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Batch:AS4

Assignment No:03

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, Dateofreturn)
2. Fine(Roll_no,name,status,fine)

- 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 5 per 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.

Frame the problem statement for writing PL/SQL block inline with above statement.

Output:

mysql> use proc1_153;

```
Database changed
mysql> show tables;

+---------------------+
| Tables_in_proc1_153 |
+---------------------+
| borrower            |
| fine                |
+---------------------+
2 rows in set (0.01 sec)
```

mysql> desc borrower;

```
+-------+-------------+------+-----+---------+-------+
| Field | Type        | Null | Key | Default | Extra |
+-------+-------------+------+-----+---------+-------+
| rno   | int         | YES  |     | NULL    |       |
| name  | varchar(20) | YES  |     | NULL    |       |
```

```
| doi   | date       | YES  |     | NULL    |       |
| dor   | date       | YES  |     | NULL    |       |
+-------+------------+------+-----+---------+-------+
4 rows in set (0.01 sec)
```

mysql> desc fine;

```
+--------+------------+------+-----+---------+-------+
| Field  | Type       | Null | Key | Default | Extra |
+--------+------------+------+-----+---------+-------+
| rno    | int        | YES  |     | NULL    |       |
| name   | varchar(20) | YES  |     | NULL    |       |
| status | varchar(20) | YES  |     | NULL    |       |
| fine   | int        | YES  |     | NULL    |       |
+--------+------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

file name : proc11_153.sql
//code for trigger

```
Delimiter $$
create trigger proc1
before insert on borrower
for each row
Begin
insert into fine(rno,name,status) values (new.rno,new.name,'I');
end $$
Delimiter ;
```

Run trigger :
mysql> source /home/student/proc11_153.sql;
Query OK, 0 rows affected (0.17 sec)

file name: proc33_fine.sql;
//code fro procedure

```
Delimiter $$
create procedure fine_amt(IN r int,IN n varchar(10),IN dr Date)
begin
declare temp date;
declare day int;
update borrower set dor=dr where rno=r and name=n;
select doi into temp from borrower where rno=r and  name=n;
set day=DATEDIFF(dr,temp);
if(day>30) then
update fine set fine=50 where rno=r and  name=n;
update fine set status='R' where rno=r and  name=n;
elseif (day>=15 and day<=30) then
update fine set fine=5 where rno=r and  name=n;
update fine set status='R' where rno=r and  name=n;
elseif (day<30) then
update fine set fine=5 where rno=r and  name=n;
```

```
update fine set status='R' where rno=r and  name=n;


END IF;

END $$
Delimiter ;
```

run procedure :

```
mysql> source /home/student/proc33_fine.sql;
Query OK, 0 rows affected (0.20 sec)
```

```
mysql> select *from borrower;
+------+--------+------------+------------+
| rno  | name   | doi        | dor        |
+------+--------+------------+------------+
|   10 | 111    | 2022-10-12 | 2022-10-16 |
|   11 | 23     | 2022-03-12 | 2023-04-13 |
|   12 | 24     | 2023-01-07 | 2023-02-28 |
|   13 | 14     | 2022-02-04 | 2022-02-16 |
|   15 | ishwri | 2022-03-05 | 2022-04-27 |
|   16 | aditi  | 2023-01-02 | 2023-01-17 |
+------+--------+------------+------------+
6 rows in set (0.00 sec)
```

calling procedure :

```
mysql> call fine_amt(16,'aditi','2023-01-17');
Query OK, 1 row affected (0.16 sec)
```

here ,when we select rno=16 then it will display amount of fine and also status of book;

```
mysql> select *from fine;
+------+--------+--------+------+
| rno  | name   | status | fine |
+------+--------+--------+------+
|    3 | 112    | NULL   | NULL |
|   10 | 111    | R      |    0 |
|   11 | 23     | R      | 1000 |
|   12 | 24     | R      | 1000 |
|   13 | 14     | R      |   20 |
|   15 | ishwri | R      | 1000 |
|   16 | aditi  | R      |    5 |
+------+--------+--------+------+
7 rows in set (0.00 sec)
```