



elixir

The background is a light gray with a complex, abstract pattern. It features a network of thin, light gray lines forming a low-poly, crystalline structure. Overlaid on this are various organic, bubble-like shapes in different shades of gray, some solid and some outlined, scattered across the frame. The overall effect is a modern, minimalist aesthetic.

# O que é Elixir?

- 2010: José Valim - Concorrência em Rails
- Dificuldades...
- Erlang!
- Outras dificuldades...

A close-up photograph of two human hands, palms up, holding a single capsule each. The left hand holds a red, oval-shaped capsule, and the right hand holds a green, oval-shaped capsule. The background is dark and out of focus. The image is framed by a black border.

**Produtividade**

**Performance**



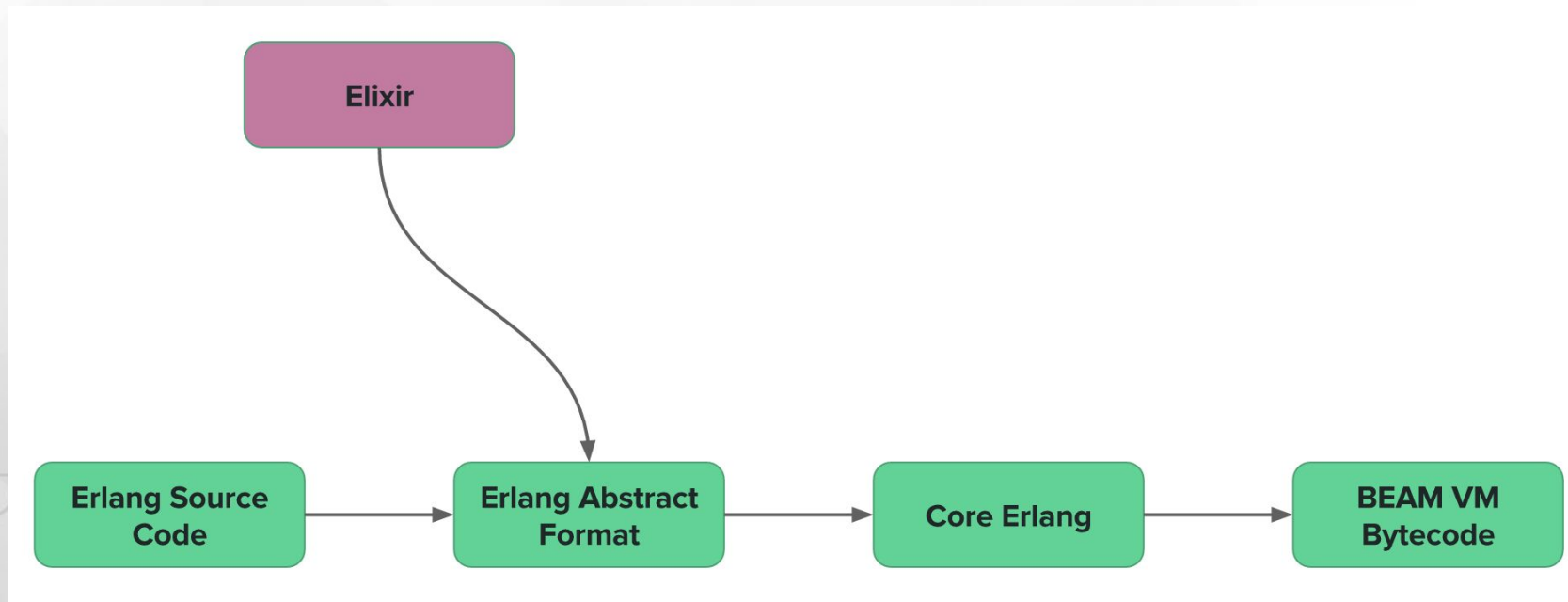
**WHY NOT BOTH?**

memegenerator.net

# Elixir

- Criado em 2011
- Aproveita a Erlang VM
- Programação Funcional
- Alta produtividade

# Elixir - Erlang VM





Erlang, quem?

E daí?



Who uses?

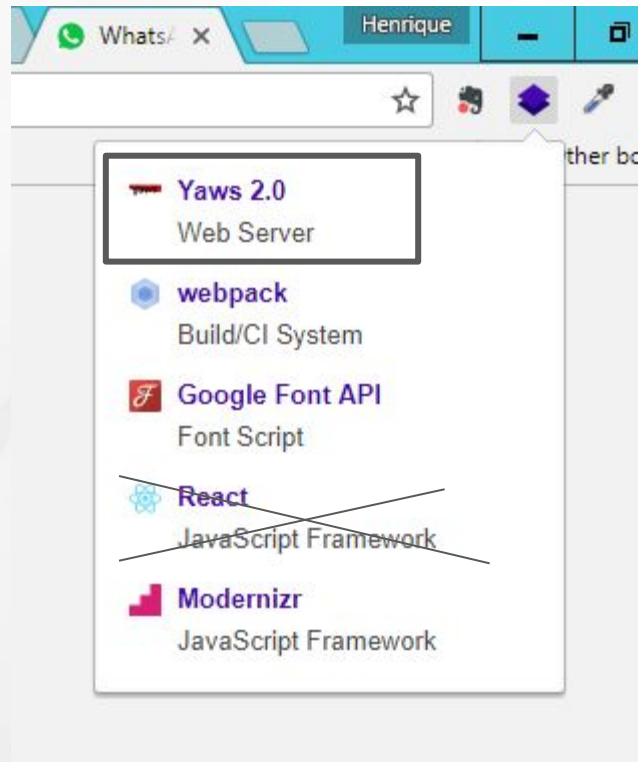




# WhatsApp

2 Million connections on a single node

<https://blog.whatsapp.com/196/1-million-is-so-2011?>



# Elixir - Erlang VM

- Erlang criada em 1981 pela Ericsson
- Pensada para
  - Concorrência
  - Sistemas distribuídos
  - Tolerância a falhas

# Elixir - not a meme

- Er

- Pe

- 

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- 



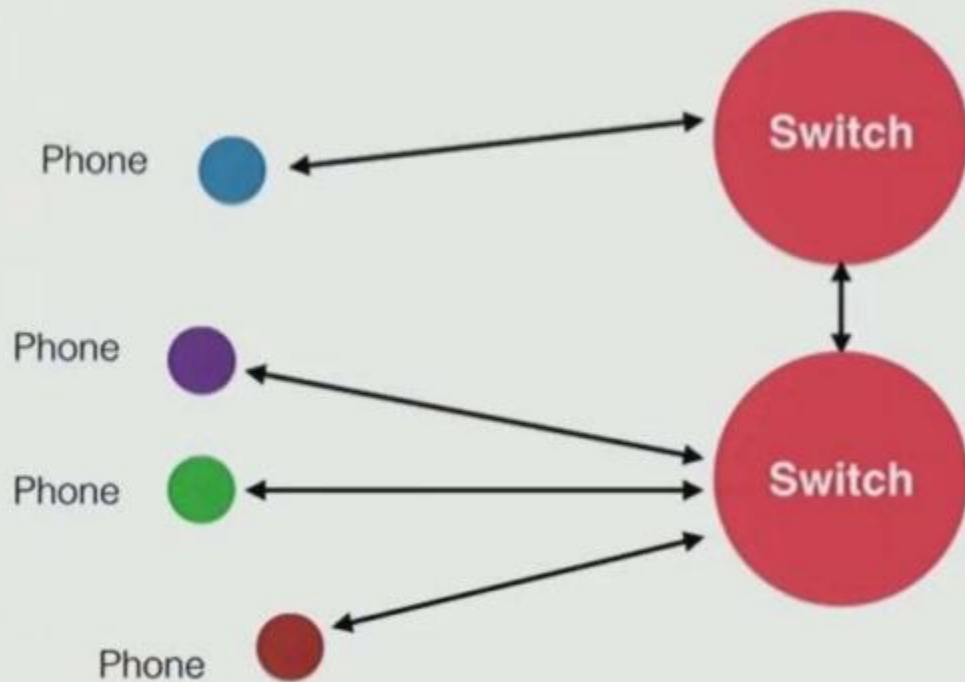
Tolerancia a drogas

# Elixir - Erlang VM

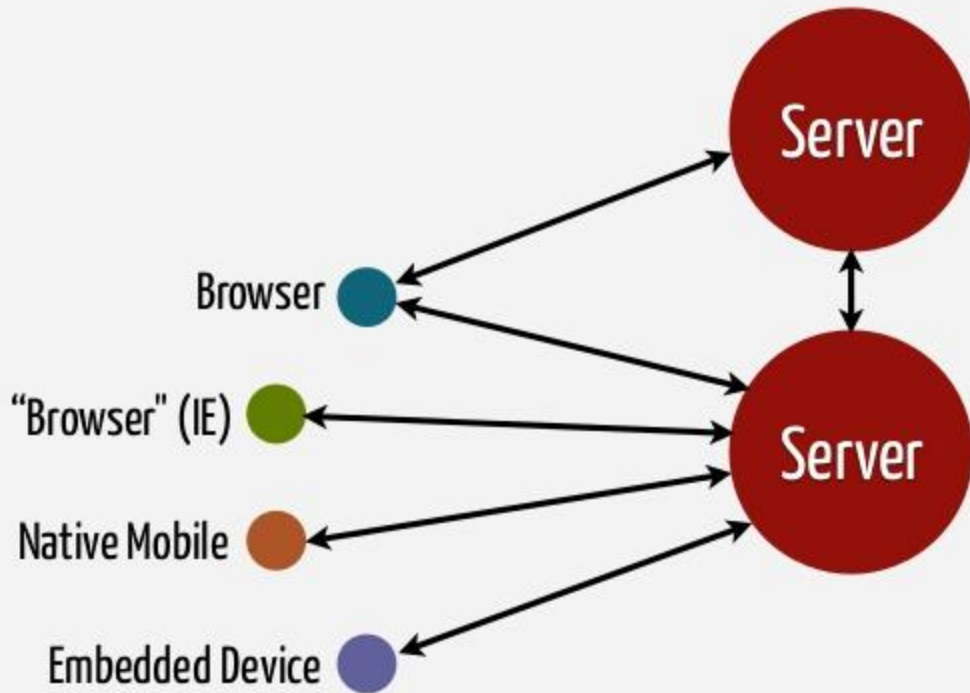
- Elixir aproveita muito da Erlang/OTP.
- Falar de Elixir é também falar de Erlang
- Elixir não começa do 0
- Mas e daí que usa Erlang? O que tem a ver Telefonia e Web?

# **Problemas familiares**

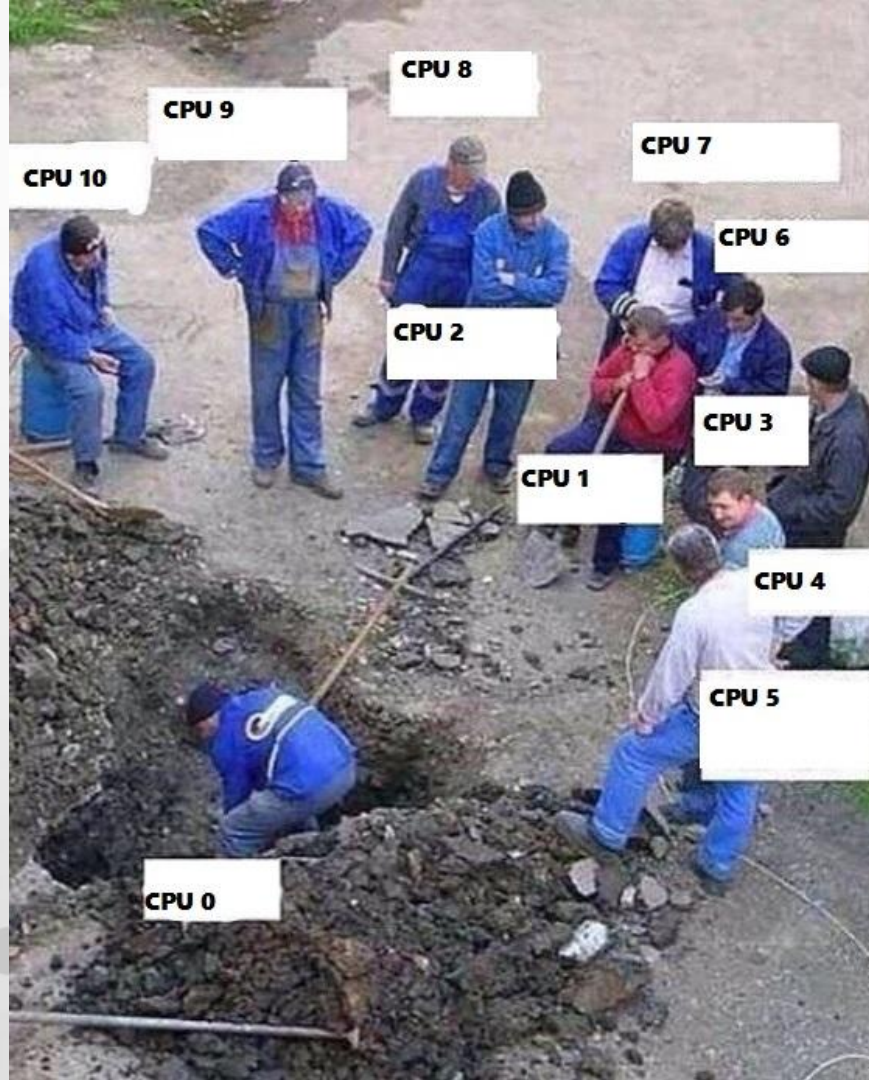
# Channels - Outside View



# Outside view







# Elixir - Concorrência

- Conexões simultâneas
- Muitas operações de I/O (upload imagens)
- Parsear arquivos grandes
- Scrapers
- FÁCIL



**Mas, como?**

# Elixir

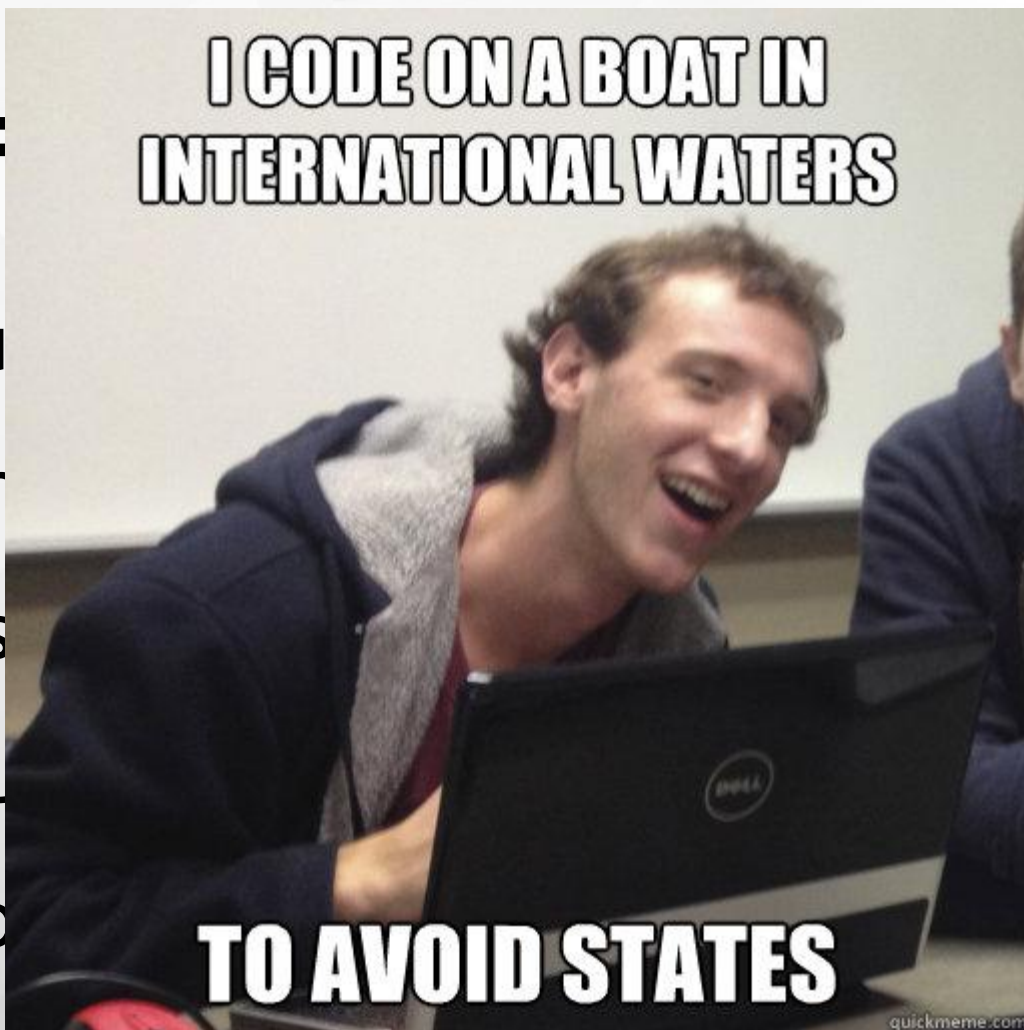
- Abordagem Funcional
- Actors Model
- Abstrações sobre a OTP
- Estruturas legais

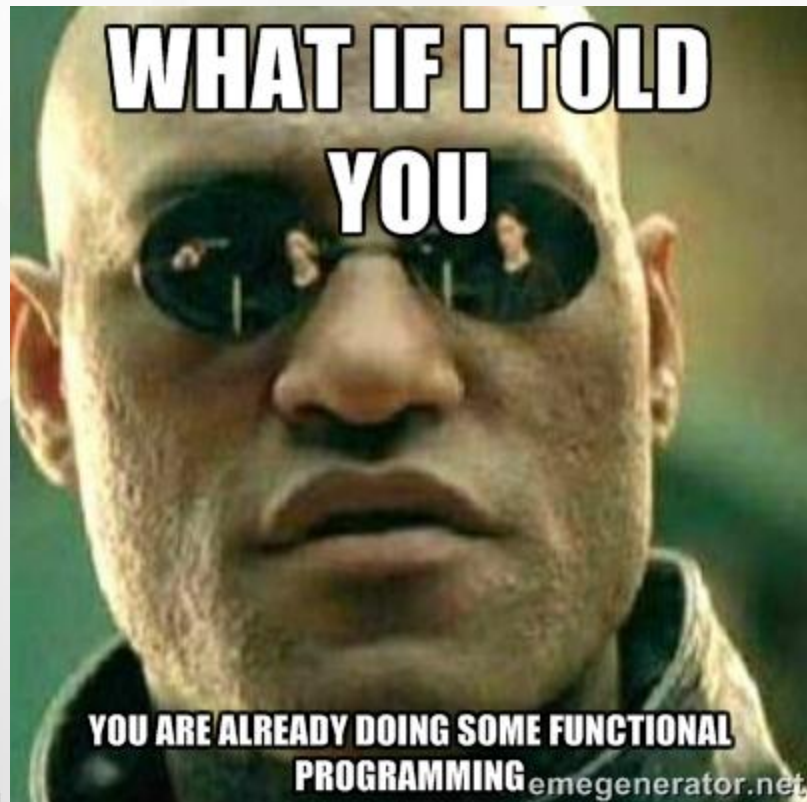
# Elixir - Funcional

- O que é o paradigma funcional?
  - Imutabilidade
  - Estado
  - Funções
- Meio para um fim

# Elixir - F

- O qu
- Im
- Es
- Fu
- Meic

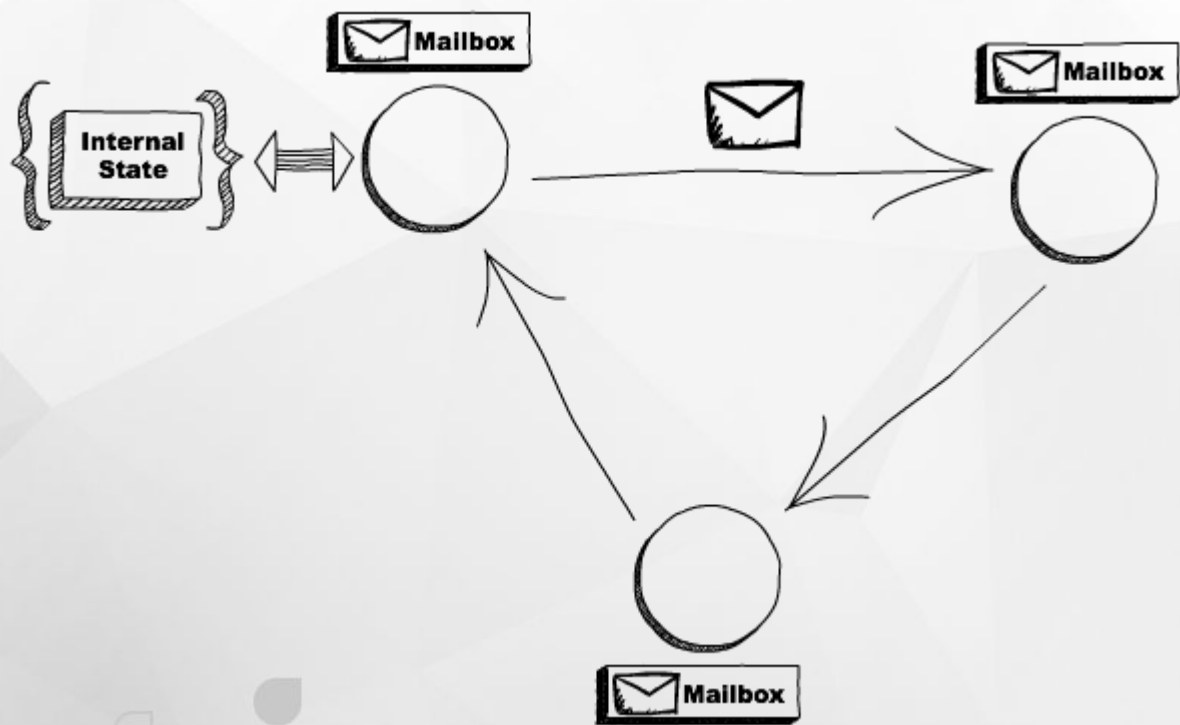




# Elixir - Actor Model

- Processos
  - Leves, fácil *spawn*
  - Independentes
  - Dá pra rodar muitos
  - Apoio pesado da OTP



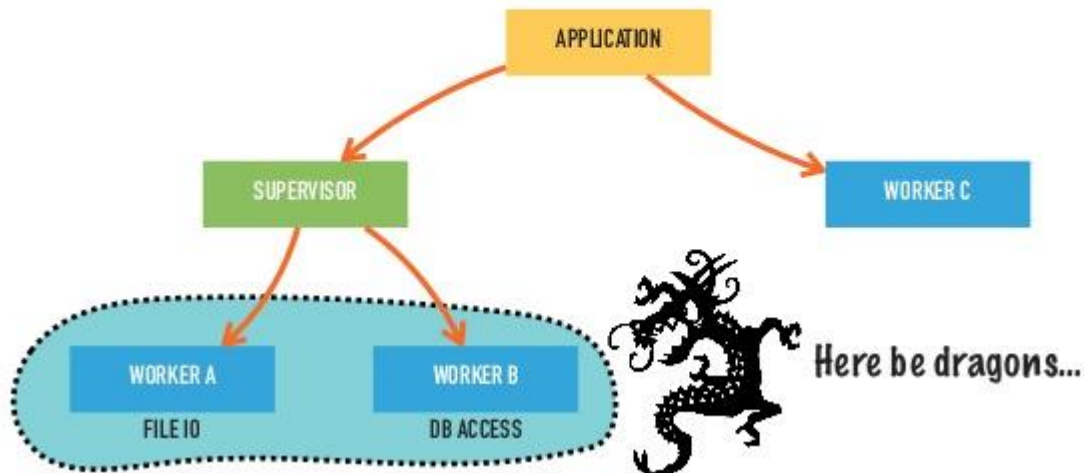


# Elixir - Abstrações OTP

- **GenServer**, GenStage, GenBroke, GenEvent, Flow, Agents, **Supervisors**, Task
- Poderosas ferramentas de arquitetura distribuída

# Elixir - Supervisors

Move risk to the bottom of the supervision tree



# Elixir - Estruturas legais

- Pattern Matching
- Pipe operator
- Umbrella projects

# Live “Coding”!

*Quem sabe faz ao vivo*





# Elixir - Hex

- Package manager
- Notáveis
  - Mix
  - Phoenix
  - Ecto
  - Cowboy
  - Plug
  - Poison
  - Nerves
  - Distillery



The background is a light gray field with a complex, abstract pattern. It features a network of thin, light gray lines that create a series of irregular, overlapping triangles and polygons. Scattered throughout this geometric pattern are various organic, hand-drawn style shapes. These include circles of different sizes, some solid gray and others outlined, as well as teardrop-like shapes and small dots. The overall aesthetic is modern and minimalist.

**Isso tudo significa...**

**Who we are?**



**Rails developers!**

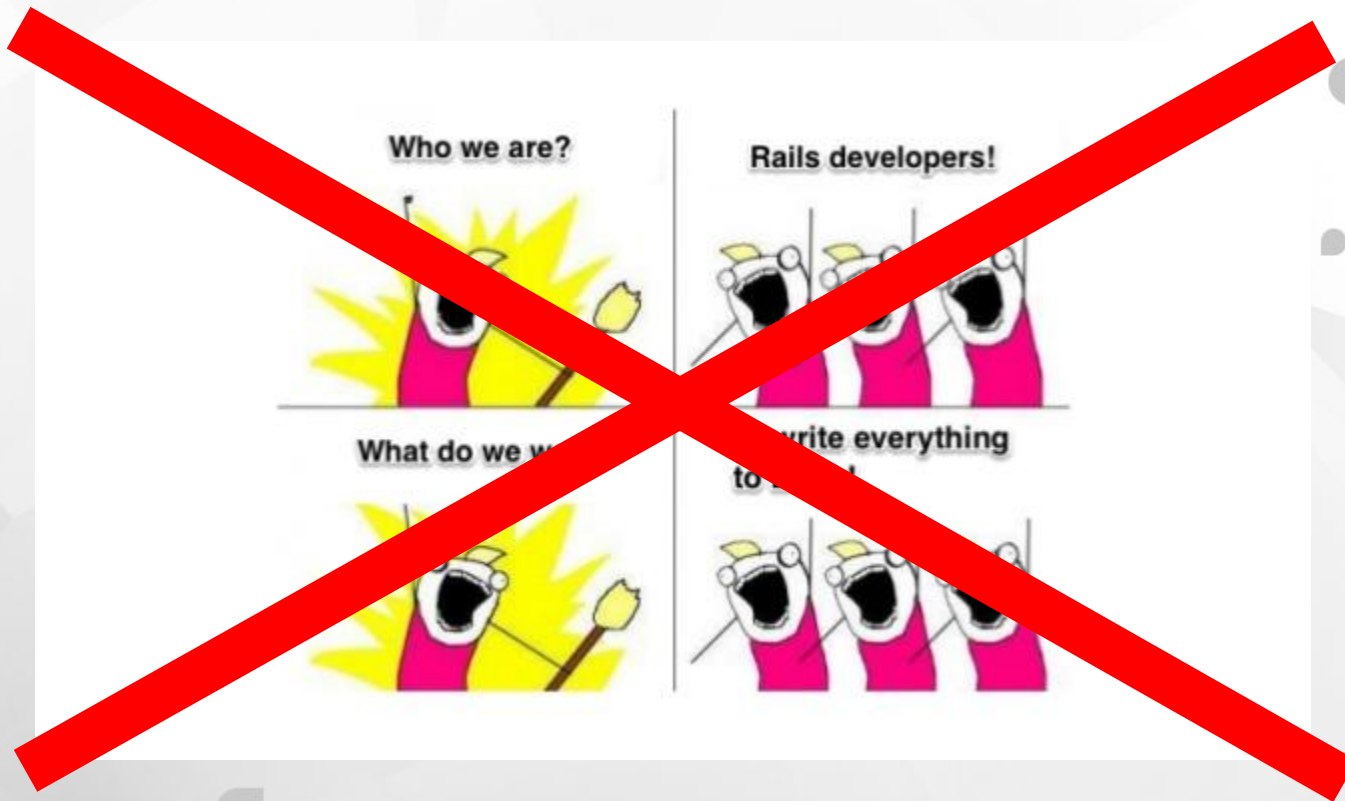


**What do we want?**



**Rewrite everything  
to Elixir!**





**MUCH TO LEARN**

**YOU STILL HAVE**

memegenerator.net

# Elixir

- Jovem, comunidade incipiente
- Curva de aprendizado
- Produtividade



# Elixir

- Comunidade crescendo
- Contribuidores usam conceitos legais de outras plataformas
- No ombro de gigantes (Erlang)
- BR

# Considerações finais

- Bom momento para acompanhar
- Despertar curiosidade
- Definição de Arquitetura



  
**USE THE  
RIGHT TOOL,  
FOR THE  
RIGHT JOB,  
IN THE  
RIGHT WAY.**  




# Referências

- <https://elixirschool.com>
- <https://elixir-lang.org>
- Youtube, Google (blogs, stackoverflow)
- <https://github.com/henriqueioneda/workshop-elixir>