S.No: 43	Exp. Name:*Write a C program to display the Fibonacci seriesup to the given number of termsusing Recursion*	Date:2023-01-21

Aim:

Write a program to display the `fibonacci series` up to the given number of terms using recursion process.

The fibonacci series is `0 1 1 2 3 5 8 13 21 34......`.

Note: Write the recursive function **fib()** in `fibonacci1.c`.

Source Code:

`Program908.c`

```c
#include <stdio.h>
#include "Program908a.c"
void main() {
    int n, i;
    printf("Enter value of n : ");
    scanf("%d", &n);
    printf("The fibonacci series of %d terms are : ", n);
    for (i = 0; i < n; i++) {
        printf(" %d ", fib(i));
    }
}
```

`Program908a.c`

```c
int fib(int n);
int fib(int n)
{
    if(n==0)
    return 0;
    else if(n==1)
    return 1;
    else
    return (fib(n-1)+fib(n-2));
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter value of n : 4
The fibonacci series of 4 terms are : 0 1 1 2

Test Case - 2
User Output
Enter value of n : 8
The fibonacci series of 8 terms are : 0 1 1 2 3 5 8 13

Test Case - 3
User Output
Enter value of n : 14
The fibonacci series of 14 terms are : 0 1 1 2 3 5 8 13 21 34 55 89 144 233

Test Case - 4
User Output
Enter value of n : 3
The fibonacci series of 3 terms are : 0 1 1