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NAME - KIshanlal Choudhary
ROLL NO - 31114
CLASS - TE 1
SUBJECT - DBMS
DATE - 15/09/23
Assignment No - 04


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

------------------------------A------------------------------------

MariaDB [(none)]> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| dbms               |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.027 sec)

MariaDB [(none)]> USE dbms
Database changed
MariaDB [dbms]> SHOW TABLES;
+----------------+
| Tables_in_dbms |
+----------------+
| areas          |
| n_empid        |
| o_empid        |
| result         |
| stud_marks     |
+----------------+
5 rows in set (0.001 sec)

MariaDB [dbms]> CREATE TABLE borrower (
    -> roll_no INT NOT NULL PRIMARY KEY,
    -> name VARCHAR(20),
    -> date_of_issue DATE,
    -> book_name VARCHAR(30),
    -> status VARCHAR(20));
Query OK, 0 rows affected (0.021 sec)

MariaDB [dbms]> CREATE TABLE fine (
    -> roll_no INT NOT NULL PRIMARY KEY,
    -> date DATE,
    -> amount INT,
    -> FOREIGN KEY (roll_no) REFERENCES borrower(roll_no));
Query OK, 0 rows affected (0.018 sec)

MariaDB [dbms]> SET SQL_MODE = "ORACLE";
Query OK, 0 rows affected (0.003 sec)

MariaDB [dbms]> INSERT INTO borrower VALUES
    -> (1, 'A', '2023-09-15', 'book1', 'issued'),
    -> (2, 'B', '2023-09-01', 'book2', 'issued'),
    -> (3, 'C', '2023-09-20', 'book3', 'issued'),
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    -> (4, 'D', '2023-08-20', 'book4', 'issued'),
    -> (5, 'E', '2023-07-20', 'book5', 'issued');
Query OK, 5 rows affected (0.092 sec)
Records: 5  Duplicates: 0  Warnings: 0

MariaDB [dbms]> SELECT * FROM borrower;
+---------+------+---------------+-----------+--------+
| roll_no | name | date_of_issue | book_name | status |
+---------+------+---------------+-----------+--------+
|       1 | A    | 2023-09-15    | book1     | issued |
|       2 | B    | 2023-09-01    | book2     | issued |
|       3 | C    | 2023-09-20    | book3     | issued |
|       4 | D    | 2023-08-20    | book4     | issued |
|       5 | E    | 2023-07-20    | book5     | issued |
+---------+------+---------------+-----------+--------+
5 rows in set (0.001 sec)

MariaDB [dbms]> SELECT * FROM fine;
Empty set (0.009 sec)

MariaDB [dbms]> DELIMITER $

MariaDB [dbms]> CREATE PROCEDURE calc_fine(R INT, N VARCHAR(20))
    -> AS
    -> days INT;
    -> fine INT;
    -> issue_date DATE;
    -> BEGIN
    -> SELECT date_of_issue INTO issue_date FROM borrower WHERE roll_no = R AND
name = N;
    -> days := DATEDIFF(CURDATE(), issue_date);
    -> IF (days >= 15 AND days <= 30) THEN
    -> fine := days*5;
    -> END IF;
    -> IF (days > 30) THEN
    -> fine := days*50;
    -> END IF;
    -> IF (fine IS NOT NULL) THEN
    -> UPDATE borrower SET status = 'returned' WHERE roll_no = R AND name = N;
    -> INSERT INTO fine VALUES (R, CURDATE(), fine);
    -> END IF;
    -> END $
Query OK, 0 rows affected (0.007 sec)

MariaDB [dbms]> DELIMITER ;

MariaDB [dbms]> CALL calc_fine(1, 'A');
Query OK, 1 row affected (0.001 sec)

MariaDB [dbms]> SELECT * FROM fine;
Empty set (0.001 sec)

MariaDB [dbms]> CALL calc_fine(2, 'B');
Query OK, 2 rows affected (0.004 sec)

MariaDB [dbms]> SELECT * FROM fine;
+---------+------------+--------+
| roll_no | date       | amount |
+---------+------------+--------+
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|       2 | 2023-09-23 |    110 |
+---------+------------+--------+
1 row in set (0.000 sec)

MariaDB [dbms]> CALL calc_fine(3, 'C');
Query OK, 1 row affected (0.001 sec)

MariaDB [dbms]> SELECT * FROM fine;
+---------+------------+--------+
| roll_no | date       | amount |
+---------+------------+--------+
|       2 | 2023-09-23 |    110 |
+---------+------------+--------+
1 row in set (0.000 sec)

MariaDB [dbms]> CALL calc_fine(4, 'D');
Query OK, 2 rows affected (0.004 sec)

MariaDB [dbms]> SELECT * FROM fine;
+---------+------------+--------+
| roll_no | date       | amount |
+---------+------------+--------+
|       2 | 2023-09-23 |    110 |
|       4 | 2023-09-23 |   1700 |
+---------+------------+--------+
2 rows in set (0.007 sec)

MariaDB [dbms]> CALL calc_fine(5, 'E');
Query OK, 2 rows affected (0.004 sec)

MariaDB [dbms]> SELECT * FROM fine;
+---------+------------+--------+
| roll_no | date       | amount |
+---------+------------+--------+
|       2 | 2023-09-23 |    110 |
|       4 | 2023-09-23 |   1700 |
|       5 | 2023-09-23 |   3250 |
+---------+------------+--------+
3 rows in set (0.000 sec)

MariaDB [dbms]> CALL calc_fine(6, 'F');
Query OK, 0 rows affected, 1 warning (0.001 sec)

MariaDB [dbms]> SELECT * FROM fine;
+---------+------------+--------+
| roll_no | date       | amount |
+---------+------------+--------+
|       2 | 2023-09-23 |    110 |
|       4 | 2023-09-23 |   1700 |
|       5 | 2023-09-23 |   3250 |
+---------+------------+--------+
3 rows in set (0.000 sec)

------------------------------B------------------------------------

MariaDB [(none)]> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
```

```
| dbms               |
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.021 sec)

MariaDB [(none)]> USE dbms;
Database changed

MariaDB [DBMS]> SHOW TABLES;
+----------------+
| Tables_in_dbms |
+----------------+
| n_empid        |
| o_empid        |
| result         |
| stud_marks     |
+----------------+
4 rows in set (0.001 sec)

MariaDB [DBMS]> CREATE TABLE areas (radius INT NOT NULL PRIMARY KEY, area FLOAT);
Query OK, 0 rows affected (0.020 sec)

MariaDB [DBMS]> SELECT * FROM areas;
Empty set (0.001 sec)

MariaDB [DBMS]> SET SQL_MODE = "ORACLE";
Query OK, 0 rows affected (0.000 sec)

MariaDB [DBMS]> delimiter $

MariaDB [DBMS]> DECLARE
    -> r INT;
    -> ar FLOAT;
    -> BEGIN
    -> FOR r IN 5..9
    -> LOOP
    -> ar := 3.14*r*r;
    -> INSERT INTO areas VALUES (r, ar);
    -> END LOOP;
    -> END $
Query OK, 5 rows affected (0.016 sec)

MariaDB [DBMS]> delimiter ;

MariaDB [DBMS]> SELECT * FROM areas;
+--------+--------+
| radius | area   |
+--------+--------+
|      5 |   78.5 |
|      6 | 113.04 |
|      7 | 153.86 |
|      8 | 200.96 |
|      9 | 254.34 |
+--------+--------+
5 rows in set (0.001 sec)
```

- END -