

Aim:

Write a program to print the Fibonacci series up to the given limit.

At the time of execution, the program should print the message on the console as:

Enter the maximum limit to generate the Fibonacci series :

For example, if the user gives the input as:

Enter the maximum limit to generate the Fibonacci series : 15

then the program should print the result as:

The Fibonacci series is : 0 1 1 2 3 5 8 13

Note: Write the function **fibonacci()** in Program708a.c.

Source Code:Program708.c

```
#include <stdio.h>
#include "Program708a.c"
void main() {
    int number;
    printf("Enter the maximum limit to generate the Fibonacci series : ");
    scanf("%d", &number);
    fibonacci(number);
}
```

Program708a.c

```
void fibonacci(int num)
{
    int i, fib1=0, fib2=1, fib3;
    printf("The Fibonacci series is : ");
    printf("%d %d", fib1, fib2);
    fib3=fib1+fib2;
    while(fib3<num)
    {
        printf(" %d", fib3);
        fib1=fib2;
        fib2=fib3;
        fib3=fib1+fib2;
    }
    printf("\n");
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the maximum limit to generate the Fibonacci series : 30
The Fibonacci series is : 0 1 1 2 3 5 8 13 21