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Ans 1:

```
CREATE TABLE stu_details(  
    reg_no int,  
    stu_name varchar(20),  
    DOB date,  
    address varchar(20),  
    city varchar(20),  
    primary key(reg_no)  
);
```

```
INSERT INTO stu_details values (001,'a','2000-5-12','road 1','city 1');  
INSERT INTO stu_details values (002,'b','2001-6-12','road 2','city 2');  
INSERT INTO stu_details values (003,'c','2004-5-12','road 3','city 3');  
INSERT INTO stu_details values (004,'d','2004-4-12','road 4','city 4');  
INSERT INTO stu_details values (005,'e','2005-2-12','road 5','city 5');  
INSERT INTO stu_details values (006,'f','2007-7-12','road 6','city 6');  
INSERT INTO stu_details values (007,'d','2004-4-12','road 7','city 7');  
INSERT INTO stu_details values (008,'e','2005-2-12','road 8','city 8');  
INSERT INTO stu_details values (009,'f','2007-7-12','road 9','city 9');  
INSERT INTO stu_details values (010,'d','2004-4-12','road 10','city 10');  
INSERT INTO stu_details values (011,'e','2005-2-12','road 11','city 11');  
INSERT INTO stu_details values (012,'f','2007-7-12','road 12','city 12');
```

mysql> select * from stu_details;

reg_no	stu_name	DOB	address	city
1	a	2000-05-12	road 1	city 1
2	b	2001-06-12	road 2	city 2
3	c	2004-05-12	road 3	city 3
4	d	2004-04-12	road 4	city 4
5	e	2005-02-12	road 5	city 5
6	f	2007-07-12	road 6	city 6
7	d	2004-04-12	road 7	city 7
8	e	2005-02-12	road 8	city 8
9	f	2007-07-12	road 9	city 9
10	d	2004-04-12	road 10	city 10
11	e	2005-02-12	road 11	city 11
12	f	2007-07-12	road 12	city 12

12 rows in set (0.00 sec)

```
CREATE TABLE mark_details(  
    reg_no int primary key,  
    mark1 int default 0,  
    mark2 int default 0,  
    mark3 int default 0,  
    total int default 0  
);
```

(i)

```
ALTER TABLE mark_details
ADD COLUMN average long;
```

(ii)

```
mysql> select 12-month(DOB) + (2019-year(DOB))*12 + 12 from stu_details;
```

```
+-----+
| 12-month(DOB) + (2019-year(DOB))*12 + 12 |
+-----+
|                                           | 247 |
|                                           | 234 |
|                                           | 199 |
|                                           | 200 |
|                                           | 190 |
|                                           | 161 |
|                                           | 200 |
|                                           | 190 |
|                                           | 161 |
|                                           | 200 |
|                                           | 190 |
|                                           | 161 |
+-----+
```

12 rows in set (0.00 sec)

(iii)

```
ALTER TABLE stu_details DROP COLUMN address;
```

(iv)

```
delimiter //
create procedure fun()
begin
    select sum(total) as totalSum1,avg(total) from mark_details;
end; //
call fun();
```

(v)

ans2:

```
CREATE TABLE emp_details(
    emp_no int primary key,
    emp_name varchar(20),
    DOB date,
    address varchar(20),
    doj date,
    mobile_no varchar(20),
    dept_no int,
    salary int
);
```

```
INSERT INTO
values(001,'a','2002-6-3','a','2008-5-6','8521476',002,254);
INSERT INTO
```

emp_details

emp_details

```

values(002,'b','2002-6-3','b','2008-5-6','5214752',004,254);
INSERT INTO emp_details
values(003,'c','2002-6-3','c','2008-5-6','8521476',001,234);
INSERT INTO emp_details
values(004,'d','2002-6-3','d','2008-5-6','8521476',006,214);
INSERT INTO emp_details
values(005,'e','2002-6-3','e','2008-5-6','5214752',008,274);
INSERT INTO emp_details
values(006,'f','2002-6-3','f','2008-5-6','8521476',011,2554);
INSERT INTO emp_details
values(007,'g','2002-6-3','g','2008-5-6','8521476',002,214);
INSERT INTO emp_details
values(008,'h','2002-6-3','h','2008-5-6','2415789',004,454);
INSERT INTO emp_details
values(009,'i','2002-6-3','i','2008-5-6','8521476',003,54);
INSERT INTO emp_details
values(010,'j','2002-6-3','j','2008-5-6','2145874',005,24);
INSERT INTO emp_details
values(011,'k','2002-6-3','k','2008-5-6','8521476',009,4);

```

```
mysql> select * from emp_details;
```

emp_no	emp_name	DOB	address	doj	mobile_no	dept_no	salary
1	a	2002-06-03	a	2008-05-06	8521476	2	254
2	b	2002-06-03	b	2008-05-06	5214752	4	254
3	c	2002-06-03	c	2008-05-06	8521476	1	234
4	d	2002-06-03	d	2008-05-06	8521476	6	214
5	e	2002-06-03	e	2008-05-06	5214752	8	274
6	f	2002-06-03	f	2008-05-06	8521476	11	2554
7	g	2002-06-03	g	2008-05-06	8521476	2	214
8	h	2002-06-03	h	2008-05-06	2415789	4	454
9	i	2002-06-03	i	2008-05-06	8521476	3	54
10	j	2002-06-03	j	2008-05-06	2145874	5	24
11	k	2002-06-03	k	2008-05-06	8521476	9	4

11 rows in set (0.01 sec)

```

CREATE TABLE dept_details(
    dept_no int primary key,

```

```

dept_name varchar(20),
location varchar(20)
);

INSERT INTO dept_details values(001,'A','Aa');
INSERT INTO dept_details values(002,'B','Ba');
INSERT INTO dept_details values(003,'C','Ca');
INSERT INTO dept_details values(004,'D','Da');
INSERT INTO dept_details values(005,'E','Ea');
INSERT INTO dept_details values(006,'F','Fa');
INSERT INTO dept_details values(007,'G','Ga');
INSERT INTO dept_details values(008,'H','Ha');
INSERT INTO dept_details values(009,'I','Ia');
INSERT INTO dept_details values(010,'J','Ja');
INSERT INTO dept_details values(011,'K','Ka');

```

```
mysql> select * from dept_details;
```

dept_no	dept_name	location
1	A	Aa
2	B	Ba
3	C	Ca
4	D	Da
5	E	Ea
6	F	Fa
7	G	Ga
8	H	Ha
9	I	Ia
10	J	Ja
11	K	Ka

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

(i)

```
mysql> select 12-month(doj) + (2019-year(doj))*12 + 12 from emp_details;
```

12-month(doj) + (2019-year(doj))*12 + 12
151
151
151
151
151
151
151
151
151
151
151

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

(ii)

(iii)

delimiter //

create procedure fun(in name varchar(20))

begin

select

select emp_name,salary from emp_details where emp_name=@name;

end; //

(iv)

(v)

CREATE VIEW showEmpDetails as

select emp_no,emp_name from emp_details;

(vi)

SELECT dept_no FROM dept_details WHERE dept_no NOT IN (SELECT dept_no FROM emp_details);

```
+-----+
| dept_no |
+-----+
|      7 |
|     10 |
+-----+
```

(vii)

mysql> DELETE FROM dept_details;

Query OK, 11 rows affected (0.04 sec)

mysql> select * from dept_details;

Empty set (0.00 sec)

(viii)

mysql> DESCRIBE emp_details;

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| emp_no     | int(11)       | NO   | PRI | NULL    |       |
| emp_name   | varchar(20)   | YES  |     | NULL    |       |
| DOB        | date          | YES  |     | NULL    |       |
| address    | varchar(20)   | YES  |     | NULL    |       |
| doj        | date          | YES  |     | NULL    |       |
| mobile_no  | varchar(20)   | YES  |     | NULL    |       |
| dept_no    | int(11)       | YES  |     | NULL    |       |
| salary     | int(11)       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

8 rows in set (0.00 sec)

(ix)

mysql> SELECT emp_name FROM emp_details ORDER BY salary DESC LIMIT

2;

```

+-----+
| emp_name |
+-----+
| f       |
| h       |
+-----+
2 rows in set (0.00 sec)

```

(x)

ans3:

```

CREATE TABLE customer(
    cust_id int primary key,
    cust_name varchar(20),
    addr varchar(20),
    ph_no varchar(20),
    pan_no varchar(20)
);

```

```

INSERT INTO customer VALUES (001,'a','a',00101,12501);
INSERT INTO customer VALUES (002,'b','b',00102,12502);
INSERT INTO customer VALUES (003,'c','c',00103,12503);
INSERT INTO customer VALUES (004,'d','d',00104,12504);
INSERT INTO customer VALUES (005,'e','e',00105,12505);
INSERT INTO customer VALUES (006,'f','f',00106,12506);
INSERT INTO customer VALUES (007,'g','g',00107,12507);
INSERT INTO customer VALUES (008,'h','h',00108,12508);
INSERT INTO customer VALUES (009,'i','i',00109,12509);
INSERT INTO customer VALUES (010,'j','j',00110,12510);
INSERT INTO customer VALUES (011,'k','k',00111,12511);
INSERT INTO customer VALUES (012,'l','l',00112,12512);
INSERT INTO customer VALUES (013,'m','m',00113,12513);
INSERT INTO customer VALUES (014,'n','n',00114,12514);
INSERT INTO customer VALUES (015,'o','o',00115,12515);
INSERT INTO customer VALUES (016,'p','p',00116,12516);
INSERT INTO customer VALUES (017,'q','q',00117,12517);

```

mysql> select * from customer;

```

+-----+-----+-----+-----+-----+
| cust_id | cust_name | addr | ph_no | pan_no |
+-----+-----+-----+-----+-----+
| 1 | a | a | 101 | 12501 |
| 2 | b | b | 102 | 12502 |
| 3 | c | c | 103 | 12503 |
| 4 | d | d | 104 | 12504 |
| 5 | e | e | 105 | 12505 |
| 6 | f | f | 106 | 12506 |
| 7 | g | g | 107 | 12507 |
| 8 | h | h | 108 | 12508 |
| 9 | i | i | 109 | 12509 |
| 10 | j | j | 110 | 12510 |
| 11 | k | k | 111 | 12511 |
| 12 | l | l | 112 | 12512 |

```

13	m	m	113	12513
14	n	n	114	12514
15	o	o	115	12515
16	p	p	116	12516
17	q	q	117	12517

17 rows in set (0.01 sec)

```
CREATE TABLE loan(
  loan_id int primary key,
  amount int,
  intrest int,
  cust_id int,
  branch int
);
```

```
INSERT INTO loan VALUES (001,251,3,002,12);
INSERT INTO loan VALUES (003,251,5,001,12);
INSERT INTO loan VALUES (002,2251,1,004,12);
INSERT INTO loan VALUES (004,2251,6,007,12);
INSERT INTO loan VALUES (005,2551,3,006,12);
INSERT INTO loan VALUES (006,2151,3,012,12);
INSERT INTO loan VALUES (007,34251,3,012,12);
INSERT INTO loan VALUES (008,456251,1,013,12);
INSERT INTO loan VALUES (009,1251,3,005,12);
INSERT INTO loan VALUES (010,251,1,008,12);
INSERT INTO loan VALUES (011,451251,3,0017,12);
INSERT INTO loan VALUES (012,1251,3,016,12);
INSERT INTO loan VALUES (013,251,3,014,12);
INSERT INTO loan VALUES (014,124251,1,011,12);
INSERT INTO loan VALUES (015,22451,3,012,12);
INSERT INTO loan VALUES (016,676251,3,002,12);
INSERT INTO loan VALUES (017,253421,9,008,12);
INSERT INTO loan VALUES (018,2521,3,009,12);
INSERT INTO loan VALUES (019,2151,5,001,12);
INSERT INTO loan VALUES (020,245651,3,003,12);
INSERT INTO loan VALUES (021,21451,7,007,12);
```

```
mysql> select * from loan;
```

loan_id	amount	intrest	cust_id	branch
1	251	3	2	12
2	2251	1	4	12
3	251	5	1	12
4	2251	6	7	12
5	2551	3	6	12
6	2151	3	12	12
7	34251	3	12	12
8	456251	1	13	12
9	1251	3	5	12

10	251	1	8	12
11	451251	3	17	12
12	1251	3	16	12
13	251	3	14	12
14	124251	1	11	12
15	22451	3	12	12
16	676251	3	2	12
17	253421	9	8	12
18	2521	3	9	12
19	2151	5	1	12
20	245651	3	3	12
21	21451	7	7	12

+-----+-----+-----+-----+

21 rows in set (0.00 sec)

(i)

mysql> SELECT * FROM loan ORDER BY amount DESC;

loan_id	amount	intrest	cust_id	branch
16	676251	3	2	12
8	456251	1	13	12
11	451251	3	17	12
17	253421	9	8	12
20	245651	3	3	12
14	124251	1	11	12
7	34251	3	12	12
15	22451	3	12	12
21	21451	7	7	12
5	2551	3	6	12
18	2521	3	9	12
4	2251	6	7	12
2	2251	1	4	12
6	2151	3	12	12
19	2151	5	1	12
9	1251	3	5	12
12	1251	3	16	12
10	251	1	8	12
13	251	3	14	12
3	251	5	1	12
1	251	3	2	12

+-----+-----+-----+-----+

21 rows in set (0.01 sec)

(ii)

mysql> SELECT branch FROM loan;

branch
12
12

12
12
12
12
12
12
12
12
12
12
12
12
12
12
12
12
12
12
12
12

+-----+

21 rows in set (0.00 sec)

(iii)

mysql> select cust_id from customer natural join loan where amount>=5000 and amount <=15000;

Empty set (0.00 sec)

(iv)

(v)

mysql> select cust_id,cust_name,(amount*intrest*0.01*1) as finalPay from customer natural join loan order by finalPay DESC LIMIT 1;

+-----+-----+-----+

cust_id	cust_name	finalPay
---------	-----------	----------

+-----+-----+-----+

8	h	22807.89
---	---	----------

+-----+-----+-----+

1 row in set (0.00 sec)