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Roll No.: SYCOC303 Course Name: Project Based Learning - II

Div: C Batch: C4 Course Code: BCE4409

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Problem Statement:

Unnamed PL/SQL code block: Use of Control structure and Exception handling is mandatory.

Suggested Problem statement:

Consider Tables:

1 Borrower (Roll_no, 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.
- Also handles the exception by named exception handler or user define exception handler.

==========

OUTPUT:

Borrower Table:

```
SQL> select *from Borrower;

    ROLLIN NAME                 DATEOFISS
---------- -------------------- ---------
NAMEOFBOOK                                           S
-------------------------------------------------- -
         1 Vinayak              01-MAR-23
SE Roger                                             I

         2 Sakshi               01-APR-23
DBMS Korth                                           I

         3 Vishwesh             16-APR-23
21 Questions                                         I


    ROLLIN NAME                 DATEOFISS
---------- -------------------- ---------
NAMEOFBOOK                                           S
-------------------------------------------------- -
         4 Tanmay               10-APR-23
CN Fourozan                                          I

         5 Pratik               30-MAR-23
Army Training                                        I
```

Fine Table:

```
SQL> select *from Fine;

no rows selected
```

Executing the Unnamed Block:

```
SQL> DECLARE
  2  rno int;
  3  bnm varchar2(50);
  4  ln_fine1 int;
  5  ln_noOfDays int;
  6  ld_IssueDate date;
  7  BEGIN
  8  rno:= &rno;
  9  bnm:= '&bnm';
 10  select DateofIssue into ld_IssueDate from Borrower where Rollin=rno and NameofBook=bnm;
 11  select sysdate-(ld_IssueDate ) into ln_noOfDays from dual;
 12  if ln_noOfDays >15 and ln_noOfDays <=30 then
 13  ln_fine1 := ((ln_noOfDays-15) *5);
 14  insert into Fine values(rno,sysdate,ln_fine1);
 15  dbms_output.put_line('================================');
 16  dbms_output.put_line('Fine applicable for this Student!');
 17  dbms_output.put_line('================================');
 18  elsif ln_noOfDays >30 then
 19  ln_fine1 := ((ln_noOfDays-30)*50) + (15*5);
 20  insert into Fine values(rno,sysdate,ln_fine1);
 21  dbms_output.put_line('================================================');
 22  dbms_output.put_line('Fine applicable for this Student with extra charges!');
 23  dbms_output.put_line('================================================');
 24  else
 25  dbms_output.put_line('No fine for this Student!');
 26  end if;
 27  update Borrower set Satus='R' where Rollin=rno;
 28
 29  EXCEPTION
 30  WHEN NO_DATA_FOUND THEN
 31  dbms_output.put_line('The id passed while calling procedure is not present in the table!');
 32  END;
 33  /
Enter value for rno: 1
Enter value for bnm: SE Roger
================================================
Fine applicable for this Student with extra charges!
================================================

PL/SQL procedure successfully completed.
```

Fine Table:

```
SQL> select *from Fine;

   ROLL_NO DATEOFRET        AMT
---------- --------- ----------
         1 10-MAY-23       2125

SQL>
```

Executing the same procedure for all Borrowers:

```
SQL> DECLARE
  2  rno int;
  3  bnm varchar2(50);
  4  ln_fine1 int;
  5  ln_noOfDays int;
  6  ld_IssueDate date;
  7  BEGIN
  8  rno:= &rno;
  9  bnm:= '&bnm';
 10  select DateofIssue into ld_IssueDate from Borrower where Rollin=rno and NameofBook=bnm;
 11  select sysdate-(ld_IssueDate ) into ln_noOfDays from dual;
 12  if ln_noOfDays >15 and ln_noOfDays <=30 then
 13  ln_fine1 := ((ln_noOfDays-15) *5);
 14  insert into Fine values(rno,sysdate,ln_fine1);
 15  dbms_output.put_line('================================');
 16  dbms_output.put_line('Fine applicable for this Student!');
 17  dbms_output.put_line('================================');
 18  elsif ln_noOfDays >30 then
 19  ln_fine1 := ((ln_noOfDays-30)*50) + (15*5);
 20  insert into Fine values(rno,sysdate,ln_fine1);
 21  dbms_output.put_line('================================================');
 22  dbms_output.put_line('Fine applicable for this Student with extra charges!');
 23  dbms_output.put_line('================================================');
 24  else
 25  dbms_output.put_line('No fine for this Student!');
 26  end if;
 27  update Borrower set Satus='R' where Rollin=rno;
 28
 29  EXCEPTION
 30  WHEN NO_DATA_FOUND THEN
 31  dbms_output.put_line('The id passed while calling procedure is not present in the table!');
 32  END;
 33  /
Enter value for rno: 3
Enter value for bnm: 21 Questions
================================
Fine applicable for this Student!
================================

PL/SQL procedure successfully completed.
```

Now Fine Table:

```
SQL> select *from Fine;

   ROLL_NO DATEOFRET        AMT
---------- --------- ----------
         1 10-MAY-23       2125
         2 10-MAY-23        575
         3 10-MAY-23         50

SQL>
```

Exception Handling:

```
SQL> DECLARE
  2  rno int;
  3  bnm varchar2(50);
  4  ln_fine1 int;
  5  ln_noOfDays int;
  6  ld_IssueDate date;
  7  BEGIN
  8  rno:= &rno;
  9  bnm:= '&bnm';
 10  select DateofIssue into ld_IssueDate from Borrower where Rollin=rno and NameofBook=bnm;
 11  select sysdate-(ld_IssueDate ) into ln_noOfDays from dual;
 12  if ln_noOfDays >15 and ln_noOfDays <=30 then
 13  ln_fine1 := ((ln_noOfDays-15) *5);
 14  insert into Fine values(rno,sysdate,ln_fine1);
 15  dbms_output.put_line('================================');
 16  dbms_output.put_line('Fine applicable for this Student!');
 17  dbms_output.put_line('================================');
 18  elsif ln_noOfDays >30 then
 19  ln_fine1 := ((ln_noOfDays-30)*50) + (15*5);
 20  insert into Fine values(rno,sysdate,ln_fine1);
 21  dbms_output.put_line('================================================');
 22  dbms_output.put_line('Fine applicable for this Student with extra charges!');
 23  dbms_output.put_line('================================================');
 24  else
 25  dbms_output.put_line('No fine for this Student!');
 26  end if;
 27  update Borrower set Satus='R' where Rollin=rno;
 28
 29  EXCEPTION
 30  WHEN NO_DATA_FOUND THEN
 31  dbms_output.put_line('The id passed while calling procedure is not present in the table!');
 32  END;
 33  /
Enter value for rno: 8
Enter value for bnm: CN Book
The id passed while calling procedure is not present in the table!

PL/SQL procedure successfully completed.

SQL>
```

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