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Assignment No. 6

Title: Stored Procedure Stored Function

1. Write a PL/SQL stored Procedure for following requirements and call the procedure in appropriate PL/SQL block.

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.**

```
SQL> select * from borrower;

     ROLL NAME           DOI       BOOK                S
---------- --------------- --------- -------------------- -
       101 ashwin          03-AUG-19 toc                 I
       102 hemangi         05-SEP-19 mis                 I
       103 rutuj           20-AUG-19 CN                  I

SQL> set serveroutput on;
SQL> create or replace procedure p61(mroll in number) is
  2
  3    days number(3);
  4    mdoi date;
  5    mfine number(3);
  6  begin
  7    select doi into mdoi from borrower where roll=mroll;
  8    days:=sysdate-mdoi;
  9    if days >=15 and days<=30 then
 10          mfine:=days*5;
 11          insert into fine values(mroll,mfine);
 12          update borrower set status='R' where roll=mroll;
 13          dbms_output.put_line(mfine||' charged');
 14    elsif days>30 then
 15          mfine:=150+(days-30)*50;
 16          insert into fine values(mroll,mfine);
 17          update borrower set status='R' where roll=mroll;
 18          dbms_output.put_line(mfine||' charged');
 19    else
 20          update borrower set status='R' where roll=mroll;
```

```
 21     end if;
 22  end;
 23  /

Procedure created.

SQL> set serveroutput on;
SQL> declare
  2     mroll number(3);
  3  begin
  4     mroll:=&mroll;
  5     p61(mroll);
  6  exception
  7     when no_data_found then
  8             dbms_output.put_line(mroll||' not found');
  9  end;
 10  /
Enter value for mroll: 101
old   4:        mroll:=&mroll;
new   4:         mroll:=101;
900 charged

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 102
old   4:        mroll:=&mroll;
new   4:         mroll:=102;

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 103
old   4:        mroll:=&mroll;
new   4:         mroll:=103;
140 charged

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 104
old   4:        mroll:=&mroll;
new   4:         mroll:=104;
104 not found

PL/SQL procedure successfully completed.

SQL> select * from borrower;

     ROLL NAME            DOI       BOOK                 S
---------- ---------------- --------- -------------------- -
       101 ashwin           03-AUG-19 toc                  R
       102 hemangi          05-SEP-19 mis                  R
       103 rutuj            20-AUG-19 CN                   R

SQL> select * from fine;

     ROLL        AMT
---------- ----------
       101        900
       103        140
```

2. **Write a stored function in PL/SQL for given requirement and use the same in PL/SQL block.**

Account no. and branch name will be accepted from user. The same will be searched in table acct_details. If status of account is active then display appropriate message and also store the account details in active_acc_details table, otherwise display message on screen "account is inactive".

```
SQL> select * from acc_dets;

     ACNO BRANCH     S
---------- ---------- -
         1 akurdi     I
         2 dadar      A
         3 banglore   I
         4 Pune       A

SQL> select * from active_acc_dets;

no rows selected

SQL> create or replace function p62(macno in number) return number is
  2
  3    mst varchar2(1);
  4    mbr varchar2(10);
  5
  6  begin
  7    select status,branch into mst,mbr from acc_dets where acno=macno;
  8    if mst='A' then
  9          insert into active_acc_dets values(macno,mbr);
 10           return 1;
 11    else
 12           return 0;
 13    end if;
 14  end;
 15
 16  /

Function created.


Enter value for mac: 1
old   5:       mac:=&mac;
new   5:       mac:=1;
Account inactive

PL/SQL procedure successfully completed.

SQL> /
Enter value for mac: 2
old   5:       mac:=&mac;
new   5:       mac:=2;
Account active

PL/SQL procedure successfully completed.

SQL> /3
Enter value for mac: 3
old   5:       mac:=&mac;
new   5:       mac:=3;
Account inactive

PL/SQL procedure successfully completed.

SQL> /
```

```
Enter value for mac: 4
old   5:       mac:=&mac;
new   5:       mac:=4;
Account active

PL/SQL procedure successfully completed.

SQL> /
Enter value for mac: 5
old   5:       mac:=&mac;
new   5:       mac:=5;
5 not found

PL/SQL procedure successfully completed.

SQL> select * from active_acc_dets;

      ACNO BRANCH
---------- ----------
         2 dadar
         4 Pune
```

3. **Write a Stored Procedure namely proc_Grade for the categorization of student. If marks scored by students in examination is <=1500 and marks>=990 then student will be placed in distinction category if marks scored are between 989 and 900 category is first class, if marks**

899 and 825 category is Higher Second Class
Write a PL/SQL block for using procedure created with above requirement.
Stud_Marks(name, total_marks)
Result(Roll,Name, Class)

```
     ROLL NAME                 MARKS
---------- -------------------- ----------
         1 mayuresh               1500
         2 ashwin                  991
         3 supriya                 950
         4 bhavesh                1200
         5 madhav                  900
         6 ajay                    925
         7 ram                     977
         8 rutuj                   830
         9 akansha                 850
        10 gaurav                  899
        11 ashish                  825

11 rows selected.

SQL> select * from result;

no rows selected

SQL> set serveroutput on;
SQL> create or replace procedure p63(mroll in number) is
  2    mmarks number(4);
  3    mname varchar(20);
```

```
 4  begin
 5    select marks,name into mmarks,mname from stud_marks where roll=mroll;
 6    if mmarks<=1500 and mmarks>=990 then
 7          insert into result values(mroll,mname,'destinction');
 8          dbms_output.put_line('destinction');
 9    elsif mmarks<=989 and mmarks>=900 then
10           insert into result values(mroll,mname,'first');
11           dbms_output.put_line('first');
12    elsif mmarks<=899 and mmarks>=825 then
13           insert into result values(mroll,mname,'higher second');
14           dbms_output.put_line('higher second');
15    end if;
16  end;
17  /

Procedure created.

SQL> set serveroutput on;
SQL> declare
  2    mroll number(3);
  3  begin
  4    mroll:=&mroll;
  5    p63(mroll);
  6  exception
  7    when no_data_found then
  8          dbms_output.put_line(mroll||' not found');
  9  end;
 10  /
Enter value for mroll: 1
old   4:       mroll:=&mroll;
new   4:       mroll:=1;
destinction

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 2
old   4:       mroll:=&mroll;
new   4:       mroll:=2;
destinction

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 3
old   4:       mroll:=&mroll;
new   4:       mroll:=3;
first

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 4
```

```
old   4:       mroll:=&mroll;
new   4:       mroll:=4;
destinction

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 5
old   4:       mroll:=&mroll;
new   4:       mroll:=5;
first

PL/SQL procedure successfully completed.

SQL> /6
Enter value for mroll: 6
old   4:       mroll:=&mroll;
new   4:       mroll:=6;
first

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 7
old   4:       mroll:=&mroll;
new   4:       mroll:=7;
first

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 8
old   4:       mroll:=&mroll;
new   4:       mroll:=8;
higher second

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 9
old   4:       mroll:=&mroll;
new   4:       mroll:=9;
higher second

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 10
old   4:       mroll:=&mroll;
new   4:       mroll:=10;
higher second

PL/SQL procedure successfully completed.
```

```
SQL> /
Enter value for mroll: 11
old   4:       mroll:=&mroll;
new   4:       mroll:=11;
higher second

PL/SQL procedure successfully completed.

SQL> /
Enter value for mroll: 12
old   4:       mroll:=&mroll;
new   4:       mroll:=12;
12 not found

PL/SQL procedure successfully completed.

SQL> select * from stud_marks;

     ROLL NAME                 MARKS
---------- -------------------- ----------
         1 mayuresh               1500
         2 ashwin                  991
         3 supriya                 950
         4 bhavesh                1200
         5 madhav                  900
         6 ajay                    925
         7 ram                     977
         8 rutuj                   830
         9 akansha                 850
        10 gaurav                  899
        11 ashish                  825

11 rows selected.

SQL> select * from result;

     ROLL NAME       CLASS
---------- ---------- --------------------
         1 mayuresh   destinction
         2 ashwin     destinction
         3 supriya    first
         4 bhavesh    destinction
         5 madhav     first
         6 ajay       first
         7 ram        first
         8 rutuj      higher second
         9 akansha    higher second
        10 gaurav     higher second
        11 ashish     higher second

11 rows selected.
```