

## Experiment No. 2.2

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**Semester: I**

**Subject Name: ADBMS LAB**

**UID: 22MCC20039**

**Section/Group: MCD-1/ Grp B**

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**Subject Code: 22CAP-647**

### 1. Aim/Overview of the practical:

You are given two tables: Students and Grades. Students contains three columns ID, Name and Marks.

Column	Type
ID	Integer
Name	String
Marks	Integer

Grades contains the following data:

Grade	Min_Mark	Max_Mark
1	0	9
2	10	19
3	20	29
4	30	39
5	40	49
6	50	59
7	60	69
8	70	79
9	80	89
10	90	100

Ketty gives Eve a task to generate a report containing three columns: Name, Grade and Mark. Ketty doesn't want the NAMES of those students who received a grade lower than 8. The report must be in descending order by grade -- i.e. higher grades are entered first. If there is more than one student with the same grade (8-10) assigned to them, order those particular students by their name alphabetically. Finally, if the grade is lower than 8, use "NULL" as their name and list them by their grades in descending order. If there is more than one student with the same grade (1-7) assigned to them, order those particular students by their marks in ascending order.

Write a query to help Eve.

**Sample Input**

ID	Name	Marks
1	Julia	88
2	Samantha	68
3	Maria	99
4	Scarlet	78
5	Ashley	63
6	Jane	81

### Sample Output

Maria 10 99

Jane 9 81

Julia 9 88

Scarlet 8 78

NULL 7 63

NULL 7 68

### Note

Print "NULL" as the name if the grade is less than 8.

## 2. Code for experiment/practical:

```
create table Students(ID int, Name varchar(20), Marks int);
insert into Students values(1, "Rishav", 98);
insert into Students values(2, "Lucky", 89);
insert into Students values(3, "Tushar", 72);
insert into Students values(4, "Jesu", 65);
insert into Students values(5, "Atharav", 58);
insert into Students values(6, "Shika", 92);
insert into Students values(7, "Neeti", 85);

create table Grades(Grade int, Min_Marks int, Max_Marks int);
insert into Grades values(1, 0, 9);
insert into Grades values(2, 10, 19);
insert into Grades values(3, 20, 29);
insert into Grades values(4, 30, 39);
insert into Grades values(5, 40, 49);
insert into Grades values(6, 50, 59);
insert into Grades values(7, 60, 69);
insert into Grades values(8, 70, 79);
insert into Grades values(9, 80, 89);
insert into Grades values(10, 90, 100);
```

```
select case
when grades.grade >=8 then students.name
when grades.grade <8 then "NULL"
end as name, grades.grade, students.marks
from students left join grades on Students.marks >= min_marks and
students.marks <= max_marks
order by grades.grade desc, students.name asc, students.marks asc;
```

### 3. Tables:

#### Grades

Grade	Min_Marks	Max_Marks
1	0	9
2	10	19
3	20	29
4	30	39
5	40	49
6	50	59
7	60	69
8	70	79
9	80	89
10	90	100



## Students

ID	Name	Marks
1	Rishav	98
2	Lucky	89
3	Tushar	72
4	Jesu	65
5	Atharav	58
6	Shika	92
7	Neeti	85

## 4. Output:

### Output

name	Grade	Marks
Rishav	10	98
Shika	10	92
Lucky	9	89
Neeti	9	85
Tushar	8	72
NULL	7	65
NULL	6	58

\*\*\*\*\* **THE END** \*\*\*\*\*