Experiment 5: Variable and Scope of Variable

5.1. Declare a global variable outside all functions and use it inside various functions to understand its accessibility.

Ans-:

```c
#include <stdio.h>

// Global variable declaration
int counter = 0;

void increment() {
    printf("Name - Aryan kamboj\nSAP ID - 590025526\ncourse - BCA\nBatch - 6");
    printf("\n--------------------\n");

    counter++;  // Access and modify global variable
    printf("Incremented counter: %d\n", counter);
}

void decrement() {
    counter--;  // Access and modify global variable
    printf("Decremented counter: %d\n", counter);
}

void showValue() {
    // Reading global variable directly
    printf("Current counter value: %d\n", counter);
}

int main() {
    increment();   // counter = 1
    increment();   // counter = 2
    decrement();   // counter = 1
    showValue();   // prints counter value

    return 0;
}
```

Output :

```
aryankamboj@users-MacBook-Air lab_8 % cd "/Users/aryankamboj/Desktop/c_programming_theory/lab_8/" && gcc
 5.1.c -o 5.1 && "/Users/aryankamboj/Desktop/c_programming_theory/lab_8/"5.1
Name - Aryan kamboj
SAP ID - 590025526
course - BCA
Batch - 6
_____
Incremented counter: 1
Name - Aryan kamboj
SAP ID - 590025526
course - BCA
Batch - 6
_____
Incremented counter: 2
Decremented counter: 1
Current counter value: 1
```