#include <iostream>

using namespace std;

void insert(int a[],int s,int key)

{

int memory;

bool found;

found=false;

memory=key%s;

if(a[memory]==-1)

{a[memory]=key;

return;}

else

{

while(!found)

{

memory++;

if(a[memory]==-1)

{ found=true;

a[memory]=key;

return;}

}

}}

void searching(int a[],int s,int key)

{

int memory;

bool found;

found=false;

memory=key%s;

if(a[memory]==-1)

{cout<<"The number is not present in the array ."<<endl;

return;}

else if(a[memory]==key)

{ cout<<"The number found successfully ."<<endl;

return;}

else

{

while(a[memory]!=-1)

{memory++;

if(a[memory]==key)

{

cout<<"The number found successfully ."<<endl; return;

}

}

cout<<"The number is not present in the array ."<<endl;

}

}

void main()

{

int \*select;

int size,size2,key;

cout<<"\t\t\t<HASHING>\n ";

cout<<"\t\t\t::::::::::\n ";

cout<<"Enter your size : ";

cin>>size;

size2=size\*2;

select=new int[size2];

for(int i=0;i<size2;i++)

{

select[i]=-1;

}

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

{cout<<"Enter your numbers : ";

cin>>key;

insert(select,size2,key);

}

cout<<"Enter number for search : ";

cin>>key;

searching(select,size,key);

cout<<"The overall list is : "<<endl;

cout<<"\t\*\*\*\*\*\*\*\*\*"<<endl;

for(int j=0;j<size2;j++)

{ cout<<"\t| "<<endl;

cout<<j+1<<"\t"<<"| "<<select[j]<<endl;

cout<<"\t\*\*\*\*\*\*\*\*\*"<<endl;

}

cout<<endl;

system("pause");

}