

**OBJECT ORIENTED PROGRAMING LAB****Experiment No.: 30****Name : Swetha Prakash****Roll No : 46****Batch : B****Date : 07-06-22****Aim**

Define 2 classes; one for generating Fibonacci numbers and other for displaying even numbers in a given range. Implement using threads. (Runnable Interface).

**Source Code**

```
import java.util.*;

class fibonacci implements Runnable {
    int l;

    fibonacci(int n) {
        l = n;
    }

    public void run() {

        int c;
        int a = 0, b = 1;

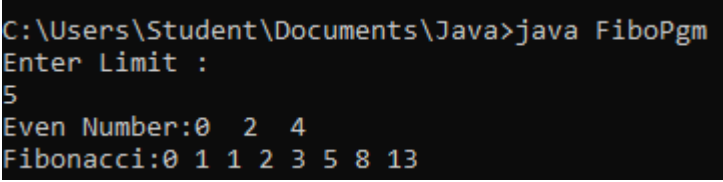
        System.out.print("Fibonacci:");

        System.out.print(a + " " + b);
        for (int i = 0; i <= l; i++) {
            c = a + b;
            System.out.print(" " + c);
            a = b;
            b = c;
        }
    }
}
```

```
    }  
}  
class even implements Runnable {  
    int l;  
    even(int n) {  
        l = n;  
    }  
    public void run() {  
        System.out.print("Even Number:");  
        for (int i = 0; i <= l; i++) {  
            if (i % 2 == 0)  
                System.out.print(i + " ");  
        }  
        System.out.println("");  
    }  
}  
  
class FiboPgm{  
    public static void main(String args[]) {  
        Scanner sc = new Scanner(System.in);  
        System.out.println("Enter Limit :");  
        int l = sc.nextInt();  
  
        even e = new even(l);  
        Thread T2 = new Thread(e);  
        T2.start();  
  
        fibonacci f = new fibonacci(l);  
        Thread T1 = new Thread(f);  
        T1.start();  
    }  
}
```

```
}  
  
}
```

### Output Screenshot



```
C:\Users\Student\Documents\Java>java FiboPgm  
Enter Limit :  
5  
Even Number:0 2 4  
Fibonacci:0 1 1 2 3 5 8 13
```

The screenshot shows a command prompt window where a Java program named FiboPgm is executed. The user enters a limit of 5. The program outputs the even numbers (0, 2, 4) and the Fibonacci sequence (0, 1, 1, 2, 3, 5, 8, 13) up to the limit.