ASSIGNMENT NO:6

AIM:

Write a Database Trigger.

DATABASE:

        create database trigger3;

USE TRIGGER:

        use trigger3;

TABLES:

1> DEPARTMENT:

```
mysql> SELECT * FROM dept1;
    -> #
+-----+-----------+------------+
| did | d_name    | d_loc      |
+-----+-----------+------------+
| 101 | IT        | A Building |
| 102 | COMP      | B Building |
| 103 | CIVIL     | C Building |
| 104 | MECH      | D Building |
| 105 | ELECTRICAL | E Building |
+-----+-----------+------------+
5 rows in set (0.00 sec)
```

2> PERSON:

```
    create table person1
    ( pid int not null,
    fname varchar(10),
    lname varchar(10),
    city varchar(10),
    pincode int,
    dob date,
    primary key(pid)

    );
```

3> TEACHER:

```
    create table teacher1
     (tid int,
     pid int,
     salary int,
     designation varchar(10),
     did int,
     primary key(tid),
     foreign key(pid) references person1(pid),
     foreign key(did) references dept1(did)
     );
```

4> COURSE:

```
create table course1
(cid int,
 c_name varchar(10),
 c_duration varchar(10),
 did int,
 primary key(cid),
 foreign key(did) references dept1(did)
  );
```

```
mysql> SELECT * from course1;
    -> #
+-----+--------+------------+------+
| cid | c_name | c_duration | did  |
+-----+--------+------------+------+
| 201 | ENGG   | 4 YEAR     | 101  |
| 202 | MBBS   | 4 YEAR     | 102  |
| 203 | ITA    | 2 YEAR     | 103  |
| 204 | MARIN  | 8 YEAR     | 104  |
| 205 | MBA    | 3 YEAR     | 105  |
+-----+--------+------------+------+
5 rows in set (0.00 sec)
```

5> STUDENT:

```
create table student1
(sid int,
marks int,
pid int,
class varchar(10),
cid int,
primary key(sid),
foreign key(pid) references person1(pid),
foreign key(cid) references course1(cid)
 );
```

```
mysql> select * from student1;
    -> #
+-----+-------+------+-------+------+
| sid | marks | pid  | class | cid  |
+-----+-------+------+-------+------+
| 301 |    99 |    1 | TE    | 201  |
| 302 |    77 |    2 | BE    | 202  |
| 303 |    57 |    3 | ME    | 203  |
+-----+-------+------+-------+------+
3 rows in set (0.00 sec)
```

6>HISTORY:udal

```
create table history
(hid integer,hdesig varchar(20),
hsal integer,doh date,
status varchar(20));
```

TRIGGER:

****
1>BEFORE INSERT:

****

1-create trigger before insert

```
mysql> select * from person1;
insert into person1 values(1,'manisha','parde','parali',879065,'1995-10-
05');

insert into person1 values(2,'shivsankar','gore','solapur',413222,'1996-10-
09');

insert into person1 values(3,'supriya','rasal','satara',879555,'1993-12-
09');

insert into person1 values(4,'priyanka','jadhav','sangali',987565,'1997-12-
09');

insert into person1 values(1,'manisha','parde','parali',879065,'1995-10-
05');
    -> #
+-----+------------+--------+---------+---------+------------+
| pid | fname      | lname  | city    | pincode | dob        |
+-----+------------+--------+---------+---------+------------+
|   1 | manisha    | pardhe | parali  |  879065 | 1995-10-05 |
|   2 | shivshankar| gore   | solapur |  413222 | 1996-10-09 |
|   3 | supriya    | rasal  | satara  |  413222 | 1993-12-09 |
|   4 | priyanka   | jadhav | sangli  |   98756 | 1997-12-09 |
|   7 | shivraj    | gore   | solapur |  413222 | 1995-07-05 |
+-----+------------+--------+---------+---------+------------+
5 rows in set (0.00 sec)delimiter #


create trigger trigger1 before insert
    on person1
   for each row
   begin
     declare v_id int(2);
     if(NEW.pid < 0) then
      select max(pid) into v_id
     from person1;
     set v_id=v_id+1;
     set NEW.pid=v_id;
     end if;
  end #
Query OK, 0 rows affected (0.09 sec)

mysql> insert into person1 values(-5,"priya","pardhe","Jalna",112233,"1996-
11-5");
    -> #
Query OK, 1 row affected (0.06 sec)

mysql> select * from person1;
    -> #
+-----+------------+--------+---------+---------+------------+
| pid | fname      | lname  | city    | pincode | dob        |
+-----+------------+--------+---------+---------+------------+
|   1 | manisha    | pardhe | parali  |  879065 | 1995-10-05 |
|   2 | shivshanka | gore   | solapur |  413222 | 1996-10-09 |
|   3 | supriya    | rasal  | satara  |  413222 | 1993-12-09 |
|   4 | priyanka   | jadhav | sangli  |   98756 | 1997-12-09 |
|   7 | shivraj    | gore   | solapur |  413222 | 1995-07-05 |
|   8 | priya      | pardhe | Jalna   |  112233 | 1996-11-05 |
+-----+------------+--------+---------+---------+------------+
6 rows in set (0.00 sec)
```

```
*****************************************************************

2>BEFORE UPDATE:

*****************************************************************
      mysql> select * from teacher1;
     -> #
+-----+------+--------+-------------+------+
| tid | pid  | salary | designation | did  |
+-----+------+--------+-------------+------+
| 401 |    4 |  20000 | professor   | 101  |
| 402 |    7 |  30000 | Asst.profe  | 102  |
| 403 |    8 |  50000 | HOD         | 103  |
+-----+------+--------+-------------+------+
3 rows in set (0.00 sec)
delimiter #
 create trigger trig_sal before update
       on teacher1
     for each row
         begin
               declare v_sal int;
           if(NEW.salary<=60000) then
               set NEW.salary=80000;
         end if;
        end#

                 update teacher1
                 set salary=19000
                 where tid=401;#

mysql> select * from teacher1;#
+-----+------+--------+-------------+------+
| tid | pid  | salary | designation | did  |
+-----+------+--------+-------------+------+
| 401 |    4 |  45000 | professor   | 101  |
| 402 |    7 |  30000 | Asst.profe  | 102  |
| 403 |    8 |  50000 | HOD         | 103  |
+-----+------+--------+-------------+------+
3 rows in set (0.00 sec)


*****************************************************************

3>AFTER UPDATE:

*****************************************************************
      mysql> select * from teacher1;#
+-----+------+--------+-------------+------+
| tid | pid  | salary | designation | did  |
+-----+------+--------+-------------+------+
| 401 |    4 |  45000 | professor   | 101  |
| 402 |    7 |  30000 | Asst.profe  | 102  |
| 403 |    8 |  50000 | HOD         | 103  |
+-----+------+--------+-------------+------+
3 rows in set (0.00 sec)

create trigger trig_history1 after update
    on teacher1
     for each row
         begin
          declare v_id,v_sal int;
          declare v_desig varchar(20);
         declare v_dol date;
```

```
            if((NEW.designation<>OLD.designation) or
(NEW.salary<>OLD.salary))
then
                    set v_id=OLD.tid;
                    set v_desig=OLD.designation;
                set v_sal=OLD.salary;
                    set v_dol=now();

                    insert into history
values(v_id,v_desig,v_sal,v_dol,'updat
ed');

            end if;

            end #

update teacher1
        set designation='asst professor'
        where tid=401;

mysql> select * from teacher1;#
+-----+------+--------+-------------+------+
| tid | pid  | salary | designation | did  |
+-----+------+--------+-------------+------+
| 401 |    4 |  45000 | asst profe  | 101  |
| 402 |    7 |  30000 | Asst.profe  | 102  |
| 403 |    8 |  50000 | HOD         | 103  |
+-----+------+--------+-------------+------+
3 rows in set (0.00 sec)

mysql> select * from history;#
+------+-----------+-------+------------+----------+
| hid  | hdesig    | hsal  | doh        | status   |
+------+-----------+-------+------------+----------+
|  401 | professor | 45000 | 2015-10-02 | updated  |
+------+-----------+-------+------------+----------+
1 row in set (0.00 sec)
```

```
*****************************************************************
```

4>AFTER DELETE:

```
*****************************************************************
```

```
 create trigger trig_historyd after delete
        on teacher1
    for each row
    begin
        declare v_id,v_sal int;
            declare v_desig varchar(20);
            declare v_dol date;
            set v_id=OLD.tid;
                    set v_desig=OLD.designation;
                    set v_sal=OLD.salary;
                     set v_dol=now();
            insert into history values(v_id,v_desig,v_sal,v_dol,'deleted');
            end #

mysql> SELECT * from teacher1;
    -> #
+-----+------+--------+-------------+------+
| tid | pid  | salary | designation | did  |
```

```
+-----+------+--------+-------------+------+
| 401 |    4 |  45000 | asst profe  | 101 |
| 402 |    7 |  30000 | Asst.profe  | 102 |
| 403 |    8 |  50000 | HOD         | 103 |
+-----+------+--------+-------------+------+
3 rows in set (0.02 sec)


          delete
          from teacher1
          where tid=403;

mysql> select * from teacher1;
     -> #
+-----+------+--------+-------------+------+
| tid | pid  | salary | designation | did  |
+-----+------+--------+-------------+------+
| 401 |    4 |  45000 | asst profe  | 101 |
| 402 |    7 |  30000 | Asst.profe  | 102 |
+-----+------+--------+-------------+------+
2 rows in set (0.00 sec)

mysql> select * from history;
     -> #
+------+-----------+-------+------------+----------+
| hid  | hdesig    | hsal  | doh        | status   |
+------+-----------+-------+------------+----------+
|  401 | professor | 45000 | 2015-10-02 | updated  |
|  403 | HOD       | 50000 | 2015-10-02 | deleted  |
+------+-----------+-------+------------+----------+
2 rows in set (0.00 sec)
```