Lab Question 9: Sum of Fibonacci Series

Aim:
To write a C program to find the sum of Fibonacci series up to n terms.

Algorithm:

1. Start the program.
2. Read n.
3. Initialize a=0, b=1, sum=a+b.
4. Loop from 3 to n:
    - Generate next term = a+b.
    - Add to sum.
    - Update a, b.
5. Print sum.
6. Stop.

Code:

```
#include <stdio.h>
int main() {
   int n, i, a=0, b=1, c, sum=1;
   printf("Enter n: ");
   scanf("%d", &n);
   if (n==1) sum=0;
   for (i = 3; i <= n; i++) {
      c = a + b;
      sum += c;
      a = b; b = c;
   }
   printf("Sum of Fibonacci series up to %d terms = %d", n, sum);
   return 0;
}
```

Test Cases:

- Input: 5 → Fibonacci = 0,1,1,2,3 → Sum = 7

Result:
The program computes sum of Fibonacci series.