Assignment No. 4(A)

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.**

Solution:

```
mysql> create table Borrower(RollNo int,Name varchar(10),DateofIssue date,NameofBook
varchar(20),Status varchar(10));
Query OK, 0 rows affected (0.30 sec)

mysql> insert into Borrower values(1,'Mansi','2022-08-23','DBMS','I');
Query OK, 1 row affected (0.05 sec)

mysql> select * from Borrower;
+---------+---------+---------------+-----------------+---------+
| RollNo | Name  | DateofIssue  | NameofBook  | Status |
+---------+---------+---------------+-----------------+---------+
|   1    | Mansi | 2022-08-23 | DBMS        | I     |
+---------+---------+---------------+-----------------+---------+
1 row in set (0.00 sec)

mysql> create table Fine(Rollno int,Date date,Amt int);
Query OK, 0 rows affected (0.27 sec)
mysql> select * from Fine;
Empty set (0.00 sec)
********************************************************************************

*****************************Defining Procedure*********************************
mysql> drop procedure if exists p_fine;
Query OK, 0 rows affected (0.00 sec)

mysql>   delimiter //
mysql>
mysql>   create procedure p_fine(IN rno int,IN bname varchar(20))
  ->   begin
```

```
    ->     declare d1 date;
    ->     declare daycnt int;
    ->     declare fine_amt int;
    ->
    ->     SELECT  DateofIssue into d1 FROM Borrower
    ->    WHERE RollNo = rno and NameofBook= bname;
    ->
    ->   select DATEDIFF(now(),d1) into daycnt;
    ->
    ->     if(daycnt >= 15 and daycnt <= 30) then
    ->        set fine_amt = daycnt * 5;
    ->
    ->
    ->         insert into Fine(Rollno, Date,Amt)
    ->         values (rno,now(),fine_amt);
    ->
    ->      update Borrower set Status = 'R' where RollNo = rno;
    ->
    ->     elseif(daycnt > 30) then
    ->        set fine_amt = daycnt * 50;
    ->
    ->        insert into Fine values (rno,now(),fine_amt);
    ->
    ->     update Borrower set Status = 'R' where RollNo = rno;
    ->
    ->     else
    ->
    ->     update BORROWER set Status = 'R' where RollNo = rno;
    ->
    ->
    ->   end if;
    ->
    ->      end;
    -> //
Query OK, 0 rows affected (0.00 sec)
mysql>
mysql> delimiter ;
*********************************************************************************

*******************************Calling Procedure*********************************
mysql> call p_fine(1,'DBMS');
Query OK, 1 row affected (0.10 sec)

mysql> select * from Fine;
+---------+----------------+--------+
| Rollno  | Date           | Amt    |
+---------+----------------+--------+
|    1    | 2022-09-23     | 1550   |
+---------+----------------+--------+
1 row in set (0.00 sec)
```