**binary-search-algorithm.cpp**

//write the binary search algorithm.

#include <iostream>

using namespace std;

int binarysearch(int arr[], int k, int n) {

// code here

int h = n-1;

int l = 0;

while(l <= h){

n = l + (h - l) / 2;

if(arr[n] == k){

return n;

}

if(arr[n] < k){

l = n+1;

}else{

h = n-1;

}

}

return -1;

}

int main(){

int arr[] = {10,11,12,14,19,20,23,28,30};

cout << "The element 19 is found at the index of " << binarysearch(arr,19,9);

return 0;

}

**OUTPUT**

PS S:\WorkSpace\CollegeWork\DataStructure\Temp> g++ .\binary-search-algorithm.cpp

PS S:\WorkSpace\CollegeWork\DataStructure\Temp> ./a

The element 19 is found at the index of 4

PS S:\WorkSpace\CollegeWork\DataStructure\Temp>