**Name – Shahane Akash Dilip Roll No – C32260 Class – TE Div:2**

**Batch – T8**

**Assignment No – 5**

**Title:** PL/SQL Stored Procedure and Stored Function.

**Problem Statement:** Write a stored procedure namely procedure\_grade for the categorization of the student if marks scored by the student in examination is <=1500 and marks>=990 then student will be placed in distinction category.If marks scored are between 989 and 900 then category is 1st class,if marks are between 899 and 825 then category is higher 2nd class.

**----------------------------------------------------------------**

**1. Write a PL/SQL block to use the procedure created with the above requirement. Insert the data in both the tables by calling the above procedure**.

**Create Table:**

**1. Stud\_Marks(name, total\_marks).**

mysql>CREATE TABLE stud\_marks (Roll\_No INT PRIMARY KEY,Name VARCHAR(50),Class VARCHAR(50));

mysql>DESC student;

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

| Field | Type | Null | Key | Default | Extra |

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

| Roll\_No | INT | NO | PRI | NULL | |

| Name | VARCHAR(50) | YES | | NULL | |

| Class | VARCHAR(50) | YES | | NULL | |

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

**2. Result(Roll,Name, Class)**

mysql>CREATE TABLE result (Name VARCHAR(50),TotalMarks INT);

mysql>DESC result;

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

| Field | Type | Null | Key | Default | Extra |

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

| Name | VARCHAR(50)| YES | | NULL | |

| Marks | INT | YES | | NULL | |

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

CREATE PROCEDURE proc\_grade(IN rollno TINYINT, IN name VARCHAR(15), IN marks INT)

BEGIN

DECLARE class VARCHAR(25);

IF marks >= 990 AND marks <= 1500 THEN

SET class = "Distinction";

ELSEIF marks <= 989 AND marks >= 900 THEN

SET class = "First Class";

ELSEIF marks <= 899 AND marks >= 825 THEN

SET class = "Second Class";

ELSEIF marks <= 824 AND marks >= 700 THEN

SET class = "Pass";

ELSE

SET class = "Fail";

END IF;

INSERT INTO stud\_marks VALUES (name, marks);

INSERT INTO result VALUES (rollno, name, class);

END$

mysql> call proc\_grade(1,"Aryan",850);

Query OK, 1 row affected (0.06 sec)

mysql> call proc\_grade(2,"Peter",1000);

Query OK, 1 row affected (0.06 sec)

mysql> call proc\_grade(3,"Smith",834);

Query OK, 1 row affected (0.07 sec)

mysql> call proc\_grade(4,"Carol",750);

Query OK, 1 row affected (0.07 sec)

mysql> call proc\_grade(5,"Bob",950);

Query OK, 1 row affected (0.07 sec)

mysql> call proc\_grade(6,"Sam",650);

Query OK, 1 row affected (0.06 sec)

mysql> SELECT \* FROm result;

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

| Roll\_No | Name | Class |

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

| 1 | Aryan | Second Class |

| 2 | Peter | Distinction |

| 3 | Smith | Second Class |

| 4 | Carol | Pass |

| 5 | Bob | First Class |

| 6 | Sam | Fail |

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

6 rows in set (0.00 sec)

mysql> SELECT \* FROM stud\_marks;

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

| Name | TotalMarks |

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

| Aryan | 850 |

| Peter | 1000 |

| Smith | 834 |

| Carol | 750 |

| Bob | 950 |

| Sam | 650 |

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

6 rows in set (0.00 sec)

**2. Write a function which will return the total students in a given class**

mysql> CREATE FUNCTION tot\_stud(classname VARCHAR(25))

RETURNS INT

BEGIN

DECLARE total INT(20);

SELECT DISTINCT COUNT(\*) INTO total FROM result WHERE Class = classname;

RETURN total;

END $

Query OK, 0 rows affected (0.00 sec)

mysql> DELIMITER ;

mysql> SELECT tot\_stud("Second Class");

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

| tot\_stud("Second Class") |

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

| 2 |

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

1 row in set (0.00 sec)

mysql> SELECT tot\_stud("Pass");

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

| tot\_stud("Pass") |

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

| 1 |

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

1 row in set (0.00 sec)