

# DHAKA UNIVERSITY OF ENGINEERING & TECHNOLOGY, GAZIPUR



## Department of Computer Science and Engineering

Course No.: CSE-2112

Course Title: **Object Oriented Programming Language Sessional**

*Exercise No: 02*

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### **Submitted To:**

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## Problems No: 03

**Problems Title:** Write a C++ program (using function overloaded) to sort 4 integer values, or 4 long values, or 4 double values or 4 character values.

## Solution:

```
#include<iostream>
#include <list>
using namespace std;

void userDefinedFunction(int,int,int,int );
void userDefinedFunction(long,long,long,long );
void userDefinedFunction(double,double,double,double );
void userDefinedFunction(char,char,char,char );

int main()
{
    cout<<"*****Sort For Integer Value*****\n";
    userDefinedFunction(87,343,8,-10);
    cout<<"\n\n*****Sort For Long Value*****\n";
    userDefinedFunction(66554433,11223344,88776655,33445566);
    cout<<"\n\n*****Sort For Double Value*****\n";
    userDefinedFunction(20.09,12.76,-0.32,01.00);
    cout<<"\n\n*****Sort For Characters*****\n";
    userDefinedFunction('T','D','U','E');
    return 0;
}

void userDefinedFunction(int a,int b,int c,int d)
{
    list<int> mylist{ a, b, c, d };
    cout<<"Before Sorted For Integer"<<endl;
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
    cout<<"\nAfter Sorted For Integer"<<endl;
    mylist.sort();
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
}

void userDefinedFunction(long a,long b,long c,long d)
{
    list<long> mylist{ a, b, c, d };
    cout<<"Before Sorted For Long"<<endl;
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
    cout<<"\nAfter Sorted For Long"<<endl;
    mylist.sort();
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
}

void userDefinedFunction(double a,double b,double c,double d)
{
    list<double> mylist{ a, b, c, d };
    cout<<"Before Sorted For double"<<endl;
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
```

```

    cout<<"\nAfter Sorted For double"<<endl;
    mylist.sort();
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
}
void userDefinedFunction(char a,char b,char c,char d)
{
    list<char> mylist{ a, b, c, d };
    cout<<"Before Sorted For char"<<endl;
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
    cout<<"\nAfter Sorted For char"<<endl;
    mylist.sort();
    for (auto it = mylist.begin(); it != mylist.end(); ++it)
        cout << ' ' << *it;
}

```

## Output:

"C:\Users\shuvo\OneDrive - duet.ac.bd\DUET\CSE2-1\Lab\Programming\Lab 03\program\_3.exe"

```

*****Sort For Integer Value*****
Before Sorted For Integer
87 343 8 -10
After Sorted For Integer
-10 8 87 343

*****Sort For Long Value*****
Before Sorted For Integer
66554433 11223344 88776655 33445566
After Sorted For Integer
11223344 33445566 66554433 88776655

*****Sort For Double Value*****
Before Sorted For double
20.09 12.76 -0.32 1
After Sorted For double
-0.32 1 12.76 20.09

*****Sort For Characters*****
Before Sorted For char
T D U E
After Sorted For char
D E T U
Process returned 0 (0x0)   execution time : 0.130 s
Press any key to continue.

```