Practical code:-5

Problem statement: Unnamed PL/SQL code block: Use of Control structure and Exception handling is

mandatory. Write a PL/SQL block of code for the following requirements:-

Schema: 1. Borrower(Rollin, Name, DateofIssue, NameofBook, Status)

2. Fine(Roll\_no,Date,Amt)

1. Accept roll\_no &amp; name of book from user.
2. Check the number of days (from date of issue), if days are between 15 to 30 then fine
3. amount will be Rs 5per day.
4. If no. of days&gt;30, per day fine will be Rs 50 per day &amp; for days less than 30, Rs. 5 per day.
5. After submitting the book, status will change from I to R.
6. If condition of fine is true, then details will be stored into fine table

**{a}create table Borrower with column names – Roll\_no, DOI, Bname, Status And insert atleast 5 entries.**

mysql> select\*from borrower;

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

| roll\_no | DOI | Status | Bname |

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

| 1 | 2024-10-10 | R | DBMS |

| 2 | 2024-09-04 | R | TOC |

| 3 | 2024-10-03 | R | CN |

| 4 | 2024-09-07 | R | SPOS |

| 5 | 2024-10-07 | R | IOT |

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

5 rows in set (0.00 sec)

**{b}table fine with column names (Rno, Date, Difference, Amount) with no values initially.**

mysql> desc fine;

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

| Field | Type | Null | Key | Default | Extra |

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

| roll\_no | int | NO | PRI | NULL | |

| Date | date | YES | | NULL | |

| differnce | int | YES | | NULL | |

| amount | int | YES | | NULL | |

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

4 rows in set (0.02 sec)

mysql> delimiter //

mysql> CREATE PROCEDURE p3(IN roll INT(3), IN Bname1 VARCHAR(10))

-> BEGIN

-> DECLARE i\_date DATE;

-> DECLARE diff INT;

-> DECLARE amt INT;

-> DECLARE S1 CHAR(1);

-> SELECT status INTO S1 FROM borrower WHERE roll\_no = roll AND Bname = Bname1;

-> IF (S1 = 'I') THEN

-> SELECT DOI INTO i\_date FROM borrower WHERE roll\_no = roll AND Bname = Bname1;

-> SELECT DATEDIFF(CURDATE(), i\_date) INTO diff;

-> IF (diff >= 15 AND diff <= 30) THEN

-> SET amt = diff \* 5;

-> INSERT INTO fine VALUES (roll, CURDATE(), diff, amt);

-> ELSEIF (diff > 30) THEN

-> SET amt = diff \* 50;

-> INSERT INTO fine VALUES (roll, CURDATE(), diff, amt);

-> END IF;

-> UPDATE borrower SET status = 'R' WHERE roll\_no = roll AND Bname = Bname1;

-> END IF;

-> SELECT \* FROM borrower;

-> SELECT \* FROM fine;

-> END //

Query OK, 0 rows affected, 1 warning (0.01 sec)

**#calling 1st tuple**

mysql> call p3(1,"DBMS")//

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

| roll\_no | DOI | Status | Bname |

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

| 1 | 2024-10-10 | R | DBMS |

| 2 | 2024-09-04 | I | TOC |

| 3 | 2024-10-03 | I | CN |

| 4 | 2024-09-07 | I | SPOS |

| 5 | 2024-10-07 | I | IOT |

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

5 rows in set (0.01 sec)

Empty set (0.02 sec)

Query OK, 0 rows affected (0.02 sec)

mysql> select\*from fine;

**#calling 2nd tuple**

-> call p3(2,"TOC")//

Empty set (0.00 sec)

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

| roll\_no | DOI | Status | Bname |

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

| 1 | 2024-10-10 | R | DBMS |

| 2 | 2024-09-04 | R | TOC |

| 3 | 2024-10-03 | I | CN |

| 4 | 2024-09-07 | I | SPOS |

| 5 | 2024-10-07 | I | IOT |

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

5 rows in set (0.01 sec)

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

| roll\_no | Date | differnce | amount |

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

| 2 | 2024-10-20 | 46 | 2300 |

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

1 row in set (0.01 sec)

Query OK, 0 rows affected (0.02 sec)

**#calling 3rd tuple**

mysql> call p3(3,"CN")//

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

| roll\_no | DOI | Status | Bname |

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

| 1 | 2024-10-10 | R | DBMS |

| 2 | 2024-09-04 | R | TOC |

| 3 | 2024-10-03 | R | CN |

| 4 | 2024-09-07 | I | SPOS |

| 5 | 2024-10-07 | I | IOT |

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

5 rows in set (0.01 sec)

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

| roll\_no | Date | differnce | amount |

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

| 2 | 2024-10-20 | 46 | 2300 |

| 3 | 2024-10-20 | 17 | 85 |

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

2 rows in set (0.02 sec)

Query OK, 0 rows affected (0.02 sec)

**#calling 4th tuple=**

mysql> call p3(4,"SPOS")//

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

| roll\_no | DOI | Status | Bname |

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

| 1 | 2024-10-10 | R | DBMS |

| 2 | 2024-09-04 | R | TOC |

| 3 | 2024-10-03 | R | CN |

| 4 | 2024-09-07 | R | SPOS |

| 5 | 2024-10-07 | I | IOT |

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

5 rows in set (0.01 sec)

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

| roll\_no | Date | differnce | amount |

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

| 2 | 2024-10-20 | 46 | 2300 |

| 3 | 2024-10-20 | 17 | 85 |

| 4 | 2024-10-20 | 43 | 2150 |

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

3 rows in set (0.01 sec)

Query OK, 0 rows affected (0.02 sec)

**#calling 5th tuple**

mysql> call p3(5,"IOT")//

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

| roll\_no | DOI | Status | Bname |

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

| 1 | 2024-10-10 | R | DBMS |

| 2 | 2024-09-04 | R | TOC |

| 3 | 2024-10-03 | R | CN |

| 4 | 2024-09-07 | R | SPOS |

| 5 | 2024-10-07 | R | IOT |

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

5 rows in set (0.01 sec)

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

| roll\_no | Date | differnce | amount |

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

| 2 | 2024-10-20 | 46 | 2300 |

| 3 | 2024-10-20 | 17 | 85 |

| 4 | 2024-10-20 | 43 | 2150 |

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

3 rows in set (0.01 sec)

Query OK, 0 rows affected (0.02 sec)