

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main(void)
5  {
6      void MyAlloc(int **ptr, unsigned int numberOfElements);
7
8      //variable declarations
9      int *piArray = NULL;
10     unsigned int num_elements;
11     int i;
12
13     // code
14     printf("\n\n");
15     printf("How Many Elements You Want In Integer Array ?\n\n");
16     scanf("%u", &num_elements);
17
18     printf("\n\n");
19     MyAlloc(&piArray, num_elements);
20
21     printf("Enter %u Elements To Fill Up Your Integer Array : \n\n",      ↗
22           num_elements);
23     for (i = 0; i < num_elements; i++)
24         scanf("%d", &piArray[i]);
25
26     printf("\n\n");
27     printf("The %u Elements Entered By You In The Integer Array : \n\n",  ↗
28           num_elements);
29     for (i = 0; i < num_elements; i++)
30         printf("%u\n", piArray[i]);
31
32     printf("\n\n");
33     if (piArray)
34     {
35         free(piArray);
36         piArray = NULL;
37         printf("Memory Allocated Has Now Been Successfully Freed !!!\n\n");
38     }
39
40     return(0);
41 }
42
43 void MyAlloc(int **ptr, unsigned int numberOfElements)
44 {
45     // code
46     *ptr = (int *)malloc(numberOfElements * sizeof(int));
47     if (*ptr == NULL)
48     {
49         printf("Could Not Allocate Memory !!! Exiting Now ...\n\n");
50         exit(0);
51     }
```

```
51     printf("MyAlloc() Has Successfully Allocated %lu Bytes For Integer Array !!!\n ↗  
    \n", (numberOfElements * sizeof(int)));  
52 }  
53
```