CREDENTIALS

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PROBLEM STATEMENT :

Assignment 5

PLSQL stored procedure:

Consider the following schema and write a stored procedure to find those customers who have taken a loan.
Categorize these loan borrowers as critical, moderate and nominal based on their loan amount.
Insert all the details of borrowers along with the category in borrower_category table.

Customer(Cust_name, AccNo, Balance, city)
Loan(Loan_no, branch_name, Amount)
Borrower(Cust_name, Loan_no)
borrowr_category(Cust_name,AccNo,Loan_no,branch_name,amount,category)

CODE EXECUTION:

mysql> drop database if exists DBMS_mock;
Query OK, 4 rows affected (0.07 sec)

mysql> create database DBMS_mock;
Query OK, 1 row affected (0.02 sec)

mysql> use DBMS_mock;
Database changed

mysql> DROP PROCEDURE IF EXISTS setBorrowerCategory;
Query OK, 0 rows affected, 1 warning (0.01 sec)

mysql> CREATE TABLE Customer(
    ->   cust_name VARCHAR(20),
    ->   acc_no INT,
    ->   balance INT,
    ->   city VARCHAR(20),

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   ->   PRIMARY KEY(cust_name)
   -> );
Query OK, 0 rows affected (0.04 sec)

mysql> CREATE TABLE Loan(
   ->   loan_no INT,
   ->   branch_name VARCHAR(20),
   ->   amount INT,
   ->   PRIMARY KEY(loan_no)
   -> );
Query OK, 0 rows affected (0.05 sec)

mysql> CREATE TABLE Borrower(
   ->   cust_name VARCHAR(20),
   ->   loan_no INT,
   ->   foreign key(loan_no) references Loan(loan_no) on delete cascade,
   ->   foreign key(cust_name) references Customer(cust_name) on delete cascade
   -> );
Query OK, 0 rows affected (0.06 sec)

mysql> CREATE TABLE Borrower_category(
   ->   cust_name VARCHAR(20),
   ->   acc_no INT,
   ->   loan_no INT,
   ->   branch_name VARCHAR(20),
   ->   amount INT,
   ->   category VARCHAR(20),
   ->   foreign key(loan_no) references Loan(loan_no) on delete cascade,
   ->   foreign key(cust_name) references Customer(cust_name) on delete cascade
   -> );
Query OK, 0 rows affected (0.07 sec)

mysql> INSERT INTO Customer VALUES("Prathamesh", 1, 100000, "Pune");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Aditya", 2, 100, "Mumbai");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Sooraj", 3, 52000, "Nashik");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Swatej", 4, 30000, "Nagpur");
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Customer VALUES("Utkarsh", 5, 24000, "Mumbai");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Loan VALUES(101, "Mumbai Dept.", 50000);
Query OK, 1 row affected (0.02 sec)
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mysql> INSERT INTO Loan VALUES(102, "Mumbai Dept.", 70000);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Loan VALUES(103, "Pune Dept.", 10000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Loan VALUES(104, "Pune Dept.", 10);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Loan VALUES(105, "Delhi Dept.", 10000000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Borrower VALUES("Prathamesh", 101);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Borrower VALUES("Aditya", 102);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Borrower VALUES("Sooraj", 103);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Borrower VALUES("Swatej", 104);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Borrower VALUES("Utkarsh", 105);
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM Customer;

cust_name	acc_no	balance	city
Aditya	2	100	Mumbai
Prathamesh	1	100000	Pune
Sooraj	3	52000	Nashik
Swatej	4	30000	Nagpur
Utkarsh	5	24000	Mumbai

5 rows in set (0.00 sec)

mysql> SELECT * FROM Loan;

loan_no	branch_name	amount
101	Mumbai Dept.	50000
102	Mumbai Dept.	70000
103	Pune Dept.	10000
104	Pune Dept.	10
105	Delhi Dept.	10000000

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+---------+-------------+----------+
5 rows in set (0.00 sec)

mysql> SELECT * FROM Borrower;
+------------+---------+
| cust_name  | loan_no |
+------------+---------+
| Prathamesh |     101 |
| Aditya     |     102 |
| Sooraj     |     103 |
| Swatej     |     104 |
| Utkarsh    |     105 |
+------------+---------+
5 rows in set (0.00 sec)

mysql>
mysql> delimiter @@
mysql> create PROCEDURE setBorrowerCategory(IN cust_name_new VARCHAR(20))
    -> BEGIN
    ->
    ->    DECLARE acc_no_new INT;
    ->    DECLARE loan_no_new INT;
    ->    DECLARE branch_name_new VARCHAR(20);
    ->    DECLARE category VARCHAR(20);
    ->    DECLARE loan_amount_new INT;
    ->
    ->    DECLARE exit handler for 1062
    ->    SELECT 'Error : Duplicate' AS MESSAGE;
    ->    DECLARE exit handler for NOT found
    ->    SELECT 'Error :  Record not found' AS MESSAGE;
    ->
    ->    SELECT acc_no INTO acc_no_new FROM Customer WHERE
STRCMP(cust_name,cust_name_new)=0;
    ->    SELECT loan_no INTO loan_no_new FROM Borrower WHERE
STRCMP(cust_name,cust_name_new)=0;
    ->    SELECT branch_name INTO branch_name_new FROM Loan WHERE
loan_no=loan_no_new;
    ->    SELECT amount INTO loan_amount_new FROM Loan WHERE loan_no=loan_no_new;
    ->
    ->    IF loan_amount_new>=100000 THEN
    ->      SET category="Critical";
    ->    END IF;
    ->    IF loan_amount_new<100000 AND loan_amount_new>=30000 THEN
    ->      SET category="Moderate";
    ->    END IF;
    ->    IF loan_amount_new<30000 THEN
    ->      SET category="Nominal";
    ->    END IF;
    ->
```

```
    ->     INSERT INTO Borrower_category VALUES(
    ->        cust_name_new,
    ->        acc_no_new,
    ->        loan_no_new,
    ->        branch_name_new,
    ->        loan_amount_new,
    ->        category
    ->     );
    ->
    -> END@@
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
mysql>
mysql> CALL setBorrowerCategory("Prathamesh");
Query OK, 1 row affected (0.01 sec)

mysql> CALL setBorrowerCategory("Aditya");
Query OK, 1 row affected (0.01 sec)

mysql> CALL setBorrowerCategory("Sooraj");
Query OK, 1 row affected (0.01 sec)

mysql> CALL setBorrowerCategory("Swatej");
Query OK, 1 row affected (0.00 sec)

mysql> CALL setBorrowerCategory("Utkarsh");
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM Borrower_category;
+------------+--------+---------+--------------+----------+----------+
| cust_name  | acc_no | loan_no | branch_name  | amount   | category |
+------------+--------+---------+--------------+----------+----------+
| Prathamesh |     1  |    101  | Mumbai Dept. |    50000 | Moderate |
| Aditya     |     2  |    102  | Mumbai Dept. |    70000 | Moderate |
| Sooraj     |     3  |    103  | Pune Dept.   |    10000 | Nominal  |
| Swatej     |     4  |    104  | Pune Dept.   |       10 | Nominal  |
| Utkarsh    |     5  |    105  | Delhi Dept.  | 10000000 | Critical |
+------------+--------+---------+--------------+----------+----------+
5 rows in set (0.00 sec)
mysql> CALL setBorrowerCategory("Ram");
+--------------------------+
| MESSAGE                  |
+--------------------------+
| Error :  Record not found |
+--------------------------+
1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```