Fibonacci series in Java

In fibonacci series, *next number is the sum of previous two numbers* for example 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55 etc. The first two numbers of fibonacci series are 0 and 1.

There are two ways to write the fibonacci series program in java:

* Fibonacci Series without using recursion
* Fibonacci Series using recursion

Fibonacci Series in Java without using recursion

Let's see the fibonacci series program in java without using recursion.

1. **class** FibonacciExample1{
2. **public** **static** **void** main(String args[])
3. {
4. **int** n1=0,n2=1,n3,i,count=10;
5. System.out.print(n1+" "+n2);//printing 0 and 1
7. **for**(i=2;i<count;++i)//loop starts from 2 because 0 and 1 are already printed
8. {
9. n3=n1+n2;
10. System.out.print(" "+n3);
11. n1=n2;
12. n2=n3;
13. }
15. }}

[**Test it Now**](https://compiler.javatpoint.com/opr/test.jsp?filename=FibonacciExample1)

Output:

0 1 1 2 3 5 8 13 21 34

Fibonacci Series using recursion in java

Let's see the fibonacci series program in java using recursion.

1. **class** FibonacciExample2{
2. **static** **int** n1=0,n2=1,n3=0;
3. **static** **void** printFibonacci(**int** count){
4. **if**(count>0){
5. n3 = n1 + n2;
6. n1 = n2;
7. n2 = n3;
8. System.out.print(" "+n3);
9. printFibonacci(count-1);
10. }
11. }
12. **public** **static** **void** main(String args[]){
13. **int** count=10;
14. System.out.print(n1+" "+n2);//printing 0 and 1
15. printFibonacci(count-2);//n-2 because 2 numbers are already printed
16. }
17. }

[**Test it Now**](https://www.javatpoint.com/opr/test.jsp?filename=FibonacciExample2)

Output:

0 1 1 2 3 5 8 13 21 34