Experiment No.5 : Write a PL/SQL block to calculate the grade of minimum 10 students using database cursor.

Code:

```
CREATE TABLE students (
  student_id NUMBER,
  student_name VARCHAR2(50),
  marks NUMBER
);


-- Insert some sample data
INSERT INTO students VALUES (1, 'John', 85);
INSERT INTO students VALUES (2, 'Alice', 92);
-- Insert more sample data for at least 10 students
-- Create a PL/SQL block
DECLARE
  v_student_id NUMBER;
  v_student_name VARCHAR2(50);
  v_marks NUMBER;
  v_grade VARCHAR2(2);


  -- Cursor declaration
  CURSOR student_cursor IS
    SELECT student_id, student_name, marks
    FROM students;
BEGIN
  -- Open the cursor
  OPEN student_cursor;


  -- Fetch and process each student's data
  LOOP
    FETCH student_cursor INTO v_student_id, v_student_name, v_marks;
    EXIT WHEN student_cursor%NOTFOUND;


    -- Calculate the grade based on marks
    IF v_marks >= 90 THEN
      v_grade := 'A+';
```

```
    ELSIF v_marks >= 80 THEN
      v_grade := 'A';
    ELSIF v_marks >= 70 THEN
      v_grade := 'B';
    ELSIF v_marks >= 60 THEN
      v_grade := 'C';
    ELSE
      v_grade := 'D';
    END IF;

    -- Display the student's grade
    DBMS_OUTPUT.PUT_LINE('Student: ' || v_student_name || ', Marks: ' || v_marks || ', Grade: ' || v_grade);
  END LOOP;

  -- Close the cursor
  CLOSE student_cursor;
END;
/
```

Output:

```
CREATE TABLE students (
  student_id NUMBER,
  student_name VARCHAR2(50),
  marks NUMBER
);

INSERT INTO students VALUES (1, 'John', 85);
INSERT INTO students VALUES (2, 'Alice', 92);
INSERT INTO students VALUES (3, 'Bob', 78);
-- Insert more sample data for at least 10 students
```

```
Student: John, Marks: 85, Grade: A
Student: Alice, Marks: 92, Grade: A+
Student: Bob, Marks: 78, Grade: B
-- Output for more students based on the actual data
```