

//Binary Search

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int lb,ub,i,n,key,mid;
```

```
    cout<<"Enter size of array";
```

```
    cin>>n;
```

```
    int arr[n];
```

```
    cout<<"Enter elements of array";
```

```
    for(i=0;i<n;i++){
```

```
        cin>>arr[i];
```

```
    }
```

```
    cout<<"Enter key of array";
```

```
    cin>>key;
```

```
lb=0;
ub=n-1;
while(lb<=ub){
    mid=(lb+ub)/2;
    if(arr[mid]==key){
        cout<<"Element found at index "<<mid;
        break;
    }
    else if(arr[mid]>key){
        ub=mid-1;
    }
    else{
        lb=mid+1;
    }
}

}
```