include<iostream>

#include<list>

#include<cstdlib>

using namespace std;

bool same(int f,int l)

{

    return(f==l);

}

void display(list<int> &l)

{

    list<int>::iterator p;

    for(p=l.begin();p!=l.end();p++)

        cout<<"\t"<<\*p;

    cout<<"\n";

}void sort(list<int> &l1)

{

    l1.sort();

    cout<<"\n Now The list is "<<endl;

    display(l1);

}

void empty(list<int> l1)

{

    if(l1.empty())

    {

        cout<<"\n List is Empty";

    }

    else

    {

        cout<<"\n List is not Empty";

    }

}

void insert(list<int> l1)

{

    cout<<"\n Enter the position you want to insert";

    int p;

    cin>>p;

    cout<<"\n Enter the element to be inserted";

    int e;

    cin>>e;

    list<int>::iterator it;

    it=l1.begin();

    p--;

    while(p)

        {it++;

p--;}

    l1.insert(it,e);

    cout<<"\n Now the list is"<<endl;

    display(l1);

}

void reverse(list<int> l1)

{

    l1.reverse();

    cout<<"\n Now the list is"<<endl;

    display(l1);

}

void create(list<int> &l1,int s)

{

}

void deletel(list<int> &l1)

{   int s=l1.size();

if(s!=0)

{

    l1.pop\_back();

    cout<<"\n Now the list is";

}

else

    cout<<"\n List is empty";

cout<<"\n Now the list is"<<endl;

display(l1);

}

void unq(list<int> &l1)

{

    l1.unique();

    cout<<"\n Now the list is";

    display(l1);

}

int main()

{

list<int> l1;

    int s;

    cout<<"\n Enter the size of the list";

    cin>>s;

    cout<<"\n Enter "<<s<<" Elements";

    for(int i=0;i<s;i++)

    {

        int e;

        cin>>e;

        l1.push\_back(e);

    }

int c;

    do

    {

        cout<<"\n 1.Delete Last Element";

        cout<<"\n 2.Check if Empty";

        cout<<"\n 3.Insert at position";

        cout<<"\n 4.Sort";

        cout<<"\n 5.Reverse";

        cout<<"\n 6.Apply Unique ";

        cout<<"\n 7.Exit";

        cout<<"\n Enter your Choice";

        cin>>c;

        switch(c)

        {

            case 1:deletel(l1);break;

            case 2:empty(l1);break;

            case 3:insert(l1);break;

            case 4:sort(l1);break;

            case 5:reverse(l1);break;

            case 6:unq(l1);break;

            case 7:break;

        }

    }while(c!=7);

}