

```
1 //
2 // Created by hfwei on 2022/11/25.
3 //
4
5 #include <stdio.h>
6
7 int StrLen(const char *s);
8 size_t StrLenStd(const char *s);
9
10 int main() {
11     char msg[20] = "Hello World!";
12     printf("%s\n", msg);
13
14     msg[0] = 'N';
15     printf("%s\n", msg);
16
17     // string literal;
18     // may be stored in read-only memory
19     // undefined behavior
20     // char *ptr_msg = "Hello World!";
21     // ptr_msg[0] = 'N';
22     // interrupted by signal 11: SIGSEGV
23     // SIG: signal; SEGV: segmentation violation
24     // printf("%s\n", msg);
25
26     printf("StrLen(%s) = %d\n", msg, StrLen(msg));
27
28     return 0;
29 }
30
31 int StrLen(const char *s) {
32     int len = 0;
33     while (s[len] != '\0') {
34         len++;
35     }
36
37     return len;
38 }
39
40 size_t StrLenStd(const char *s) {
41     const char *sc;
42     for (sc = s; *sc != '\0'; sc++);
43
44     return (sc - s);
45 }
```