Lab Assignment 11

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Roll no.:15

Batch: S1

Class :SE-IT

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Microsoft Windows [Version 10.0.26100.3624]

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C:\Users\Admin>MySQL -u root -p

Enter password: \*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 12

Server version: 8.0.40 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> **SHOW DATABASES ;**

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

| Database |

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

| ass\_7 |

| ass\_\_9p |

| dumy |

| exp\_7 |

| exp\_9 |

| information\_schema |

| it\_dept |

| mysql |

| performance\_schema |

| sys |

| xyzsolutions |

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

11 rows in set (0.00 sec)

mysql> **CREATE DATABASE ASS\_10;**

Query OK, 1 row affected (0.01 sec)

mysql> **USE ASS\_10;**

Database changed

mysql> **CREATE TABLE student\_cursor\_demo (**

**-> student\_id INT PRIMARY KEY,**

**-> student\_name VARCHAR(50),**

**-> marks INT,**

**-> course\_name VARCHAR(50)**

**-> );**

Query OK, 0 rows affected (0.02 sec)

mysql> **INSERT INTO student\_cursor\_demo VALUES**

**-> (1, 'Aarav', 85, 'Computer Science'),**

**-> (2, 'Isha', 72, 'Information Technology'),**

**-> (3, 'Rahul', 90, 'Electronics'),**

**-> (4, 'Sneha', 55, 'Computer Science'),**

**-> (5, 'Karan', 66, 'Mechanical'),**

**-> (6, 'Pooja', 45, 'Civil'),**

**-> (7, 'Ravi', 92, 'Electronics'),**

**-> (8, 'Neha', 58, 'Information Technology'),**

**-> (9, 'Manav', 75, 'Computer Science'),**

**-> (10, 'Divya', 82, 'Electronics'),**

**-> (11, 'Aisha', 67, 'Mechanical'),**

**-> (12, 'Pranav', 60, 'Civil'),**

**-> (13, 'Tanya', 91, 'Information Technology'),**

**-> (14, 'Rohit', 52, 'Computer Science'),**

**-> (15, 'Simran', 48, 'Civil'),**

**-> (16, 'Aarav', 85, 'Computer Science'), -- duplicate name**

**-> (17, 'Riya', 77, 'Mechanical'),**

**-> (18, 'Jay', 73, 'Electronics'),**

**-> (19, 'Anika', 89, 'Information Technology'),**

**-> (20, 'Omkar', 61, 'Computer Science');**

Query OK, 20 rows affected (0.01 sec)

Records: 20 Duplicates: 0 Warnings: 0

mysql> **-- 1. IMPLICIT CURSOR in MySQL**

mysql> **-- Give grace marks (+5) to students with marks below 60**

mysql> DELIMITER $$

mysql> CREATE PROCEDURE give\_grace\_marks()

-> BEGIN

-> -- Increase marks of low-scoring students

-> UPDATE student\_cursor\_demo

-> SET marks = marks + 5

-> WHERE marks < 60;

-> -- Implicit cursor result

-> SELECT ROW\_COUNT() AS students\_updated;

-> END$$

Query OK, 0 rows affected (0.01 sec)

mysql> DELIMITER ;

mysql> **-- ROW\_COUNT() uses the implicit cursor to show how many students got bonus mark**

mysql> **-- Call the procedure**

mysql> CALL give\_grace\_marks();

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

| students\_updated |

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

| 5 |

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

1 row in set (0.01 sec)

Query OK, 0 rows affected (0.01 sec)

mysql> **-- 2. EXPLICIT CURSOR in MySQL**

mysql> **-- Show students who scored more than 80 in any course**

mysql> DELIMITER $$

mysql> CREATE PROCEDURE show\_top\_students()

-> BEGIN

-> DECLARE done INT DEFAULT 0;

-> DECLARE v\_name VARCHAR(50);

-> DECLARE v\_marks INT;

-> DECLARE v\_course VARCHAR(50);

-> -- Declare cursor for top students

-> DECLARE top\_cursor CURSOR FOR

-> SELECT student\_name, marks, course\_name

-> FROM student\_cursor\_demo

-> WHERE marks > 80;

-> -- Handler to exit the loop when no rows left

-> DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;

-> OPEN top\_cursor;

-> read\_loop: LOOP

-> FETCH top\_cursor INTO v\_name, v\_marks, v\_course;

-> IF done THEN

-> LEAVE read\_loop;

-> END IF;

-> -- Display each result

-> SELECT CONCAT(v\_name, ' from ', v\_course, ' scored ', v\_marks, ' marks') AS Topper;

-> END LOOP;

-> CLOSE top\_cursor;

-> END$$

Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER ;

mysql> **-- Call it**

mysql> CALL show\_top\_students();

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

| Topper |

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

| Aarav from Computer Science scored 85 marks |

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

1 row in set (0.00 sec)

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

| Topper |

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

| Rahul from Electronics scored 90 marks |

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

1 row in set (0.01 sec)

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

| Topper |

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

| Ravi from Electronics scored 92 marks |

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

1 row in set (0.01 sec)

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

| Topper |

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

| Divya from Electronics scored 82 marks |

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

1 row in set (0.02 sec)

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

| Topper |

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

| Tanya from Information Technology scored 91 marks |

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

1 row in set (0.02 sec)

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

| Topper |

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

| Aarav from Computer Science scored 85 marks |

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

1 row in set (0.03 sec)

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

| Topper |

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

| Anika from Information Technology scored 89 marks |

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

1 row in set (0.03 sec)

Query OK, 0 rows affected (0.04 sec)

mysql>