Aim

To write a C program to generate the Fibonacci series without using recursion.

Algorithm

1. Start the program.

2. Declare variables `n, a = 0, b = 1, next`.

3. Input the number of terms `n` to be displayed.

4. Print the first two terms (`a` and `b`).

5. Repeat from `i = 3` to `n`:

   - `next = a + b`

   - Print `next`

   - Update `a = b, b = next`

6. End the program.

CODE:

```c
#include <stdio.h>

int main() {
    int n, i;
    int a = 0, b = 1, next;

    printf("Enter the number of terms: ");
    scanf("%d", &n);

    printf("Fibonacci Series: ");

    for (i = 1; i <= n; i++) {
        if (i == 1) {
            printf("%d ", a);
        } else if (i == 2) {
            printf("%d ", b);
        } else {
            next = a + b;
            printf("%d ", next);
            a = b;
            b = next;
        }
    }

    printf("\n");
    return 0;
}
```

OUTPUT:

```
Output

Enter the number of terms: 8
Fibonacci Series: 0 1 1 2 3 5 8 13



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

RESULT:

The program successfully executed and displayed the fibonacci series using recursion.