Experiment: 6

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Semester: 1st   **Submitted To: Sonali Dadwal**

Subject Name: PL/SQL LAB   **Subject Code: 23CAP-502**

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Aim/Overview of the practical:

You are given two tables: *Students* and *Grades*. *Students* contains three columns *ID*, *Name* and *Marks*. *Grades* contains the following data: *Ketty* gives *Eve* a task to generate a report containing three columns: *Name*, *Grade* and *Mark*. *Ketty does not* 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 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.

Sample Input:

```
1 •   use College;
2
3 •   create table grades(grade int ,minmarks int,maxmarks int);
4 •   insert into grades values(1,0,9),(2,10,19),(3,20,29),(4,30,39),(5,40,49),
5     (6,50,59),(7,60,69),(8,70,79),(9,80,89),(10,90,100);
6 •   select * from grades;
7
8 •   create table students(Id int ,name varchar(20),marks int);
9 •   insert into students values(1,'Julia',88),(2,'Samantha',68),(3,'Maria',99),
10    (4,'Scarlet',78),(5,'Ashley',63),(6,'Jane',81);
11 •  select * from students;
```

Output:

Grades Table   **Student Table**

grade	minmarks	maxmarks
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

Id	name	marks
1	Julia	88
2	Samantha	68
3	Maria	99
4	Scarlet	78
5	Ashley	63
6	Jane	81

Query Code:

```
13 •⊖ select case
14     when grades.grade < 8 then "null"
15     else students.name
16     end as name,grades.grade,students.marks from students,grades
17     where students.marks > grades.minmarks
18     and students.marks <= grades.maxmarks
19     order by grades.grade desc, students.name;
```

Final Output:

name	grade	marks
Maria	10	99
Jane	9	81
Julia	9	88
Scarlet	8	78
null	7	63
null	7	68

Learning Outcomes:

- **Learned about conditional operators to check if the given statements are true or not.**
- **Learned about select case property in order to give multiple conditions.**
- **Learned in detail about where clause and order by clause.**
- **Learned how to use if else statements in SQL.**