```c
#include <stdio.h>

int main(void)
{
    //variable declarations
    int iArray[] = { 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 }; //Integer Array
    int *ptr_iArray = NULL; //Integer Pointer

    //code

    // ######  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]  ######
    printf("\n\n");
    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");
    printf("Integer Array Elements And Their Addresses : \n\n");
    printf("iArray[0] = %d \t \t At Address &iArray[0] : %p\n", iArray[0], &iArray[0]);
    printf("iArray[1] = %d \t \t At Address &iArray[1] : %p\n", iArray[1], &iArray[1]);
    printf("iArray[2] = %d \t \t At Address &iArray[2] : %p\n", iArray[2], &iArray[2]);
    printf("iArray[3] = %d \t \t At Address &iArray[3] : %p\n", iArray[3], &iArray[3]);
    printf("iArray[4] = %d \t \t At Address &iArray[4] : %p\n", iArray[4], &iArray[4]);
    printf("iArray[5] = %d \t \t At Address &iArray[5] : %p\n", iArray[5], &iArray[5]);
    printf("iArray[6] = %d \t \t At Address &iArray[6] : %p\n", iArray[6], &iArray[6]);
    printf("iArray[7] = %d \t \t At Address &iArray[7] : %p\n", iArray[7], &iArray[7]);
    printf("iArray[8] = %d \t \t At Address &iArray[8] : %p\n", iArray[8], &iArray[8]);
    printf("iArray[9] = %d \t At Address &iArray[9] : %p\n", iArray[9], &iArray[9]);

    // ASSIGNING BASE ADDRESS OF INTEGER ARRAY 'iArray' TO INTEGER POINTER 'ptr_iArray'
    // NAME OF ANY ARRAY IS ITS OWN BASE ADDRESS
    ptr_iArray = iArray; //SAME AS ... ptr_iArray = &iArray[0]

    // ######  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) ######
    printf("\n\n");
    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");
    printf("Integer Array Elements And Their Addresses : \n\n");
    printf("*(ptr_iArray + 0) = %d \t \t At Address (ptr_iArray + 0) : %p\n", *(ptr_iArray + 0), (ptr_iArray + 0));
```

```
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 At Address (ptr_iArray + 9) : %p\n", *
          (ptr_iArray + 9), (ptr_iArray + 9));
44      return(0);
45  }
46
47
48
49
```