

## Experiment 5: Variable and Scope of Variable

**5.3. Declare variables within different code blocks (enclosed by curly braces) and test their accessibility within and outside those blocks.**

**Ans-:**

```
#include <stdio.h>

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

    int x = 10; // Declared in main block
    printf("Inside main block: x = %d\n", x);

    {
        int y = 20; // Declared inside inner block
        printf("Inside inner block: y = %d\n", y);
        printf("Inside inner block, x is accessible: x = %d\n", x);
    }

    if (1) {
        int z = 30; // Declared inside if-block
        printf("Inside if block: z = %d\n", z);
    }

    printf("Back in main block: x is still accessible: x = %d\n", x);

    return 0;
}
```

**Output:**

```
aryankamboj@users-MacBook-Air lab_8 % cd "/Users/aryankamboj/Desktop/c_programming_theory/lab_8/" && gcc  
tempCodeRunnerFile.c -o tempCodeRunnerFile && "/Users/aryankamboj/Desktop/c_programming_theory/lab_8/"t  
empCodeRunnerFile  
Name - Aryan kamboj  
SAP ID - 590025526  
course - BCA  
Batch - 6  
-----  
Inside main block: x = 10  
Inside inner block: y = 20  
Inside inner block, x is accessible: x = 10  
Inside if block: z = 30  
Back in main block: x is still accessible: x = 10
```