

Write your own tiny programming system(s)

A taste of the F# language

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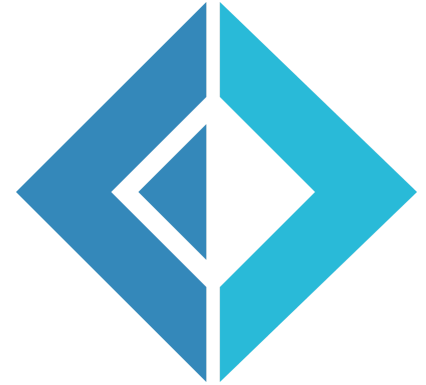
🌐 <https://d3s.mff.cuni.cz/teaching/nprg077>



The F# programming language

What is F# about?

- Functional-first based on OCaml
- Great interop with .NET and JS
- Open-source (MIT) with team in Prague!



Who uses F# for what?

- Consultancies for full-stack web dev
- Finance and insurance companies for modelling
- TU Kaiserslautern for systems biology
- Success stories like Jet.com

Why F#?

Building tiny programming systems

-  Algebraic data types for structure modelling
-  Mostly functional is great for logic
-  Runs everywhere & has nice tools
-  I like the language and can help you!

Demo

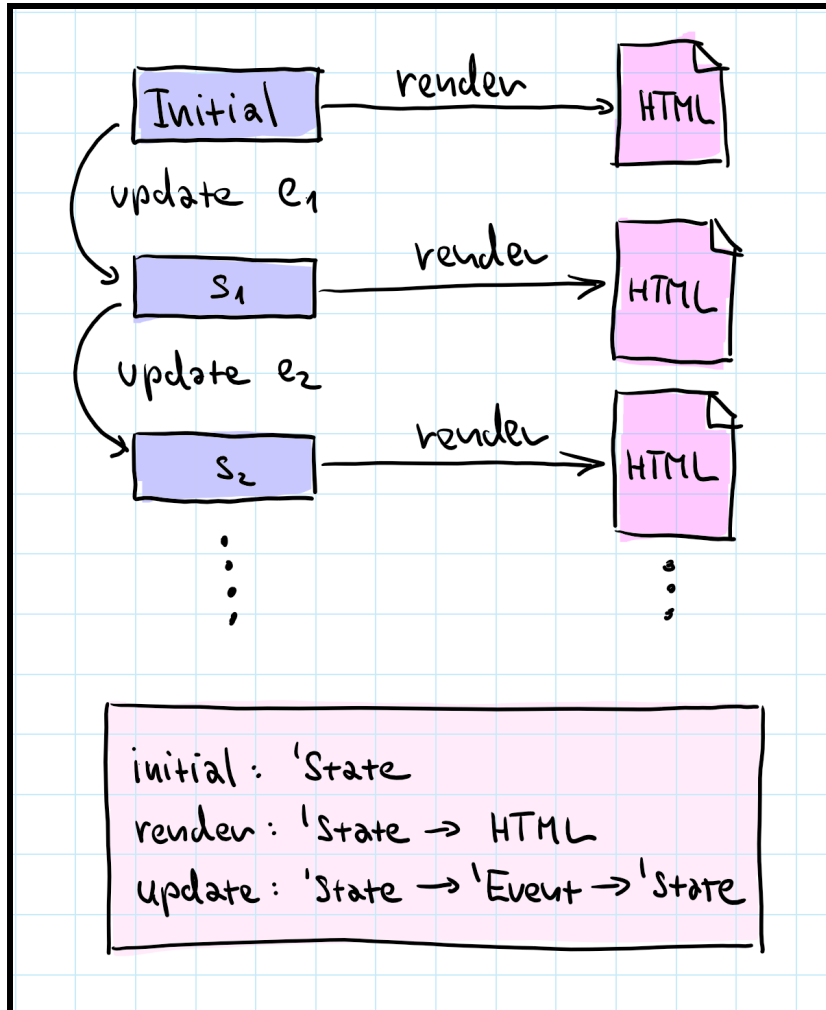
First look at F#

Elmish architecture

Functional interactive user interface development

Types for application
State and user **Event**

Functions to **render**
and **update** state



Demo

Building a counter in F#

Demo

Building a TODO list in F#

More about F#

<https://fsharp.org>

We will only need a small part of the language!

I will introduce all constructs we will need as we go...

