

Assignment 3:

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 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.

```
mysql> create database ass3;
```

Query OK, 1 row affected (0.01 sec)

```
mysql> use ass3;
```

Database changed

```
mysql> create table Borrower(Rollin int(12) primary key,Name varchar(25) not null,DateOfIssue date not null,Nameofbook varchar(25) not null,Status varchar(3) not null);
```

Query OK, 0 rows affected, 1 warning (0.02 sec)

```
mysql> desc Borrower;
```

Field	Type	Null	Key	Default	Extra
Rollin	int	NO	PRI	NULL	
Name	varchar(25)	NO		NULL	
DateOfIssue	date	NO		NULL	

Nameofbook	varchar(25)	NO		NULL		
------------	-------------	----	--	------	--	--

Status	varchar(3)	NO		NULL		
--------	------------	----	--	------	--	--

+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
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5 rows in set (0.02 sec)

```
mysql> create table Fine(Rollno int(12) primary key,Date date not null,Amt i
nt(12) not null);
```

Query OK, 0 rows affected, 2 warnings (0.02 sec)

```
mysql> desc Fine;
```

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

Field	Type	Null	Key	Default	Extra	
-------	------	------	-----	---------	-------	--

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

Rollno	int	NO	PRI	NULL		
--------	-----	----	-----	------	--	--

Date	date	NO		NULL		
------	------	----	--	------	--	--

Amt	int	NO		NULL		
-----	-----	----	--	------	--	--

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

3 rows in set (0.00 sec)

```
mysql> insert into Borrower values(001,'sneha','2020-02-13','dbms','I');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into Borrower values(002,'vaishnavi','2021-08-10','software engineering','I');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into Borrower values(003,'shravani','2023-06-01','java','I');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into Borrower values(098,'trupti','2022-04-24','mathematics','I');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from Borrower;
```

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

Rollin	Name	DateOfIssue	Nameofbook	Status	
--------	------	-------------	------------	--------	--

```

+-----+-----+-----+-----+-----+
|  1 | sneha   | 2020-02-13 | dbms           | 1 |
|  2 | vaishnavi | 2021-08-10 | software engineering | 1 |
|  3 | shravani  | 2023-06-01 | java           | 1 |
| 98 | trupti    | 2022-04-24 | mathematics     | 1 |
+-----+-----+-----+-----+-----+

```

4 rows in set (0.00 sec)

```
mysql> select * from fine;
```

Empty set (0.00 sec)

```
delimiter $$
```

```
create procedure calfine(Rollno int(20),name varchar(50))
```

```
begin
```

```
declare ldate date;
```

```
declare fine int(20);
```

```
declare day int(20);
```

```
select DateOfIssu into ldate from Borrower where Rollin=Rollno and Nameofbook=name;
```

```
set day = DATEDIFF(CURDATE(),ldate);
```

```
IF(day>=15 and day<=30) then
```

```
set fine=day*5;
```

```
ELSEIF(day>30) then set fine=day*50;
```

```
end IF;
```

```
update Borrower set status='R' where Rollin=Rollno and Nameofbook=name;
```

```
IF(fine is not null) then insert into Fine values(Rollno,CURDATE(),fine);
```

```
end IF;
```

```
end $$
```

```
delimiter ;;
```

```
mysql> delimiter $$
```

```
mysql> create procedure calfine(Rollno int(20),name varchar(50))
```

```
-> begin
```

```

-> declare ldate date;
-> declare fine int(20);
-> declare day int(20);
-> select DateOfIssue into ldate from Borrower where Rollin=Rollno and Nameofbook=name;
-> set day = DATEDIFF(CURDATE(),ldate);
-> IF(day>=15 and day<=30) then
-> set fine=day*5;
-> ELSEIF(day>30) then set fine=day*50;
-> end IF;
-> update Borrower set status='R' where Rollin=Rollno and Nameofbook=name;
-> IF(fine is not null) then insert into Fine values(Rollno,CURDATE(),fine);
-> end IF;
-> end $$

```

Query OK, 0 rows affected, 3 warnings (0.02 sec)

```
mysql> delimiter ;;
```

```
mysql> call calfine(3,'java');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from Fine;;
```

Empty set (0.00 sec)

```
mysql> call calfine(1,'dbms');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> call calfine(2,'software engineering');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> select * from Borrower;;
```

```

+-----+-----+-----+-----+-----+
| Rollin | Name   | DateOfIssue | Nameofbook | Status |
+-----+-----+-----+-----+-----+

```

1	sneha	2020-02-13	dbms	R
2	vaishnavi	2021-08-10	software engineering	R
3	shravani	2023-06-01	java	R
98	trupti	2022-04-24	mathematics	I

```
+-----+-----+-----+-----+-----+
```

4 rows in set (0.00 sec)

select * from Fine;;

```
+-----+-----+-----+
```

Rollno	Date	Amt
--------	------	-----

```
+-----+-----+-----+
```

1	2023-04-30	58600
---	------------	-------

2	2023-04-30	31400
---	------------	-------

```
+-----+-----+-----+
```

2 rows in set (0.00 sec)

```
+-----+-----+-----+
```

Rollno	Date	Amt
--------	------	-----

```
+-----+-----+-----+
```

1	2023-04-30	58600
---	------------	-------

2	2023-04-30	31400
---	------------	-------

```
+-----+-----+-----+
```

2 rows in set (0.01 sec)