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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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: