

```
1 #include <stdio.h>
2
3 // *** GLOBAL SCOPE ***
4
5 int main(void)
6 {
7     // *** LOCAL SCOPE OF main() begins ***
8
9     // variable declarations
10    // 'a' is a Local Variable. It is local to main() only.
11    int a = 5;
12
13    //function prototypes
14    void change_count(void);
15
16    //code
17    printf("\n");
18    printf("A = %d\n\n", a);
19
20    // local_count is initialized to 0.
21    // local_count = local_count + 1 = 0 + 1 = 1
22    change_count();
23
24    // Since, 'local_count' is a local static variable of change_count(), it WILL ↗
25    // retain its value from previous call to change_count().
26    // So local_count is 1
27    // local_count = local_count + 1 = 1 + 1 = 2
28    change_count();
29
30    // Since, 'local_count' is a local static variable of change_count(), it WILL ↗
31    // retain its value from previous call to change_count().
32    // So local_count is 2
33    // local_count = local_count + 1 = 2 + 1 = 3
34    change_count();
35
36    return(0);
37 }
38
39 // *** GLOBAL SCOPE ***
40
41 void change_count(void)
42 {
43     // *** LOCAL SCOPE OF change_count() begins ***
44
45     // variable declarations
46     // 'local_count' is a Local Static Variable. It is local to change_count() ↗
47     // only.
48     // It will retain its value between calls to change_count()
49     static int local_count = 0;
```

```
50     //code
51     local_count = local_count + 1;
52     printf("Local Count = %d\n", local_count);
53
54     // *** LOCAL SCOPE OF change_count() ends ***
55 }
56
57 // *** GLOBAL SCOPE ***
58
```