```c
 1  //
 2  // file: strlen.c
 3  // Created by hfwei on 2023/11/29.
 4  // See https://en.cppreference.com/w/c/string/byte/strlen
 5  //
 6
 7  #include <stdio.h>
 8
 9  int StrLen(const char *s);
10  int StrLen1(const char *s);
11  int StrLen2(const char *s);
12  //  The behavior is undefined if str is not a pointer to a null-
    terminated byte string.
13  size_t StrLenStd(const char *s);
14
15  int main() {
16    char msg[] = "Hello World!";
17
18    printf("StrLen(%s) = %d\n", msg, StrLen(msg));
19    printf("StrLenStd(%s) = %zu\n", msg, StrLenStd(msg));
20
21    return 0;
22  }
23
24  int StrLen(const char *s) {
25    int len = 0;
26    while (s[len] != '\0') {
27      len++;
28    }
29
30    return len;
31  }
32
33  int StrLen1(const char *s) {
34    int len = 0;
35    while (s[len++] != '\0');
36
37    return len - 1;
38  }
39
40  int StrLen2(const char *s) {
41    int len = -1;
42    while (s[++len] != '\0');
43
44    return len;
45  }
46
47  size_t StrLenStd(const char *s) {
48    const char *sc;
49    for (sc = s; *sc != '\0'; sc++);
50
51    return sc - s;
52  }
```