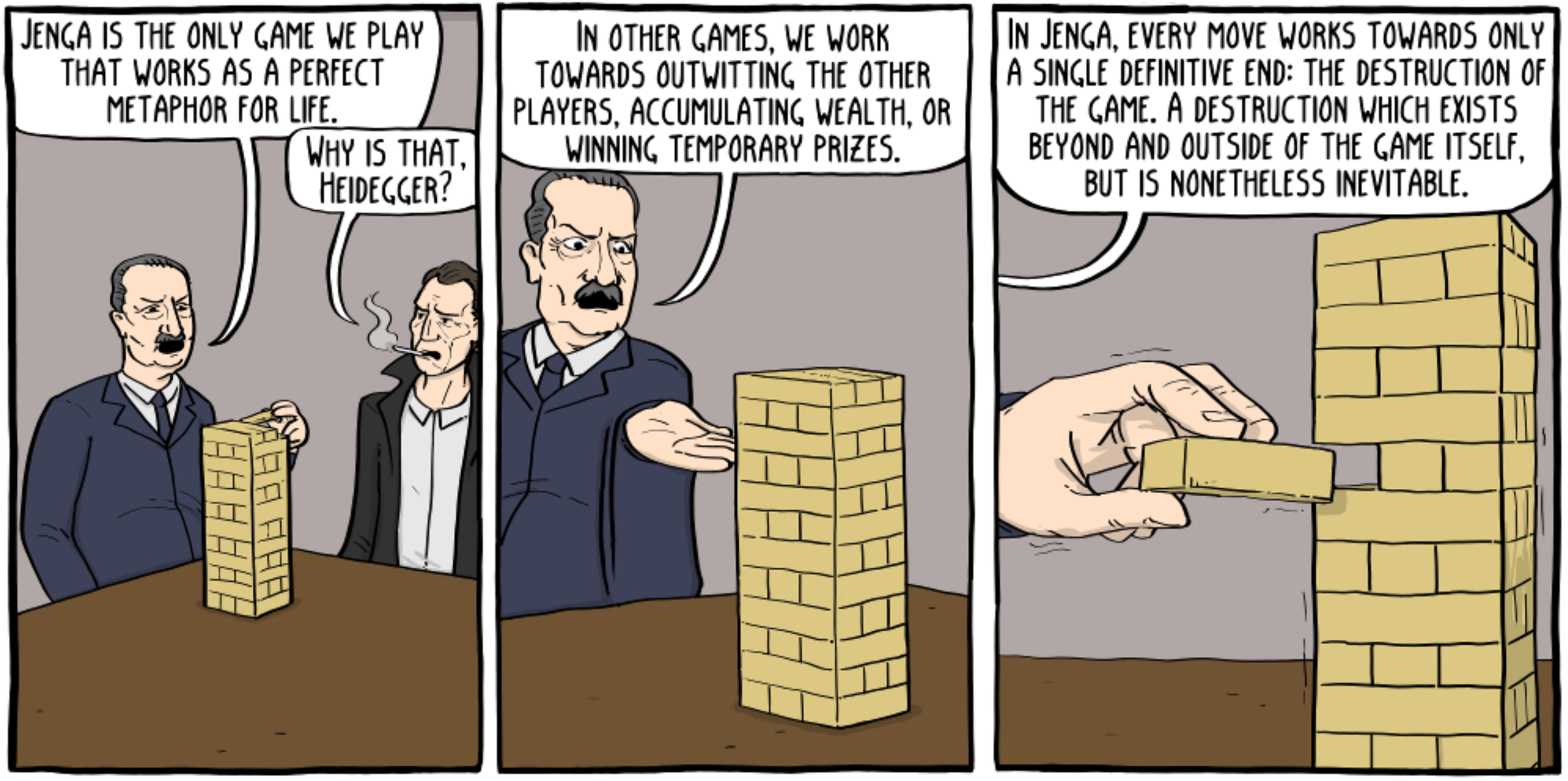

Jenga® Driven Development

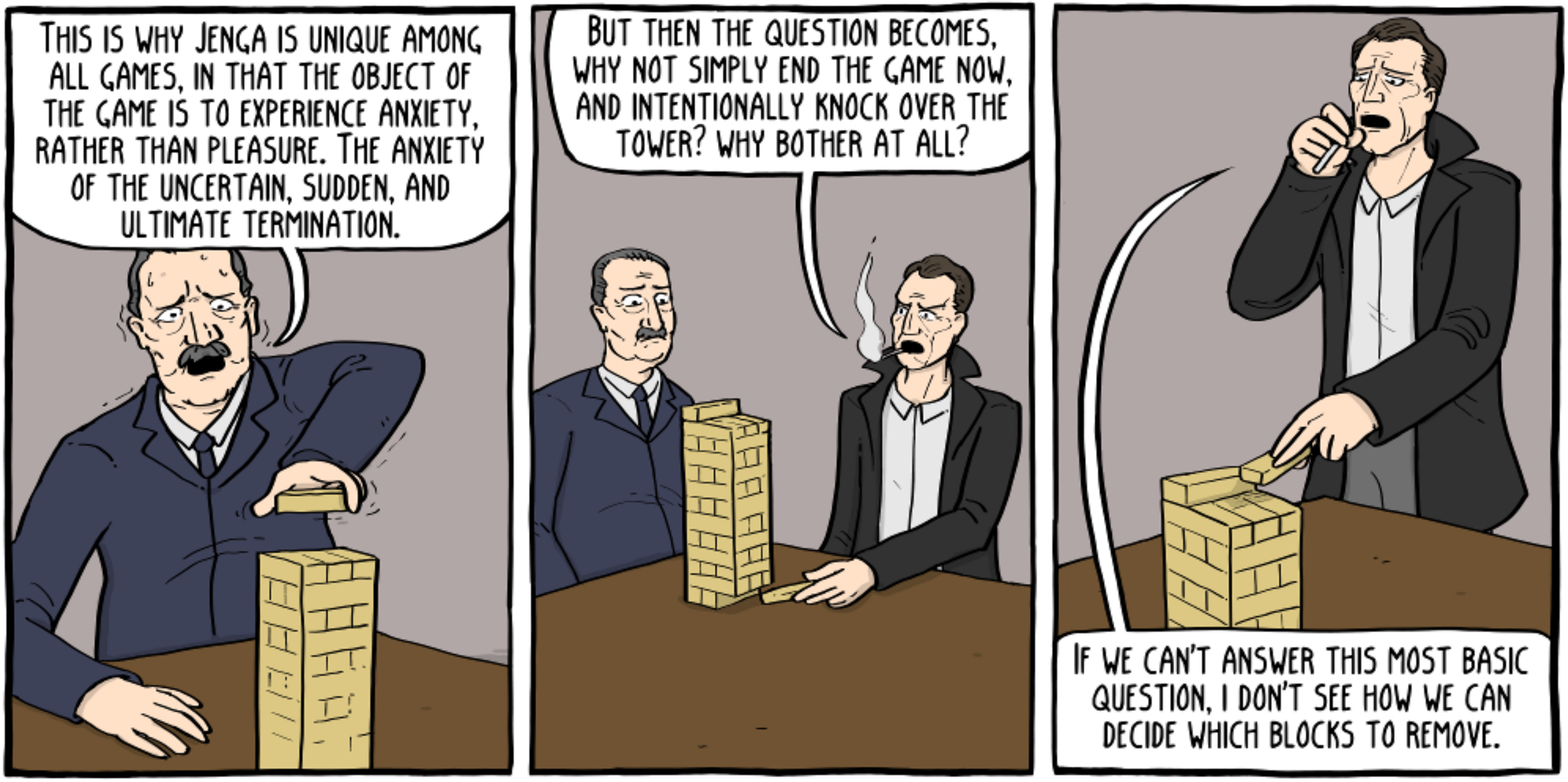
# Jenga?

Jogo criado pela Leslie Scott e hoje distribuído pela Hasbro.

# Jenga?

O objetivo é mover peças de camadas intermediárias para o topo sem derrubar a torre.


JENGA IS THE ONLY GAME WE PLAY THAT WORKS AS A PERFECT METAPHOR FOR LIFE.
WHY IS THAT, HEIDEGGER?
IN OTHER GAMES, WE WORK TOWARDS OUTWITTING THE OTHER PLAYERS, ACCUMULATING WEALTH, OR WINNING TEMPORARY PRIZES.
IN JENGA, EVERY MOVE WORKS TOWARDS ONLY A SINGLE DEFINITIVE END: THE DESTRUCTION OF THE GAME. A DESTRUCTION WHICH EXISTS BEYOND AND OUTSIDE OF THE GAME ITSELF, BUT IS NONETHELESS INEVITABLE.


THIS IS WHY JENGA IS UNIQUE AMONG ALL GAMES, IN THAT THE OBJECT OF THE GAME IS TO EXPERIENCE ANXIETY, RATHER THAN PLEASURE. THE ANXIETY OF THE UNCERTAIN, SUDDEN, AND ULTIMATE TERMINATION.
BUT THEN THE QUESTION BECOMES, WHY NOT SIMPLY END THE GAME NOW, AND INTENTIONALLY KNOCK OVER THE TOWER? WHY BOTHER AT ALL?
IF WE CAN'T ANSWER THIS MOST BASIC QUESTION, I DON'T SEE HOW WE CAN DECIDE WHICH BLOCKS TO REMOVE.

# Jenga?

É um jogo divertido. Mas tenso, nervoso, dá ansiedade.


Evitando o
Jenga® Driven Development

# Olá


plataformatec

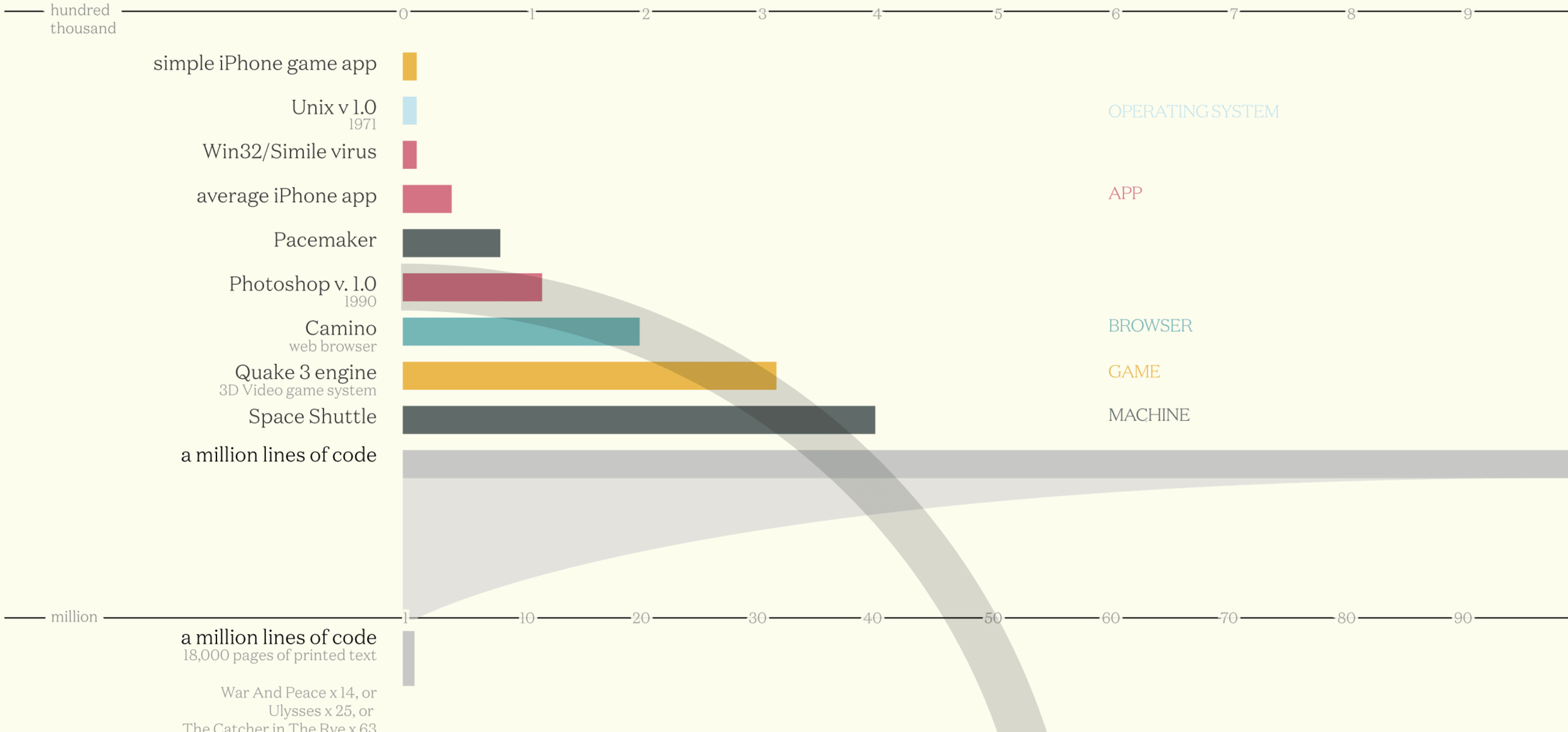
tecnologia e engenharia de software

# Estamos contratando!

http://careers.plataformatec.com.br

# Codebases

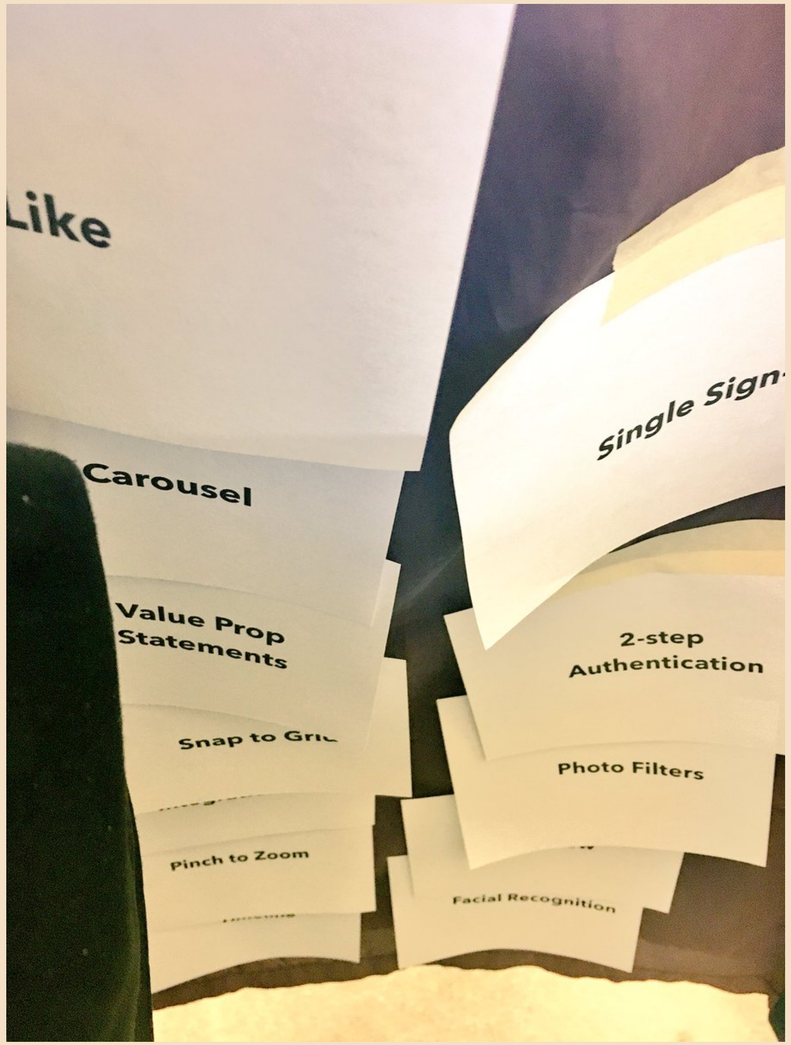
## Millions of lines of code



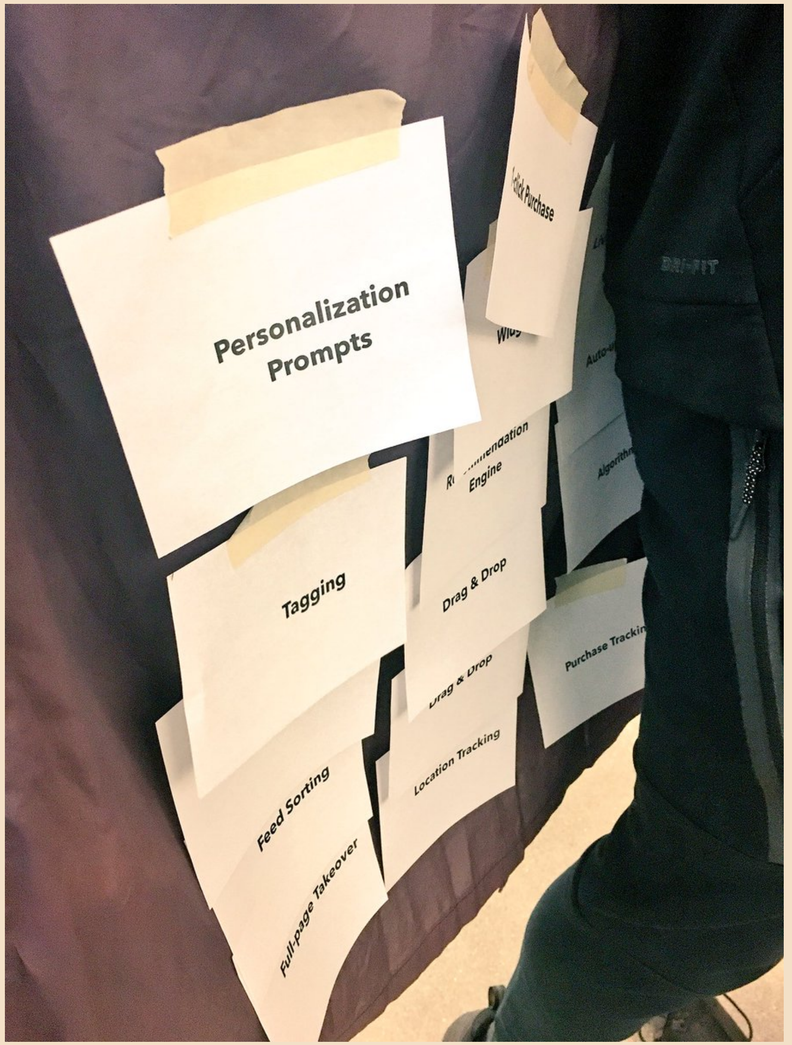
# Parte 1
# Mo’ Code Mo’ Problems

# Feature Creep

# Feature Creep







“A product with lots of features does not make a great product. A great product is one that solves the customer’s problem in the simplest way possible. Great products deliver value, not features.”

*–Grant Ammons*

maximizar valor 📈

e

minimizar custo 📉

“Whenever you build a new feature, you’re entering into a contract to keep that code up-to-date and compatible with all other features you’ll choose to add in the future.”

*–Sandi MacPherson*

“Every new line of code you willingly bring into the world is code that has to be debugged, code that has to be read and understood, code that has to be supported. Every time you write new code, you should do so reluctantly, under duress, because you completely exhausted all your other options.”

*–Jeff Atwood*

“...if we wish to count lines of code, we should not regard them as ‘lines produced’ but as ‘lines spent’.”

*–Edsger W. Dijkstra*

“No code runs faster than no code.
No code has fewer bugs than no code.
No code uses less memory than no code.
No code is easier to understand than no code.”

*–Mike Perham*

No code is easier to delete than no code.

“The easiest code to delete is the code you avoided writing in the first place.”

*–Thomas Figg*

# Parte 2
# Código Removível

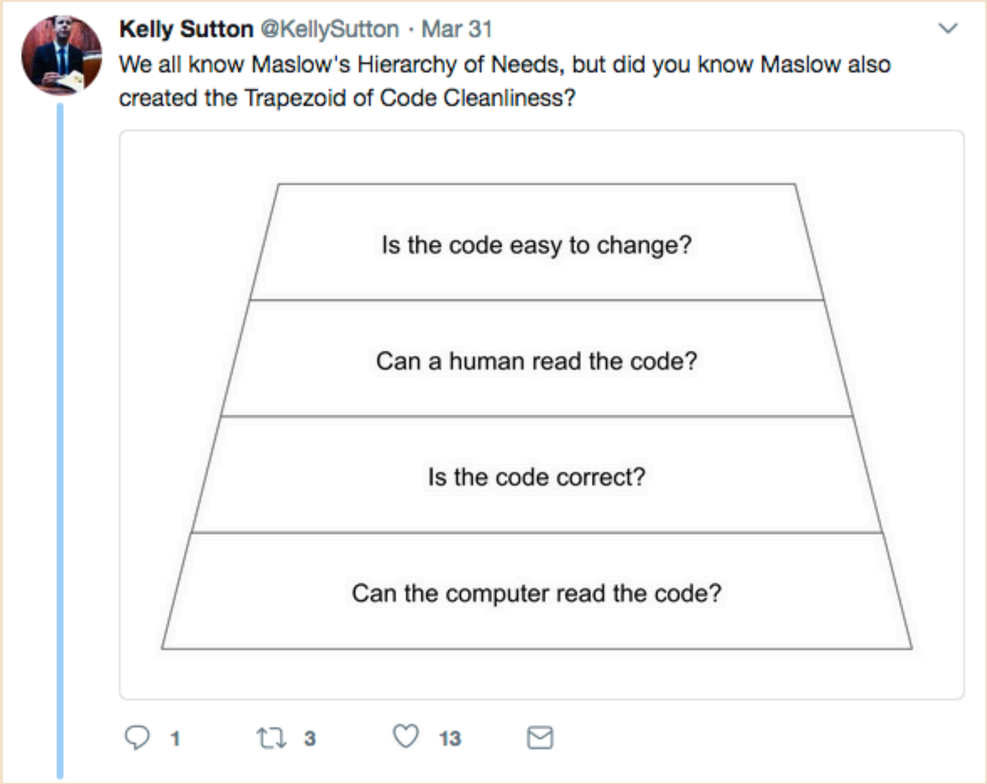
# Coisas mudam

- Funções nascem, crescem e eventualmente morrem.
- Ainda faz sentido no contexto atual do meu produto?
- Tem usuários suficientes para justificar sua existência?
- Representa uma vulnerabilidade na stack? ou seja...
- Está mais atrapalhando do que ajudando?

“The problem with poorly designed *small* applications is that if they are successful they grow up to be poorly designed *big* applications.”

*–Sandi Metz*

# Maslow


Kelly Sutton @KellySutton · Mar 31
We all know Maslow's Hierarchy of Needs, but did you know Maslow also created the Trapezoid of Code Cleanliness?
Is the code easy to change?
Can a human read the code?
Is the code correct?
Can the computer read the code?
1
3
13

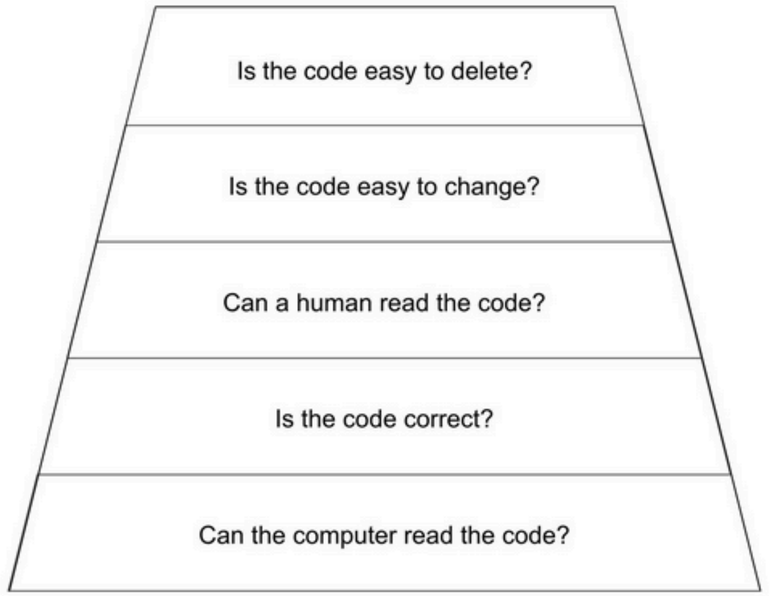
# Maslow

**Chris Andrejewski**
@compooter

Follow

Replying to @KellySutton

I have one small revision




3:42 PM - 31 Mar 2017

**3** Retweets **6** Likes

1 3 6

# Código pouco “removível”

```ruby
module Animals
  ANIMALS = %i(cat dog fox)

  def self.say(animal)
    if ANIMALS.include?(animal)
      send(animal)
    else
      "What does the #{animal} say?"
    end
  end

  def self.cat; "MEOW!"; end
  def self.dog; "WOOF!"; end
  def self.fox; "WHAT!"; end
end

Animals.say(:dog)
# => "WOOF!"
```

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# => NoMethodError: undefined method `dog' for Animals:Module
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    else
      "What does the #{animal} say?"
    end
  end

  def self.cat; "MEOW!"; end

  def self.fox; "WHAT!"; end
end

Animals.say(:dog)
# => "What does the dog say?"
```

# Código mais “removível”

```ruby
module Animals
  ANIMALS = {
    cat: "MEOW!",
    dog: "WOOF!",
    fox: "WHAT!"
  }

  def self.say(animal)
    ANIMALS[animal] || "What does the #{animal} say?"
  end
end

Animals.say(:dog)
# => "WOOF!"

Animals.say(:cow)
# => "What does the cow say?"
```

# Código mais “removível”

```ruby
module Animals
  ANIMALS = {
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Animals.say(:dog)
# => "WOOF!"

Animals.say(:cow)
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# Código mais “removível”

```ruby
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    ANIMALS[animal] || "What does the #{animal} say?"
  end
end

Animals.say(:dog)
# => "WOOF!"

Animals.say(:cow)
# => "What does the cow say?"
```

“Good code isn’t about getting it right the first time.
Good code is just legacy code that doesn’t get in the way.”

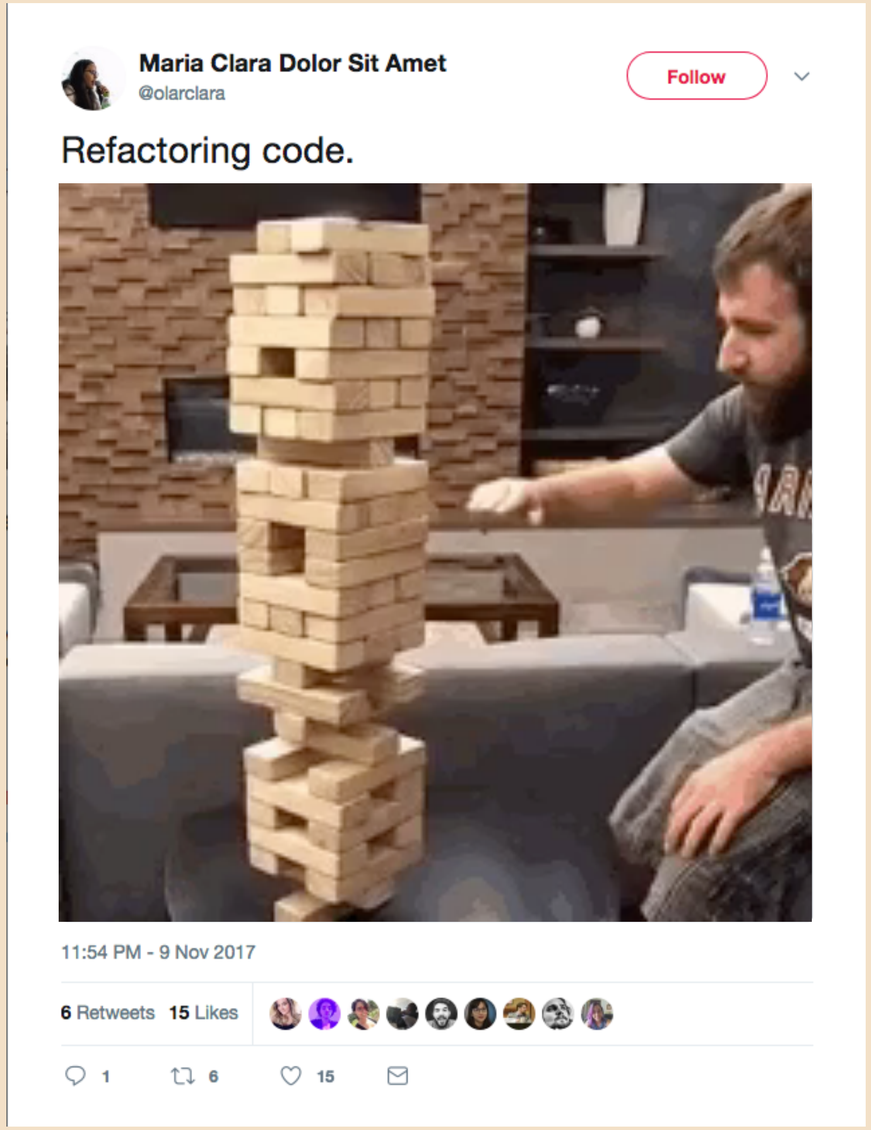
*–Thomas Figg*

# Parte 3
# Removendo Código

# Deveria ser tão simples quanto

1. Apagar o código
2. Apagar os testes
3. Partir pro abraço 😎

# Na prática...


Maria Clara Dolor Sit Amet
@olarclara
Follow
Refactoring code.
11:54 PM - 9 Nov 2017
6 Retweets 15 Likes
1
6
15

# Remoções Perigosas

- Inexistente
- Incorreta
- Incompleta

# Remoção Inexistente

# Código intacto

```
def do_stuff(things)
  do_this(things)
  do_that(things)
  do_something_else()
  finish_doing_stuff()
end
```

# Código comentado

```
def do_stuff(things)
  do_this(things)
  # do_that(things)
  # do_something_else()
  finish_doing_stuff()
end
```

HIPPIH
EXIT

# Código condicionado

```
def do_stuff(things)
  do_this(things)
  if false
    do_that(things)
    do_something_else()
  end
  finish_doing_stuff()
end
```

"...code represents effort expended, and we are very motivated to preserve the value of this effort. And, unfortunately, the sad truth is that the more complicated and incomprehensible the code, i.e. the deeper the investment in creating it, the more we feel pressure to retain it."

*–Sandi Metz*

“Most developers don't like getting rid of stuff. They want to keep chunks of code around in case they need them again. They worked hard to write that chunk of code. They debugged it, it works. They don't want to just throw it away.”

*–Ned Batchelder*

“If you have a chunk of code you don't need any more, there's one big reason to delete it for real rather than leaving it in a disabled state: to reduce noise and uncertainty.”

*–Ned Batchelder*

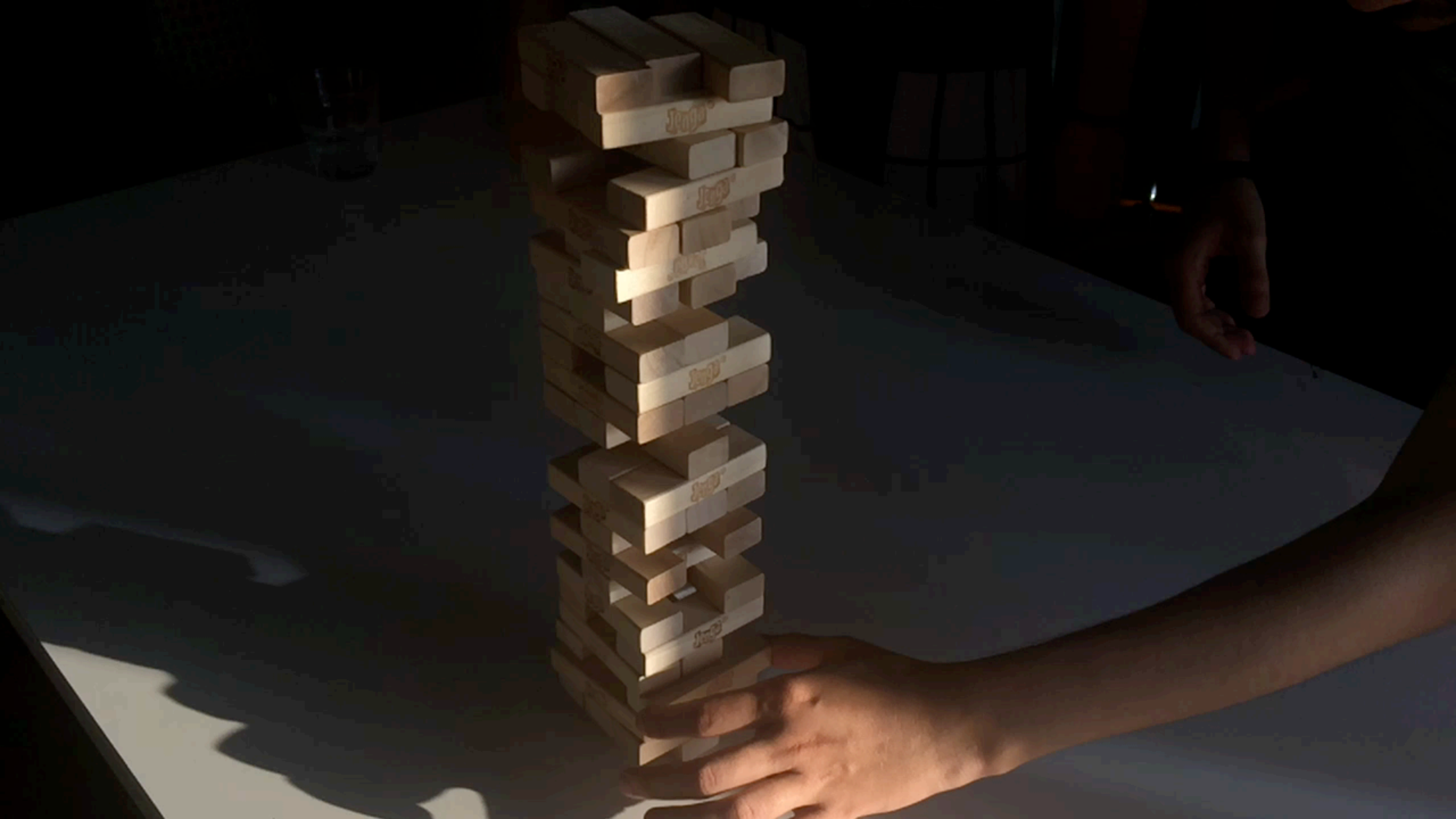
# Psicologia do controle de versão

git

# Remoções Perigosas

- ~~Inexistente~~
- Incorreta
- Incompleta

# Remoção Incorreta


Jenga
Jenga
Jenga
Jenga
Jenga
Jenga

# Remoção Incorreta

```ruby
module Animals
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    else
      "What does the #{animal} say?"
    end
  end

  def self.cat; "MEOW!"; end

  def self.fox; "WHAT!"; end
end

Animals.say(:dog)
# => NoMethodError: undefined method `dog' for Animals:Module
```

“Dependencies are foreign invaders that represent vulnerabilities, and they should be concise, explicit, and isolated.”

*–Sandi Metz*

# Dependências ocultas 👻

# Remoções Perigosas

- ~~Inexistente~~
- ~~Incorreta~~
- Incompleta

# Remoção Incompleta

# Sacudir a árvore de dependências


https://webpack.js.org/guides/tree-shaking/

# firebase@6.3.1

Firebase JavaScript library for web a... | tree-shakeable | 12 dependencies | npm

## BUNDLE SIZE

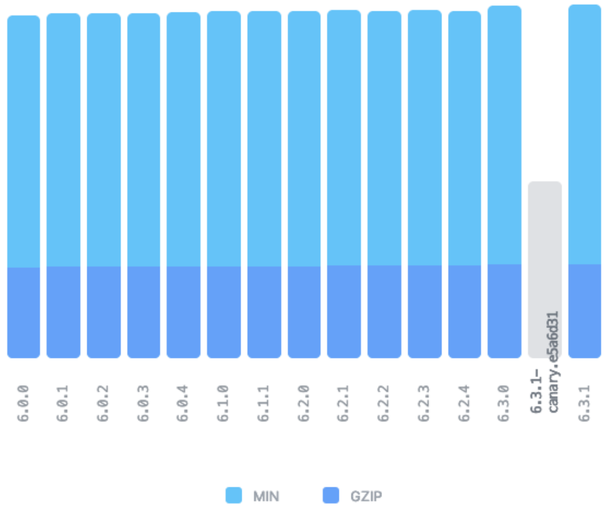
**812.4 kB** MINIFIED

**216 kB** MINIFIED + GZIPPED

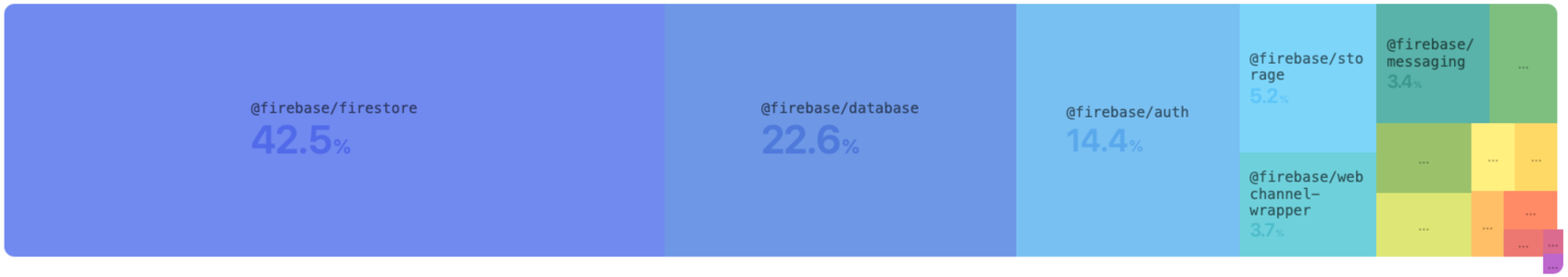
## DOWNLOAD TIME

**7.2 s** 2G EDGE [i]

**4.32 s** EMERGING 3G [i]




## Composition




**Note:** These sizes represent the contribution made by dependencies (direct or transitive) to `firebase`'s size. These may be different from the dependencies' standalone sizes.

# Purgecss

https://www.purgecss.com/

# Sacolejo Automático

- Reduzir código entregue às máquinas
- Passo de compilação/empacotamento
- Código morto permanece no repositório

# Sacolejo Manual

- Reduzir código entregue às pessoas
- Parte do fluxo de desenvolvimento
- Código removido em definitivo

# Removendo dependências

```
<div class="actions">
  <span class="parting-message">
    <%= goodbye_to(@creature) %>
  </span>

  <%= button_to t('.sacrifice'),
                @creature,
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</div>
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# Removendo dependências

```
class CreaturesController < ApplicationController
  def destroy
    current_player.creatures.destroy(@creature)

    respond_to do |format|
      format.json { head :no_content }
    end
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# Removendo dependências

```ruby
class Player < ApplicationRecord
  has_many :creatures, after_remove: :notify_parents

  def notify_parents(creature)
    NotifyParentsJob.perform_later(creature)
  end
end
```

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# Removendo dependências

```ruby
class NotifyParentsJob < ApplicationJob
  queue_as :default

  def perform(creature)
    # Async stuff
  end
end
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# Removendo dependências

```
en:
  creatures:
    creature:
      disable: "Enter sleep mode"
      enable: "Activate!"
      sacrifice: "Sacrifice creature </3"
```

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# Removendo dependências

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$('.actions').on('click', '.btn-delete-creature', event => {
  this.showCreatureDeletePrompt(event.target);
});
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    else
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    end
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```

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# Removendo dependências

```
.parting-message {
  background-color: #ccc;
}
```

# Removendo dependências

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  background-color: #ccc;
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```

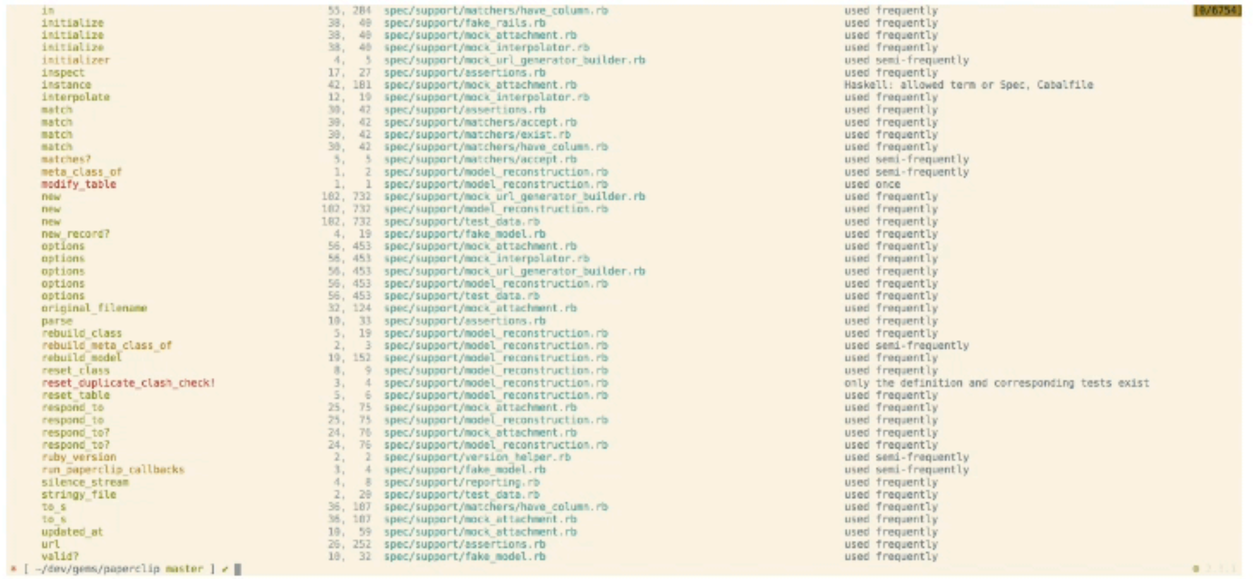
# Feito!

# Ferramentas ajudam

## Unused

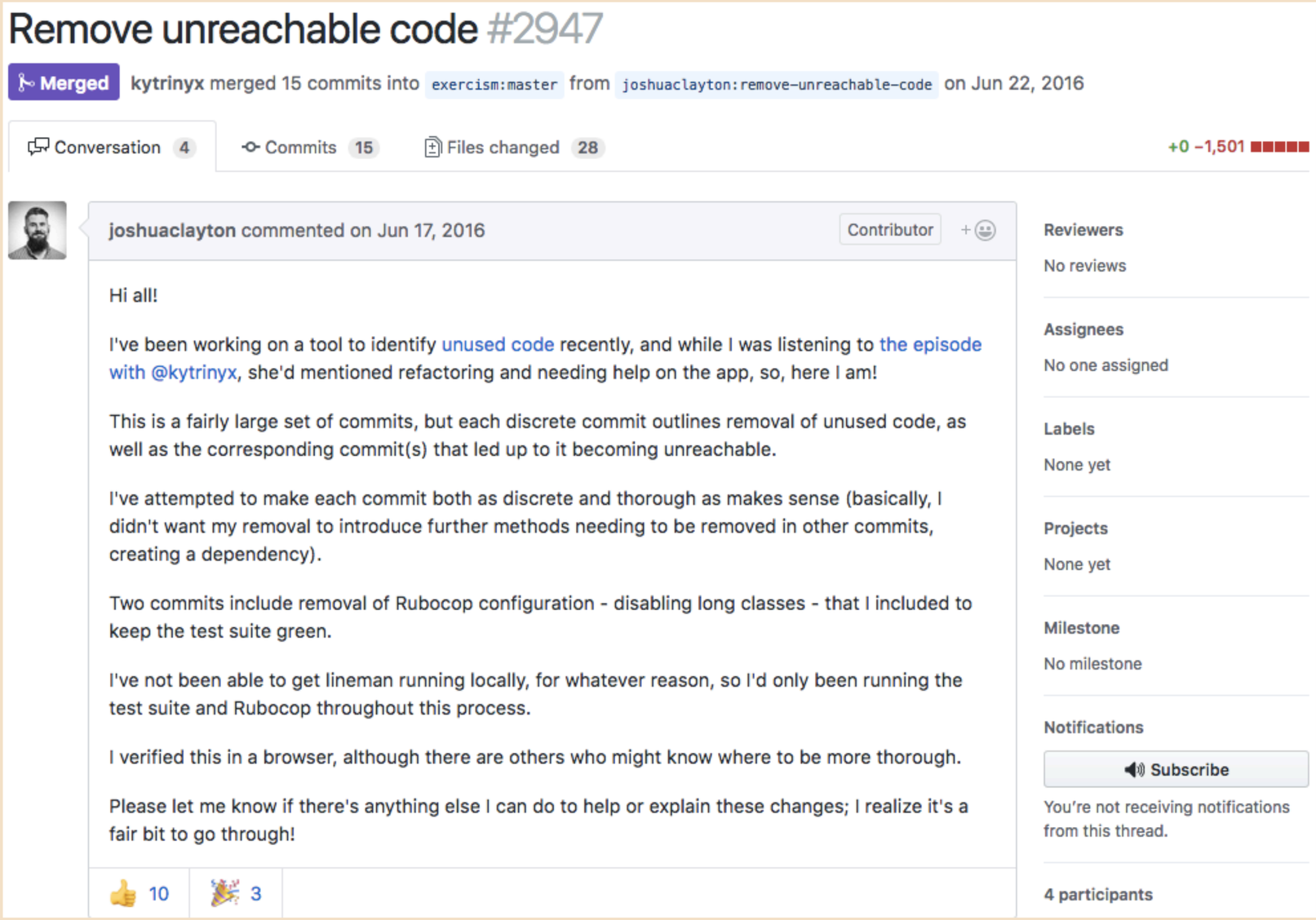
build passing

A command line tool to identify unused code.




https://unused.codes/

# Ferramentas ajudam



## Remove unreachable code #2947

**Merged** **kytrinyx** merged 15 commits into `exercism:master` from `joshuaclayton:remove-unreachable-code` on Jun 22, 2016

Conversation 4 · Commits 15 · Files changed 28 · +0 −1,501

**joshuaclayton** commented on Jun 17, 2016 — Contributor

Hi all!

I've been working on a tool to identify unused code recently, and while I was listening to the episode with @kytrinyx, she'd mentioned refactoring and needing help on the app, so, here I am!

This is a fairly large set of commits, but each discrete commit outlines removal of unused code, as well as the corresponding commit(s) that led up to it becoming unreachable.

I've attempted to make each commit both as discrete and thorough as makes sense (basically, I didn't want my removal to introduce further methods needing to be removed in other commits, creating a dependency).

Two commits include removal of Rubocop configuration - disabling long classes - that I included to keep the test suite green.

I've not been able to get lineman running locally, for whatever reason, so I'd only been running the test suite and Rubocop throughout this process.

I verified this in a browser, although there are others who might know where to be more thorough.

Please let me know if there's anything else I can do to help or explain these changes; I realize it's a fair bit to go through!

10 3

**Reviewers**
No reviews

**Assignees**
No one assigned

**Labels**
None yet

**Projects**
None yet

**Milestone**
No milestone

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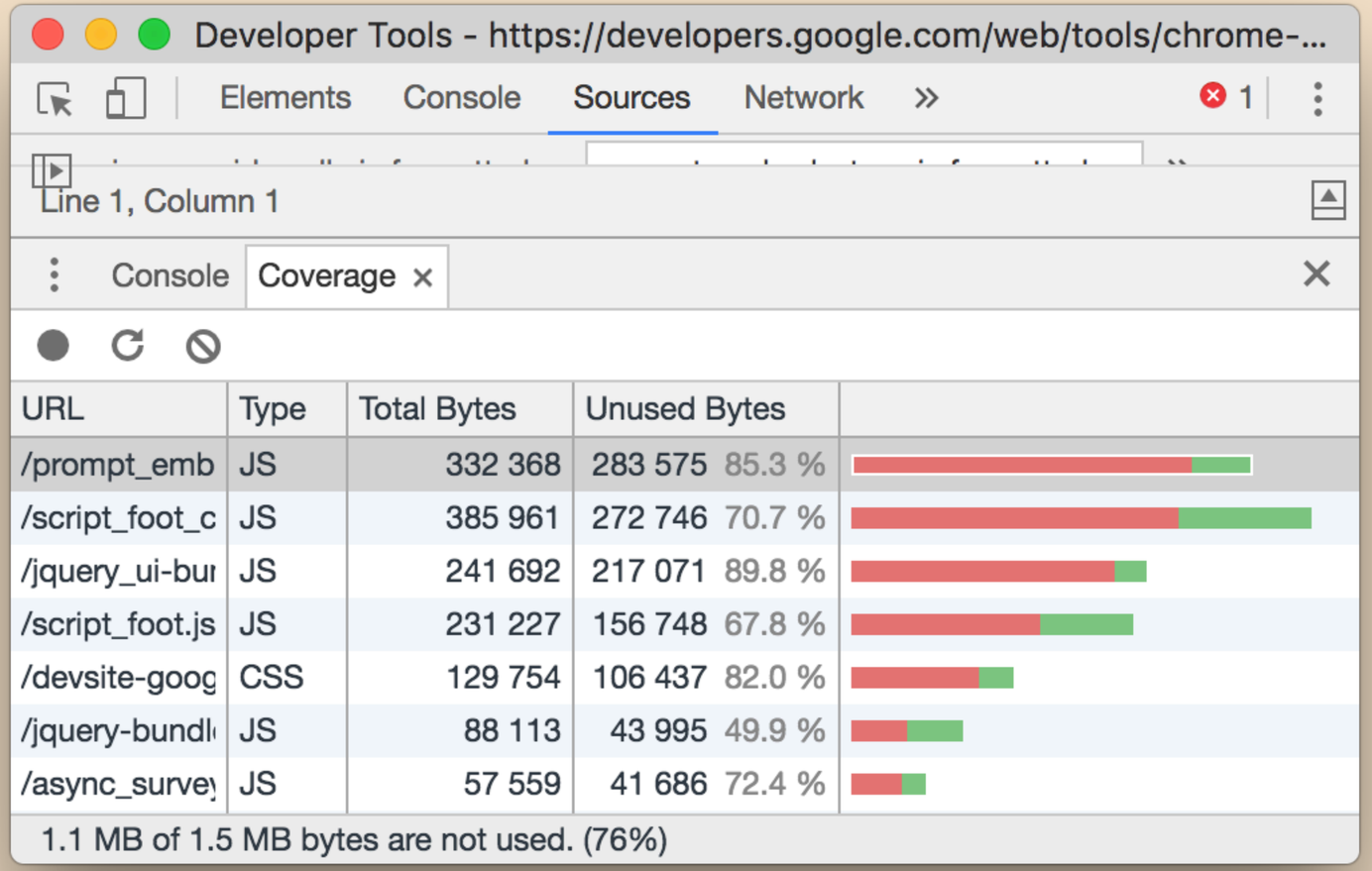
**4 participants**

# Ferramentas ajudam



# Checklist das dependências

- CSS, JavaScript, imagens, assets em geral
- Chaves de cache de longa expiração
- Tarefas assíncronas
- Gemfile
- Arquivos de configuração, I18n
- Documentação, README, etc.
- Receitas de provisionamento
- Banco de dados: migrações, tabelas, colunas, views, triggers, etc.
- Testes: shared examples, helpers, etc.

# CSS, JavaScript, Imagens...

# Chaves de cache

# Tarefas assíncronas

# Bibliotecas externas e Gemfile

# Arquivos de configuração e outros

# Documentação, README

# Receitas de provisionamento

# Banco de dados

- Colunas
- Índices
- Tabelas
- Views
- Triggers
- Migrações

# Testes

- Shared Examples
- Shared Helpers
- Factories
- Fixtures

# Checklist das dependências

- CSS, JavaScript, Imagens, assets em geral
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- Testes: shared examples, helpers, etc.

# Código tem preço,
# menos geralmente é mais

# Fazer mais com menos

- Usando abstrações adequadas e produtivas
- Promovendo reuso através de bibliotecas
- Pensando melhor antes de atacar os problemas
- Funcionalidades equilibradas, sem rebarbas
- Avaliando valor de funcionalidades e produtos

# Escreva seu código pensando no dia de apagá-lo

**Stephen Canon, Pope Santa IIII**
@stephentyrone

Follow

Programming skills, ranked:

(easiest) writing code.
(harder) deleting code.
...
(expert) not writing code in the first place.

1:52 PM - 15 Nov 2017

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29 613 1.5K

# Remover código não é tão simples quanto parece

“Any code you can delete is a victory, even if you wrote it just yesterday. Do not mourn the loss of time. Celebrate the reduction in long term cost of maintenance.”

*–Eric Normand*


Obrigado!
britto
noteu

# Fontes e referências

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- Webpack - Tree Shaking
  - https://webpack.js.org/guides/tree-shaking/
- BundlePhobia
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- Programming skills
  - https://twitter.com/stephentyrone/status/930825774818455553
- From 10x programmer to 0.1x programmer: creating more with less
  - https://codewithoutrules.com/2016/08/25/the-01x-programmer/
- Celebrate the reduction in long term cost of maintenance
  - https://twitter.com/ericnormand/status/999303254772105222
- Imagens e vídeos de arquivo pessoal