



## Lab/Project Assignment Report

Only for course Teacher						
		Needs Improvement	Developing	Sufficient	Above Average	Total Mark
Allocate mark & Percentage		25%	50%	75%	100%	5
Creativity	1					
Content Development	2					
Problem solving	1					
Organization and Formatting	1					
Total obtained mark						
Comments						

**Semester: Spring 2025**

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**Batch: 41 Section: 41-A2**

**Course Code: SE215 Course Name: Algorithm Analysis and Design Lab**

**Course Teacher Name: Ishrat Sultana**

**Designation: Lecturer**

**Submission Date: 13-02-2025**

**1) Write a program to read temperature in centigrade and display a suitable message according to the temperature state below:**

**Temp < 0 then Freezing weather**

**Temp 0-10 then Very Cold weather**

**Temp 10-20 then Cold weather**

**Temp 20-30 then Normal in Temp**

**Temp 30-40 then Its Hot**

**Temp >=40 then Its Very Hot**

**2) A small office has a list of tasks assigned to employees, each with a priority level (10 being the highest priority, 1 being the lowest). The manager needs to arrange the tasks in order of priority before assigning them for the day.**



```
1  #include <bits/stdc++.h>
2  using namespace std;
3
4  int main()
5  {
6      int temp;
7      cout << "Enter temperature in centigrade: ";
8      cin >> temp;
9
10     if (temp < 0)
11     {
12         cout << "Freezing weather" << endl;
13     }
14     else if (temp >= 0 && temp <= 10)
15     {
16         cout << "Very Cold weather" << endl;
17     }
18     else if (temp > 10 && temp <= 20)
19     {
20         cout << "Cold weather" << endl;
21     }
22     else if (temp > 20 && temp <= 30)
23     {
24         cout << "Normal in Temp" << endl;
25     }
26     else if (temp > 30 && temp < 40)
27     {
28         cout << "Its Hot" << endl;
29     }
30     else
31     {
32         cout << "Its Very Hot" << endl;
33     }
34
35     return 0;
36 }
```

```
Idba@DESKTOP-EQEQ37R MINGW64 /d/Algorithmn Lab/class_4/Lab_Evaluation/output (main)
$ ./"Temperature_Classification.exe"
Enter temperature in centigrade: -4
Freezing weather
```

```
Idba@DESKTOP-EQEQ37R MINGW64 /d/Algorithmn Lab/class_4/Lab_Evaluation/output (main)
$ ./"Temperature_Classification.exe"
Enter temperature in centigrade: 33
Its Hot
```



```
1 #include <bits/stdc++.h>
2 using namespace std;
3
4 void sort_by_priority(vector<pair<string, int>> &tasks)
5 {
6     int n = tasks.size();
7     for (int i = 0; i < n - 1; i++)
8     {
9         int maxIndex = i;
10        for (int j = i + 1; j < n; j++)
11        {
12            if (tasks[j].second > tasks[maxIndex].second)
13            {
14                maxIndex = j;
15            }
16        }
17        if (maxIndex != i)
18        {
19            swap(tasks[i], tasks[maxIndex]);
20        }
21    }
22 }
23
24 int main()
25 {
26     int n;
27     cout << "Enter the number of tasks: ";
28     cin >> n;
29
30     vector<pair<string, int>> tasks;
31     string taskName;
32     int priority;
33
34     cout << "Enter task name and priority (1-10):" << endl;
35     for (int i = 0; i < n; i++)
36     {
37         cin >> taskName >> priority;
38         tasks.push_back({taskName, priority});
39     }
40
41     sort_by_priority(tasks);
42
43     cout << "Tasks sorted by priority:" << endl;
44     for (auto task : tasks)
45     {
46         cout << task.first << " (Priority: " << task.second << ")" << endl;
47     }
48
49     return 0;
50 }
```

```
Idba@DESKTOP-EQEQ37R MINGW64 /d/Algorithmn Lab/class_4/Lab_Evaluation/output (main)
$ ./"sort_by_priority.exe"
Enter the number of tasks: 5
Enter task name and priority (1-10):
Email 3
Report 7
Meeting 10
Code 5
Call 8
Tasks sorted by priority:
Meeting (Priority: 10)
Call (Priority: 8)
Report (Priority: 7)
Code (Priority: 5)
Email (Priority: 3)
```

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