ASSIGNMENT - V

TITLE :
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)

• Accept roll_no & name of book from user.

• Check the number of days (from date of issue), if days are between 15 to 30 then fine amount will be Rs 5per day.

• If no. of days>30, per day fine will be Rs 50 per day & for days less than 30, Rs. 5 per day.

• After submitting the book, status will change from I to R.

• If condition of fine is true, then details will be stored into fine table.

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QUERIE :

```
CREATE DATABASE PR5;
USE PR5;

CREATE TABLE Borrower
(
    Roll_no INT PRIMARY KEY,
    Name VARCHAR(50),
    Date_Of_Issue DATE,
    Name_of_Book VARCHAR(50),
    Book_Status VARCHAR(10)
);

CREATE TABLE Fine
(
    Roll_in INT,
    Return_Date DATE,
    Amount INT,
    FOREIGN KEY (Roll_in) REFERENCES Borrower(Roll_no)
);

INSERT INTO Borrower VALUES
(182, 'Mayur', '2025-02-14', 'DBMS', 'Issued'),
(233, 'Varad', '2025-03-04', 'OS', 'Issued'),
(167, 'Nikhil', '2025-03-12', 'DS', 'Issued'),
(196, "Karan", '2025-02-21', 'SPM', 'Issued');

DELIMITER $$

CREATE PROCEDURE PR(IN P_Roll_No INT, IN P_Book_Name VARCHAR(50))
```

```sql
BEGIN
DECLARE DOI DATE;
   DECLARE X INT;
   DECLARE Fine_amount INT DEFAULT 0;

   DECLARE CONTINUE HANDLER FOR NOT FOUND
   BEGIN
      SELECT "NO RECORD FOUND...!" AS Message;
   END;

   SELECT Date_Of_Issue INTO DOI
   FROM Borrower
   WHERE Roll_no = P_Roll_No AND Name_of_Book = P_Book_Name;

   SET X = DATEDIFF(CURDATE(), DOI);

   IF (X>15 AND X<=30)
   THEN
      SET Fine_amount = X*5;
   ELSEIF (X>30)
   THEN
      SET Fine_amount = X*50;
   END IF;

   UPDATE Borrower
   SET Book_Status = 'Returned'
   WHERE Roll_no = P_Roll_No AND Name_of_Book = P_Book_Name;

   IF (Fine_amount > 0)
   THEN
      INSERT INTO Fine(Roll_in, Return_Date, Amount)
      VALUES (P_Roll_No, CURDATE(), Fine_amount);
   END IF;

END $$

DELIMITER ;
```

CALL PR(196,"SPM");

SELECT * FROM Fine;

Roll_in	Return_Date	Amount
196	2025-03-18	125

SELECT * FROM Borrower;

Roll_no	Name	Date_Of_Issue	Name_of_Book	Book_Status
167	Nikhil	2025-03-12	DS	Issued
182	Mayur	2025-02-14	DBMS	Issued
196	Karan	2025-02-21	SPM	Returned
233	Varad	2025-03-04	OS	Issued
NULL	NULL	NULL	NULL	NULL

CALL PR(182,"DBMS");

SELECT * FROM Fine;

Roll_in	Return_Date	Amount
196	2025-03-18	125
182	2025-03-18	1600

SELECT * FROM Borrower;

Roll_no	Name	Date_Of_Issue	Name_of_Book	Book_Status
167	Nikhil	2025-03-12	DS	Issued
182	Mayur	2025-02-14	DBMS	Returned
196	Karan	2025-02-21	SPM	Returned
233	Varad	2025-03-04	OS	Issued
NULL	NULL	NULL	NULL	NULL