

# WEEKLY INTERNSHIP ACTIVITY 3

## Create a function demonstrating how static variables retain values between calls.

- Static variables:
  - Are initialized only once
  - Retain their value between function calls
  - Have local scope but static lifetime

C Program (Single File)

```

</> #include <stdio.h>

// Function to demonstrate static variable behavior
void counterFunction() {
    static int count = 0; // static variable
    count++;
    printf("Count value: %d\n", count);
}

int main() {
    counterFunction();
    counterFunction();
    counterFunction();
    return 0;
}

```

Execution Output

```

</> Count value: 1
Count value: 2
Count value: 3

```

Try Online (Click to open)

- Onecompiler > c

The screenshot shows a C compiler interface with the following details:

- File:** Main.c
- Language:** C
- Compiler:** Onecompiler
- Code:**

```

1 #include <stdio.h>
2
3 // Function to demonstrate static variable behavior
4 void counterFunction() {
5     static int count = 0; // static variable
6     count++;
7     printf("Count value: %d\n", count);
8 }
9
10 int main() {
11     counterFunction();
12     counterFunction();
13     counterFunction();
14     return 0;
15 }

```
- Output:**

STDIN

Input for the program (Optional)

Output:

```

Count value: 1
Count value: 2
Count value: 3

```

1 ms | 4.4 MB