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#include<iostream>
#include<conio.h>
#include<vector>
#include<queue>
#include<deque>
#include<array>
#include<list>
#include<string>
#include<algorithm>
using namespace std;
void example1();
void example2();
void example3();
void example4();
void example5();
void example6();
int main()
{
    // Create an array of type int and store some values in it and sort it
    //example1();

    //Create an array of type int and store some values to it and sort a portion
    //example2();

    //Create a vector containing int type values and sort them
    //example3();

    //Create a vector containing string type values and sort them
    //example4();

    //Create a vector of Employee, store some values and sort them by their salaries
    //example5();

    //Create a deque of int values, store some values and sort them
    example6();
    getch();
}
void example6()
{
    deque<int> l1;
    l1.push_back(30);
    l1.push_back(50);
    l1.push_back(10);
    l1.push_back(20);
    l1.push_back(40);
    sort(l1.begin(),l1.end());
    for(int x :l1)
        cout<<" " <<x;
    cout<<endl;
}

```

```

void example5()
{
    class Employee{
    private:
        int emp_id;
        string ename;
        float salary;
    public:
        Employee(){}
        Employee(int e,string n,float s):emp_id(e),ename(n),salary(s){}
        void showEmployee() { cout<<emp_id<<" "<<ename<<" "<<salary;}

        static bool compareBySalary(Employee const &e1,Employee const &e2)
        {
            return e1.salary < e2.salary;
        }

        static bool compareById(Employee const &e1,Employee const &e2)
        {
            return e1.emp_id < e2.emp_id;
        }

        static bool compareByName(Employee const &e1,Employee const &e2)
        {
            int c=e1.ename.compare(e2.ename);
            if(c<0)
                return true;
            else
                return false;
        }

    };

    vector<Employee> v={
        Employee(5,"Simmi",30000),
        Employee(3,"Jitu",50000),
        Employee(1,"Rinku",20000),
        Employee(4,"Bablu",60000),
        Employee(6,"Guddi",10000),
        Employee(2,"Pinku",40000)
    };

    sort(v.begin(),v.end(),Employee::compareBySalary );
    for(Employee x:v){
        x.showEmployee();
        cout<<endl;
    }
}
void example4()

```

```

{
    vector<string>v={"Virat","Prachi","Prerna","Rahul","Kapil","Sonam","Amir","Arjun"};
    sort(v.begin(),v.end());
    for(auto x:v)
        cout<<" "<<x;
    cout<<endl;
}
void example3()
{
    vector<int> v={50,10,40,90,80,30,100,60,20,70};
    //sort(v.begin(),v.end()); //Ascending order
    sort(v.begin(),v.end(),greater<int>()); //Descending Order
    for(auto x:v)
        cout<<" "<<x;
    cout<<endl;
}
void example1()
{
    int a[10]={50,10,40,90,80,30,100,60,20,70};
    sort(a,a+10);
    for(int i=0;i<=9;i++)
        cout<<" "<<a[i];
    cout<<endl;
}
void example2()
{
    int a[10]={50,10,40,90,80,30,100,60,20,70};
    sort(a+2,a+8);
    for(int i=0;i<=9;i++)
        cout<<" "<<a[i];
    cout<<endl;
}

```