

```

#include <stdio.h>
int linearSearch(int arr[], int n, int key) {
    for(int i = 0; i < n; i++) {
        if(arr[i] == key)
            return i;
    }
    return -1;
}
int binarySearch(int arr[], int n, int key) {
    int low = 0, high = n - 1, mid;
    while(low <= high) {
        mid = (low + high) / 2;
        if(arr[mid] == key)
            return mid;
        else if(arr[mid] < key)
            low = mid + 1;
        else
            high = mid - 1;
    }
    return -1;
}
int main() {
    int arr[100], n, key, result;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    printf("Enter %d sorted elements:\n", n);
    for(int i = 0; i < n; i++)
        scanf("%d", &arr[i]);
    printf("Enter element to search: ");
    scanf("%d", &key);
    result = linearSearch(arr, n, key);
    if(result != -1)
        printf("Linear Search: Element found at index %d\n", result);
    else
        printf("Linear Search: Element not found\n");
    result = binarySearch(arr, n, key);
    if(result != -1)
        printf("Binary Search: Element found at index %d\n", result);
    else
        printf("Binary Search: Element not found\n");

    return 0;
}

```

C:\Users\upper\OneDrive\DATA STRUCTRES\acsending and decinding .exe

Enter number of elements: 5

Enter 5 sorted elements:

14 5 48 769 5

Enter element to search: 48

Linear Search: Element found at index 2

Binary Search: Element found at index 2

Process exited after 18.34 seconds with return value 0

Press any key to continue . . .