**Practical No:-5**

**Roll No:-31453**

1. **Tables Creation**

mysql> CREATE TABLE Stud\_Marks (

Roll INT PRIMARY KEY,

Name VARCHAR(50),

Total\_Marks INT NOT NULL

);

Query OK, 0 rows affected (0.12 sec)

**mysql> DESC Stud\_Marks;**

mysql> CREATE TABLE Result (

Roll INT PRIMARY KEY NOT NULL,

Name VARCHAR(20),

Class VARCHAR(20)

);

Query OK, 0 rows affected (0.15 sec)

**mysql> DESC Result;**

1. **Data Insertion**

mysql> INSERT INTO Stud\_Marks VALUES (201, 'Rahul Sharma', 1120);

mysql> INSERT INTO Stud\_Marks VALUES (202, 'Sneha Patil', 980);

mysql> INSERT INTO Stud\_Marks VALUES (203, 'Amit Verma', 860);

mysql> INSERT INTO Stud\_Marks VALUES (204, 'Priya Nair', 1025);

mysql> INSERT INTO Stud\_Marks VALUES (205, 'Karan Mehta', 815);

**mysql> SELECT \* FROM Stud\_Marks;**

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

| Roll | Name | Total\_Marks |

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

| 201 | Rahul Sharma| 1120 |

| 202 | Sneha Patil | 980 |

| 203 | Amit Verma | 860 |

| 204 | Priya Nair | 1025 |

| 205 | Karan Mehta | 815 |

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1. **Using Stored Procedure**

DELIMITER $$

CREATE OR REPLACE PROCEDURE proc\_grade(IN p\_roll INT)

BEGIN

DECLARE v\_name VARCHAR(50);

DECLARE v\_marks INT;

DECLARE v\_class VARCHAR(20);

SELECT Name, Total\_Marks INTO v\_name, v\_marks

FROM Stud\_Marks

WHERE Roll = p\_roll;

SET v\_class = CASE

WHEN v\_marks BETWEEN 990 AND 1500 THEN 'Distinction'

WHEN v\_marks BETWEEN 900 AND 989 THEN 'First Class'

WHEN v\_marks BETWEEN 825 AND 899 THEN 'Higher Second Class'

ELSE 'No Category'

END;

INSERT INTO Result VALUES(p\_roll, v\_name, v\_class);

SELECT 'Record inserted successfully!!' AS message;

END$$

DELIMITER ;

**Procedure Calls**

mysql> CALL proc\_grade(201);

mysql> CALL proc\_grade(202);

mysql> CALL proc\_grade(203);

mysql> CALL proc\_grade(204);

mysql> CALL proc\_grade(205);

**Result Table**

mysql> SELECT \* FROM Result;

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

| Roll | Name | Class |

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

| 201 | Rahul Sharma| Distinction |

| 202 | Sneha Patil | First Class |

| 203 | Amit Verma | Higher Second Class |

| 204 | Priya Nair | Distinction |

| 205 | Karan Mehta | No Category |

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1. **Using Stored Function**

DELIMITER $$

CREATE FUNCTION func\_grade(p\_roll INT) RETURNS VARCHAR(20)

BEGIN

DECLARE v\_marks INT;

DECLARE v\_class VARCHAR(20);

SELECT Total\_Marks INTO v\_marks

FROM Stud\_Marks

WHERE Roll = p\_roll;

SET v\_class = CASE

WHEN v\_marks BETWEEN 990 AND 1500 THEN 'Distinction'

WHEN v\_marks BETWEEN 900 AND 989 THEN 'First Class'

WHEN v\_marks BETWEEN 825 AND 899 THEN 'Higher Second Class'

ELSE 'No Category'

END;

RETURN v\_class;

END$$

DELIMITER ;

**Function Calls**

mysql> INSERT INTO Result (Roll, Name, Class)

SELECT Roll, Name, func\_grade(Roll)

FROM Stud\_Marks WHERE Roll=201;

mysql> INSERT INTO Result (Roll, Name, Class)

SELECT Roll, Name, func\_grade(Roll)

FROM Stud\_Marks WHERE Roll=202;

mysql> INSERT INTO Result (Roll, Name, Class)

SELECT Roll, Name, func\_grade(Roll)

FROM Stud\_Marks WHERE Roll=203;

mysql> INSERT INTO Result (Roll, Name, Class)

SELECT Roll, Name, func\_grade(Roll)

FROM Stud\_Marks WHERE Roll=204;

mysql> INSERT INTO Result (Roll, Name, Class)

SELECT Roll, Name, func\_grade(Roll)

FROM Stud\_Marks WHERE Roll=205;

**Final Result Table**

mysql> SELECT \* FROM Result;

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

| Roll | Name | Class |

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

| 201 | Rahul Sharma| Distinction |

| 202 | Sneha Patil | First Class |

| 203 | Amit Verma | Higher Second Class |

| 204 | Priya Nair | Distinction |

| 205 | Karan Mehta | No Category |

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