Name- Rupesh Dharme

Rollno- 31124

Assignment-05

1) Title- write PL/SQL stored procedure and -function

2) Problem statement's outcome :-
   a) understand If then and for loop
   b) Understand PL/SQL stored procedure
   c) Write PL/SQL code work using stored- -procedure

3) Problem statement :
   Write a stored procedure for categorization of students according to the marks they obtained in examination.

4) Theory : procedure :-
   a) It is simple program that performs specific task/action
   b) Procedure has two parts
   -specification parameters name
   - Body : code of procedure

   c) creating procedure :
   CREATE (OR REPLACE) procedure proc_name
   [(argument (IN/OUT/INOUT) Type).
   (argument-2 [IN/OUT/INOUT] Type).
   ------]

   IS/AS
       procedure. Body
   d) Deleting a procedure
   Drop procedure proc_name;

PL/SQL :-

- It is procedural language.
- It has high performance.
- It has transaction processing language.
- It has better performance
- It can handle errors.
- Scalability

Advantages of subprograms

- reusability
- extensibility
- maintainability

Conclusion -

We have successfully implemented stored procedure in PL/SQL using My sql.

```
mysql> drop database assignment05;
Query OK, 2 rows affected (0.13 sec)

mysql>
mysql> create database assignment05;
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> use assignment05;
Database changed
mysql>
mysql> -- Tables: Stud_Marks(name, total_marks) Result(Roll,Name, Class)
mysql> create table students(
    ->     roll_no int not null auto_increment,
    ->     name varchar(20) not null,
    ->     marks int not null,
    ->     primary key(roll_no)
    -> );
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> create table results(
    ->     roll_no int not null,
    ->     name varchar(20) not null,
    ->     class varchar(20),
    ->     primary key(roll_no),
    ->     foreign key(roll_no) references students(roll_no) on delete cascade
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> insert into students
    -> values (31124, 'Rupesh', 1486);
```

```
mysql>
mysql> insert into students
    -> values (31124, 'Rupesh', 1486);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> insert into students(name, marks)
    -> values ('Akash', 950),
    ->        ('Rajan', 850),
    ->        ('Nikhil', 1490),
    ->        ('Sahil', 880);
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql>
mysql> select * from students;
+---------+--------+-------+
| roll_no | name   | marks |
+---------+--------+-------+
|   31124 | Rupesh |  1486 |
|   31125 | Akash  |   950 |
|   31126 | Rajan  |   850 |
|   31127 | Nikhil |  1490 |
|   31128 | Sahil  |   880 |
+---------+--------+-------+
5 rows in set (0.00 sec)

mysql>
mysql> select * from results;
Empty set (0.01 sec)

Empty set (0.01 sec)
```

```
mysql>
mysql> delimiter //
mysql>
mysql> -- Write a Stored Procedure namely proc_Grade for the categorization of student
mysql> create procedure proc_grade(rno int)
    -> begin
    -> declare n varchar(20);
    -> declare m int;
    -> select name, marks into n, m from students where roll_no = rno;
    -> -- marks<=1500 and marks>=990 -> distinction category
    -> if (m>=990 and m<=1500) then
    ->     insert into results values(rno, n, 'distinction');
    -> -- if marks scored are between 989 and900 category is first class,
    -> elseif (m>=899 and m<990) then
    ->     insert into results values(rno, n, 'first class');
    -> -- if marks899and 825 category is Higher Second Class.
    -> elseif (m>=825 and m<899) then
    ->     insert into results values(rno, n, 'higher second class');
    -> end if;
    -> end;
    -> //
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> delimiter ;
mysql>
mysql>
mysql> call proc_grade(31124);
Query OK, 1 row affected (0.02 sec)

mysql> select * from students;
+---------+-------+------+
Empty set (0.01 sec)
```

```
mysql> select * from students;
+---------+--------+-------+
| roll_no | name   | marks |
+---------+--------+-------+
|   31124 | Rupesh |  1486 |
|   31125 | Akash  |   950 |
|   31126 | Rajan  |   850 |
|   31127 | Nikhil |  1490 |
|   31128 | Sahil  |   880 |
+---------+--------+-------+
5 rows in set (0.00 sec)

mysql> select * from results;
+---------+--------+-------------+
| roll_no | name   | class       |
+---------+--------+-------------+
|   31124 | Rupesh | distinction |
+---------+--------+-------------+
1 row in set (0.00 sec)

mysql>
mysql> call proc_grade(31125);
Query OK, 1 row affected (0.01 sec)

mysql> call proc_grade(31126);
Query OK, 1 row affected (0.01 sec)

mysql> call proc_grade(31127);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> select * from results;
Empty set (0.01 sec)
```

```
mysql> call proc_grade(31127);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> select * from results;
+---------+--------+---------------------+
| roll_no | name   | class               |
+---------+--------+---------------------+
|   31124 | Rupesh | distinction         |
|   31125 | Akash  | first class         |
|   31126 | Rajan  | higher second class |
|   31127 | Nikhil | distinction         |
+---------+--------+---------------------+
4 rows in set (0.00 sec)

mysql>


Empty set (0.01 sec)
```