Assignment 5

Create and Populate Tables

```
MariaDB [te31311_db]> create table Stud_marks(Rollno int primary key,name varchar(50) not null,marks int not null);
Query OK, 0 rows affected (0.144 sec)

MariaDB [te31311_db]> insert into Stud_marks values(1,'Abhishek Sharma',1200);

MariaDB [te31311_db]> insert into Stud_marks values(2,'Biswas Dey',950),(3,'Chirag Gupta',850),(4,'Dhiraj Rana',750),(5,'Eshan Naqvi',650)
Query OK, 4 rows affected (0.027 sec)
Records: 4  Duplicates: 0  Warnings: 0

MariaDB [te31311_db]> select * from Stud_marks;
+--------+-----------------+-------+
| Rollno | name            | marks |
+--------+-----------------+-------+
|      1 | Abhishek Sharma |  1200 |
|      2 | Biswas Dey      |   950 |
|      3 | Chirag Gupta    |   850 |
|      4 | Dhiraj Rana     |   750 |
|      5 | Eshan Naqvi     |   650 |
+--------+-----------------+-------+
5 rows in set (0.001 sec)

MariaDB [te31311_db]> create table Stud_result(Rollno int not null,name varchar(50) not null, result varchar(50) not null);
Query OK, 0 rows affected (0.176 sec)
```

Creating Function `proc_grade`

```
MariaDB [te31311_db]> delimiter //
MariaDB [te31311_db]> create function proc_grade(marks int) returns varchar(50)
    -> begin
    -> declare class varchar(50);
    -> if marks<=1500 and marks>=990 then
    ->
Display all 819 possibilities? (y or n)
    -> set class='Distinction';
    -> elseif marks<990 and marks>=900 then
    ->
Display all 819 possibilities? (y or n)
    -> set class='First Class';
    -> elseif marks<900 and marks>=825 then
    ->
Display all 819 possibilities? (y or n)
    -> set class='Second Class';
    -> elseif marks<825 and marks>=750 then
    ->
Display all 819 possibilities? (y or n)
    -> set class='Pass';
    -> else
    ->
Display all 819 possibilities? (y or n)
    -> set class='Fail';
    -> end if;
    ->
    -> return class;
    -> end //
Query OK, 0 rows affected (0.057 sec)

MariaDB [te31311_db]> show function status;
    -> //
+------------+------------+----------+-----------+---------------------+---------------------+---------------+---------+------------------
| Db         | Name       | Type     | Definer   | Modified            | Created             | Security_type | Comment | character_set_cli
+------------+------------+----------+-----------+---------------------+---------------------+---------------+---------+------------------
| te31311_db | proc_grade | FUNCTION | te31311@% | 2024-08-05 14:30:59 | 2024-08-05 14:30:59 | DEFINER       |         | utf8
+------------+------------+----------+-----------+---------------------+---------------------+---------------+---------+------------------
1 row in set (0.007 sec)
```

Create Procedure `UpdateResult`

```
MariaDB [te31311_db]> DELIMITER //
MariaDB [te31311_db]>
MariaDB [te31311_db]> CREATE PROCEDURE UpdateResult(IN r INT)
    -> BEGIN
    ->     DECLARE name1 VARCHAR(50);
    ->     DECLARE marks1 INT;
    ->     DECLARE class1 VARCHAR(50);
```

```
      ->
      ->      -- Retrieve the name and marks for the given roll number
      ->      SELECT name INTO name1 FROM Stud_marks WHERE Rollno = r;
      ->      SELECT marks INTO marks1 FROM Stud_marks WHERE Rollno = r;
      ->
      ->      -- Set the value of class1 using a subquery
      ->      SET class1 = (SELECT proc_grade(marks1));
      ->
      ->      -- Insert the results into the Stud_result table
      ->      INSERT INTO Stud_result (Rollno, Name, Class) VALUES (r, name1, class1);
      -> END //
Query OK, 0 rows affected (0.043 sec)

MariaDB [te31311_db]>
MariaDB [te31311_db]> DELIMITER ;
```

Call `UpdateResult` and display `Stud_result`

```
MariaDB [te31311_db]> call UpdateResult(1);
Query OK, 3 rows affected (0.027 sec)

MariaDB [te31311_db]> select * from Stud_result;
+--------+-----------------+-------------+
| Rollno | name            | Class       |
+--------+-----------------+-------------+
|      1 | Abhishek Sharma | Distinction |
+--------+-----------------+-------------+
1 row in set (0.001 sec)

MariaDB [te31311_db]> call UpdateResult(2);
Query OK, 3 rows affected (0.030 sec)

MariaDB [te31311_db]> call updateResult(3);
Query OK, 3 rows affected (0.033 sec)

MariaDB [te31311_db]> select * from Stud_result order by Rollno;
+--------+-----------------+--------------+
| Rollno | name            | Class        |
+--------+-----------------+--------------+
|      1 | Abhishek Sharma | Distinction  |
|      2 | Biswas Dey      | First Class  |
|      3 | Chirag Gupta    | Second Class |
+--------+-----------------+--------------+
3 rows in set (0.001 sec)

MariaDB [te31311_db]> call updateResult(5);
Query OK, 3 rows affected (0.027 sec)

MariaDB [te31311_db]> call UpdateResult(4);
Query OK, 3 rows affected (0.030 sec)

MariaDB [te31311_db]> select * from Stud_result;
+--------+-----------------+--------------+
| Rollno | name            | Class        |
+--------+-----------------+--------------+
|      1 | Abhishek Sharma | Distinction  |
|      2 | Biswas Dey      | First Class  |
|      3 | Chirag Gupta    | Second Class |
|      5 | Eshan Naqvi     | Fail         |
|      4 | Dhiraj Rana     | Pass         |
+--------+-----------------+--------------+
5 rows in set (0.001 sec)

MariaDB [te31311_db]> select * from Stud_result order by rollno;
+--------+-----------------+--------------+
| Rollno | name            | Class        |
+--------+-----------------+--------------+
|      1 | Abhishek Sharma | Distinction  |
|      2 | Biswas Dey      | First Class  |
|      3 | Chirag Gupta    | Second Class |
|      4 | Dhiraj Rana     | Pass         |
|      5 | Eshan Naqvi     | Fail         |
+--------+-----------------+--------------+
5 rows in set (0.001 sec)
```