

Experiment No: 2**Aim**

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

Procedure

```
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;
```

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```
    }  
    }  
}
```

```
class even implements Runnable {
```

```
    int l;
```

```
    even(int n) {
```

```
        l = n;
```

```
    }
```

```
    public void run() {
```

```
        System.out.print("Even numbers : ");
```

```
        for (int i = 0; i <= l; i++) {
```

```
            if (i % 2 == 0)
```

```
                System.out.print(i + " ");
```

```
        }
```

```
        System.out.println("");
```

```
    }
```

```
}
```

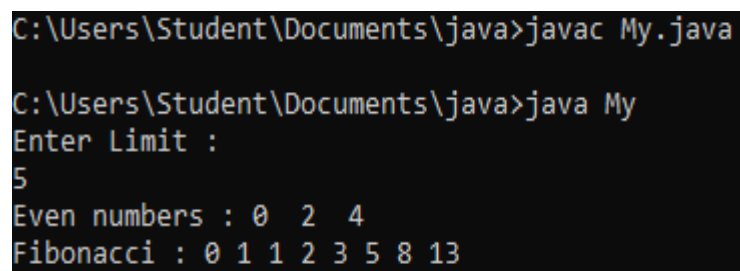
```
class My{
```

```
    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

A screenshot of a Windows command prompt window with a black background and white text. The prompt shows the directory C:\Users\Student\Documents\java. The user has entered 'javac My.java' and 'java My'. The program prompts for 'Enter Limit :', the user enters '5'. The program then outputs 'Even numbers : 0 2 4' and 'Fibonacci : 0 1 1 2 3 5 8 13'.

```
C:\Users\Student\Documents\java>javac My.java  
C:\Users\Student\Documents\java>java My  
Enter Limit :  
5  
Even numbers : 0 2 4  
Fibonacci : 0 1 1 2 3 5 8 13
```