Intermediate Scala

Practical Exercises

Chapter 2: Iterators and Streams

1. The Fibonacci series can be defined as follows:

   $X_0 = 0$
   $X_1 = 1$
   For $n > 1$, $X_n = X_{n-2} + X_{n-1}$

   We can implement the Fibonacci series in a variety of different ways, for example using a (tail) recursive function to return the n^{th} Fibonacci number. However the Streams capability of Scala gives a more attractive solution.

   Define a Stream of Int values that contains the Fibonacci series. For a given n, how would you use this Stream to return the n^{th} Fibonacci number?