1 Write your own Monad (Optional, max. 15 Points)

We learned about Monads, their background in category theory, and how they are constructed in Haskell.

Your task is to implement your own (novel, non-trivial) Monad in Haskell (5pt), use it in a small example (5pt), and explain why a monadic approach is either required or better suited than a purely functional approach for your use case (5pt).

A summary of Haskell’s Monad construct can be found at http://en.wikibooks.org/wiki/Haskell/Understanding_monads.