

Exp_01 - LInear and Binary Search (Recursive)\LinearSearch.c

```
1  #include <stdio.h>
2
3  int linearSearch(int arr[], int size, int key, int index) {
4      if (index >= size)
5          return -1;
6
7      if (arr[index] == key)
8          return index;
9
10     return linearSearch(arr, size, key, index + 1);
11 }
12
13 int main() {
14     int n, key, result;
15
16     printf("Enter number of elements: ");
17     scanf("%d", &n);
18
19     int arr[n];
20     printf("Enter %d elements: ", n);
21     for (int i = 0; i < n; i++) {
22         scanf("%d", &arr[i]);
23     }
24
25     printf("Enter element to search: ");
26     scanf("%d", &key);
27
28     result = linearSearch(arr, n, key, 0);
29
30     if (result != -1)
31         printf("Element found at index %d\n", result);
32     else
33         printf("Element not found\n");
34
35     return 0;
36 }
```