**BINARY SEARCH IN AN ARRAY**

#include<iostream.h>

int Bsearch(int[],int,int);

int main()

{ int AR[50],ITEM,N,index;

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

cin>>N;

cout<<"\n enter array elements\n";

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

{cin>>AR[i]; }

cout<<"\n enter elements to be searched for...";

cin>>ITEM;

index= Bsearch(AR,N,ITEM);

if(index== -1)

cout<<"\nsorry!! given elements could not be found.\n";

else

cout<<"\nelement found at index:"<<index<<",position:"<<index+1<<endl;

return 0;

}

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;

}

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*OUTPUT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

