#include<iostream.h>

#include<conio.h>

int Lsearch(int ar[],int size,int item)

{

for(int j=0;j<size;j++)

{

if(item==ar[j])

return j;

}

return -1;

}

int Bsearch(int ar[],int size,int item)

{ int beg,last,mid;

beg=0;

last=size-1;

while(beg<=last)

{

mid=(beg+last)/2;

if(item==ar[mid])

return mid;

else if(item>ar[mid])

beg=mid+1;

else

last=mid-1;

}

return-1;

}

void main()

{

clrscr();

int ar[50],item,n,i,ch;

cout<<"Enter desired array size(max.50): ";

cin>>n;

cout<<"\nEnter array elements: \n";

for(int j=0;j<n;j++)

cin>>ar[j];

cout<<"\nEnter element to be searched for: ";

cin>>item;

cout<<"\n 1. To use Linear Search.";

cout<<"\n 2. To use Binary Search.";

cout<<"\n Enter your choice: ";

cin>>ch;

switch(ch)

{

case 1:clrscr();

i=Lsearch(ar,n,item);

if(i==-1)

cout<<"\nSorry!! given element could not be found.\n";

else

cout<<"Element "<<item<<" at position: "<<i+1<<"\n";

break;

case 2:clrscr();

i=Bsearch(ar,n,item);

if(i==-1)

cout<<"\nSorry!! given element could not be found.\n";

else

cout<<"Element "<<item<<" at position: "<<i+1<<"\n";

break;

default:clrscr();

cout<<"\n Entered WRONG choice.";

break;

}

getch();

}