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**Week-9\_Part-1**

### **Q1.**

```
import java.util.Scanner;

class fibonacci extends Thread {
    int n;

    fibonacci(int a) {
        n = a;
    }

    public void run() {
        int a, b, c, i;
        a = 0;
        b = 1;
        i = 0;
        System.out.println("Fibonacci Series");
        System.out.print(a + " " + b);
        while (i <= n - 2) {
            c = a + b;
            System.out.print(" " + c);
            a = b;
            b = c;
            i++;
        }
        System.out.println();
        return;
    }
}

class Prime extends Thread {
    int n;

    Prime(int a) {
        n = a;
    }

    public void run() {
        System.out.print("Prime factors : ");
        while (n % 2 == 0) {
            System.out.print(2 + " ");
            n /= 2;
        }
        for (int i = 3; i <= Math.sqrt(n); i += 2) {
            while (n % i == 0) {
                System.out.print(i + " ");
                n /= i;
            }
        }
    }
}
```

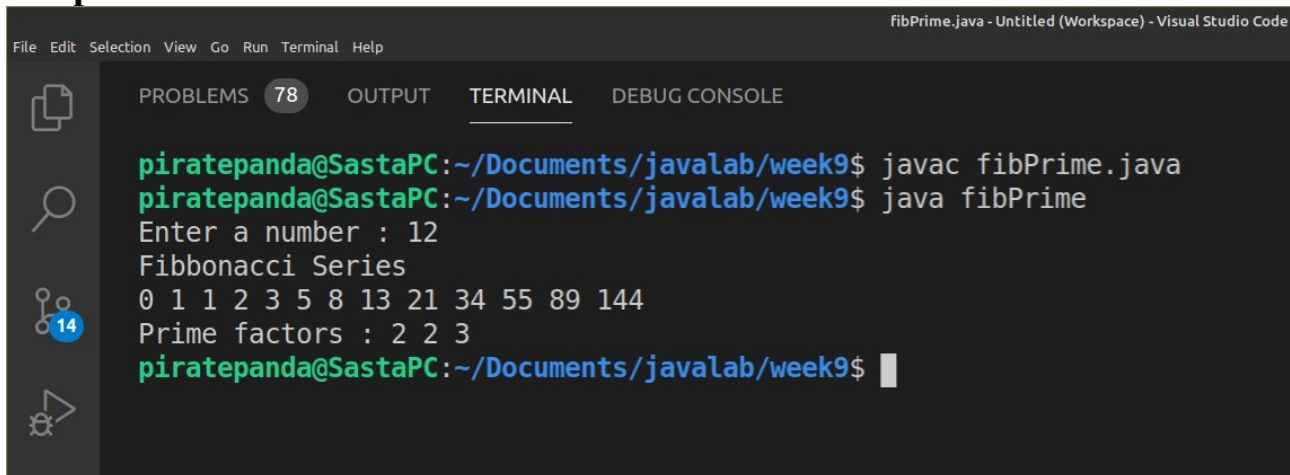
```

    }
    }
    if (n > 2)
    System.out.print(n);
    System.out.println();
    return;
    }
    }

    public class fibPrime{
    public static void main(String[] args) {
    Scanner in = new Scanner(System.in);
    int n;
    System.out.print("Enter a number : ");
    n = in.nextInt();
    try{
    fibonacci fib = new fibonacci(n);
    fib.start();
    fib.sleep(4000);
    Prime pri = new Prime(n);
    pri.start();
    }
    catch(Exception e){
    e.printStackTrace();
    }
    }
    }
    }

```

## Output :



```

fibPrime.java - Untitled (Workspace) - Visual Studio Code
File Edit Selection View Go Run Terminal Help

PROBLEMS 78 OUTPUT TERMINAL DEBUG CONSOLE

piratepanda@SastaPC:~/Documents/javablab/week9$ javac fibPrime.java
piratepanda@SastaPC:~/Documents/javablab/week9$ java fibPrime
Enter a number : 12
Fibonacci Series
0 1 1 2 3 5 8 13 21 34 55 89 144
Prime factors : 2 2 3
piratepanda@SastaPC:~/Documents/javablab/week9$

```