

Street magic with functions



Ivan Krechetov aka @ikr

JSZurich 22.02.2011

Functional programming

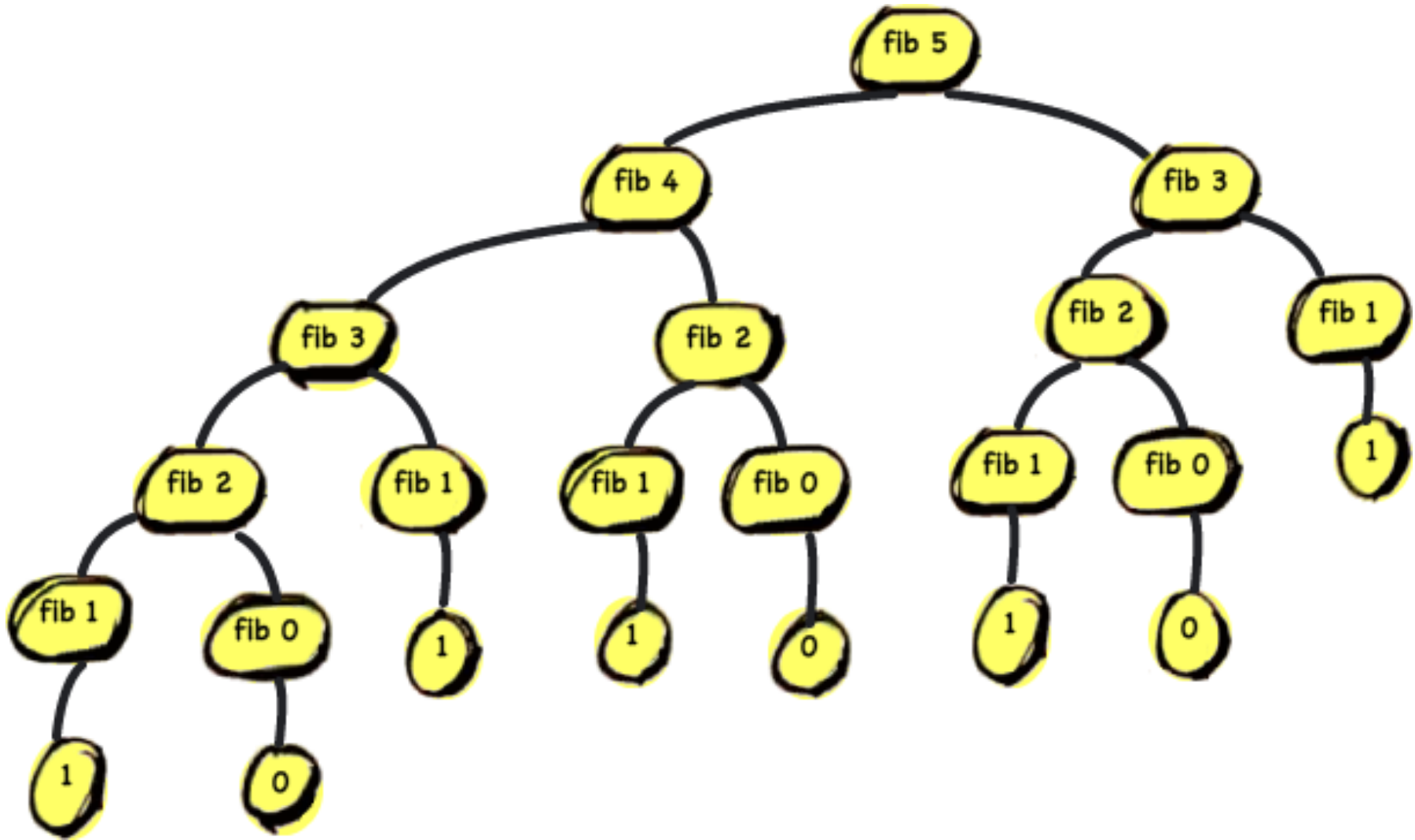
- First-class and higher-order functions
- Referential transparency
- Immutable data
- No state
- No side effects



— *I know Kung fu*
— *Show me*

Iterating without do-while,
while, for, or for-in

Tree recursion



linear recursion
(recursive) linear iteration
tree recursion



Loops?

We don't need no stinkin' loops!

Now,
what about the recursion itself?

We couldn't have done the trick
without recursion, right? *Right?*

Oh yes we could! And that's

Y

Links

1. David Blaine's Street Magic parody: <http://youtu.be/wTqsV3q7rRU>
2. Values and Change — Clojure's approach to Identity and State: <http://clojure.org/state>
3. Execution in the Kingdom of Nouns: <http://steve-yegge.blogspot.com/2006/03/execution-in-kingdom-of-nouns.html>
4. Structure and Interpretation of Computer Programs: <http://mitpress.mit.edu/sicp/>
5. The Y Combinator (Slight Return), or: How to Succeed at Recursion Without Really Recursing: <http://mvanier.livejournal.com/2897.html>
6. This presentation: <https://github.com/ikr/street-magic-with-functions>