create database q5;

use q5;

-- Create tables for the student marks and results

CREATE TABLE Stud\_Marks (

Rollno INT PRIMARY KEY,

Name VARCHAR(50),

Total\_Marks INT

);

CREATE TABLE Result (

Rollno INT PRIMARY KEY,

Name VARCHAR(50),

Class VARCHAR(20)

);

-- Create the stored procedure for grade categorization

DELIMITER $$

CREATE PROCEDURE proc\_Grade()

BEGIN

DECLARE done INT DEFAULT 0;

DECLARE stud\_Rollno INT;

DECLARE stud\_Name VARCHAR(50);

DECLARE stud\_Total\_Marks INT;

DECLARE cur CURSOR FOR SELECT Rollno, Name, Total\_Marks FROM Stud\_Marks;

DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;

OPEN cur;

read\_loop: LOOP

FETCH cur INTO stud\_Rollno, stud\_Name, stud\_Total\_Marks;

IF done THEN

LEAVE read\_loop;

END IF;

IF stud\_Total\_Marks BETWEEN 990 AND 1500 THEN

INSERT INTO Result (Rollno, Name, Class) VALUES (stud\_Rollno, stud\_Name, 'Distinction');

ELSEIF stud\_Total\_Marks BETWEEN 900 AND 989 THEN

INSERT INTO Result (Rollno, Name, Class) VALUES (stud\_Rollno, stud\_Name, 'First Class');

ELSEIF stud\_Total\_Marks BETWEEN 825 AND 899 THEN

INSERT INTO Result (Rollno, Name, Class) VALUES (stud\_Rollno, stud\_Name, 'Higher Second Class');

ELSE

INSERT INTO Result (Rollno, Name, Class) VALUES (stud\_Rollno, stud\_Name, 'No Category');

END IF;

END LOOP;

CLOSE cur;

END$$

DELIMITER ;

-- Insert sample data into Stud\_Marks table

INSERT INTO Stud\_Marks (Rollno, Name, Total\_Marks) VALUES (1, 'Alice', 1450);

INSERT INTO Stud\_Marks (Rollno, Name, Total\_Marks) VALUES (2, 'Bob', 970);

INSERT INTO Stud\_Marks (Rollno, Name, Total\_Marks) VALUES (3, 'Charlie', 860);

INSERT INTO Stud\_Marks (Rollno, Name, Total\_Marks) VALUES (4, 'David', 800);

-- Execute the procedure

CALL proc\_Grade();

-- Query the Result table to view the categorized data

SELECT \* FROM Result;