MariaDB [te31265\_db]>CREATE TABLE Stud\_Marks(

RollNo INT PRIMARY KEY,

Sname VARCHAR(20),

Total\_Marks INT

);

Query OK, 0 rows affected (0.193 sec)

MariaDB [te31265\_db]>INSERT INTO Stud\_Marks VALUES

(1, 'Aarav', 1020),

(2, 'Vihaan', 875),

(3, 'Ananya', 960),

(4, 'Ishaan', 1400),

(5, 'Mira', 945),

(6, 'Kavya', 890),

(7, 'Devansh', 780),

(8, 'Sanya', 850),

(9, 'Arjun', 1250),

(10, 'Riya', 910);

Query OK, 10 rows affected (0.075 sec)

Records: 10 Duplicates: 0 Warnings: 0

MariaDB [te31265\_db]> select \* from Stud\_Marks;

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

| RollNo | Sname | Total\_Marks |

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

| 1 | Aarav | 1020 |

| 2 | Vihaan | 875 |

| 3 | Ananya | 960 |

| 4 | Ishaan | 1400 |

| 5 | Mira | 945 |

| 6 | Kavya | 890 |

| 7 | Devansh | 780 |

| 8 | Sanya | 850 |

| 9 | Arjun | 1250 |

| 10 | Riya | 910 |

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

10 rows in set (0.001 sec)

MariaDB [te31265\_db]>CREATE TABLE Result(

RollNo INT REFERENCES Stud\_Marks(RollNo),

Sname VARCHAR(20),

Marks INT,

Grade VARCHAR(20)

);

Query OK, 0 rows affected (0.164 sec)

-- Procedure with Parameters

DELIMITER $$

CREATE PROCEDURE proc\_Grade(IN roll INT, IN marks INT)

BEGIN

DECLARE student\_name VARCHAR(20);

DECLARE grade VARCHAR(20);

-- Retrieve student name from Stud\_Marks table

SELECT Sname INTO student\_name

FROM Stud\_Marks

WHERE RollNo = roll;

-- Get the grade using the fun\_Grade function

SET grade = fun\_Grade(marks);

-- Insert the result into Result table

INSERT INTO Result (RollNo, Sname, Marks, Grade)

VALUES (roll, student\_name, marks, grade);

END$$

DELIMITER ; Query OK, 0 rows affected (0.070 sec)

**Calling Procedures**

MariaDB [te31265\_db]>CALL proc\_Grade(1, 1020);

MariaDB [te31265\_db]>CALL proc\_Grade(2, 875);

MariaDB [te31265\_db]>CALL proc\_Grade(5, 945);

MariaDB [te31265\_db]>CALL proc\_Grade(6, 890);

MariaDB [te31265\_db]>CALL proc\_Grade(8, 850);

MariaDB [te31265\_db]>SELECT \* FROM Result;

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

| RollNo | Sname | Marks | Grade |

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

| 1 | Aarav | 1020 | Distinction |

| 2 | Vihaan | 875 | Higher Second Class |

| 5 | Mira | 945 | First Class |

| 6 | Kavya | 890 | Higher Second Class |

| 8 | Sanya | 850 | Higher Second Class |

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

-- Function with Parameter

MariaDB [te31265\_db]>DELIMITER $$

CREATE FUNCTION fun\_Grade (marks INT)

RETURNS VARCHAR(20)

DETERMINISTIC

BEGIN

DECLARE grade VARCHAR(20);

IF marks >= 990 AND marks <= 1500 THEN

SET grade = 'Distinction';

ELSEIF marks >= 900 AND marks <= 989 THEN

SET grade = 'First Class';

ELSEIF marks >= 825 AND marks <= 899 THEN

SET grade = 'Higher Second Class';

ELSE

SET grade = NULL;

END IF;

RETURN (grade);

END$$

DELIMITER ;