

## compressStr

Write a C function compressStr() that takes in a string str as argument, compresses the adjacent repeated characters, and prints the compressed string to the display. The function replaces strings of repeating character sequences by [nX] in the output, where n is an integer count (greater than 1) of the number of repetitions, and X is the character. For example, if str is "bbcccd", then the string "[2b][4c]d" will be printed on the display. ]

A sample program template is given below for testing the function:

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>
void compressStr(char *str);
int main()
{
    char str[40];

    printf("Enter a sequence of characters: \n");
    scanf("%s", str);
    printf("compressStr(): ");
    compressStr(str);
    return 0;
}
void compressStr(char *str)
{
    /* Write your code here */
}
```

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>
void compressStr(char *str);
int main()
{
    char str[40];

    printf("Enter a sequence of characters: \n");
    scanf("%s", str);
    printf("compressStr(): ");
    compressStr(str);
    return 0;
}
void compressStr(char *str)
{
    int i;
    int len;
    int count = 1;

    len = strlen(str);

    for(i=0;i<len;i++)
    {
        if(str[i] == str[i+1])
        {
            count+=1;
        }
        else
        {
            if(count > 1)
            {
                printf("[%d%c]",count,str[i]);
                count = 1;
            }
            else
            {
                printf("%c",str[i]);
            }
        }
    }
}
```

Some test input and output sessions are given below:

- (1) Test Case 1  
Enter a sequence of characters:  
b  
compressStr(): b
- (2) Test Case 2  
Enter a sequence of characters:  
bbcddee  
compressStr(): [2b]cd[3e]
- (3) Test Case 3  
Enter a sequence of characters:  
bbcccddee  
compressStr(): [2b][4c]d[3e]
- (4) Test Case 4  
Enter a sequence of characters:  
bcde  
compressStr(): bcde