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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **Problem Solving Through Programming In C (course)**



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Course
outline

How does an
NPTEL
online
course
work? ()

Week 0 : ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Week 9 : Programming Assignment 1

Due on 2023-09-28, 23:59 IST

Write a program to print all the locations at which a particular element (taken as input) is found in a list and also print the total number of times it occurs in the list. The location starts from 1. For example if there are 4 elements in the array

5

6

5

7

If the element to search is 5 then the output will be

5 is present at location 1

5 is present at location 3

5 is present 2 times in the array.

Private Test cases
used for evaluation

Input Expected Output

Actual Output

Status

Test Case 1

7
30
50
90
30
70
30
30
30
30

30 is present at
location 1.\n
30 is present at
location 4.\n
30 is present at
location 6.\n
30 is present at
location 7.\n
30 is present 4
times in the array.

30 is present at
location 1.\n
30 is present at
location 4.\n
30 is present at
location 6.\n
30 is present at
location 7.\n
30 is present 4
times in the
array.\n

Passed

Week 8 ()**Week 9 ()****Week 10 ()****Week 11 ()****Week 12 ()****DOWNLOAD
VIDEOS ()****Books ()****Text
Transcripts ()****Problem
Solving
Session -
July 2023 ()**

Test Case 2

4
50
60
20
10
8080 is not present
in the array.80 is not present in
the array.\n

Passed

The due date for submitting this assignment has passed.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-09-28, 22:05 IST

Your last recorded submission was :

```

1 #include <stdio.h>
2 int main()
3 {
4     int array[100], search, n, count = 0;
5     //"search" is the key element to search and 'n' is the total number of elements
6     // "count" is to store total number of elements
7
8     scanf("%d", &n); //Number of elements is taken from test case
9
10    int c;
11    for (c = 0; c < n; c++)
12        scanf("%d", &array[c]);
13
14    scanf("%d", &search); // The element to search is taken from test case
15
16    /* Use the printf statements as below:
17    "%d is present at location %d.\n" for each locations
18    "%d is not present in the array.\n" if the element is not found in the list
19    "%d is present %d times in the array.\n"
20    */
21    for(c=0;c<n;c++)
22    {
23        if(array[c]==search)
24        {
25            printf("%d is present at location %d.\n",search,c+1);
26            count=count+1;
27        }
28    }
29    if(count!=0)
30    {
31        printf("%d is present %d times in the array.\n",search,count);
32    }
33    else
34    {
35        printf("%d is not present in the array.\n",search);
36    }
37    return 0;
38 }
39

```

Sample solutions (Provided by instructor)

```

1 #include <stdio.h>
2 int main()
3 {
4     int array[100], search, n, count = 0;
5     //"search" is the key element to search and 'n' is the total number of elements
6     // "count" is to store total number of elements
7
8     scanf("%d", &n); //Number of elements is taken from test case
9
10    int c;
11    for (c = 0; c < n; c++)
12        scanf("%d", &array[c]);

```

```
13
14     scanf("%d", &search); // The element to search is taken from test case
15
16 /* Use the printf statements as below:
17 "%d is present at location %d.\n" for each locations
18 "%d is not present in the array.\n" if the element is not found in the list
19 "%d is present %d times in the array.\n"
20 */
21 for (c = 0; c < n; c++)
22 {
23     if (array[c] == search)
24     {
25         printf("%d is present at location %d.\n", search, c+1);
26         count++;
27     }
28 }
29 if (count == 0)
30     printf("%d is not present in the array.\n", search);
31 else
32     printf("%d is present %d times in the array.\n", search, count);
33
34 return 0;
35 }
```