

**Institute of Engineering & Management**  
**Department of Computer Science & Engineering**  
**Programming Practices Using C++ Lab for 3<sup>rd</sup> year 5<sup>th</sup> semester 2018**  
**Code: CS593**

**Date: 30/08/18**

**WEEK-5**

**Assignment-1**

**Problem Statement:** Create a class/struct student having record of name and roll no and then sort them in increasing order in terms of their alphabetical precedence in case the two names are same compare them in order of their roll no.

**Source code:**

```
#include<iostream>
#include<string>
#include<vector>
#include<algorithm>

struct student
{
    int roll;
    std::string name;
    student()
    {
        roll = 0;
        name = "NA";
    }
    student(int a, std::string b)
    {
        roll = a;
        name = b;
    }
};

struct customsort
{
    bool operator() (const student&a, const student&b)
    {
        if(a.name == b.name)
        {
            return (a.roll<b.roll);
        }
        else
        {
            return (a.name<b.name);
        }
    }
};

int main()
{
    std::vector<student> vect;
    student p1(20, "Rahul");
    vect.push_back(p1);
    student p2(11, "Dhoni");
    vect.push_back(p2);
```

```

    student p3(12, "Pujara");
    vect.push_back(p3);
    student p4(13, "Vijay");
    vect.push_back(p4);
    student p5(14, "Rahul");
    vect.push_back(p5);
    student p6(15, "Kohli");
    vect.push_back(p6);
    std::sort(vect.begin(), vect.end(), customsort());
    for(auto i=0; i<vect.size(); i++)
    {
        std::cout<<vect[i].name<<" and "<<vect[i].roll<<"\n";
    }
    return 0;
}

```

#### Screen-Shot:

```

Dhoni and 11
Kohli and 15
Pujara and 12
Rahul and 14
Rahul and 20

```

```

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Process exited after 0.03846 seconds with return value 0
Press any key to continue . . .

```