

**Aim:**

Write a program to check whether the given element is present or not in the array of elements using the binary search Technique

**Input format:**

- The first line of input contains an integer N representing the no. of elements of the array
- The second line input contains the array of N integers separated by space
- The last line of input contains the key element to be searched

**Output format:**

- If the element is found, print the index.
- If the element is not found, print **Not found**.

**Sample Test Case:****Input:**

7  
1 2 3 4 3 5 6  
3

**Output:**

2

**Source Code:**

q17128/CTJ17128.java

```
package q17128;
import java.io.*;
import java.util.Scanner;
class CTJ17128
{
    public static void main(String args[])
    {
        int i,pos=0,mid,key,flag=0,l,h;
        int a[]=new int[30];
        Scanner obj=new Scanner(System.in);
        System.out.print("");
        int n=obj.nextInt();
        System.out.print("");
        for(i=0;i<n;i++)
            a[i]=obj.nextInt();
        System.out.print("");
        key=obj.nextInt();
        l=0;
        h=n-1;
        while(l<=h)
        {
            mid=(l+h)/2;
            if(key==a[mid])
            {
                flag=1;
                pos=mid;
                break;
            }
        }
    }
}
```

```

        }
        else if(key>a[mid])
            l=mid+1;
        else h=mid-1;
    }
    if(flag==1)
        System.out.print(pos);
    else
        System.out.print("Not found");
}
}

```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
7
1 2 3 4 3 5 6
3
2

Test Case - 2
User Output
10
1 2 3 4 5 6 7 8 9 19
20
Not found