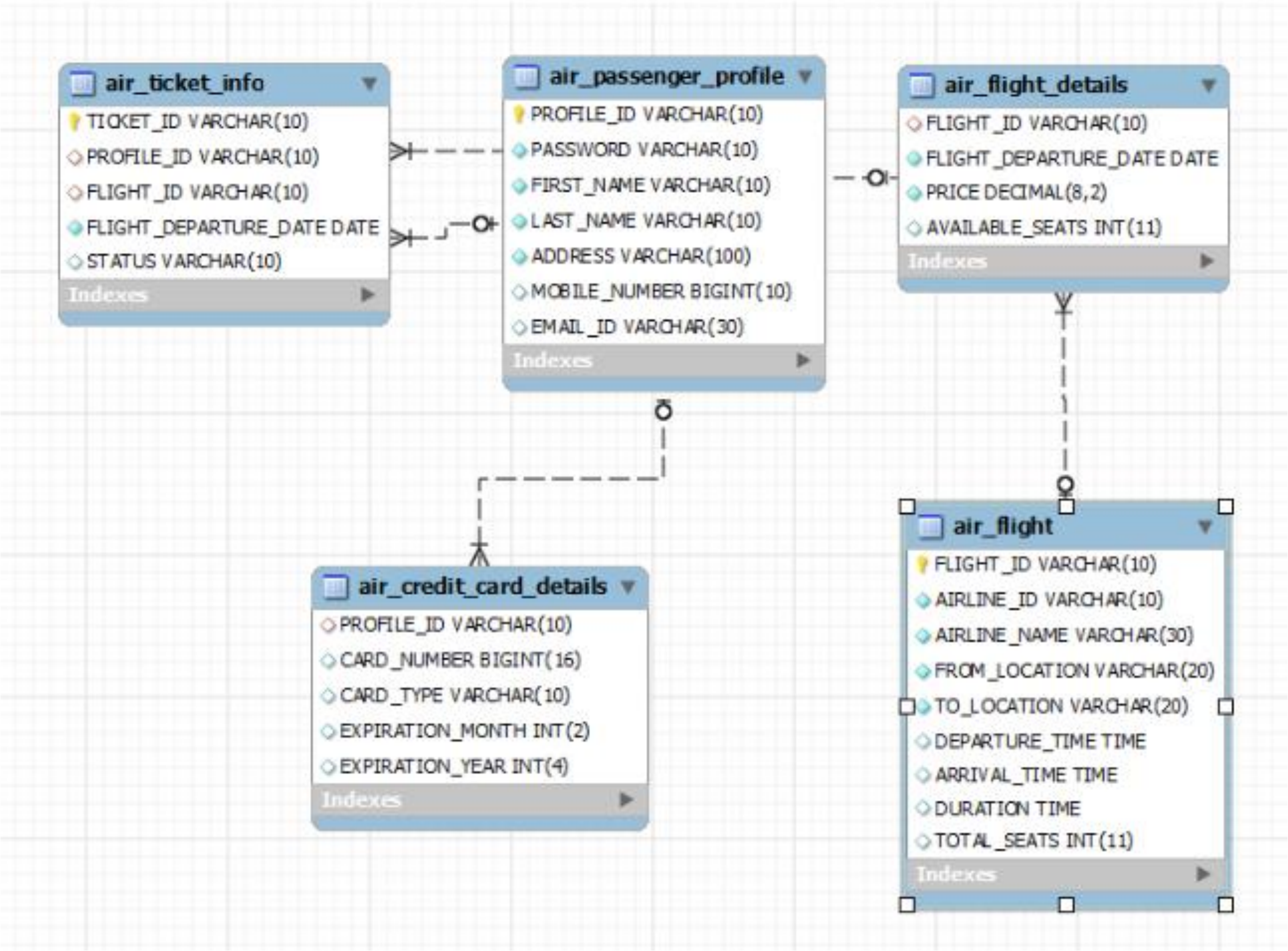
firstname	customer_city	account_number
PARUL	DELHI	A00010

AIRLINES

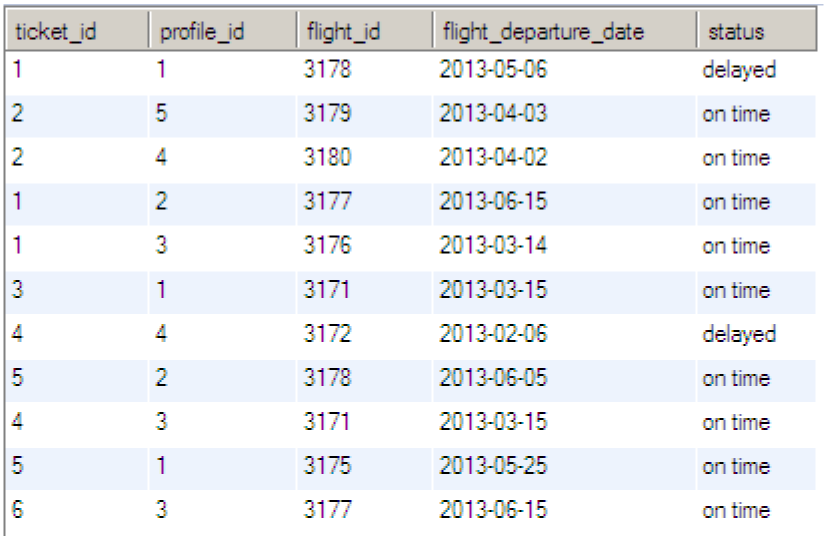
```
create database flight;

use flight;


CREATE  TABLEair_credit_card_details

(

profile_id VARCHAR(10)            NOT NULL,
card_number     BIGINT,
card_type VARCHAR(45),
expiration_month INT,
expiration_year INT
);

CREATE  TABLEair_passenger_profile
(
profile_id VARCHAR(10) NOT NULL ,
password VARCHAR(45) NULL ,
first_name VARCHAR(45) NULL ,
last_name VARCHAR(45) NULL ,
address VARCHAR(45) NULL ,
mobile_number BIGINT NULL ,
email_id VARCHAR(45) NULL
);

CREATE  TABLEair_ticket_info
(
ticket_id VARCHAR(45) NOT NULL ,
profile_id VARCHAR(10) NULL ,
flight_id VARCHAR(45) NULL ,
flight_departure_date DATE NULL ,
status VARCHAR(45) NULL
);

CREATE  TABLEair_flight_details
(
flight_id VARCHAR(45) NOT NULL ,
flight_departure_date DATE NULL ,

price DECIMAL(10,2) NULL ,

available_seats INT NULL

);


CREATE  TABLEair_flight

(

flight_id VARCHAR(45) NOT NULL ,

airline_id VARCHAR(45) NULL ,

airline_name VARCHAR(45) NULL ,

from_location VARCHAR(45) NULL ,

to_location VARCHAR(45) NULL ,

departure_time TIME NULL ,

arrival_time TIME NULL ,

duration TIME NULL ,

total_seats INT NULL

);



INSERT INTO air_credit_card_details VALUES

(1,       622098761234, 'debit',  5,        2013),

(2,       652362563625, 'credit', 1,        2013),

(1,       765432345678, 'credit', 2,        2013),

(3,       654378561234, 'debit',  6,        2013),

(4,       625417895623, 'debit',  2,        2013),

(5,       865478956325, 'debit',  3,        2013),

(6,       789563521457, 'credit', 4,        2013),

(2,       543267895432, 'credit', 8,        2013),

(1,       256369856321, 'debit',  1,        2013);
```

```
INSERT INTO air_flight VALUES
(3173,  'MH370',        'abc',  'hyderabad',    'chennai',      '06:30:00',     '07:15:00',
        '0:45:00',      100),
(3178,  'MH17',         'def',  'chennai',      'hyderabad',    '08:00:00',     '09:00:00',
        '1:00:00',      200),
(3172,  'AR342',        'fgh',  'kolkata',      'chennai',      '11:30:00',     '13:00:00',
        '1:30:00',      100),
(3071,  'JT564', 'jkl',         'chennai',      'delhi',  '08:00:00',     '10:00:00',     '2:00:00',      100),
(3170,  'DT345',        'xyz',  'delhi',  'kolkata',      '21:00:00',     '22:30:00',     '1:30:00',
        100),
(3175,  'MJ654',        'abc',  'chennai',      'hyderabad',    '15:00:00',     '16:00:00',
        '1:00:00',      200),
(3176,  'MH370',        'def',  'kochi',  'chennai',      '18:00:00',     '19:05:00',     '1:05:00',
        100),
(3177,  'MH45',         'fgh',  'delhi',  'kochi',  '19:00:00',     '21:00:00',     '2:00:00',      200),
(3174,  'MH321',        'xyz',  'kolkata',      'delhi',  '0:00:00',      '2:00:00',      '2:00:00',
        100),
(3179,  'JT435', 'abc',         'chennai',      'kolkata',      '14:00:00',     '15:00:00',     '1:00:00',
        100),
(3180,  'JT456', 'ijk',         'kolkata',      'kochi',  '5:00:00',      '5:45:00',      '0:45:00',      200);
```

```
INSERT INTO air_flight_details VALUES
(3170,  '2013-02-14',   1000,   10),
(3171,  '2013-03-15',   5000,   0),
(3172,  '2013-02-05',   3000,   32),
(3173,  '2013-04-07',   2000,   12),
(3174,  '2013-04-05',   3800,   3),
(3175,  '2013-05-25',   3500,   10),
(3176,  '2013-03-14',   8000,   2),
(3177,  '2013-06-15',   1500,   0),

(3178,  '2013-05-06',   3000,   5),

(3179,  '2013-04-03',   4000,   15),

(3180,  '2013-04-02',   3000,   14);



INSERT INTO air_ticket_info VALUES

(1,     1,      3178,   '2013-05-06',   'delayed'),

(2,     5,      3179,   '2013-04-03',   'on time'),

(2,     4,      3180,   '2013-04-02',   'on time'),

(1,     2,      3177,   '2013-06-15',   'on time'),

(1,     3,      3176,   '2013-03-14',   'on time'),

(3,     1,      3171,   '2013-03-15',   'on time'),

(4,     4,      3172,   '2013-02-06',   'delayed'),

(5,     2,      3178,   '2013-06-05',   'on time'),

(4,     3,      3171,   '2013-03-15',   'on time'),

(5,     1,      3175,   '2013-05-25',   'on time'),

(6,     3,      3177,   '2013-06-15',   'on time');



INSERT INTO air_passenger_profile VALUES

(1,     'godbless',     'John',         'Stuart','Street 21, Near Bus Stop-Hyderabad-432126',
        9865263251,     'john@gmail.com'),

(2,     'heyyaa',       'Robert',       'Clive',  'Sector 3, Technopolis-Kolkata-700102',
        9733015875,     'robert@yahoo.com'),

(3,     'hello123',     'Raj',          'Sharma',       'House No. 3, Anna Nagar-Kochi-452314',
        9775470232,     'raj3452@hotmail.com'),

(4,     'yesboss',      'Sanjay',       'Mittal','21 Cauunaught Place-Delhi-144985',
        9856856321,     'sanjay@yahoo.com'),
(5,        'imhere',          'Tony',             'Stark',  '51A, Greams Lane-Chennai-144587',
           9832015785,     'tony@gmail.com');
```

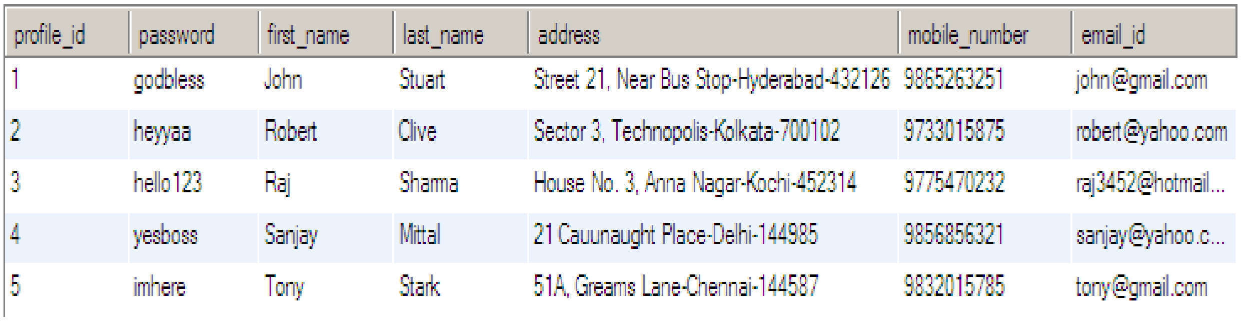


AIR TICKET INFO



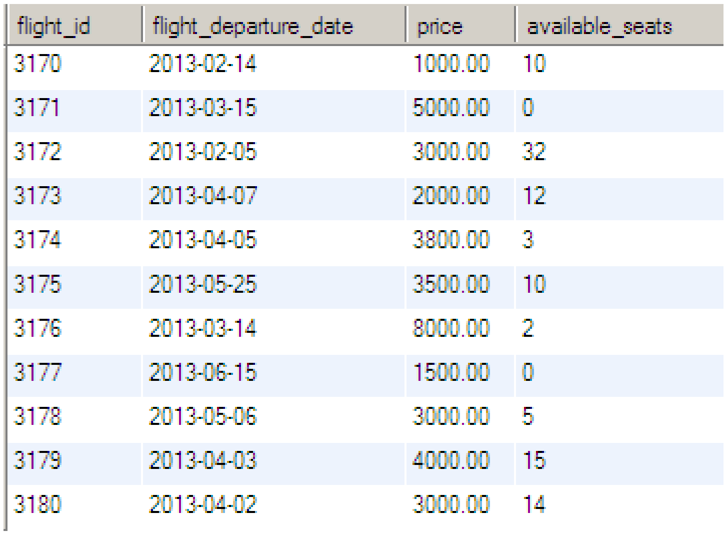
ticket_id	profile_id	flight_id	flight_departure_date	status
1	1	3178	2013-05-06	delayed
2	5	3179	2013-04-03	on time
2	4	3180	2013-04-02	on time
1	2	3177	2013-06-15	on time
1	3	3176	2013-03-14	on time
3	1	3171	2013-03-15	on time
4	4	3172	2013-02-06	delayed
5	2	3178	2013-06-05	on time
4	3	3171	2013-03-15	on time
5	1	3175	2013-05-25	on time
6	3	3177	2013-06-15	on time

AIR PASSENGER DETAILS



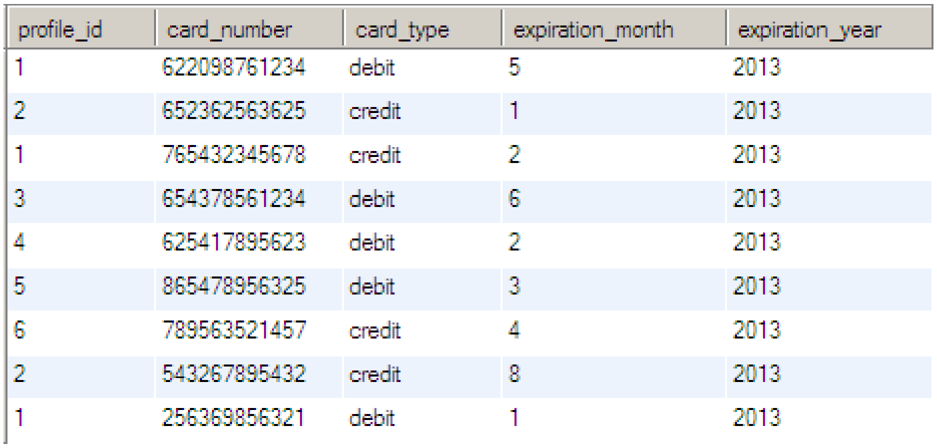
profile_id	password	first_name	last_name	address	mobile_number	email_id
1	godbless	John	Stuart	Street 21, Near Bus Stop-Hyderabad-432126	9865263251	john@gmail.com
2	heyyaa	Robert	Clive	Sector 3, Technopolis-Kolkata-700102	9733015875	robert@yahoo.com
3	hello123	Raj	Sharma	House No. 3, Anna Nagar-Kochi-452314	9775470232	raj3452@hotmail...
4	yesboss	Sanjay	Mittal	21 Cauunaught Place-Delhi-144985	9856856321	sanjay@yahoo.c...
5	imhere	Tony	Stark	51A, Greams Lane-Chennai-144587	9832015785	tony@gmail.com

AIR FLIGHT DETAILS



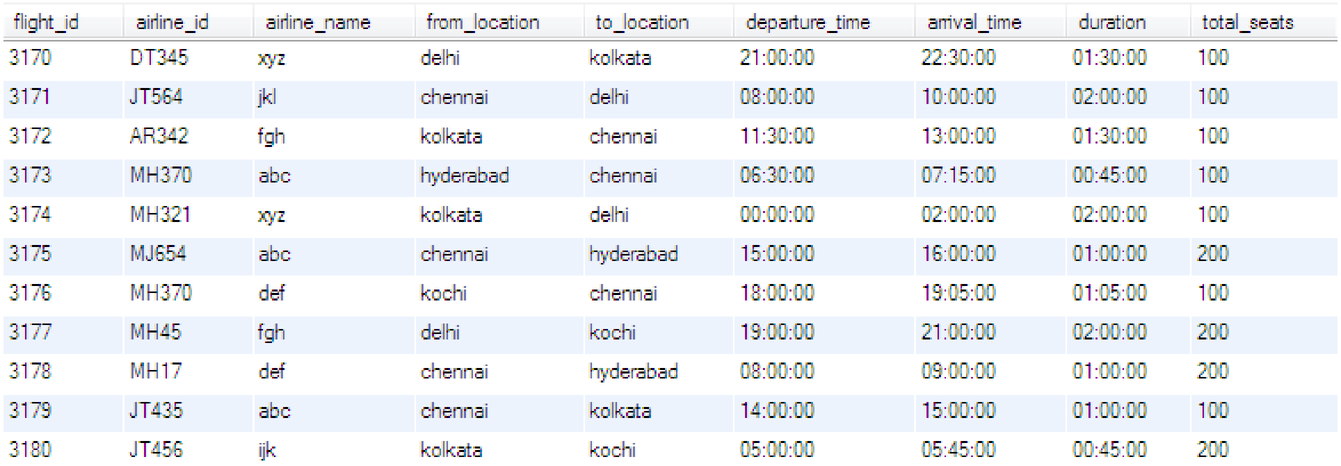
flight_id	flight_departure_date	price	available_seats
3170	2013-02-14	1000.00	10
3171	2013-03-15	5000.00	0
3172	2013-02-05	3000.00	32
3173	2013-04-07	2000.00	12
3174	2013-04-05	3800.00	3
3175	2013-05-25	3500.00	10
3176	2013-03-14	8000.00	2
3177	2013-06-15	1500.00	0
3178	2013-05-06	3000.00	5
3179	2013-04-03	4000.00	15
3180	2013-04-02	3000.00	14

AIR CREDIT CARD DETAILS



profile_id	card_number	card_type	expiration_month	expiration_year
1	622098761234	debit	5	2013
2	652362563625	credit	1	2013
1	765432345678	credit	2	2013
3	654378561234	debit	6	2013
4	625417895623	debit	2	2013
5	865478956325	debit	3	2013
6	789563521457	credit	4	2013
2	543267895432	credit	8	2013
1	256369856321	debit	1	2013

AIR FLIGHT



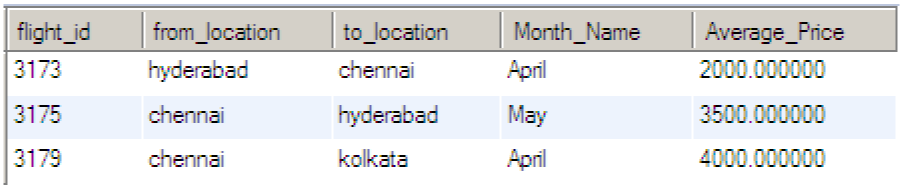
flight_id	airline_id	airline_name	from_location	to_location	departure_time	arrival_time	duration	total_seats
3170	DT345	xyz	delhi	kolkata	21:00:00	22:30:00	01:30:00	100
3171	JT564	jkl	chennai	delhi	08:00:00	10:00:00	02:00:00	100
3172	AR342	fgh	kolkata	chennai	11:30:00	13:00:00	01:30:00	100
3173	MH370	abc	hyderabad	chennai	06:30:00	07:15:00	00:45:00	100
3174	MH321	xyz	kolkata	delhi	00:00:00	02:00:00	02:00:00	100
3175	MJ654	abc	chennai	hyderabad	15:00:00	16:00:00	01:00:00	200
3176	MH370	def	kochi	chennai	18:00:00	19:05:00	01:05:00	100
3177	MH45	fgh	delhi	kochi	19:00:00	21:00:00	02:00:00	200
3178	MH17	def	chennai	hyderabad	08:00:00	09:00:00	01:00:00	200
3179	JT435	abc	chennai	kolkata	14:00:00	15:00:00	01:00:00	100
3180	JT456	ijk	kolkata	kochi	05:00:00	05:45:00	00:45:00	200

QUERIES

1. Write a query to display the average monthly ticket cost for each flight in ABC Airlines. The query should display the Flight_Id,From_location,To_Location,Month Name as "Month_Name" and average price as "Average_Price". Display the records sorted in ascending order based on flight id and then by Month Name.

```
SELECT f.flight_id,f.from_location,f.to_location,

monthname(af.flight_departure_date) Month_Name,

AVG(price) Average_Price FROM air_flight f JOIN air_flight_details af

ON f.flight_id = af.flight_id WHERE f.airline_name = 'abc'
```

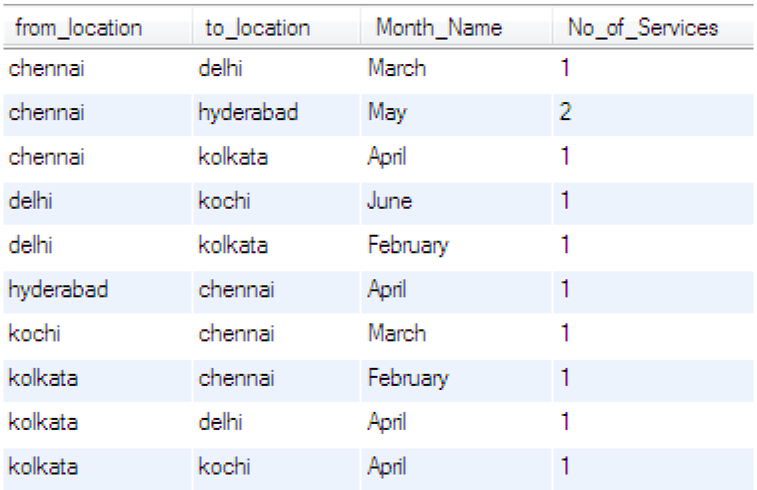
```
GROUP BY f.flight_id,f.from_location,f.to_location,Month_Name

ORDER BY f.flight_id, Month_Name;
```



flight_id	from_location	to_location	Month_Name	Average_Price
3173	hyderabad	chennai	April	2000.000000
3175	chennai	hyderabad	May	3500.000000
3179	chennai	kolkata	April	4000.000000

2.**Write a query to display the number of flight services between locations in a month. The Query should display From_Location, To_Location, Month as “Month_Name” and number of flight services as “No_of_Services”. Hint: The Number of Services can be calculated from the number of scheduled departure dates of a flight. The records should be displayed in ascending order based on From_Location and then by To_Location and then by month name.**

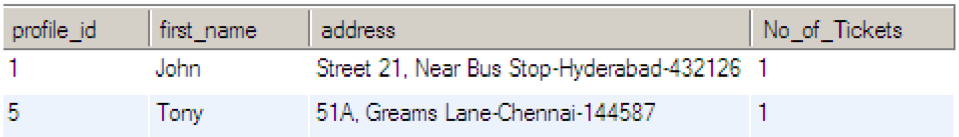
```
SELECT f.from_location,f.to_location,

monthname(af.flight_departure_date) Month_Name,

count(af.flight_departure_date) No_of_Services

FROM air_flight f JOIN air_flight_details af

ON f.flight_id = af.flight_id

GROUP BY f.from_location,f.to_location,Month_Name

ORDER BY f.from_location,f.to_Location,Month_Name;
```



from_location	to_location	Month_Name	No_of_Services
chennai	delhi	March	1
chennai	hyderabad	May	2
chennai	kolkata	April	1
delhi	kochi	June	1
delhi	kolkata	February	1
hyderabad	chennai	April	1
kochi	chennai	March	1
kolkata	chennai	February	1
kolkata	delhi	April	1
kolkata	kochi	April	1

3.**Write a query to display the customer(s) who has/have booked least number of tickets in ABC Airlines. The Query should display profile_id, customer’s first_name, Address and Number of tickets booked as “No_of_Tickets”Display the records sorted in ascending order based on customer's first name.**

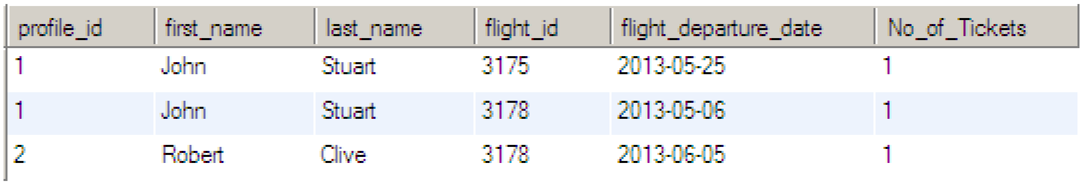
```
SELECT ap.profile_id,ap.first_name,ap.address,count(ati.ticket_id) No_of_Tickets FROM

air_passenger_profile ap JOIN air_ticket_info ati ON ap.profile_id=ati.profile_id

JOIN air_flight af ON af.flight_id=ati.flight_id and af.airline_name='abc'

GROUP BY ap.profile_id,ap.first_name,ap.address HAVING count(ati.ticket_id)<=ALL

(SELECT count(ticket_id)

FROM air_ticket_info GROUP BY profile_id)

ORDER BY ap.first_name;
```



profile_id	first_name	address	No_of_Tickets
1	John	Street 21, Near Bus Stop-Hyderabad-432126	1
5	Tony	51A, Greams Lane-Chennai-144587	1

4. **Write a query to display the number of tickets booked from Chennai to Hyderabad. The Query should display passenger profile_id,first_name,last_name, Flight_Id , Departure_Date and number of tickets booked as “No_of_Tickets”.Display the records sorted in ascending order based on profile id and then by flight id and then by departure date.**

```
SELECT ap.profile_id,ap.first_name,ap.last_name,af.flight_id,ati.flight_departure_date,

count(ati.profile_id) No_of_Tickets FROM

air_ticket_info ati JOIN air_passenger_profile ap ON ap.profile_id=ati.profile_id

JOIN air_flight af ON af.flight_id=ati.flight_id

WHERE af.from_location='Chennai' and af.to_location='Hyderabad'

GROUP BY ati.flight_id,ati.profile_id

ORDER BY ap.profile_id,af.flight_id,ati.flight_departure_date;
```

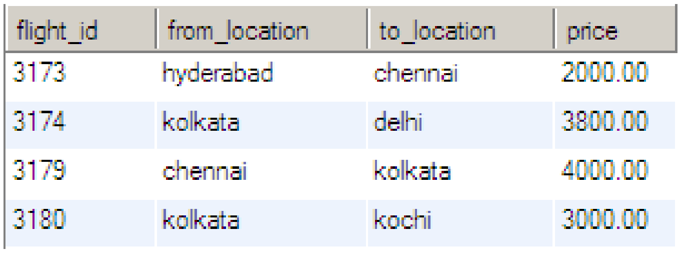


profile_id	first_name	last_name	flight_id	flight_departure_date	No_of_Tickets
1	John	Stuart	3175	2013-05-25	1
1	John	Stuart	3178	2013-05-06	1
2	Robert	Clive	3178	2013-06-05	1

5. **Write a query to display flight id,from location, to location and ticket price of flights whose departure is in the month of april.Display the records sorted in ascending order based on flight id and then by from location.**

```
SELECT af.flight_id,af.from_location,af.to_location,afd.price FROM
```

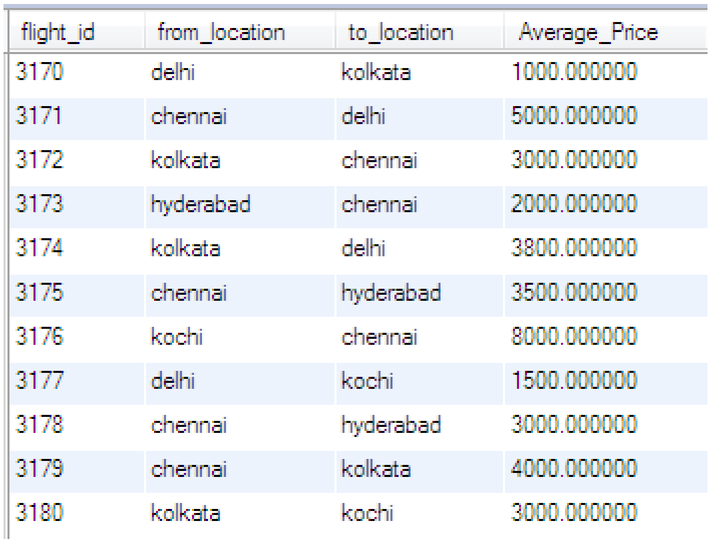
```
air_flight af JOIN air_flight_details afd ON af.flight_id=afd.flight_id

and month(afd.flight_departure_date)='04'

ORDER BY af.flight_id,af.from_location;
```



flight_id	from_location	to_location	price
3173	hyderabad	chennai	2000.00
3174	kolkata	delhi	3800.00
3179	chennai	kolkata	4000.00
3180	kolkata	kochi	3000.00

6. Write a query to display the average cost of the tickets in each flight on all scheduled dates. The query should display flight_id, from_location, to_location and Average price as “Price”. Display the records sorted in ascending order based on flight id and then by from_location and then by to_location.

```
SELECT af.flight_id,af.from_location,af.to_location,avg(afd.price) Average_Price FROM

air_flight af JOIN air_flight_details afd ON af.flight_id=afd.flight_id

GROUP BY af.flight_id

ORDER BY af.flight_id,af.from_location,af.to_location;
```

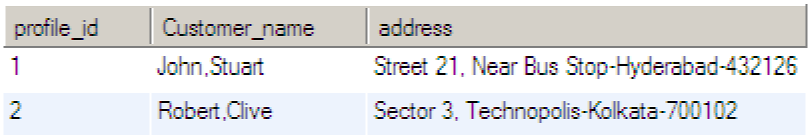


flight_id	from_location	to_location	Average_Price
3170	delhi	kolkata	1000.000000
3171	chennai	delhi	5000.000000
3172	kolkata	chennai	3000.000000
3173	hyderabad	chennai	2000.000000
3174	kolkata	delhi	3800.000000
3175	chennai	hyderabad	3500.000000
3176	kochi	chennai	8000.000000
3177	delhi	kochi	1500.000000
3178	chennai	hyderabad	3000.000000
3179	chennai	kolkata	4000.000000
3180	kolkata	kochi	3000.000000

7. Write a query to display the customers who have booked tickets from Chennai to Hyderabad. The query should display profile_id, customer_name (combine first_name & last_name with comma in b/w), address of the customer. Give an alias to the name as customer_name.Hint: Query should fetch

unique customers irrespective of multiple tickets booked.Display the records sorted in ascending order based on profile id.

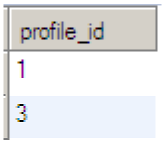
```
SELECT ap.profile_id,concat(ap.first_name,',',ap.last_name) customer_name,ap.address FROM

air_passenger_profile ap JOIN air_ticket_info ati ON ap.profile_id=ati.profile_id

JOIN air_flight af ON af.flight_id=ati.flight_id

WHERE af.from_location='Chennai' and af.to_location='Hyderabad'

GROUP BY ati.profile_id

ORDER BY ap.profile_id;
```



profile_id	Customer_name	address
1	John,Stuart	Street 21, Near Bus Stop-Hyderabad-432126
2	Robert,Clive	Sector 3, Technopolis-Kolkata-700102

8. Write a query to display profile id of the passenger(s) who has/have booked maximum number of tickets.In case of multiple records, display the records sorted in ascending order based on profile id.

```
SELECT profile_id FROM air_ticket_info

group by profile_id

having count(ticket_id)>=all(select count(ticket_id)

from air_ticket_info

group by profile_id) order by profile_id;
```

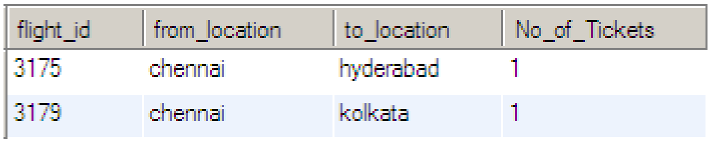


profile_id
1
3

9. Write a query to display the total number of tickets as "No_of_Tickets" booked in each flight in ABC Airlines. The Query should display the flight_id, from_location, to_location and the number of tickets. Display only the flights in which atleast 1 ticket is booked.Display the records sorted in ascending order based on flight id.

```
SELECT f.flight_id,f.from_location,f.to_location,COUNT(t.ticket_id) AS No_of_Tickets

FROM air_ticket_info t JOIN air_flight f

ON  f.flight_id = t.flight_id where AIRLINE_NAME = 'abc' GROUP by

f.flight_id,f.from_location,f.to_location

having count(t.ticket_id)>=1
```

ORDER by f.flight_id;



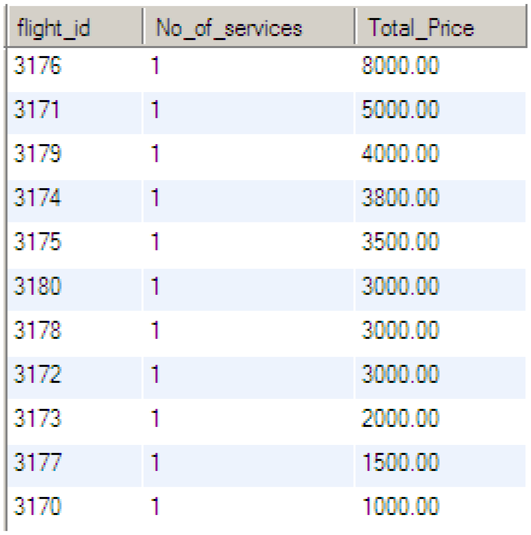
flight_id	from_location	to_location	No_of_Tickets
3175	chennai	hyderabad	1
3179	chennai	kolkata	1

10. Write a query to display the no of services offered by each flight and the total price of the services. The Query should display flight_id, number of services as “No_of_Services” and the cost as “Total_Price” in the same order. Order the result by Total Price in descending order and then by flight_id in descending order.Hint:The number of services can be calculated from the number of scheduled departure dates of the flight

SELECT flight_id,count(flight_departure_date) No_of_services,sum(price) Total_Price FROM

air_flight_details GROUP BY flight_id

ORDER BY Total_price DESC,flight_id DESC;



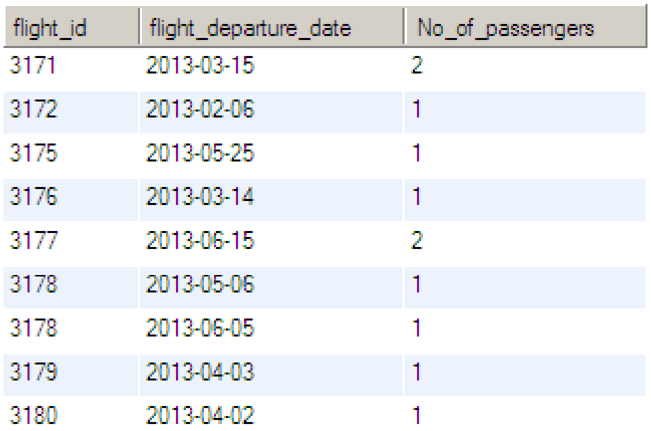
flight_id	No_of_services	Total_Price
3176	1	8000.00
3171	1	5000.00
3179	1	4000.00
3174	1	3800.00
3175	1	3500.00
3180	1	3000.00
3178	1	3000.00
3172	1	3000.00
3173	1	2000.00
3177	1	1500.00
3170	1	1000.00

11. Write a query to display the number of passengers who have travelled in each flight in each scheduled date. The Query should display flight_id, flight_departure_date and the number of passengers as “No_of_Passengers” in the same order.Display the records sorted in ascending order based on flight id and then by flight departure date.

SELECT flight_id,flight_departure_date,count(ticket_id) No_of_passengers FROM

air_ticket_info GROUP BY flight_id,flight_departure_date

ORDER BY flight_id,flight_departure_date;



flight_id	flight_departure_date	No_of_passengers
3171	2013-03-15	2
3172	2013-02-06	1
3175	2013-05-25	1
3176	2013-03-14	1
3177	2013-06-15	2
3178	2013-05-06	1
3178	2013-06-05	1
3179	2013-04-03	1
3180	2013-04-02	1

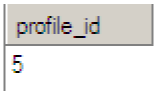
12. **Write a query to display profile id of passenger(s) who booked minimum number of tickets. In case of multiple records, display the records sorted in ascending order based on profile id.**

SELECT profile_id FROM air_ticket_info

GROUP BY profile_id HAVING count(ticket_id)<=ALL

(SELECT count(ticket_id) FROM air_ticket_info GROUP BY profile_id)

ORDER BY profile_id;



profile_id
5

13. Write a query to display unique passenger profile id, first name, mobile number and email address of passengers who booked ticket to travel from HYDERABAD to CHENNAI.Display the records sorted in ascending order based on profile id.

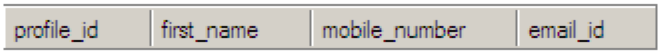
SELECT DISTINCT ap.profile_id,ap.first_name,ap.mobile_number,ap.email_id FROM

air_passenger_profile ap JOIN air_ticket_info ati ON ap.profile_id=ati.profile_id

JOIN air_flight af ON ati.flight_id=af.flight_id

WHERE af.from_location='Hyderabad' and af.to_location='Chennai'

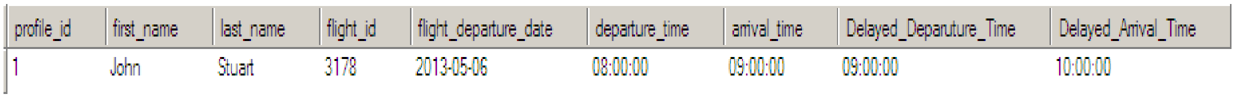
ORDER BY profile_id;



profile_id	first_name	mobile_number	email_id

14. **Write a query to intimate the passengers who are boarding Chennai to Hyderabad Flight on 6th May 2013 stating the delay of 1hr in the departure time. The Query should display the passenger's profile_id, first_name,last_name, flight_id, flight_departure_date, actual departure time , actual arrival time , delayed departure time as "Delayed_Departure_Time", delayed arrival time as "Delayed_Arrival_Time" Hint: Distinct Profile ID should be displayed irrespective of multiple tickets booked by the same profile.Display the records sorted in ascending order based on passenger's profile id.**

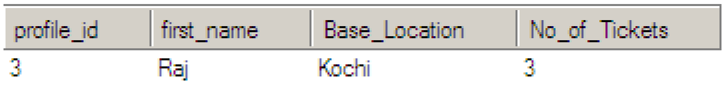
```
SELECT DISTINCT ap.profile_id,ap.first_name,ap.last_name,ati.flight_id,ati.flight_departure_date,

af.departure_time,af.arrival_time,

addtime(af.departure_time,'01:00:00') Delayed_Deparuture_Time,

addtime(af.arrival_time,'01:00:00') Delayed_Arrival_Time FROM

air_passenger_profile ap JOIN air_ticket_info ati ON ap.profile_id=ati.profile_id

JOIN air_flight af ON af.flight_id=ati.flight_id

WHERE af.from_location='Chennai' and af.to_location='Hyderabad'

and ati.flight_departure_date='2013-05-06'

ORDER BY profile_id;
```



profile_id	first_name	last_name	flight_id	flight_departure_date	departure_time	arrival_time	Delayed_Deparuture_Time	Delayed_Arrival_Time
1	John	Stuart	3178	2013-05-06	08:00:00	09:00:00	09:00:00	10:00:00

15. **Write a query to display the number of tickets as "No_of_Tickets" booked by Kochi Customers. The Query should display the Profile_Id, First_Name, Base_Location and number of tickets booked.Hint: Use String functions to get the base location of customer from their Address and give alias name as "Base_Location"Display the records sorted in ascending order based on customer first name.**

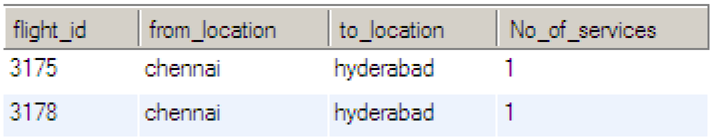
```
SELECT ap.profile_id,ap.first_name,

substring_index(substring_index(ap.address,'-',2),'-',-1) Base_Location,

count(ati.ticket_id) No_of_Tickets FROM

air_passenger_profile ap JOIN air_ticket_info ati ON ati.profile_id=ap.profile_id

WHERE ap.address LIKE '%Kochi%'

ORDER BY ap.first_name;
```



profile_id	first_name	Base_Location	No_of_Tickets
3	Raj	Kochi	3

16. **Write a query to display the flight_id, from_location, to_location, number of Services as "No_of_Services" offered in the month of May.**

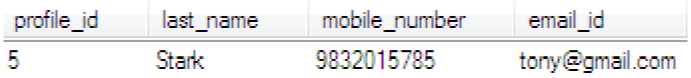
```
SELECT af.flight_id,af.from_location,af.to_location,count(afd.flight_departure_date) No_of_services FROM

air_flight af JOIN air_flight_details afd ON af.flight_id=afd.flight_id

WHERE month(flight_departure_date)='05'

GROUP BY af.flight_id,af.from_location,af.to_location

ORDER BY af.flight_id;
```



flight_id	from_location	to_location	No_of_services
3175	chennai	hyderabad	1
3178	chennai	hyderabad	1

17. **Write a query to display profile id,last name,mobile number and email id of passengers whose base location is chennai.Display the records sorted in ascending order based on profile id.**

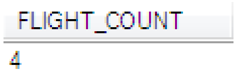
```
SELECT profile_id, last_name, mobile_number, email_id

FROM air_passenger_profile

WHERE address LIKE '%Chennai%'

ORDER BY profile_id;
```



profile_id	last_name	mobile_number	email_id
5	Stark	9832015785	tony@gmail.com

18. Write a query to display number of flights between 6.00 AM and 6.00 PM from chennai. Hint Use FLIGHT_COUNT as alias name.

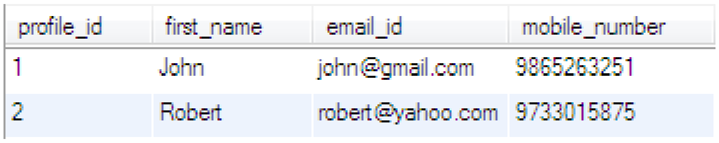
```
SELECT count(flight_id) FLIGHT_COUNT FROM air_flight

WHERE from_location='CHENNAI'

AND departure_time BETWEEN '06:00:00' AND '18:00:00';
```



FLIGHT_COUNT
4

19. **Write a query to display unique profile id,first name , email id and contact number of passenger(s) who travelled on flight with id 3178. Display the records sorted in ascending order based on first name.**

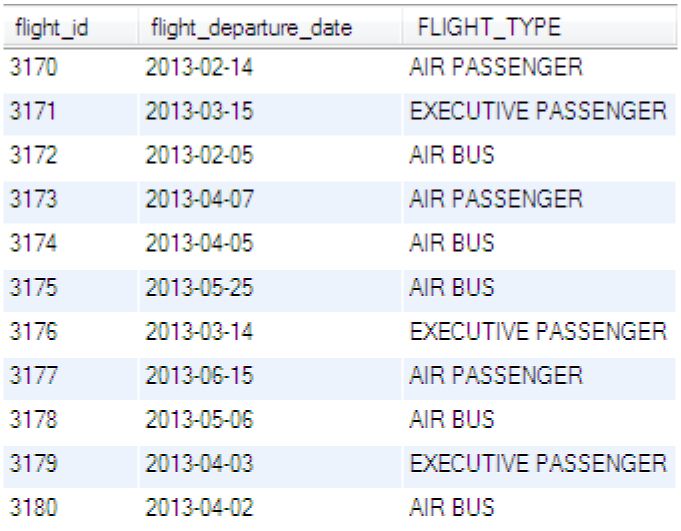
```
SELECT DISTINCT ap.profile_id,ap.first_name,ap.email_id,ap.mobile_number FROM

air_passenger_profile ap JOIN air_ticket_info ati ON ap.profile_id=ati.profile_id

WHERE ati.flight_id='3178'

ORDER BY ap.first_name;
```



profile_id	first_name	email_id	mobile_number
1	John	john@gmail.com	9865263251
2	Robert	robert@yahoo.com	9733015875

20. **Write a query to display flight id,departure date,flight type of all flights. Flight type can be identified based on the following rules : if ticket price is less than 3000 then 'AIR PASSENGER',ticket price between 3000 and less than 4000 'AIR BUS' and ticket price between 4000 and greater than 4000 then 'EXECUTIVE PASSENGER'. Hint use FLIGHT_TYPE as alias name.Display the records sorted in ascendeing order based on flight_id and then by departure date.**

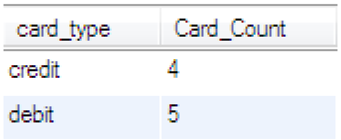
```
SELECT flight_id,flight_departure_date,

case when price<3000 then 'AIR PASSENGER'

    when price>=3000 and price<4000 then 'AIR BUS'

    when price>=4000 then 'EXECUTIVE PASSENGER'

end FLIGHT_TYPE FROM air_flight_details

ORDER BY flight_id,flight_departure_date;
```



flight_id	flight_departure_date	FLIGHT_TYPE
3170	2013-02-14	AIR PASSENGER
3171	2013-03-15	EXECUTIVE PASSENGER
3172	2013-02-05	AIR BUS
3173	2013-04-07	AIR PASSENGER
3174	2013-04-05	AIR BUS
3175	2013-05-25	AIR BUS
3176	2013-03-14	EXECUTIVE PASSENGER
3177	2013-06-15	AIR PASSENGER
3178	2013-05-06	AIR BUS
3179	2013-04-03	EXECUTIVE PASSENGER
3180	2013-04-02	AIR BUS

21. **Write a query to display the credit card type and no of credit cards used on the same type. Display the records sorted in ascending order based on credit card type.Hint: Use CARD_COUNT AS Alias name for no of cards.**

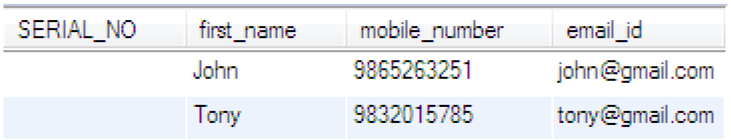
```
SELECT card_type, count(card_type) Card_Count FROM air_credit_card_details

GROUP BY card_type ORDER BY card_type;
```



card_type	Card_Count
credit	4
debit	5

22.**Write a Query to display serial no, first name, mobile number, email id of all the passengers who holds email address from gmail.com.The Serial No will be the last three digits of profile ID.Hint: Use SERIAL_NO as Alias name for serial number.Display the records sorted in ascending order based on name.**

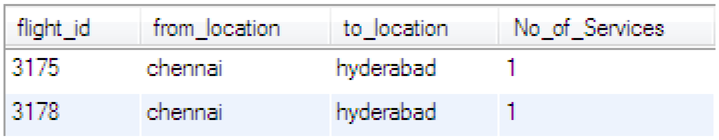
```
SELECT substring(profile_id,-3) SERIAL_NO,first_name,mobile_number,email_id FROM

air_passenger_profile

WHERE email_id LIKE '%@gmail.com'

ORDER BY first_name;
```



SERIAL_NO	first_name	mobile_number	email_id
	John	9865263251	john@gmail.com
	Tony	9832015785	tony@gmail.com

23. **Write a query to display the flight(s) which has least number of services in the month of May. The Query should fetch flight_id, from_location, to_location, least number of Services as "No_of_Services" Hint: Number of services offered can be calculated from the number of scheduled departure dates of a flight if there are multiple flights, display them sorted in ascending order based on flight id.**

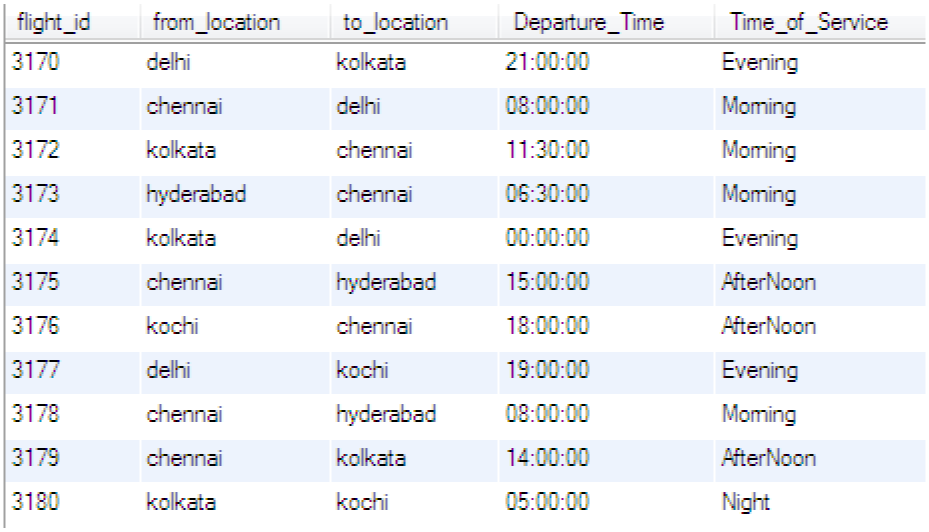
```
SELECT afd.flight_id,af.from_location,af.to_location,count(afd.flight_id) No_of_Services

FROM air_flight_details afd JOIN air_flight af ON af.flight_id=afd.flight_id

WHERE monthname(afd.flight_departure_date)='May'

GROUP BY afd.flight_departure_date HAVING count(afd.flight_id) <=

ALL(SELECT count(flight_id) FROM air_flight_details

WHERE monthname(flight_departure_date)='May'

GROUP BY flight_departure_date)

ORDER BY flight_id;
```



flight_id	from_location	to_location	No_of_Services
3175	chennai	hyderabad	1
3178	chennai	hyderabad	1

24. **Write a query to display the flights available in Morning, AfterNoon, Evening& Night. The Query should display the Flight_Id, From_Location, To_Location , Departure_Time, time of service as "Time_of_Service". Time of Service should be calculated as: From 05:00:01 Hrs to 12:00:00 Hrs - Morning, 12:00:01 to 18:00:00 Hrs -AfterNoon, 18:00:01 to 24:00:00 - Evening and 00:00:01 to 05:00:00 - NightDisplay the records sorted in ascending order based on flight id.**

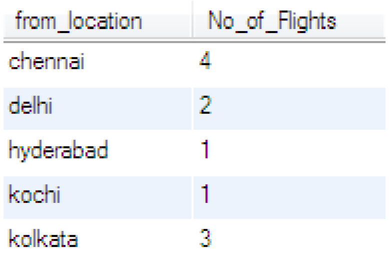
```
SELECT flight_id,from_location,to_location,Departure_Time,

CASE

WHEN departure_time BETWEEN ('05:00:01') AND ('12:00:00')

THEN 'Morning'

WHEN departure_time BETWEEN ('12:00:01') AND ('18:00:00')

THEN 'AfterNoon'

WHEN departure_time BETWEEN ('18:00:01') AND ('24:00:00')

THEN 'Evening'

WHEN departure_time='00:00:00'

THEN 'Evening'

WHEN departure_time BETWEEN ('00:00:01') AND ('05:00:00')

THEN 'Night'

END Time_of_Service

FROM air_flight

order by flight_id;
```



flight_id	from_location	to_location	Departure_Time	Time_of_Service
3170	delhi	kolkata	21:00:00	Evening
3171	chennai	delhi	08:00:00	Morning
3172	kolkata	chennai	11:30:00	Morning
3173	hyderabad	chennai	06:30:00	Morning
3174	kolkata	delhi	00:00:00	Evening
3175	chennai	hyderabad	15:00:00	AfterNoon
3176	kochi	chennai	18:00:00	AfterNoon
3177	delhi	kochi	19:00:00	Evening
3178	chennai	hyderabad	08:00:00	Morning
3179	chennai	kolkata	14:00:00	AfterNoon
3180	kolkata	kochi	05:00:00	Night

25. **Write a query to display the number of flights flying from each location. The Query should display the from location and the number of flights to other locations as "No_of_Flights". Hint: Get the distinct from location and to location.Display the records sorted in ascending order based on from location.**

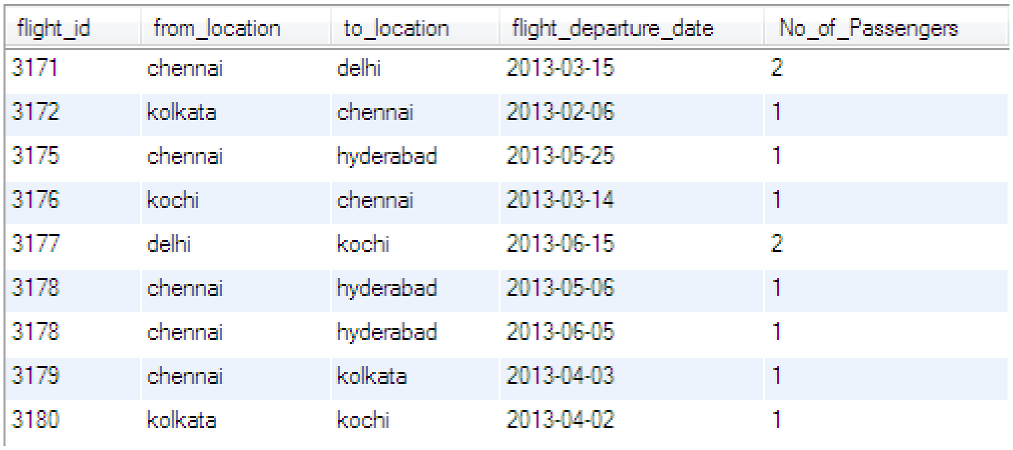
```
SELECT from_location,count(flight_id) No_of_Flights FROM

air_flight GROUP BY from_location

ORDER BY from_location;
```



from_location	No_of_Flights
chennai	4
delhi	2
hyderabad	1
kochi	1
kolkata	3

26. **Write a query to display the number of passengers traveled in each flight in each scheduled date. The Query should display flight_id,from_location,To_location, flight_departure_date and the number of passengers as "No_of_Passengers". Hint: The Number of passengers inclusive of all the tickets booked with single profile id.Display the records sorted in ascending order based on flight id and then by flight departure date.**

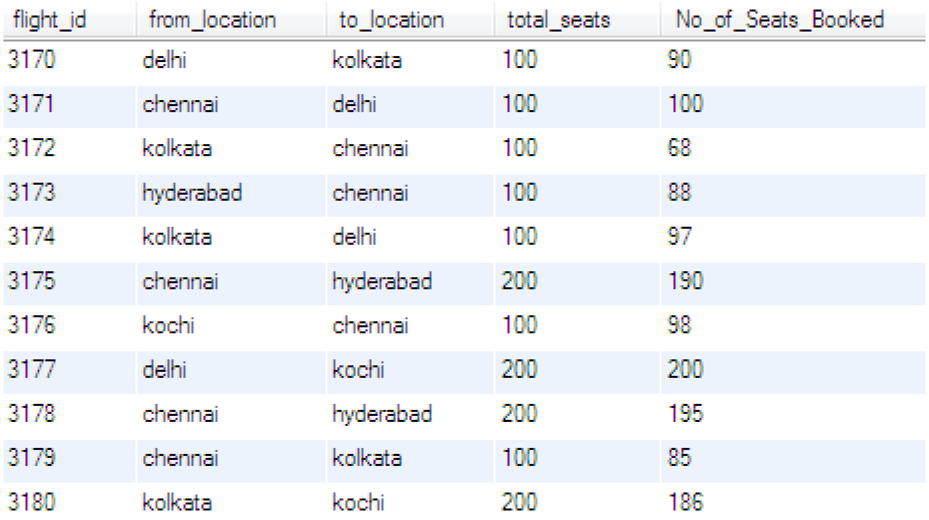
```
SELECT af.flight_id,af.from_location,af.to_location,ati.flight_departure_date,

count(ati.ticket_id) No_of_Passengers FROM

air_flight af JOIN air_ticket_info ati ON af.flight_id=ati.flight_id

GROUP BY af.flight_id,af.from_location,af.to_location,ati.flight_departure_date

ORDER BY af.flight_id,ati.flight_departure_date;
```



flight_id	from_location	to_location	flight_departure_date	No_of_Passengers
3171	chennai	delhi	2013-03-15	2
3172	kolkata	chennai	2013-02-06	1
3175	chennai	hyderabad	2013-05-25	1
3176	kochi	chennai	2013-03-14	1
3177	delhi	kochi	2013-06-15	2
3178	chennai	hyderabad	2013-05-06	1
3178	chennai	hyderabad	2013-06-05	1
3179	chennai	kolkata	2013-04-03	1
3180	kolkata	kochi	2013-04-02	1

27. **Write a query to display the flight details in which more than 10% of seats have been booked. The query should display Flight_Id, From_Location, To_Location,Total_Seats, seats booked as "No_of_Seats_Booked" .Display the records sorted in ascending order based on flight id and then by No_of_Seats_Booked.**

```
SELECT af.flight_id,af.from_location,af.to_location,af.total_seats,

(af.total_seats-afd.available_seats) No_of_Seats_Booked FROM

air_flight_details afd JOIN air_flight af ON afd.flight_id=af.flight_id

WHERE (af.total_seats-afd.available_seats)>(af.total_seats*0.1)

ORDER BY flight_id,No_of_Seats_Booked;
```

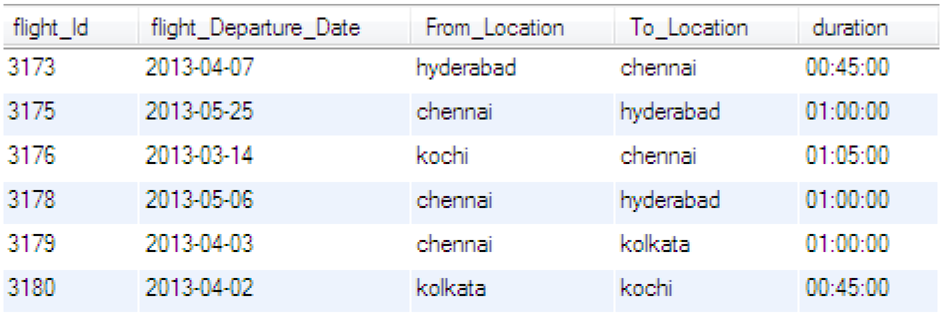


flight_id	from_location	to_location	total_seats	No_of_Seats_Booked
3170	delhi	kolkata	100	90
3171	chennai	delhi	100	100
3172	kolkata	chennai	100	68
3173	hyderabad	chennai	100	88
3174	kolkata	delhi	100	97
3175	chennai	hyderabad	200	190
3176	kochi	chennai	100	98
3177	delhi	kochi	200	200
3178	chennai	hyderabad	200	195
3179	chennai	kolkata	100	85
3180	kolkata	kochi	200	186

28. **Write a query to display the Flight_Id, Flight_Departure_Date, From_Location,To_Location and Duration of all flights which has duration of travel less than 1 Hour, 10 Minutes.**

```
SELECT af.flight_Id,afd.flight_Departure_Date,af.From_Location,af.To_Location,af.duration

FROM air_flight af JOIN air_flight_details afd ON af.flight_id=afd.flight_id
```

WHERE af.duration<'01:10:00';



flight_Id	flight_Departure_Date	From_Location	To_Location	duration
3173	2013-04-07	hyderabad	chennai	00:45:00
3175	2013-05-25	chennai	hyderabad	01:00:00
3176	2013-03-14	kochi	chennai	01:05:00
3178	2013-05-06	chennai	hyderabad	01:00:00
3179	2013-04-03	chennai	kolkata	01:00:00
3180	2013-04-02	kolkata	kochi	00:45:00

29. **Write a query to display the flight_id, from_location,to_location,number of services as "No_of_Services" , average ticket price as "Average_Price" whose average ticket price is greater than the total average ticket cost of all flights. Order the result by lowest average price.**

SELECT afd.flight_id,af.from_location,af.to_location,

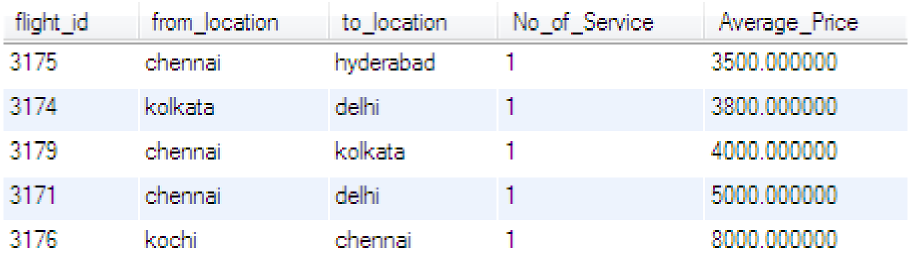
count(afd.flight_departure_date) No_of_Service, avg(price) Average_Price

FROM air_flight af JOIN air_flight_details afd ON af.flight_id=afd.flight_id

GROUP BY af.flight_id,af.from_location,af.to_location

HAVING avg(price)>(SELECT avg(price) FROM air_flight_details)

ORDER BY average_price;



flight_id	from_location	to_location	No_of_Service	Average_Price
3175	chennai	hyderabad	1	3500.000000
3174	kolkata	delhi	1	3800.000000
3179	chennai	kolkata	1	4000.000000
3171	chennai	delhi	1	5000.000000
3176	kochi	chennai	1	8000.000000

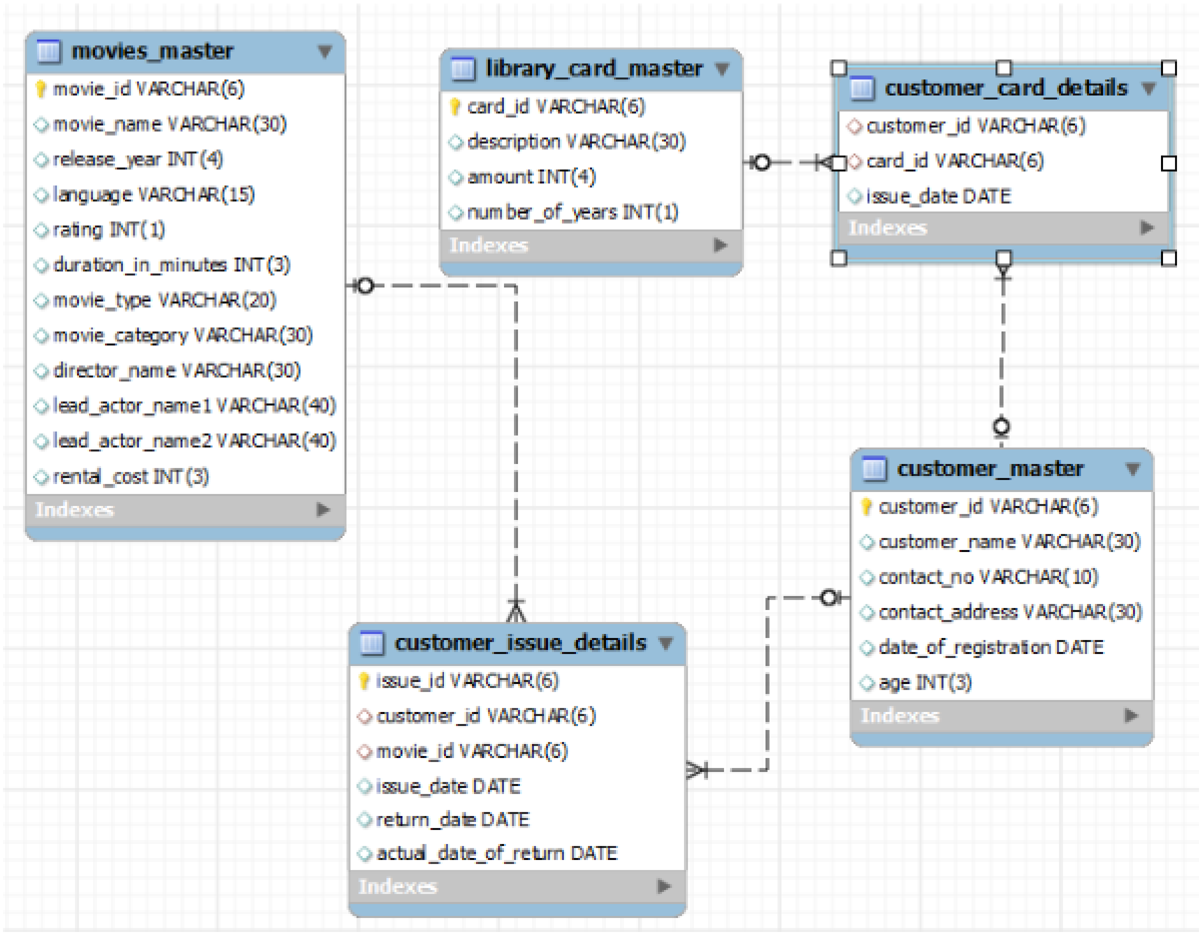
MOVIE

```
CREATE DATABASE video;USE video;

Create table CUSTOMER_MASTER

(CUSTOMER_ID Varchar(10),CUSTOMER_NAME Varchar(30) NOT NULL,CONTACT_NO
BIGINT(10),CONTACT_ADD Varchar(20),DATE_OF_REGISTRATION Date NOT NULL,AGE
Varchar(15)NOT NULL,Constraint MT_cts1 PRIMARY KEY(CUSTOMER_ID));

Create table LIBRARY_CARD_MASTER

(CARD_ID Varchar(10),DESCRIPTION Varchar(30) NOT NULL,AMOUNT
        BIGINT(50),NUMBER_OF_YEARS bigint(10) NOT NULL,Constraint MT_cts2 PRIMARY
KEY(CARD_ID));

Create table MOVIES_MASTER

(MOVIE_ID Varchar(10),        MOVIE_NAME Varchar(50) NOT NULL,RELEASE_DATE Varchar(30)
NOT NULL,LANGUAGE Varchar(30),RATING int(2),DURATION VARCHAR(10) NOT NULL,
        MOVIE_TYPE Varchar(3),MOVIE_CATEGORY VARCHAR(20) NOT NULL,DIRECTOR
VARCHAR(20) NOT NULL,

LEAD_ROLE_1 Varchar(3) NOT NULL,LEAD_ROLE_2 VARCHAR(4) NOT NULL,RENT_COST
BIGINT(10),Constraint MT_cts4 PRIMARY KEY(MOVIE_ID));

Create table CUSTOMER_CARD_DETAILS

(CUSTOMER_ID Varchar(10),CARD_ID VARCHAR(10),ISSUE_DATE DATE NOT NULL,Constraint
MT_cts3 PRIMARY KEY(CUSTOMER_ID),Constraint MT_CTS41 FOREIGN KEY(CUSTOMER_ID)
References CUSTOMER_MASTER(CUSTOMER_ID),Constraint MT_CTS42 FOREIGN KEY(CARD_ID)
References LIBRARY_CARD_MASTER(CARD_ID));

Create table CUSTOMER_ISSUE_DETAILS

(ISSUE_ID Varchar(10) NOT NULL,CUSTOMER_ID Varchar(10) NOT NULL,MOVIE_ID
VARCHAR(10), ISSUE_DATE Date NOT NULL,RETURN_DATE Date NOT NULL,

 ACTUAL_DATE_RETURN Date NOT NULL,Constraint MT_cts5 PRIMARY
KEY(ISSUE_ID),Constraint MT_Mem FOREIGN KEY(CUSTOMER_ID) References
CUSTOMER_MASTER(CUSTOMER_ID), Constraint MT_Mem1 FOREIGN KEY(MOVIE_ID)
References MOVIES_MASTER(MOVIE_ID));
```

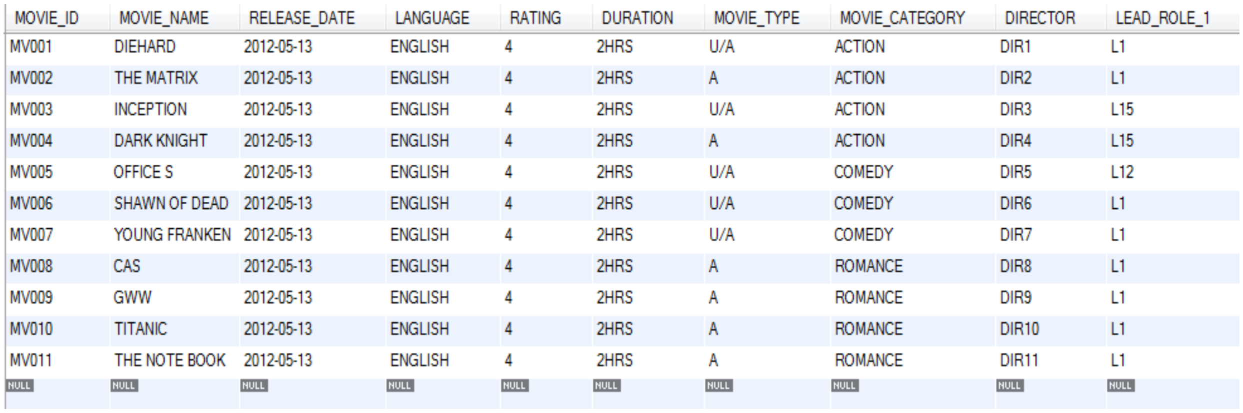
```
Insert into CUSTOMER_MASTER Values('CUS001', 'AMIT', 9876543210,'ADD1', '2012-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS002', 'ABDHUL', 8765432109,'ADD2', '2012-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS003', 'GAYAN', 7654321098,'ADD3', '2012-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS004', 'RADHA', 6543210987,'ADD4', '2012-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS005', 'GURU', NULL,'ADD5', '2012-02-12', '21');

Insert into CUSTOMER_MASTER Values('CUS006', 'MOHAN', 4321098765,'ADD6', '2012-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS007', 'NAME7', 3210987654,'ADD7', '2012-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS008', 'NAME8', 2109876543,'ADD8', '2013-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS009', 'NAME9', NULL,'ADD9', '2013-02-12', '21');

Insert into CUSTOMER_MASTER Values('CUS010', 'NAM10', 9934567890,'ADD10', '2013-02-12',
'21');

Insert into CUSTOMER_MASTER Values('CUS011', 'NAM11', 9875678910,'ADD11', '2013-02-12',
'21');


Insert into LIBRARY_CARD_MASTER Values('CR001', 'Silver', 200, 5);

Insert into LIBRARY_CARD_MASTER Values('CR002', 'Gold', 400, 9);

Insert into LIBRARY_CARD_MASTER Values('CR003', 'Platinum', 600, 8);

Insert into LIBRARY_CARD_MASTER Values('CR004', 'VISA', 800, 7);

Insert into LIBRARY_CARD_MASTER Values('CR005', 'CREDIT', 1200, 6);


Insert into MOVIES_MASTER Values('MV001', 'DIEHARD', '2012-05-13','ENGLISH', 4 , '2HRS',
'U/A','ACTION','DIR1','L1','L2',100);

Insert into MOVIES_MASTER Values('MV002', 'THE MATRIX', '2012-05-13','ENGLISH', 4 , '2HRS',
'A','ACTION','DIR2','L1','L2',100);
```

```
Insert into MOVIES_MASTER Values('MV003', 'INCEPTION', '2012-05-13','ENGLISH', 4 , '2HRS', 'U/A','ACTION','DIR3','L15','L2',100);

Insert into MOVIES_MASTER Values('MV004', 'DARK KNIGHT', '2012-05-13','ENGLISH', 4 , '2HRS', 'A','ACTION','DIR4','L15','L2',100);

Insert into MOVIES_MASTER Values('MV005', 'OFFICE S', '2012-05-13','ENGLISH', 4 , '2HRS', 'U/A','COMEDY','DIR5','L12','L24',100);

Insert into MOVIES_MASTER Values('MV006', 'SHAWN OF DEAD', '2012-05-13','ENGLISH', 4 , '2HRS', 'U/A','COMEDY','DIR6','L1','L25',100);

Insert into MOVIES_MASTER Values('MV007', 'YOUNG FRANKEN', '2012-05-13','ENGLISH', 4 , '2HRS', 'U/A','COMEDY','DIR7','L1','L2',100);

Insert into MOVIES_MASTER Values('MV008', 'CAS', '2012-05-13','ENGLISH', 4 , '2HRS', 'A','ROMANCE','DIR8','L1','L2',100);

Insert into MOVIES_MASTER Values('MV009', 'GWW', '2012-05-13','ENGLISH', 4 , '2HRS', 'A','ROMANCE','DIR9','L1','L2',100);

Insert into MOVIES_MASTER Values('MV010', 'TITANIC', '2012-05-13','ENGLISH', 4 , '2HRS', 'A','ROMANCE','DIR10','L1','L2',100);

Insert into MOVIES_MASTER Values('MV011', 'THE NOTE BOOK', '2012-05-13','ENGLISH', 4 , '2HRS', 'A','ROMANCE','DIR11','L1','L2',100);


Insert into CUSTOMER_CARD_DETAILS Values('CUS001', 'CR001', '2012-05-13');

Insert into CUSTOMER_CARD_DETAILS Values('CUS002', 'CR002', '2012-05-13');

Insert into CUSTOMER_CARD_DETAILS Values('CUS003', 'CR002', '2013-05-13');

Insert into CUSTOMER_CARD_DETAILS Values('CUS004', 'CR003', '2013-05-13');

Insert into CUSTOMER_CARD_DETAILS Values('CUS005', 'CR003', '2012-05-13');


Insert into CUSTOMER_ISSUE_DETAILS Values ('IS001', 'CUS001', 'MV001', '2012-05-13', '2012-05-13','2012-05-13');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS002', 'CUS001', 'MV001', '2012-05-01', '2012-05-16','2012-05-16');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS003', 'CUS002', 'MV004', '2012-05-02', '2012-05-06','2012-05-16');
Insert into CUSTOMER_ISSUE_DETAILS Values ('IS004', 'CUS002', 'MV004', '2012-04-03', '2012-04-16','2012-04-20');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS005', 'CUS002', 'MV009', '2012-04-04', '2012-04-16','2012-04-20');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS006', 'CUS003', 'MV002', '2012-03-30', '2012-04-15','2012-04-20');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS007', 'CUS003', 'MV003', '2012-04-20', '2012-05-05','2012-05-05');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS008', 'CUS003', 'MV005', '2012-04-21', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS009', 'CUS003', 'MV001', '2012-04-22', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS010', 'CUS003', 'MV009', '2012-04-22', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS011', 'CUS003', 'MV010', '2012-04-23', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS012', 'CUS003', 'MV010', '2012-04-24', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS013', 'CUS003', 'MV008', '2012-04-25', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS014', 'CUS004', 'MV007', '2012-04-26', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS015', 'CUS004', 'MV006', '2012-04-27', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS016', 'CUS004', 'MV006', '2012-04-28', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS017', 'CUS004', 'MV001', '2012-04-29', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS018', 'CUS010', 'MV008', '2012-04-24', '2012-05-07','2012-05-25');

Insert into CUSTOMER_ISSUE_DETAILS Values ('IS019', 'CUS011', 'MV009', '2012-04-27', '2012-05-07','2012-05-25');
```

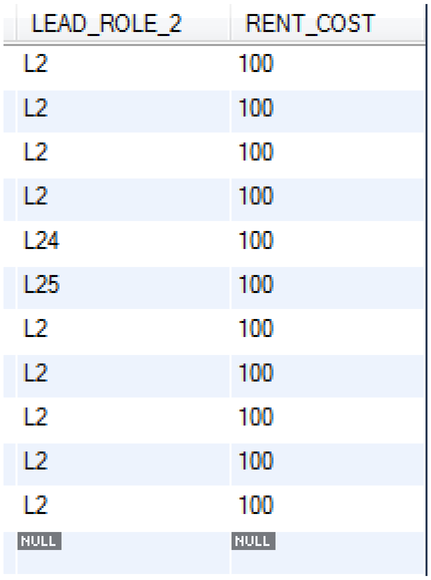
ANSI SQL Video Library Management Schema



MOVIE MASTER

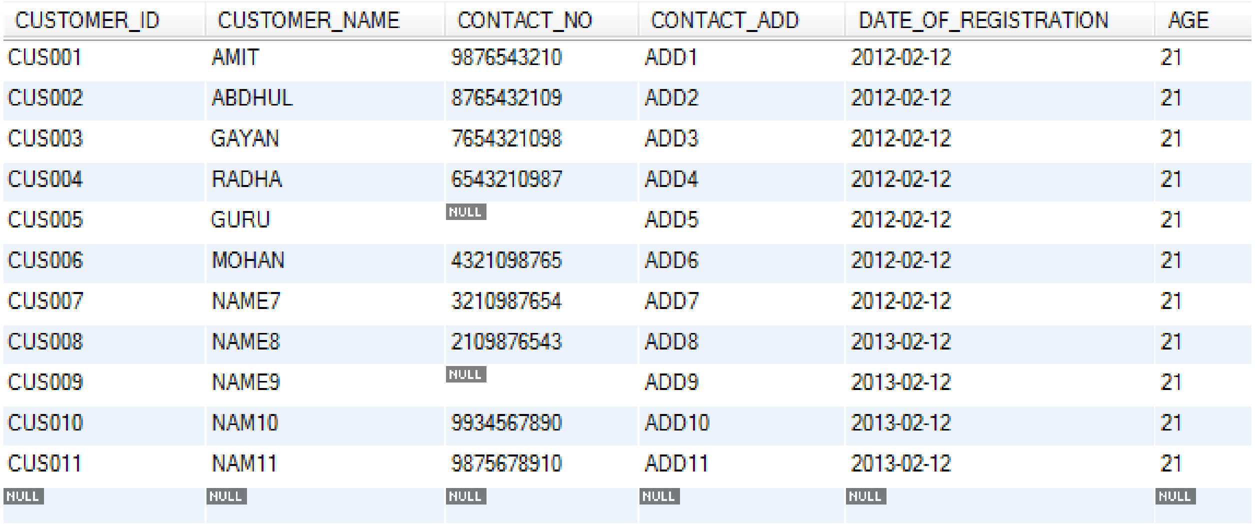


MOVIE_ID	MOVIE_NAME	RELEASE_DATE	LANGUAGE	RATING	DURATION	MOVIE_TYPE	MOVIE_CATEGORY	DIRECTOR	LEAD_ROLE_1
MV001	DIEHARD	2012-05-13	ENGLISH	4	2HRS	U/A	ACTION	DIR1	L1
MV002	THE MATRIX	2012-05-13	ENGLISH	4	2HRS	A	ACTION	DIR2	L1
MV003	INCEPTION	2012-05-13	ENGLISH	4	2HRS	U/A	ACTION	DIR3	L15
MV004	DARK KNIGHT	2012-05-13	ENGLISH	4	2HRS	A	ACTION	DIR4	L15
MV005	OFFICE S	2012-05-13	ENGLISH	4	2HRS	U/A	COMEDY	DIR5	L12
MV006	SHAWN OF DEAD	2012-05-13	ENGLISH	4	2HRS	U/A	COMEDY	DIR6	L1
MV007	YOUNG FRANKEN	2012-05-13	ENGLISH	4	2HRS	U/A	COMEDY	DIR7	L1
MV008	CAS	2012-05-13	ENGLISH	4	2HRS	A	ROMANCE	DIR8	L1
MV009	GWW	2012-05-13	ENGLISH	4	2HRS	A	ROMANCE	DIR9	L1
MV010	TITANIC	2012-05-13	ENGLISH	4	2HRS	A	ROMANCE	DIR10	L1
MV011	THE NOTE BOOK	2012-05-13	ENGLISH	4	2HRS	A	ROMANCE	DIR11	L1
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL



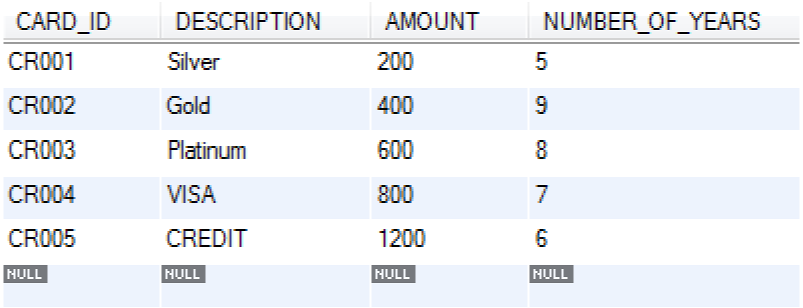
LEAD_ROLE_2	RENT_COST
L2	100
L2	100
L2	100
L2	100
L24	100
L25	100
L2	100
L2	100
L2	100
L2	100
L2	100
NULL	NULL

CUSTOMER MASTER



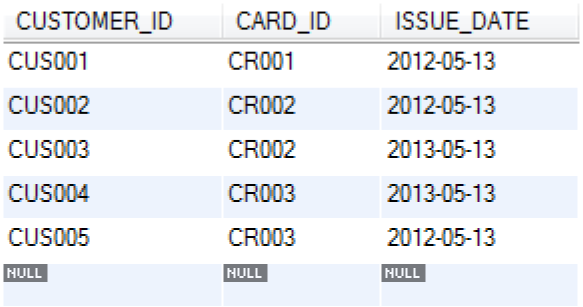
CUSTOMER_ID	CUSTOMER_NAME	CONTACT_NO	CONTACT_ADD	DATE_OF_REGISTRATION	AGE
CUS001	AMIT	9876543210	ADD1	2012-02-12	21
CUS002	ABDHUL	8765432109	ADD2	2012-02-12	21
CUS003	GAYAN	7654321098	ADD3	2012-02-12	21
CUS004	RADHA	6543210987	ADD4	2012-02-12	21
CUS005	GURU	NULL	ADD5	2012-02-12	21
CUS006	MOHAN	4321098765	ADD6	2012-02-12	21
CUS007	NAME7	3210987654	ADD7	2012-02-12	21
CUS008	NAME8	2109876543	ADD8	2013-02-12	21
CUS009	NAME9	NULL	ADD9	2013-02-12	21
CUS010	NAM10	9934567890	ADD10	2013-02-12	21
CUS011	NAM11	9875678910	ADD11	2013-02-12	21
NULL	NULL	NULL	NULL	NULL	NULL

LIBRARY CARD MASTER



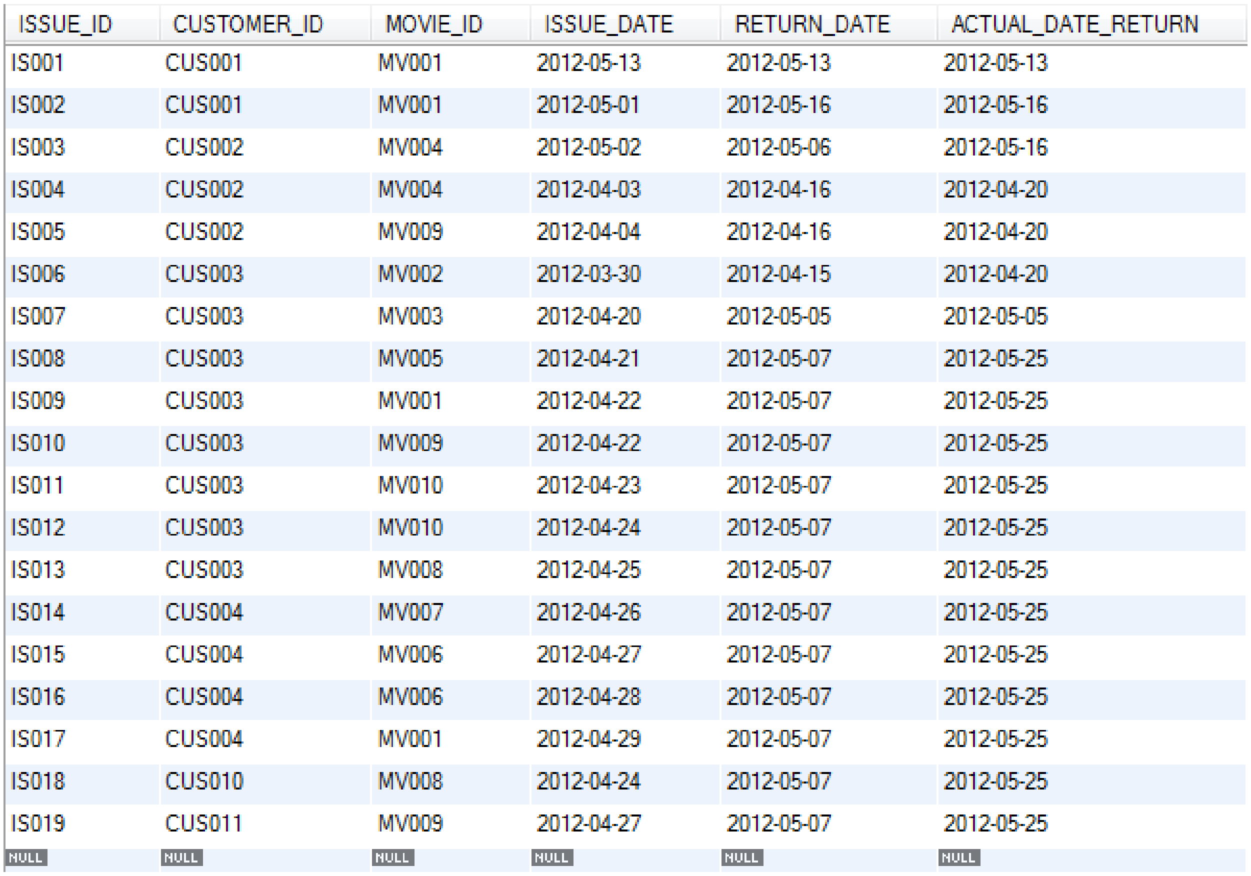
CARD_ID	DESCRIPTION	AMOUNT	NUMBER_OF_YEARS
CR001	Silver	200	5
CR002	Gold	400	9
CR003	Platinum	600	8
CR004	VISA	800	7
CR005	CREDIT	1200	6
NULL	NULL	NULL	NULL

CUSTOMER CARD DETAILS



CUSTOMER_ID	CARD_ID	ISSUE_DATE
CUS001	CR001	2012-05-13
CUS002	CR002	2012-05-13
CUS003	CR002	2013-05-13
CUS004	CR003	2013-05-13
CUS005	CR003	2012-05-13
NULL	NULL	NULL

CUSTOMER ISSUE DETAILS



ISSUE_ID	CUSTOMER_ID	MOVIE_ID	ISSUE_DATE	RETURN_DATE	ACTUAL_DATE_RETURN
IS001	CUS001	MV001	2012-05-13	2012-05-13	2012-05-13
IS002	CUS001	MV001	2012-05-01	2012-05-16	2012-05-16
IS003	CUS002	MV004	2012-05-02	2012-05-06	2012-05-16
IS004	CUS002	MV004	2012-04-03	2012-04-16	2012-04-20
IS005	CUS002	MV009	2012-04-04	2012-04-16	2012-04-20
IS006	CUS003	MV002	2012-03-30	2012-04-15	2012-04-20
IS007	CUS003	MV003	2012-04-20	2012-05-05	2012-05-05
IS008	CUS003	MV005	2012-04-21	2012-05-07	2012-05-25
IS009	CUS003	MV001	2012-04-22	2012-05-07	2012-05-25
IS010	CUS003	MV009	2012-04-22	2012-05-07	2012-05-25
IS011	CUS003	MV010	2012-04-23	2012-05-07	2012-05-25
IS012	CUS003	MV010	2012-04-24	2012-05-07	2012-05-25
IS013	CUS003	MV008	2012-04-25	2012-05-07	2012-05-25
IS014	CUS004	MV007	2012-04-26	2012-05-07	2012-05-25
IS015	CUS004	MV006	2012-04-27	2012-05-07	2012-05-25
IS016	CUS004	MV006	2012-04-28	2012-05-07	2012-05-25
IS017	CUS004	MV001	2012-04-29	2012-05-07	2012-05-25
IS018	CUS010	MV008	2012-04-24	2012-05-07	2012-05-25
IS019	CUS011	MV009	2012-04-27	2012-05-07	2012-05-25
NULL	NULL	NULL	NULL	NULL	NULL

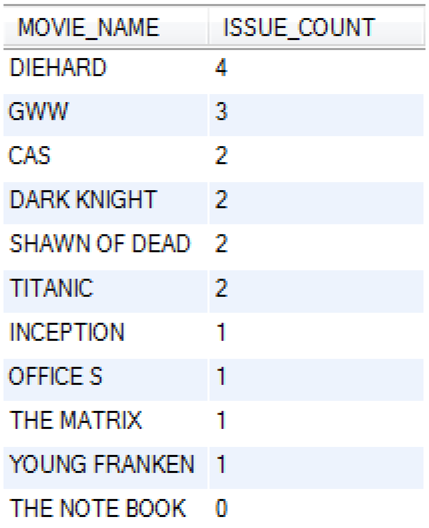
1.Write a query to display movie names and number of times that movie is issued to customers. Incase movies are never issued to customers display number of times as 0. Display the details in sorted order based on number of times (in descending order) and then by movie name (in ascending order). The Alias name for the number of movies issued is ISSUE_COUNT.

SELECT m.MOVIE_NAME,count(ISSUE_ID) ISSUE_COUNT FROM

movies_master m LEFT JOIN customer_issue_details c ON m.MOVIE_ID=c.MOVIE_ID

GROUP BY m.movie_name

```
ORDER BY ISSUE_COUNT DESC,MOVIE_NAME;
```



MOVIE_NAME	ISSUE_COUNT
DIEHARD	4
GWW	3
CAS	2
DARK KNIGHT	2
SHAWN OF DEAD	2
TITANIC	2
INCEPTION	1
OFFICE S	1
THE MATRIX	1
YOUNG FRANKEN	1
THE NOTE BOOK	0

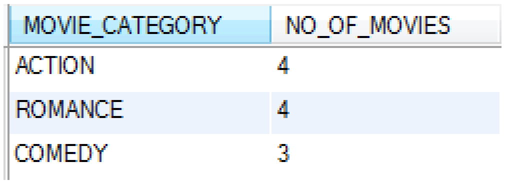
2.Write a query to display id,name,age,contact no of customers whose age is greater than 25 and and who have registered in the year 2012. Display contact no in the below format +91-XXX-XXX-XXXX example +91-987-678-3434 and use the alias name as "CONTACT_ISD". If the contact no is null then display as 'N/A' Sort all the records in ascending order based on age and then by name.

```
SELECT CUSTOMER_ID,CUSTOMER_NAME,AGE,ifnull(

concat('+91-',substring(contact_no,1,3),'-',

substring(contact_no,4,3),'-',substring(contact_no,7)),'N/A') CONTACT_ISD

FROM customer_master WHERE age>25 and year(date_of_registration)='2012'

ORDER BY age,CUSTOMER_NAME;
```

CUSTOMER_ID	CUSTOMER_NAME	AGE	CONTACT_ISD

3.Write a query to display the movie category and number of movies in that category. Display records based on number of movies from higher to lower order and then by movie category in ascending order.Hint: Use NO_OF_MOVIES as alias name for number of movies.

```
SELECT MOVIE_CATEGORY,count(MOVIE_ID) NO_OF_MOVIES FROM

movies_master GROUP BY MOVIE_CATEGORY

ORDER BY NO_OF_MOVIES DESC,MOVIE_CATEGORY;
```



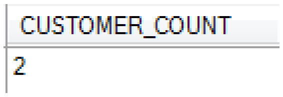
MOVIE_CATEGORY	NO_OF_MOVIES
ACTION	4
ROMANCE	4
COMEDY	3

4.Write a query to display the number of customers having card with description “Gold card”. <br/>Hint: Use CUSTOMER_COUNT as alias name for number of customers

SELECT count(c.customer_id) CUSTOMER_COUNT FROM

library_card_master l JOIN customer_card_details c ON l.CARD_ID=c.CARD_ID

WHERE description='Gold';



CUSTOMER_COUNT
2

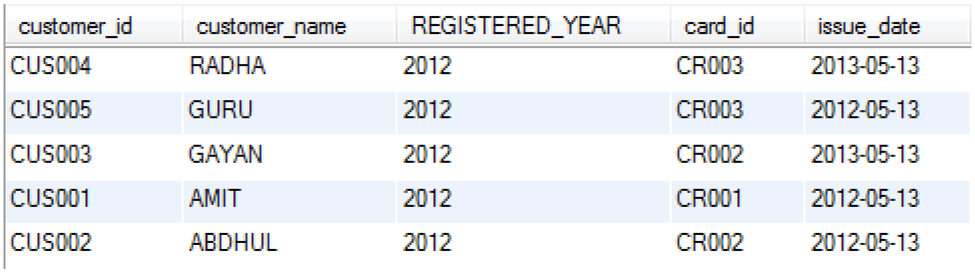
5.Write a query to display the customer id, customer name, year of registration,library card id, card issue date of all the customers who hold library card. Display the records sorted by customer name in descending order. Use REGISTERED_YEAR as alias name for year of registration.

SELECT c.customer_id,c.customer_name,

year(c.DATE_OF_REGISTRATION) REGISTERED_YEAR,cd.card_id,cd.issue_date FROM

customer_master c JOIN customer_card_details cd ON c.customer_id=cd.customer_id

ORDER BY CUSTOMER_NAME DESC;



customer_id	customer_name	REGISTERED_YEAR	card_id	issue_date
CUS004	RADHA	2012	CR003	2013-05-13
CUS005	GURU	2012	CR003	2012-05-13
CUS003	GAYAN	2012	CR002	2013-05-13
CUS001	AMIT	2012	CR001	2012-05-13
CUS002	ABDHUL	2012	CR002	2012-05-13

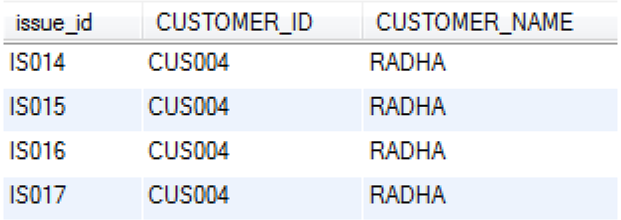
6.Write a query to display issue id, customer id, customer name for the customers who have paid fine and whose name starts with 'R'. Fine is calculated based on return date and actual date of return. If the date of actual return is after date of return then fine need to be paid by the customer order by customer name.

SELECT ci.issue_id,ci.CUSTOMER_ID,c.CUSTOMER_NAME FROM

customer_master c JOIN customer_issue_details ci ON c.customer_id=ci.customer_id

WHERE customer_name LIKE 'R%' and ci.actual_date_return>ci.return_date

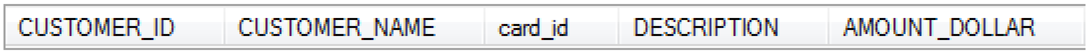
```
ORDER BY customer_name;
```



issue_id	CUSTOMER_ID	CUSTOMER_NAME
IS014	CUS004	RADHA
IS015	CUS004	RADHA
IS016	CUS004	RADHA
IS017	CUS004	RADHA

7. Write a query to display customer id, customer name, card id, card description and card amount in dollars of customers who have taken movie on the same day the library card is registered. For Example Assume John registered a library card on 12th Jan 2013 and he took a movie on 12th Jan 2013 then display his details. AMOUNT_DOLLAR = amount/52.42 and round it to zero decimal places and display as $Amount. Example Assume 500 is the amount then dollar value will be $10. Hint: Use AMOUNT_DOLLAR as alias name for amount in dollar. Display the records in ascending order based on customer name.

```
SELECT c.CUSTOMER_ID,c.CUSTOMER_NAME,l.card_id,l.DESCRIPTION,

concat('$',round(amount/52.42)) AMOUNT_DOLLAR FROM

customer_master c JOIN customer_issue_details ci ON c.customer_id=ci.customer_id

JOIN customer_card_details cc ON cc.customer_id=c.customer_id

JOIN library_card_master l ON cc.card_id=l.card_id

WHERE c.DATE_OF_REGISTRATION=ci.issue_date

ORDER BY customer_name;
```

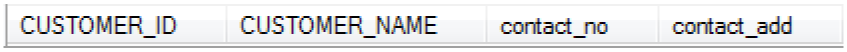


CUSTOMER_ID	CUSTOMER_NAME	card_id	DESCRIPTION	AMOUNT_DOLLAR

8.Write a query to display the customer id, customer name,contact number and address of customers who have taken movies from library without library card and whose address ends with 'Nagar'. Display customer name in upper case. Hint: Use CUSTOMER_NAME as alias name for customer name. Display the details sorted in ascending order based on customer name.

```
SELECT CUSTOMER_ID,upper(CUSTOMER_NAME) CUSTOMER_NAME,contact_no,contact_add FROM

customer_master WHERE contact_add LIKE '%Nagar' and

customer_id NOT IN (SELECT customer_id FROM customer_card_details)

and customer_id IN (SELECT customer_id FROM customer_issue_details)
```

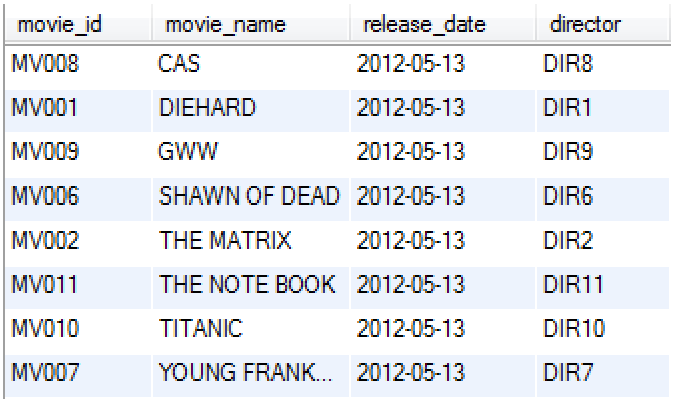
```
ORDER BY CUSTOMER_NAME;
```



CUSTOMER_ID	CUSTOMER_NAME	contact_no	contact_add

9.Write a query to display the movie id, movie name,release year,director name of movies acted by the leadactor1 who acted maximum number of movies .Display the records sorted in ascending order based on movie name.

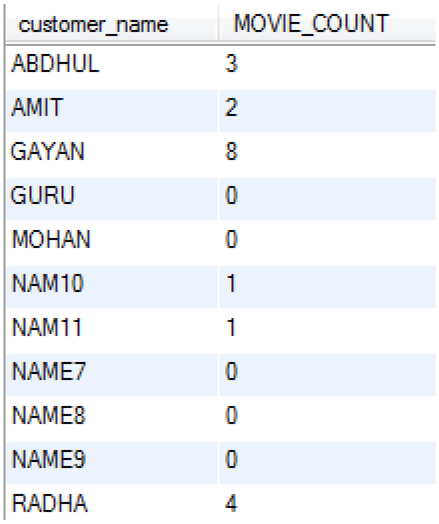
```
SELECT movie_id,movie_name,release_date,director FROM movies_master

WHERE lead_role_1 IN(SELECT lead_role_1 FROM

(SELECT lead_role_1,count(movie_id)ct FROM movies_master

GROUP BY lead_role_1)t WHERE t.ct>=ALL(SELECT count(movie_id)

FROM movies_master GROUP BY lead_role_1)) ORDER BY movie_name;
```



movie_id	movie_name	release_date	director
MV008	CAS	2012-05-13	DIR8
MV001	DIEHARD	2012-05-13	DIR1
MV009	GWW	2012-05-13	DIR9
MV006	SHAWN OF DEAD	2012-05-13	DIR6
MV002	THE MATRIX	2012-05-13	DIR2
MV011	THE NOTE BOOK	2012-05-13	DIR11
MV010	TITANIC	2012-05-13	DIR10
MV007	YOUNG FRANK...	2012-05-13	DIR7

10.Write a query to display the customer name and number of movies issued to that customer sorted by customer name in ascending order. If a customer has not been issued with any movie then display 0. <br>Hint: Use MOVIE_COUNT as alias name for number of movies issued.

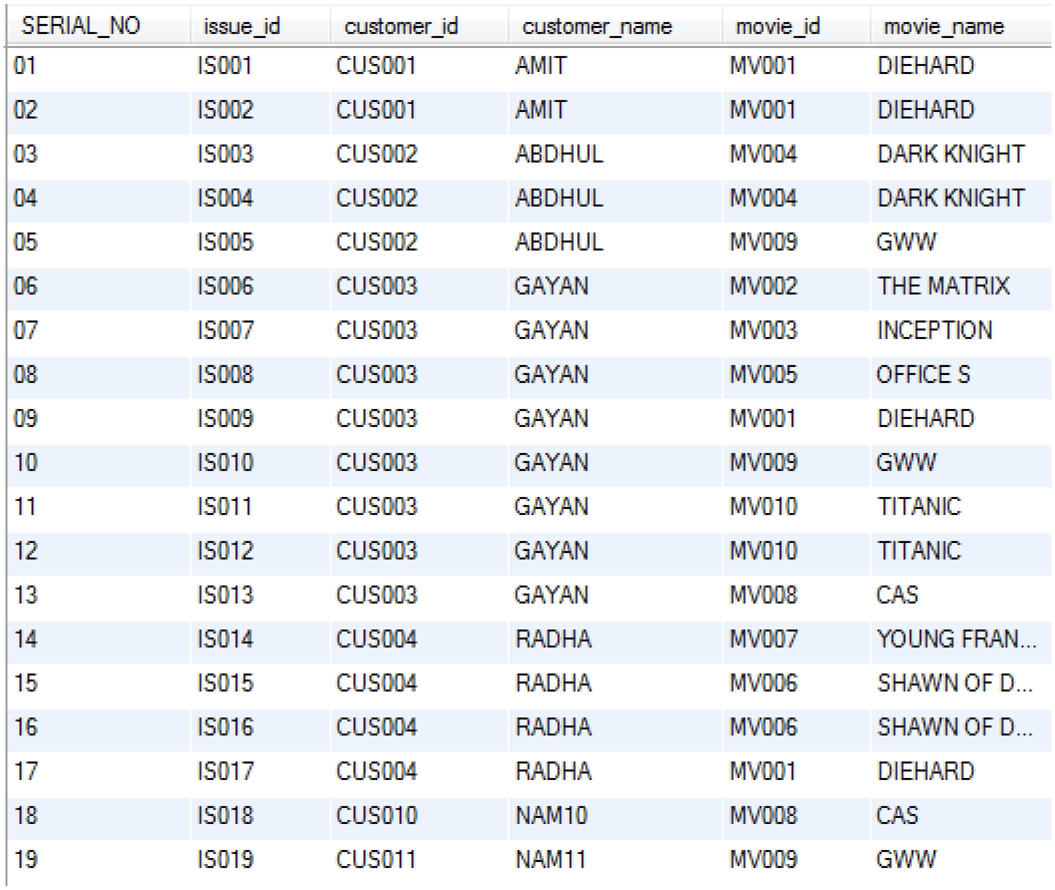
```
SELECT c.customer_name,count(ci.movie_id) MOVIE_COUNT FROM

customer_master c LEFT JOIN customer_issue_details ci ON c.customer_id=ci.customer_id

GROUP BY c.customer_id ORDER BY c.customer_name;
```



customer_name	MOVIE_COUNT
ABDHUL	3
AMIT	2
GAYAN	8
GURU	0
MOHAN	0
NAM10	1
NAM11	1
NAME7	0
NAME8	0
NAME9	0
RADHA	4

11.Write a query to display serial number,issue id, customer id, customer name, movie id and movie name of all the videos that are issued and display in ascending order based on serial number.Serial number can be generated from the issue id , that is last two characters of issue id is the serial number. For Example Assume the issue id is I00005 then the serial number is 05 Hint: Alias name for serial number is 'SERIAL_NO'

```
SELECT substring(ci.issue_id,-2) SERIAL_NO,ci.issue_id,c.customer_id,c.customer_name,
m.movie_id,m.movie_name FROM customer_master c JOIN customer_issue_details ci
ON c.customer_id=ci.customer_id JOIN movies_master m ON m.movie_id=ci.movie_id
ORDER BY SERIAL_NO;
```



SERIAL_NO	issue_id	customer_id	customer_name	movie_id	movie_name
01	IS001	CUS001	AMIT	MV001	DIEHARD
02	IS002	CUS001	AMIT	MV001	DIEHARD
03	IS003	CUS002	ABDHUL	MV004	DARK KNIGHT
04	IS004	CUS002	ABDHUL	MV004	DARK KNIGHT
05	IS005	CUS002	ABDHUL	MV009	GWW
06	IS006	CUS003	GAYAN	MV002	THE MATRIX
07	IS007	CUS003	GAYAN	MV003	INCEPTION
08	IS008	CUS003	GAYAN	MV005	OFFICE S
09	IS009	CUS003	GAYAN	MV001	DIEHARD
10	IS010	CUS003	GAYAN	MV009	GWW
11	IS011	CUS003	GAYAN	MV010	TITANIC
12	IS012	CUS003	GAYAN	MV010	TITANIC
13	IS013	CUS003	GAYAN	MV008	CAS
14	IS014	CUS004	RADHA	MV007	YOUNG FRAN...
15	IS015	CUS004	RADHA	MV006	SHAWN OF D...
16	IS016	CUS004	RADHA	MV006	SHAWN OF D...
17	IS017	CUS004	RADHA	MV001	DIEHARD
18	IS018	CUS010	NAM10	MV008	CAS
19	IS019	CUS011	NAM11	MV009	GWW

12.Write a query to display the issue id,issue date, customer id, customer name and contact number for videos that are issued in the year 2013.Display the records in decending order based on issue date of the video.

SELECT ci.issue_id,ci.issue_date,c.customer_id,c.customer_name,c.contact_no FROM

customer_master c JOIN customer_issue_details ci ON c.customer_id=ci.customer_id

and year(ci.issue_date)='2013' ORDER BY ci.issue_date DESC;

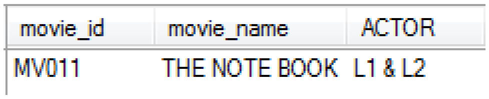
issue_id	issue_date	customer_id	customer_name	contact_no

13.Write a query to display movie id ,movie name and actor names of movies which are not issued to any customers. <br> Actors Name to be displayed in the below format.LEAD_ACTOR_ONE space ambersant space LEAD_ACTOR_TWO.Example: Assume lead

actor one's name is "Jack Tomson" and Lead actor two's name is "Maria" then Actors name will be "Jack Tomsom & Maria"Hint:Use ACTORS as alias name for actors name. <br> Display the records in ascending order based on movie name.

SELECT movie_id,movie_name,concat(lead_role_1,' & ',lead_role_2) ACTOR FROM movies_master

WHERE movie_id NOT IN (SELECT movie_id FROM customer_issue_details) ORDER BY movie_name;

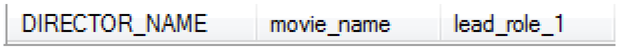


movie_id	movie_name	ACTOR
MV011	THE NOTE BOOK	L1 & L2

14.Write a query to display the director's name, movie name and lead_actor_name1 of all the movies directed by the director who directed more than one movie. Display the directors name in capital letters. Use DIRECTOR_NAME as alias name for director name column Display the records sorted in ascending order based on director_name and then by movie_name in descending order.

SELECT upper(director) DIRECTOR_NAME,movie_name,lead_role_1 FROM movies_master

GROUP BY director HAVING count(movie_id)>1 ORDER BY director,movie_name DESC;

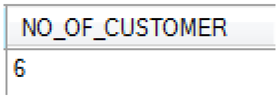


DIRECTOR_NAME	movie_name	lead_role_1

15.Write a query to display number of customers who have registered in the library in the year 2012 and who have given/provided contact number. <br> Hint:Use NO_OF_CUSTOMERS as alias name for number of customers.

SELECT count(customer_id) NO_OF_CUSTOMER FROM customer_master

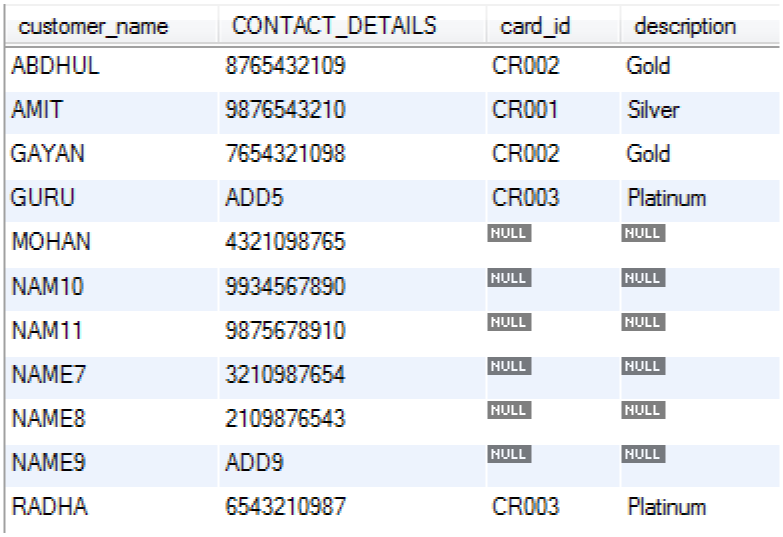
WHERE contact_no is not null and year(date_of_registration)='2012';



NO_OF_CUSTOMER
6

16.Write a query to display the customer's name, contact number,library card id and library card description of all the customers irrespective of customers holding a library card. If customer contact number is not available then display his address. Display the records sorted in ascending order based on customer name. Hint: Use CONTACT_DETAILS as alias name for customer contact.

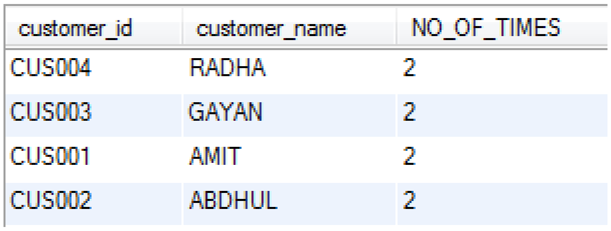
```
SELECT c.customer_name,ifnull(c.contact_no,c.contact_add)
CONTACT_DETAILS,l.card_id,l.description FROM

customer_master c LEFT JOIN customer_card_details cc ON c.customer_id=cc.customer_id

LEFT JOIN library_card_master l ON l.card_id=cc.card_id

ORDER BY customer_name;
```



customer_name	CONTACT_DETAILS	card_id	description
ABDHUL	8765432109	CR002	Gold
AMIT	9876543210	CR001	Silver
GAYAN	7654321098	CR002	Gold
GURU	ADD5	CR003	Platinum
MOHAN	4321098765	NULL	NULL
NAM10	9934567890	NULL	NULL
NAM11	9875678910	NULL	NULL
NAME7	3210987654	NULL	NULL
NAME8	2109876543	NULL	NULL
NAME9	ADD9	NULL	NULL
RADHA	6543210987	CR003	Platinum

17. Write a query to display the customer id, customer name and number of times the same movie is issued to the same customers who have taken same movie more than once. Display the records sorted by customer name in decending order For Example: Assume customer John has taken Titanic three times and customer Ram has taken Die hard only once then display the details of john. Hint: Use NO_OF_TIMES as alias name for number of times

```
SELECT ci.customer_id,c.customer_name,count(ci.movie_id) NO_OF_TIMES FROM

customer_issue_details ci JOIN customer_master c ON c.customer_id=ci.customer_id

GROUP BY ci.customer_id,ci.movie_id HAVING count(movie_id)>1

ORDER BY customer_name DESC;
```

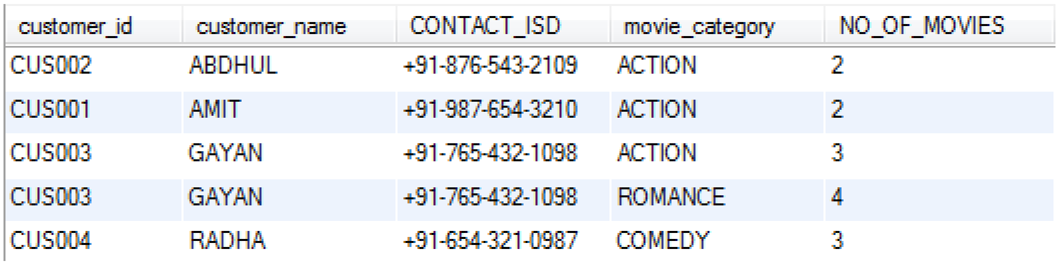


customer_id	customer_name	NO_OF_TIMES
CUS004	RADHA	2
CUS003	GAYAN	2
CUS001	AMIT	2
CUS002	ABDHUL	2

18.Write a query to display customer id, customer name,contact number, movie category and number of movies issued to each customer based on movie category who has been issued with more than one movie in that category. Example: Display contact number as "+91-876-

456-2345" format.&nbsp; Hint:Use NO_OF_MOVIES as alias name for number of movies column. Hint:Use CONTACT_ISD as alias name for contact number. Display the records sorted in ascending order based on customer name and then by movie category.

```
SELECT c.customer_id,c.customer_name,concat('+91-',substring(c.contact_no,1,3),'-',

substring(c.contact_no,4,3),'-',substring(c.contact_no,7)) CONTACT_ISD

,m.movie_category,count(cc.movie_id) NO_OF_MOVIES FROM customer_master c JOIN customer_issue_details cc

ON c.customer_id=cc.customer_id JOIN movies_master m ON m.movie_id=cc.movie_id

GROUP BY c.customer_id,m.movie_category HAVING count(cc.movie_id)>1

ORDER BY customer_name,movie_category;
```

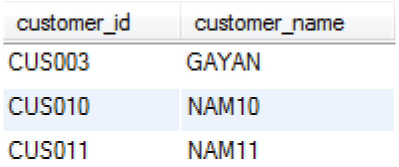


customer_id	customer_name	CONTACT_ISD	movie_category	NO_OF_MOVIES
CUS002	ABDHUL	+91-876-543-2109	ACTION	2
CUS001	AMIT	+91-987-654-3210	ACTION	2
CUS003	GAYAN	+91-765-432-1098	ACTION	3
CUS003	GAYAN	+91-765-432-1098	ROMANCE	4
CUS004	RADHA	+91-654-321-0987	COMEDY	3

19.Write a query to display customer id and customer name of customers who has been issued with maximum number of movies and customer who has been issued with minimum no of movies. For example Assume customer John has been issued 5 movies, Ram has been issued 10 movies and Kumar has been issued 2 movies. The name and id of Ram should be displayed for issuing maximum movies and Kumar should be displayed for issuing minimum movies. Consider only the customers who have been issued with atleast 1 movie Customer(s) who has/have been issued the maximum number of movies must be displayed first followed by the customer(s) who has/have been issued with the minimum number of movies. In case of multiple customers who have been displayed with the maximum or minimum number of movies, display the records sorted in ascending order based on customer name.

```
SELECT cid.customer_id , customer_name FROM  customer_master cm JOIN customer_issue_details cidON cm.customer_id=cid.customer_id

GROUP BY customer_id , customer_name

HAVING count(movie_id)>=ALL(SELECT  count(movie_id)

FROM customer_issue_details

GROUP BY customer_id)

UNION
```

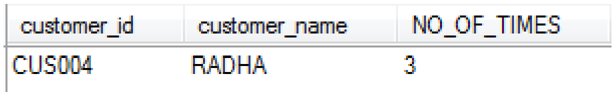
```
SELECT cid.customer_id , customer_name FROM
customer_master cm JOIN customer_issue_details cid
ON cm.customer_id=cid.customer_id
GROUP BY customer_id , customer_name
HAVING count(movie_id)<=ALL(SELECT  count(movie_id)
FROM customer_issue_details
GROUP BY customer_id) ORDER BY customer_name;
```



customer_id	customer_name
CUS003	GAYAN
CUS010	NAM10
CUS011	NAM11

20.Write a query to display the customer id , customer name and number of times movies have been issued from Comedy category. Display only for customers who has taken more than once. Hint: Use NO_OF_TIMES as alias name Display the records in ascending order based on customer name.

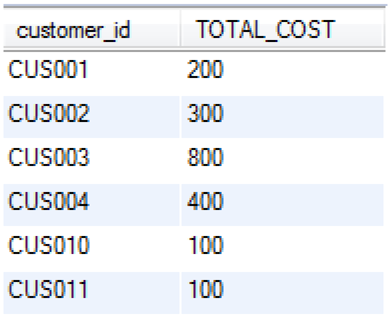
```
SELECT c.customer_id,c.customer_name,count(m.movie_id) NO_OF_TIMES FROM
customer_master c JOIN customer_issue_details cc ON c.customer_id=cc.customer_id
JOIN movies_master m ON m.movie_id=cc.movie_id
WHERE m.movie_category='Comedy'
GROUP BY c.customer_id HAVING count(m.movie_id)>1
ORDER BY customer_name;
```



customer_id	customer_name	NO_OF_TIMES
CUS004	RADHA	3

21.Write a query to display customer id and total rent paid by the customers who are issued with the videos. Need not display the customers who has not taken / issued with any videos. Hint: Alias Name for total rent paid is TOTAL_COST. Display the records sorted in ascending order based on customer id

```
SELECT cid.customer_id, sum(m.rent_cost) TOTAL_COST FROM customer_issue_details cid
JOIN movies_master mm ON cid.movie_id=mm.movie_id GROUP BY cid.customer_id order by
customer_id;
```



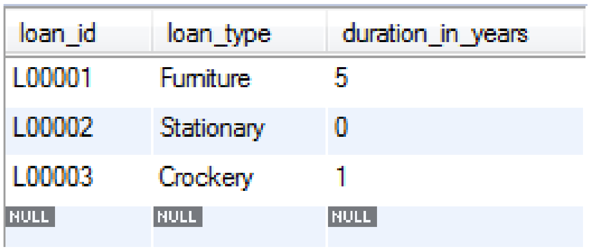
customer_id	TOTAL_COST
CUS001	200
CUS002	300
CUS003	800
CUS004	400
CUS010	100
CUS011	100

LOAN

```
create database loan;

use loan;


CREATE TABLE loan_card_master

(

        loan_id         varchar(6)      PRIMARY KEY,

        loan_type       varchar(15),

        duration_in_years       int(2)

);


CREATE TABLE employee_master

(

        employee_id             varchar(6)      PRIMARY KEY,

        employee_name           varchar(20),

        designation             varchar(25),

department              varchar(25),

        gender                  char(1),

        date_of_birth           date,

        date_of_joining         date

);


CREATE TABLE item_master

(

        item_id         varchar(6)      PRIMARY KEY,

        item_description        varchar(25),
        issue_status            char(1),
        item_make               varchar(25),
        item_category           varchar(20),
        item_valuation          int(6)
);

CREATE TABLE employee_card_details
(
        employee_id             varchar(6)      REFERENCES   employee_master,
        loan_id                 varchar(6)      REFERENCES   loan_card_master,
        card_issue_date         date
);

CREATE TABLE employee_issue_details
(
        issue_id                varchar(6)      PRIMARY KEY,
        employee_id             varchar(6)      REFERENCES   employee_master,
        item_id                 varchar(6)      REFERENCES   item_master,
        issue_date              date,
        return_date             date
);

insert into loan_card_master values('L00001','Furniture',5);
insert into loan_card_master values('L00002','Stationary',0);
insert into loan_card_master values('L00003','Crockery',1);
insert into employee_issue_details values('ISS001','E00001','I00001','2012-02-03','2014-02-03');

insert into employee_issue_details values('ISS002','E00001','I00004','2012-02-03','2020-02-03');

insert into employee_issue_details values('ISS003','E00002','I00005','2013-01-03','2015-01-03');

insert into employee_issue_details values('ISS004','E00003','I00007','2010-07-04','2012-07-04');

insert into employee_issue_details values('ISS005','E00003','I00008','2010-07-04','2012-08-05');

insert into employee_issue_details values('ISS006','E00003','I00010','2012-03-14','2012-06-15');

insert into employee_issue_details values('ISS007','E00004','I00012','2013-04-14','2016-04-14');

insert into employee_issue_details values('ISS008','E00006','I00018','2012-08-18','2019-04-17');

insert into employee_issue_details values('ISS009','E00004','I00018','2013-04-18','2013-05-18');



insert into employee_master values('E00001','Ram','Manager','Finance','M','1973-12-01','2000-01-01');

insert into employee_master values('E00002','Abhay','Assistant Manager','Finance','M','1976-01-01','2006-12-01');

insert into employee_master values('E00003','Anita','Senior Executive','Marketing','F','1977-05-12','2007-03-21');

insert into employee_master values('E00004','Zuben','Manager','Marketing','M','1974-10-12','2003-07-23');

insert into employee_master values('E00005','Radhica','Manager','HR','F','1976-07-22','2004-01-23');

insert into employee_master values('E00006','John','Executive','HR','M','1983-11-08','2010-05-17');


insert into employee_card_details values('E00001','L00001','2000-01-01');

insert into employee_card_details values('E00001','L00002','2000-01-01');

insert into employee_card_details values('E00001','L00003','2002-12-14');

insert into employee_card_details values('E00002','L00001','2007-02-01');
insert into employee_card_details values('E00002','L00002','2007-03-11');

insert into employee_card_details values('E00003','L00001','2007-04-15');

insert into employee_card_details values('E00003','L00002','2007-04-15');

insert into employee_card_details values('E00003','L00003','2007-04-15');
```

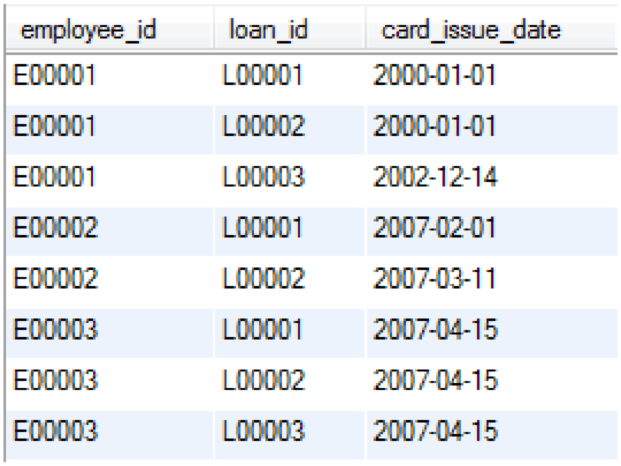
```
INSERT INTO item_master VALUES ('I00001','Tea Table','Y','Wooden','Furniture',5000);

INSERT INTO item_master VALUES  ('I00002','Dinning Table','N','Wooden','Furniture',15000);

INSERT INTO item_master VALUES    ('I00003','Tea Table','N','Steel','Furniture',6000);

INSERT INTO item_master VALUES    ('I00004','Side Table','Y','Wooden','Furniture',2000);

INSERT INTO item_master VALUES    ('I00005','Side Table','Y','Steel','Furniture',1500);

INSERT INTO item_master VALUES    ('I00006','Tea Table','N','Steel','Furniture',7000);

INSERT INTO item_master VALUES    ('I00007','Dinning Chair','Y','Wooden','Furniture',1500);

INSERT INTO item_master VALUES    ('I00008','Tea Table','Y','Wooden','Furniture',4000);

INSERT INTO item_master VALUES  ('I00009','Sofa','N','Wooden','Furniture',18000);

INSERT INTO item_master VALUES    ('I00010','Cupboard','Y','Steel','Furniture',10000);

INSERT INTO item_master VALUES    ('I00011','Cupboard','N','Steel','Furniture',14000);

INSERT INTO item_master VALUES    ('I00012','Double Bed','Y','Wooden','Furniture',21000);

INSERT INTO item_master VALUES    ('I00013','Double Bed','Y','Wooden','Furniture',20000);

INSERT INTO item_master VALUES    ('I00014','Single Bed','Y','Steel','Furniture',10000);

INSERT INTO item_master VALUES    ('I00015','Single Bed','N','Steel','Furniture',10000);

INSERT INTO item_master VALUES    ('I00016','Tea Set','Y','Glass','Crockery',3000);

INSERT INTO item_master VALUES    ('I00017','Tea Set','Y','Bonechina','Crockery',4000);

INSERT INTO item_master VALUES    ('I00018','Dinning Set','Y','Glass','Crockery',4500);

INSERT INTO item_master VALUES    ('I00019','Dinning Set','N','Bonechina','Crockery',5000);

INSERT INTO item_master VALUES    ('I00020','Pencil','Y','Wooden','Stationary',5);
INSERT INTO item_master VALUES     ('I00021','Pen','Y','Plastic','Stationary',100);
INSERT INTO item_master VALUES     ('I00022','Pen','N','Plastic','Stationary',200);
```

LOAN CARD MASTER



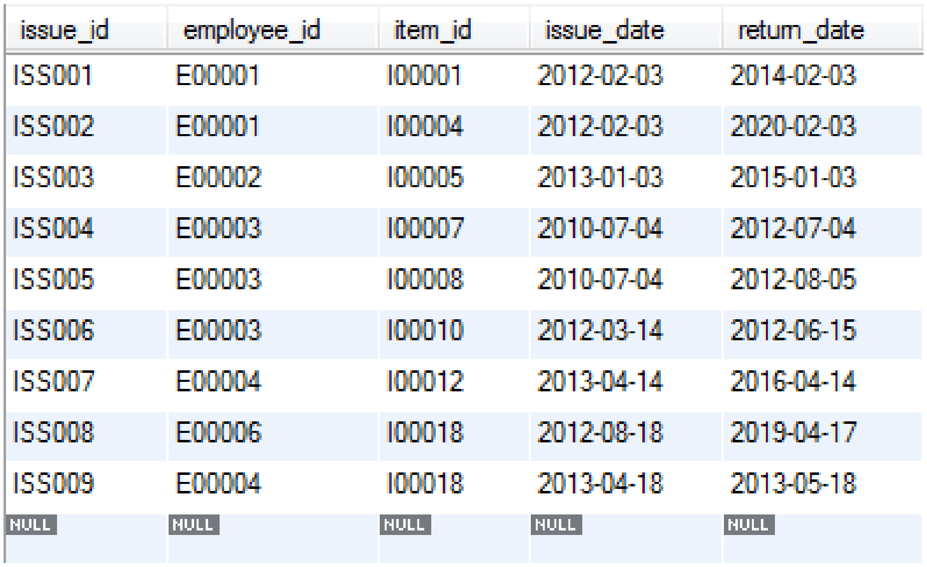
loan_id	loan_type	duration_in_years
L00001	Furniture	5
L00002	Stationary	0
L00003	Crockery	1
NULL	NULL	NULL

EMPLOYEE CARD DETAILS



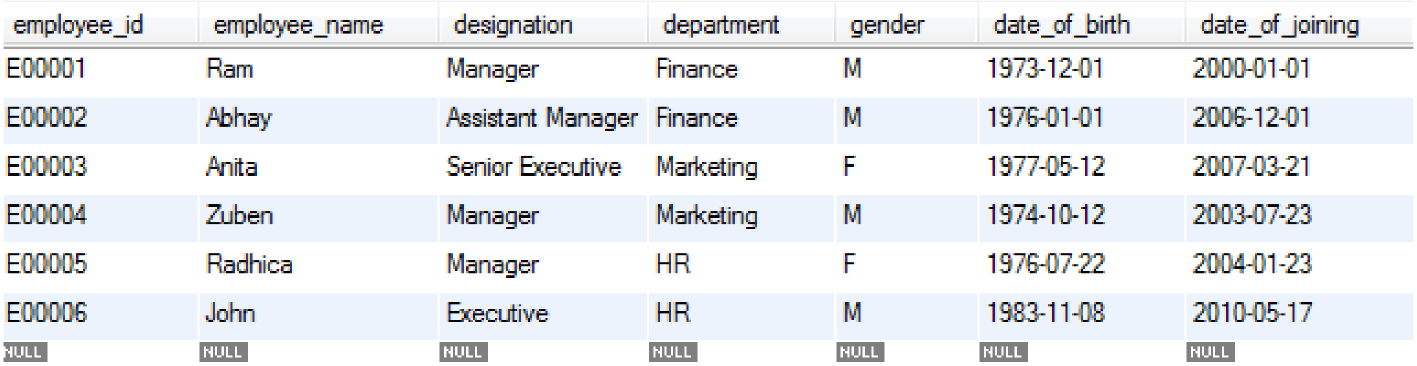
employee_id	loan_id	card_issue_date
E00001	L00001	2000-01-01
E00001	L00002	2000-01-01
E00001	L00003	2002-12-14
E00002	L00001	2007-02-01
E00002	L00002	2007-03-11
E00003	L00001	2007-04-15
E00003	L00002	2007-04-15
E00003	L00003	2007-04-15

EMPLOYEE ISSUE DETAILS



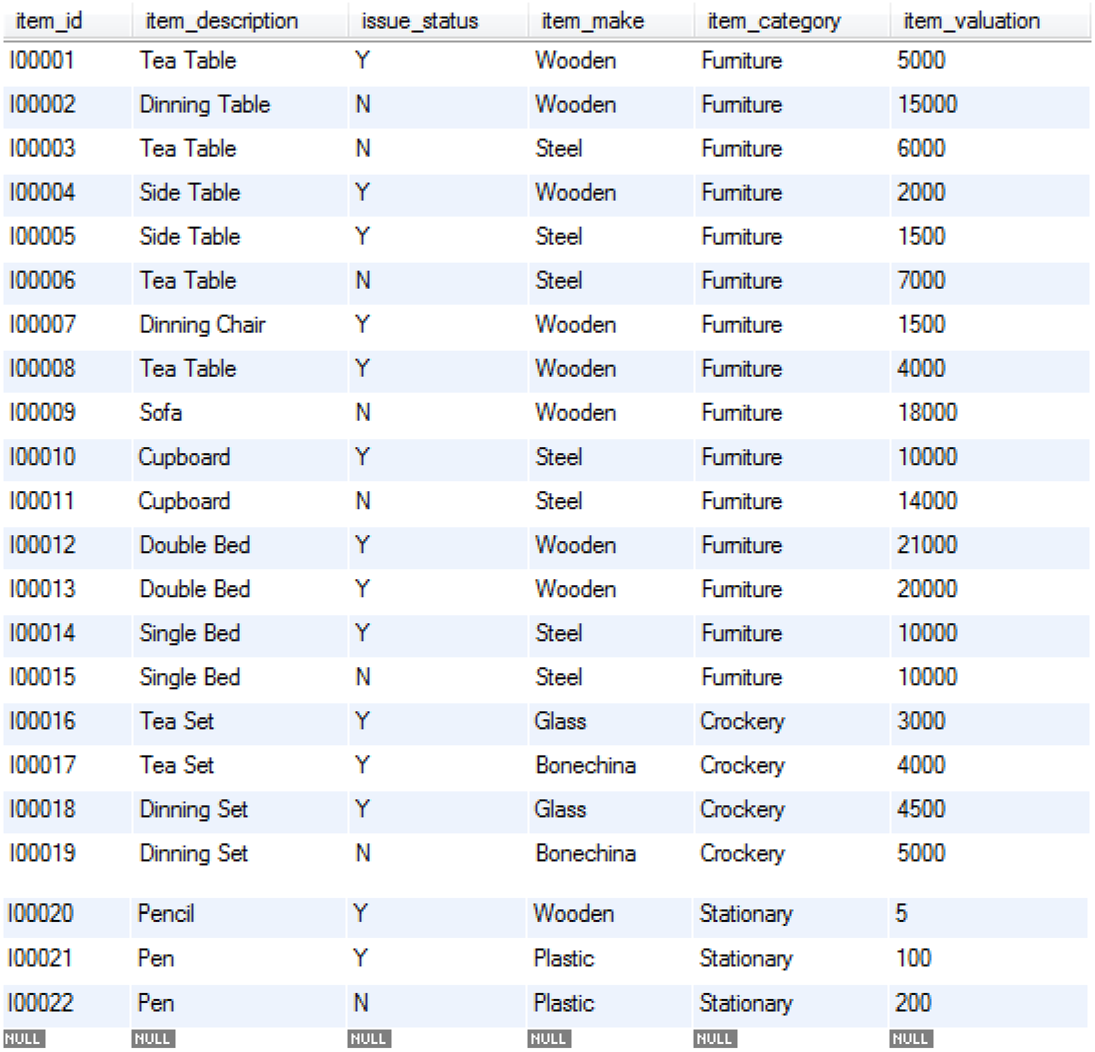
issue_id	employee_id	item_id	issue_date	return_date
ISS001	E00001	I00001	2012-02-03	2014-02-03
ISS002	E00001	I00004	2012-02-03	2020-02-03
ISS003	E00002	I00005	2013-01-03	2015-01-03
ISS004	E00003	I00007	2010-07-04	2012-07-04
ISS005	E00003	I00008	2010-07-04	2012-08-05
ISS006	E00003	I00010	2012-03-14	2012-06-15
ISS007	E00004	I00012	2013-04-14	2016-04-14
ISS008	E00006	I00018	2012-08-18	2019-04-17
ISS009	E00004	I00018	2013-04-18	2013-05-18
NULL	NULL	NULL	NULL	NULL

EMPLOYEE MASTER

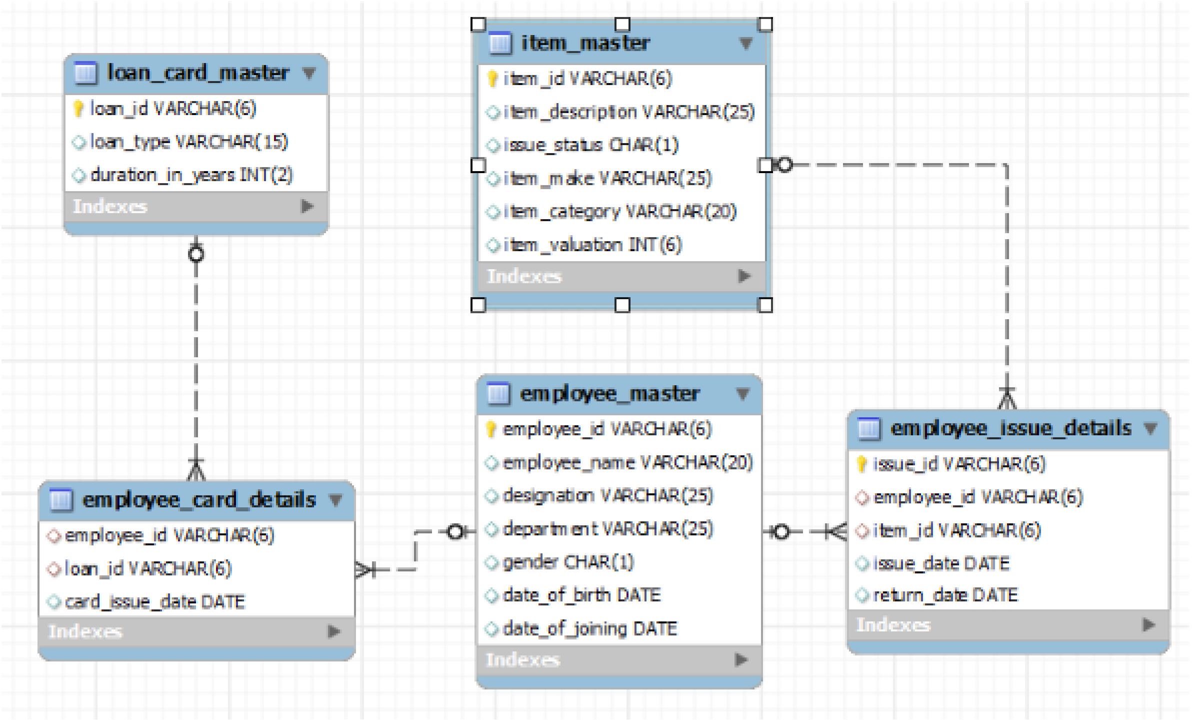


employee_id	employee_name	designation	department	gender	date_of_birth	date_of_joining
E00001	Ram	Manager	Finance	M	1973-12-01	2000-01-01
E00002	Abhay	Assistant Manager	Finance	M	1976-01-01	2006-12-01
E00003	Anita	Senior Executive	Marketing	F	1977-05-12	2007-03-21
E00004	Zuben	Manager	Marketing	M	1974-10-12	2003-07-23
E00005	Radhica	Manager	HR	F	1976-07-22	2004-01-23
E00006	John	Executive	HR	M	1983-11-08	2010-05-17
NULL	NULL	NULL	NULL	NULL	NULL	NULL

ITEM MASTER



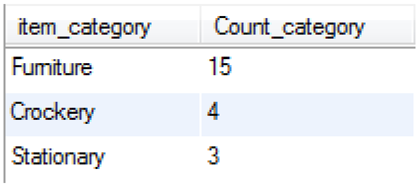
item_id	item_description	issue_status	item_make	item_category	item_valuation
I00001	Tea Table	Y	Wooden	Furniture	5000
I00002	Dinning Table	N	Wooden	Furniture	15000
I00003	Tea Table	N	Steel	Furniture	6000
I00004	Side Table	Y	Wooden	Furniture	2000
I00005	Side Table	Y	Steel	Furniture	1500
I00006	Tea Table	N	Steel	Furniture	7000
I00007	Dinning Chair	Y	Wooden	Furniture	1500
I00008	Tea Table	Y	Wooden	Furniture	4000
I00009	Sofa	N	Wooden	Furniture	18000
I00010	Cupboard	Y	Steel	Furniture	10000
I00011	Cupboard	N	Steel	Furniture	14000
I00012	Double Bed	Y	Wooden	Furniture	21000
I00013	Double Bed	Y	Wooden	Furniture	20000
I00014	Single Bed	Y	Steel	Furniture	10000
I00015	Single Bed	N	Steel	Furniture	10000
I00016	Tea Set	Y	Glass	Crockery	3000
I00017	Tea Set	Y	Bonechina	Crockery	4000
I00018	Dinning Set	Y	Glass	Crockery	4500
I00019	Dinning Set	N	Bonechina	Crockery	5000
I00020	Pencil	Y	Wooden	Stationary	5
I00021	Pen	Y	Plastic	Stationary	100
I00022	Pen	N	Plastic	Stationary	200
NULL	NULL	NULL	NULL	NULL	NULL



1. Write a query to display category and number of items in that category. Give the count an alias name of Count_category. Display the details on the sorted order of count in descending order.

SELECT item_category,count(item_id) Count_category FROM

item_master GROUP BY item_category ORDER BY Count_category DESC;

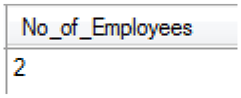


item_category	Count_category
Furniture	15
Crockery	4
Stationary	3

2. Write a query to display the number of employees in HR department. Give the alias name as No_of_Employees.

SELECT count(employee_id) No_of_Employees FROM

employee_master WHERE department='HR';

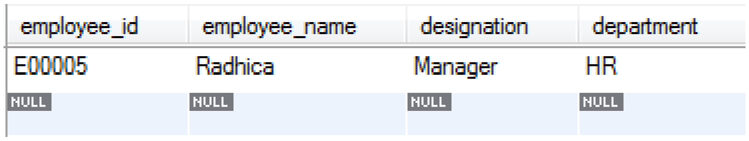


No_of_Employees
2

3. Write a query to display employee id, employee name, designation and department for employees who have never been issued an item as a loan from the company. Display the records sorted in ascending order based on employee id.

SELECT employee_id,employee_name,designation,department FROM employee_master

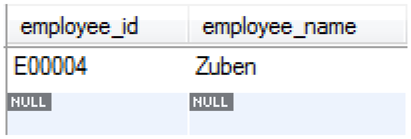
```
WHERE employee_id NOT IN (SELECT employee_id FROM employee_issue_details)

ORDER BY employee_id;
```



employee_id	employee_name	designation	department
E00005	Radhica	Manager	HR
NULL	NULL	NULL	NULL

4. Write a query to display the employee id, employee name who was issued an item of highest valuation. In case of multiple records, display the records sorted in ascending order based on employee id.[Hint Suppose an item called dinning table is of 22000 and that is the highest price of the item that has been issued. So display the employee id and employee name who issued dinning table whose price is 22000.]

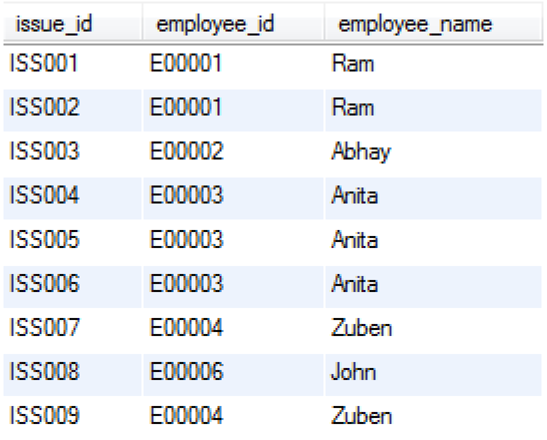
```
SELECT employee_id,employee_name FROM employee_master

WHERE employee_id IN(SELECT employee_id FROM employee_issue_details

WHERE item_id IN (SELECT item_id FROM item_master

WHERE item_valuation=(SELECT max(item_valuation) FROM

item_master i JOIN employee_issue_details e ON i.item_id=e.item_id)));
```



employee_id	employee_name
E00004	Zuben
NULL	NULL

5. Write a query to display issue_id, employee_id, employee_name. Display the records sorted in ascending order based on issue id.

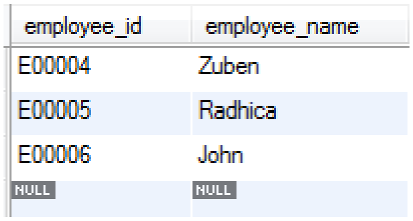
```
SELECT eid.issue_id, eid.employee_id, em.employee_name

FROM employee_master em JOIN  employee_issue_details eid

ON em.employee_id=eid.employee_id ORDER BY eid.issue_id;
```



issue_id	employee_id	employee_name
ISS001	E00001	Ram
ISS002	E00001	Ram
ISS003	E00002	Abhay
ISS004	E00003	Anita
ISS005	E00003	Anita
ISS006	E00003	Anita
ISS007	E00004	Zuben
ISS008	E00006	John
ISS009	E00004	Zuben

6. Write a query to display employee id, employee name who don’t have loan cards.Display the records sorted in ascending order based on employee id.

```
SELECT employee_id,employee_name FROM employee_master

WHERE employee_id NOT IN(SELECT employee_id FROM employee_card_details);
```



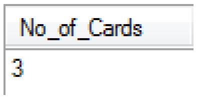
employee_id	employee_name
E00004	Zuben
E00005	Radhica
E00006	John
NULL	NULL

7. Write a query to count the number of cards issued to an employee “Ram”. Give the count an alias name as No_of_Cards.

```
SELECT count(loan_id) No_of_Cards FROM

employee_card_details WHERE employee_id IN

(SELECT employee_id FROM employee_master WHERE employee_name='Ram');
```

(or)

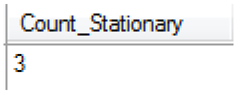
```
SELECT count(loan_id) No_of_Cards FROM

employee_card_details c JOIN  employee_master e

ON c.employee_id = e.employee_id

WHERE e.employee_name= 'Ram';
```



No_of_Cards
3

8. Write a query to display the count of customers who have gone for loan type stationary. Give the count an alias name as Count_stationary.

```
SELECT count(e.employee_id) Count_Stationary

FROM employee_card_details e JOIN loan_card_master l

ON e.loan_id=l.loan_id WHERE l.loan_type='Stationary';
```

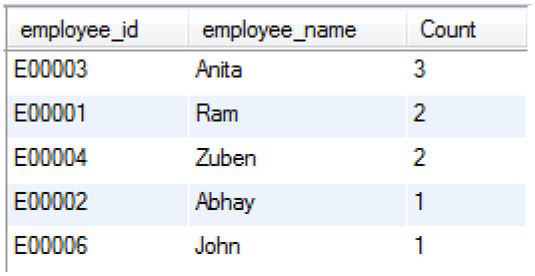


Count_Stationary
3

9. Write a query to display the employee id, employee name and number of items issued to them. Give the number of items an alias name as Count. Display the details in descending order of count and then

```
SELECT e.employee_id,employee_name,count(e.item_id) Count FROM
```

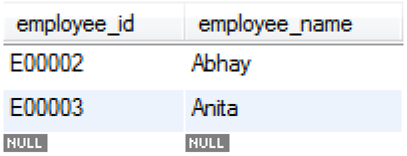
```
employee_issue_details e JOIN employee_master em ON e.employee_id=em.employee_id

GROUP BY e.employee_id ORDER BY count DESC,e.employee_id;
```



employee_id	employee_name	Count
E00003	Anita	3
E00001	Ram	2
E00004	Zuben	2
E00002	Abhay	1
E00006	John	1

10. Write a query to display the employee id, employee name who was issued an item of minimum valuation.In case of multiple records, display them sorted in ascending order based on employee id.[Hint Suppose an item called pen is of rupees 20 and that is the lowest price. So display the employee id and employee name who issued pen where the valuation is 20.]

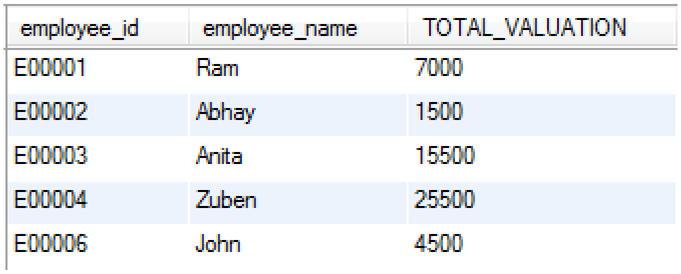
```
SELECT employee_id,employee_name FROM employee_master

WHERE employee_id IN(SELECT employee_id FROM employee_issue_details

WHERE item_id IN (SELECT item_id FROM item_master

WHERE item_valuation=(SELECT min(item_valuation) FROM

item_master i JOIN employee_issue_details e ON i.item_id=e.item_id)))

ORDER BY employee_id;
```



employee_id	employee_name
E00002	Abhay
E00003	Anita
NULL	NULL

11. Write a query to display the employee id, employee name and total valuation of the product issued to each employee. Give the alias name as TOTAL_VALUATION.Display the records sorted in ascending order based on employee id.Consider only employees who have been issued atleast 1 item.

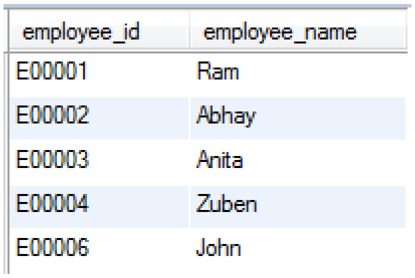
```
SELECT e.employee_id,em.employee_name,sum(i.item_valuation) TOTAL_VALUATION FROM

item_master i JOIN employee_issue_details e ON e.item_id=i.item_id

JOIN employee_master em ON em.employee_id=e.employee_id

GROUP BY e.employee_id ORDER BY employee_id;
```



employee_id	employee_name	TOTAL_VALUATION
E00001	Ram	7000
E00002	Abhay	1500
E00003	Anita	15500
E00004	Zuben	25500
E00006	John	4500

12. Write a query to display distinct employee id, employee name who kept the item issued for more than a year. Hint: Use Date time function to calculate the difference between item issue and return date. Display the records only if it is more than 365 Days.Display the records sorted in ascending order based on employee id.

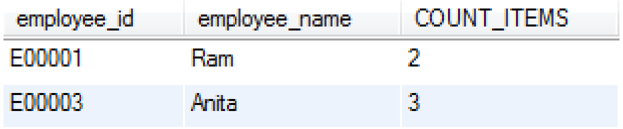
```
SELECT DISTINCT e.employee_id,e.employee_name FROM
employee_master e JOIN  employee_issue_details ei ON e.employee_id=ei.employee_id
WHERE datediff(ei.return_date,ei.issue_date)>365
ORDER BY employee_id;
```



employee_id	employee_name
E00001	Ram
E00002	Abhay
E00003	Anita
E00004	Zuben
E00006	John

13. Write a query to display employee id, employee name and count of items of those who asked for more than 1 furniture. Give the alias name for count of items as COUNT_ITEMS.Display the records sorted in ascending order on employee id.

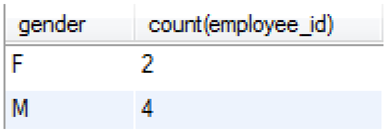
```
SELECT e.employee_id,e.employee_name,count(ei.item_id) COUNT_ITEMS FROM
employee_master e JOIN employee_issue_details ei ON e.employee_id=ei.employee_id
JOIN item_master i ON ei.item_id=i.item_id
WHERE i.item_category='Furniture'
GROUP BY ei.employee_id HAVING count(ei.item_id)>1;
```



employee_id	employee_name	COUNT_ITEMS
E00001	Ram	2
E00003	Anita	3

14. Write a query to display the number of men & women Employees. The query should display the gender and number of Employees as No_of_Employees. Display the records sorted in ascending order based on gender.

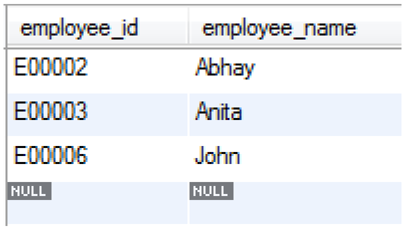
```
SELECT gender,count(employee_id) FROM employee_master

GROUP BY gender ORDER BY gender;
```



gender	count(employee_id)
F	2
M	4

15. Write a query to display employee id, employee name who joined the company after 2005. Display the records sorted in ascending order based on employee id.

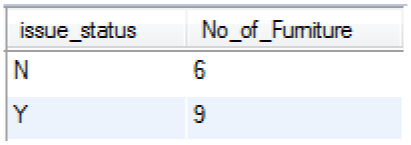
```
SELECT employee_id,employee_name FROM employee_master

WHERE year(date_of_joining)>'2005'

ORDER BY employee_id;
```



employee_id	employee_name
E00002	Abhay
E00003	Anita
E00006	John
NULL	NULL

16. Write a query to get the number of items of the furniture category issued and not issued. The query should display issue status and the number of furniture as No_of_Furnitures.Display the records sorted in ascending order based on issue_status.

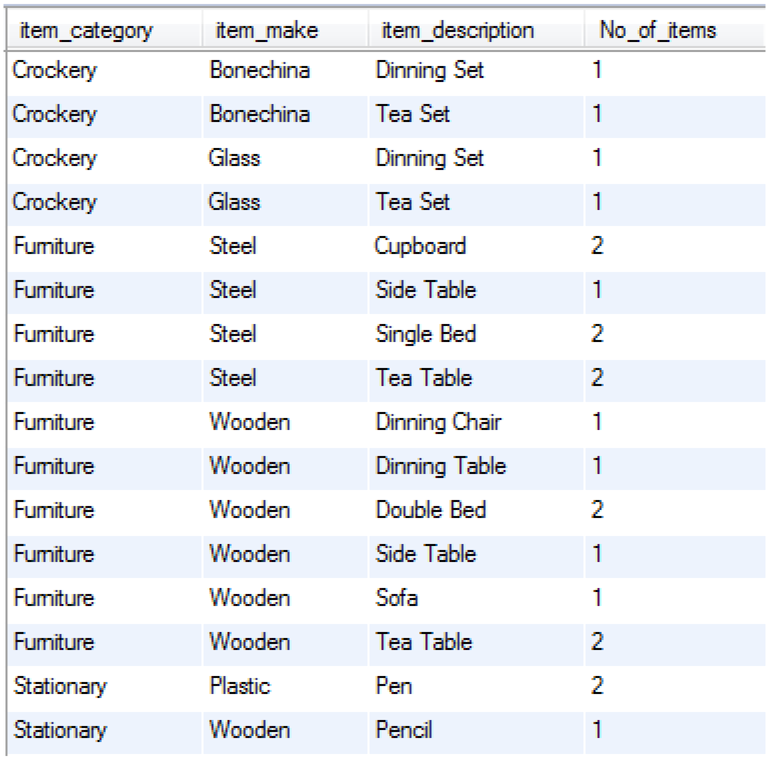
```
SELECT issue_status,count(item_id) No_of_Furniture FROM

item_master WHERE item_category='Furniture'

GROUP BY issue_status ORDER BY issue_status;
```



issue_status	No_of_Furniture
N	6
Y	9

17. Write a query to find the number of items in each category, make and description. The Query should display Item Category, Make, description and the number of items as No_of_Items. Display the records in ascending order based on Item Category, then by item make and then by item description.

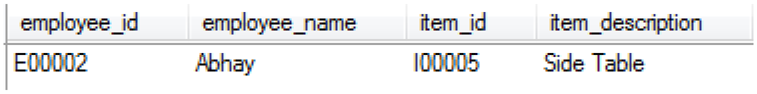
```
SELECT item_category,item_make,item_description,count(item_id) No_of_items FROM

item_master GROUP BY item_category,item_make,item_description

ORDER BY item_category,item_make,item_description;
```



item_category	item_make	item_description	No_of_items
Crockery	Bonechina	Dinning Set	1
Crockery	Bonechina	Tea Set	1
Crockery	Glass	Dinning Set	1
Crockery	Glass	Tea Set	1
Furniture	Steel	Cupboard	2
Furniture	Steel	Side Table	1
Furniture	Steel	Single Bed	2
Furniture	Steel	Tea Table	2
Furniture	Wooden	Dinning Chair	1
Furniture	Wooden	Dinning Table	1
Furniture	Wooden	Double Bed	2
Furniture	Wooden	Side Table	1
Furniture	Wooden	Sofa	1
Furniture	Wooden	Tea Table	2
Stationary	Plastic	Pen	2
Stationary	Wooden	Pencil	1

18. Write a query to display employee id, employee name, item id and item description of employees who were issued item(s) in the month of January 2013. Display the records sorted in order based on employee id and then by item id in ascending order.

```
SELECT e.employee_id,employee_name,i.item_id,i.item_description FROM

employee_master e JOIN employee_issue_details ei ON e.employee_id=ei.employee_id

JOIN item_master i ON i.item_id=ei.item_id

WHERE month(ei.issue_date)='01' and year(ei.issue_date)='2013'

ORDER BY employee_id,item_id;
```

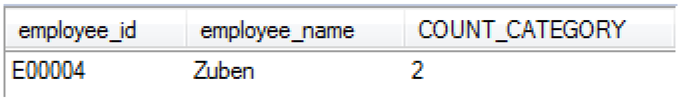


employee_id	employee_name	item_id	item_description
E00002	Abhay	I00005	Side Table

19. Write a query to display the employee id, employee name and count of item category of the employees who have been issued items in at least 2 different categories.Give the alias name for category count as COUNT_CATEGORY.Display the records sorted in ascending order based on employee id.

```
SELECT ei.employee_id,e.employee_name,count(DISTINCT i.item_category) COUNT_CATEGORY FROM

employee_master e JOIN employee_issue_details ei ON e.employee_id=ei.employee_id

JOIN item_master i ON i.item_id=ei.item_id
```

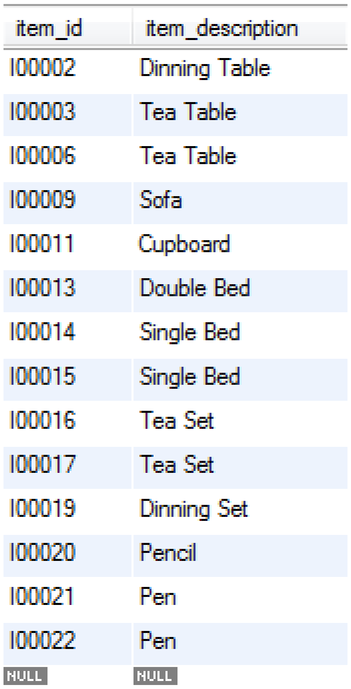
```
GROUP BY ei.employee_id

HAVING COUNT_CATEGORY>=2

ORDER BY employee_id;
```



employee_id	employee_name	COUNT_CATEGORY
E00004	Zuben	2

20. Write a query to display the item id , item description which was never issued to any employee. Display the records sorted in ascending order based on item id.

```
SELECT item_id, item_description FROM item_master

WHERE item_id NOT IN (SELECT item_id from employee_issue_details)

ORDER BY item_id;
```

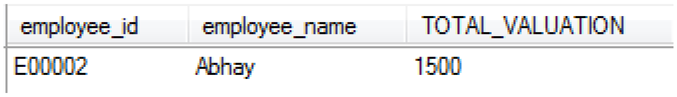


item_id	item_description
I00002	Dinning Table
I00003	Tea Table
I00006	Tea Table
I00009	Sofa
I00011	Cupboard
I00013	Double Bed
I00014	Single Bed
I00015	Single Bed
I00016	Tea Set
I00017	Tea Set
I00019	Dinning Set
I00020	Pencil
I00021	Pen
I00022	Pen
NULL	NULL

21. Write a query to display the employee id, employee name andtotal valuationfor the employees who has issued minimum total valuation of the product. Give the alias name for total valuation as TOTAL_VALUATION.[Hint: Suppose an employee E00019 issued item of price 5000, 10000, 12000 and E00020 issue item of price 2000, 7000 and 1000. So the valuation of items taken by E00019 is 27000 and for E00020 it is 10000. So the employee id, employee name of E00020 should be displayed.]

```
SELECT e.employee_id,em.employee_name,sum(i.item_valuation) TOTAL_VALUATION FROM

item_master i JOIN employee_issue_details e ON e.item_id=i.item_id

JOIN employee_master em ON em.employee_id=e.employee_id
```

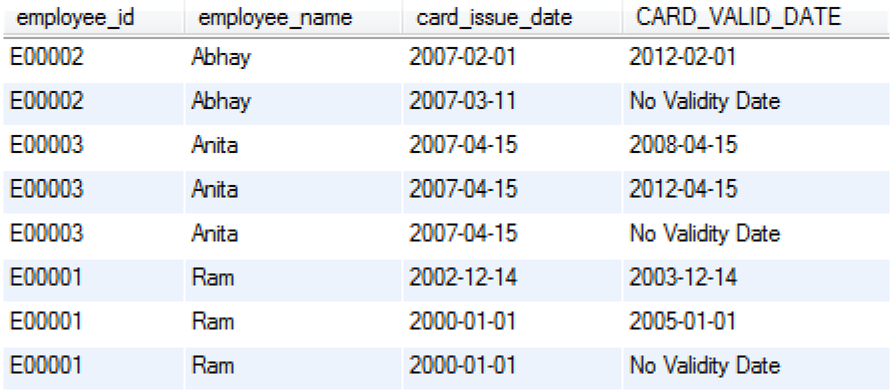
```
GROUP BY e.employee_id HAVING sum(i.item_valuation)<=ALL(

SELECT sum(i.item_valuation) TOTAL_VALUATION FROM

item_master i JOIN employee_issue_details e ON e.item_id=i.item_id

JOIN employee_master em ON em.employee_id=e.employee_id

GROUP BY e.employee_id);
```



employee_id	employee_name	TOTAL_VALUATION
E00002	Abhay	1500

22. Write a query to display the employee id, employee name, card issue date and card valid date.Order by employee name and then by card valid date. Give the alias name to display the card valid date as CARD_VALID_DATE.[Hint: Validity in years for the loan card is given in loan_card_master table. Validity date is calculated by adding number of years in the loan card issue date. If the duration of year is zero then display AS 'No Validity Date'.]

```
SELECT e.employee_id,e.employee_name,card_issue_date,

case

when l.duration_in_years>0 then date_add(ec.card_issue_date,interval l.duration_in_years year)

when l.duration_in_years=0 then 'No Validity Date' end CARD_VALID_DATE

FROM

employee_master e JOIN employee_card_details ec ON e.employee_id=ec.employee_id

JOIN loan_card_master l ON l.loan_id=ec.loan_id

ORDER BY employee_name,CARD_VALID_DATE;
```

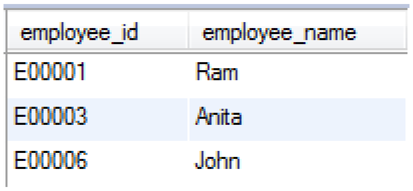


employee_id	employee_name	card_issue_date	CARD_VALID_DATE
E00002	Abhay	2007-02-01	2012-02-01
E00002	Abhay	2007-03-11	No Validity Date
E00003	Anita	2007-04-15	2008-04-15
E00003	Anita	2007-04-15	2012-04-15
E00003	Anita	2007-04-15	No Validity Date
E00001	Ram	2002-12-14	2003-12-14
E00001	Ram	2000-01-01	2005-01-01
E00001	Ram	2000-01-01	No Validity Date

23. Write a query to display the employee id, employee name who have not issued with any item in the year 2013. Hint: Exclude those employees who was never issued with any of the items in all the years. Display the records sorted in ascending order based on employee id.

```
SELECT DISTINCT e.employee_id,e.employee_name FROM
```

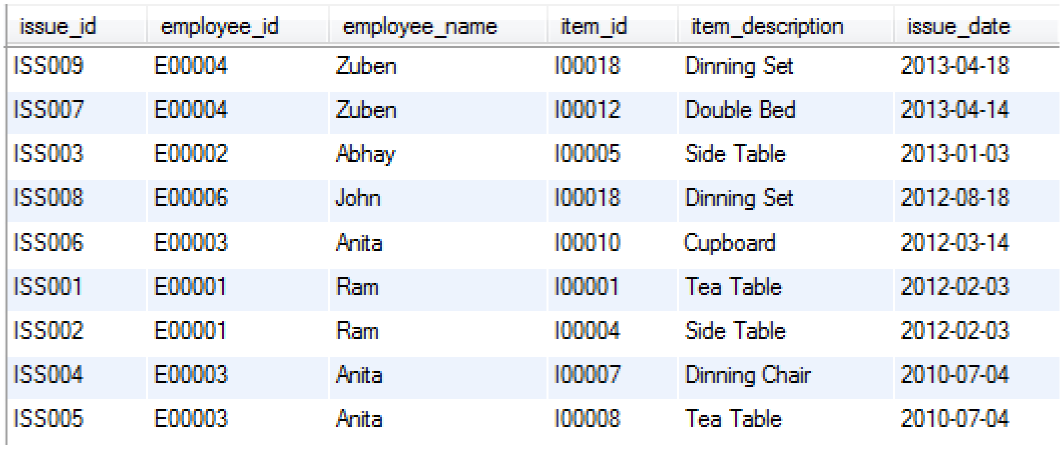
```
employee_master e JOIN employee_issue_details ei ON e.employee_id=ei.employee_id

WHERE e.employee_id NOT IN (SELECT employee_id FROM employee_issue_details

WHERE year(issue_date)='2013')

ORDER BY employee_id;
```



employee_id	employee_name
E00001	Ram
E00003	Anita
E00006	John

24. Write a query to display issue id, employee id, employee name, item id, item description and issue date. Display the data in descending order of date and then by issue id in ascending order.

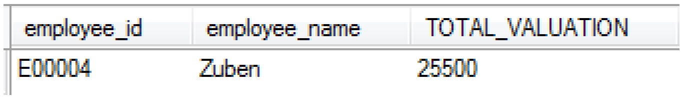
```
SELECT issue_id, eid.employee_id, employee_name, im.item_id, item_description,issue_date

FROM employee_issue_details eid JOIN employee_master em ON eid.employee_id=em.employee_id

JOIN item_master im ON eid.item_id=im.item_id

ORDER BY issue_date DESC, issue_id;
```



issue_id	employee_id	employee_name	item_id	item_description	issue_date
ISS009	E00004	Zuben	I00018	Dinning Set	2013-04-18
ISS007	E00004	Zuben	I00012	Double Bed	2013-04-14
ISS003	E00002	Abhay	I00005	Side Table	2013-01-03
ISS008	E00006	John	I00018	Dinning Set	2012-08-18
ISS006	E00003	Anita	I00010	Cupboard	2012-03-14
ISS001	E00001	Ram	I00001	Tea Table	2012-02-03
ISS002	E00001	Ram	I00004	Side Table	2012-02-03
ISS004	E00003	Anita	I00007	Dinning Chair	2010-07-04
ISS005	E00003	Anita	I00008	Tea Table	2010-07-04

25. Write a query to display the employee id, employee name and total valuation for employee who has issued maximum total valuation of the product. Give the alias name for total valuation as TOTAL_VALUATION.[Hint: Suppose an employee E00019 issued item of price 5000, 10000, 12000 and E00020 issue item of price 2000, 7000, and 1000. So the valuation of items taken by E00019 is 27000 and for E00020 it is 10000. So the employee id, employee name and total valuation of E00019 should display.]

```
SELECT e.employee_id,em.employee_name,sum(i.item_valuation) TOTAL_VALUATION FROM

item_master i JOIN employee_issue_details e ON e.item_id=i.item_id

JOIN employee_master em ON em.employee_id=e.employee_id

GROUP BY e.employee_id HAVING sum(i.item_valuation)>=ALL(
SELECT sum(i.item_valuation) TOTAL_VALUATION FROM

item_master i JOIN employee_issue_details e ON e.item_id=i.item_id

JOIN employee_master em ON em.employee_id=e.employee_id

GROUP BY e.employee_id);
```



employee_id	employee_name	TOTAL_VALUATION
E00004	Zuben	25500

QuestionText	QuestionType	Choice1	Choice2	Choice3	Choice4	Choice5	Grade1	Grade2	Grade3	Grade4	Grade5	AnswerDescrip	QuestionMedia	AnswerMedia	Author	Reviewer	Is Numeric
Please read the question carefully and choose the most appropriate option. Which of the given options are TRUE regarding 'Constraints'?	MCQ	A PRIMARY KEY constraint does not automatically have a UNIQUE constraint defined on it.	The UNIQUE constraint uniquely identifies each record in a database table.	None of the listed options	All listed options		0	1	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. The main reason that constraints are added to a table is:	MCQ	None of the listed options	Constraints gives programmers job security	Constraints ensure data integrity	Constraints add a level of complexity		0	0	1	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Which of the given options are TRUE regarding 'Constraints'?	MCQ	None of the listed options	The NOT NULL constraint enforces a column to NOT accept NULL values.	All listed options	Constraints are used to limit the type of data that can go into a table		0	0	1	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Statement 1: If you want to select rows that satisfy at least one of the given conditions, you can use the logical operator, AND. Statement 2: <> Checks if the value of two operands are equal or not, if values are not equal then condition becomes true. Which of the above statements are TRUE?	MCQ	Only statement 2	Both statement 1 and statement 2	None of the listed options	Only statement 1		1	0	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. A column defined as NOT NULL can have a DEFAULT value of NULL. True or False?	MCQ	true	false				0	1					TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. You can have many UNIQUE constraints per table, but only one PRIMARY KEY constraint per table. State whether the above statement is TRUE or FALSE.	MCQ	true	false				1	0					TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. What is a primary key?	MCQ	The primary key is a column or combination of columns whose values uniquely identify each row in the table.	The primary key column is a column or combination of columns whose values can be non-unique.	The primary key is a column that can have NULL values.			1	0	0				TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. A table must have at least one not null constraint and one unique constraint. True or False?	MCQ	true	false				0	1					TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Statement 1: Operators are used to specify conditions in an SQL statement and to serve as conjunctions for multiple conditions in a statement. Statement 2: Arithmetic operators manipulate numeric operands. Which of the above statements are TRUE?	MCQ	Both statement 1 and statement 2	None of the listed options	Only statement 1	Only statement 2		1	0	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Statement 1: 'UNION' returns all distinct rows selected by either query. Statement 2: 'INTERSECT 'returns all distinct rows selected by both queries. Which of the above statements is TRUE?	MCQ	Only statement 2	Both statement 1 and statement 2	None of the listed options	Only statement 1		0	1	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. To automatically delete rows in a child table when a parent record is deleted use:	MCQ	ON DELETE CASCADE	ON DELETE SET NULL	ON DELETE ORPHAN	None of the listed options		1	0	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Statement 1:Each table can have only ONE primary key per table Statement 2: A primary key column can contain NULL values Which of the above statements are TRUE?	MCQ	Both statement 1 and statement 2	Only statement 1	Only statement 2	None of the listed options		0	1	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Statement 1: A FOREIGN KEY in one table points to a PRIMARY KEY in another table. Statement 2: If you define a CHECK constraint on a single column it allows only certain values for this column. Which of the given options are TRUE?	MCQ	Both statement 1 and statement 2	None of the listed options	Only statement 1	Only statement 2		1	0	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Which operator returns all distinct rows selected by the first query but not the second?	MCQ	MINUS	UNION	INTERSECT	UNION ALL		1	0	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. A table can have more than one UNIQUE key constraint. True or False?	MCQ	false	true				0	1					TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Primary Key does allow the Null Values. where as in Unique key doesn't accept the Null values. State whether the statement is true or false	MCQ	true	false				0	1					TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Statement 1: 'AND' Returns TRUE if both component conditions are TRUE. Returns FALSE if either is FALSE; otherwise returns UNKNOWN. Statement 2: 'EXISTS' returns FALSE if a sub-query returns at least one row. Which of the above statements are TRUE?	MCQ	None of the listed options	Only statement 1	Both statement 1 and statement 2	Only statement 2		0	1	0	0			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. Which clause should you use to exclude group results?	MCQ	WHERE	RESTRICT	GROUP BY	HAVING		0	0	0	1			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. ON UPDATE CASCADE ensures which of the following?	MCQ	None	Materialized View	Normalization	data Integrity		0	0	0	1			TEXT	TEXT			
Please read the question carefully and choose the most appropriate option. The SQL DROP TABLE clause is used to...	MCQ	create a new table in the database	modify an existing table in a database	delete a table from the database			0	0	1				TEXT	TEXT			

Please read the question carefully and choose the most appropriate option. Which one will delete the table data as well as table structure?	MCQ	DISTINCT	TRUNCATE	REMOVE	DROP		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. To remove duplicate rows from the result set of a SELECT use the following keyword:	MCQ	NO DUPLICATE	DISTINCT	None of the listed options	UNIQUE		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the given options are TRUE about 'varchar' datatype?	MCQ	All listed options	Holds a variable length string (can contain letters, numbers, and special characters).	None of the listed options	Its maximum size is specified in parenthesis.		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the following SQL statements is correct?	MCQ	SELECT CustomerName, COUNT (CustomerName) FROM Orders ORDER BY CustomerName	SELECT CustomerName, COUNT (CustomerName) FROM Orders GROUP BY CustomerName	SELECT CustomerName, COUNT (CustomerName) FROM Orders			0	1	0				TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the following is not a valid aggregate function?	MCQ	COUNT	COMPUTE	MAX	MIN		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Can you use combination of GROUP BY clause, HAVING clause and WHERE clause SQL clauses in one SQL statement?	MCQ	true	false				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Examine the structure of the EMPLOYEES table: EMPLOYEE_ID NUMBER Primary Key FIRST_NAME VARCHAR2(25) LAST_NAME VARCHAR2(25) HIRE_DATE DATE Which UPDATE statement is valid?	MCQ	UPDATE employees SET first_name = 'John' AND last_name ='Smith' WHERE employee_id = 180;	UPDATE employees SET first_name = 'John' SET last_name ='Smith' WHERE employee_id = 180;	UPDATE employees SET first_name = 'John', SET last_name ='Smith' WHERE employee_id = 180;	UPDATE employees SET first_name = 'John', last_name ='Smith' WHERE employee_id = 180;		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The CUSTOMERS table has these columns: CUSTOMER_ID NUMBER(4) NOT NULL CUSTOMER_NAME VARCHAR2(100) NOT NULL STREET_ADDRESS VARCHAR2(150) CITY_ADDRESS VARCHAR2(50) STATE_ADDRESS VARCHAR2(50) PROVINCE_ADDRESS VARCHAR2(50) COUNTRY_ADDRESS VARCHAR2(50) POSTAL_CODE VARCHAR2(12) CUSTOMER_PHONE VARCHAR2(20) A sale is being advertised to the customers in France. Which WHERE clause identifies customers that are located in France?	MCQ	None	WHERE lower (country_address) = "france"	WHERE lower (country_address) IS 'france'	WHERE lower (country_address) = 'france'		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What SQL clause is used to restrict the rows returned by a query?	MCQ	HAVING	AND	FROM	WHERE		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which SQL statement is used to insert a new data in a database?	MCQ	INSERT NEW	ADD	UPDATE	INSERT INTO		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What does the ALTER TABLE clause do?	MCQ	The SQL ALTER TABLE deletes data from database table.	The SQL ALTER TABLE clause is used to insert data into database table.	The SQL ALTER TABLE clause modifies a table definition by altering, adding, or deleting table columns and/or constraints.	The SQL ALTER TABLE clause is used to delete a database table		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What is the standard way to separate each SQL statement in database systems that allow more than one SQL statement to be executed in the same call to the server.	MCQ	Comma	Colon	All listed options	Semicolon		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the given options are TRUE about TCL?	MCQ	All listed options	TCL consists of 2 commands: COMMIT and ROLLBACK	None of the listed options	TCL contains the commands which are required for Transaction Management.		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The result of a SELECT statement can contain duplicate rows.	MCQ	true	false				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement1: Data types specify what the type of data can be for that particular column Statement 2: Varchar is a datatype in SQL Which of the above statements is TRUE?	MCQ	Only statement 1	Only statement 2	Both statement 1 and statement 2	None of the listed options		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What is the purpose of the SQL AS clause?	MCQ	The AS clause is used with the JOIN clause only.	The AS SQL clause is used to change the name of a column in the result set or to assign a name to a derived column.	The AS clause defines a search condition			0	1	0				TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The SQL WHERE clause:	MCQ	NONE	limits the rows & columns returned	limits the column data that are returned.	limits the row data that are returned.		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. In a LIKE clause, you could ask for any value ending in "qpt" by writing	MCQ	LIKE %qpt	LIKE *qpt	LIKE ^.*qpt$	LIKE qpt$		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. DDL part of SQL does which of the following?	MCQ	Defines indexes (keys)	Specifies links between tables, and imposes constraints between tables	All listed options	allows database tables to be created or deleted		0	0	1	0			TEXT	TEXT

Please read the question carefully and choose the most appropriate option. Which two are true about aggregate functions?(Choose two)	MCA	You can use aggregate functions only in the column list of the SELECT clause and in theWHERE clause of a SELECT statement.	You can pass column names, expressions, constants, or functions as parameters to anaggregate function.	You can mix single row columns with aggregate functions in the column list of a SELECTstatement by grouping on the single row columns.	You can use aggregate functions in any clause of a SELECT statement.		0	0.5	0.5	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. A SELECT command without a WHERE clause returns?	MCQ	SELECT is invalid without a WHERE clause	Nothing	All the records from a table, or information about all the records	All the records from a table that match the previous WHERE clause		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: GRANT, DENY and REVOKE are DCL commands Statement 2: CREATE, ALTER, DROP, TRUNCATE are DDL commands	MCQ	None of the listed options	Only statement 1	Both statement 1 and statement 2	Only statement 2		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. In a LIKE clause, you can ask for any 6 letter value by writing?	MCQ	LIKE ...... (that's six dots)	LIKE ??????	LIKE .{6} Answer 5: LIKE ^.{6}$	LIKE ______ (that's six underscore characters)		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the following commands should be used to create a database named “student”?	MCQ	DATABSE student	CREATE ?I student	DATABASE /student	CREATE DATABASE student		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the following can add a row to a table?	MCQ	Add	Insert	Update	Alter		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which statement is used to query the database and retrieve selected data that match the criteria that you specify?	MCQ	UPDATE	RETRIEVE	SELECT	INSERT		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: The DELETE statement is used to delete columns in a table. Statement 2: The UPDATE statement is used to update existing records in a table. Which of the above statements are TRUE?	MCQ	Only statement 2	Both statement 1 and statement 2	None of the listed options	Only statement 1		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. ANSI is the official U.S. representative to the International Organization for Standardization (ISO). State whether the above statement is true or false	MCQ	false	true				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: DCL contains the commands which protect data from unauthorized access. Statement 2: DCL consists of 2 commands: COMMIT and ROLLBACK Which of the above statements are TRUE?	MCQ	Only statement 1	None of the listed options	Both statement 1 and statement 2	Only statement 2		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which two statements are true regarding the ORDER BY clause? (Choose two)	MCA	The sort is in ascending order by default.	The ORDER BY clause comes last in the SELECT statement.	The ORDER BY clause is executed on the client side	The sort is in descending order by default		0.5	0.5	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. SQL can be used to:	MCQ	All the listed operation can be done by SQL.	query database data only.	create database structures only.	Modify the database		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the given options return rows when there is at least one match in both tables?	MCQ	GROUP BY	WHERE	JOIN	ORDER BY		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which type of join combines the results of both left and right outer joins?	MCQ	Cross Join	Full Outer Join	Inner join	All listed options		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which syntax would be used to retrieve all rows in both the EMPLOYEES and DEPARTMENTS tables, even when there is no match?	MCQ	Self join	Natural join	Outer join	Inner join		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The INNER JOIN clause…	MCQ	returns only the rows from the first table, which have non-matching values with the second table in the field on which the 2 tables are joined.	returns all rows from 2 tables	returns all rows that have matching value in the field on which the 2 tables are joined.			0	0	1				TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What is true about joining tables through an equijoin?	MCQ	You can join n tables (all having single column primary keys) in a SQL statement by specifying a minimum of n-1 join conditions.	You can join a maximum of two columns through an equijoin.	All listed options	You can join a maximum of two tables through an equijoin.		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: In case of Natural Joins, common columns are columns that have the same number of rows in both tables. Statement 2: JOIN ON syntax is much more readable and maintainable than the natural join syntax. Which of the above statements are TRUE?	MCQ	Only statement 1	Both statement 1 and statement 2	Only statement 2	None of the listed options		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. In the relational model, relationships between relations or tables are created by using:	MCQ	foreign keys.	composite keys.	determinants.	candidate keys		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: CROSS JOIN returns the Cartesian product of the sets of rows from the joined tables. Statement 2: You can have multiple conditions for the ON clause just like you can in a WHERE clause. Which of the above statements is TRUE?	MCQ	Only statement 2	Only statement 1	None of the listed options	Both statement 1 and statement 2		0	0	0	1			TEXT	TEXT

Please read the question carefully and choose the most appropriate option. Statement 1: The FULL OUTER JOIN will return all rows, as long as there's matching data in one of the tables. Statement 2: FULL OUTER JOIN includes all the rows from both the participating tables and does not select either the LEFT or RIGHT table from the JOIN key word. Which of the above statements are TRUE?	MCQ	Only statement 1	Both statement 1 and statement 2	None of the listed options	Only statement 2		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. If table A have 10 rows and table B have 5 rows, how many rows will be returned if you perform a cartesian join on those two tables?	MCQ	5	15	10	50		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. A table may be joined to itself.	MCQ	false	true				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the given options return all rows from the left table, even if there are no matches in the right table?	MCQ	RIGHT JOIN	JOIN	CROSS JOIN	LEFT JOIN		0	0	0	1			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. A Self Join is a type of sql join which is used to join a table to itself, particularly when the table has a FOREIGN KEY that references its own PRIMARY KEY. State whether the above statement is TRUE or FALSE.	MCQ	false	true				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The ____________ join is the ANSI-standard syntax used to generate a Cartesian product.	MCQ	ALL	FULL	CROSS	NATURAL		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which type of join does not require each record in the two joined tables to have a matching record?	MCQ	Outer Join	Equi Join	Inner join	Self join		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. We refer to a join as a self-join when?	MCQ	we are using left and right join together	we are joining more than 2 tables	we are joining table to itself			0	0	1				TEXT	TEXT
Please read the question carefully and choose the most appropriate option. SQL joins are used to query data from two or more tables, based on ____________________.	MCQ	None of the listed options	a relationship between certain columns in tables	a relationship between certain rows in tables.	All listed options		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. GROUP BY clause is used in collaboration with the SELECT statement to arrange identical data into groups. State whether the above statement is TRUE or FALSE.	MCQ	true	false				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: SQL aggregate functions return a single value, calculated from values in a column. Statement 2: AVG() returns the average value Which of the above statements is TRUE?	MCQ	None of the listed options	Both statement 1 and statement 2	Only statement 2	Only statement 1		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the given options is TRUE about LIKE clause?	MCQ	The percent sign represents zero, one, or multiple characters, when used with LIKE clause.	Both the statements given	The underscore represents a single number or character.			0	1	0				TEXT	TEXT
Please read the question carefully and choose the most appropriate option. LIKE clause is used to compare a value to similar values using logical operators. State whether the above statement is TRUE or FALSE.	MCQ	false	true				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The GROUP BY clause follows the WHERE clause in a SELECT statement and precedes the ORDER BY clause. State whether the above statement is TRUE or FALSE.	MCQ	true	false				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The ROUND() function is used to round a numeric field to the nearest hundred. State whether the above statement is TRUE or FALSE.	MCQ	false	true				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The HAVING clause places conditions on the selected columns, whereas the WHERE clause places conditions on groups created by the GROUP BY clause. State whether the above statement is TRUE or FALSE.	MCQ	false	true				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the given options is TRUE?	MCQ	SUM function allows selecting the total for a numeric column.	None of the listed options	COUNT function is used to count the number of columns in a database table.	All listed options		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Statement 1: Numeric functions accept numeric input and return string values. Statement 2: Single-row functions return a single result row for every row of a queried table or view. Which of the above statements are TRUE?	MCQ	Only statement 1	None of the listed options	Only statement 2	All the listed options		0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The percent sign and the underscore cannot be used in combinations, when using LIKE clause. State whether the above statement is TRUE or FALSE.	MCQ	false	true				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. You cannot add a subquery to a SELECT clause as a column expression in the SELECT list. State whether the above statement is TRUE or FALSE.	MCQ	true	false				0	1					TEXT	TEXT

Please read the question carefully and choose the most appropriate option. Which of the following is valid SQL for an Index?	MCQ	CREATE INDEX ID;	REMOVE INDEX ID;	CHANGE INDEX ID;	ADD INDEX ID;			1	0	0	0			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Statement 1: A subquery is also called an inner query or inner select, while the statement containing a subquery is also called an outer query or outer select. Statement 2: A subquery can be nested inside the WHERE or HAVING clause of an outer SELECT, INSERT, UPDATE, or DELETE statement, or inside another subquery. Which of the above statements are TRUE?	MCQ	Both statement 1 and statement 2	Only statement 2	None of the listed options	Only statement 1			1	0	0	0			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. View can be removed using which command?	MCQ	DELETE VIEW	REMOVE VIEW	All listed options	DROP VIEW			0	0	0	1			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Statement 1: A view can be accessed with the use of SQL SELECT statement like a table. Statement 2: A view can be made up by selecting data from more than one tables. Which of the above statements are TRUE?	MCQ	Only statement 2	Both statement 1 and statement 2	None of the listed options	Only statement 1			0	1	0	0			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. An index helps speed up SELECT queries and WHERE clauses, but it slows down data input, with UPDATE and INSERT statements. State whether the above statement is TRUE or FALSE.	MCQ	true	false					1	0					TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Statement 1: Clustered index physically rearranges the data that users inserts in your tables. Statement 2: There can be 2000 non-clustered index per table. Which of the above statement are TRUE?	MCQ	Both statement 1 and statement 2	None of the listed options	Only statement 2	Only statement 1			0	0	0	1			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Which of the given options are TRUE?	MCQ	An inline view exists only inside of the FROM clause as a run-time result set.	All listed options	A subquery exists only inside of the FROM clause as a run-time	An inline view exists only inside of the WHERE clause as a run-time result set.			1	0	0	0			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Statement 1: If a subquery is not dependent on the outer query it is called a non-correlated subquery. Statement 2: Subqueries cannot be used with the comparison operators. Which of the above statements are TRUE?	MCQ	None of the listed options	Only statement 1	Only statement 2	Both statement 1 and statement 2			0	1	0	0			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. A query is called correlated subquery when both the inner query and the outer query are interdependent. State whether the above statement is TRUE or FALSE.	MCQ	false	true					0	1					TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Statement 1: The SQL subquery is a SELECT query that is embedded in the main SELECT statement. Statement 2: A subquery cannot return more than one rows Which of the above statements is TRUE?	MCQ	Both statement 1 and statement 2	None of the listed options	Only statement 2	Only statement 1			0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. The following s/w process model can be represented schematically as a series of major technical activities and there associated sate	MCQ	All of the listed options	Incremental model	Concurrent development model	Component assembly			0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. If Quality Control and Quality Assurance are compared	MCQ	Both are literally the same	QA is done by the client and QC is done by the software vendor	QC is a higher activity in the management Hierarchy	QA is a higher activity in the management Hierarchy			0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. To produce a good quality product, process should be	MCQ	None	Rigorous	Complex	Efficient			0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. Software processes can be constructed out of pre-existing software patterns to best meet the needs of a software project. State True or False	MCQ	false	true					0	1					TEXT	TEXT				
Carefully read the question and answer accordingly. Who is essentially responsible for the quality of a product	MCQ	Development Manager	Customer	QA Manager				1	0	0				TEXT	TEXT				
Carefully read the question and answer accordingly. Data structure suitable for the application is discussed in ?	MCQ	procedural design	architectural design	interface design	data design			0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. Using software process improvement model will help a company	MCQ	To decrease the defect rate	All of the listed options	To increase profitability	To decrease development time	To meet schec		0	1	0	0	0		TEXT	TEXT				
Carefully read the question and answer accordingly. The object relationship pair of data model is represented graphically by using	MCQ	All of the listed options	Flow chart	Data flow diagram	Entity relationship diagram			0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. Which one is the most important feature of spiral model	MCQ	Efficiency management	Performance Management	Risk Management	Quality management			0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Process models are described as agile because they	MCQ	do not waste development time on planning activities	emphasize maneuverability and adaptability	eliminate the need for cumbersome documentation	make extensive use of prototype creation			0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. People who perform software quality assurance must look at the software from the customer's perspective.	MCQ	false	true					0	1					TEXT	TEXT				
Carefully read the question and answer accordingly. In software quality assurance work there is no difference between software verification and software validation. State True/False	MCQ	false	true					1	0					TEXT	TEXT				
Carefully read the question and answer accordingly. Software is a product and can be manufactured using the same technologies used for other engineering artifacts. State True or False	MCQ	true	false					0	1					TEXT	TEXT				

Carefully read the question and answer accordingly. A key concept of quality control is that all work products	MCQ	have measurable specifications for process outputs	are thoroughly tested before delivery to the customer	are delivered on time and under budget	have complete documentation		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. What are the qualities of a good s/w	MCQ	Portability	Reusability	All of the listed options	Inter Operability		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Software safety is a quality assurance activity that focuses on hazards that	MCQ	may result from user input errors	prevent profitable marketing of the final product	may cause an entire system to fail	affect the reliability of a software component		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The goal of quality assurance is to provide management with the data needed to determine which software engineers are producing the most defects.	MCQ	false	true				1	0					TEXT	TEXT				
Carefully read the question and answer accordingly. Variation control in the context of software engineering involves controlling variation in the	MCQ	process applied	All of the listed options	resources expended	product quality attributes		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. What is used to measure the characteristics of the documentation and code	MCQ	Process metrics	Software Quality metrics	Product metrics	None of the listed options		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The purpose of software reviews is to uncover errors in work products so they can be removed before moving on to the next phase of development.	MCQ	false	true				0	1					TEXT	TEXT				
Carefully read the question and answer accordingly. In object oriented design of software , objects have	MCQ	attributes, name and operations	None of the listed options	operations and names only	attributes and names only		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of these criteria are useful in assessing the effectiveness of a particular design notation	MCQ	modularity	size	maintainability	simplicity	maintainability	0	0	0	0	1		TEXT	TEXT				
Carefully read the question and answer accordingly. Which of the following is the correct definition for DFD	MCQ	The primary output of the system design phase	The modern version of flowchart	Mainly used at systems specification stages	All of the listed options		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of the following comments about object oriented design of software, is not true	MCQ	Classes are defined based on the attributes of objects	an object can belong to two classes	classes are always different	Objects inherit the properties of class		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. In system design, we do following	MCQ	Hardware design after software	Software design after hardware	Parallel hardware and software design	No hardware design needed		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of these is a graphical notation for depicting procedural detail	MCQ	flowchart	ER diagram	decision table	process diagram		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The term module in the design phase refers to	MCQ	Sub programs	Procedures	All of the listed options	Functions		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Informational cohesion is a realization of	MCQ	structured programming	Modularity	Concurrency	data abstraction		0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. The work products produced during requirement elicitation will vary	MCQ	size of the product being built	size of the budget	stakeholders needs	software process being used		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Object-oriented analysis techniques can be used to identify and refine user task objects and actions without any need to refer to the user voice. State True/False	MCQ	true	false				0	1					TEXT	TEXT				
Carefully read the question and answer accordingly. Change cannot be easily accommodated in most software systems, unless the system was designed with change in mind. State True/False	MCQ	false	true				0	1					TEXT	TEXT				
Carefully read the question and answer accordingly. Software Engineering is the systematic approach to the development, operation, maintenance and retirement of software. This definition is given by_________	MCQ	Bauer	Boehm	Charles Babbage	IEEE		0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of the items listed below is not one of the software engineering layers	MCQ	Tools	Manufacturing	Methods	Process		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Software engineering umbrella activities are only applied during the initial phases of software development projects. State True or False	MCQ	true	false				0	1					TEXT	TEXT				
Carefully read the question and answer accordingly. Which phase is not available in s/w life cycle	MCQ	Coding	Specifications	Design	Installation & Maintenance		0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. The Prototype is a	MCQ	Mini model of existing system	Working model of existing system	Mini model of processed system	None of the listed options		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of the following is not Risk characteristic	MCQ	Neither intrinsically good not bad	Something to fear but not something to manage	Probability of loss	Inherent in every project		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Management of software development is dependent upon	MCQ	People	Process	All of the listed options	Product		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The best way to conduct a requirements validation review is to	MCQ	send them to the design team and see if they have any concerns	examine the system model for errors	use a checklist of questions to examine each requirement	have the customer look over the requirements		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Software engineering aims at developing	MCQ	Reliable Software	None of the listed options	Cost Effective Software	Reliable and cost effective Software		0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. Major component of Risk Analysis are	MCQ	The potential loss or impact associated with the event	The probability that the negative event will occur and The potential loss or impact associated with the event	The potential loss is very high	The probability that the negative event will occur		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Milestones are used to	MCQ	Know the status of the project	Know the cost of the project	Know the user expectations	None of the listed options		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The review is one of the methods of V&V. The other methods are	MCQ	Walkthrough	Inspection	Testing	All of the listed options		0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. Software Engineering approach is used to achieve	MCQ	Better performance of h/w	Reusable software	Error free s/w	Quality software product		0	0	0	1			TEXT	TEXT				

Carefully read the question and answer accordingly. Which is not the responsibility of customer/ user of the software	MCQ	Prepare resource plan	Plan how and by whom each acceptance activity will be performed	Plan resources for providing information on which to base acceptance decisions	Prepare the acceptance plan		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. A stakeholder is anyone who will purchase the completed software system under development. State True/False	MCQ	false	true				1	0					TEXT	TEXT				
Carefully read the question and answer accordingly. Project risk factor is considered in	MCQ	Water fall	Spiral	All of the listed options	Prototype		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The prototyping model of software development is	MCQ	The best approach to use for projects with large development teams	A risky model that rarely produces a meaningful product	A useful approach when a customer cannot define requirements clearly	A reasonable approach when requirements are well defined		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Control flow diagrams are	MCQ	required for all systems.	used in place of data flow diagrams.	useful for modeling real-time systems.	needed to model event driven systems.	useful for mod	0	0	1	0	0		TEXT	TEXT				
Carefully read the question and answer accordingly. A data model consists of the following information	MCQ	All of the listed options	The attributes that describe data object	Relationship that connect data object to one another	Data Object		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of following is not a UML diagram used creating a system analysis model	MCQ	Activity diagram	Class diagram	State diagram	Dataflow diagram		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. If requirements are frequently changing, which model is best suited	MCQ	RAD	Prototype	Water fall	Spiral		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The data flow diagram must be augmented by descriptive text in order to describe the functional requirements for a software product. State True/False	MCQ	true	false				1	0					TEXT	TEXT				
Carefully read the question and answer accordingly. The incremental model of software development is	MCQ	The best approach to use for projects with large development teams.	A good approach when a working core product is required quickly	A reasonable approach when requirements are well defined	A revolutionary model that is not used for commercial products		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which is not a software life cycle model	MCQ	Spiral	Capability Maturity Model	Water fall	Prototype		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. If requirements are understandable, easy, defined, which model is best suited	MCQ	Prototype	None	Water fall	Spiral		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. The entity relationship diagram	MCQ	depicts functions that transform the data flow	depicts relationships between data objects	indicates how data are transformed by the system	indicates system reactions to external events		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. What exactly Baseline means	MCQ	A quantitative measure of the current level of performance	A single software product that may or may not fully support a business function	A test or analysis conducted after an application is moved into production	None of the listed options		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. Which of these are valid software configuration items?	MCQ	test data	software tools	executable programs	All of the listed options	documentation	0	0	0	1	0		TEXT	TEXT				
Carefully read the question and answer accordingly. The primary purpose of configuration status reporting is to	MCQ	make sure that change information is communicated to all affected parties	evaluate the performance of software developers and organizations	None of the listed options	allow revision of project schedules and cost estimates by project managers		1	0	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. When software configuration management is a formal activity, the software configuration audit is conducted by the	MCQ	senior managers	development team	quality assurance group	testing specialists		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. A new __________ is defined when major changes have been made to one or more configuration objects.	MCQ	item	version	entity	variant		0	1	0	0			TEXT	TEXT				
Carefully read the question and answer accordingly. What is configuration management in software engineering	MCQ	management of the configurable components in a system	in object-oriented programming , the management of objects that control the configuration of some other function(s) in the system	the identification of the configuration of a system at discrete points in time to control changes to the configuration	overall management of the design of the system		0	0	1	0			TEXT	TEXT				
Carefully read the question and answer accordingly. In requirements validation the requirements model is reviewed to ensure its technical feasibility. State True/False	MCQ	false	true				1	0					TEXT	TEXT				
Carefully read the question and answer accordingly. A basic configuration object is a __________ created by a software engineer during some phase of the software development process.	MCQ	All of the listed options	program data structure	unit of information	a software component		0	0	0	1			TEXT	TEXT				
Carefully read the question and answer accordingly. The ability to track relationships and changes to configuration objects is one of the most important features of the SCM repository.	MCQ	true	false				1	0					TEXT	TEXT				
Carefully read the question and answer accordingly. Which of the following tasks is not part of software configuration management?	MCQ	change control	version control	statistical quality control	reporting		0	0	1	0			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. An input field takes the birth year of the user ranging from 1960 to 1995. The boundary values for testing this field are?	MCQ	0,1960,1995	1959, 1960, 1961, 1994, 1995, 1996	1960, 1995, 1996	0, 1959, 1960, 1961, 1994, 1995, 1996	1959, 1960, 19	0	1	0	0	0		TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Test scenarios have to be written with the consideration of ?	MCA	Business rules	Functional standards	None of the listed options	Non functional standards		0.333	0.333	0	0.333			TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. State whether True or False. Testers should be involved in reviewing documents as soon as drafts are available in the development cycle.	MCQ	true	false				1	0					TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Alternate flows can be tested by themselves (State Frue or false)	MCQ	true	false				0	1					TEXT	TEXT				

Please read the question carefully and choose the most appropriate option. We derive _________ by using the test design techniques	MCQ	All the listed options	Test Scenario	Test case	None of the listed options	Test condition	0	0	1	0	0		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. State whether True or False. A use case can result into more than one scenario.	MCQ	true	false				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Test data preparation data is done during _________ ?	MCQ	Test condition defining process	Test Development process	Test Execution process	Test Scenario identification process		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. For a given set of boundaries, how many boundary values are possible?	MCQ	2	None of the listed options	4	8	6	0	0	0	0	1		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Test Scenarios have case specific data assigned to them (State True or False)	MCQ	true	false				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the following statements is/are true?	MCA	Test scenario involves the expected results.	Test case includes the steps to execute.	Test scenario define the setup to perform the tests	Test cases are developed from Test conditions.	Test case inclu	0	0.5	0	0	0.5		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Test conditions can be valid or invalid (State True or False)	MCQ	false	true				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the below is not an activity involved in Test execution process?	MCQ	Test data setup	Retesting of defects	Build verification process	Test case execution	Defect Trackin	1	0	0	0	0		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. The conditions that need to be verified by the tester after the activity is performed are called _________?	MCQ	Exceptions	Post condition	Pre condition	Triggers		0	1	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. State whether True or False. Triage meeting is done before fixing the defect.	MCQ	false	true				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which is the correct order to be followed for a Build Verification Process?	MCQ	A. Build the compiled code into software B. Add the release notes C. Perform Smoke/ Sanity Test D. Test Execution	A. Review the code B. Build the compiled code into software C. Perform Smoke/ Sanity Test D. Test Execution				0	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. A defect is found after retest. What are all the possible stages this defect may undergo?	MCQ	Reopen, Fixed, Closed	Open, Fixed, Reopen, Closed	Reopen, Fixed	Defferred, Open, Fixed, Reopen, Closed		1	0	0	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which is not a major task of test implementation and execution?	MCQ	Verifying that the test environment has been set up correctly	Develop and prioritizing test cases, creating test data, writing test procedures and optionally, preparing test harness and writing automated test scripts	Verifying that the test environment has been set up correctly and Checking test logs against the exit criteria specified in test planning	Checking test logs against the exit criteria specified in test planning	Logging the ou	0	0	0	1	0		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. State whether True or False. Release notes are prepared by developer/ development team.	MCQ	true	false				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which is not a major task of test implementation and execution?	MCQ	Develop and prioritizing test cases, creating test data, writing test procedures and optionally, preparing test harness and writing automated test scripts	Logging the outcome of test execution and recording the identities and versions of the software under test, test tools and testware	Verifying that the test environment has been set up correctly	Verifying that the test environment has been set up correctly and Checking test logs against the exit criteria specified in test planning	Checking test	0	0	0	0	1		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What are the subsequent states that a new defect can undergo?	MCA	Closed	Rejected	Deferred	Fixed	Open	0	0.333	0.333	0	0.333		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. State whether True or False. Developer has to ensure that the pre requisite of each test case are met.	MCQ	True	false				0	1					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. What are the action items if an application does not behave as expected?	MCA	Update status of the defect	Execute next test step of same test case	Log defect	Retest		0.5	0	0.5	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Software testing ensures which of the below?	MCQ	Use of proper test approach	Usage of design architecture	Proper causal analysis	Requirement satisfaction and usage of best design architecture	None of the lis	0	0	0	1	0		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Match the following. A) Self review B) Formal review C) Informal review 1. Conducted by one or more peers in the team 2. Conducted by one or more reviewers or SME 3. Conducted by the author himself	MCQ	A - 3, B - 1, C - 2	A - 2, B - 1, C - 3	A - 2, B - 3, C - 1	A - 3, B - 2, C - 1	A - 1, B - 2, C -	0	0	1	0			TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Review of Test case Artifact is done with the help of?	MCQ	Reviewer	Self review	Author	Peer review	Checklist	0	0	0	0	1		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. In causal analysis which attributes among below assist in analyzing the effect?	MCA	Failures	Cause	Requirement gathering	Reason	Test Approach	0	0.5	0	0.5	0		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. State whether true or false. Selenium tools helps to develop Automated test scripts	MCQ	true	false				1	0					TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Which of the statements is applicable to software testing?	MCA	Helps to provide a reliable system	Helps prevent the defects	None of the listed options	Helps to identify completeness of the software	Helps in identi	0.25	0.25	0	0.25	0.25		TEXT	TEXT
Please read the question carefully and choose the most appropriate option. Test environment check up is part of _________ .	MCQ	Test Execution	None of the listed options	Test Scenario	Test Development	Test Design	1	0	0	0	0		TEXT	TEXT

Please read the question carefully and choose the most appropriate option. What are the possible causes for ending up into 0.1 % defective application?	MCA	Developers tend to neglect test approach to the developed product.	Defective code	Less knowledge on development language	Lack of domain knowledge	Misunderstooc	0.25	0.25	0	0.25	0.25		TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. Which of the following map the corresponding phases from SDLC with STLC.	MCQ	Requirement Analysis - Test Planning Design and Code - Test Design Testing - Unit Testing	None of the listed options	Requirement Analysis - Test Planning Design and Code - Unit Testing Testing - Component Integration testing and System testing	Requirement Analysis - Test Planning Design and Code - Test Design Testing - Component Integration testing and System testing	Requirement A	0	0	0	1	0		TEXT	TEXT				
Please read the question carefully and choose the most appropriate option. State whether true or false. QC is used for logging the outcome of the test execution.	MCQ	false	true				0	1					TEXT	TEXT				