Week 09 Program 02

Write a C program to search a given element from a 1D array and display the position at which it is found by using linear search function. The index location starts from 1.

Sample Test Cases

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>95 is not present in the array.</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6 is present at location 1.</td>
</tr>
</tbody>
</table>
# include <stdio.h>

int linear_search(int[], int, int);

int main()
{
    int array[100], search, c, n, position;
    /* search - element to search, c - counter, n - number of elements ;
    position - The position in which the element is first found in the list
    scanf(“%d”, &n); // Number of elements in the array is read from the test case
    for (c = 0; c < n; c++)
        scanf(“%d”, &array[c]); //Elements of array is read from the test case 
    scanf(“%d”, &search); //Element to search is read from the test case 
    */
    position = linear_search(array, n, search);
    if (position == -1)
        printf("%d is not present in the array.\n", search);
    else
        printf("%d is present at location %d.\n", search, position+1); //As */
    return 0;
}

int linear_search(int a[], int n, int find) {
    int c;
    for (c = 0 ; c < n ; c++)
    {   
        if (a[c] == find)
        
            return c;
    }
}

The due date for submitting this assignment has passed. 
As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)
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VIDEOS

Assignment
Solution