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1  #include <stdio.h>
2
3  #define MAX_STRING_LENGTH 512
4
5  int main(void)
6  {
7      //function prototype
8      void MyStrrev(char[], char[]);
9
10     //variable declarations
11     char chArray_Original[MAX_STRING_LENGTH], chArray_Reversed
        [MAX_STRING_LENGTH]; // A Character Array Is A String
12
13     //code
14
15     // *** STRING INPUT ***
16     printf("\n\n");
17     printf("Enter A String : \n\n");
18     gets_s(chArray_Original, MAX_STRING_LENGTH);
19
20     // *** STRING REVERSE ***
21     MyStrrev(chArray_Reversed, chArray_Original);
22
23     // *** STRING OUTPUT ***
24     printf("\n\n");
25     printf("The Original String Entered By You (i.e : 'chArray_Original[]') Is :
        \n\n");
26     printf("%s\n", chArray_Original);
27
28     printf("\n\n");
29     printf("The Reversed String (i.e : 'chArray_Reversed[]') Is : \n\n");
30     printf("%s\n", chArray_Reversed);
31
32     return(0);
33 }
34
35 void MyStrrev(char str_destination[], char str_source[])
36 {
37     //function prototype
38     int MyStrlen(char[]);
39
40     //variable declarations
41     int iStringLength = 0;
42     int i, j, len;
43
44     //code
45     iStringLength = MyStrlen(str_source);
46
47     // ARRAY INDICES BEGIN FROM 0, HENCE, LAST INDEX WILL ALWAYS BE (LENGTH - 1)
48     len = iStringLength - 1;
49
50     // WE NEED TO PUT THE CHARACTER WHICH IS AT LAST INDEX OF 'str_source' TO THE

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    FIRST INDEX OF 'str_destination'
51    // AND SECOND-LAST CHARACTER OF 'str_source' TO THE SECOND CHARACTER OF
    'str_destination' and so on...
52    for (i = 0, j = len; i < iStringLength, j >= 0; i++, j--)
53    {
54        str_destination[i] = str_source[j];
55    }
56
57    str_destination[i] = '\0';
58 }
59
60 int MyStrlen(char str[])
61 {
62     //variable declarations
63     int j;
64     int string_length = 0;
65
66     //code
67     // *** DETERMINING EXACT LENGTH OF THE STRING, BY DETECTING THE FIRST
    OCCURENCE OF NULL-TERMINATING CHARACTER ( \0 ) ***
68     for (j = 0; j < MAX_STRING_LENGTH; j++)
69     {
70         if (str[j] == '\0')
71             break;
72         else
73             string_length++;
74     }
75     return(string_length);
76 }
77
```