Practical 15:

/\*Program to perform liear search and binary search in an array\*/

#include<iostream.h>

#include<conio.h>

void main()

{

int A[50],i=0,a=0,ch,x;;

cout<<"Enter number elements of array : ";

cin>>a;

cout<<"Enter array : \n";

for(i=0;i<a;i++)

{

cin>>A[i];

}

cout<<"Enter the element you want to search for : ";

cin>>ch;

cout<<"\nMain Menu!\n";

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

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

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

cin>>x;

switch(x)

{

case 1:

{

int pos=0;

for(i=0;i<a;i++)

{

if(A[i]==ch)

{

cout<<"\nEntered element is at position : "<<i+1;

break;

}

}

break;

}

case 2:

{

int first=1,last=a-1,find=0,mid=0;

while((first<=last)&&(find==0))

{

mid=(first+last)/2;

if(A[mid]==ch)

{

find=mid;

break;

}

else

if(A[mid]<ch)

first=mid+1;

else

last=mid-1;

}

if(find>0)

cout<<"The element is at position : "<<find+1;

else

cout<<"Element not found!!";

break;

}

}

}

Output:



