```c
1  #include <stdio.h>
2
3  #define MAX_STRING_LENGTH 512
4
5  int main(void)
6  {
7      //function prototype
8      void MyStrcat(char[], char[]);
9
10     //variable declarations
11     char chArray_One[MAX_STRING_LENGTH], chArray_Two[MAX_STRING_LENGTH]; // A
           Character Array Is A String
12
13     //code
14
15     // *** STRING INPUT ***
16     printf("\n\n");
17     printf("Enter First String : \n\n");
18     gets_s(chArray_One, MAX_STRING_LENGTH);
19
20     printf("\n\n");
21     printf("Enter Second String : \n\n");
22     gets_s(chArray_Two, MAX_STRING_LENGTH);
23
24     // *** STRING CONCAT ***
25     printf("\n\n");
26     printf("****** BEFORE CONCATENATION ******");
27     printf("\n\n");
28     printf("The Original First String Entered By You (i.e : 'chArray_One[]') Is :
           \n\n");
29     printf("%s\n", chArray_One);
30
31     printf("\n\n");
32     printf("The Original Second String Entered By You (i.e : 'chArray_Two[]') Is :
           \n\n");
33     printf("%s\n", chArray_Two);
34
35     MyStrcat(chArray_One, chArray_Two);
36
37     printf("\n\n");
38     printf("****** AFTER CONCATENATION ******");
39     printf("\n\n");
40     printf("'chArray_One[]' Is : \n\n");
41     printf("%s\n", chArray_One);
42
43     printf("\n\n");
44     printf("'chArray_Two[]' Is : \n\n");
45     printf("%s\n", chArray_Two);
46
47     return(0);
48  }
49
```

```c
50  void MyStrcat(char str_destination[], char str_source[])
51  {
52      //function prototype
53      int MyStrlen(char[]);
54
55      //variable declarations
56      int iStringLength_Source = 0, iStringLength_Destination = 0;
57      int i, j;
58
59      //code
60      iStringLength_Source = MyStrlen(str_source);
61      iStringLength_Destination = MyStrlen(str_destination);
62
63      // ARRAY INDICES BEGIN FROM 0, HENCE, LAST VALID INDEX OF ARRAY WILL ALWAYS BE ⮑
            (LENGTH - 1)
64      // SO, CONCATENATION MUST BEGIN FROM INDEX NUMBER EQUAL TO LENGTH OF THE ARRAY ⮑
            'str_destination'
65      // WE NEED TO PUT THE CHARACTER WHICH IS AT FIRST INDEX OF 'str_source' TO THE ⮑
            (LAST INDEX + 1) OF 'str_destination'
66      for (i = iStringLength_Destination, j = 0; j < iStringLength_Source; i++, j++)
67      {
68          str_destination[i] = str_source[j];
69      }
70
71      str_destination[i] = '\0';
72  }
73
74  int MyStrlen(char str[])
75  {
76      //variable declarations
77      int j;
78      int string_length = 0;
79
80      //code
81      // *** DETERMINING EXACT LENGTH OF THE STRING, BY DETECTING THE FIRST        ⮑
            OCCURENCE OF NULL-TERMINATING CHARACTER ( \0 ) ***
82      for (j = 0; j < MAX_STRING_LENGTH; j++)
83      {
84          if (str[j] == '\0')
85              break;
86          else
87              string_length++;
88      }
89      return(string_length);
90  }
91
```