

1st library database

---

```
create database order082;
use order082;
```

```
CREATE TABLE SALESMAN(
    salesman_id INTEGER PRIMARY KEY,
    NAME varchar(20),
    city varchar(20),
    commission varchar(20));
```

```
DESC salesman;
```

```
+-----+-----+-----+-----+-----+
| Field  | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| salesman_id | int      | NO   | PRI | NULL    |      |
| NAME       | varchar(20) | YES  |     | NULL    |      |
| city       | varchar(20) | YES  |     | NULL    |      |
| commission | varchar(20) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+
```

```
create table CUSTOMER(
    cust_id INTEGER PRIMARY KEY, cust_name varchar(20),
    city varchar(20),
    grade INTEGER,
    salesman_id INTEGER,
    FOREIGN KEY (salesman_id) REFERENCES SALESMAN(salesman_id) ON
DELETE CASCADE);
```

```
show tables;
```

```
+-----+
| Tables_in_order082 |
+-----+
| customer            |
| salesman            |
+-----+
```

```
desc customer;
```

```
+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| cust_id    | int       | NO   | PRI | NULL    |      |
| city       | varchar(20) | YES  |     | NULL    |      |
| grade      | int       | YES  |     | NULL    |      |
| salesman_id | int      | YES  | MUL | NULL    |      |
| customer_name | varchar(20) | YES  |     | NULL    |      |
+-----+-----+-----+-----+-----+
```

```
+-----+-----+-----+-----+-----+
```

```
create table ORDERS(
    order_no INTEGER PRIMARY KEY,
    purchase_amt integer,
    order_date DATE,
    cust_id INTEGER,
    salesman_id INTEGER, FOREIGN KEY (cust_id) REFERENCES
CUSTOMER(cust_id) ON DELETE CASCADE,
    FOREIGN KEY (SALESMAN_ID) REFERENCES SALESMAN(salesman_id) on
delete cascade);
```

```
desc orders
```

```
-> ;
```

```
+-----+-----+-----+-----+-----+
| Field   | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| order_no | int  | NO   | PRI | NULL    |       |
| order_date | date | YES  |     | NULL    |       |
| cust_id   | int  | YES  | MUL | NULL    |       |
| salesman_id | int | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+
```

```
show tables;
```

```
+-----+
| Tables_in_order082 |
+-----+
| customer           |
| orders             |
| salesman           |
+-----+
```

```
insert into salesman values(1000, "shridhar", "Banglore", "80%");
insert into salesman values(1001, "shadwal", "Banglore", "90%");
insert into salesman values(1002, "shuhoodh", "Banglore", "25%");
insert into salesman values(1003, "sampath", "Udupi", "40%");
insert into salesman values(1004, "sainath", "Manglore", "50%");
```

```
select * from salesman;
```

```
+-----+-----+-----+-----+
| salesman_id | NAME   | city   | commission |
+-----+-----+-----+-----+
```

```

+-----+-----+-----+-----+
| 1000 | shridhar | Bangalore | 80% |
| 1001 | shadwal | Bangalore | 90% |
| 1002 | shuhoodh | Bangalore | 25% |
| 1003 | sampath | Udupi | 40% |
| 1004 | sainath | Manglore | 50% |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)

```

```

insert into customer values(1, "udupi", 100, 1000, "John");
insert into customer values(2, "Manglore", 200, 1000, "Cena");
insert into customer values(3, "Banglore", 150, 1001, "Pheonix");
insert into customer values(4, "Banglore", 200, 1002, "Jett");
insert into customer values(5, "Manglore", 100, 1003, "yttit");

```

```

select * from customer;
+-----+-----+-----+-----+-----+
| cust_id | city | grade | salesman_id | customer_name |
+-----+-----+-----+-----+-----+
| 1 | udupi | 100 | 1000 | John |
| 2 | Manglore | 200 | 1000 | Cena |
| 3 | Banglore | 150 | 1001 | Pheonix |
| 4 | Banglore | 200 | 1002 | Jett |
| 5 | Manglore | 100 | 1003 | yttit |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

```

```

insert into orders values(10, 2000, '2022-11-11', 1, 1000);
insert into orders values(11, 5000, '2022-12-10', 2, 1000);
insert into orders values(12, 7800, '2022-11-14', 3, 1001);
insert into orders values(14, 6000, '2022-12-08', 1, 1003);
insert into orders values(13, 2000, '2022-12-19', 4, 1004);

```

```

select * from orders;
+-----+-----+-----+-----+-----+
| order_no | purchase_amt | order_date | cust_id | salesman_id |
+-----+-----+-----+-----+-----+
| 10 | 2000 | 2022-11-11 | 1 | 1000 |
| 11 | 5000 | 2022-12-10 | 2 | 1000 |
| 12 | 7800 | 2022-11-14 | 3 | 1001 |

```

13	2000	2022-12-19	4	1004
14	6000	2022-12-08	1	1003

5 rows in set (0.00 sec)

```
SELECT COUNT(
    cust_id) as cust_count
FROM customer
WHERE grade > (
    SELECT avg(grade)
    FROM customer
    WHERE city='Banglore' );
```

cust_count
2

1 row in set (0.00 sec)

find the name and n0, if all salesman who had morethen 1 customer

```
SELECT salesman.salesman_id, salesman.name
FROM salesman, customer
WHERE customer.salesman_id=salesman.salesman_id
GROUP BY customer.salesman_id having count(customer.cust_id)>1;
```

salesman_id	name
1000	shridhar

1 row in set (0.00 sec)

```
SELECT DISTINCT salesman.salesman_id,salesman.name,customer.customer_name,
salesman.commission
FROM salesman, customer WHERE salesman.city=customer.city AND
salesman.salesman_id=customer.salesman_id
UNION SELECT DISTINCT salesman.salesman_id, salesman.name, 'no_customer',
salesman.commission
FROM salesman
WHERE NOT city=ANY(
    SELECT CITY FROM customer
    WHERE salesman.city=customer.city
```

**AND salesman.salesman\_id=customer.salesman\_id);**

```
+-----+-----+-----+-----+
| salesman_id | name    | customer_name | commission |
+-----+-----+-----+-----+
|    1000 | shridhar | Johbbb       | 80%       |
|    1001 | shadwal  | Pheonix      | 90%       |
|    1002 | shuhoodh | Jett         | 25%       |
|    1003 | sampath  | no_customer  | 40%       |
|    1004 | sainath  | no_customer  | 50%       |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

4th query

**CREATE VIEW HIGHER AS**

**SELECT salesman.salesman\_id, salesman.name, salesman.city, orders.order\_date,**  
**purchase\_amt**

**FROM orders, salesman**

**WHERE salesman.salesman\_id=orders.salesman\_id**

**AND orders.purchase\_amt=(select MAX(o.purchase\_amt)**

**FROM orders o**

**WHERE orders.order\_date=o.order\_date);**

Query OK, 0 rows affected (0.01 sec)

mysql> select \* from higher;

```
+-----+-----+-----+-----+-----+
| salesman_id | name    | city    | order_date | purchase_amt |
+-----+-----+-----+-----+-----+
|    1000 | shridhar | Bangalore | 2022-11-11 |      2000 |
|    1000 | shridhar | Bangalore | 2022-12-10 |      5000 |
|    1001 | shadwal  | Bangalore | 2022-11-14 |      7800 |
|    1003 | sampath  | Udupi    | 2022-12-08 |      6000 |
|    1004 | sainath  | Manglore | 2022-12-19 |      2000 |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

5th query deleting salesman id = 1000;

**DELETE**

**FROM salesman**  
**WHERE salesman\_id = '1000';**

Query OK, 1 row affected (0.02 sec)

mysql> select \* from salesman;

salesman_id	NAME	city	commission
1001	shadwal	Banglore	90%
1002	shuhodh	Banglore	25%
1003	sampath	Udupi	40%
1004	sainath	Manglore	50%

4 rows in set (0.00 sec)

---

2.

use movie082;

Database changed

**CREATE TABLE ACTOR(  
    act\_id INTEGER(10) PRIMARY KEY,  
    act\_name varchar(20),  
    act\_gender varchar(20));**

Query OK, 0 rows affected, 1 warning (0.05 sec)

**CREATE TABLE director(  
    dir\_id INTEGER(10) PRIMARY KEY,  
    dir\_name varchar(20),  
    dir\_phono bigint);**

Query OK, 0 rows affected, 1 warning (0.03 sec)

**CREATE TABLE movies(  
    mov\_id integer(10) primary key,  
    mov\_title varchar(20), mov\_year int,  
    mov\_lang varchar(20),  
    dir\_id integer,  
    FOREIGN key(dir\_id) references director(dir\_id) on delete cascade);**

Query OK, 0 rows affected, 1 warning (0.05 sec)

**CREATE TABLE MOVIE\_CAST(  
    ACT\_ID INTEGER(10),**

```

        MOV_ID INTEGER(10),
        ROLE VARCHAR(20),
        PRIMARY KEY(ACT_ID, MOV_ID), FOREIGN KEY(ACT_ID) REFERENCES
ACTOR(ACT_ID) ON DELETE CASCADE,
        FOREIGN KEY(MOV_ID) REFERENCES MOVIES(MOV_ID) ON DELETE
CASCADE);

```

Query OK, 0 rows affected, 2 warnings (0.03 sec)

```

create table rating(
    mov_id integer(10),
    rev_stars integer(10),
    primary key(mov_id, rev_stars),
    foreign key(mov_id) references movies(mov_id) on delete cascade);

```

Query OK, 0 rows affected, 2 warnings (0.02 sec)

mysql> show tables;

```

+-----+
| Tables_in_movie082 |
+-----+
| actor              |
| director           |
| movie_cast         |
| movies             |
| rating             |
+-----+

```

5 rows in set (0.00 sec)

```

insert into actor values(1, 'M_Actor_1', 'M');
insert into actor values(2, 'F_Actor_1', 'F');
insert into actor values(3, 'M_Actor_2', 'M');
insert into actor values(4, 'F_Actor_2', 'F');

```

mysql> select \* from actor;

```

+-----+-----+-----+
| act_id | act_name | act_gender |
+-----+-----+-----+
| 1 | M_Actor_1 | M |
| 2 | F_Actor_1 | F |
| 3 | M_Actor_2 | M |
| 4 | F_Actor_2 | F |
+-----+-----+-----+

```

4 rows in set (0.00 sec)

```

insert into director values(1, 'Hitchcock', '420420420420');
insert into director values(2, 'Steven spielberg', '420420420421');
insert into director values(3, 'shridhar', '987654321');
insert into director values(4, 'shadwal', '123654987');

```

```
mysql> select * from director;
```

```

+-----+-----+-----+
| dir_id | dir_name      | dir_phono |
+-----+-----+-----+
| 1 | Hitchcock      | 420420420420 |
| 2 | Steven spielberg | 420420420421 |
| 3 | shridhar        | 987654321 |
| 4 | shadwal         | 123654987 |
+-----+-----+-----+

```

4 rows in set (0.00 sec)

```

insert into movies values(1,'Im going!',1997 , 'Eng', 1);
insert into movies values(2, 'Im back', 2002, 'kannada', 2);
insert into movies values(3, 'Im gon again', 2012, 'Hindi', 3);
insert into movies values(4, 'Im back again', 2016, 'Eng', 4);

```

```
mysql> select * from movies;
```

```

+-----+-----+-----+-----+-----+
| mov_id | mov_title      | mov_year | mov_lang | dir_id |
+-----+-----+-----+-----+-----+
| 1 | Im going!      | 1997 | Eng      | 1 |
| 2 | Im back        | 2002 | kannada  | 2 |
| 3 | Im gon again   | 2012 | Hindi    | 3 |
| 4 | Im back again  | 2016 | Eng      | 4 |
+-----+-----+-----+-----+-----+

```

4 rows in set (0.00 sec)

```

insert into movie_cast values(1, 1, "lead M_actor");
insert into movie_cast values(2, 1, "lead F_actor");
insert into movie_cast values(1, 2, "lead M_actor");
insert into movie_cast values(2, 2, "lead F_actor");
insert into movie_cast values(3, 3, "lead M_actor");
insert into movie_cast values(4, 3, "lead F_actor");
insert into movie_cast values(1, 4, "lead M_actor");
insert into movie_cast values(4, 4, "lead F_actor");

```



```
mysql>
mysql> select * from movie_cast;
```

act_id	mov_id	role
1	1	lead M_actor
1	2	lead M_actor
1	4	lead M_actor
2	1	lead F_actor
2	2	lead F_actor
3	3	lead M_actor
4	3	lead F_actor
4	4	lead F_actor

8 rows in set (0.00 sec)

```
insert into rating values(1, 5);
insert into rating values(2, 4);
insert into rating values(3, 3);
insert into rating values(4, 2);
```

```
mysql> select * from rating;
```

mov_id	rev_stars
1	5
2	4
3	3
4	2

4 rows in set (0.00 sec)

1. title -> hitcock

```
SELECT movies.mov_title
FROM movies, director
WHERE movies.dir_id=director.dir_id
AND dir_name="Hitchcock";
```

mov_title
-----------

```
| Im going! |
+-----+
1 row in set (0.00 sec)
```

2. more actors;

```
SELECT mov_title
FROM movies, movie_cast
WHERE movies.mov_id=movie_cast.mov_id
      AND act_id IN (
          SELECT act_id from movie_cast
          GROUP BY act_id HAVING COUNT(act_id) > 1 )
      GROUP BY mov_title HAVING count(*);
```

```
+-----+
| mov_title |
+-----+
| Im going! |
| Im back   |
| Im gon again |
| Im back again |
+-----+
4 rows in set (0.00 sec)
```

```
SELLECT act_name, mov_title, mov_year
FROM actor JOIN movie_cast ON actor.act_id=movie_cast.act_id
JOIN movies on movie_cast.mov_id=movies.mov_id
WHERE movies.mov_year NOT Between 2000 AND 2015;
```

```
+-----+-----+-----+
| act_name | mov_title | mov_year |
+-----+-----+-----+
| M_Actor_1 | Im going! | 1997 |
| M_Actor_1 | Im back again | 2016 |
| F_Actor_1 | Im going! | 1997 |
| F_Actor_2 | Im back again | 2016 |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
SELECT act_name, mov_title, mov_year
FROM actor JOIN movie_cast ON actor.act_id= movie_cast.act_id
JOIN movies ON movie_cast.mov_id=movies.mov_id
WHERE movies.mov_year
```

**NOT BETWEEN 2000 AND 2015;**

```
+-----+-----+-----+
| act_name | mov_title | mov_year |
+-----+-----+-----+
| M_Actor_1 | Im going! | 1997 |
| M_Actor_1 | Im back again | 2016 |
| F_Actor_1 | Im going! | 1997 |
| F_Actor_2 | Im back again | 2016 |
+-----+-----+-----+
4 rows in set (0.02 sec)
```

**SELECT mov\_title, MAX(Rev\_stars)  
FROM movies, Rating  
WHERE Movies.mov\_id = Rating.mov\_id  
GROUP BY rating.mov\_id  
ORDER BY mov\_title;**

```
+-----+-----+
| mov_title | MAX(Rev_stars) |
+-----+-----+
| Im back | 4 |
| Im back again | 2 |
| Im going! | 5 |
| Im gon again | 3 |
+-----+-----+
4 rows in set (0.01 sec)
```

**UPDATE rating set rev\_stars=5  
WHERE mov\_id IN (  
SELECT mov\_id  
FROM movies  
WHERE dir\_id in (  
SELECT dir\_id  
FROM director  
WHERE dir\_name="steven smith"));**

Query OK, 0 rows affected (0.01 sec)  
Rows matched: 0 Changed: 0 Warnings: 0

mysql> select \* from rating;

```
+-----+-----+
| mov_id | rev_stars |
+-----+-----+
```

	1		5	
	2		4	
	3		3	
	4		2	
+-----+-----+				

4 rows in set (0.00 sec)

---

3rd

Collage database

```
CREATE TABLE student(
    usn varchar(20) PRIMARY KEY,
    sname varchar(20),
    address varchar(20),
    phono BIGINT,
    gender varchar(20));
```

```
CREATE TABLE semsec(
    ssid varchar(20) PRIMARY KEY,
    sem integer,
    sec varchar(20));
```

```
CREATE TABLE class(
    usn varchar(20),
    ssid varchar(20),
    PRIMARY KEY(usn),
    FOREIGN KEY(usn) REFERENCES student(usn) ON DELETE CASCADE);
```

```
CREATE TABLE course(
    subcode varchar(20) primary key ,
    title varchar(20),
    sem integer,
    credits integer);
```

```
CREATE TABLE iemark(
    usn varchar(20),
    subcode varchar(20),
    ssid varchar(20),
    test1 integer,
    test2 integer,
```

```

test3 integer,
finalia integer,
PRIMARY KEY(usn, subcode, ssid),
FOREIGN KEY(usn) REFERENCES student(usn) on delete cascade,
FOREIGN KEY(subcode) REFERENCES course(subcode) on delete cascade,
FOREIGN KEY(ssid) REFERENCES semsec(ssid) on delete cascade);

```

```

mysql> insert into student values('4MW24CS082', 'shridhar', 'koteshwara', 91082749839, 'M');
insert into student values('4MW22CS070', 'shadwal', 'santhe katte', 91082749619, 'M');
insert into student values('4MW23CS076', 'shravya', 'koteshwara', 9876655625, 'F');
insert into student values('4MW24CS079', 'koti mari', 'ache shriva', 91045749839, 'F');
insert into student values('4MW20CS018', 'chandana', 'Thetatte', 9108278967, 'F');
insert into student values('4MW23CS073', 'shuhood', 'katpadi', 7508273912, 'M');
insert into student values('4MW21CS038', 'krishna', 'kota', 91082747889, 'M');
insert into student values('4MW20CS045', 'Dhrishya', 'Anegudde', 457885449, 'F');
insert into student values('4MW21CS049', 'nandeesh', 'udupi', 965885449, 'M');
insert into student values('4MW22CS068', 'raksha', 'udupi', 5615885449, 'F');
insert into student value("4MW20CS0100","Prakash","Kumbashi",589764545,'M');
insert into student values("4MW20CS0101","Gautham","Kumbashi",7897836545,'M');
insert into student values("4MW20CS0121","Anamika","Baindoor",9865426545,'M');
insert into student value("4MW20CS0130","Amrutha","Gopadi",425664545,'F');

```

```
mysql> select * from student;
```

usn	sname	address	phono	gender
4MW20CS0100	Prakash	Kumbashi	589764545	M
4MW20CS0101	Gautham	Kumbashi	7897836545	M
4MW20CS0121	Anamika	Baindoor	9865426545	M
4MW20CS0130	Amrutha	Gopadi	425664545	F
4MW20CS018	chandana	Thetatte	9108278967	F
4MW20CS045	Dhrishya	Anegudde	457885449	F
4MW21CS038	krishna	kota	91082747889	M
4MW21CS049	nandeesh	udupi	965885449	M
4MW22CS068	raksha	udupi	5615885449	F
4MW22CS070	shadwal	santhe katte	91082749619	M
4MW23CS073	shuhood	katpadi	7508273912	M
4MW23CS076	shravya	koteshwara	9876655625	F
4MW24CS079	koti mari	ache shriva	91045749839	F
4MW24CS082	shridhar	koteshwara	91082749839	M

```

insert into semsec values('1CSEA' , '1', 'A');
insert into semsec values('1CSEB' , '1', 'B');
insert into semsec values('2CSEA' , '2', 'A');
insert into semsec values('2CSEB' , '2', 'B');
insert into semsec values('3CSEA' , '3', 'A');
insert into semsec values('3CSEB' , '3', 'B');
insert into semsec values('4CSEA' , '4', 'A');
insert into semsec values('4CSEB' , '4', 'B');
insert into semsec values('5CSEA' , '5', 'A');
insert into semsec values('5CSEB' , '5', 'B');
insert into semsec values('6CSEA' , '6', 'A');
insert into semsec values('6CSEB' , '6', 'B');
insert into semsec values('7CSEA' , '7', 'A');
insert into semsec values('7CSEB' , '7', 'B');
insert into semsec values('8CSEA' , '8', 'A');
insert into semsec values('8CSEB' , '8', 'B');
insert into semsec values('8CSEC' , '8', 'C');
INSERT INTO semsec values("4CSEC", 4, "C");

```

```
mysql> select * from semsec;
```

```

+-----+-----+-----+
| ssid | sem | sec |
+-----+-----+-----+
| 1CSEA | 1 | A |
| 1CSEB | 1 | B |
| 2CSEA | 2 | A |
| 2CSEB | 2 | B |
| 3CSEA | 3 | A |
| 3CSEB | 3 | B |
| 4CSEA | 4 | A |
| 4CSEB | 4 | B |
| 4CSEC | 4 | C |
| 5CSEA | 5 | A |
| 5CSEB | 5 | B |
| 6CSEA | 6 | A |
| 6CSEB | 6 | B |
| 7CSEA | 7 | A |
| 7CSEB | 7 | B |
| 8CSEA | 8 | A |
| 8CSEB | 8 | B |
| 8CSEC | 8 | C |
+-----+-----+-----+

```

```
18 rows in set (0.00 sec)
```

```
mysql> insert into class values('4MW20CS018','1CSEA');
insert into class values('4MW20CS045','1CSEB');
insert into class values('4MW21CS038','2CSEA');
insert into class values('4MW21CS049','2CSEB');
insert into class values('4MW22CS068','3CSEA');
insert into class values('4MW22CS070','3CSEB');
insert into class values('4MW23CS073','4CSEA');
insert into class values('4MW23CS076','4CSEB');
insert into class values('4MW24CS079','5CSEA');
insert into class values('4MW24CS082','5CSEB');
insert into class values("4MW20CS0100","4CSEC");
insert into class values("4MW20CS0101","8CSEA");
insert into class values("4MW20CS0121","8CSEC");
insert into class values("4MW20CS0130","8CSEB");
```

```
mysql> select * from class;
```

```
+-----+-----+
| usn    | ssid |
+-----+-----+
| 4MW20CS0100 | 4CSEC |
| 4MW20CS0101 | 8CSEA |
| 4MW20CS0121 | 8CSEC |
| 4MW20CS0130 | 8CSEB |
| 4MW20CS018  | 1CSEA |
| 4MW20CS045  | 1CSEB |
| 4MW21CS038  | 2CSEA |
| 4MW21CS049  | 2CSEB |
| 4MW22CS068  | 3CSEA |
| 4MW22CS070  | 3CSEB |
| 4MW23CS073  | 4CSEA |
| 4MW23CS076  | 4CSEB |
| 4MW24CS079  | 5CSEA |
| 4MW24CS082  | 5CSEB |
+-----+-----+
```

```
14 rows in set (0.00 sec)
```

```
insert into course values('18CS11', 'engg_maths', 1, 4);
insert into course values('18CS12', 'Arth_maths', 2, 4);
insert into course values('20CS13', 'maths_3', 3, 3);
insert into course values('20CS14', 'maths_4', 4, 3);
insert into course values('20CS15', 'CO', 5, 2);
insert into course values('20CS16', 'DBMS', 6, 4);
```

```
insert into course values('20CS17', 'ML', 7, 3);
insert into course values('20CS18', 'AI', 8, 4);
```

```
mysql> select * from course;
```

subcode	title	sem	credits
18CS11	engg_maths	1	4
18CS12	Arth_maths	2	4
20CS13	maths_3	3	3
20CS14	maths_4	4	3
20CS15	CO	5	2
20CS16	DBMS	6	4
20CS17	ML	7	3
20CS18	AI	8	4

```
8 rows in set (0.00 sec)
```

```
INSERT INTO iamark values("4MW20CS0101","20CS18","8CSEA", 12, 17, 20,16);
INSERT INTO iamark values("4MW20CS0130","20CS18","8CSEB", 12, 17, 16 ,14);
INSERT INTO iamark values("4MW20CS0121","20CS18","8CSEC", 9, 9, 8 ,9);
```

```
mysql> select * from iamark;
```

usn	subcode	ssid	test1	test2	test3	finalia
4MW20CS0101	20CS18	8CSEA	12	17	20	16
4MW20CS0121	20CS18	8CSEC	9	9	8	9
4MW20CS0130	20CS18	8CSEB	12	17	16	14

1.

```
SELECT s.*, ss.sem, ss.sec
FROM student s, semsec ss, class c
WHERE s.usn=c.usn
AND ss.ssid=c.ssid
AND ss.sem=4
AND ss.sec="C" ;
```

usn	sname	address	phono	gender	sem	sec
4MW20CS0100	Prakash	Kumbashi	589764545	M	4	C



```
+-----+-----+-----+-----+-----+-----+
```

2.

```
SELECT ss.sem, ss.sec, s.gender, count(s.gender) AS count
FROM student s, semsec ss, class c
WHERE s.usn=c.usn
      AND ss.ssid=c.ssid
      GROUP BY ss.sem, ss.sec, s.gender
      ORDER BY sem;
```

```
+-----+-----+-----+-----+
| sem | sec | gender | count |
```

```
+-----+-----+-----+-----+
```

```
| 1 | A | F | 1 |
| 1 | B | F | 1 |
| 2 | A | M | 1 |
| 2 | B | M | 1 |
| 3 | A | F | 1 |
| 3 | B | M | 1 |
| 4 | A | M | 1 |
| 4 | B | F | 1 |
| 4 | C | M | 1 |
| 5 | A | F | 1 |
| 5 | B | M | 1 |
| 8 | A | M | 1 |
| 8 | B | F | 1 |
| 8 | C | M | 1 |
```

```
+-----+-----+-----+-----+
```

14 rows in set (0.00 sec)

mysql>

3.

```
CREATE view stu_test1_marks_view1 AS
SELECT test1, subcode
FROM iamark
WHERE usn="4MW20CS0130";
```

mysql> select \* from stu\_test1\_marks\_view1;

```
+-----+-----+
```

```
| test1 | subcode |
```

```
+-----+-----+
```

```
| 12 | 20CS18 |
```

```
+-----+-----+
```

4.

```
mysql> delimiter //
mysql> create procedure iamarks()
  -> begin
  -> update iemark
  -> set finalia = ((test1+test2+test3)-LEAST(test1, test2, test3))/2 ;
  -> end //
mysql> delimiter ;
mysql> call iamarks();
```

```
mysql> select * from iemark;
```

```
+-----+-----+-----+-----+-----+-----+-----+
| usn      | subcode | ssid | test1 | test2 | test3 | finalia |
+-----+-----+-----+-----+-----+-----+
| 4MW20CS0101 | 20CS18 | 8CSEA | 12 | 17 | 20 | 19 |
| 4MW20CS0121 | 20CS18 | 8CSEC | 9 | 9 | 8 | 9 |
| 4MW20CS0130 | 20CS18 | 8CSEB | 12 | 17 | 16 | 17 |
+-----+-----+-----+-----+-----+-----+

```

5.

```
SELECT s.usn, s.sname, s.address, s.phono, s.gender, ss.sem, ss.sec, (
CASE
    WHEN IA.finalia BETWEEN 17 AND 20 THEN 'OUTSTANDING'
    WHEN IA.finalia BETWEEN 12 AND 16 THEN "AVERAGE"
    ELSE "WEAK" END)
AS CAT FROM student s, semsec ss, iemark IA
WHERE s.usn=IA.usn
AND ss.ssid=IA.ssid
AND ss.sem=8
AND ss.sec IN ('A', 'B', 'C');
```

```
+-----+-----+-----+-----+-----+-----+-----+
| usn      | sname   | address | phono   | gender | sem | sec | CAT      |
+-----+-----+-----+-----+-----+-----+-----+
| 4MW20CS0101 | Gautham | Kumbashi | 7897836545 | M      | 8 | A | OUTSTANDING |
| 4MW20CS0130 | Amrutha | Gopadi  | 425664545 | F      | 8 | B | OUTSTANDING |
| 4MW20CS0121 | Anamika | Baindoor | 9865426545 | M      | 8 | C | WEAK      |
+-----+-----+-----+-----+-----+-----+-----+

```

3 rows in set (0.00 sec)

---

5th

```
CREATE TABLE department(  
    dnumber integer(5),  
    dname varchar(20),  
    mgr_ssn integer(10),  
    mgr_start_date Date,  
    PRIMARY KEY(dnumber, dname));
```

```
CREATE TABLE employee(  
    fname varchar(20),  
    lname varchar(20),  
    ssn integer(10) PRIMARY KEY,  
    Bdate date,  
    Address varchar(200),  
    sex char(1),  
    salary integer(10),  
    super_ssn integer(10),  
    dnumber integer(5),  
    FOREIGN KEY(dnumber) REFERENCES department(dnumber) ON DELETE  
    CASCADE);
```

```
CREATE TABLE dlocation(  
    dnumber integer(5) PRIMARY KEY,  
    dlocation varchar(20),  
    FOREIGN KEY(dnumber) REFERENCES department(dnumber) ON DELETE  
    CASCADE);
```

```
CREATE TABLE project(  
    pno integer(5) PRIMARY KEY,  
    pname varchar(20),  
    ploc varchar(200),  
    dnumber integer(5),  
    FOREIGN KEY(dnumber) REFERENCES dlocation(dnumber) ON DELETE  
    CASCADE);
```

```
CREATE TABLE workson(  
    ssn integer,  
    pno integer,
```

**hours integer,**  
**PRIMARY KEY(ssn, pno),**  
**FOREIGN KEY(ssn) references employee(ssn) on delete cascade,**  
**FOREIGN KEY(pno) references project(pno) on delete cascade);**

insert into department values(5,'Research','333445555','1988-05-22');  
insert into department values(4,'Administration','987654321','1995-01-01');  
insert into department values(1,'Headquarters','888665555','1981-06-19');  
insert into department values(3,'Accounts','888665555','1981-06-19');

insert into dlocation values(1,'Houston');  
insert into dlocation values(4,'Stafford');  
insert into dlocation values(5,'Bellaire');  
insert into dlocation values(5,'Sugarland');  
insert into dlocation values(5,'Houston');  
insert into dlocation values(3,'Koteshwara');

insert into employee values('John ','Smith',123456789,'99/12/1','731  
Fondren','M',700000,5,'333445555');  
insert into employee values('Franklin ','Brogw',333445555,'99/12/2','638  
Voss','M',600000,5,'888665555');  
insert into employee values('Alicia ','Broger',999887777,'99/12/3','3321  
Castle','F',500000,4,'987654321');  
insert into employee values('Jennifer ','Smith',987654321,'99/12/4','291  
Berry','F',700000,4,'888665555');  
insert into employee values('Ramesh','Narayan',666884444,'99/12/5','975 Fire  
oak','M',600000,5,'333445555');  
insert into employee values('Joyce ','English',453453453,'99/12/6','5631  
Rice','F',400000,5,'333445555');  
insert into employee values('Ahmad ','Scott',987987987,'99/3/7','980  
Dallas','M',300000,4,'987654321');  
insert into employee values('James ','Smith',888665555,'99/3/8','450  
Stone','M',100000,3,'NULL');  
insert into employee values('Michael ','Scott',234567891,'99/3/9','221  
Aculite','M',200000,5,'333445555');  
insert into employee values('Pam ','Beasley',345678912,'99/3/11','486  
Fugglet','F',700000,4,'333445555');  
insert into employee values('Jim ','Halpert',456789123,'99/3/15','891  
Tomographic','M',100000,5,'333445555');  
insert into employee values('Kevin ','Smith',567891234,'99/3/7','212  
Platestreet','M',700000,4,'333445555');  
insert into employee values('Dwight ','Schrute',678912345,'99/3/31','731  
Grovestreet','M',600000,4,'333445555');

```

insert into employee values('Day ','Light',45678382,'99/3/31','731
dayStreet','M',700000,5,'3334455555');
insert into employee values('Pam ','Tree',654378912,'99/3/11','645
pstreet','F',900000,4,'987654321');
insert into employee values('cc ','three',789334113,'99/3/1','111
Fugglet','F',700000,3,'4443355555');

```

```

insert into project values(1,'Valorant','Texas',4);
insert into project values(2,'Apex','California',4);
insert into project values(3,'PUBG','Nevada',4);
insert into project values(4,'Squad','New York',3);
insert into project values(5,'IoT','Washington',5);

```

```

insert into workson values(234567891,1,20);
insert into workson values(234567891,2,10);
insert into workson values(234567891,3,15);
insert into workson values(234567891,4,11);
insert into workson values(234567891,5,05);
insert into workson values(678912345,2,20);

```

```
mysql> select * from employee;
```

fname	lname	ssn	Bdate	Address	sex	salary	dnumber	super_ssn
Day	Light	45678382	1999-03-31	731 dayStreet	M	700000	5	3334455555
John	Smith	123456789	1999-12-01	731 Fondren	M	700000	5	3334455555
Michael	Scott	234567891	1999-03-09	221 Aculite	M	200000	5	3334455555
Pam	Beasley	345678912	1999-03-11	486 Fugglet	F	700000	4	3334455555
Jim	Halpert	456789123	1999-03-15	891 Tomographic	M	100000	5	3334455555

```
| Kevin | Smith | 567891234 | 1999-03-07 | 212 Platestreet | M | 700000 | 4 |
333445555 |
| Pam | Tree | 654378912 | 1999-03-11 | 645 pstreet | F | 900000 | 4 | 987654321 |
| Ramesh | Narayan | 666884444 | 1999-12-05 | 975 Fire oak | M | 600000 | 5 |
333445555 |
| Dwight | Schrute | 678912345 | 1999-03-31 | 731 Grovestreet | M | 600000 | 4 |
333445555 |
| cc | three | 789334113 | 1999-03-01 | 111 Fugglet | F | 700000 | 3 | 444335555 |
| James | Smith | 888665555 | 1999-03-08 | 450 Stone | M | 100000 | 3 | NULL |
| Ahmad | Scott | 987987987 | 1999-03-07 | 980 Dallas | M | 300000 | 4 | 987654321
|
+-----+-----+-----+-----+-----+-----+-----+-----+
12 rows in set (0.00 sec)
```

```
mysql> select * from department;
+-----+-----+-----+-----+
| dnumber | dname          | mgr_ssn | mgr_start_date |
+-----+-----+-----+-----+
| 1 | Headquarters | 888665555 | 1981-06-19 |
| 3 | Accounts | 888665555 | 1981-06-19 |
| 4 | Administration | 987654321 | 1995-01-01 |
| 5 | Research | 333445555 | 1988-05-22 |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> select * from workson;
+-----+-----+-----+
| ssn | pno | hours |
+-----+-----+-----+
| 234567891 | 1 | 20 |
| 234567891 | 2 | 10 |
| 234567891 | 3 | 15 |
| 234567891 | 4 | 11 |
| 234567891 | 5 | 5 |
| 678912345 | 2 | 20 |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

```
mysql> select * from project;
+-----+-----+-----+-----+
| pno | pname | ploc | dnumber |
+-----+-----+-----+-----+
```

1	Valorant	Texas	5
2	Apex	California	5
3	PUBG	Nevada	5
4	Squad	New York	5
5	IoT	Washington	5

5 rows in set (0.00 sec)

```
mysql> select * from dlocation;
```

dnumber	dlocation
1	Houston
3	Koteshwara
4	Stafford
5	Bellaire

4 rows in set (0.00 sec)

1.

```
(SELECT DISTINCT p.pno
FROM project p, department d, employee e
WHERE e.dnumber=d.dnumber
AND p.dnumber=d.dnumber
AND d.mgr_ssn = e.ssn
AND e.lname='scott' )
```

```
UNION (
    SELECT distinct p1.pname from project p1, workson w, employee e1
    WHERE p1.pno=w.pno
    AND e1.ssn=w.ssn
    AND e1.lname='scott'
);
```

pno
Valorant
Apex
PUBG
Squad

```
| IoT |
+-----+
5 rows in set (0.00 sec)
```

2.

```
SELECT e.fname, e.lname, 1.1*e.salary AS INCR_SAL
FROM employee e, workson w, project p
WHERE e.ssn=w.ssn
AND w.pno=p.pno
AND p.pname="IoT";
```

```
+-----+-----+-----+
| fname | lname | INCR_SAL |
+-----+-----+-----+
| Michael | Scott | 220000.0 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

3.

```
SELECT sum(e.salary), MAX(e.salary), min(e.salary), avg(e.salary)
FROM employee e, department d
WHERE e.dnumber=d.dnumber
AND d.dname="Accounts";
```

```
+-----+-----+-----+-----+
| sum(e.salary) | MAX(e.salary) | min(e.salary) | avg(e.salary) |
+-----+-----+-----+-----+
| 800000 | 700000 | 100000 | 400000.0000 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```