

```

1 //
2 // Created by hfwei on 2022/11/25.
3 //
4
5 #include <stdio.h>
6
7 int StrCmp(const char *s1, const char *s2);
8 int StrCmpStd(const char *s1, const char *s2);
9
10 int StrNCmpStd(const char *s1, const char *s2, int n);
11
12 int main() {
13     const char *str1 = "hi, C";
14     const char *str2 = "hi, c";
15
16     printf("StrCmp(\"%s\", \"%s\") = %d\n",
17           str1, str2, StrCmp(str1, str2));
18     // printf("StrCmpStd(\"%s\", \"%s\") = %d\n",
19     //        str1, str2, StrCmpStd(str1, str2));
20     //
21     // int n = 2;
22     // printf("StrNCmpStd(\"%s\", \"%s\", %d) = %d\n",
23     //        str1, str2, n, StrNCmpStd(str1, str2, n));
24
25     return 0;
26 }
27
28 int StrCmp(const char *s1, const char *s2) {
29     while (*s1 == *s2 && (*s1 != '\0' && *s2 != '\0')) {
30         s1++;
31         s2++;
32     }
33
34     if (*s1 == '\0' && *s2 == '\0') {
35         return 0;
36     }
37
38     // char: unsigned char, signed char
39     return (*(const unsigned char *) s1)
40            < (*(const unsigned char *) s2) ? -1 : 1;
41 }
42
43 int StrCmpStd(const char *s1, const char *s2) {
44     for (; *s1 == *s2; s1++, s2++) {
45         if (*s1 == '\0') {
46             return 0;
47         }
48     }
49
50     return (*(const unsigned char *) s1)
51            < (*(const unsigned char *) s2) ? -1 : 1;
52 }
53

```

```
54 int StrNCmpStd(const char *s1, const char *s2, int n) {
55     for (; 0 < n; n--, s1++, s2++) {
56         if (*s1 != *s2) {
57             return (*(const unsigned char *) s1)
58                 < (*(const unsigned char *) s2) ? -1 : 1;
59         } else if (*s1 == '\\0') { // *s1 == *s2 == '\\0'
60             return 0;
61         }
62     }
63
64     return 0;
65 }
```