PL SQL

Solve the following

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\_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//

Query OK, 0 rows affected (0.12 sec)

mysql> delimiter ;

mysql> call insert\_rec(1001,'sourabh',99999,'clerk','1981-12-03');

Query OK, 1 row affected (0.09 sec)

mysql> select \* from emp;

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

| EMPNO | ENAME | job | MGR | HIREDATE | SAL | COMM| DEPTNO |

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

| 7369 | SMITH | senior clerk | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1840.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1437.50 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1437.50 | 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 | 1725.00 | 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 |

| 1001 | sourabh | clerk | NULL | 1981-12-03 | 99999.00 | NULL | NULL |

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

15 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

mysql> call deletemp(1001);

Query OK, 2 rows affected (0.03 sec)

mysql> select \* from emp;

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

| EMPNO | ENAME | job | MGR | HIREDATE | SAL| COMM | DEPTNO |

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

| 7369 | SMITH | senior clerk | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1840.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1437.50 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1437.50 | 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 | 1725.00 | 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 |

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

14 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

mysql> delimiter //

mysql> create procedure displayinfo3(psal int)

-> begin

-> select e.empno,e.ename,e.deptno,d.dname from emp e left join dept d on e.deptno=d.deptno where e.sal>psal;

-> end//

Query OK, 0 rows affected (0.02 sec)

mysql> delimiter ;

mysql>

mysql> call displayinfo3(2500);

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

| empno | ename | deptno | dname |

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

| 7566 | JONES | 20 | RESEARCH |

| 7698 | BLAKE | 30 | SALES |

| 7788 | SCOTT | 20 | RESEARCH |

| 7839 | KING | 10 | ACCOUNTING |

| 7902 | FORD | 20 | RESEARCH |

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

5 rows in set (0.00 sec)

Query OK, 0 rows affected (0.01 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

mysql> delimiter //

mysql> create procedure minmaxavgcnt(pdeptno int,out pmin float,out pmax float,out pavg float,out pcount int)

-> begin

-> select min(sal),max(sal),avg(sal),count(sal) into pmin,pmax,pavg,pcount from emp where deptno=pdeptno;

-> end//

Query OK, 0 rows affected (0.04 sec)

mysql> delimiter ;

mysql> call minmaxavgcnt1(20,@pmin,@pmax,@pavg,@pcount);

Query OK, 1 row affected (0.00 sec)

mysql> select @pmin,@pmax,@pavg,@pcount;

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

| @pmin | @pmax | @pavg | @pcount |

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

| 800 | 3000 | 2175 | 5 |

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

1 row in set (0.00 sec)

mysql>

5. write a procedure to display all pid,pname,cid,cname and salesman name(use

product,category and salesman table)

mysql> create procedure display\_info5()

-> begin

-> Select p.pid,p.pname,p.cid,c.cname,s.sname from product p left join category c on p.cid=c.cid left join salesman s on p.sid=s.sid;

-> end//

Query OK, 0 rows affected (0.03 sec)

mysql> delimiter ;

mysql> call display\_info5;

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

| pid | pname | cid | cname| sname|

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

| 10 | lays | 1 | chips | joy |

| 11 | kurkure | 3 | snacks | cuteface |

| 12 | nachos | 3 | snacks | modi |

| 13 | coca cola | NULL | NULL | NULL |

| 14 | pepsi | 2 | cold drink | shah |

| 15 | miranda | 2 | cold drink | sam |

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

6 rows in set (0.00 sec)

Query OK, 0 rows affected (0.02 sec)

mysql>

6. write a procedure to display all vehicles bought by a customer. pass cutome name as a parameter.(use vehicle,salesman,custome and relation table)

delimiter //

create procedure dispaly\_6(name varchar(20))

begin

select \* from cust\_vehicle1 c inner join vehicle v on c.vid=v.vid inner join customer k on k.custid=c.custid

where k.cname=name;

end//

Vehicle

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Vid |  | Vname | Price | desc |
|  | |  |  |  |  |
| 1 | |  | Activa | 80000 | ksldjfjksj |
| 2 | |  | Santro | 8,00000 | kdjfkjsd |
| 3 | |  | Motor bike | 100000 | fdkdfj |

customer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Custid |  | Cname | address |
| 1 | |  | Nilima | Pimpari |
| 2 | |  | Ganesh | Pune |
| 3 | |  | Pankaj | Mumbai |

salesman

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Sid |  | Sname | adress |
| 10 | |  | Rajesh | mumbai |
| 11 | |  | Seema | Pune |
| 13 | |  | Rakhi | pune |

cust-vehicle (customer is buying Many vehicle and 1 vehicle can be bought by many customers)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Custid |  |  | Vid |  | Sid | Buy\_price |
| 1 | |  |  | 1 |  | 10 | 75000 |
| 1 | |  |  | 2 |  | 10 | 7,90,000 |
| 2 | |  |  | 3 |  | 11 | 80000 |
| 3 | |  |  | 3 |  | 11 | 75000 |
| 3 | |  |  | 2 |  | 10 | 8,00000 |

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.

mysql> delimiter //

mysql> create procedure display\_infoq7()

> begin

-> select e.empno,e.ename,e.job,e.sal,e.deptno,case when (select avg(sal) from emp group by deptno having deptno=e.deptno)>e.sal then "Lesser" when (select avg(sal) from emp group by deptno having deptno=e.deptno)<e.sal then "Greater" else "Equal" end Status from emp e;

-> end//

Query OK, 0 rows affected (0.02 sec)

mysql> delimiter ;

mysql> call display\_infoq7;

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

| empno | ename | job | sal | deptno | Status |

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

| 7369 | SMITH | senior clerk | 800.00 | 20 | Lesser |

| 7499 | ALLEN | SALESMAN | 1840.00 | 30 | Greater |

| 7521 | WARD | SALESMAN | 1437.50 | 30 | Lesser |

| 7566 | JONES | MANAGER | 2975.00 | 20 | Greater |

| 7654 | MARTIN | SALESMAN | 1437.50 | 30 | Lesser |

| 7698 | BLAKE | MANAGER | 2850.00 | 30 | Greater |

| 7782 | CLARK | MANAGER | 2450.00 | 10 | Lesser |

| 7788 | SCOTT | ANALYST | 3000.00 | 20 | Greater |

| 7839 | KING | PRESIDENT | 5000.00 | 10 | Greater |

| 7844 | TURNER | SALESMAN | 1725.00 | 30 | Greater |

| 7876 | ADAMS | CLERK | 1100.00 | 20 | Lesser |

| 7900 | JAMES | CLERK | 950.00 | 30 | Lesser |

| 7902 | FORD | ANALYST | 3000.00 | 20 | Greater |

| 7934 | MILLER | CLERK | 1300.00 | 10 | Lesser |

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

14 rows in set (0.00 sec)

Query OK, 0 rows affected (0.06 sec)

mysql>

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

delimiter //

create function retnexp2(hdate date) returns int

begin

declare pexp int default 0;

set pexp=(floor(datediff(curdate(),hdate)/365));

return pexp;

end//

delimiter //

create procedure updtsal()

begin

declare finished int default 0;

declare vhdate date;

declare updsal\_cur cursor for select hiredate from emp;

declare continue handler for not found set finished = 1;

open updsal\_cur;

l1: loop

fetch updsal\_cur into vhdate;

if finished = 1 then

leave l1;

end if;

if retnexp2(vhdate)>40 and retnexp2(vhdate)<=42 then

update emp set sal=sal\*1.2 where hiredate=vhdate;

elseif retnexp2(vhdate)>42 then

update emp set sal=sal\*1.25 where hiredate=vhdate;

end if;

end loop;

close updsal\_cur;

end //

delimiter ;

mysql> create procedure updtsal()

-> begin

-> declare finished int default 0;

-> declare vhdate date;

-> declare updsal\_cur cursor for select hiredate from emp;

-> declare continue handler for not found set finished = 1;

-> open updsal\_cur;

-> l1: loop

-> fetch updsal\_cur into vhdate;

-> if finished = 1 then

-> leave l1;

-> end if;

-> if retnexp2(vhdate)>40 and retnexp2(vhdate)<=42 then

-> update emp set sal=sal\*1.2 where hiredate=vhdate;

->

-> elseif retnexp2(vhdate)>42 then

-> update emp set sal=sal\*1.25 where hiredate=vhdate;

-> end if;

-> end loop;

-> close updsal\_cur;

-> end //

Query OK, 0 rows affected (0.03 sec)

mysql> delimiter ;

mysql> select \* from emp;

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

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM| DEPTNO |

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

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 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 |

| 4561 | sour\_abh | president | NULL | 1981-04-02 | 99999.00 | 1000.00 | 50 |

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

15 rows in set (0.00 sec)

mysql> call updtsal;

ERROR 1264 (22003): Out of range value for column 'SAL' at row 15

mysql> delete from emp where ename='sour\_abh';

Query OK, 1 row affected (0.04 sec)

mysql> call updtsal;

Query OK, 0 rows affected (0.39 sec)

mysql> select \* from emp;

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

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM| DEPTNO |

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

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 1152.00 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 2304.00 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1800.00 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 3570.00 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1500.00 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 3420.00 | NULL |30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2940.00 | NULL |10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL |20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 6000.00 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1800.00 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL |20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 1368.00 | NULL |30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 4320.00 |NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1560.00 | NULL |10 |

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

14 rows in set (0.00 sec)

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));

delimiter //

create function retnexp2(hdate date) returns int

begin

declare pexp int default 0;

set pexp=(floor(datediff(curdate(),hdate)/365));

return pexp;

end//

delimiter ;

mysql> create table emp\_allowance((select \*,floor(datediff(curdate(),hiredate)/365) exp from emp));

Query OK, 15 rows affected (0.25 sec)

Records: 15 Duplicates: 0 Warnings: 0

mysql> alter table emp\_allowance add column allowance decimal(9,2);

Query OK, 0 rows affected (0.10 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> select \* from emp\_allowance;

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

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | exp | allowance |

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

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 | 42 |NULL |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 | 42 | NULL |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 | 42 | NULL |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 | 42 | NULL |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 | 41 | NULL |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 | 41 | NULL |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 | 41 | NULL |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 | 40 | NULL |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 | 41 | NULL |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 | 41 | NULL |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 | 40 | NULL |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 | 41 | NULL |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 | 41 | NULL |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 | 41 | NULL |

| 4561 | sour\_abh | president | NULL | 1981-04-02 | 99999.00 | 1000.00 | 50 | 42 | NULL |

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

15 rows in set (0.00 sec)

mysql>

mysql> create procedure updtallwnc11()

-> begin

-> declare finished int default 0;

-> declare vhdate date;

-> declare updall\_cur cursor for select hiredate from emp\_allowance;

-> declare continue handler for not found set finished = 1;

->

-> open updall\_cur;

->

-> l1: loop

-> fetch updall\_cur into vhdate;

->

-> if finished = 1 then

-> leave l1;

-> end if;

->

-> update emp\_allowance

-> set allowance = retnexp2(vhdate)\*3000

-> where hiredate = vhdate;

-> end loop;

->

-> close updall\_cur;

-> end //

Query OK, 0 rows affected (0.04 sec)

mysql> delimiter ;

mysql> call updtallwnc11;

Query OK, 0 rows affected (0.23 sec)

mysql> select \* from emp\_allowance;

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

| EMPNO | ENAME | JOB | MGR | HIREDATE | SAL | COMM | DEPTNO | exp | allowance |

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

| 7369 | SMITH | CLERK | 7902 | 1980-12-17 | 800.00 | NULL | 20 | 42 | 126000.00 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 1600.00 | 300.00 | 30 | 42 | 126000.00 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 1250.00 | 500.00 | 30 | 42 | 126000.00 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 2975.00 | NULL | 20 | 42 | 126000.00 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 1250.00 | 1400.00 | 30 | 41 | 123000.00 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 2850.00 | NULL | 30 | 41 | 123000.00 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 2450.00 | NULL | 10 | 41 | 123000.00 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 | 40 | 120000.00 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 5000.00 | NULL | 10 | 41 | 123000.00 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 1500.00 | 0.00 | 30 | 41 | 123000.00 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 | 40 | 120000.00 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 950.00 | NULL | 30 | 41 | 123000.00 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 3000.00 | NULL | 20 | 41 | 123000.00 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 1300.00 | NULL | 10 | 41 | 123000.00 |

| 4561 | sour\_abh | president | NULL | 1981-04-02 | 99999.00 | 1000.00 | 50 | 42 | 126000.00 |

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

15 rows in set (0.00 sec)

mysql>

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 retnctc(psal double(9,2),pdate date) returns double(9,2)

begin

declare pctc double(9,2);

declare spallwnc int default 0;

if retnexp2(pdate)<=40 then set spallwnc=psal\*1.1;

elseif retnexp2(pdate)<=41 then set spallwnc=psal\*1.2;

else set spallwnc=psal\*1.3;

end if;

set pctc=psal\*(1+(0.15+0.2+0.08))+spallwnc;

return pctc;

end//

delimiter ;

mysql> select retnctc(5000,'1980-12-03');

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

| retnctc(5000,'1980-12-03') |

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

| 13650.00 |

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

1 row in set (0.02 sec)

11. Write query to display empno,ename,sal,cost to company for all employees(note:

use function written in question 10)

mysql> select empno,ename,sal,retnctc(sal,hiredate)'cost to company' from emp;

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

| empno | ename | sal | cost to company |

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

| 7369 | SMITH | 800.00 | 2184.00 |

| 7499 | ALLEN | 1840.00 | 5023.20 |

| 7521 | WARD | 1437.50 | 3924.62 |

| 7566 | JONES | 2975.00 | 8122.25 |

| 7654 | MARTIN | 1437.50 | 3780.62 |

| 7698 | BLAKE | 2850.00 | 7495.50 |

| 7782 | CLARK | 2450.00 | 6443.50 |

| 7788 | SCOTT | 3000.00 | 7590.00 |

| 7839 | KING | 5000.00 | 13150.00 |

| 7844 | TURNER | 1725.00 | 4536.75 |

| 7876 | ADAMS | 1100.00 | 2783.00 |

| 7900 | JAMES | 950.00 | 2498.50 |

| 7902 | FORD | 3000.00 | 7890.00 |

| 7934 | MILLER | 1300.00 | 3419.00 |

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

14 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),action varchar(20),user varchar(20),actdate date);

Query OK, 0 rows affected (0.10 sec)

delimiter //

create trigger oldsaldetailsaft after update on emp

for each row

begin

insert into emp\_back values(old.empno,old.ename,old.sal,new.sal,'update',user(),curdate());

end//

delimiter ;

mysql> select \* from emp;

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

| EMPNO | ENAME | job | MGR | HIREDATE | SAL | COMM | DEPTNO |

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

| 7369 | SMITH | senior clerk | 7902 | 1980-12-17 | 2388.79 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 5494.20 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 4292.35 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 8883.30 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 4292.35 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 8510.05 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 7315.66 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 14929.92 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 5150.82 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 8470.28 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 26748.30 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 3881.78 | NULL | 10 |

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

14 rows in set (0.00 sec)

mysql>call updtsal;

Query OK, 0 rows affected (0.01 sec)

mysql> select \* from emp;

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

| EMPNO | ENAME | job | MGR | HIREDATE | SAL | COMM | DEPTNO |

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

| 7369 | SMITH | senior clerk | 7902 | 1980-12-17 | 2866.55 | NULL | 20 |

| 7499 | ALLEN | SALESMAN | 7698 | 1981-02-20 | 6593.04 | 300.00 | 30 |

| 7521 | WARD | SALESMAN | 7698 | 1981-02-22 | 5150.82 | 500.00 | 30 |

| 7566 | JONES | MANAGER | 7839 | 1981-04-02 | 10659.96 | NULL | 20 |

| 7654 | MARTIN | SALESMAN | 7698 | 1981-09-28 | 5150.82 | 1400.00 | 30 |

| 7698 | BLAKE | MANAGER | 7839 | 1981-05-01 | 10212.06 | NULL | 30 |

| 7782 | CLARK | MANAGER | 7839 | 1981-06-09 | 8778.79 | NULL | 10 |

| 7788 | SCOTT | ANALYST | 7566 | 1982-12-09 | 3000.00 | NULL | 20 |

| 7839 | KING | PRESIDENT | NULL | 1981-11-17 | 17915.90 | NULL | 10 |

| 7844 | TURNER | SALESMAN | 7698 | 1981-09-08 | 6180.98 | 0.00 | 30 |

| 7876 | ADAMS | CLERK | 7788 | 1983-01-12 | 1100.00 | NULL | 20 |

| 7900 | JAMES | CLERK | 7698 | 1981-12-03 | 12197.21 | NULL | 30 |

| 7902 | FORD | ANALYST | 7566 | 1981-12-03 | 38517.55 | NULL | 20 |

| 7934 | MILLER | CLERK | 7782 | 1982-01-23 | 4658.14 | NULL | 10 |

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

14 rows in set (0.00 sec)

mysql> select \* from emp\_back;

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

| empno | ename | oldsal | newsal | action | user | actdate |

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

| 7369 | SMITH | 2388.79 | 2866.55 | update | root@localhost | 2023-04-14 |

| 7499 | ALLEN | 5494.20 | 6593.04 | update | root@localhost | 2023-04-14 |

| 7521 | WARD | 4292.35 | 5150.82 | update | root@localhost | 2023-04-14 |

| 7566 | JONES | 8883.30 | 10659.96 | update | root@localhost | 2023-04-14 |

| 7654 | MARTIN | 4292.35 | 5150.82 | update | root@localhost | 2023-04-14 |

| 7698 | BLAKE | 8510.05 | 10212.06 | update | root@localhost | 2023-04-14 |

| 7782 | CLARK | 7315.66 | 8778.79 | update | root@localhost | 2023-04-14 |

| 7839 | KING | 14929.92 | 17915.90 | update | root@localhost | 2023-04-14 |

| 7844 | TURNER | 5150.82 | 6180.98 | update | root@localhost | 2023-04-14 |

| 7900 | JAMES | 8470.28 | 10164.34 | update | root@localhost | 2023-04-14 |

| 7902 | FORD | 26748.30 | 32097.96 | update | root@localhost | 2023-04-14 |

| 7900 | JAMES | 10164.34 | 12197.21 | update | root@localhost | 2023-04-14 |

| 7902 | FORD | 32097.96 | 38517.55 | update | root@localhost | 2023-04-14 |

| 7934 | MILLER | 3881.78 | 4658.14 | update | root@localhost | 2023-04-14 |

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

14 rows in set (0.00 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)

);

create table emp\_audit(empno int,ename varchar(20),username varchar(20),chdate date,action varchar(20));

delimiter //

create trigger emp\_del before delete on emp for each row

begin

insert into emp\_audit values(old.empno,old.ename,user(),curdate(),'delete');

end//

delimiter //

create trigger emp\_in before insert on emp for each row

begin

insert into emp\_audit values(new.empno,new.ename,user(),curdate(),insert);

end//

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)

create trigger vehicle\_tig before update on vehicle for each row

Begin

insert into vehicle\_history values(old.vid,old.vname,old.price,new.price,curdate(),user());

end//

create table vehicle\_history(

vno int,

vname varchar(20),

oldprice decimal(9,2),

newprice decimal(9,2),

chdate date,

username v