**LINEAR SEARCH**

#include<iostream>

usingnamespacestd;

intcount;

int linearSearch(intarr[],intsize,int target){

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

count++;

if(arr[i]==target){

count++;

returnarr[i];

count++;

}

count++;

}

count++;

return-1;

}

intmain(){

intsize;

cout<<"Enterthesizeofarray:";

cin>>size;

intarr[size];

cout<<"Enter elements: ";

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

count++;

cin>>arr[i];

}

count++;

int target;

cout<<"Enter the target: ";

cin>>target;

if(linearSearch(arr,size,target)){

count++;

cout<<"Element found"<<endl;

}

else{

count++;

cout<<"Element not found"<<endl;

}

cout<<"Time complexity: "<<count<<endl;

return 0;

}

**BINARY SEARCH**

#include<iostream>

usingnamespacestd;

intcount;

boolbinarySearch(intarr[],intsize,int target){

intstart=0;

intend=size-1;

while(start<end){

count++;

intmid=start+(end-start)/2;

intelement=arr[mid];

if(element==target){

count++;

returnarr[mid];

}

elseif(element>target){

count++;

end=mid-1;

}

else{

count++;

start=mid+1;

}

}

count++;

return-1;

}

intmain(){

intsize;

cout<<"Enterthesize:";

cin>>size;

intarr[size];

cout<<"Entertheelements:";

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

count++;

cin>>arr[i];

}

count++;

int target;

cout<<"Enterthetarget:";

cin>>target;

intans=binarySearch(arr,size,target);

if(ans!=1){

count++;

cout<<"Elementnot found";

}

else{

count++;

cout<<"Element found";

}

cout<<"Timecomplexity:"<<count<<endl;

return0;

}