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NAME - KIshanlal Choudhary
ROLL NO - 31114
CLASS - TE 1
SUBJECT - DBMS
DATE - 18/09/23
Assignment No - 07


-----------------------------START-----------------------------------

MariaDB [(none)]> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| 31114_db           |
| information_schema |
+--------------------+
2 rows in set (0.012 sec)

MariaDB [(none)]> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| 31114_db           |
| information_schema |
+--------------------+
2 rows in set (0.012 sec)

MariaDB [(none)]> USE 31114_db;
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
MariaDB [31114_db]> SHOW TABLES;
+--------------------+
| Tables_in_31114_db |
+--------------------+
| Areas_3B           |
| Placement_Drive_2B |
| Result_5           |
| Student_2B         |
| Student_Details    |
| Student_Marks_5    |
| Training_2B        |
+--------------------+
7 rows in set (0.001 sec)

ariaDB [31114_db]> CREATE TABLE library_table (
    -> roll_no INT NOT NULL PRIMARY KEY,
    -> name VARCHAR(20),
    -> book VARCHAR(30));
Query OK, 0 rows affected (0.189 sec)

MariaDB [31114_db]> SELECT * FROM library_table;
Empty set (0.002 sec)

MariaDB [31114_db]> CREATE TABLE library_audit_table (
    -> roll_no INT NOT NULL PRIMARY KEY,
    -> name VARCHAR(20),
    -> book VARCHAR(30),
    -> action VARCHAR(10),
    -> timestamp DATE);
Query OK, 0 rows affected (0.198 sec)
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```
MariaDB [31114_db]> SELECT * FROM library_audit_table;
Empty set (0.002 sec)

MariaDB [31114_db]> INSERT INTO library_table VALUES
    -> (1, "A", "book1"),
    -> (2, "B", "book2"),
    -> (3, "C", "book3"),
    -> (4, "D", "book4"),
    -> (5, "E", "book5");
Query OK, 5 rows affected (0.027 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [31114_db]> SET SQL_MODE = "ORACLE";
Query OK, 0 rows affected (0.001 sec)

MariaDB [31114_db]> delimiter //
MariaDB [31114_db]> CREATE TRIGGER on_update_trigger
    -> BEFORE
    -> UPDATE
    -> ON library_table
    -> FOR EACH ROW
    -> BEGIN
    -> INSERT INTO library_audit_table(roll_no, name, book, action) VALUES
(old.roll_no, old.name, old.book, 'UPDATE', SYSDATE);
    -> END; //
Query OK, 0 rows affected (0.072 sec)

MariaDB [31114_db]> delimiter //
MariaDB [31114_db]> CREATE TRIGGER on_delete_trigger
    -> BEFORE
    -> DELETE
    -> ON library_table
    -> FOR EACH ROW
    -> BEGIN
    -> INSERT INTO library_audit_table(roll_no, name, book, action) VALUES
(old.roll_no, old.name, old.book, 'DELETE', SYSDATE);
    -> END; //
Query OK, 0 rows affected (0.072 sec)

MariaDB [31114_db]> delimiter ;

MariaDB [31114_db]> SELECT * FROM library_table;
+---------+------+-------+
| roll_no | name | book  |
+---------+------+-------+
|       1 | A    | book1 |
|       2 | B    | book2 |
|       3 | C    | book3 |
|       4 | D    | book4 |
|       5 | E    | book5 |
+---------+------+-------+
5 rows in set (0.001 sec)

MariaDB [31114_db]> ALTER TABLE library_audit_table MODIFY COLUMN timestamp
timestamp DEFAULT CURRENT_TIMESTAMP;
Query OK, 0 rows affected (0.567 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [31114_db]> UPDATE library_table SET book = 'book7' WHERE roll_no = 1;
Query OK, 1 row affected (0.147 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [31114_db]> SELECT * FROM library_audit_table;
+---------+------+-------+--------+---------------------+
```

```
| roll_no | name | book  | action | timestamp           |
+---------+------+-------+--------+---------------------+
|       1 | A    | book1 | UPDATE | 2023-09-18 10:29:52 |
+---------+------+-------+--------+---------------------+
1 row in set (0.001 sec)

MariaDB [31114_db]> SELECT * FROM library_table;
+---------+------+-------+
| roll_no | name | book  |
+---------+------+-------+
|       1 | A    | book7 |
|       2 | B    | book2 |
|       3 | C    | book3 |
|       4 | D    | book4 |
|       5 | E    | book5 |
+---------+------+-------+
5 rows in set (0.001 sec)

MariaDB [31114_db]> DELETE FROM library_table WHERE roll_no = 4;
Query OK, 1 row affected (0.037 sec)

MariaDB [31114_db]> SELECT * FROM library_audit_table;
+---------+------+-------+--------+---------------------+
| roll_no | name | book  | action | timestamp           |
+---------+------+-------+--------+---------------------+
|       1 | A    | book1 | UPDATE | 2023-09-18 10:29:52 |
|       4 | D    | book4 | DELETE | 2023-09-18 10:32:58 |
+---------+------+-------+--------+---------------------+
2 rows in set (0.001 sec)

MariaDB [31114_db]> SELECT * FROM library_table;
+---------+------+-------+
| roll_no | name | book  |
+---------+------+-------+
|       1 | A    | book7 |
|       2 | B    | book2 |
|       3 | C    | book3 |
|       5 | E    | book5 |
+---------+------+-------+
4 rows in set (0.001 sec)

----------------------------END------------------------------------
```