

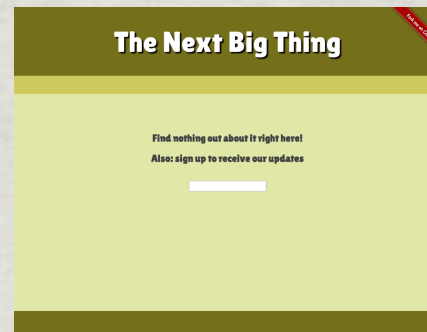
Wrangling large Ruby codebases

Stephan Hagemann

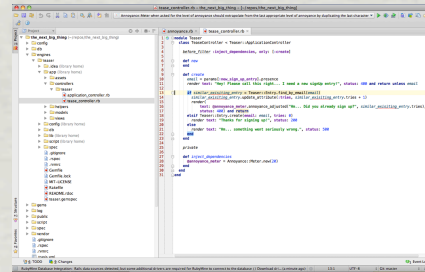
The next big Thing

github.com/shageman/the_next_big_thing

Disclaimer: nothing I
might say other people
say, they actually say.
except when I say so.



When you see this on a slide:
the-next-big-thing.herokuapp.com/



When you see this on a slide:
github.com/shageman/the-next-big-thing/

Let's talk about large apps

Never build large apps.



Sandi:
your app wants to
kill you

Wrangling stuff





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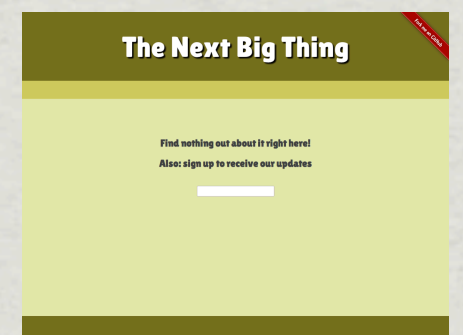
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Never build large apps.

So... I built a tiny app



Ok, ok... big apps

name	age	message	history
..			
 activity_streams	9 months ago	the websocket has been completely removed, and replaced for a stub until [maxwell]	
 acts_as_taggable_on	10 months ago	Fixed issue #2380 : No more 500 error when following an unnormalized ... [Pistos]	
 jobs	2 months ago	first working version of a 'post fetcher' for remote accounts [Raven24]	
 notifications	a year ago	Revert "change namespace from Mail to Mailers" [OhaiBBQ]	
 services	3 months ago	Merge pull request #3260 from panckreous/twitter-conf [maxwell]	
 user	3 months ago	Rails.root and File.join cleanup [stevenh512]	
 account_deleter.rb	4 months ago	kill your darlings; remove diaspora_client with fire [maxwell]	
 account_deletion.rb	7 months ago	introduce the idea of Federated::Base. this is mostly just renaming a... [maxwell]	
 app_config.rb	2 days ago	use self instead of AppConfig to query redis_url inside AppConfig [MrZYX]	
 aspect.rb	9 months ago	serialize current user json into body tag for now [Daniel Grippi]	
 aspect_membership.rb	a year ago	MS DG update copyright [danielgrippi]	
 aspect_visibility.rb	11 months ago	Introduced Shareable [manuel]	
 block.rb	11 months ago	wip [OhaiBBQ]	
 comment.rb	3 months ago	add rspec test and make fix more rails-y [fermionic]	
 contact.rb	3 months ago	Fix ActiveRecord queries with nested hashes [stevenh512]	
 conversation.rb	3 months ago	limit the amount of people in a conversation to prevent hell a spam [maxwell]	
 conversation_visibility.rb	2 years ago	PrivateMessage -> Conversation, Message. [danielgrippi]	
 invitation.rb	4 months ago	kill references to ServiceUser [denniscollective]	
 invitation_code.rb	8 days ago	strip last beta leftovers and fix syntax errors, travis is kinda down... [MrZYX]	
 like.rb	7 months ago	Refactor Relayable Creation [denniscollective]	
 mention.rb	8 months ago	move mention regex to a constant in mention [maxwell]	
 message.rb	7 months ago	introduce the idea of Federated::Base. this is mostly just renaming a... [maxwell]	
 notification.rb	4 months ago	upgrade to Rails 3.2.3 [maxwell]	
 notification_actor.rb	a year ago	MS DG update copyright [danielgrippi]	
 o_embed_cache.rb	7 months ago	Correct our general exception handling. [maxwell]	
 participation.rb	7 months ago	you can now follow / unfollow a post from the stream; fixed cukes. [danielgrippi]	
 person.rb	3 months ago	Fix ActiveRecord queries - take two [stevenh512]	
 photo.rb	5 months ago	only focus on photos for now with ratios. one thing at a time, yo. [danielgrippi]	
 pod.rb	a year ago	Removed , but not the table. Record all in httpmulti success [danielgrippi]	
 post.rb	4 months ago	show a "post is not public" message when visitor is not logged in [Raven24]	
 profile.rb	8 days ago	strip last beta leftovers and fix syntax errors, travis is kinda down... [MrZYX]	
 relayable_retraction.rb	a month ago	only delete object of relayable retraction after it has been relayed ... [fermionic]	
 request.rb	7 months ago	introduce the idea of Federated::Base. this is mostly just renaming a... [maxwell]	
 reshare.rb	4 months ago	resolve reshare root posts to the first one [Raven24]	
 retraction.rb	7 months ago	introduce the idea of Federated::Base. this is mostly just renaming a... [maxwell]	
 role.rb	8 days ago	strip last beta leftovers and fix syntax errors, travis is kinda down... [MrZYX]	
 service.rb	3 months ago	Rails.root and File.join cleanup [stevenh512]	
 share_visibility.rb	8 months ago	Don't create share_visibilities for public posts, sans migration of d... [danielgrippi]	
 signed_retraction.rb	7 months ago	introduce the idea of Federated::Base. this is mostly just renaming a... [maxwell]	
 status_message.rb	14 days ago	Erb::Util.h now escapes ' which it didn't before [MrZYX]	
 tag_following.rb	3 months ago	Fix ActiveRecord queries - take two [stevenh512]	
 user.rb	8 days ago	update devise [MrZYX]	
 user_preference.rb	a year ago	a user now has the option to disable reshare email notifications [Ilyaaaaaaaaaaaaa Zhitomirskiy]	

USER_PREFERENCE.RB LIKE.RB FEATURE_FLAGGER.RB COMMENT.RB
BLOCK.RB TAG_FOLLOWING.RB STATUS_MESSAGE.RB
SERVICE_USER.RB
OAUTH2_PROVIDER_MODELS_ACTIVERECORD_AUTHORIZATION.RB
RETRACTION.RB RESHARE.RB REQUEST.RB
OAUTH2_PROVIDER_MODELS_ACTIVERECORD_CLIENT.RB
PROFILE.RB
O_EMDED_CACHE.RB NOTIFICATION_ACTOR.RB
ACCOUNT_DELETER.RB CONTACT.RB
CONVERSATION.RB APP_CONFIG.RB ACCOUNT_DELETION.RB
PARTICIPATION.RB ASPECT.RB CONVERSATION_VISIBILITY.RB
MESSAGE.RB MENTION.RB NOTIFICATION.RB
RELAYABLE_RETRACTION.RB USER.RB PERSON.RB PHOTO.RB
ASPECT_MEMBERSHIP.RB POST.RB
ROLE.RB INVITATION.RB
INVITATION_CODE.RB SERVICE.RB SHARE_VISIBILITY.RB
SIGNED_RETRACTION.RB POD.RB ASPECT_VISIBILITY.RB



Yehuda is like:

grmpf! that's like
throwing all that on a big
pile!! Ugly



[HTTP://WWW.FLICKR.COM/PHOTOS/WIDNR/6589525327/](http://www.flickr.com/photos/widnr/6589525327/)

Structured

Comprehensible

Agile

Focused

Structured	Prevent the big pile
Comprehensible	Prevent cognitive overload
Agile	Allow for change
Focused	Allow for concentration

USER_PREFERENCE.RB LIKE.RB FEATURE_FLAGGER.RB COMMENT.RB
BLOCK.RB TAG_FOLLOWING.RB STATUS_MESSAGE.RB
SERVICE_USER.RB
OAUTH2_PROVIDER_MODELS_ACTIVERECORD_AUTHORIZATION.RB
RETRACTION.RB RESHARE.RB REQUEST.RB
OAUTH2_PROVIDER_MODELS_ACTIVERECORD_CLIENT.RB
PROFILE.RB
O_EMBED_CACHE.RB NOTIFICATION_ACTOR.RB
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ASPECT_MEMBERSHIP.RB POST.RB
ROLE.RB INVITATION.RB
INVITATION_CODE.RB SERVICE.RB SHARE_VISIBILITY.RB
SIGNED_RETRACTION.RB POD.RB ASPECT_VISIBILITY.RB

Structured	No.
Comprehensible	Hm.
Agile	Can't tell.
Focused	Doesn't seem so.

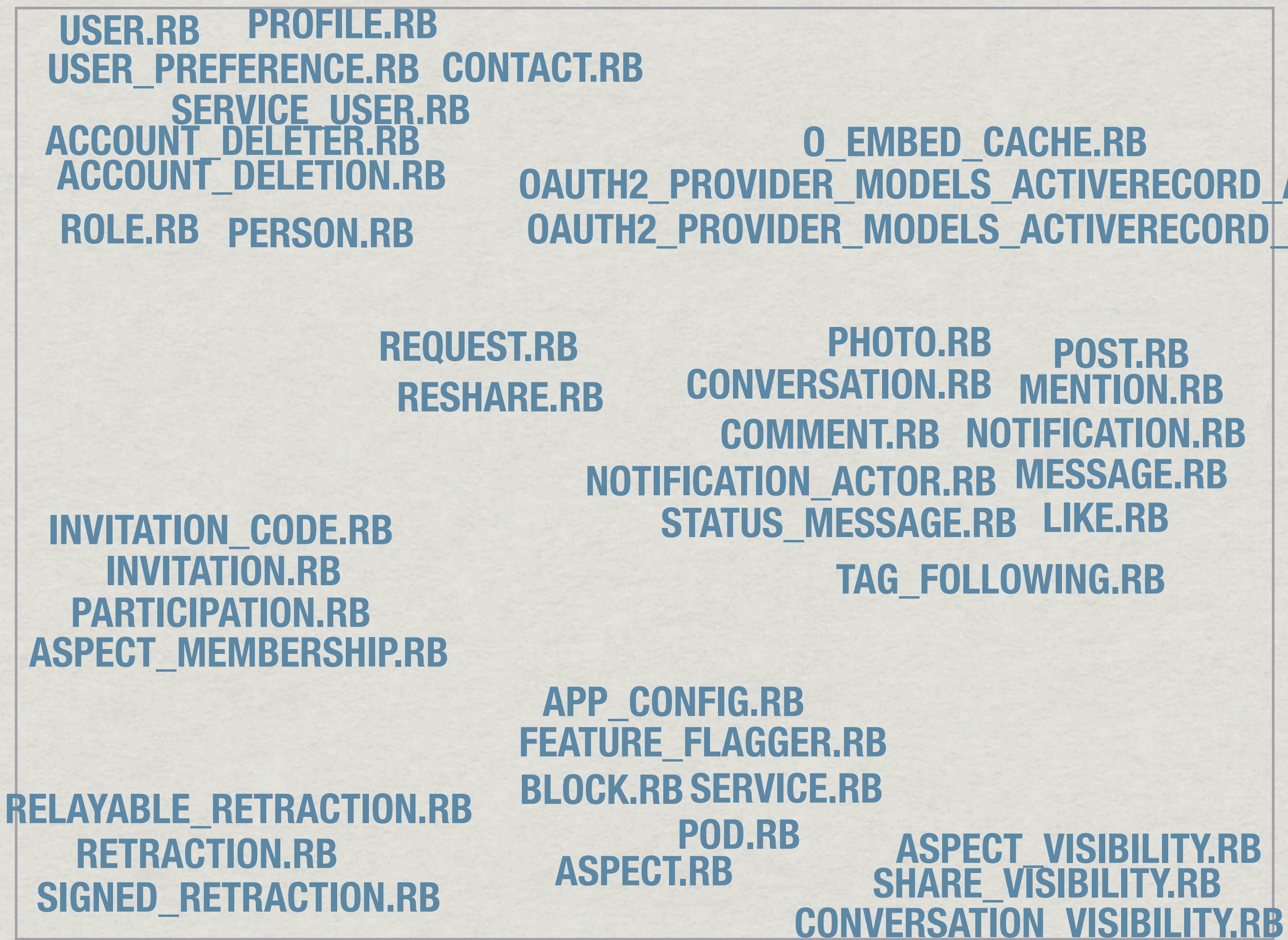


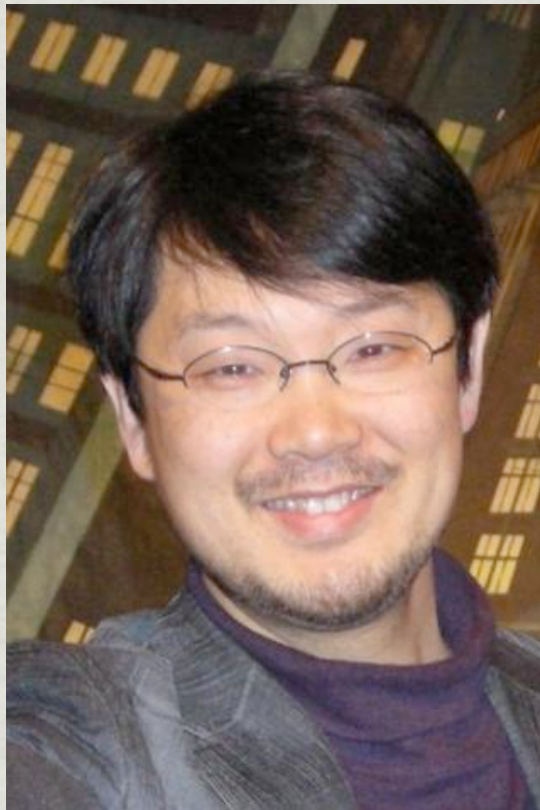
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[HTTP://WWW.FLICKR.COM/PHOTOS/CHAPSTICKADDICT/4721461500/](http://www.flickr.com/photos/chapstickaddict/4721461500/)





Matz is like:

We got namespaces:
modules!

USER.RB PROFILE.RB
USER_PREFERENCE.RB CONTACT.RB
SERVICE USER.RB
ACCOUNT_DELETER.RB
ACCOUNT_DELETION.RB
ROLE.RB PERSON.RB

O_EMBED_CACHE.RB
OAUTH2_PROVIDER_MODELS_ACTIVERECORD_A
OAUTH2_PROVIDER_MODELS_ACTIVERECORD_C

REQUEST.RB
INVITATION_CODE.RB
INVITATION.RB
PARTICIPATION.RB
ASPECT_MEMBERSHIP.RB

PHOTO.RB POST.RB
CONVERSATION.RB MENTION.RB
COMMENT.RB NOTIFICATION.RB
NOTIFICATION_ACTOR.RB MESSAGE.RB
STATUS_MESSAGE.RB LIKE.RB
RESHARE.RB TAG_FOLLOWING.RB

APP_CONFIG.RB
FEATURE_FLAGGER.RB
BLOCK.RB SERVICE.RB
POD.RB
ASPECT.RB

ASPECT_VISIBILITY.RB
SHARE_VISIBILITY.RB
CONVERSATION_VISIBILITY.RB

RELAYABLE_RETRACTION.RB
RETRACTION.RB
SIGNED_RETRACTION.RB

User

OAuth

Interaction

Memberships

Don't know

Retraction

Visibility

Structured	One more level at least!
Comprehensible	Modules might make sense
Agile	No change
Focused	Can't prove it



[HTTP://WWW.FLICKR.COM/PHOTOS/BRENDA-STARR/3466702375/](http://www.flickr.com/photos/brenda-starr/3466702375/)



Carl is like:

Gems!!



Ben is like:

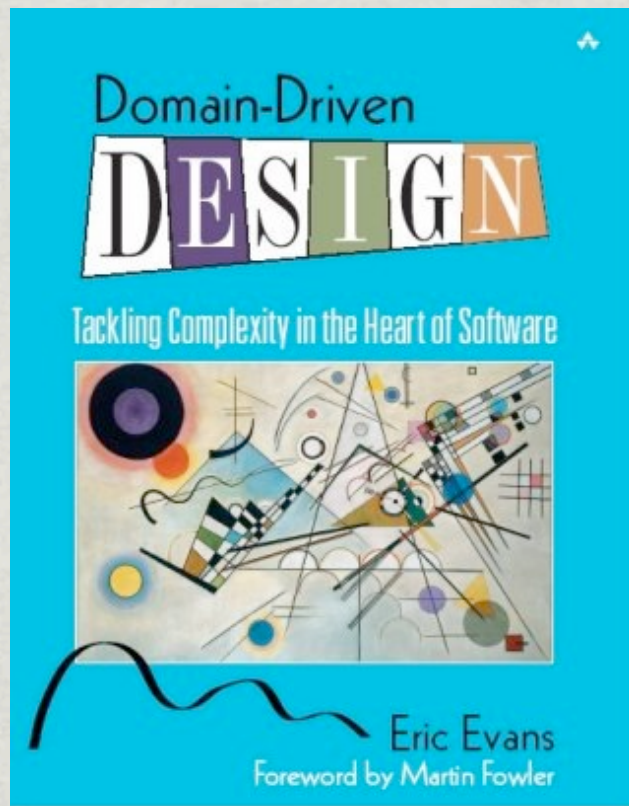
Depend upon
abstractions!



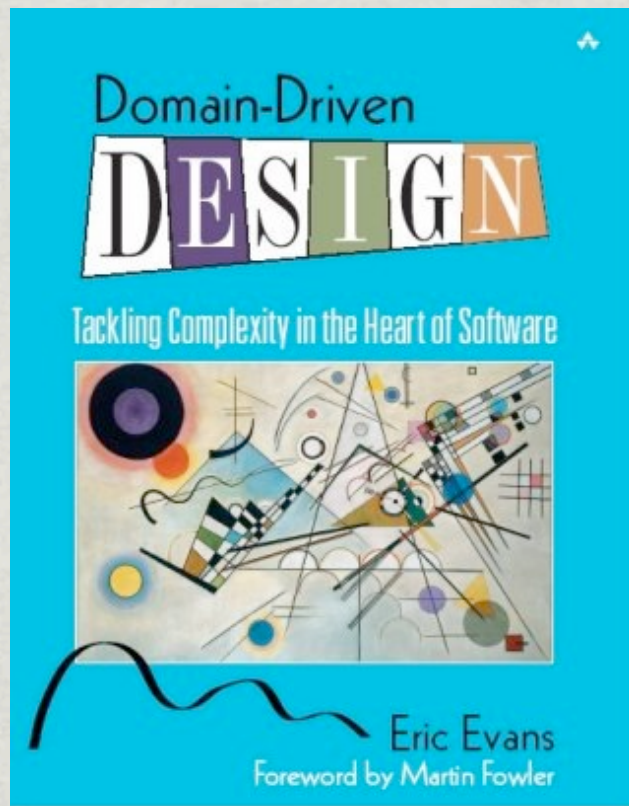
I am like:

Yes, but don't put
PaymentGateway in lib,
put it in a gem!

Gems bring their own
specs with them!



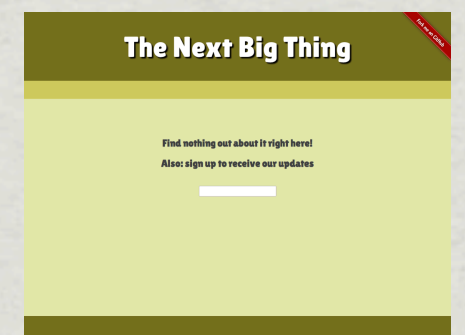
Choose modules that
**tell the story of the
system** and contain a
cohesive set of concepts
-- Eric Evans



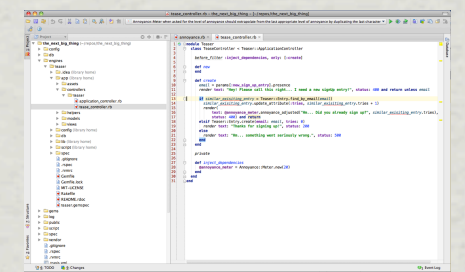
Choose **that**
tell the story of the
system and contain a
cohesive set of concepts
-- Eric Evans

higher cohesion inside
looser coupling outside

The annoyance problem



The annoyance gem



Structured	Yes!
Comprehensible	The gem is only dealing with its stuff
Agile	git submodule? separate repo? hm.
Focused	Yes! And you can prove it!



You guys are like:

Git submodules
suck!!

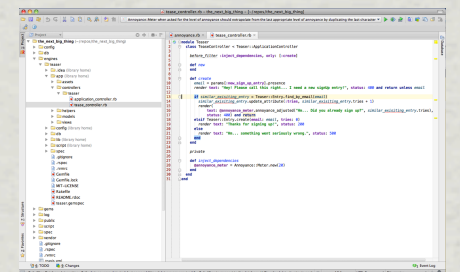


I am like:

Yep.

Use unbuilt gems!

Gemfiles require by path



Explicit dependencies!

Structured	Yes!
Comprehensible	Yes!
Agile	Yes!
Focused	Yes!

Rails Travel Site

```
graph TD; A[Rails Travel Site] --> B[Availability and Booking]; A --> C[Payment Gateway]; A --> D[Conversion Tracking];
```

Availability
and
Booking

Payment
Gateway

Conversion
Tracking

Current Pivotal project

But wait...



DHH is like:

What about Rails?

Structured	Yes!
Comprehensible	Yes!
Agile	Yes!
Focused	Yes!
Rails?	hm.



José is like:

I got this. Engines!

Engines are not just for
pagination, generic
admin, and authentication

Engines are not just
kaminari, generic admin,
and authentication

Engines are not just
kaminari, **active admin**,
and authentication

Engines are not just
kaminari, active admin,
and **devise**

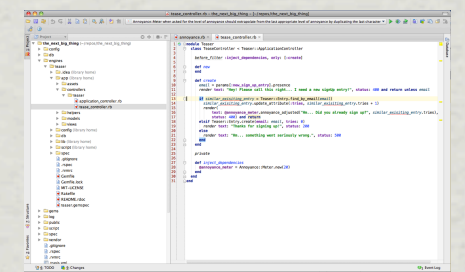
Rails::Engine allows you to wrap a specific Rails application or subset of functionality and **share it with other applications.**

-- <http://api.rubyonrails.org/>

Rails::Engine allows you to wrap a specific Rails application or subset of functionality and **share it with yourself.**

-- Me

Engines are easy

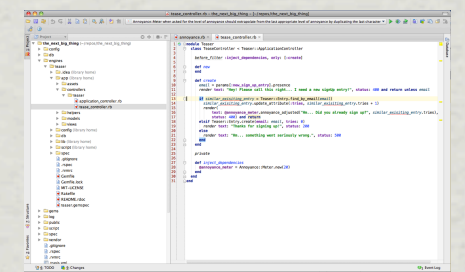


Structured	Yes!
Comprehensible	Yes!
Agile	Yes!
Focused	Yes!
Rails?	Yes!

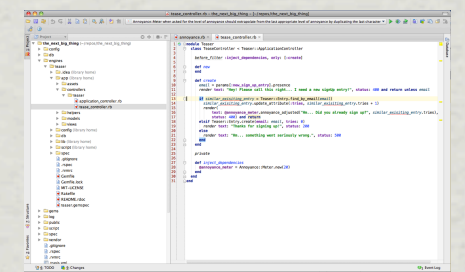
Details

Engines are not magical!

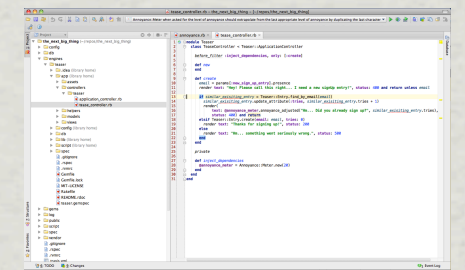
Mounting



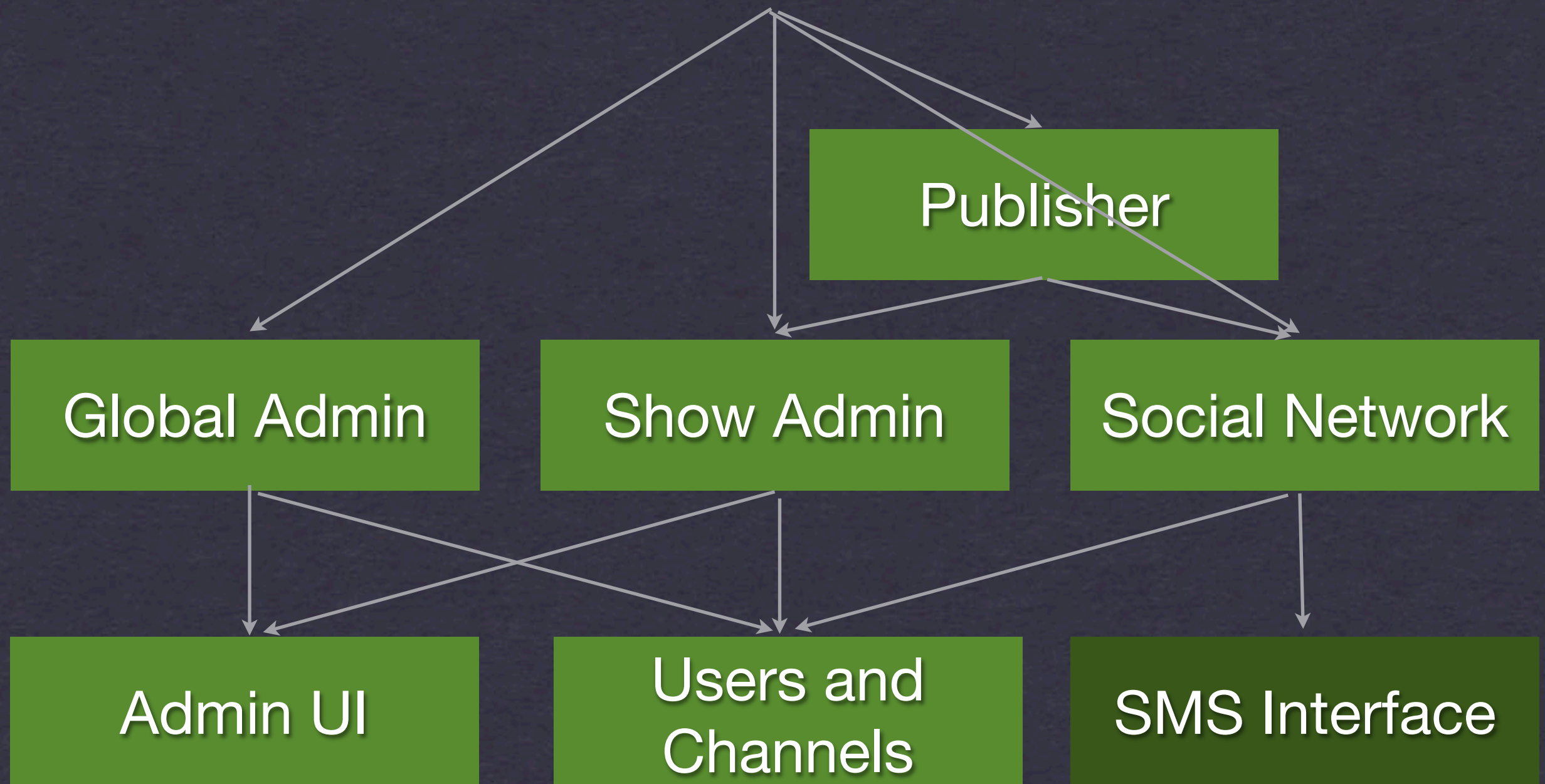
Assets



Migrations



Rails TV Shows with Social Network



Current Pivotal Project

Both gems and engines
are just



If you do them right,
they tell the story of
your app

Do one thing

All
gems
start with a namespace

No
Rails app
starts with a namespace

Rails



Gems

Try this!

Namespace everything
in your next Rails app

Give yourself a box so
you can start thinking
outside of it

Thanks!

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[@shageman](#)

github.com/shageman

pivotalabs.com/users/shagemann/blog

“The secret to building large apps is never build large apps. Break your application into small pieces. Then, assemble those testable, bite-sized pieces into your big application”

-- Justin Meyer, JavascriptMVC