DBMS Lab

Assignment No. 7 (PLSQL)

by Anand Prakash Dwivedi (7312)

mysql> create database library;

Query OK, 1 row affected (0.07 sec)

mysql> use library;

Database changed

mysql> create table borrower (rollin int, name varchar(30), dateofissue date, nameofbook varchar(30), status char(10));

Query OK, 0 rows affected (0.28 sec)

mysql> insert borrower values (101, 'abc', '2017-07-16', 'dbms', 'r'), (102, 'abc1', '2017-07-16', 'cn', 'i'), (103,'abc3', '2017-07-18', 'toc', 'i'), (104, 'abc4', '2017-07-20', 'ds', 'i'), (105, 'abc5', '2017-07-23', 'daa', 'r'), (106, 'nisha', '2017-08-10', 'splm', 'r' );

Query OK, 6 rows affected (0.05 sec)

Records: 6 Duplicates: 0 Warnings: 0

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | i |

| 105 | abc5 | 2017-07-23 | daa | r |

| 106 | nisha | 2017-08-10 | splm | r |

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

6 rows in set (0.00 sec)

mysql> create table library\_audit(rollin int, name char(10), dateofissue date,nameofbook char(10), status char, ts timestamp);

Query OK, 0 rows affected (0.41 sec)

mysql> -- After INSERT Trigger

mysql> create trigger after\_insert after insert on borrower for each row insert into library\_audit values(new.rollin, new.name, new.dateofissue,new.nameofbook, new.status, current\_timestamp);

Query OK, 0 rows affected (0.95 sec)

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | i |

| 105 | abc5 | 2017-07-23 | daa | r |

| 106 | nisha | 2017-08-10 | splm | r |

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

6 rows in set (0.00 sec)

mysql> select \* from library\_audit;

Empty set (0.00 sec)

mysql> insert into borrower values(107,'ada','2017-08-10','dbms','i');

Query OK, 1 row affected (0.39 sec)

mysql> select \* from library\_audit;

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

| rollin | name | dateofissue | nameofbook | status | ts |

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

| 107 | ada | 2017-08-10 | dbms | i | 2022-09-02 12:02:09 |

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

1 row in set (0.01 sec)

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | i |

| 105 | abc5 | 2017-07-23 | daa | r |

| 106 | nisha | 2017-08-10 | splm | r |

| 107 | ada | 2017-08-10 | dbms | i |

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

7 rows in set (0.00 sec)

mysql> -- After DELETE Trigger

mysql> create trigger after\_delete after delete on borrower for each row insert into library\_audit values(old.rollin, old.name, old.dateofissue,old.nameofbook, old.status, current\_timestamp());

Query OK, 0 rows affected (0.17 sec)

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | i |

| 105 | abc5 | 2017-07-23 | daa | r |

| 106 | nisha | 2017-08-10 | splm | r |

| 107 | ada | 2017-08-10 | dbms | i |

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

7 rows in set (0.00 sec)

mysql> select \* from library\_audit;

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

| rollin | name | dateofissue | nameofbook | status | ts |

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

| 107 | ada | 2017-08-10 | dbms | i | 2022-09-02 12:02:09 |

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

1 row in set (0.00 sec)

mysql> delete from borrower where rollin = 105;

Query OK, 1 row affected (0.14 sec)

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | i |

| 106 | nisha | 2017-08-10 | splm | r |

| 107 | ada | 2017-08-10 | dbms | i |

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

6 rows in set (0.00 sec)

mysql> select \* from library\_audit;

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

| rollin | name | dateofissue | nameofbook | status | ts |

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

| 107 | ada | 2017-08-10 | dbms | i | 2022-09-02 12:02:09 |

| 105 | abc5 | 2017-07-23 | daa | r | 2022-09-02 12:03:56 |

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

2 rows in set (0.00 sec)

mysql> -- After UPDATE Trigger

mysql> create trigger after\_update after update on borrower for each row insert into library\_audit values(new.rollin, new.name, new.dateofissue,new.nameofbook, new.status, current\_timestamp());

Query OK, 0 rows affected (0.22 sec)

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | i |

| 106 | nisha | 2017-08-10 | splm | r |

| 107 | ada | 2017-08-10 | dbms | i |

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

6 rows in set (0.00 sec)

mysql> select \* from library\_audit;

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

| rollin | name | dateofissue | nameofbook | status | ts |

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

| 107 | ada | 2017-08-10 | dbms | i | 2022-09-02 12:02:09 |

| 105 | abc5 | 2017-07-23 | daa | r | 2022-09-02 12:03:56 |

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

2 rows in set (0.00 sec)

mysql> update borrower set status='r' where borrower.rollin=104;

Query OK, 1 row affected (0.14 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select \* from borrower;

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

| rollin | name | dateofissue | nameofbook | status |

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

| 101 | abc | 2017-07-16 | dbms | r |

| 102 | abc1 | 2017-07-16 | cn | i |

| 103 | abc3 | 2017-07-18 | toc | i |

| 104 | abc4 | 2017-07-20 | ds | r |

| 106 | nisha | 2017-08-10 | splm | r |

| 107 | ada | 2017-08-10 | dbms | i |

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

6 rows in set (0.01 sec)

mysql> select \* from library\_audit;

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

| rollin | name | dateofissue | nameofbook | status | ts |

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

| 107 | ada | 2017-08-10 | dbms | i | 2022-09-02 12:02:09 |

| 105 | abc5 | 2017-07-23 | daa | r | 2022-09-02 12:03:56 |

| 104 | abc4 | 2017-07-20 | ds | r | 2022-09-02 12:05:28 |

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

3 rows in set (0.00 sec)

mysql> notee;