

The Perfect Ruby Code Sample

mark mcspadden
houston code camp 2012



github.com/markmcspadden
twitter.com/markmcspadden

7 years of Ruby

Dallas Ruby Brigade

Rails



RailsContributors

#266 Mark McSpadden - All time

[All contributors →](#)

Showing 9 commits

Hash	Date	Message
1d485d5	2012-05-25	Reorder deep_symbolize_keys methods
2b5b60f	2012-05-23	Add Hash#deep_transform_keys and Hash#deep_transform_key...
6ff8873	2012-05-23	Add Hash#transform_keys and Hash#transform_keys! and ref...
b3e1d08	2012-05-17	Fix documentation around duplicable regarding Class and ...
2f06d58	2012-05-17	Remove special cases for duplicable? on Class and Module
c8792c7	2012-03-21	Allow manual rollbacks in after_save to reset object cor...

— 0.000000 — 0.000000 — 0.000000 — 0.000000 — 0.000000 — 0.000000 —

A Virtual Machine for Ruby on Rails Core Development

Introduction

This project automates the setup of a development environment for Ruby on Rails core development. This is the easiest way to build a box with everything ready to start hacking on your pull request, all in an isolated virtual machine.

Requirements

- [VirtualBox](#)
- [Vagrant](#)

How To Build The Virtual Machine

Building the virtual machine is this easy:

```
host $ git clone https://github.com/rails/rails-dev-box.git  
host $ cd rails-dev-box  
host $ vagrant up
```



RailsContributors

Rails Contributors - All time

[See names mapping →](#)

Showing 2602 people

	Name	Commits
#1	<u>José Valim</u>	2682
#2	<u>Jeremy Kemper</u>	2589
#3	<u>Aaron Patterson</u>	2354
#4	<u>David Heinemeier Hansson</u>	2169
#5	<u>Xavier Noria</u>	1404
#6	<u>Santiago Pastorino</u>	1245

... [Last Page](#)

... [First Page](#)

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rails / rails Watch Unstar 15,728 Fork 3,741

Code Network Pull Requests 176 Issues 477 Graphs

Browse Issues Milestones Search: Issues & Milestones... New Issue

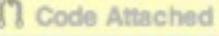
Everyone's Issues 477

No active filters. Use the sidebar to filter issues.

Keyboard shortcuts available

477 open issues 6,964 closed issues Submitted Updated Comments

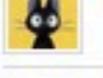
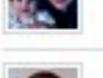
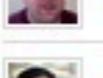
1 2 3 4 5 6 7 8 9 ... 19 20 Next»

- #7444 **Raise generic ParseError exception when ParamsParser fails parsing request params**
by szimek 13 hours ago  1 comment
- #7442 **Mass assignment attributes change when backwards association uses subclass that sets self._accessible_attributes[:default]**
by garysweaver 13 hours ago
- #7441 **offset + last bug**
by kostya 16 hours ago 2 comments
- #7440 **inverse_of doesn't work with "includes" selections**
by pluff 19 hours ago
- #7439 **ActiveRecord: sum expression returns string '0' for no records, fixed**
by refractalize a day ago  1 comment
- #7435 **correct handling of date selects when using both disabled and discard options**
actionview
by nashbw 2 days ago



1st		GitHub	 +58	325
2nd		The Node Firm	 +7	325
3rd		Heroku	 +30	307
4th		ThoughtWorks	 +166	303
5th		LivingSocial	 +90	293
6th		8th Light	 +25	286
7th		Shopify	 +26	277
8th		Nodejitsu	 +12	273
9th		Twitter	 +22	270

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We're Hiring!

(everyone is hiring)

ruby is hot

that means a lot of

job postings

résumés

phone interviews

CODE SAMPLES

(hopefully in person interviews, offers, etc)

CODE SAMPLES

?

Ruby Code Sample Patterns

Ruby Code Sample Anti-Patterns

We can do
better than
Patterns

The Perfect Ruby Code Sample



<http://knowyourmeme.com/photos/22654-bearsharktopus>

The Perfect Ruby Code Sample

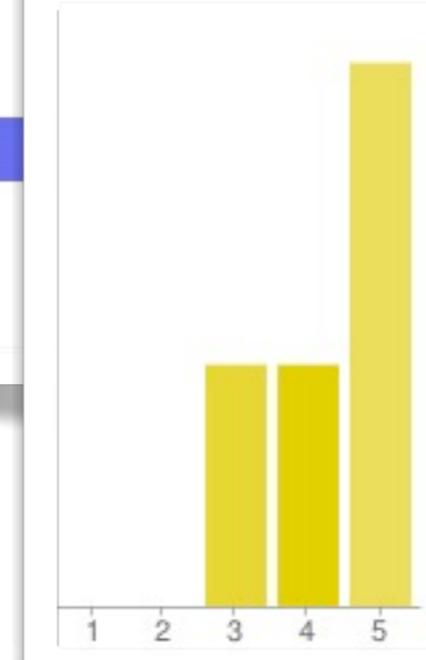
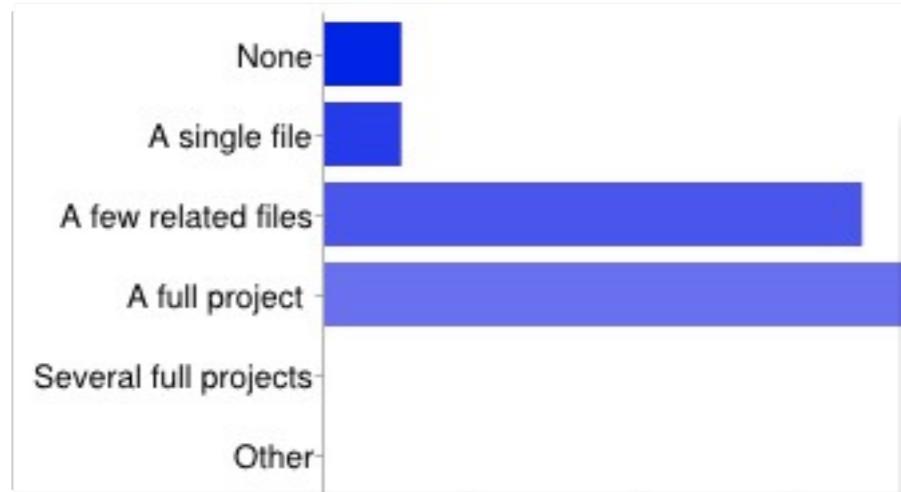
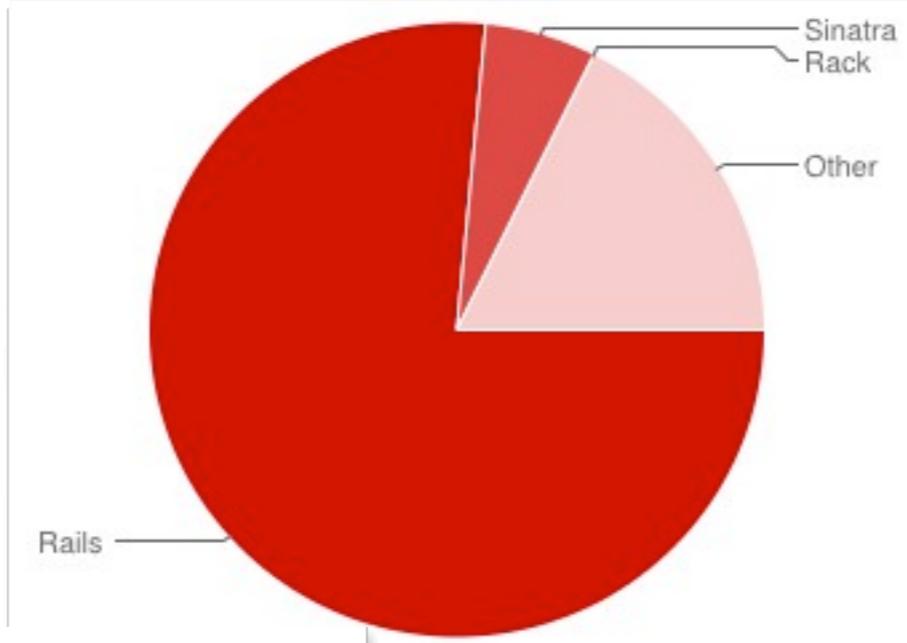
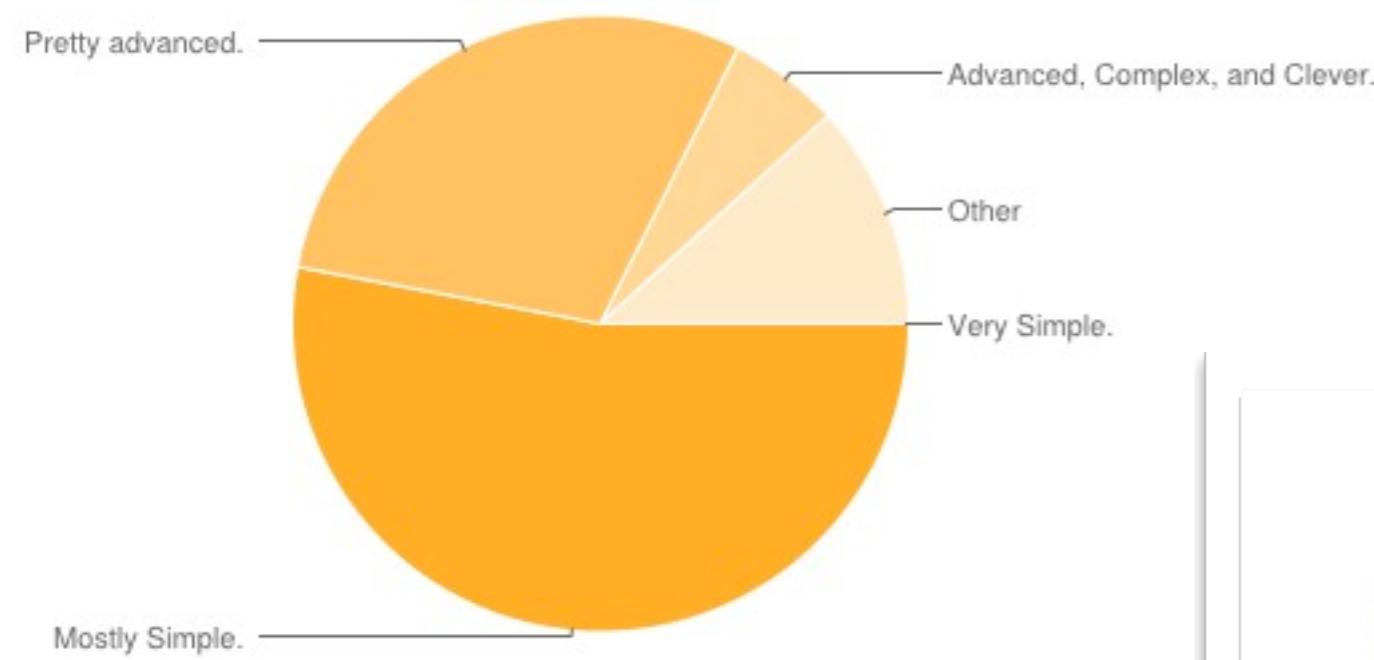
I'm Mark McSpadden and I'm doing an upcoming talk entitled "The Perfect Ruby Code Sample." While I already have some idea of what to include, I'd love to get other perspectives.

All fields are optional. Your individual responses may be used in the talk, but I'm mostly looking for the aggregate results.

If you'd like to see the talk, I'm giving it at Houston Code Camp on Aug 25. I've also submitted to RubyConf, so petition any RubyCentral directors you know if you'd like to see it there. ;)

How much "code sample" do you normally like to see from a candidate pre-interview?

- None
- A single file
- A few related files
- A full project (application, library, etc)
- Several full projects
- Other:





<http://knowyourmeme.com/photos/22654-bearsharktopus>

Important
Thing

Length

Complexity

Techniques

Frameworks

Important
Thing

Testing

Important
Thing

Most Important Thing

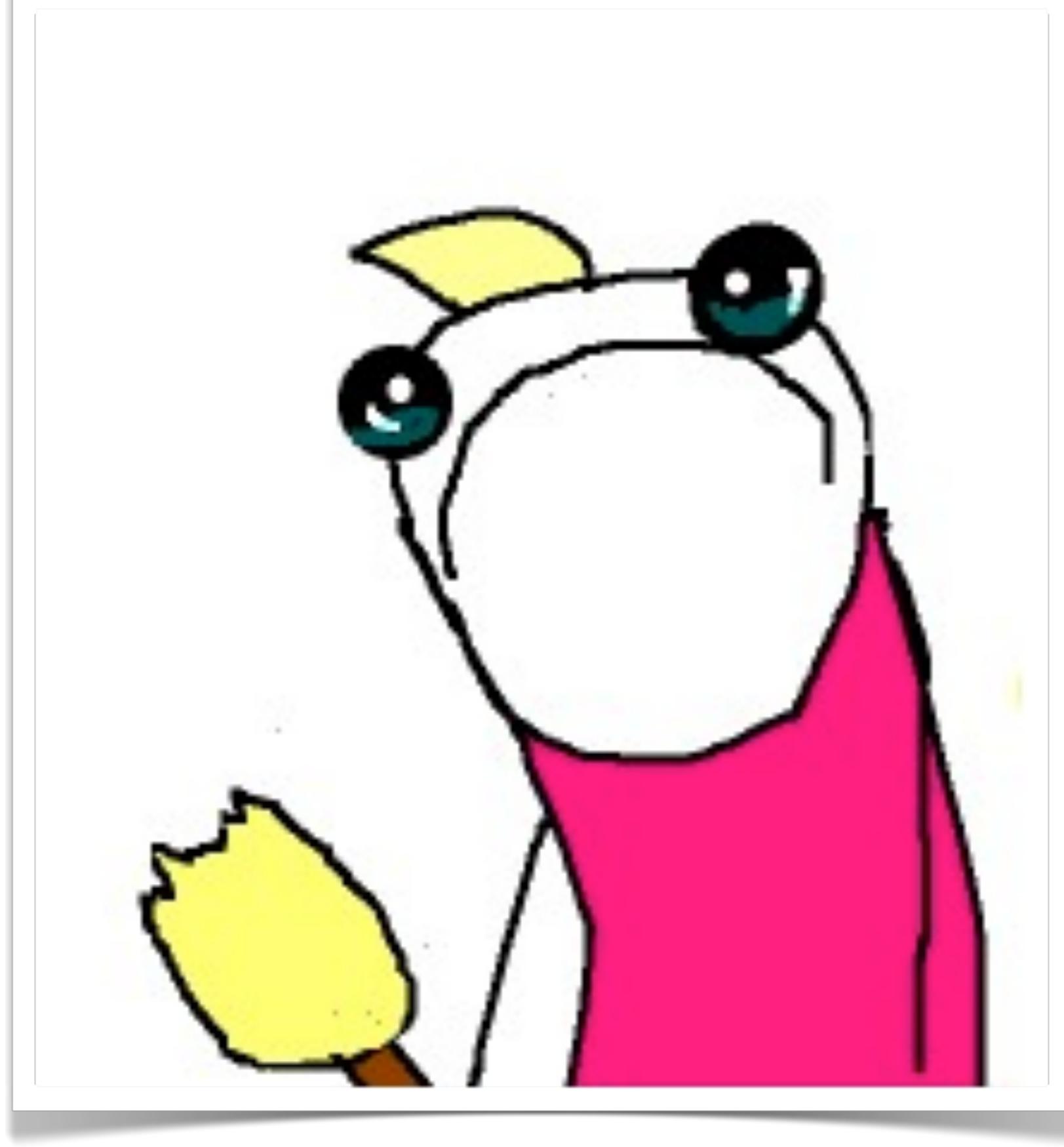
#1

COMMUNICATE



ALL THE THINGS

<http://hyperboleandahalf.blogspot.com/2010/06/this-is-why-ill-never-be-adult.html>



<http://hyperboleandahalf.blogspot.com/2010/06/this-is-why-ill-never-be-adult.html>

COMMUNICATE



ALL THE THINGS

<http://hyperboleandahalf.blogspot.com/2010/06/this-is-why-ill-never-be-adult.html>

```
1 # Normalize the keys
2 data.each_pair do |key, value|
3   data[key.to_s.upcase] = data.delete(key)
4 end
```

```
1 # Normalize the keys to uppercase using direct manipulation
2 # I know some people would use #inject here, but I hate #inject.
3 # I think it's a confusing syntax. I'd even rather write something like:
4 #   new_data = {}
5 #   data.each_pair{ |key, value| new_data[key] = value }
6 #   data = new_data
7 # Than introduce #inject into my code.
8 # And not only do a not like the syntax, but the word 'inject' freaks me out.
9 # It reminds me of this episode of intervention
10 # where a guy was injecting drugs into his fingertips
11 # And I really can't even stand the sight of needles so I almost passed out.
12 # So...I don't like inject and so I don't use it.
13 data.each_pair do |key, value|
14   data[key.to_s.upcase] = data.delete(key)
15 end
```

```
mm2:houston_code_camp_2012 mark$ cane --style-glob '**/*.rb'

Lines violated style requirements (2):

examples/comm_bad.rb:9    Line is >80 characters (99)
test_me_maybe?-test.rb:7   Line contains trailing whitespace

Total Violations: 2
```



<http://knowyourmeme.com/photos/22654-bearsharktopus>

(ok so it also needs to run)

(on multiple rubies)

LENGTH



<http://knowyourmeme.com/photos/115894>

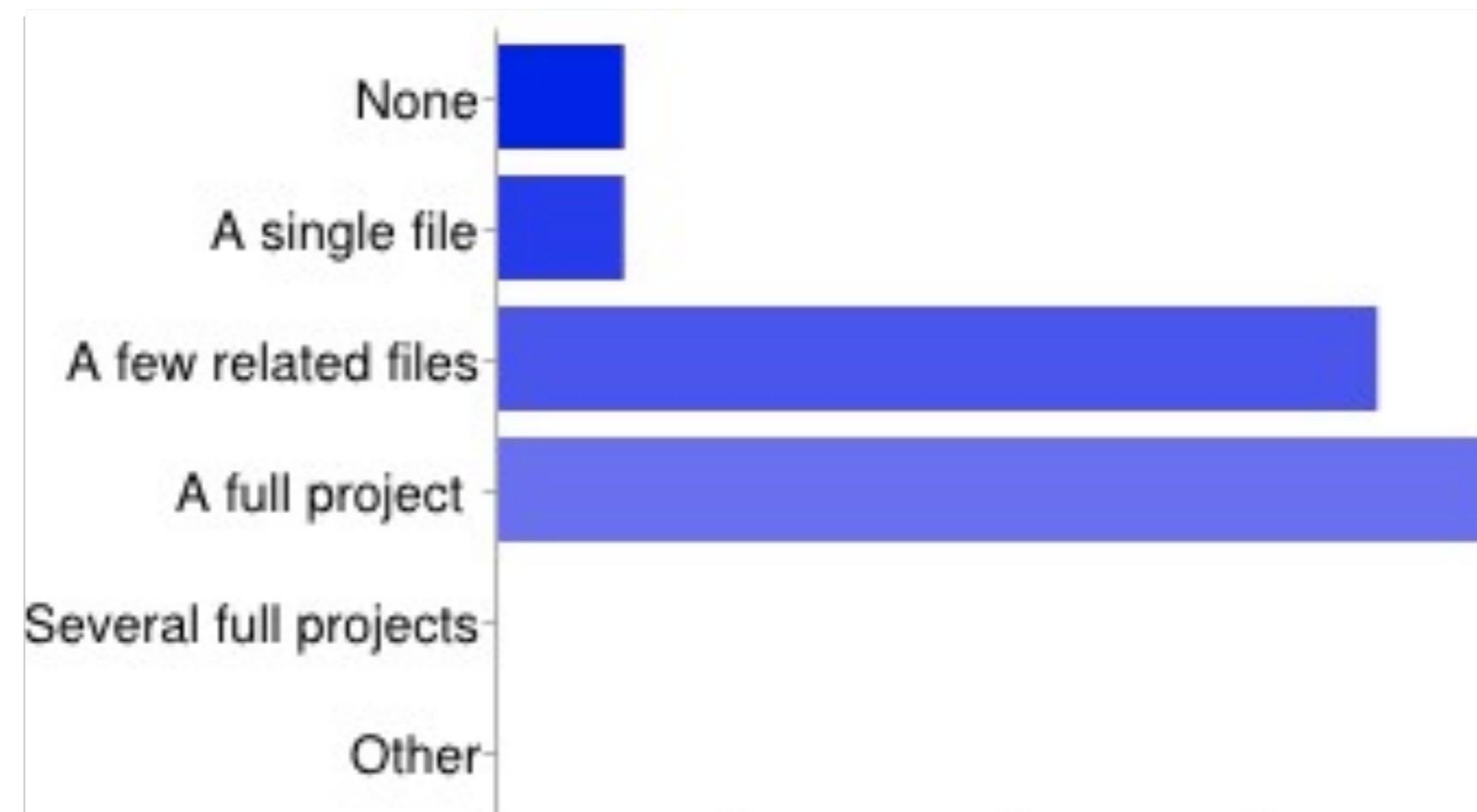
```

1 require "uri";require "rack";class Object;def meta_def m,&b;(class<<self;self
2 end).send:define_method,m,&b end end;module Camping;C=<self>;S=IO.read(__FILE__
3 )rescue nil;P=<h1>Cam\ping Problem!</h1><h2>%s</h2>;U=Rack::Utils;O={};Apps=[]
4 class H<Hash;def method_missing m,*a;m.to_s=~=/$/?self[$`]=a[0]:a==[]?self[m.
5 to_s]:super end;undef id,type if ??==63 end;class Cookies<H;attr_accessor :_p;
6 def _n:@n||={}end;alias :_s :[];def set k,v,o={};_s(j=k.to_s,v);_n[j]=
7 {:value=>v,:path=>_p}.update o;end;def []=(k,v)set(k,v,v.is_a?(Hash)?v:{}))end
8 end;module Helpers;def R c,*g;p,h=
9 /\(.+\?\)/,g.grep(Hash);g=h;raise"bad route"unless u=c.urls.find{|x|break x if
10 x.scan(p).size==g.size&&/^#{$`}/?$/=~(x=g.inject(x){|x,a|x.sub p,U.escape((a.
11 to_param rescue a))}).gsub(/\A(.+)\{$1\});h.any?? u+"?"+U.build_query(h[0]):u
12 end;def / p;p[0]==?/?@root+p :p end;def URL c '/',*a;c=R(c,*a) if c.respond_to?(
13 :urls);c=self/c;c=@request.url[/.{8,}?(?=\/|$)]+c if c[0]==?/URI c end end
14 module Base;attr_accessor:env,:request,:root,:input,:cookies,:state,:status,
15 :headers,:body;T={};L=:layout;def lookup n;T.fetch(n.to_sym){|k|t=Views.
16 method_defined?(k)|||t=O[:_t].keys.grep(/^#{$`}\.\.)[0]and Template[t].new{
17 O[:_t][t])|||(f=Dir[[O[:views]]|"views","#{n}.*"]'/)[0])&&Template.
18 new(f,O[f/\.\.(w+)\$/,.1].to_sym)||{});O[:dynamic_templates]?t:T[k]=t end
19 def render v,*a,&b;if t=lookup(v);r,@_r=@_r,o=Hash==a[-1]?a.pop: {};s=(t==true)?mab{
20 send v,*a,&b}: t.render(self,o[:locals]||{},&b);s=render(L,o.merge(L=>false)){s
21 }if o[L]or o[L].nil?&&lookup(L)&&!r&&v.to_s[0]!=?_;s;else;raise"no template: #{v}"
22 end;end;def mab &b;extend(Mab);mab(&b) end;def r s,b,h={};b,h=
23 h,b if Hash==b;@status=s;@headers.merge!(h);@body=b end;def redirect *a;r 302,
24 '','Location'=>URL(*a).to_s end;def r404 p;P%"#{p} not found"end;def r500 k,m,e
25 raise e end;def r501 m;P%"#{m.upcase} not implemented"end;def serve(p,c)
26 (t=Rack::Mime.mime_type p[/\..*$/],nil)&&@headers["Content-Type"]=t;c;end;def to_a;@env[
27 'rack.session']=Hash[@state];r=Rack::Response.new(@body,@status,@headers)
28 @cookies._n.each{|k,v|r.set_cookie k,v};r.to_a end;def initialize env,m
29 r=@request=Rack:: Request.new(@env=env);@root,@input,@cookies,@state,@headers,
30 @status,@method=r.script_name.sub(/\//,$,''),n(r.params),Cookies[r.cookies],
31 H[r.session.to_hash],{},m=~/_r/(\d+)/?$1.to_i: 200,m;@cookies._p=self"/" end
32 def n h;Hash==h ?h.inject(H[]){|m,(k,v)|m[k]=
33 n(v);m}: h end;def service *a;r=catch(:halt){send(@method,*a)};@body||=r;self
34 end end;module Controllers;@r=[];class<<self;def R *u;r=@r;Class.
35 new{meta_def(:urls){u};meta_def(:inherited){|x|r<<x}}end;def D p,m,e;p='/'if
36 !p|||p[0];(a=O[:_t].find{|n,_n==p}) and return [I,:serve,*a]
37 @r.map{|k|k.urls.map{|x|return(k.method_defined? m)?[k,m,*$~[1..-1].map{|x|U.unescape x}]:
38 [I,'r501',m]if p=~/^#{$`}\.\?$/};[I,'r404',p]} end;N=H.new{|_,x|x.downcase}.
39 merge!("N"=>'(\d+)','X'=>'([^\?]+)',"Index"=>'');def M;def M;end;constants.
40 map{|c|k=const_get(c);k.send:include,C,X,Base,Helpers,Models
41 @r=[k]+@r if @r-[k]==@r;k.meta_def(:urls){"/#{$`}.to_s.scan(/.[^A-Z]*/).map(&
42 N.method(:[])*'')}"}if !k.respond_to?:urls}end end;I=R()end;X=
43 Controllers;class<<self;def
44 goes m;Apps<<a=eval(S.gsub(/Camping/,m.to_s),TOPLEVEL_BINDING);caller[0]~=/:/
45 IO.read(a.set:__FILE__,'$')=~/^__END__/&&(b=$'.split /^@@\s*(.+?)\s*\r?\n/m).shift rescue nil
46 a.set :_t,H[*b||[]];end;def call e;X.M
47 k,m,*a=X.D e["PATH_INFO"],e['REQUEST_METHOD'].
48 downcase,e;k.new(e,m).service(*a).to_a;rescue;r500(:I,k,m,$!,:env=>e).to_a end
49 def method_missing m,c,*a;X.M;h=Hash==a[-1]?a.pop: {};e=H[Rack::MockRequest.
50 env_for(' ',h.delete(:env))||{}]];k=X.const_get(c).new(e,m.to_s);h.each{|i,v|k.
51 send "#{$`}=",v};k.service(*a) end;def use*a,&b;m=a.shift.new(method(:call),*a,&b)
52 meta_def(:call){|e|m.call(e)}end;def options;O end;def set k,v;O[k]=v end end
53 module Views;include X,Helpers end;module Models;autoload:Base,'camping/ar'
54 Helpers.send:include,X,self end;autoload:Mab,'camping/mab'
55 autoload:Template,'camping/template';C end

```

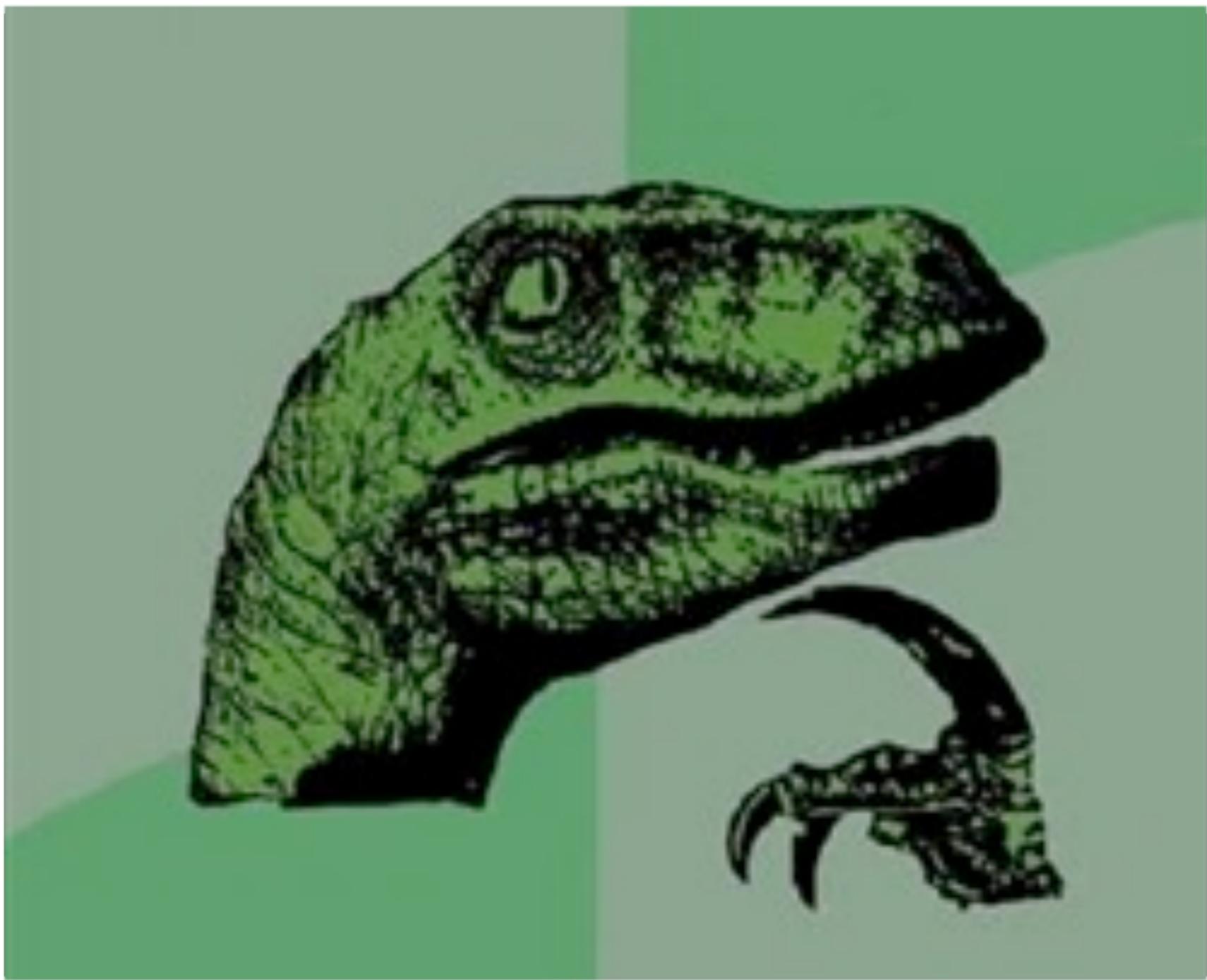
<https://github.com/camping/camping/blob/master/lib/camping.rb>

Name	Lines	LOC	Classes	Methods	M/C	LOC/M
Controllers	16640	13570	161	1276	7	8
Helpers	5655	4679	1	607	607	5
Models	32266	25080	306	3023	9	6
Libraries	8231	6354	83	684	8	7



How much "code sample" do you normally like to see from a candidate pre-interview?

a complete thought



COMPLEXITY



<http://birdswithharms.tumblr.com/post/18297418391/facepalm-owl>

~~COMPLEXITY~~

SIMPLICITY



<http://birdswitharms.tumblr.com/post/18127120959/i-say-good-bird-you-must-stop-by-my-nest-for-a>

Simplicity Matters

Rich Hickey

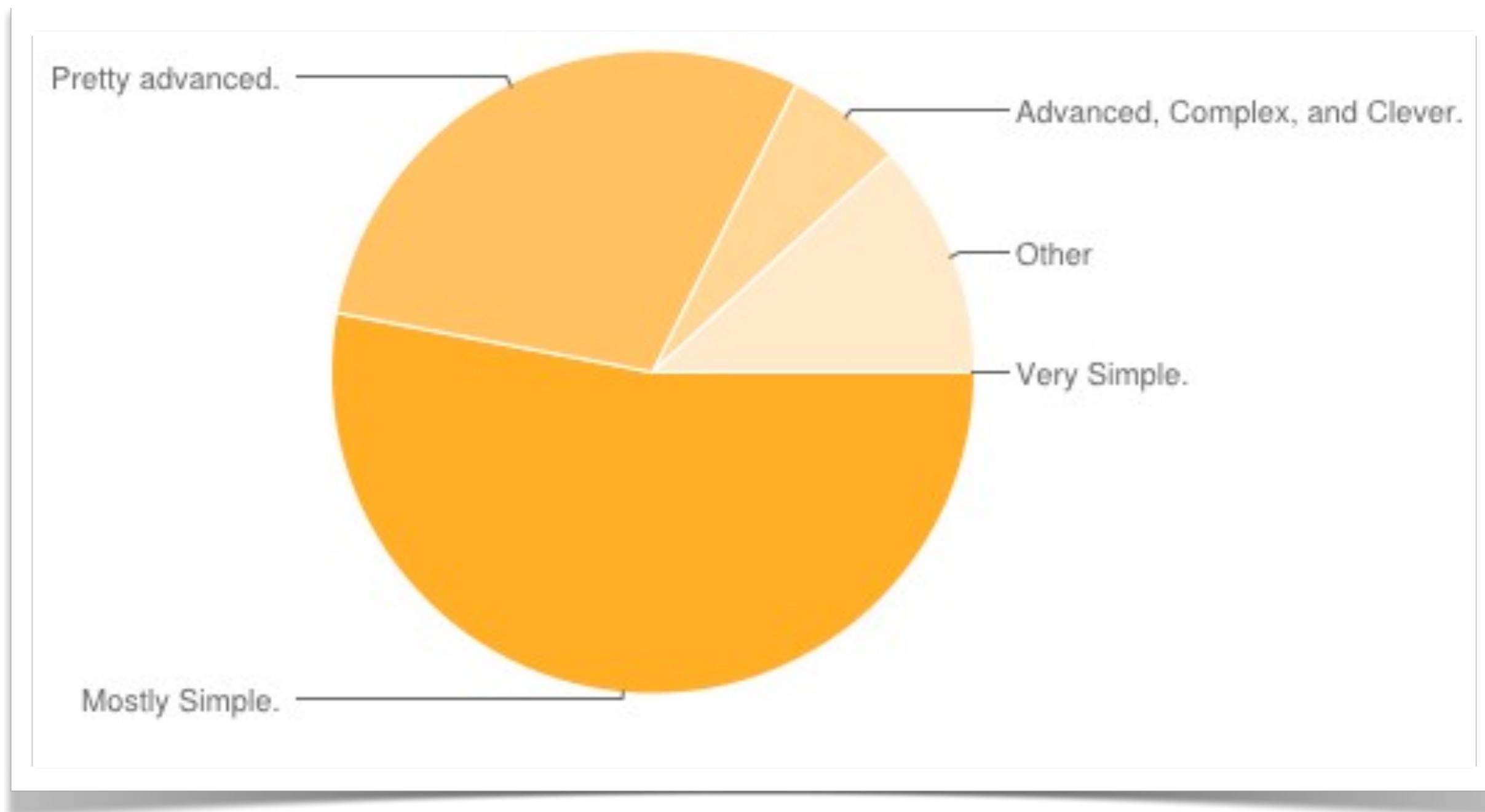
RAILSCONF2012

<http://confreaks.com/videos/860-railsconf2012-keynote-simplicity-matters>

Word Origins

- Simple
 - sim- plex*
 - one fold/braid
 - vs **complex**
- Easy
 - ease < aise < adjacens*
 - lie near
 - vs **hard**

<https://github.com/richhickey/slides/blob/master/simplicitymatters.pdf>



What level of complexity do you like to see in a code sample?



<http://knowyourmeme.com/photos/22654-bearsharktopus>

TECHNIQUES



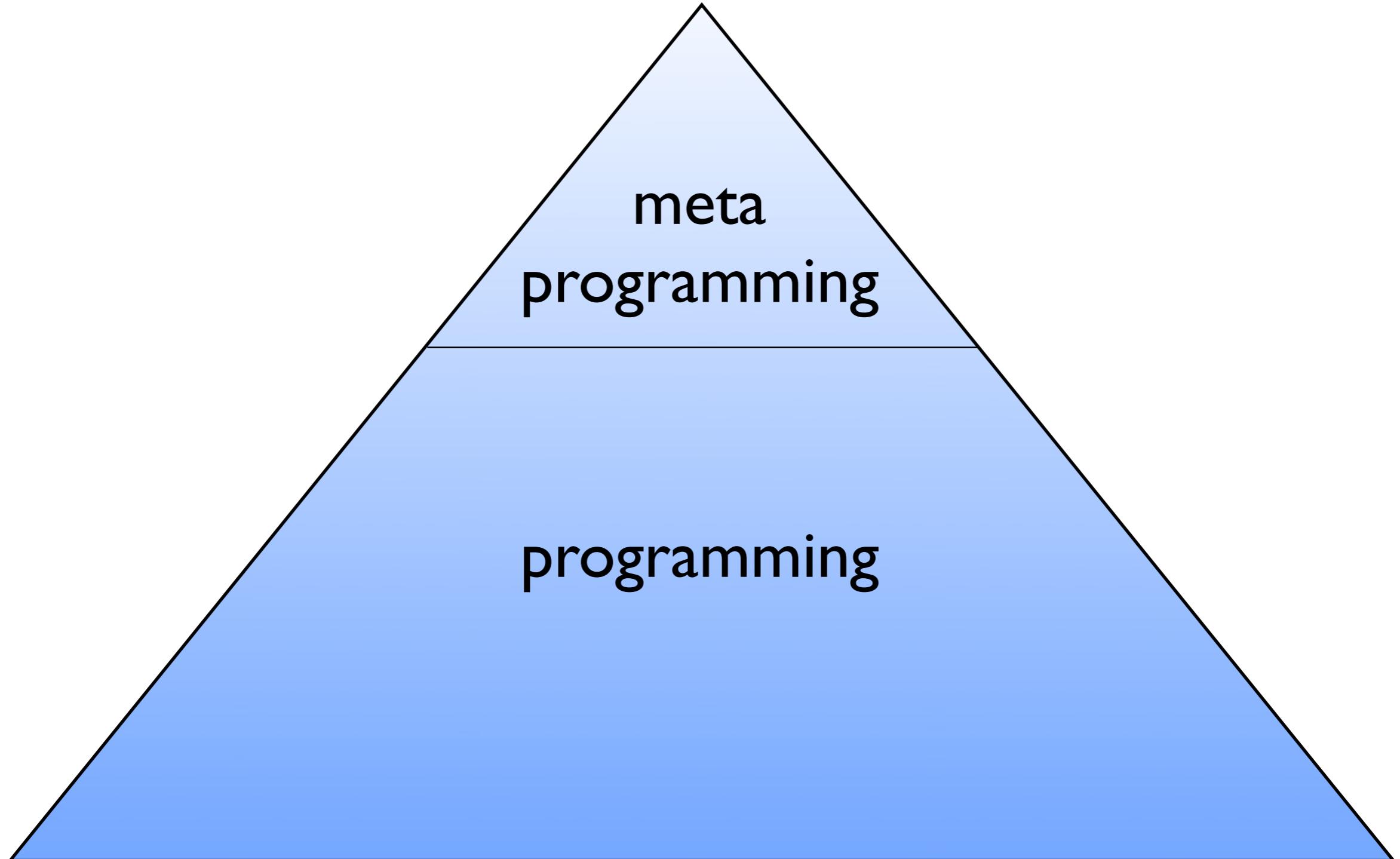
<http://birdswitharms.tumblr.com/post/18311660595/old-timey-gangster-raven-is-looking-for-his-money>

The Real Adam

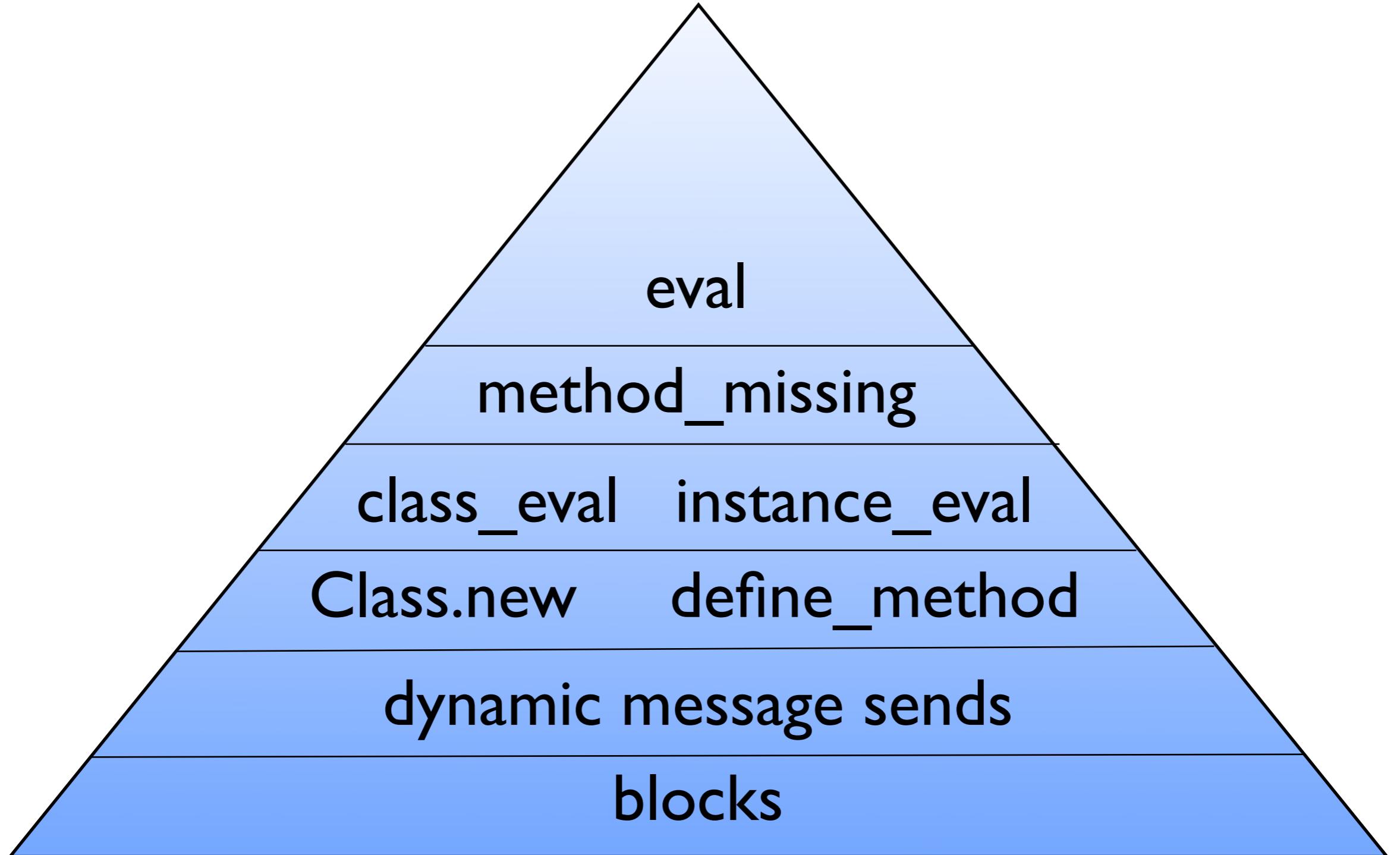
Developer at large, expert typist

**Why metaprogram when you
can program?**

<http://weblog.therealadam.com/2011/12/09/why-metaprogram-when-you-can-program/>



Mark's interpretation of
Adam's Hierarchy of
Metaprogramming
in relation to all
Ruby programming



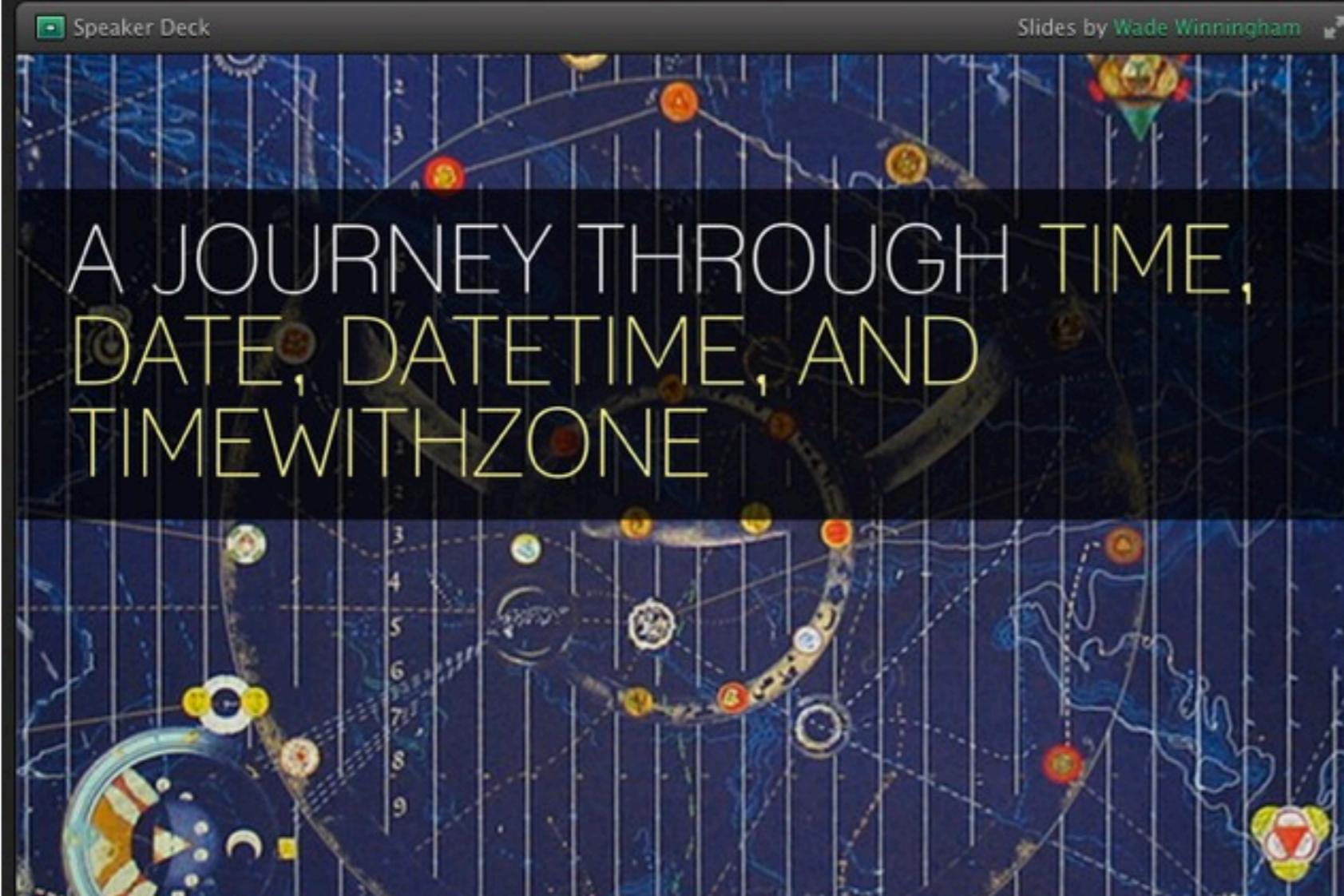
Mark's interpretation of
Adam's Hierarchy of
Metaprogramming

```
1 o = Object.new
2
3 o.instance_eval do
4   def way1
5     puts "Way 1"
6   end
7 end
8
9 o.way1
10
```

```
1 o = Object.new
2
3 o.instance_eval do
4   def way1
5     puts "Way 1"
6   end
7 end
8
9 o.way1
10
11
12 module Ways
13   def way2
14     puts "Way 2"
15   end
16 end
17
18 o.extend Ways
19 o.way2
```

stdlib

A Journey through Time, Date, DateTime, and TimeWithZone



Wade Winni...
1 Presentation

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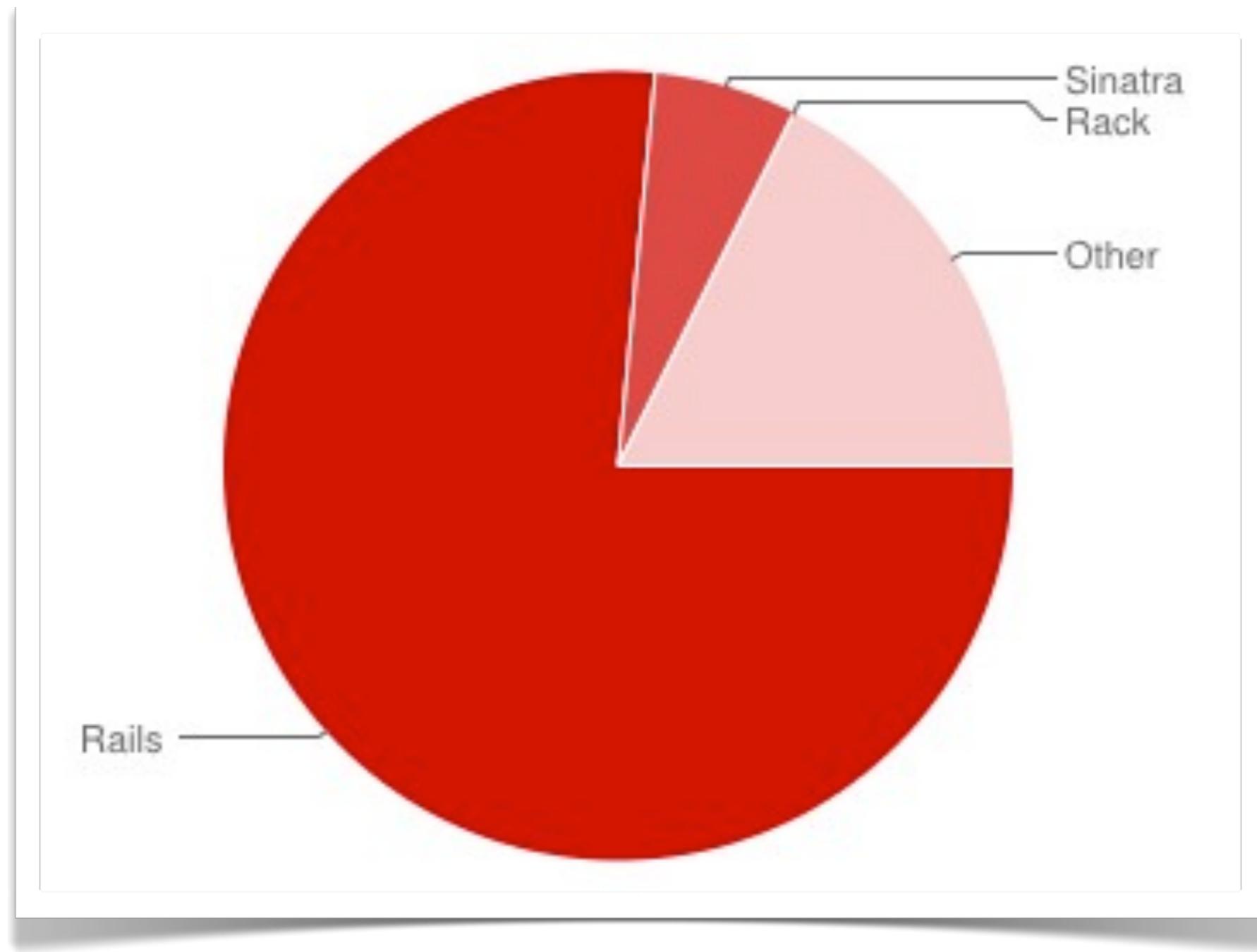
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<https://www.speakerdeck.com/u/wadewinningham/p/a-journey-through-time-date-datetime-and-timewithzone>

FRAMEWORKS



<http://birdswitharms.tumblr.com/post/17921430230/conspiracy-parrots-cousins-of-paranoid-parrot>



**If you're looking for a Ruby web developer,
which framework/library would you MOST
prefer to see used in the sample?**



<http://weknowmemes.com/wp-content/uploads/2011/12/you-have-chosen-poorly.jpg>

**frameworks trade
simplicity for ease**

Most Important Thing

#2

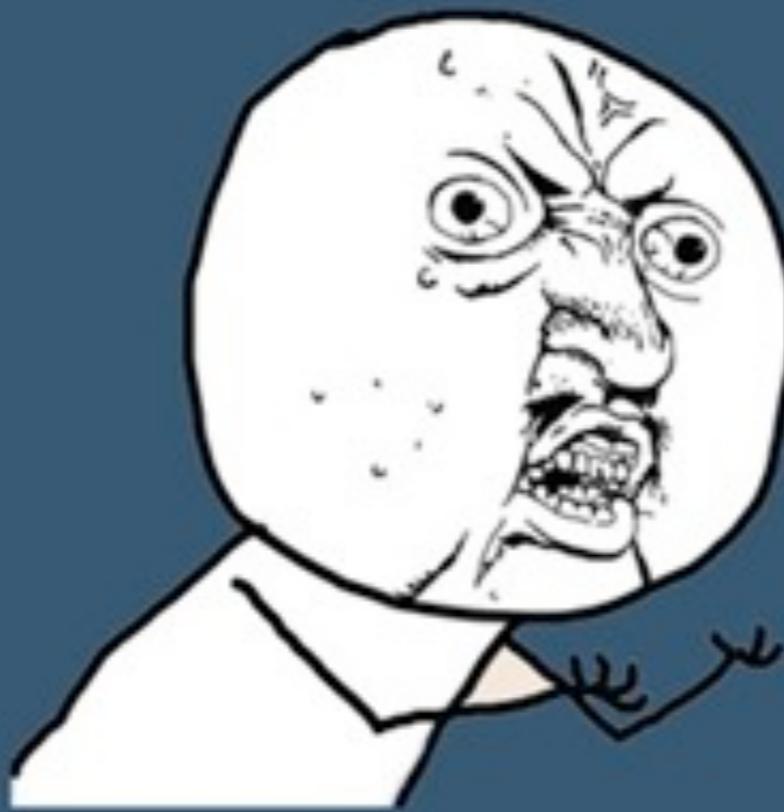
DEFEND



memegenerator.net

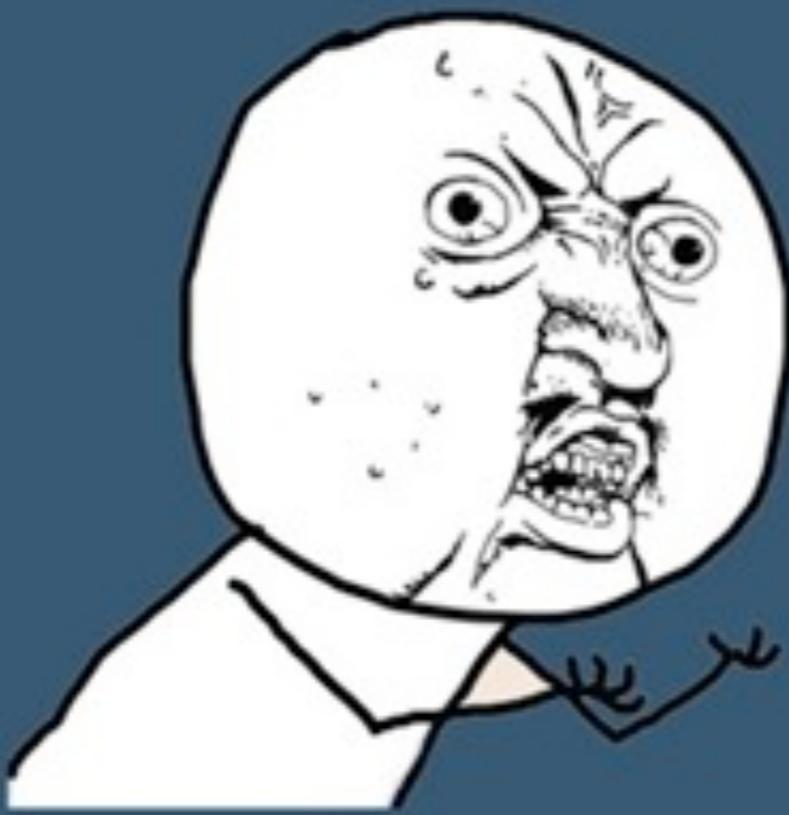
<http://hyperboleandahalf.blogspot.com/2010/06/this-is-why-ill-never-be-adult.html>

PERFECT RUBY CODE SAMPLE



Y U NO EXTEND THE INSTANCE?

PERFECT RUBY CODE SAMPLE



Y U NO USE INSTANCE_EVAL?



<http://knowyourmeme.com/photos/22654-bearsharktopus>

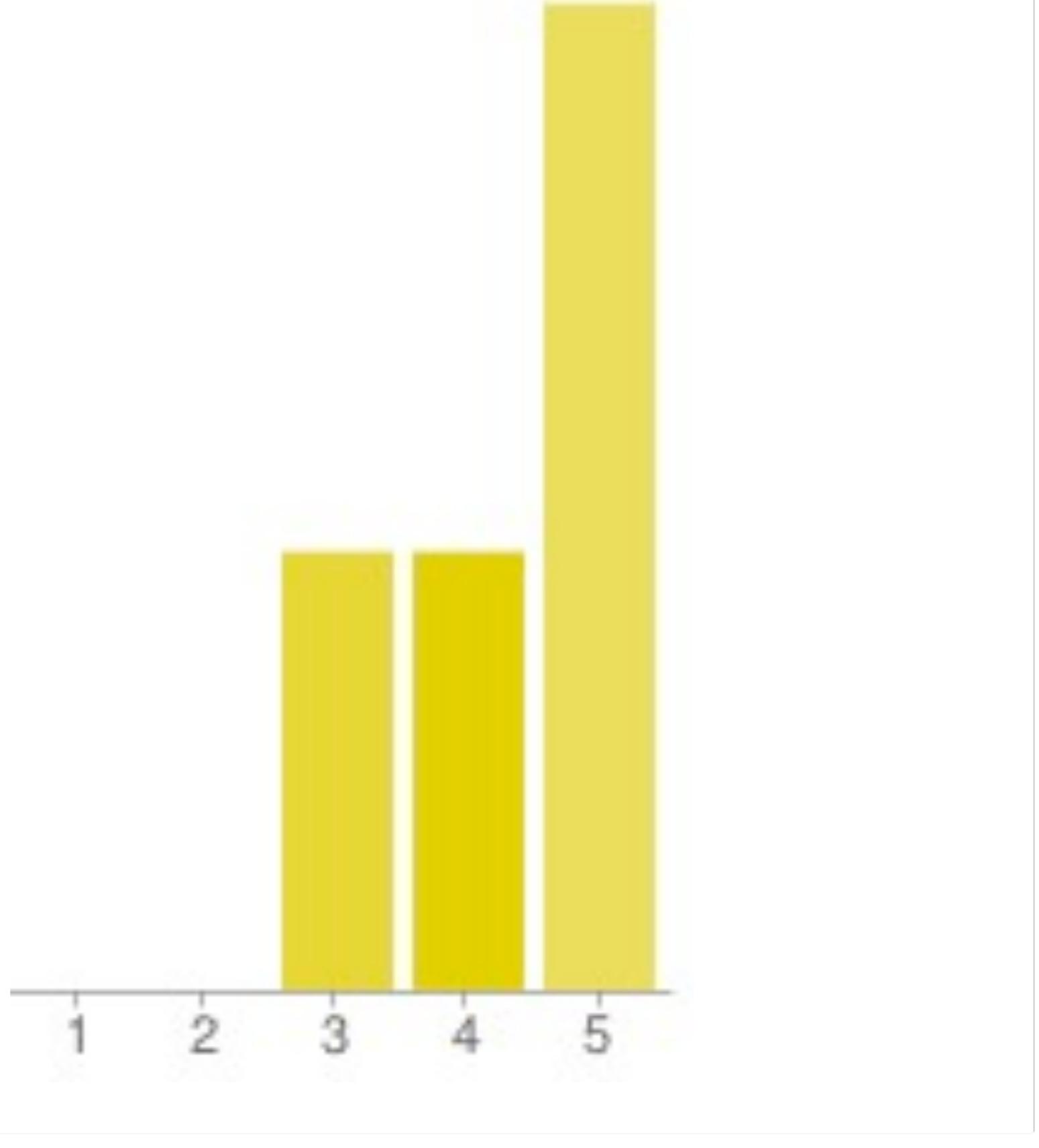
TESTING



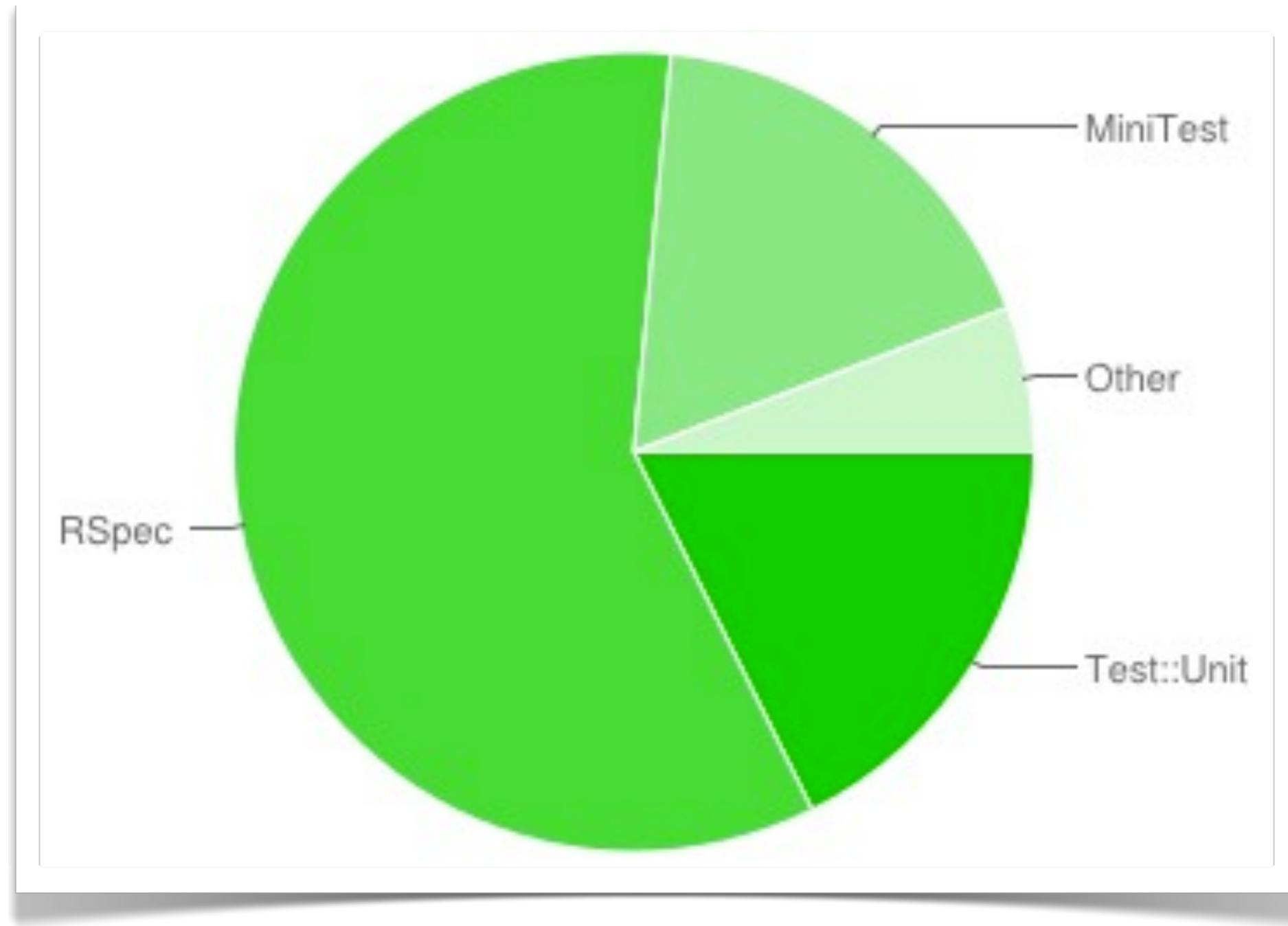
<http://knowyourmeme.com/photos/382608-birds-with-arms>

**How important are
the tests that
accompany the
sample?**

(1-Not Important. 5-Very Important)



tests are code



**What's the testing framework you would
MOST prefer to see in the sample?**

Most Important Thing

#3

INTEREST



<http://hyperboleandahalf.blogspot.com/2010/06/this-is-why-ill-never-be-adult.html>



<http://hyperboleandahalf.blogspot.com/2010/06/this-is-why-ill-never-be-adult.html>

be interesting



BE INTERESTING

<http://knowyourmeme.com/photos/22654-bearsharktopus>

The Perfect Ruby Code Sample will:

Communicate a complete thought in a simple way that showcases your understanding of Ruby techniques.
It will be well tested, well defended, and overall interesting.



<http://knowyourmeme.com/photos/22654-bearsharktopus>

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Communicate a complete thought in a simple way that showcases your understanding of Ruby techniques.
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<http://knowyourmeme.com/photos/22654-bearsharktopus>

PRESENTS PERFECT RUBY CODE SAMPLE



WITH MINIMAL CODE SAMPLES

memegenerator.net