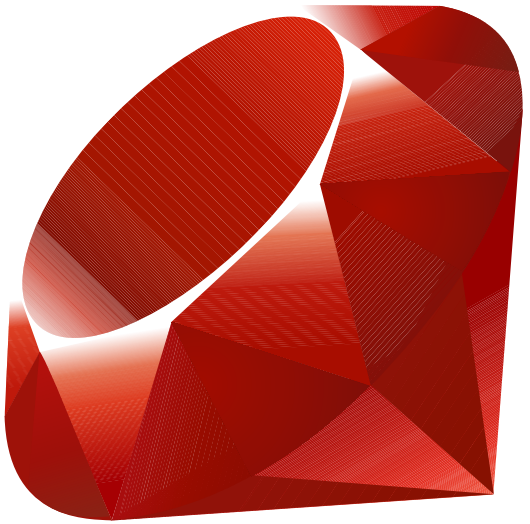
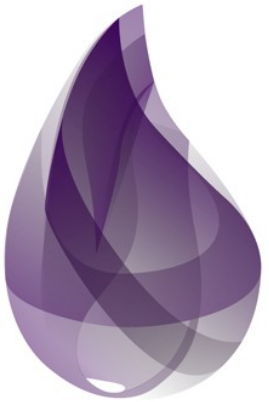
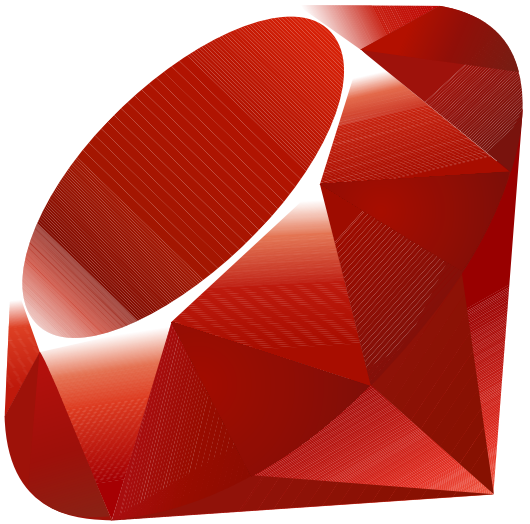
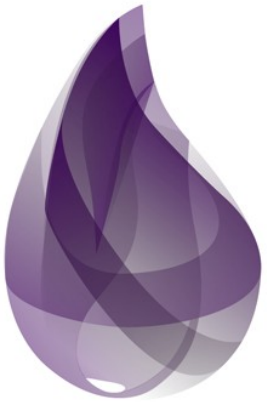




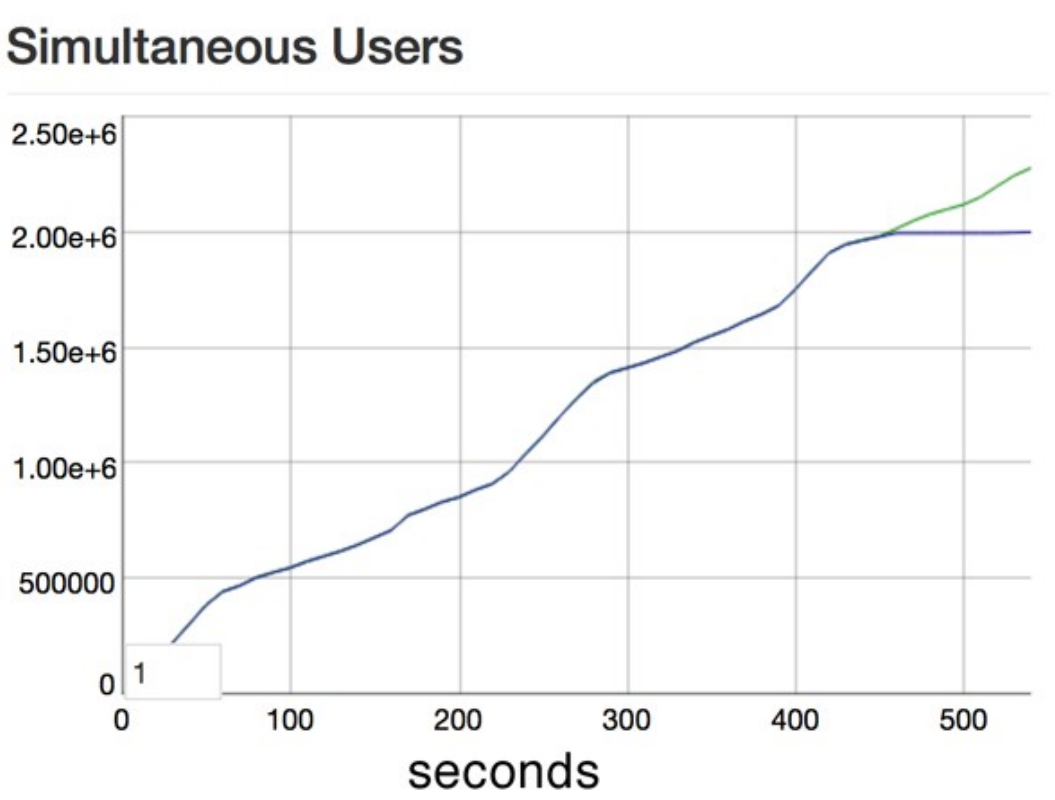
elixir

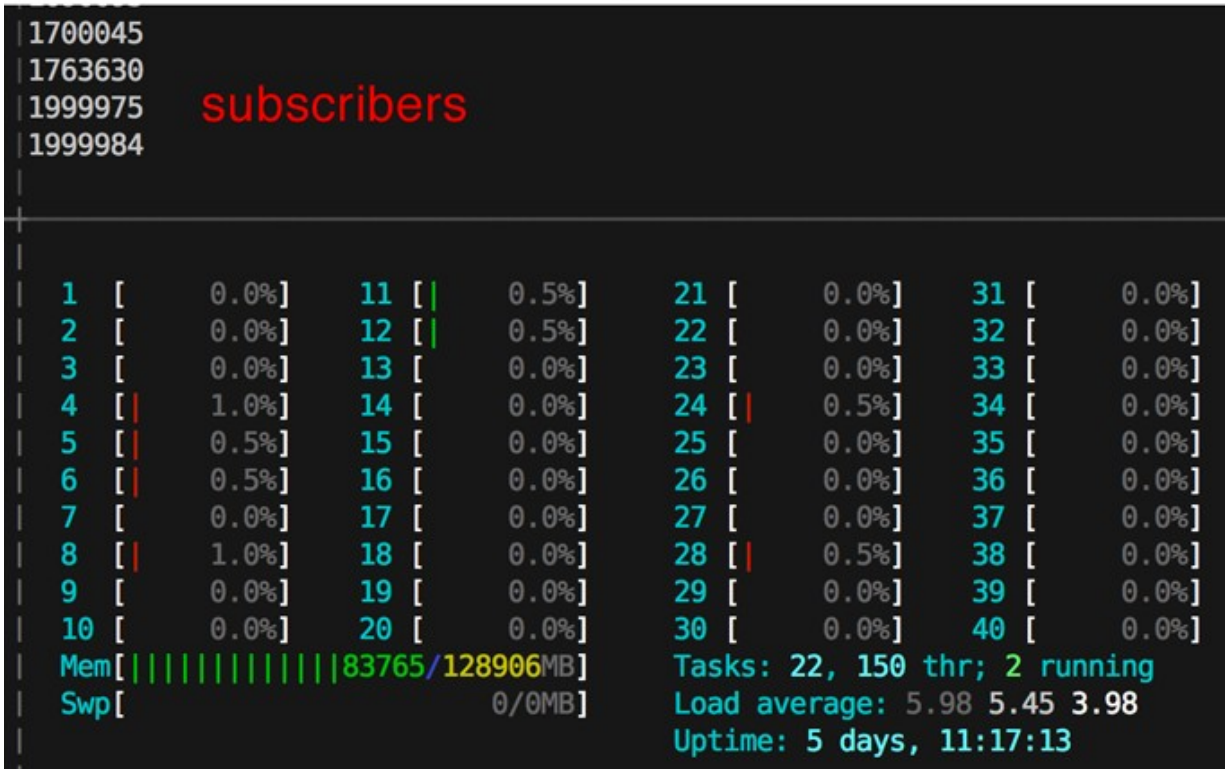
VS

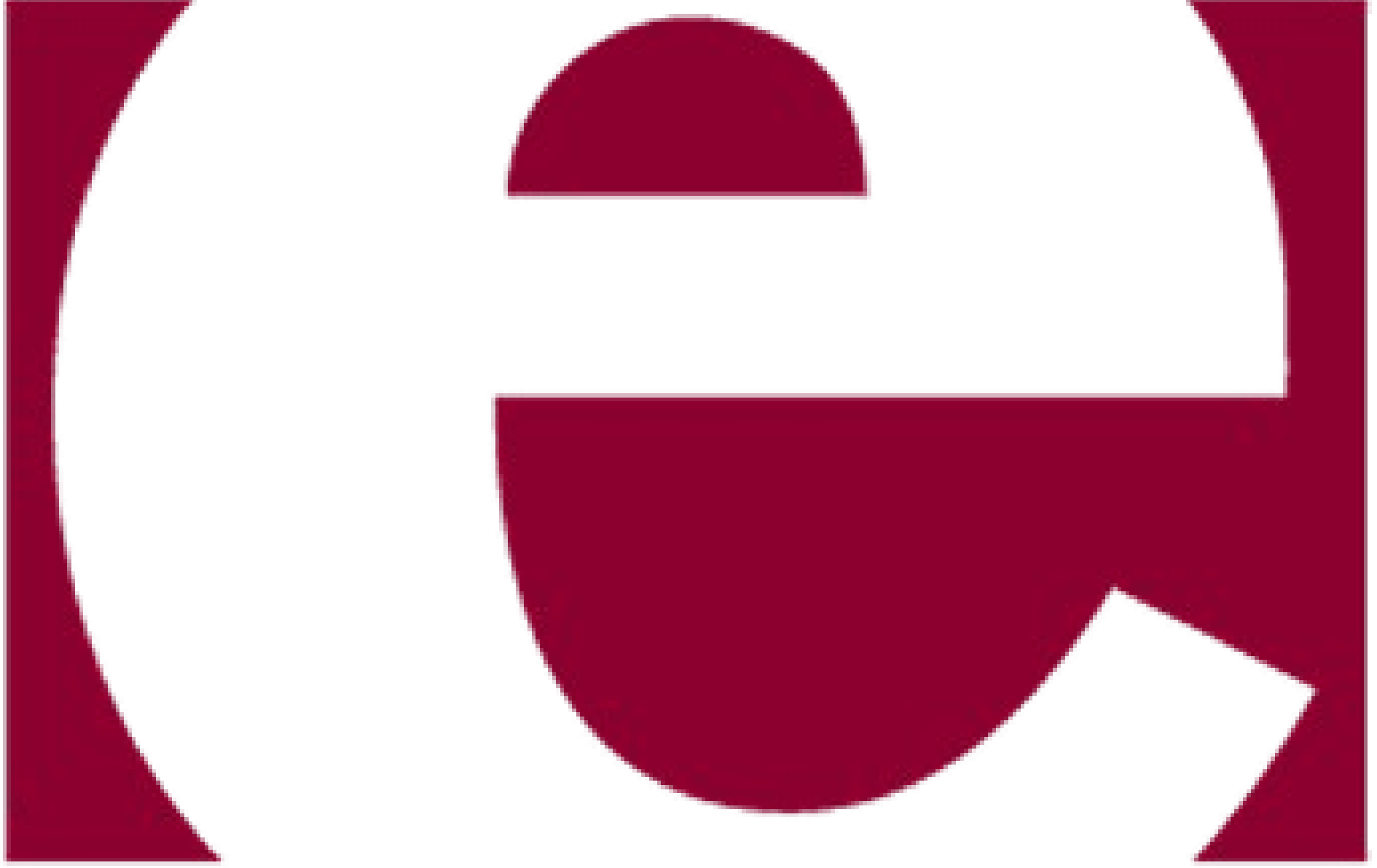




elixir


Simultaneous Users
2.50e+6
2.00e+6
1.50e+6
1.00e+6
500000
0
1
0
100
200
300
400
500
seconds


1700045
1763630
1999975
1999984
subscribers
1 [0.0%] 11 [| 0.5%] 21 [0.0%] 31 [0.0%]
2 [0.0%] 12 [| 0.5%] 22 [0.0%] 32 [0.0%]
3 [0.0%] 13 [0.0%] 23 [0.0%] 33 [0.0%]
4 [| 1.0%] 14 [0.0%] 24 [| 0.5%] 34 [0.0%]
5 [| 0.5%] 15 [0.0%] 25 [0.0%] 35 [0.0%]
6 [| 0.5%] 16 [0.0%] 26 [0.0%] 36 [0.0%]
7 [0.0%] 17 [0.0%] 27 [0.0%] 37 [0.0%]
8 [| 1.0%] 18 [0.0%] 28 [| 0.5%] 38 [0.0%]
9 [0.0%] 19 [0.0%] 29 [0.0%] 39 [0.0%]
10 [0.0%] 20 [0.0%] 30 [0.0%] 40 [0.0%]
Mem[||||||||||||83765/128906MB]
Swp[0/0MB]
Tasks: 22, 150 thr; 2 running
Load average: 5.98 5.45 3.98
Uptime: 5 days, 11:17:13



ERLANG

Ruby-like Syntax

```
defmodule MyMap do
  def map([], _func), do: []

  def map([head | tail], func) do
    [func.(head) | map(tail, func)]
  end
end

MyMap.map [1, 2, 3, 4], fn(i) -> i * i end
```


WOLF IN
SHEEP'S CLOTHING
-BOV

Ruby to Elixir

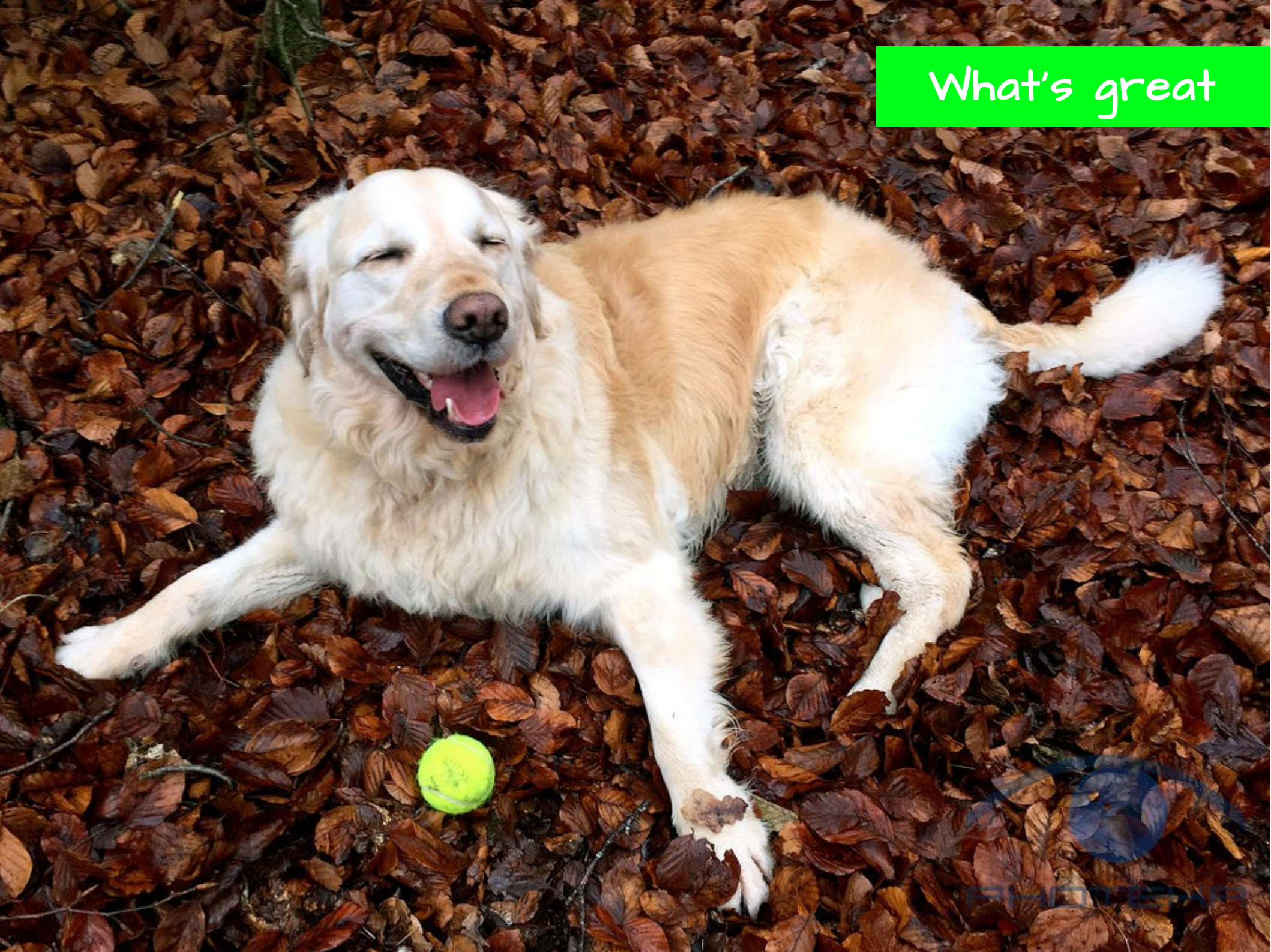
what's great and what you might miss

Tobias Pfeiffer

@PragTob

pragtob.info

What's great



Pattern Matching

```
defmodule Patterns do
  def greet(%{name: name, age: age}) do
    IO.puts "Hi there #{name}, what's up at #{age}?"
  end

  def greet(%{name: name}) do
    IO.puts "Hi there #{name}"
  end

  def greet(_) do
    IO.puts "Hi"
  end
end

Patterns.greet %{name: "Tobi", age: 26}
Patterns.greet %{name: "Tobi"}
Patterns.greet ["Mop"]
```

Pattern Matching

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defmodule Patterns do
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```

Method Overloading

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defmodule Patterns do
  def greet(%{name: name, age: age}) do
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  end
end

Patterns.greet %{name: "Tobi", age: 26}
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Patterns.greet ["Mop"]
```

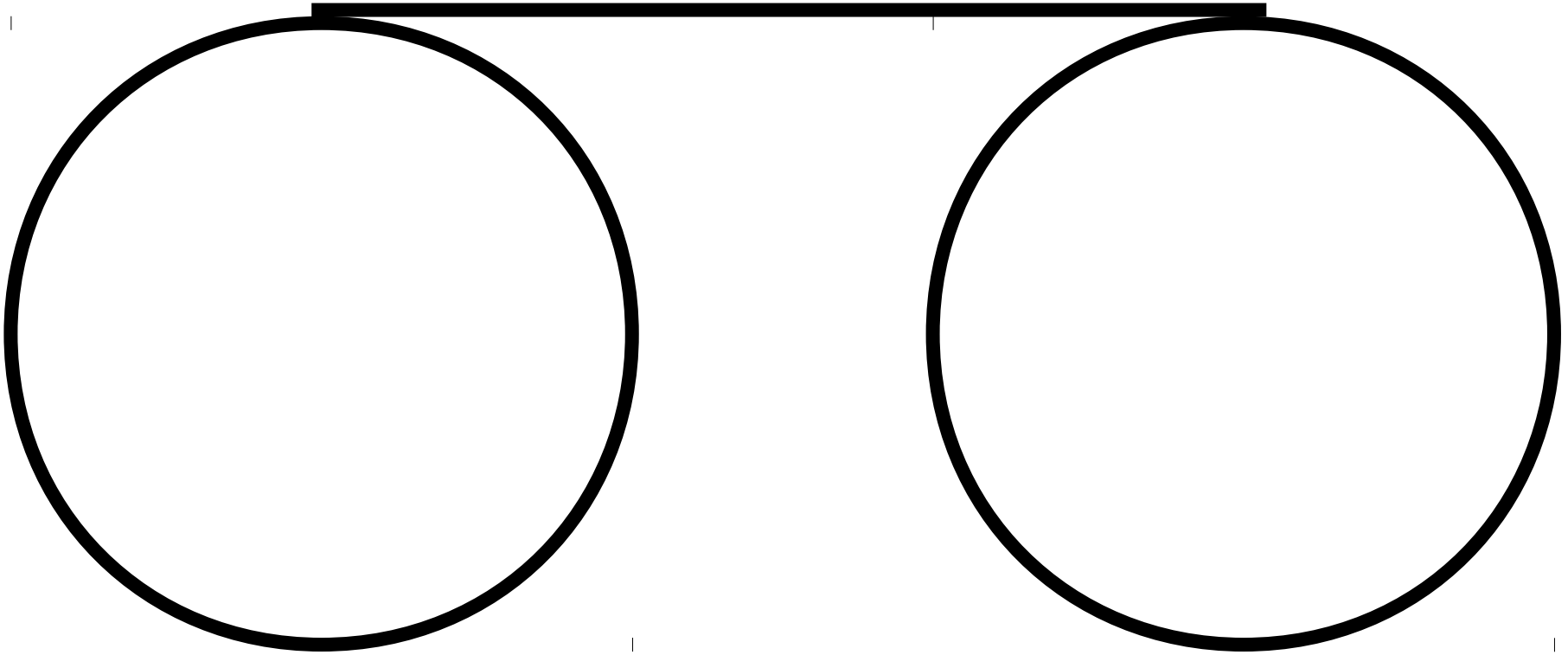
Optional Type Annotations

```
@spec all?(t) :: boolean
@spec all?(t, (element -> as_boolean(term))) :: boolean

def all?(enumerable, fun \\ fn(x) -> x end)

def all?(enumerable, fun) when is_list(enumerable) do
  do_all?(enumerable, fun)
end
```

Functional Programming



Immutable Data

```
variable = 10
do_something(variable)
insert_in_db(variable)
```

Immutable Data

```
person = Person.new(attributes)
do_something(person)
insert_in_db(person)
```

Immutable Data

```
person = Person.new(attributes)
person = do_something(person)
insert_in_db(person)
```

Transformation of Data

Explicitness

Minimize state

vs

Hiding State

Same Input,

Same Output

Testing++

Changesets

```
def new_changeset(model, params \\ :empty) do
  model
  |> cast(params, ~w(name username), [])
  |> unique_constraint(:username)
  |> validate_length(:username, min: 1, max: 20)
end

def registration_changeset(model, params) do
  model
  |> new_changeset(params)
  |> cast(params, ~w(password), [])
  |> validate_length(:password, min: 6, max: 100)
  |> put_pass_hash()
end
```

```
iex(13)> user = Repo.get_by(User, name: "Homer")
iex(14)> user.videos
#Ecto.Association.NotLoaded<association :videos is not
loaded>
iex(15)> Repo.preload(user, :videos)
iex(16)> user.videos
#Ecto.Association.NotLoaded<association :videos is not
loaded>
iex(17)> user = Repo.preload(user, :videos)
iex(18)> user.videos
[%Rumbl.Video{__meta__: #Ecto.Schema.Metadata<:loaded>,
  category: #Ecto.Association.NotLoaded<association
:category is not loaded>,
  category_id: nil, description: "such great many wow", id:
3,
  inserted_at: #Ecto.DateTime<2016-02-28T18:42:41Z>, title:
"Hubidubiee",
  updated_at: #Ecto.DateTime<2016-02-28T18:42:41Z>, url:
"www.lol.com",
  user: #Ecto.Association.NotLoaded<association :user is
not loaded>,
  user_id: 5}]
```

Explicit preloading

```
iex(13)> user = Repo.get_by(User, name: "Homer")
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  category_id: nil, description: "such great many wow", id:
3,
  inserted_at: #Ecto.DateTime<2016-02-28T18:42:41Z>, title:
"Hubidubiee",
  updated_at: #Ecto.DateTime<2016-02-28T18:42:41Z>, url:
"www.lol.com",
  user: #Ecto.Association.NotLoaded<association :user is
not loaded>,
  user_id: 5}]
```
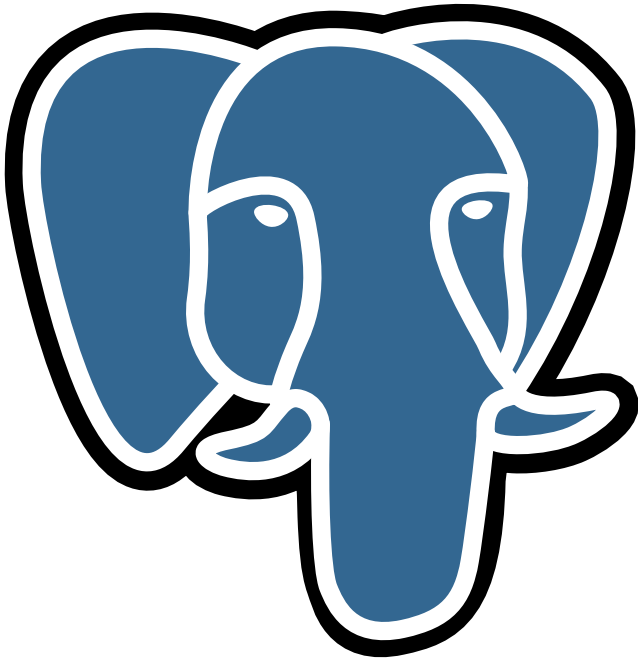

Explicit preloading

Readability

The right tool




A new land

Meta Programming

```
defmacro plug(plug, opts \\ []) do
  quote do
    @plugs {unquote(plug), unquote(opts), true}
  end
end
```

What you might miss

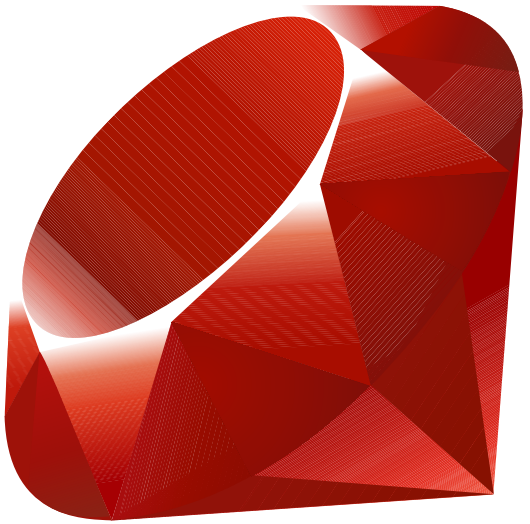
Magic meta programming

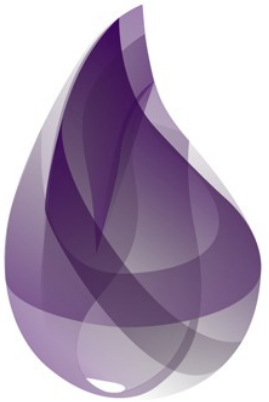
```ruby
def method_missing(*args)
  args.map(&:to_s).join(" ")
end

puts I can haz bareword strings!
```


Dirtiness

Baggage


Eco-System





elixir

Thanks & Enjoy Elixir

Tobias Pfeiffer
@PragTob
pragtob.info

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