Experiment 4: Fibonacci without Recursion

Aim:

To print Fibonacci series without recursion.

Algorithm:

1. Start.
2. Read n.
3. Initialize a=0, b=1.
4. Print a and b.
5. Repeat for n terms:
   - c = a + b
   - print c
   - update a=b, b=c.
6. Stop.

Code:

```
#include <stdio.h>

int main() {
    int n, i;
    int a = 0, b = 1, c;
    printf("Enter the number of terms: ");
    scanf("%d", &n);

    printf("Fibonacci Series: %d %d ", a, b);
    for(i = 3; i <= n; i++) {
        c = a + b;
        printf("%d ", c);
        a = b;
        b = c;
    }
    return 0;
```

}

Sample Output:

```
Fibonacci sequence up to 5 terms:
0 1 1 2 3


=== Code Execution Successful ===
```

Result:

The program successfully prints the Fibonacci series without recursion.