

**/\*Practical No : 05  
Name: Dhiraj Vijay Barwal,  
Roll no : 8,  
Class: TECSD,  
Batch: T1\*/**

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**/\* LEARN AND IMPLEMENT PL/SQL PROGRAMMING WITH PROCEDURES  
AND FUNCTIONS \*/**

**/\* Step 1: Create Database \*/**

**CREATE DATABASE practicals5;  
USE practicals5;**

**/\* Step 2: Create Tables \*/**

**CREATE TABLE marks (  
    roll\_no INT,  
    name VARCHAR(20),  
    total\_marks INT  
);**

**CREATE TABLE result (  
    roll\_no INT,  
    name VARCHAR(20),  
    class VARCHAR(20)  
);**

**/\* Step 3: Insert Data into marks Table \*/**

**INSERT INTO marks VALUES (1, 'Abhi', 1400);  
INSERT INTO marks VALUES (2, 'Piyush', 980);  
INSERT INTO marks VALUES (3, 'Hitesh', 880);  
INSERT INTO marks VALUES (4, 'Ashley', 820);  
INSERT INTO marks VALUES (5, 'Partik', 740);  
INSERT INTO marks VALUES (6, 'Patil', 640);**

**/\* Step 4: Create Procedure for Class Calculation \*/  
DELIMITER //**

**CREATE PROCEDURE proc\_result(IN marks INT, OUT class VARCHAR(20))  
BEGIN  
    IF marks >= 990 AND marks <= 1500 THEN  
        SET class = 'Distinction';  
    ELSEIF marks >= 891 AND marks <= 989 THEN  
        SET class = 'First Class';  
    ELSEIF marks >= 826 AND marks <= 890 THEN  
        SET class = 'Higher Second Class';  
    ELSEIF marks >= 751 AND marks <= 825 THEN  
        SET class = 'Second Class';  
    ELSEIF marks >= 651 AND marks <= 750 THEN  
        SET class = 'Passed';  
    ELSE  
        SET class = 'Fail';  
    END IF;  
END //**

**DELIMITER ;**

**/\* Step 5: Set Required Global Variable \*/**

**SET GLOBAL log\_bin\_trust\_function\_creators = 1;**

**/\* Step 6: Create Function to Process Final Result \*/**

**DELIMITER //**

**CREATE FUNCTION final\_result3(R1 INT)**

**RETURNS INT**

**BEGIN**

**DECLARE fmarks INT;**

**DECLARE grade VARCHAR(20);**

**DECLARE stud\_name VARCHAR(20);**

**/\* Fetch the total\_marks and name for the given roll number \*/**

**SELECT total\_marks, name INTO fmarks, stud\_name**

**FROM marks**

**WHERE roll\_no = R1;**

**/\* Call the procedure to get the class based on marks \*/**

**CALL proc\_result(fmarks, grade);**

**/\* Insert the result into the result table \*/**

**INSERT INTO result VALUES (R1, stud\_name, grade);**

**RETURN R1;**

**END //**

**DELIMITER ;**

**/\* Step 7: Test the Function \*/**

**SELECT final\_result3(1);**

**SELECT final\_result3(2);**

**SELECT final\_result3(3);**

**SELECT final\_result3(4);**

**SELECT final\_result3(5);**

**SELECT final\_result3(6);**

**/\* Final Output \*/**

**SELECT \* FROM result;**

**/\***

**Expected Output:**

```
+-----+-----+-----+
| roll_no | name   | class                |
+-----+-----+-----+
| 1 | Abhi   | Distinction          |
| 2 | Piyush | First Class           |
| 3 | Hitesh | Higher Second Class  |
| 4 | Ashley | Second Class         |
| 5 | Partik | Passed               |
| 6 | Patil  | Fail                 |
+-----+-----+-----+
```

**\*/**