

Rollno : 31413

## Assignment 5

**Aim : Named PL/SQL Block: PL/SQL Stored Procedure and Stored Function. Write a Stored Procedure namely proc\_Grade for the categorization of student. If marks scored by students in examination is  $\leq 1500$  and marks  $\geq 990$  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 to use procedure created with above requirement. Stud\_Marks(name, total\_marks) Result(Roll, Name, Class)**

- 1) create table Student(rollno int primary key not null, name varchar(20), marks int);
- 2) insert into Student values(1,"Siddhi",990),(2,"Anushree",1300),(3,"Dhanashree",950),(4,"jon",720);
- 3) create table result(rollno int,name varchar(20), class varchar(20));

```
mysql> use te31413_db;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> create table Student(rollno int primary key not null, name varchar(20), marks int);
Query OK, 0 rows affected (0.15 sec)

mysql> insert into Student values(1,"Siddhi",990),(2,"Anushree",1300),(3,"Dhanashree",950),(4,"jon",720);
Query OK, 4 rows affected (0.03 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> select * from Student;
+-----+-----+-----+
| rollno | name      | marks |
+-----+-----+-----+
| 1      | Siddhi    | 990   |
| 2      | Anushree  | 1300  |
| 3      | Dhanashree | 950   |
| 4      | jon       | 720   |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> create table result(rollno int,name varchar, class varchar(20));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near '' at line 1
mysql> create table result(rollno int,name varchar(20), class varchar(20));
Query OK, 0 rows affected (0.17 sec)
```

Display the content of Student

```
mysql> select * from Student;
+-----+-----+-----+
| rollno | name      | marks |
+-----+-----+-----+
| 1      | Siddhi    | 990   |
| 2      | Anushree  | 1300  |
| 3      | Dhanashree | 950   |
| 4      | jon       | 720   |
| 5      | shree     | 350   |
| 6      | shreeraj  | -4    |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

Code :

**Function:**

delimiter //

```
create function assign(stud_marks int)
returns varchar(20)
begin
    declare result varchar(20);
    case
        when stud_marks<=1500 and stud_marks>=990
            then set result= "Destinction";
        when stud_marks<=989 and stud_marks>=900
            then set result="First class";
        when stud_marks<=899 and stud_marks>=825
            then set result= "Higher second class";
        else
            set result="No grade";
    end case;
    return result;
end
//
```

delimiter ;

**Procedure:**

delimiter //

create procedure calClass(IN rollno int)

pro\_label:begin

```
    declare grade varchar(20);
    declare stud_name varchar(20);
    declare stud_marks int;
    declare exit handler for sqlexception
```

begin

```
    select 'An error occurred while processing the request' as error_message;
end;
```

```
select name,marks into stud_name,stud_marks from Student where Student.rollno=rollno;
if stud_marks < 0 or stud_marks > 1500 then
    select 'Invalid marks value. Marks must be between 0 and 1500.' as error_message;
```

```
    leave pro_label;
end if;
    set grade=assign(stud_marks);
```

```
    insert into result values(rollno,stud_name,grade);
```

```
end
//
delimiter ;
```

```
mysql> call calClass(1);  
Query OK, 2 rows affected (0.06 sec)
```

```
mysql> select * from result;  
+-----+-----+-----+  
| rollno | name   | class      |  
+-----+-----+-----+  
|      1 | Siddhi | Destinction |  
+-----+-----+-----+  
1 row in set (0.00 sec)
```

```
mysql> call calClass(6);  
+-----+-----+-----+  
| error_message                                     |  
+-----+-----+-----+  
| Invalid marks value. Marks must be between 0 and 1500. |  
+-----+-----+-----+  
1 row in set (0.01 sec)
```

```
Query OK, 1 row affected (0.01 sec)
```

```
mysql> █
```