LINEAR-SEARCH1.CPP source

```
01: /*
02:  * Program to read the admission numbers of N
03:  * students in a class and search given admission
04:  * no. from the list using linear search
05:  */
06:
07: #include<iostream>
08: using namespace std;
09:
10: int main() {
11:
12:   int adm_nos[100];
13:   int N, to_search;
14:
15:   cout<<"Enter the number of students:";
16:   cin>>N;
17:
18:   cout<<"Enter admission numbers:"<<endl;
19:
20:   //Read n numbers into array
21:   for(int i=0;i<N;i++) {
22:     cout<<"["<<i<<"]"<<":"; //Display [0]:, [1]:, ..[n-]:
23:     cin>>adm_nos[i];
24:   }
25:
26:   cout<<endl;
27:   cout<<"Enter the admission no. to search:";
28:   cin>>to_search;
29:
30:   bool found=false; //to test whether an item is found
31:
32:   for(int i=0;i<N;i++) {
33:     if(adm_nos[i]==to_search) {
34:       cout<<"Found "<<to_search<<" at index "<<i<<endl;
35:       found=true; //set to true, so that error message is not shown
36:       break;
37:     }
38:   }
39:
40:   if(!found) //show the error message if not found
41:     cout<<to_search<<" was not found"<<endl;
42:
43:   return 0;
44: }
45:
46:
```

LINEAR-SEARCH1.CPP output

```
01: Enter the number of students:10
02: Enter admission numbers:
03: [0]:101
04: [1]:102
05: [2]:103
06: [3]:104
07: [4]:105
08: [5]:106
09: [6]:107
10: [7]:108
11: [8]:109
12: [9]:110
13:
14: Enter the admission no. to search:108
15: Found 108 at index 7
16:
```