Group A : Lab Assignment No.8

Title : Database Trigger (All Types: Row level and Statement level triggers, Before and After Triggers). Write a database trigger on Library table. The System should keep track of the records that are being updated or deleted. The old value of updated or deleted records should be added in Library_Audit table.Frame the problem statement for writing Database Triggers of all types, in-line with above statement. The problem statement should clearly state the requirements.

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mysql> use info;

Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed

mysql> create table borrower2(roll_no int,name varchar(20),date_of_issue date,book varchar2);

Query OK, 0 rows affected (0.44 sec)

mysql>insert into borrower2 values('1','nick','2018-06-10','wings_of_fire','avaliable','APJ');

Query OK, 1 row affected (0.07 sec)

mysql> insert into borrower2 values('2','mira','2018-05-11','leaves_life','not_avaliable','borwarkar');

Query OK, 1 row affected (0.05 sec)

mysql> insert into borrower2 values('3','rina','2018-02-12','unusal','avaliable','johar');

Query OK, 1 row affected (0.04 sec)

mysql> insert into borrower2 values('4','harsha','2018-06-20','skylimit','avaliable','ingale');

Query OK, 1 row affected (0.05 sec)

mysql> insert into borrower2 values('5','tej','2018-04-20','highway','not_avaliable','klm');

Query OK, 1 row affected (0.05 sec)

mysql> select *from borrower1;

```
+---------+--------+--------------+--------------
+--------------+-----------+
| roll_no | name
| author
|
| date_of_issue | book_name
| status
+---------+--------+--------------+--------------
+--------------+-----------+
|
| APJ
1 | nick
|
| 2018-06-10
| wings_of_fire | avaliable
|
2 | mira
| 2018-05-11
not_avaliable | borwarkar | | leaves_life |
|
3 | rina
| johar
| | unusal | avaliable
|
4 | harsha | 2018-06-20
| ingale
| | skylimit | avaliable
|
5 | tej
| 2018-04-20
not_avaliable | klm
| | highway |
| 2018-02-12
+---------+--------+--------------+--------------
```

```
+--------------+----------+
```
5 rows in set (0.00 sec)

//INSERT TRIGGER

mysql> delimiter //
mysql> create trigger library after insert on borrower1 for
each row
-> begin
-> insert into audit1
values(new.roll_no,new.name,new.date_of_issue,new.book_name,ne
w.status,new.author,current_timestamp);
-> end;
-> //Query OK, 0 rows affected (0.10 sec)
mysql> insert into borrower1 values('6','xyz','2018-09-
06','aaa','avaliable','xxx');
-> //
Query OK, 1 row affected (0.07 sec)
mysql> select * from borrower1;
-> //
```
+---------+--------+--------------+---------------
+--------------+-----------+
| roll_no | name
| author
|
| date_of_issue | book_name
| status
+---------+--------+--------------+---------------
+--------------+-----------+
|
| APJ
1 | nick
|
| 2018-06-10
| wings_of_fire | avaliable
|
2 | mira
| 2018-05-11
not_avaliable | borwarkar | | leaves_life |
|
3 | rina
| johar
| | unusal | avaliable
|
```

4 | harsha | 2018-06-20
| ingale
| | skylimit | avaliable
|
5 | tej
| 2018-04-20
not_avaliable | klm
| | highway |
|
| xxx | aaa | avaliable
6 | xyz
|
| 2018-02-12
| 2018-09-06
+---------+--------+--------------+--------------
+---------------+-----------+
6 rows in set (0.00 sec)

mysql> select * from audit1;
-> //
+---------+------+--------------+-----------+-----------
+--------+--------------------+| roll_no | name | date_of_issue | book_name | status
author | ts
|
|
+---------+------+--------------+-----------+-----------
+--------+--------------------+
|
6 | xyz | 2018-09-06
| 2018-08-29 15:46:13 |
| aaa
| avaliable | xxx
+---------+------+--------------+-----------+-----------
+--------+--------------------+
1 row in set (0.00 sec)

// UPDATE TRIGGER
mysql> delimiter //
mysql> create trigger library1 after update on borrower1 for
each row
->
begin
->
insert into audit1
values(new.roll_no,new.name,new.date_of_issue,new.book_name,ne

w.status,new.author,current_timestamp);
-> end;
-> //

Query OK, 0 rows affected (0.08 sec)

mysql> update borrower1 set roll_no='8',book_name='leaf' where name='xyz';
-> //
Query OK, 1 row affected (0.04 sec)
Rows matched: 1
Changed: 1
Warnings: 0

mysql> select *from borrower1;
-> //
+---------+--------+--------------+--------------
+--------------+-----------+
| roll_no | name
| author
|
| date_of_issue | book_name
| status+---------+--------+--------------+---------------
+--------------+-----------+
|
| APJ
1 | nick
|
| 2018-06-10
| wings_of_fire | avaliable
|
2 | mira
| 2018-05-11
not_avaliable | borwarkar | | leaves_life |
|
3 | rina
| johar
| | unusal | avaliable
|
4 | harsha | 2018-06-20
| ingale
| | skylimit | avaliable
|
5 | tej
| 2018-04-20
not_avaliable | klm

| | highway |
|
| xxx | leaf | avaliable
8 | xyz
|
| 2018-02-12
| 2018-09-06
+---------+--------+--------------+---------------
+--------------+-----------+
6 rows in set (0.00 sec)