

Practical 1

Practical - Write a program to calculate Fibonacci numbers and find its step count.

Codes -

```
package sanketscode;

import java.util.Scanner;

public class FibonacciSeries {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Number - ");
        int num = sc.nextInt();
        if(num <= 1) {
            System.out.println(num);
            return;
        }

        int a=0;
        int b=1;
        System.out.println(a);

        for(int i=1;i< num;i++) {
            System.out.println(b);
            int temp =a;
            a=b;
            b+=temp;
        }

    }

}
```

Explanation - In these program we are getting fibonacci series numbers if we want n number of series then the complexity or step becomes $O(n)$ so here in these program The steps are 10 are regular and 4 are depend on number means (n) so $10 + 4(n)$ steps are required.