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1  #include <stdio.h>
2
3  int main(void)
4  {
5      //variable declarations
6      int iArray[] = { 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 }; //Integer Array
7      int *ptr_iArray = NULL; //Integer Pointer
8
9      //code
10
11     // ##### USING ARRAY NAME AS A ARRAY i.e : Value Of xth Element Of iArray : *
        iArray[x] AND Address Of xth Element Of iArray : &iArray[x] #####
12     printf("\n\n");
13     printf("*** USING ARRAY NAME AS A ARRAY i.e : Value Of xth Element Of iArray : *
        iArray[x] AND Address Of xth Element Of iArray : &iArray[x] ***\n\n");
14     printf("Integer Array Elements And Their Addresses : \n\n");
15     printf("iArray[0] = %d \t \t At Address &iArray[0] : %p\n", iArray[0], &iArray
        [0]);
16     printf("iArray[1] = %d \t \t At Address &iArray[1] : %p\n", iArray[1], &iArray
        [1]);
17     printf("iArray[2] = %d \t \t At Address &iArray[2] : %p\n", iArray[2], &iArray
        [2]);
18     printf("iArray[3] = %d \t \t At Address &iArray[3] : %p\n", iArray[3], &iArray
        [3]);
19     printf("iArray[4] = %d \t \t At Address &iArray[4] : %p\n", iArray[4], &iArray
        [4]);
20     printf("iArray[5] = %d \t \t At Address &iArray[5] : %p\n", iArray[5], &iArray
        [5]);
21     printf("iArray[6] = %d \t \t At Address &iArray[6] : %p\n", iArray[6], &iArray
        [6]);
22     printf("iArray[7] = %d \t \t At Address &iArray[7] : %p\n", iArray[7], &iArray
        [7]);
23     printf("iArray[8] = %d \t \t At Address &iArray[8] : %p\n", iArray[8], &iArray
        [8]);
24     printf("iArray[9] = %d \t \t At Address &iArray[9] : %p\n", iArray[9], &iArray
        [9]);
25
26     // ASSIGNING BASE ADDRESS OF INTEGER ARRAY 'iArray' TO INTEGER POINTER *
        'ptr_iArray'
27     // NAME OF ANY ARRAY IS ITS OWN BASE ADDRESS
28     ptr_iArray = iArray; //SAME AS ... ptr_iArray = &iArray[0]
29
30     // ##### USING POINTER AS POINTER i.e : Value Of xth Element Of iArray : *
        (ptr_iArray + x) AND Address Of xth Element Of iArray : (ptr_iArray + x) *
        #####
31     printf("\n\n");
32     printf("*** USING POINTER AS POINTER i.e : Value Of xth Element Of iArray : *
        (ptr_iArray + x) AND Address Of xth Element Of iArray : (ptr_iArray + x) ***
        \n\n");
33     printf("Integer Array Elements And Their Addresses : \n\n");
34     printf("(*(ptr_iArray + 0) = %d \t \t At Address (ptr_iArray + 0) : %p\n", *
        (ptr_iArray + 0), (ptr_iArray + 0));

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35     printf("(ptr_iArray + 1) = %d \t \t At Address (ptr_iArray + 1) : %p\n", *  
        (ptr_iArray + 1), (ptr_iArray + 1));  
36     printf("(ptr_iArray + 2) = %d \t \t At Address (ptr_iArray + 2) : %p\n", *  
        (ptr_iArray + 2), (ptr_iArray + 2));  
37     printf("(ptr_iArray + 3) = %d \t \t At Address (ptr_iArray + 3) : %p\n", *  
        (ptr_iArray + 3), (ptr_iArray + 3));  
38     printf("(ptr_iArray + 4) = %d \t \t At Address (ptr_iArray + 4) : %p\n", *  
        (ptr_iArray + 4), (ptr_iArray + 4));  
39     printf("(ptr_iArray + 5) = %d \t \t At Address (ptr_iArray + 5) : %p\n", *  
        (ptr_iArray + 5), (ptr_iArray + 5));  
40     printf("(ptr_iArray + 6) = %d \t \t At Address (ptr_iArray + 6) : %p\n", *  
        (ptr_iArray + 6), (ptr_iArray + 6));  
41     printf("(ptr_iArray + 7) = %d \t \t At Address (ptr_iArray + 7) : %p\n", *  
        (ptr_iArray + 7), (ptr_iArray + 7));  
42     printf("(ptr_iArray + 8) = %d \t \t At Address (ptr_iArray + 8) : %p\n", *  
        (ptr_iArray + 8), (ptr_iArray + 8));  
43     printf("(ptr_iArray + 9) = %d \t \t At Address (ptr_iArray + 9) : %p\n", *  
        (ptr_iArray + 9), (ptr_iArray + 9));  
44     return(0);  
45 }  
46  
47  
48  
49
```