1. write a procedure to insert record into employee table.
the procedure should accept empno, ename, sal, job, hiredate as input parameter
write insert statement inside procedure insert_rec to add one record into table
create procedure insert_rec(peno int,pnm varchar(20),psal decimal(9,2),pjob
varchar(20),phiredate date)
begin
insert into emp(empno,ename,sal,job,hiredate)
values(peno,pnm,psal,pjob,phiredate)
end//

mysql> create procedure insert_record(peno int, pnm varchar(20), psal decimal(9,2), pjob
varchar(20),phiredate date)
-> begin
-> insert into emp(empno,ename,sal,job,hiredate)
-> values(peno,pnm,psal,pjob,phiredate);
-> end//

delimiter ;

call insert_record(2,'bdc',1250,'manager','2022-09-09');
Query OK, 1 row affected (0.00 sec)

```
mysql> select * from emp;
+-------+--------+-----------+------+------------+---------+---------+--------+
| EMPNO | ENAME  | JOB       | MGR  | HIREDATE   | SAL     | COMM    | DEPTNO |
+-------+--------+-----------+------+------------+---------+---------+--------+
|     1 | abc    | manager   | NULL | 2022-09-09 | 1200.00 |    NULL |   NULL |
|     2 | bdc    | manager   | NULL | 2022-09-09 | 1250.00 |    NULL |   NULL |
|  7369 | SMITH  | CLERK     | 7902 | 1980-12-17 |  800.00 |    NULL |     20 |
|  7499 | ALLEN  | SALESMAN  | 7698 | 1981-02-20 | 1300.00 |  300.00 |     30 |
|  7521 | WARD   | SALESMAN  | 7698 | 1981-02-22 | 1250.00 |  500.00 |     30 |
|  7566 | JONES  | MANAGER   | 7839 | 1981-04-02 | 2975.00 |    NULL |     20 |
|  7654 | MARTIN | SALESMAN  | 7698 | 1981-09-28 | 1250.00 | 1400.00 |     30 |
|  7698 | BLAKE  | MANAGER   | 7839 | 1981-05-01 | 2850.00 |    NULL |     30 |
|  7782 | CLARK  | MANAGER   | 7839 | 1981-06-09 | 2450.00 |    NULL |     10 |
|  7788 | SCOTT  | ANALYST   | 7566 | 1982-12-09 | 3000.00 |    NULL |     20 |
|  7839 | KING   | PRESIDENT | NULL | 1981-11-17 | 5000.00 |    NULL |     10 |
|  7844 | TURNER | SALESMAN  | 7698 | 1981-09-08 | 1500.00 |    0.00 |     30 |
|  7876 | ADAMS  | CLERK     | 7788 | 1983-01-12 | 1100.00 |    NULL |     20 |
|  7900 | JAMES  | CLERK     | 7698 | 1981-12-03 |  950.00 |    NULL |     30 |
|  7902 | FORD   | ANALYST   | 7566 | 1981-12-03 | 3000.00 |    NULL |     20 |
|  7934 | MILLER | CLERK     | 7782 | 1982-01-23 | 1300.00 |    NULL |     10 |
+-------+--------+-----------+------+------------+---------+---------+--------+
16 rows in set (0.00 sec)
```

2. write a procedure to delete record from employee table.
the procedure should accept empno as input parameter.
write delete statement inside procedure delete_emp to delete one record from emp
Table

```
delimiter //

mysql> create procedure delete_table(in eid int)
    -> begin
    -> delete from emp where empno=eid;
    -> end //

delimiter ;

call delete_table(1);
```

```
mysql> select * from emp;
+-------+--------+-----------+------+------------+---------+---------+--------+
| EMPNO | ENAME  | JOB       | MGR  | HIREDATE   | SAL     | COMM    | DEPTNO |
+-------+--------+-----------+------+------------+---------+---------+--------+
|     2 | bdc    | manager   | NULL | 2022-09-09 | 1250.00 |    NULL |   NULL |
|  7369 | SMITH  | CLERK     | 7902 | 1980-12-17 |  800.00 |    NULL |     20 |
|  7499 | ALLEN  | SALESMAN  | 7698 | 1981-02-20 | 1300.00 |  300.00 |     30 |
|  7521 | WARD   | SALESMAN  | 7698 | 1981-02-22 | 1250.00 |  500.00 |     30 |
|  7566 | JONES  | MANAGER   | 7839 | 1981-04-02 | 2975.00 |    NULL |     20 |
|  7654 | MARTIN | SALESMAN  | 7698 | 1981-09-28 | 1250.00 | 1400.00 |     30 |
|  7698 | BLAKE  | MANAGER   | 7839 | 1981-05-01 | 2850.00 |    NULL |     30 |
|  7782 | CLARK  | MANAGER   | 7839 | 1981-06-09 | 2450.00 |    NULL |     10 |
|  7788 | SCOTT  | ANALYST   | 7566 | 1982-12-09 | 3000.00 |    NULL |     20 |
|  7839 | KING   | PRESIDENT | NULL | 1981-11-17 | 5000.00 |    NULL |     10 |
|  7844 | TURNER | SALESMAN  | 7698 | 1981-09-08 | 1500.00 |    0.00 |     30 |
|  7876 | ADAMS  | CLERK     | 7788 | 1983-01-12 | 1100.00 |    NULL |     20 |
|  7900 | JAMES  | CLERK     | 7698 | 1981-12-03 |  950.00 |    NULL |     30 |
|  7902 | FORD   | ANALYST   | 7566 | 1981-12-03 | 3000.00 |    NULL |     20 |
|  7934 | MILLER | CLERK     | 7782 | 1982-01-23 | 1300.00 |    NULL |     10 |
+-------+--------+-----------+------+------------+---------+---------+--------+
15 rows in set (0.00 sec)
```

3. write a procedure to display empno,ename,deptno,dname for all employees with sal
> given salary. pass salary as a parameter to procedure

```
delimiter //

mysql> create procedure display(salary double(9,2))
    -> begin
    -> select e.empno, e.ename, d.deptno, d.dname
    -> from emp e, dept d
    -> where e.deptno=d.deptno
    -> and sal>salary;
    -> end //

delimiter ;

call display(500);
```

```
+-------+--------+--------+------------+
| empno | ename  | deptno | dname      |
+-------+--------+--------+------------+
|  7369 | SMITH  |     20 | RESEARCH   |
|  7499 | ALLEN  |     30 | SALES      |
|  7521 | WARD   |     30 | SALES      |
|  7566 | JONES  |     20 | RESEARCH   |
|  7654 | MARTIN |     30 | SALES      |
|  7698 | BLAKE  |     30 | SALES      |
|  7782 | CLARK  |     10 | ACCOUNTING |
|  7788 | SCOTT  |     20 | RESEARCH   |
|  7839 | KING   |     10 | ACCOUNTING |
|  7844 | TURNER |     30 | SALES      |
|  7876 | ADAMS  |     20 | RESEARCH   |
|  7900 | JAMES  |     30 | SALES      |
|  7902 | FORD   |     20 | RESEARCH   |
|  7934 | MILLER |     10 | ACCOUNTING |
+-------+--------+--------+------------+
14 rows in set (0.00 sec)

Query OK, 0 rows affected (0.03 sec)
```

Using cursor

```
mysql> delimiter //
mysql> create procedure emp_dept_details(psal double)
    -> begin
    -> declare vename,vdname varchar(30);
    -> declare vdeptno,vempno,vstop int default 0;
    -> declare vsal double(9,2);
    -> declare emp_cur cursor for
    -> select empno,ename,sal,deptno from emp where sal>psal;
    -> declare continue handler for NOT FOUND set vstop=1;
    -> open emp_cur;
    -> label1: loop
    -> fetch emp_cur into vempno,vename,vsal,vdeptno;
    -> if vstop=1 then
    -> leave label1;
    -> end if;
    -> select dname into vdname
    -> from dept
    -> where deptno=vdeptno;
    -> select vempno,vename,vdeptno,vsal,vdname;
    ->
    -> end loop;
    ->
    -> end//
```

```
mysql> call emp_dept_details(1300);
+--------+--------+---------+---------+--------+
| vempno | vename | vdeptno | vsal    | vdname |
+--------+--------+---------+---------+--------+
|   7499 | ALLEN  |      30 | 1625.00 | SALES  |
+--------+--------+---------+---------+--------+
1 row in set (0.01 sec)

+--------+--------+---------+---------+--------+
| vempno | vename | vdeptno | vsal    | vdname |
+--------+--------+---------+---------+--------+
|   7521 | WARD   |      30 | 1562.50 | SALES  |
+--------+--------+---------+---------+--------+
1 row in set (0.03 sec)

+--------+--------+---------+---------+----------+
| vempno | vename | vdeptno | vsal    | vdname   |
+--------+--------+---------+---------+----------+
|   7566 | JONES  |      20 | 3718.75 | RESEARCH |
+--------+--------+---------+---------+----------+
1 row in set (0.05 sec)

+--------+--------+---------+---------+--------+
| vempno | vename | vdeptno | vsal    | vdname |
+--------+--------+---------+---------+--------+
|   7654 | MARTIN |      30 | 1562.50 | SALES  |
+--------+--------+---------+---------+--------+
1 row in set (0.09 sec)

+--------+--------+---------+---------+--------+
| vempno | vename | vdeptno | vsal    | vdname |
+--------+--------+---------+---------+--------+
|   7698 | BLAKE  |      30 | 3562.50 | SALES  |
+--------+--------+---------+---------+--------+
1 row in set (0.12 sec)

+--------+--------+---------+---------+------------+
| vempno | vename | vdeptno | vsal    | vdname     |
+--------+--------+---------+---------+------------+
|   7782 | CLARK  |      10 | 3062.50 | ACCOUNTING |
+--------+--------+---------+---------+------------+
1 row in set (0.15 sec)
```

```
| vempno | vename | vdeptno | vsal    | vdname   |
+--------+--------+---------+---------+----------+
|   7788 | SCOTT  |      20 | 3750.00 | RESEARCH |
+--------+--------+---------+---------+----------+
1 row in set (0.18 sec)

+--------+--------+---------+---------+------------+
| vempno | vename | vdeptno | vsal    | vdname     |
+--------+--------+---------+---------+------------+
|   7839 | KING   |      10 | 6250.00 | ACCOUNTING |
+--------+--------+---------+---------+------------+
1 row in set (0.22 sec)

+--------+--------+---------+---------+--------+
| vempno | vename | vdeptno | vsal    | vdname |
+--------+--------+---------+---------+--------+
|   7844 | TURNER |      30 | 1875.00 | SALES  |
+--------+--------+---------+---------+--------+
1 row in set (0.25 sec)

+--------+--------+---------+---------+----------+
| vempno | vename | vdeptno | vsal    | vdname   |
+--------+--------+---------+---------+----------+
|   7876 | ADAMS  |      20 | 1375.00 | RESEARCH |
+--------+--------+---------+---------+----------+
1 row in set (0.28 sec)

+--------+--------+---------+---------+----------+
| vempno | vename | vdeptno | vsal    | vdname   |
+--------+--------+---------+---------+----------+
|   7902 | FORD   |      20 | 3750.00 | RESEARCH |
+--------+--------+---------+---------+----------+
1 row in set (0.31 sec)

+--------+--------+---------+---------+------------+
| vempno | vename | vdeptno | vsal    | vdname     |
+--------+--------+---------+---------+------------+
|   7934 | MILLER |      10 | 1625.00 | ACCOUNTING |
+--------+--------+---------+---------+------------+
1 row in set (0.34 sec)

Query OK, 0 rows affected (0.37 sec)
```

4. write a procedure to find min,max,avg of salary and number of employees in the given deptno.
deptno --→ in parameter

min,max,avg and count ---→ out type parameter
execute procedure and then display values min,max,avg and count

```
delimiter //

create procedure display(in dno int, out minsal int, out maxsal int, out avgsal int, out count
int)
begin
select deptno, min(sal), max(sal), avg(sal), count(*)
from emp
where deptno=dno
group by deptno;
end //

delimiter ;
```

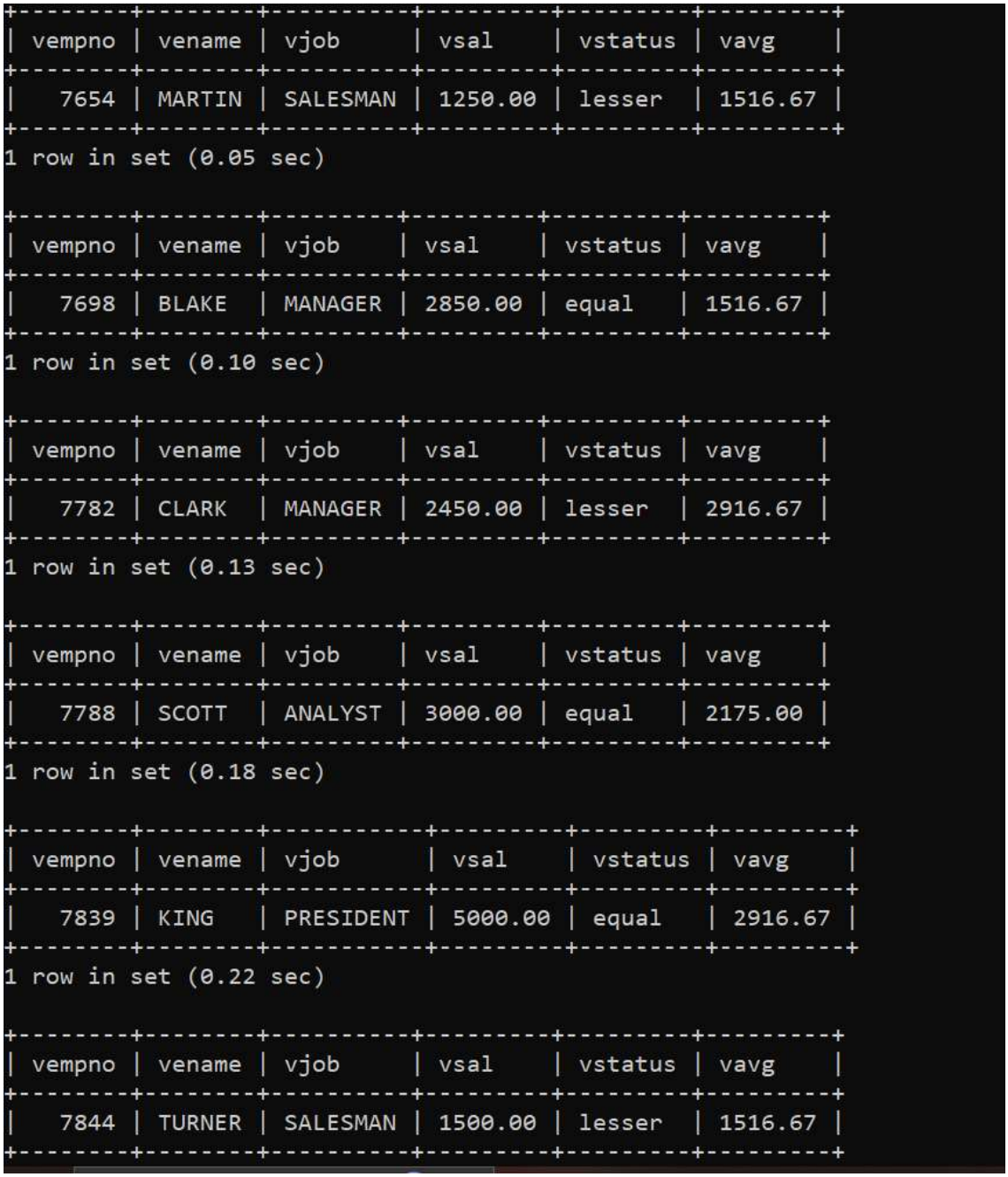
```
mysql> call display(10,@minsal,@maxsal,@avgsal,@count);
+--------+----------+----------+-------------+----------+
| deptno | min(sal) | max(sal) | avg(sal)    | count(*) |
+--------+----------+----------+-------------+----------+
|     10 |  1300.00 |  5000.00 | 2916.666667 |        3 |
+--------+----------+----------+-------------+----------+
1 row in set (0.01 sec)
```

7. Write a procedure that displays the following information of all emp
Empno,Name,job,Salary,Status,deptno
Note: - Status will be (Greater, Lesser or Equal) respective to average salary of their own
department. Display an error message Emp table is empty if there is no matching record.

```
delimiter //
create procedure disp_data()
begin
declare vempno, vdeptno, vmgr int;
declare vhiredate date;
declare vsal, vcomm double(12,2);
declare vename, vjob varchar(20);
declare vstatus varchar(20);
declare vavg double(9,2);

declare vstop int default 0;
declare emp_cur cursor for select * from emp;
declare continue handler for NOT FOUND
```

```
set vstop =1;

open emp_cur;
label1: loop
fetch emp_cur into vempno, vename, vjob, vmgr, vhiredate, vsal, vcomm, vdeptno;
if vstop =1 then
leave label1;
end if;

select avg(sal) into vavg
from emp
where deptno=vdeptno;
if vavg is null then
set vstatus='null';
elseif vsal<vavg then
set vstatus='lesser';
elseif vsal> vavg then
set vstatus='greater';
else
set vstatus='equal';

end if;

select vempno, vename, vjob, vsal, vstatus, vavg;
end loop;
close emp_cur;
end//
delimiter ;
```

```
mysql> call disp_data;
+--------+--------+---------+---------+---------+------+
| vempno | vename | vjob    | vsal    | vstatus | vavg |
+--------+--------+---------+---------+---------+------+
|      2 | bdc    | manager | 1250.00 | null    | NULL |
+--------+--------+---------+---------+---------+------+
1 row in set (0.00 sec)

+--------+--------+-------+--------+---------+---------+
| vempno | vename | vjob  | vsal   | vstatus | vavg    |
+--------+--------+-------+--------+---------+---------+
|   7369 | SMITH  | CLERK | 800.00 | lesser  | 2175.00 |
+--------+--------+-------+--------+---------+---------+
1 row in set (0.02 sec)

+--------+--------+----------+---------+---------+---------+
| vempno | vename | vjob     | vsal    | vstatus | vavg    |
+--------+--------+----------+---------+---------+---------+
|   7499 | ALLEN  | SALESMAN | 1300.00 | lesser  | 1516.67 |
+--------+--------+----------+---------+---------+---------+
1 row in set (0.04 sec)

+--------+--------+----------+---------+---------+---------+
| vempno | vename | vjob     | vsal    | vstatus | vavg    |
+--------+--------+----------+---------+---------+---------+
|   7521 | WARD   | SALESMAN | 1250.00 | lesser  | 1516.67 |
+--------+--------+----------+---------+---------+---------+
1 row in set (0.07 sec)

+--------+--------+---------+---------+---------+---------+
| vempno | vename | vjob    | vsal    | vstatus | vavg    |
+--------+--------+---------+---------+---------+---------+
|   7566 | JONES  | MANAGER | 2975.00 | greater | 2175.00 |
+--------+--------+---------+---------+---------+---------+
1 row in set (0.10 sec)

+--------+--------+----------+---------+---------+---------+
| vempno | vename | vjob     | vsal    | vstatus | vavg    |
+--------+--------+----------+---------+---------+---------+
```



```
+--------+--------+----------+---------+---------+---------+
| vempno | vename | vjob     | vsal    | vstatus | vavg    |
+--------+--------+----------+---------+---------+---------+
|   7654 | MARTIN | SALESMAN | 1250.00 | lesser  | 1516.67 |
+--------+--------+----------+---------+---------+---------+
1 row in set (0.05 sec)

+--------+--------+---------+---------+---------+---------+
| vempno | vename | vjob    | vsal    | vstatus | vavg    |
+--------+--------+---------+---------+---------+---------+
|   7698 | BLAKE  | MANAGER | 2850.00 | equal   | 1516.67 |
+--------+--------+---------+---------+---------+---------+
1 row in set (0.10 sec)

+--------+--------+---------+---------+---------+---------+
| vempno | vename | vjob    | vsal    | vstatus | vavg    |
+--------+--------+---------+---------+---------+---------+
|   7782 | CLARK  | MANAGER | 2450.00 | lesser  | 2916.67 |
+--------+--------+---------+---------+---------+---------+
1 row in set (0.13 sec)

+--------+--------+---------+---------+---------+---------+
| vempno | vename | vjob    | vsal    | vstatus | vavg    |
+--------+--------+---------+---------+---------+---------+
|   7788 | SCOTT  | ANALYST | 3000.00 | equal   | 2175.00 |
+--------+--------+---------+---------+---------+---------+
1 row in set (0.18 sec)

+--------+--------+-----------+---------+---------+---------+
| vempno | vename | vjob      | vsal    | vstatus | vavg    |
+--------+--------+-----------+---------+---------+---------+
|   7839 | KING   | PRESIDENT | 5000.00 | equal   | 2916.67 |
+--------+--------+-----------+---------+---------+---------+
1 row in set (0.22 sec)

+--------+--------+----------+---------+---------+---------+
| vempno | vename | vjob     | vsal    | vstatus | vavg    |
+--------+--------+----------+---------+---------+---------+
|   7844 | TURNER | SALESMAN | 1500.00 | lesser  | 1516.67 |
+--------+--------+----------+---------+---------+---------+
```

```
1 row in set (0.22 sec)

+--------+--------+----------+---------+---------+---------+
| vempno | vename | vjob     | vsal    | vstatus | vavg    |
+--------+--------+----------+---------+---------+---------+
|   7844 | TURNER | SALESMAN | 1500.00 | lesser  | 1516.67 |
+--------+--------+----------+---------+---------+---------+
1 row in set (0.27 sec)

+--------+--------+-------+---------+---------+---------+
| vempno | vename | vjob  | vsal    | vstatus | vavg    |
+--------+--------+-------+---------+---------+---------+
|   7876 | ADAMS  | CLERK | 1100.00 | lesser  | 2175.00 |
+--------+--------+-------+---------+---------+---------+
1 row in set (0.30 sec)

+--------+--------+-------+--------+---------+---------+
| vempno | vename | vjob  | vsal   | vstatus | vavg    |
+--------+--------+-------+--------+---------+---------+
|   7900 | JAMES  | CLERK | 950.00 | lesser  | 1516.67 |
+--------+--------+-------+--------+---------+---------+
1 row in set (0.35 sec)

+--------+--------+---------+---------+---------+---------+
| vempno | vename | vjob    | vsal    | vstatus | vavg    |
+--------+--------+---------+---------+---------+---------+
|   7902 | FORD   | ANALYST | 3000.00 | equal   | 2175.00 |
+--------+--------+---------+---------+---------+---------+
1 row in set (0.40 sec)

+--------+--------+-------+---------+---------+---------+
| vempno | vename | vjob  | vsal    | vstatus | vavg    |
+--------+--------+-------+---------+---------+---------+
|   7934 | MILLER | CLERK | 1300.00 | lesser  | 2916.67 |
+--------+--------+-------+---------+---------+---------+
1 row in set (0.44 sec)

Query OK, 0 rows affected (0.49 sec)
```

8. Write a procedure to update salary in emp table based on following rules.
Exp< =35 then no Update
Exp> 35 and <=38 then 20% of salary
Exp> 38 then 25% of salary

FUNCTION

```
set GLOBAL log_bin_trust_function_creators=1;
delimiter //
create function calcexp(hdt date) returns int
begin
return floor(datediff(curdate(),hdt)/365);
end//
delimiter ;
```

PROCEDURE

```
delimiter //
create procedure update_sal()
begin

declare vempno int;
declare vename varchar(30);
declare vsal, vnewsal double(12,2);
declare vhdt date;
declare vexp int;
declare vstop int default 0;
declare emp_cur cursor for select empno, ename, sal, hiredate from emp10;
declare continue handler for not found set vstop =1;

open emp_cur;
label1:loop
fetch emp_cur into vempno, vename, vsal, vhdt;
if vstop =1 then
leave label1;
end if;

set vexp=calcexp(vhdt);

if vexp>35 and vexp<=38 then
set vnewsal=vsal*1.20;
update emp
set sal=vnewsal
where empno=vempno;

elseif vexp>38 then
set vnewsal=vsal*1.25;
update emp
```

```
set sal=vnewsal
where empno=vempno;

else
set vnewsal=vsal;
update emp
set sal=vnewsal
where empno=vempno;

end if;

select vempno,vename, vsal,vnewsal;

end loop;
close emp_cur;
end//

delimiter ;
```

```
mysql> call update_sal();
+--------+--------+--------+---------+
| vempno | vename | vsal   | vnewsal |
+--------+--------+--------+---------+
|   7369 | SMITH  | 800.00 | 1000.00 |
+--------+--------+--------+---------+
1 row in set (0.00 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7499 | ALLEN  | 1300.00 | 1625.00 |
+--------+--------+---------+---------+
1 row in set (0.02 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7521 | WARD   | 1250.00 | 1562.50 |
+--------+--------+---------+---------+
1 row in set (0.04 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7566 | JONES  | 2975.00 | 3718.75 |
+--------+--------+---------+---------+
1 row in set (0.06 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7654 | MARTIN | 1250.00 | 1562.50 |
+--------+--------+---------+---------+
1 row in set (0.07 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7698 | BLAKE  | 2850.00 | 3562.50 |
```

```
+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7782 | CLARK  | 2450.00 | 3062.50 |
+--------+--------+---------+---------+
1 row in set (0.09 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7788 | SCOTT  | 3000.00 | 3750.00 |
+--------+--------+---------+---------+
1 row in set (0.09 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7839 | KING   | 5000.00 | 6250.00 |
+--------+--------+---------+---------+
1 row in set (0.10 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7844 | TURNER | 1500.00 | 1875.00 |
+--------+--------+---------+---------+
1 row in set (0.10 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7876 | ADAMS  | 1100.00 | 1375.00 |
+--------+--------+---------+---------+
1 row in set (0.10 sec)

+--------+--------+--------+---------+
| vempno | vename | vsal   | vnewsal |
+--------+--------+--------+---------+
|   7900 | JAMES  | 950.00 | 1187.50 |
+--------+--------+--------+---------+
1 row in set (0.11 sec)
```

```
+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7902 | FORD   | 3000.00 | 3750.00 |
+--------+--------+---------+---------+
1 row in set (0.12 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|   7934 | MILLER | 1300.00 | 1625.00 |
+--------+--------+---------+---------+
1 row in set (0.12 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|    100 | harry  | 4000.00 | 4000.00 |
+--------+--------+---------+---------+
1 row in set (0.12 sec)

+--------+----------+---------+---------+
| vempno | vename   | vsal    | vnewsal |
+--------+----------+---------+---------+
|    101 | hermione | 5000.00 | 5000.00 |
+--------+----------+---------+---------+
1 row in set (0.13 sec)

+--------+--------+---------+---------+
| vempno | vename | vsal    | vnewsal |
+--------+--------+---------+---------+
|    102 | ron    | 3500.00 | 3500.00 |
+--------+--------+---------+---------+
1 row in set (0.14 sec)

Query OK, 0 rows affected (0.14 sec)

mysql>
```

9. Write a procedure and a function.
Function: write a function to calculate number of years of experience of employee.(note:
pass hiredate as a parameter)
Procedure: Capture the value returned by the above function to calculate the additional
allowance for the emp based on the experience.

Additional Allowance = Year of experience x 3000
Calculate the additional allowance
and store Empno, ename,Date of Joining, and Experience in
years and additional allowance in Emp_Allowance table.
create table emp_allowance(
empno int,
ename varchar(20),
hiredate date,
experience int,
allowance decimal(9,2));

FUNCTION

```
delimiter //

set global log_bin_trust_function_creators=1;
create function calcexp(hdt date) returns int
begin
return floor(datediff(curdate(),hdt)/365);
end //

delimiter ;
```

PROCEDURE

```
drop procedure allowance;
delimiter //

create procedure allowance()
begin
declare veno, vexp, vall double(12,2);
declare venm varchar(30);
declare vhdt date;
declare vstop int default 0;
declare emp_cur cursor for select empno, ename, hiredate from emp;
declare continue handler for not found set vstop=1;
open emp_cur;
label1: loop
fetch emp_cur into veno,venm,vhdt;

        if vstop=1 then
                leave label1;
```

```
        end if;
select calcexp(vhdt)*3000 into vall from emp where empno=veno;

select veno,venm,vhdt,vall;

end loop;
end//
```

//INFINITE LOOOP because fetch statement was outside of loop
//only one entry in output because cursor was getting closed so removed close emp_cur line

```
mysql> call allowance();
    -> //
+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7369.00 | SMITH | 1980-12-17 | 126000.00 |
+---------+-------+------------+-----------+
1 row in set (0.00 sec)

+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7499.00 | ALLEN | 1981-02-20 | 126000.00 |
+---------+-------+------------+-----------+
1 row in set (0.03 sec)

+---------+------+------------+-----------+
| veno    | venm | vhdt       | vall      |
+---------+------+------------+-----------+
| 7521.00 | WARD | 1981-02-22 | 126000.00 |
+---------+------+------------+-----------+
1 row in set (0.08 sec)

+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7566.00 | JONES | 1981-04-02 | 126000.00 |
+---------+-------+------------+-----------+
1 row in set (0.12 sec)

+---------+--------+------------+-----------+
| veno    | venm   | vhdt       | vall      |
+---------+--------+------------+-----------+
| 7654.00 | MARTIN | 1981-09-28 | 126000.00 |
+---------+--------+------------+-----------+
1 row in set (0.17 sec)

+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7698.00 | BLAKE | 1981-05-01 | 126000.00 |
+---------+-------+------------+-----------+
```

```
+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7782.00 | CLARK | 1981-06-09 | 126000.00 |
+---------+-------+------------+-----------+
1 row in set (0.26 sec)

+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7788.00 | SCOTT | 1982-12-09 | 120000.00 |
+---------+-------+------------+-----------+
1 row in set (0.30 sec)

+---------+------+------------+-----------+
| veno    | venm | vhdt       | vall      |
+---------+------+------------+-----------+
| 7839.00 | KING | 1981-11-17 | 123000.00 |
+---------+------+------------+-----------+
1 row in set (0.35 sec)

+---------+--------+------------+-----------+
| veno    | venm   | vhdt       | vall      |
+---------+--------+------------+-----------+
| 7844.00 | TURNER | 1981-09-08 | 126000.00 |
+---------+--------+------------+-----------+
1 row in set (0.41 sec)

+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7876.00 | ADAMS | 1983-01-12 | 120000.00 |
+---------+-------+------------+-----------+
1 row in set (0.45 sec)

+---------+-------+------------+-----------+
| veno    | venm  | vhdt       | vall      |
+---------+-------+------------+-----------+
| 7900.00 | JAMES | 1981-12-03 | 123000.00 |
+---------+-------+------------+-----------+
1 row in set (0.49 sec)
```

```
+---------+------+------------+-----------+
| veno    | venm | vhdt       | vall      |
+---------+------+------------+-----------+
| 7902.00 | FORD | 1981-12-03 | 123000.00 |
+---------+------+------------+-----------+
1 row in set (0.54 sec)

+---------+--------+------------+-----------+
| veno    | venm   | vhdt       | vall      |
+---------+--------+------------+-----------+
| 7934.00 | MILLER | 1982-01-23 | 123000.00 |
+---------+--------+------------+-----------+
1 row in set (0.58 sec)

Query OK, 0 rows affected (0.62 sec)
```

10. Write a function to compute the following. Function should take sal and hiredate as i/p and return the cost to company.
DA = 15% Salary, HRA= 20% of Salary, TA= 8% of Salary.
Special Allowance will be decided based on the service in the company.
< 1 Year Nil
>=1 Year< 2 Year 10% of Salary
>=2 Year< 4 Year 20% of Salary
>4 Year 30% of Salary

```
delimiter //
create function cost(sal double(9,2), hdt date)
returns double
begin
declare vallow double(12,2) default 0;
declare vexp int;
set vexp=calcexp(hdt);
if vexp>=36 and vexp <40
then
set vallow=sal*0.10;
elseif vexp>=40 and vexp<42
then
set vallow=sal*0.20;
elseif vexp>=42
then
set vallow=sal*0.30;
```

```
end if;
return sal+vallow+0.15*sal+0.20*sal+0.08*sal;
end//

delimiter ;
```

empno	ename	sal	exp	cost to company
2	bdc	1250.00	1	1787.5
7369	SMITH	1000.00	42	1730
7499	ALLEN	1625.00	42	2811.25
7521	WARD	1562.50	42	2703.125
7566	JONES	3718.75	42	6433.4325
7654	MARTIN	1562.50	42	2703.125
7698	BLAKE	3562.50	42	6163.125
7782	CLARK	3062.50	42	5298.125
7788	SCOTT	3750.00	40	6112.5
7839	KING	6250.00	41	10187.5
7844	TURNER	1875.00	42	3243.75
7876	ADAMS	1375.00	40	2241.25
7900	JAMES	1187.50	41	1935.625
7902	FORD	3750.00	41	6112.5
7934	MILLER	1625.00	41	2648.75

15 rows in set (0.00 sec)

Q2. Write trigger
1. Write a tigger to store the old salary details in Emp _Back (Emp _Back has the same structure as emp table without any
constraint) table.
(note :create emp_back table before writing trigger)
----- to create emp_back table

```
create table emp_back(
empno int,
ename varchar(20),
oldsal decimal(9,2),
newsal decimal(9,2)
)
```

(note :
execute procedure written in Q8 and
check the entries in EMP_back table after execution of the procedure)

```
create table emp_back(
```

```
    -> empno int,
    -> ename varchar(20),
    -> oldsal decimal(9,2),
    -> newsal decimal(9,2)
    -> ) ;

 delimiter //
mysql> create trigger update_oldsal
    -> after update on emp11
    -> for each row
    -> begin
    -> insert into emp_back values(old.empno,old.ename,old.sal,new.sal);
    -> end//
Query OK, 0 rows affected (0.03 sec)
```

2. Write a trigger which add entry in audit table when user tries to insert or delete records in employee table store empno,name,username and date on which operation performed and which action is done insert or delete. in emp_audit table.
create table before writing trigger.

```
create table empaudit(
empno int,
ename varchar(20),
username varchar(20),
chdate date,
action varchar(20)
);
```

3. Create table vehicle_history. Write a trigger to store old vehicleprice and new vehicle price in history table before you update price in vehicle table
(note: use vehicle table).

```
create table vehicle_history(
vno int,
vname varchar(20),
oldprice decimal(9,2),
newprice decimal(9,2),
chdate date,
username varchar(20)
);
```