**Name: Sanskruti Patil**

**Roll No: 31448**

1. CREATE TABLE Stud\_Marks (Roll INT PRIMARY KEY, Name VARCHAR(50), Total\_Marks INT NOT NULL);
2. DESC Stud\_Marks;

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

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

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

| Roll | int | NO | PRI | NULL | |

| Name | varchar(50) | YES | | NULL | |

| Total\_Marks | int | NO | | NULL | |

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

1. CREATE TABLE Result (Roll INT PRIMARY KEY NOT NULL, Name VARCHAR(50), Class VARCHAR(20));
2. DESC Result;

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

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

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

| Roll | int | NO | PRI | NULL | |

| Name | varchar(50) | YES | | NULL | |

| Class | varchar(20) | YES | | NULL | |

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

1. INSERT INTO Stud\_Marks (Roll, Name, Total\_Marks) VALUES (101,'Rajvika', 900);

INSERT INTO Stud\_Marks (Roll, Name, Total\_Marks) VALUES (102,'Mayuri', 950);

INSERT INTO Stud\_Marks (Roll, Name, Total\_Marks) VALUES (103,'Saksham', 1050);

INSERT INTO Stud\_Marks (Roll, Name, Total\_Marks) VALUES (104,'Sushant', 850);

INSERT INTO Stud\_Marks (Roll, Name, Total\_Marks) VALUES (105,'Sanvi', 1000);

INSERT INTO Stud\_Marks (Roll, Name, Total\_Marks) VALUES (106,'Samukta', 830);

1. SELECT \* FROM Stud\_Marks;

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

| Roll | Name | Total\_Marks |

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

| 101 | Rajvika | 900 |

| 102 | Mayuri | 950 |

| 103 | Saksham | 1050 |

| 104 | Sushant | 850 |

| 105 | Sanvi | 1000 |

| 106 | Samukta | 830 |

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

1. DELIMITER //

CREATE PROCEDURE append\_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 800 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 ;

1. CALL append\_grade(101);

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

| message |

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

| Record Inserted Successfully |

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

1. CALL append\_grade(102);

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

| message |

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

| Record Inserted Successfully |

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

1. CALL append\_grade(103);

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

| message |

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

| Record Inserted Successfully |

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

1. CALL append\_grade(104);

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

| message |

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

| Record Inserted Successfully |

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

1. CALL append\_grade(106);

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

| message |

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

| Record Inserted Successfully |

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

1. SELECT \* FROM Result;

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

| Roll | Name | Class |

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

| 101 | Rajvika | First Class |

| 102 | Mayuri | First Class |

| 103 | Saksham | Distinction |

| 104 | Sushant | Higher Second Class |

| 106 | Samukta | Higher Second Class |

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

1. **FUNCTION**

DELIMITER //

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

DETERMINISTIC

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 800 AND 899 THEN 'Higher Second Class'

ELSE 'No Category'

END;

RETURN v\_class;

END //

DELIMITER ;

1. INSERT INTO Result (Roll,Name,Class) SELECT Roll, Name, func\_grade(Roll) From Stud\_Marks WHERE Roll=101;

INSERT INTO Result (Roll,Name,Class) SELECT Roll, Name, func\_grade(Roll) From Stud\_Marks WHERE Roll=102;

INSERT INTO Result (Roll,Name,Class) SELECT Roll, Name, func\_grade(Roll) From Stud\_Marks WHERE Roll=103;

INSERT INTO Result (Roll,Name,Class) SELECT Roll, Name, func\_grade(Roll) From Stud\_Marks WHERE Roll=104;

INSERT INTO Result (Roll,Name,Class) SELECT Roll, Name, func\_grade(Roll) From Stud\_Marks WHERE Roll=105;

INSERT INTO Result (Roll,Name,Class) SELECT Roll, Name, func\_grade(Roll) From Stud\_Marks WHERE Roll=106;

1. SELECT \* FROM Result;

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

| Roll | Name | Class |

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

| 101 | Rajvika | First Class |

| 102 | Mayuri | First Class |

| 103 | Saksham | Distinction |

| 104 | Sushant | Higher Second Class |

| 106 | Samukta | Higher Second Class |

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