**SEHEJ BAKSHI DBMS Lab 04/09/2020**

**Assignment No. 7**

**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 <=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)

Frame the separate problem statement for writing PL/SQL Stored Procedure and function, inline with above statement. The problem statement should clearly state the requirements**.**

1. **Create Tables and Enter Values:**

mysql> create table stud\_marks(rollno int, name varchar(20), total\_marks int);

Query OK, 0 rows affected (0.53 sec)

mysql> create table result(rollno int, class varchar(20));

Query OK, 0 rows affected (0.49 sec)

mysql> insert into stud\_marks values(1, 'sehej', 850);

Query OK, 1 row affected (0.10 sec)

mysql> insert into stud\_marks values(2, 'negi', 925);

Query OK, 1 row affected (0.10 sec)

mysql> insert into stud\_marks values(3, 'rawat', 1499);

Query OK, 1 row affected (0.03 sec)

mysql> select \* from stud\_marks;

+--------+-------+-------------+

| rollno | name | total\_marks |

+--------+-------+-------------+

| 1 | sehej | 850 |

| 2 | negi | 925 |

| 3 | rawat | 1499 |

+--------+-------+-------------+

3 rows in set (0.02 sec)

1. **Using Procedure:**mysql> delimiter //

mysql> create procedure pro\_grade()

-> begin

-> declare rno int;

-> declare tmarks int;

-> declare noMoreRows int;

-> declare grcur cursor for select rollno, total\_marks from stud\_marks;

-> declare continue handler for not found set noMoreRows = 1;

-> set noMoreRows = 0;

-> open grcur;

-> fetch\_loop: loop

-> fetch grcur into rno, tmarks;

-> if noMoreRows

-> then

-> leave fetch\_loop;

-> end if;

-> if (tmarks<=1500 and tmarks >=990)

-> then

-> insert into result values(rno, 'Distinction');

-> end if;

-> if (tmarks>=900 and tmarks<=989)

-> then

-> insert into result values(rno, 'First Class');

-> end if;

-> if(tmarks>=825 and tmarks<=899)

-> then

-> insert into result values(rno, 'Higher Second Class');

-> end if;

-> end loop fetch\_loop;

-> close grcur;

-> end;

-> //

Query OK, 0 rows affected (0.11 sec)

mysql> delimiter ;

mysql> call pro\_grade;

Query OK, 0 rows affected (0.27 sec)

mysql> select \* from result;

+--------+---------------------+

| rollno | class |

+--------+---------------------+

| 1 | Higher Second Class |

| 2 | First Class |

| 3 | Distinction |

+--------+---------------------+

3 rows in set (0.00 sec)

1. **Using Function:**

mysql> delimiter //

mysql> create function grade(total\_marks int) returns varchar(20) deterministic

-> begin

-> declare class varchar(20);

-> if total\_marks<=1500 and total\_marks>=990 then

-> set class = 'Distinction';

-> elseif total\_marks>=900 and total\_marks<=989 then

-> set class = 'First Class';

-> elseif total\_marks>=825 and total\_marks<=899 then

-> set class = 'HS';

-> else

-> set class = 'S';

-> end if;

-> return class;

-> end;

-> //

Query OK, 0 rows affected (0.13 sec)

mysql> select \*, grade(total\_marks) from stud\_marks//

+--------+-------+-------------+--------------------+

| rollno | name | total\_marks | grade(total\_marks) |

+--------+-------+-------------+--------------------+

| 1 | sehej | 850 | HS |

| 2 | negi | 925 | First Class |

| 3 | rawat | 1499 | Distinction |

+--------+-------+-------------+--------------------+

3 rows in set (0.00 sec)