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...nalArray\06-StringOperations\07-Replacement\Replacement.c 1
1 // *** THIS PROGRAM REPLACES ALL VOWELS IN THE INPUT STRING WITH THE * (asterisk) ?
  SYMBOL ***
2 // *** FOR EXAMPLE, ORIGINAL STRING 'Dr. Vijay Dattatray Gokhale ASTROMEDICOMP' ?
  WILL BECOME 'Dr. V*j*y D*tt*tr*y* G*kh*le *STR*M*D*C*MP'
3
4 #include <stdio.h>
5
6 #define MAX_STRING_LENGTH 512
7
8 int main(void)
9 {
10     //function prototype
11     int MyStrlen(char[]);
12     void MyStrcpy(char[], char[]);
13
14     //variable declarations
15     char chArray_Original[MAX_STRING_LENGTH], chArray_VowelsReplaced ?
        [MAX_STRING_LENGTH]; // A Character Array Is A String
16     int iStringLength;
17     int i;
18
19     //code
20
21     // *** STRING INPUT ***
22     printf("\n\n");
23     printf("Enter A String : \n\n");
24     gets_s(chArray_Original, MAX_STRING_LENGTH);
25
26     // *** STRING OUTPUT ***
27     MyStrcpy(chArray_VowelsReplaced, chArray_Original);
28
29     iStringLength = MyStrlen(chArray_VowelsReplaced);
30
31     for (i = 0; i < iStringLength; i++)
32     {
33         switch (chArray_VowelsReplaced[i])
34         {
35             case 'A':
36             case 'a':
37             case 'E':
38             case 'e':
39             case 'I':
40             case 'i':
41             case 'O':
42             case 'o':
43             case 'U':
44             case 'u':
45                 chArray_VowelsReplaced[i] = '*';
46                 break;
47             default:
48                 break;
49         }

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50     }
51
52     // *** STRING OUTPUT ***
53     printf("\n\n");
54     printf("String Entered By You Is : \n\n");
55     printf("%s\n", chArray_Original);
56
57     printf("\n\n");
58     printf("String After Replacement Of Vowels By * Is : \n\n");
59     printf("%s\n", chArray_VowelsReplaced);
60
61     return(0);
62 }
63
64 int MyStrlen(char str[])
65 {
66     //variable declarations
67     int j;
68     int string_length = 0;
69
70     //code
71     // *** DETERMINING EXACT LENGTH OF THE STRING, BY DETECTING THE FIRST
72     OCCURENCE OF NULL-TERMINATING CHARACTER ( \0 ) ***
73     for (j = 0; j < MAX_STRING_LENGTH; j++)
74     {
75         if (str[j] == '\0')
76             break;
77         else
78             string_length++;
79     }
80     return(string_length);
81 }
82
83 void MyStrcpy(char str_destination[], char str_source[])
84 {
85     //function prototype
86     int MyStrlen(char[]);
87
88     //variable declarations
89     int iStringLength = 0;
90     int j;
91
92     //code
93     iStringLength = MyStrlen(str_source);
94     for (j = 0; j < iStringLength; j++)
95         str_destination[j] = str_source[j];
96
97     str_destination[j] = '\0';
98 }
```