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Traverse an array

 locked

Problem

Submissions

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Discussions

Given code snippet (in code stub below) gives you idea regarding three different ways to traverse an array.

Please read comments and output statements carefully!

Try to change different parts of code then rerun your code and see how it affects the output.

Input Format

Run this code with custom input and give following input

5 1 2 3 4 5

Constraints

No constraints

Output Format

Observe the output


Submissions: [54](#)


Max Score: 10

Difficulty: Easy

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C



```
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>
```

```

5
6 int main()
7 {
8     int arr[100], number_of_elements, *pntr, i;
9
10    printf("Enter number of elements to be entered (max 100): \n");
11    scanf("%d", &number_of_elements);
12
13    if(number_of_elements > 100)
14    {
15        printf("Elements are more than 100.\n");
16        return(-1);
17    }
18    else
19    {
20        pntr = arr;
21        for(i = 0; i < number_of_elements; i++)
22        {
23            // please note that & is not needed here before pntr
24            // Do you know why? If not, ask your friend or professor
25            scanf("%d", pntr);
26            pntr++;
27            printf("current value of pntr is %p\n", (void *)pntr);
28        }
29
30        // resetting pntr to point to first element
31        pntr = arr;
32
33        printf("\nPrinting array elements with array index notation using arr\n");
34        printf("arr in the beggining = %p\n", (void *)arr);
35        for(i = 0; i < number_of_elements; i++)
36        {
37            printf("%d ", arr[i]);
38        }
39        printf("\narr at end = %p", (void *)arr);
40
41        printf("\n\nPrinting array elements with array index notation using pntr\n");
42        printf("pntr in the beggining = %p\n", (void *)pntr);
43        for(i = 0; i < number_of_elements; i++)
44        {
45            printf("%d ", pntr[i]);
46        }
47        printf("\npntr at end = %p", (void *)pntr);
48
49        printf("\n\nPrinting array elements with pointer and offset using arr\n");
50        printf("arr in the beggining = %p\n", (void *)arr);
51        for(i = 0; i < number_of_elements; i++)
52        {
53            printf("%d ", *(arr + i));
54        }
55        printf("\narr at end = %p", (void *)arr);
56
57        printf("\n\nPrinting array elements with pointer and offset using pntr\n");
58        printf("pntr in the beggining = %p\n", (void *)pntr);
59        for(i = 0; i < number_of_elements; i++)
60        {
61            printf("%d ", *(pntr + i));
62        }
63        printf("\npntr at end = %p", (void *)pntr);
64
65        // try uncommenting following six lines and see what is the output
66        //printf("\nPrinting array elements by traversing an array with arr\n");
67        //for(i = 0; i < number_of_elements; i++)
68        //{
69        //    printf("%d ", *arr);
70        //    arr++;
71        //}

```

```

72
73     printf("\n\nPrinting array elements by traversing an array with ptr\n");
74     printf("ptr in the beggining = %p\n", (void *)ptr);
75     for(i = 0; i < number_of_elements; i++)
76     {
77         printf("%d ", *ptr);
78         ptr++;
79     }
80     printf("\nptr at end of traversing = %p\n", (void *)ptr);
81     printf("Please note that ptr has changed in this last technique\n");
82 }
83 }
```

Line: 83 Col: 2



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Test against custom input

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