Assignment: 05

(PL/SQL – Procedure & Function)

Problem Statement a): 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 to use procedure created with above requirement.

* Stud\_Marks(name, total\_marks)
* Result(Roll,Name, Class)

Code:

mysql> create table stud\_marks(name char(15), marks int);

Query OK, 0 rows affected (0.21 sec)

mysql> create table result(rollNo int, name char(15), class varchar(10));

Query OK, 0 rows affected (0.23 sec)

mysql> insert into stud\_marks values('xyz', 1000);

Query OK, 1 row affected (0.04 sec)

mysql> insert into stud\_marks values('abc', 800);

Query OK, 1 row affected (0.04 sec)

mysql> insert into stud\_marks values('aac', 895);

Query OK, 1 row affected (0.04 sec)

mysql> insert into stud\_marks values('ccc', 700);

Query OK, 1 row affected (0.03 sec)

mysql> delimiter //

mysql> create procedure proc\_grad(in marks int, out class varchar(10))

-> begin

-> if marks <= 1500 and marks >= 990 then set class ='DIST';

-> end if;

-> if marks <= 989 and marks >= 900 then set class = 'FC';

-> end if;

-> if marks <= 899 and marks >= 801 then set class = 'HSC';

-> end if;

-> if marks <= 800 and marks >= 680 then set class = 'sC';

-> end if;

-> if marks <= 679 and marks >= 500 then set class = 'PASS';

-> end if;

-> if marks < 500 then set class = 'Fail';

-> end if;

-> end;

-> //

Query OK, 0 rows affected (0.04 sec)

mysql> alter table stud\_marks add column rollNo int//

Query OK, 0 rows affected (0.45 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> select \* from stud\_marks//

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

| name | marks | rollNo |

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

| xyz | 1000 | NULL |

| abc | 800 | NULL |

| aac | 895 | NULL |

| ccc | 700 | NULL |

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

4 rows in set (0.00 sec)

mysql> update stud\_marks set rollNo = 101 where name = 'xyz'//

Query OK, 1 row affected (0.06 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> update stud\_marks set rollNo = 102 where name = 'abc'//

Query OK, 1 row affected (0.05 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> update stud\_marks set rollNo = 103 where name = 'aac'//

Query OK, 1 row affected (0.03 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> update stud\_marks set rollNo = 104 where name = 'ccc'//

Query OK, 1 row affected (0.03 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> insert into stud\_marks values('lmn', 600, 105)//

Query OK, 1 row affected (0.04 sec)

mysql> insert into stud\_marks values('pqr', 950, 106)//

Query OK, 1 row affected (0.04 sec)

mysql> insert into stud\_marks values('alpha', 400, 107)//

Query OK, 1 row affected (0.03 sec)

mysql> select \* from stud\_marks//

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

| name | marks | rollNo |

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

| xyz | 1000 | 101 |

| abc | 800 | 102 |

| aac | 895 | 103 |

| ccc | 700 | 104 |

| lmn | 600 | 105 |

| pqr | 950 | 106 |

| alpha | 400 | 107 |

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

7 rows in set (0.00 sec)

mysql> create function res(roll\_no int) returns int deterministic begin declare fmarks int; declare grade varchar(10); declare stname char(15); select stud\_marks.marks, stud\_marks.name into fmarks, stname from stud\_marks where stud\_marks.rollNo = roll\_no; call proc\_grad(fmarks, @grade); insert into result values(roll\_no, stname, @grade); return roll\_no; end;//

Query OK, 0 rows affected (0.00 sec)

mysql> select res(101)//

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

| res(101) |

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

| 101 |

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

1 row in set (0.04 sec)

mysql> select res(102)//

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

| res(102) |

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

| 102 |

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

1 row in set (0.03 sec)

mysql> select res(103)//

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

| res(103) |

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

| 103 |

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

1 row in set (0.03 sec)

mysql> select res(104)//

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

| res(104) |

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

| 104 |

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

1 row in set (0.02 sec)

mysql> select res(105)//

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

| res(105) |

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

| 105 |

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

1 row in set (0.03 sec)

mysql> select res(106)//

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

| res(106) |

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

| 106 |

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

1 row in set (0.02 sec)

mysql> select res(107)//

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

| res(107) |

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

| 107 |

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

1 row in set (0.02 sec)

mysql> select \* from result//

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

| rollNo | name | class |

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

| 101 | xyz | DIST |

| 102 | abc | sC |

| 103 | aac | HSC |

| 104 | ccc | sC |

| 105 | lmn | PASS |

| 106 | pqr | FC |

| 107 | alpha | Fail |

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

7 rows in set (0.00 sec)

mysql> delimiter ;

mysql> notee;