

## 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 an online C compiler interface. On the left, the code editor displays the same C program as shown in the previous blocks. The file is named 'Main.c'. On the right, the 'Execution Output' section shows the results of running the program. It displays 'Count value: 1', 'Count value: 2', and 'Count value: 3' on separate lines. The interface also includes a 'RUN' button and a status bar at the bottom right indicating '1 ms | 4.4 MB'.