```c
1  #include <stdio.h>
2
3  #define MAX_STRING_LENGTH 512
4
5  int main(void)
6  {
7      //function prototype
8      void MyStrcpy(char[], char[]);
9
10     //variable declaraions
11
12     // *** A 'STRING' IS AN ARRAY OF CHARACTERS ... so char[] IS A char ARRAY AND ⮑
           HENCE, char[] IS A 'STRING' ***
13     // *** AN ARRAY OF char ARRAYS IS AN ARRAY OF STRINGS !!! ***
14     // *** HENCE, char[] IS ONE char ARRAY AND HENCE, IS ONE STRING ***
15     // *** HENCE, char[][] IS AN ARRAY OF char ARRAYS AND HENCE, IS AN ARRAY OF  ⮑
           STRINGS ***
16
17     //Here, the string array can allow a maximum number of 5 strings (5 rows) and ⮑
           each of these 5 strings can have only upto 10 characters maximum (10   ⮑
           columns)
18     char strArray[5][10]; // 5 ROWS (0, 1, 2, 3, 4) -> 5 STRINGS (EACH STRING CAN ⮑
           HAVE A MAXIMUM OF 10 CHARACTERS)
19     int char_size;
20     int strArray_size;
21     int strArray_num_elements, strArray_num_rows, strArray_num_columns;
22     int i;
23
24     //code
25     printf("\n\n");
26
27     char_size = sizeof(char);
28
29     strArray_size = sizeof(strArray);
30     printf("Size Of Two Dimensional ( 2D ) Character Array (String Array) Is = %d ⮑
           \n\n", strArray_size);
31
32     strArray_num_rows = strArray_size / sizeof(strArray[0]);
33     printf("Number of Rows (Strings) In Two Dimensional ( 2D ) Character Array    ⮑
           (String Array) Is = %d\n\n", strArray_num_rows);
34
35     strArray_num_columns = sizeof(strArray[0]) / char_size;
36     printf("Number of Columns In Two Dimensional ( 2D ) Character Array (String   ⮑
           Array) Is = %d\n\n", strArray_num_columns);
37
38     strArray_num_elements = strArray_num_rows * strArray_num_columns;
39     printf("Maximum Number of Elements (Characters) In Two Dimensional ( 2D )     ⮑
           Character Array (String Array) Is = %d\n\n", strArray_num_elements);
40
41     // *** PIECE-MEAL ASSIGNMENT ***
42     MyStrcpy(strArray[0], "My");
43     MyStrcpy(strArray[1], "Name");
```

```c
44          MyStrcpy(strArray[2], "Is");
45          MyStrcpy(strArray[3], "Pradnya");
46          MyStrcpy(strArray[4], "Gokhale");
47
48          printf("\n\n");
49          printf("The Strings In the 2D Character Array Are : \n\n");
50
51          for (i = 0; i < strArray_num_rows; i++)
52              printf("%s ", strArray[i]);
53
54          printf("\n\n");
55
56          return(0);
57  }
58
59  void MyStrcpy(char str_destination[], char str_source[])
60  {
61          //function prototype
62          int MyStrlen(char[]);
63
64          //variable declarations
65          int iStringLength = 0;
66          int j;
67
68          //code
69          iStringLength = MyStrlen(str_source);
70          for (j = 0; j < iStringLength; j++)
71              str_destination[j] = str_source[j];
72
73          str_destination[j] = '\0';
74  }
75
76  int MyStrlen(char str[])
77  {
78          //variable declarations
79          int j;
80          int string_length = 0;
81
82          //code
83          // *** DETERMINING EXACT LENGTH OF THE STRING, BY DETECTING THE FIRST
                OCCURENCE OF NULL-TERMINATING CHARACTER ( \0 ) ***
84          for (j = 0; j < MAX_STRING_LENGTH; j++)
85          {
86              if (str[j] == '\0')
87                  break;
88              else
89                  string_length++;
90          }
91          return(string_length);
92  }
93
```