**LAB EXERCISES**

**EX.NO:10**

**TRIGGER AND CURSOR**

**AIM:**

**To create programs for using trigger and cursor.**

**PROCEDURE:**

1. **Using the database 'College':**

* **mysql> USE College;**
* **Database changed**

**(a) Using Trigger:**

* **Creating a table Authors:**
  + **mysql> create table authors(author\_id int, name varchar(60),title\_count int);**
  + **Query OK, 0 rows affected (0.20 sec)**
* **Inserting rows into the table authors:**
  + **mysql> insert into authors values (301,'R.K.Selva Kumar',3);**
  + **Query OK, 1 row affected (0.04 sec)**
  + **mysql> insert into authors values(302, Edwin Dayanand",3);**
  + **Query OK, 1 row affected (0.04 sec)**
  + **mysql> insert into authors values (303, 'A.Balakrishnan', 3);**
  + **Query OK, 1 row affected (0.04 sec)**
* **Querying the table authors:**
  + **mysql> select from authors;**
  + **3 rows in set (0.00 sec)**
* **Creating a table titles:**
* **mysql> create table titles(Author\_ id int, name varchar(512));**
* **Query OK, 0 rows affected (0.21 sec)**
* **Inserting rows into the table titles:**
* **mysql> insert into titles values (301,'C Programming');**
* **Query OK, 1 row affected (0.04 sec)**
* **mysql> insert into titles values(301,'Data Structures using C');**
* **Query OK, 1 row affected (0.03 sec)**
* **mysql> insert into titles values(301, 'Java Programming');**
* **Query OK, 1 row affected (0.03 sec)**
* **mysql> insert into titles values (302,'.Net Programming');**
* **Query OK, 1 row affected (0.05 sec)**
* **mysql> insert into titles values (302, 'RDBMS');**
* **Query OK, 1 row affected (0.03 sec)**
* **mysql> insert into titles values(302, 'Computer Hardware and Servicing');**
* **Query OK, 1 row affected (0.05 sec)**
* **mysql> insert into titles values(303, 'Electrical Machines-l');**
* **Query OK, 1 row affected (0.04 sec)**
* **mysql> insert into titles values (303, Electrical Machines-II'); Query OK, 1 row affected (0.04 sec)**
* **mysql> insert into titles values (303, 'Control of Machines');**
* **Query OK, 1 row affected (0.04 sec)**
* **Querying the table titles:**
* **mysql> select from titles;**
* **9 rows in set (0.00 sec)**
* **Creating a trigger to update the title count of authors table when inserting into titles table:**
* **Enter the following commands in the file ex10a.sql using notepad. Keep this file in e:\mysqlprograms.**
* **DELIMITER $$**
* **CREATE TRIGGER ins\_count AFTER INSERT ON Titles**
* **FOR EACH ROW**
* **BEGIN**
* **UPDATE Authors**
* **SET Title\_Count = Title\_Count + 1**
* **WHERE Author\_Id = NEW.author\_id;**
* **END $$**
* **DELIMITER ;**
* **Executing the above trigger:**
* **mysql>source e:\mysqlprograms\ex10a.sql**
* **Verifying trigger event:**
* **mysql> insert into titles values(303, Measurements and Instruments');**
* **Query OK, 1 row affected (0.07 sec)**
* **mysql> select \* from authors;**
* **3 rows in set (0.00 sec)**
* **mysql> insert into titles values(303, Electrical Drives and Control);**
* **Query OK, 1 row affected (0.05 sec)**
* **mysql> select \* from titles;**
* **11 rows in set (0.00 sec)**
* **mysql> select \* from authors;**
* **3 rows in set (0.00 sec)**

**(b) Using Cursor:**

* **Creating a table salary:**
* **mysql> create table salary(emp\_no int(4) primary key,emp\_name varchar(30),designation varchar(25), department varchar(30), basic int(5),da\_percent int(3), ma decimal(6,2), other\_allowance decimal(6,2),deduction decimal(6,2));**
* **Query OK, 0 rows affected (0.21 sec)**
* **Inserting rows into the table salary:**
* **mysql> insert into salary values(1, 'Paranthraman. S', 'Manager', 'Accounts’,6000,45,200,250,1500);**
* **Query OK, 1 row affected (0.02 sec)**
* **mysql> insert into salary values(2, 'Azhagesan.S', 'Asst. Manager','Accounts',4000,45,200,200,1200);**
* **Query OK, 1 row affected (0.04 sec)**
* **mysql> insert into salary values (3, 'Devi Priya.D','Steno', 'Sales', 2000,45,100,50,200);**
* **Query OK, 1 row affected (0.04 sec)**
* **Querying the table salary:**
* **mysql> select \* from salary;**
* **3 rows in set (0.00 sec**
* **Creating a cursor:**
* **Enter the following commands in the file ex10b.sql using notepad. Keep this file in e:\mysqlprograms.**
* **DELIMITER $$**
* **CREATE PROCEDURE cursorhandling (IN emp\_id INT(4))**
* **BEGIN**
* **DECLARE finished INT DEFAULT 0;**
* **DECLARE e\_no INT(6);**
* **DECLARE e\_name VARCHAR(25);**
* **DECLARE net\_salary DECIMAL(8,2);**
* **DECLARE salarycursor CURSOR FOR**
* **SELECT emp\_no, emp\_name,**
* **basic + (da\_percent \* basic / 100) + ma + other\_allowance - deduction**
* **FROM salary;**
* **DECLARE CONTINUE HANDLER FOR NOT FOUND SET finished = 1;**
* **OPEN salarycursor;**
* **g1: LOOP**
* **FETCH salarycursor INTO e\_no, e\_name, net\_salary;**
* **IF finished = 1 THEN**
* **LEAVE g1;**
* **END IF;**
* **-- Update salary values for the given employee**
* **IF e\_no = emp\_id THEN**
* **UPDATE salary**
* **SET basic = 3000, da\_percent = 50, ma = 500,**
* **other\_allowance = 1250, deduction = 2777**
* **WHERE emp\_no = emp\_id;**
* **END IF;**
* **END LOOP g1;**
* **CLOSE salarycursor;**
* **END $$**
* **DELIMITER ;**
* **Executing the above cursor:**
* **mysql>source e:\mysqlprograms\ex10b.sql**
* **Using the cursor to update the employee salary:**
* **mysql> call cursorhandling(2);**
* **Query OK, 0 rows affected (0.07 sec)**
* **mysql> select \* from salary;**
* **3 rows in set (0.00 sec)**

**RESULT:**

**Thus the above MYSQL commands are executed and the output is obtained.**