```java
 1 import java.util.Scanner;
 2
 3 // ****************************************************************
 4 //    Fib.java
 5 //
 6 //    A utility class that provide methods to compute elements of the
 7 //    Fibonacci sequence.
 8 // ****************************************************************
 9 public class Fib
10 {
11
12     //----------------------------------------------------------------
13     // Recursively computes fib(n)
14     //----------------------------------------------------------------
15     public static int fib1(int n)
16     {
17         switch(n) {
18         case 0: return 0;
19         case 1: return 1;
20         default: return fib1(n-1) + fib1(n-2);
21         }
22     }
23
24     //
25     // Iterate through fib sequence and store values in array. Return value of last index.
26     //
27     public static int fib2(int n)
28     {
29
30         switch(n) {
31         case 0: return 0;
32         case 1: return 1;
33         default:
34             int[] nums = new int[n+1];
35             nums[0] = 0;
36             nums[1] = 1;
37
38             for(int i = 2; i <= n; i++)
39             {nums[i] = nums[i-1] + nums[i-2];}
40
41             return nums[n];
42         }
43     }
44
45 }
```