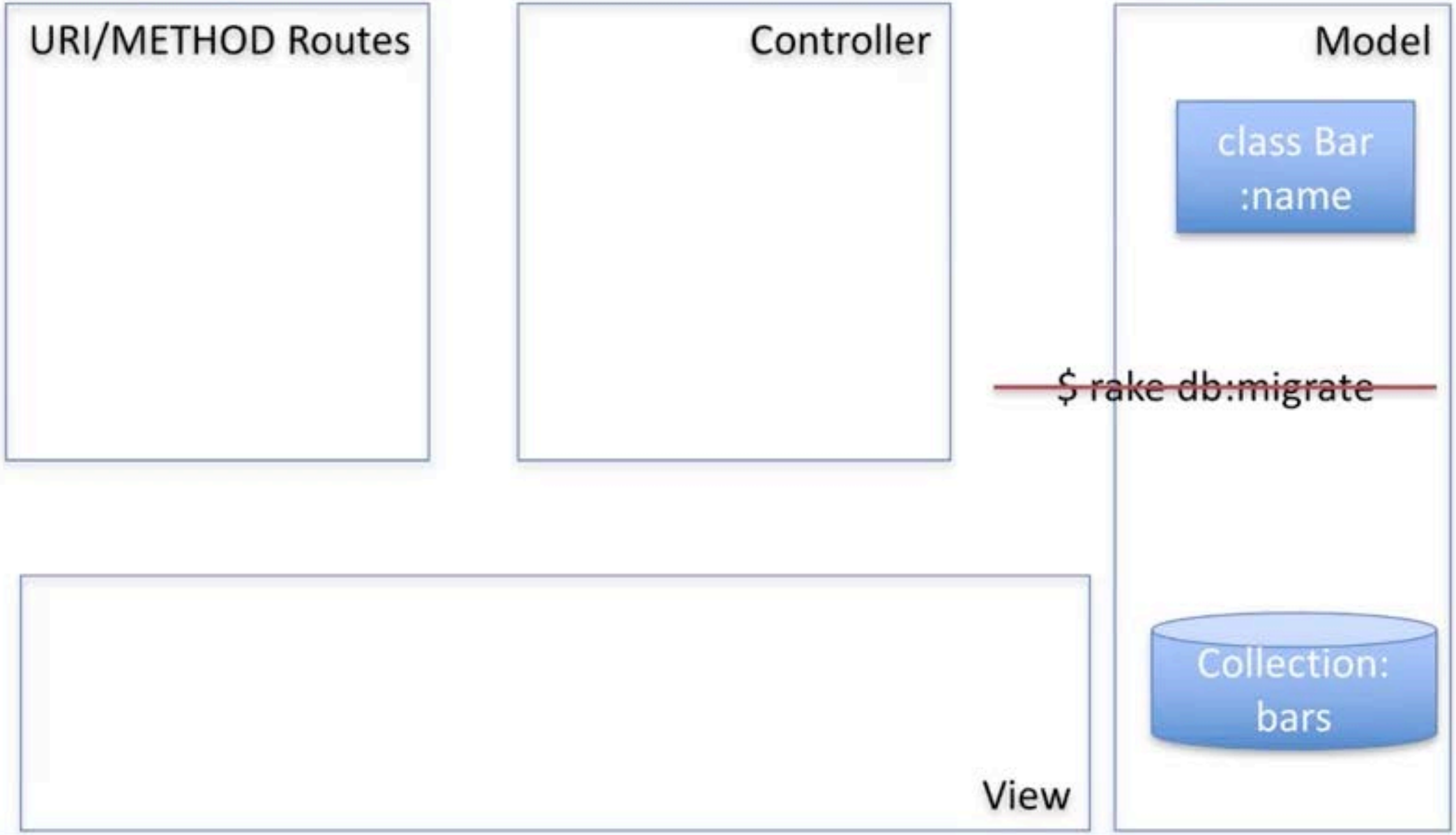
MongoDB-backed Resource
Capstone: Photo Tourist Web Application
JOHNS HOPKINS
WHITING SCHOOL

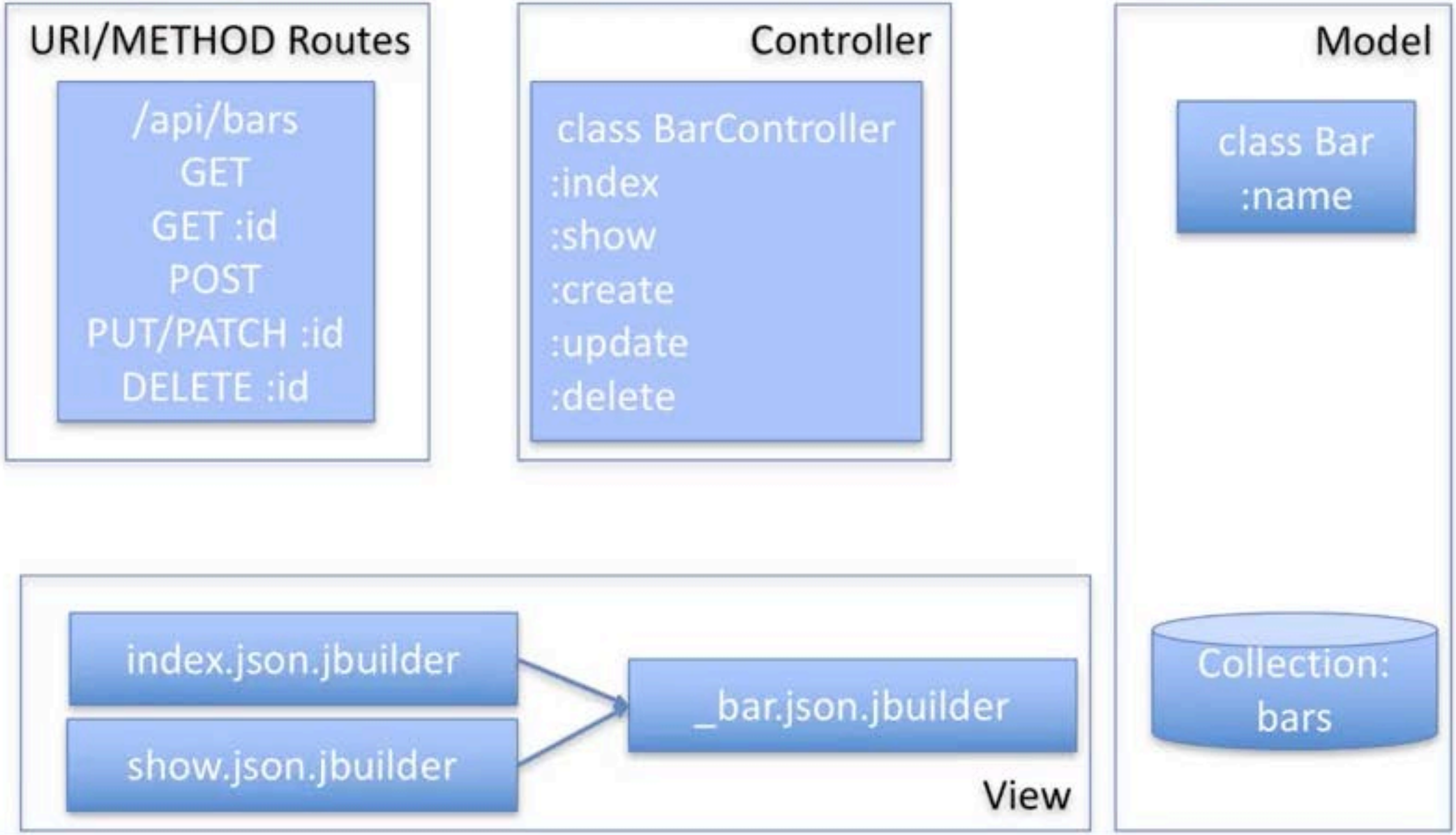
In this lecture, we will discuss…

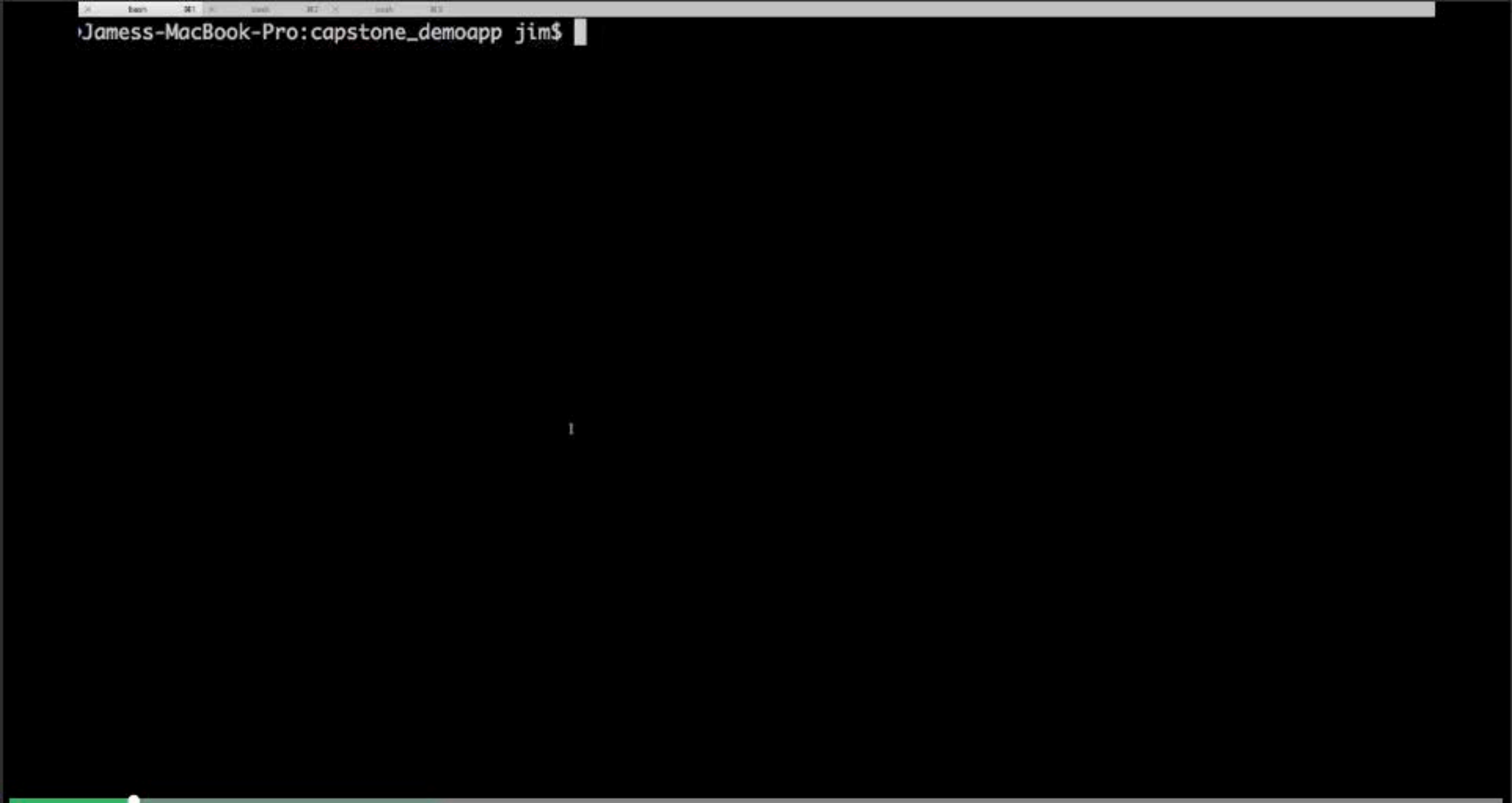
- ✧ Adding Mongoid support to application
- ✧ rails-api g scaffold for Mongoid ORM
- ✧ Adjust JSON ID marshalling

rails-api g scaffold Bar name –orm mongoid



rails-api g scaffold Bar name –orm mongoid




Jamess-MacBook-Pro:capstone_demoapp jim$

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
```

```
        NameError:
          uninitialized constant Bar
        # ./spec/requests/api_developments_spec.rb:28:in `block (3 levels) in <top (required)>'

  2) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Got 0 failures and 2 other errors:

     2.1) Failure/Error: before(:each) { Bar.delete_all }

          NameError:
            uninitialized constant Bar
          # ./spec/requests/api_developments_spec.rb:27:in `block (3 levels) in <top (required)>'

     2.2) Failure/Error: after(:each)  { Bar.delete_all }

          NameError:
            uninitialized constant Bar
          # ./spec/requests/api_developments_spec.rb:28:in `block (3 levels) in <top (required)>'

Finished in 0.0027 seconds (files took 1.4 seconds to load)
2 examples, 2 failures

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:30 # ApiDevelopments MongoDB-backed create MongoDB-backed model
rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ rails g scaffold Bar name --orm mongoid
Running via Spring preloader in process 3494
Expected string default value for '--jbuilder'; got true (boolean)
Expected boolean default value for '--resource-route'; got :api_resource_route (string)
       error  mongoid [not found]
      invoke  api_resource_route
       route    resources :bars, except: [:new, :edit]
      invoke  scaffold_controller
      create    app/controllers/bars_controller.rb
      invoke    rspec
      create      spec/controllers/bars_controller_spec.rb
      create      spec/routing/bars_routing_spec.rb
      invoke      rspec
      create        spec/requests/bars_spec.rb
      invoke    jbuilder
      create      app/views/bars/index.json.jbuilder
      create      app/views/bars/show.json.jbuilder
      create      app/views/bars/_bar.json.jbuilder
›Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
      invoke  scaffold_controller
      create    app/controllers/bars_controller.rb
      invoke    rspec
      create      spec/controllers/bars_controller_spec.rb
      create      spec/routing/bars_routing_spec.rb
      invoke      rspec
      create        spec/requests/bars_spec.rb
      invoke    jbuilder
      create      app/views/bars/index.json.jbuilder
      create      app/views/bars/show.json.jbuilder
      create      app/views/bars/_bar.json.jbuilder
›Jamess-MacBook-Pro:capstone_demoapp jim$ rails d scaffold Bar name --orm mongoid
Running via Spring preloader in process 3520
Expected string default value for '--jbuilder'; got true (boolean)
Expected boolean default value for '--resource-route'; got :api_resource_route (string)
       error  mongoid [not found]
      invoke  api_resource_route
       route    resources :bars, except: [:new, :edit]
      invoke  scaffold_controller
      remove    app/controllers/bars_controller.rb
      invoke    rspec
      remove      spec/controllers/bars_controller_spec.rb
      remove      spec/routing/bars_routing_spec.rb
      invoke      rspec
      remove        spec/requests/bars_spec.rb
      invoke    jbuilder
      remove      app/views/bars/index.json.jbuilder
      remove      app/views/bars/show.json.jbuilder
      remove      app/views/bars/_bar.json.jbuilder
```

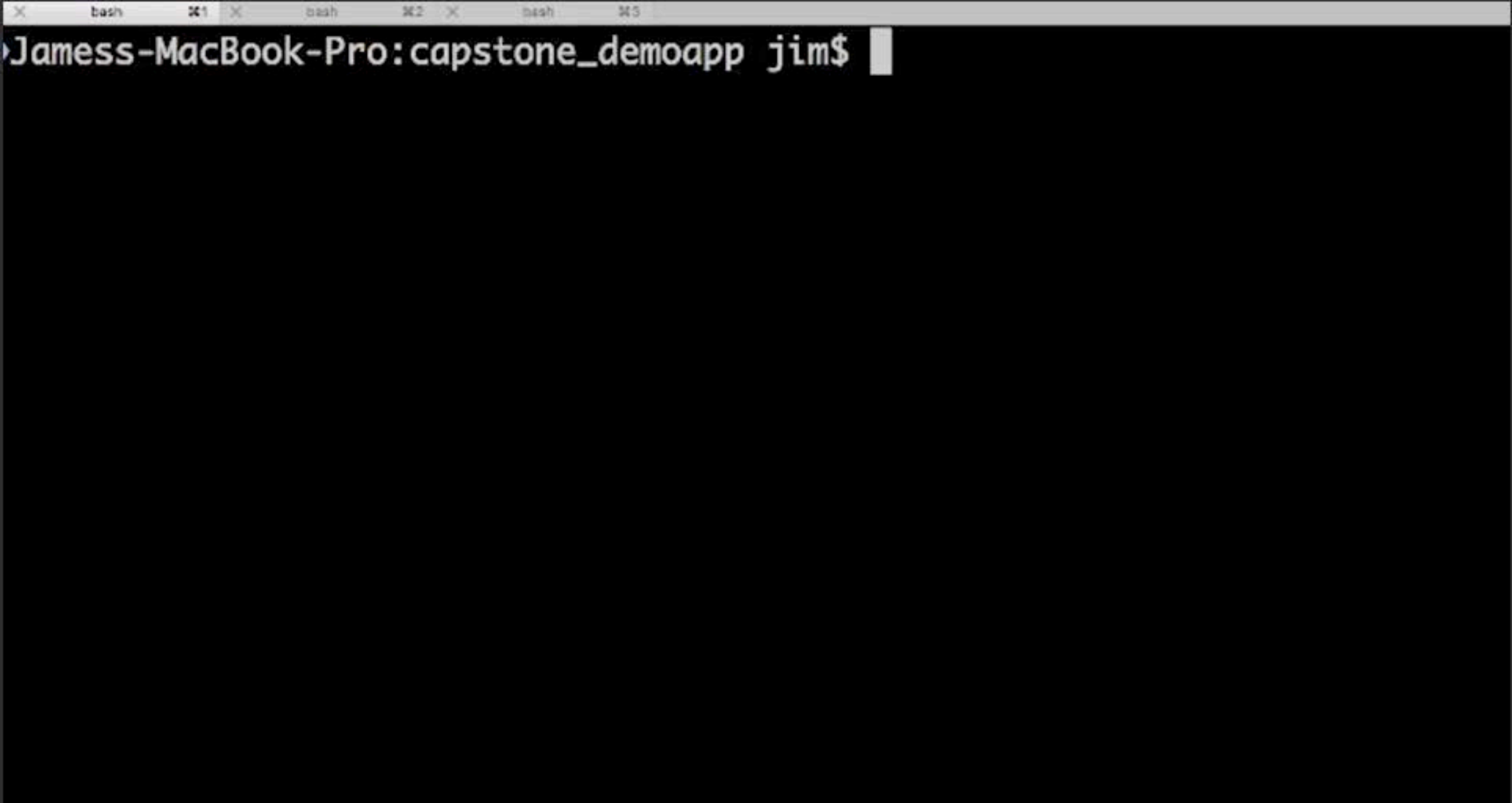
```ruby
Rails.application.routes.draw do
  scope :api, defaults: {format: :json}  do
    resources :foos, except: [:new, :edit]
  end
end
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ vi Gemfile
```

```
#
source 'https://rubygems.org'

gem 'rails', '4.2.6'
gem 'rails-api', '~>0.4', '>=0.4.0'

gem 'jbuilder', '~> 2.0', '>=2.6.0'

group :development do
  gem 'spring', '~>2.0', '>=2.0.0'
end

group :development, :test do
  gem 'tzinfo-data', :platforms=>[:mingw, :mswin, :x64_mingw, :jruby]

  gem 'rspec-rails', '~> 3.5', '>=3.5.2'
end

gem 'pg', '~>0.19', '>=0.19.0'
```

```
#
source 'https://rubygems.org'

gem 'rails', '4.2.6'
gem 'rails-api', '~>0.4', '>=0.4.0'

gem 'jbuilder', '~> 2.0', '>=2.6.0'

group :development do
  gem 'spring', '~>2.0', '>=2.0.0'
end

group :development, :test do
  gem 'tzinfo-data', :platforms=>[:mingw, :mswin, :x64_mingw, :jruby]

  gem 'rspec-rails', '~> 3.5', '>=3.5.2'
end

gem 'pg', '~>0.19', '>=0.19.0'
gem 'mongoid', '~>5.1', '>=5.1.5'
~
~
~
~
~
~
~
~
~
~
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi Gemfile
Jamess-MacBook-Pro:capstone_demoapp jim$ bundle
```


bash ⌘1
bash ⌘2
bash ⌘3
Jamess-MacBook-Pro:capstone_demoapp jim$

```
Using mime-types 3.1
Using mongo 2.3.1
Using sprockets 3.7.0
Using rspec-core 3.5.4
Using rspec-expectations 3.5.0
Using rspec-mocks 3.5.0
Using activesupport 4.2.6
Using loofah 2.0.3
Using mail 2.6.4
Using rails-deprecated_sanitizer 1.0.3
Using globalid 0.3.7
Using activemodel 4.2.6
Using jbuilder 2.6.0
Using spring 2.0.0
Using rails-html-sanitizer 1.0.3
Using rails-dom-testing 1.0.7
Using activejob 4.2.6
Using activerecord 4.2.6
Using mongoid 5.1.5
Using actionview 4.2.6
Using actionpack 4.2.6
Using actionmailer 4.2.6
Using railties 4.2.6
Using sprockets-rails 3.2.0
Using rails-api 0.4.0
Using rspec-rails 3.5.2
Using rails 4.2.6
Bundle complete! 8 Gemfile dependencies, 50 gems now installed.
Use `bundle show [gemname]` to see where a bundled gem is installed.
```

bash ⌘1
bash ⌘2
bash ⌘3
Jamess-MacBook-Pro:capstone_demoapp jim$ rails g mongoid:config
Running via Spring preloader in process 3615
Expected string default value for '--jbuilder'; got true (boolean)
create config/mongoid.yml
Jamess-MacBook-Pro:capstone_demoapp jim$

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi config/mongoid.yml
```

```yaml
development:
  clients:
    default:
      database: myapp_development
      hosts:
        - localhost:27017
      options:
  options:
test:
  clients:
    default:
      database: myapp_test
      hosts:
        - localhost:27017
      options:
        read:
          mode: :primary
        max_pool_size: 1
```

```
development:
  clients:
    default:
      database: myapp_development
      hosts:
        - <%= ENV['MONGO_HOST'] ||= "localhost:27017" %>
      options:
  options:
test:
  clients:
    default:
      database: myapp_test
      hosts:
        - localhost:27017
      options:
        read:
          mode: :primary
        max_pool_size: 1
```

```yaml
development:
  clients:
    default:
      database: myapp_development
      hosts:
        - <%= ENV['MONGO_HOST'] ||= "localhost:27017" %>
      options:
  options:
test:
  clients:
    default:
      database: myapp_test
      hosts:
        - <%= ENV['MONGO_HOST'] ||= "localhost:27017" %>
      options:
        read:
          mode: :primary
        max_pool_size: 1
```

```yaml
development:
  clients:
    default:
      database: myapp_development
      hosts:
        - <%= ENV['MONGO_HOST'] ||= "localhost:27017" %>
      options:
  options:
test:
  clients:
    default:
      database: myapp_test
      hosts:
        - <%= ENV['MONGO_HOST'] ||= "localhost:27017" %>
      options:
        read:
          mode: :primary
        max_pool_size: 1
production:
  clients:
    default:
      uri: <%= ENV['MLAB_URI'] %>
      options:
        connect_timeout: 15
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi config/application.rb
```

```
require File.expand_path('../boot', __FILE__)

require "rails"
# Pick the frameworks you want:
require "active_model/railtie"
require "active_job/railtie"
require "active_record/railtie"
require "action_controller/railtie"
require "action_mailer/railtie"
require "action_view/railtie"
require "sprockets/railtie"
# require "rails/test_unit/railtie"

# Require the gems listed in Gemfile, including any gems
# you've limited to :test, :development, or :production.
Bundler.require(*Rails.groups)

module Myapp
  class Application < Rails::Application
    # Settings in config/environments/* take precedence over those specified here.
    # Application configuration should go into files in config/initializers
    # -- all .rb files in that directory are automatically loaded.

    # Set Time.zone default to the specified zone and make Active Record auto-convert to this zone.
    # Run "rake -D time" for a list of tasks for finding time zone names. Default is UTC.
    # config.time_zone = 'Central Time (US & Canada)'

    # The default locale is :en and all translations from config/locales/*.rb,yml are auto loaded.
    # config.i18n.load_path += Dir[Rails.root.join('my', 'locales', '*.{rb,yml}').to_s]
```

```
 7 require "active_record/railtie"
 8 require "action_controller/railtie"
 9 require "action_mailer/railtie"
10 require "action_view/railtie"
11 require "sprockets/railtie"
12 # require "rails/test_unit/railtie"
13
14 # Require the gems listed in Gemfile, including any gems
15 # you've limited to :test, :development, or :production.
16 Bundler.require(*Rails.groups)
17
18 module Myapp
19   class Application < Rails::Application
20     # Settings in config/environments/* take precedence over those specified here.
21     # Application configuration should go into files in config/initializers
22     # -- all .rb files in that directory are automatically loaded.
23
24     # Set Time.zone default to the specified zone and make Active Record auto-convert to this zone.
25     # Run "rake -D time" for a list of tasks for finding time zone names. Default is UTC.
26     # config.time_zone = 'Central Time (US & Canada)'
27
28     # The default locale is :en and all translations from config/locales/*.rb,yml are auto loaded.
29     # config.i18n.load_path += Dir[Rails.root.join('my', 'locales', '*.{rb,yml}').to_s]
30     # config.i18n.default_locale = :de
31
32     Mongoid.load!('./config/mongoid.yml')
33
34     # Do not swallow errors in after_commit/after_rollback callbacks.
35     config.active_record.raise_in_transactional_callbacks = true
```

```
12 # require "rails/test_unit/railtie"
13
14 # Require the gems listed in Gemfile, including any gems
15 # you've limited to :test, :development, or :production.
16 Bundler.require(*Rails.groups)
17
18 module Myapp
19   class Application < Rails::Application
20     # Settings in config/environments/* take precedence over those specified here.
21     # Application configuration should go into files in config/initializers
22     # -- all .rb files in that directory are automatically loaded.
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24     # Set Time.zone default to the specified zone and make Active Record auto-convert to this zone.
25     # Run "rake -D time" for a list of tasks for finding time zone names. Default is UTC.
26     # config.time_zone = 'Central Time (US & Canada)'
27
28     # The default locale is :en and all translations from config/locales/*.rb,yml are auto loaded.
29     # config.i18n.load_path += Dir[Rails.root.join('my', 'locales', '*.{rb,yml}').to_s]
30     # config.i18n.default_locale = :de
31
32     Mongoid.load!('./config/mongoid.yml')
33     #which default ORM are we using with scaffold
34     #add  --orm mongoid, or active_record
35     #    to rails generate cmd line to be specific
36     #config.generators {|g| g.orm :active_record}
37     config.generators {|g| g.orm :mongoid}
38
39     # Do not swallow errors in after_commit/after_rollback callbacks.
40     config.active_record.raise_in_transactional_callbacks = true
```

```
12 # require "rails/test_unit/railtie"
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14 # Require the gems listed in Gemfile, including any gems
15 # you've limited to :test, :development, or :production.
16 Bundler.require(*Rails.groups)
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18 module Myapp
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20     # Settings in config/environments/* take precedence over those specified here.
21     # Application configuration should go into files in config/initializers
22     # -- all .rb files in that directory are automatically loaded.
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24     # Set Time.zone default to the specified zone and make Active Record auto-convert to this zone.
25     # Run "rake -D time" for a list of tasks for finding time zone names. Default is UTC.
26     # config.time_zone = 'Central Time (US & Canada)'
27
28     # The default locale is :en and all translations from config/locales/*.rb,yml are auto loaded.
29     # config.i18n.load_path += Dir[Rails.root.join('my', 'locales', '*.{rb,yml}').to_s]
30     # config.i18n.default_locale = :de
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32     Mongoid.load!('./config/mongoid.yml')
33     #which default ORM are we using with scaffold
34     #add  --orm mongoid, or active_record
35     #    to rails generate cmd line to be specific
36     config.generators {|g| g.orm :active_record}
37     #config.generators {|g| g.orm :mongoid}
38
39     # Do not swallow errors in after_commit/after_rollback callbacks.
40     config.active_record.raise_in_transactional_callbacks = true
```

```
14 # Require the gems listed in Gemfile, including any gems
15 # you've limited to :test, :development, or :production.
16 Bundler.require(*Rails.groups)
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36     config.generators {|g| g.orm :active_record}
37     #config.generators {|g| g.orm :mongoid}
38
39     # Do not swallow errors in after_commit/after_rollback callbacks.
40     config.active_record.raise_in_transactional_callbacks = true
41   end
42 end
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   Gemfile
        modified:   Gemfile.lock
        modified:   config/application.rb

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        config/mongoid.yml

no changes added to commit (use "git add" and/or "git commit -a")
Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   Gemfile
        modified:   Gemfile.lock
        modified:   config/application.rb

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        config/mongoid.yml

no changes added to commit (use "git add" and/or "git commit -a")
Jamess-MacBook-Pro:capstone_demoapp jim$ git commit -am "added mongoid"
[master c69e465] added mongoid
 3 files changed, 18 insertions(+)
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rails g scaffold Bar name --orm mongoid --no-request-specs --no-routing
-specs --no-controller-specs
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ rails g scaffold Bar name --orm mongoid --no-request-specs --no-routing
-specs --no-controller-specs
Running via Spring preloader in process 3987
Expected string default value for '--jbuilder'; got true (boolean)
Expected boolean default value for '--resource-route'; got :api_resource_route (string)
      invoke  mongoid
      create    app/models/bar.rb
      invoke    rspec
      create      spec/models/bar_spec.rb
      invoke  api_resource_route
       route    resources :bars, except: [:new, :edit]
      invoke  scaffold_controller
      create    app/controllers/bars_controller.rb
      invoke    rspec
      invoke      rspec
      invoke    jbuilder
      create      app/views/bars/index.json.jbuilder
      create      app/views/bars/show.json.jbuilder
      create      app/views/bars/_bar.json.jbuilder
›Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rails g scaffold Bar name --orm mongoid --no-request-specs --no-routing
-specs --no-controller-specs
Running via Spring preloader in process 3987
Expected string default value for '--jbuilder'; got true (boolean)
Expected boolean default value for '--resource-route'; got :api_resource_route (string)
      invoke  mongoid
      create    app/models/bar.rb
      invoke    rspec
      create      spec/models/bar_spec.rb
      invoke  api_resource_route
       route    resources :bars, except: [:new, :edit]
      invoke  scaffold_controller
      create    app/controllers/bars_controller.rb
      invoke    rspec
      invoke      rspec
      invoke    jbuilder
      create      app/views/bars/index.json.jbuilder
      create      app/views/bars/show.json.jbuilder
      create      app/views/bars/_bar.json.jbuilder
Jamess-MacBook-Pro:capstone_demoapp jim$ rm spec/models/bar_spec.rb
Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB -fd
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB -fd
Run options: include {:full_description=>/MongoDB/}

ApiDevelopments
  MongoDB-backed
    create MongoDB-backed model
    expose MongoDB-backed API resource (FAILED - 1)

Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: expect(bars_path).to eq("/api/bars")

       expected: "/api/bars"
            got: "/bars"

       (compared using ==)
     # ./spec/requests/api_developments_spec.rb:37:in `block (3 levels) in <top (required)>'

Finished in 0.02912 seconds (files took 1.69 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB -fd
Run options: include {:full_description=>/MongoDB/}

ApiDevelopments
  MongoDB-backed
    create MongoDB-backed model
    expose MongoDB-backed API resource (FAILED - 1)

Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: expect(bars_path).to eq("/api/bars")

       expected: "/api/bars"
            got: "/bars"

       (compared using ==)
     # ./spec/requests/api_developments_spec.rb:37:in `block (3 levels) in <top (required)>'

Finished in 0.02912 seconds (files took 1.69 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi config/routes.rb
```

```ruby
Rails.application.routes.draw do
  resources :bars, except: [:new, :edit]
  scope :api, defaults: {format: :json}  do
    resources :foos, except: [:new, :edit]
  end
end
```

```ruby
Rails.application.routes.draw do
  scope :api, defaults: {format: :json}  do
    resources :foos, except: [:new, :edit]
    resources :bars, except: [:new, :edit]
  end
end
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
Run options: include {:full_description=>/MongoDB/}
..

Finished in 0.03854 seconds (files took 1.71 seconds to load)
2 examples, 0 failures

›Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/views/bars/_bar.json.jbuilder
```

```
1 json.extract! bar, :id, :name, :created_at, :updated_at
2 json.url bar_url(bar, format: :json)
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/views/bars/_bar.json.jbuilder
Jamess-MacBook-Pro:capstone_demoapp jim$ vi spec/requests/api_developments_spec.rb
```

```ruby

RSpec.describe "ApiDevelopments", type: :request do
  def parsed_body
    JSON.parse(response.body)
  end

  describe "RDBMS-backed" do
    before(:each) { Foo.delete_all }
    after(:each)  { Foo.delete_all }

    it "create RDBMS-backed model" do
      object=Foo.create(:name=>"test")
      expect(Foo.find(object.id).name).to eq("test")
    end

    it "expose RDBMS-backed API resource" do
      object=Foo.create(:name=>"test")
      expect(foos_path).to eq("/api/foos")
      get foo_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
    end
  end

  describe "MongoDB-backed" do
    before(:each) { Bar.delete_all }
    after(:each)  { Bar.delete_all }

    it "create MongoDB-backed model" do
```

```
15      end
16
17      it "expose RDBMS-backed API resource" do
18        object=Foo.create(:name=>"test")
19        expect(foos_path).to eq("/api/foos")
20        get foo_path(object.id)
21        expect(response).to have_http_status(:ok)
22        expect(parsed_body["name"]).to eq("test")
23      end
24    end
25
26    describe "MongoDB-backed" do
27      before(:each) { Bar.delete_all }
28      after(:each)  { Bar.delete_all }
29
30      it "create MongoDB-backed model" do
31        object=Bar.create(:name=>"test")
32        expect(Bar.find(object.id).name).to eq("test")
33      end
34
35      it "expose MongoDB-backed API resource" do
36        object=Bar.create(:name=>"test")
37        expect(bars_path).to eq("/api/bars")
38        get bar_path(object.id)
39        expect(response).to have_http_status(:ok)
40        expect(parsed_body["name"]).to eq("test")
41        expect(parsed_body["name"]).to eq("test")
42      end
43    end
```

```ruby
    end

    it "expose RDBMS-backed API resource" do
      object=Foo.create(:name=>"test")
      expect(foos_path).to eq("/api/foos")
      get foo_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
    end
  end

  describe "MongoDB-backed" do
    before(:each) { Bar.delete_all }
    after(:each)  { Bar.delete_all }

    it "create MongoDB-backed model" do
      object=Bar.create(:name=>"test")
      expect(Bar.find(object.id).name).to eq("test")
    end

    it "expose MongoDB-backed API resource" do
      object=Bar.create(:name=>"test")
      expect(bars_path).to eq("/api/bars")
      get bar_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
      expect(parsed_body).to include("created_at")
    end
  end
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/views/bars/_bar.json.jbuilder
Jamess-MacBook-Pro:capstone_demoapp jim$ vi spec/requests/api_developments_spec.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/views/bars/_bar.json.jbuilder
Jamess-MacBook-Pro:capstone_demoapp jim$ vi spec/requests/api_developments_spec.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/views/bars/_bar.json.jbuilder
Jamess-MacBook-Pro:capstone_demoapp jim$ vi spec/requests/api_developments_spec.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
Run options: include {:full_description=>/MongoDB/}
.F

Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: expect(parsed_body).to include("created_at")

       expected {"_id" => {"$oid" => "5841dd8a8a68181579b415ec"}, "name" => "test"} to include "created_at"
       Diff:
       @@ -1,2 +1,3 @@
       -["created_at"]
       +"_id" => {"$oid"=>"5841dd8a8a68181579b415ec"},
       +"name" => "test",

     # ./spec/requests/api_developments_spec.rb:41:in `block (3 levels) in <top (required)>'

Finished in 0.06045 seconds (files took 1.72 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource

Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/controllers/bars_controller.rb
```

```ruby
class BarsController < ApplicationController
  before_action :set_bar, only: [:show, :update, :destroy]

  # GET /bars
  # GET /bars.json
  def index
    @bars = Bar.all

    render json: @bars
  end

  # GET /bars/1
  # GET /bars/1.json
  def show
    render json: @bar
  end

  # POST /bars
  # POST /bars.json
  def create
    @bar = Bar.new(bar_params)

    if @bar.save
      render json: @bar, status: :created, location: @bar
    else
      render json: @bar.errors, status: :unprocessable_entity
    end
  end

```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
```

```
.F

Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: json.extract! bar, :id, :name, :created_at, :updated_at

     ActionView::Template::Error:
       undefined method `created_at' for #<Bar _id: 5841ddfc8a681815df1f86bd, name: "test">
     # ./app/views/bars/_bar.json.jbuilder:1:in `_app_views_bars__bar_json_jbuilder__3581331404752130415_70240942005360'
     # ./app/views/bars/show.json.jbuilder:1:in `_app_views_bars_show_json_jbuilder__93483565011614635_70240941981840'
     # ./spec/requests/api_developments_spec.rb:38:in `block (3 levels) in <top (required)>'
     # ------------------
     # --- Caused by: ---
     # NoMethodError:
     #   undefined method `created_at' for #<Bar _id: 5841ddfc8a681815df1f86bd, name: "test">
     #   ./app/views/bars/_bar.json.jbuilder:1:in `_app_views_bars__bar_json_jbuilder__3581331404752130415_70240942005360'

Finished in 0.04666 seconds (files took 1.72 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API resource

James-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/models/bar.rb
```

```ruby
class Bar
  include Mongoid::Document
  include Mongoid::Timestamps
  field :name, type: String
end
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
Run options: include {:full_description=>/MongoDB/}
..

Finished in 0.05015 seconds (files took 1.71 seconds to load)
2 examples, 0 failures

›Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/models/bar.rb
```

```ruby
class Bar
  include Mongoid::Document
#  include Mongoid::Timestamps
  field :name, type: String
end
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/models/bar.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/controllers/bars_controller.rb
```

```ruby
class BarsController < ApplicationController
  before_action :set_bar, only: [:show, :update, :destroy]

  def index
    @bars = Bar.all
    #render json: @bars
  end

  def show
    #render json: @bar
  end

  def create
    @bar = Bar.new(bar_params)

    if @bar.save
      #render json: @bar, status: :created, location: @bar
      render :show, status: :created, location: @bar
    else
      render json: @bar.errors, status: :unprocessable_entity
    end
  end

  def update
    @bar = Bar.find(params[:id])

    if @bar.update(bar_params)
      head :no_content
    else
```

```ruby
class BarsController < ApplicationController
  before_action :set_bar, only: [:show, :update, :destroy]

  def index
    @bars = Bar.all
    #render json: @bars
  end

  def show
    #render json: @bar
  end

  def create
    @bar = Bar.new(bar_params)

    if @bar.save
      #render json: @bar, status: :created, location: @bar
      render :show, status: :created, location: @bar
    else
      render json: @bar.errors, status: :unprocessable_entity
    end
  end

  def update
    @bar = Bar.find(params[:id])

    if @bar.update(bar_params)
      head :no_content
    else
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/models/bar.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/controllers/bars_controller.rb
Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/models/bar.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/controllers/bars_controller.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
Run options: include {:full_description=>/MongoDB/}
.F

Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: expect(parsed_body).to include("created_at")

       expected {"_id" => {"$oid" => "5841f5d08a68181c37bb6f70"}, "name" => "test"} to include "created_at"
       Diff:
       @@ -1,2 +1,3 @@
       -["created_at"]
       +"_id" => {"$oid"=>"5841f5d08a68181c37bb6f70"},
       +"name" => "test",

     # ./spec/requests/api_developments_spec.rb:41:in `block (3 levels) in <top (required)>'

Finished in 0.06717 seconds (files took 1.75 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource

Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/models/bar.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ vi app/controllers/bars_controller.rb
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
Run options: include {:full_description=>/MongoDB/}
.F

Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: expect(parsed_body).to include("created_at")

       expected {"_id" => {"$oid" => "5841f5d08a68181c37bb6f70"}, "name" => "test"} to include "created_at"
       Diff:
       @@ -1,2 +1,3 @@
       -["created_at"]
       +"_id" => {"$oid"=>"5841f5d08a68181c37bb6f70"},
       +"name" => "test",

     # ./spec/requests/api_developments_spec.rb:41:in `block (3 levels) in <top (required)>'

Finished in 0.06717 seconds (files took 1.75 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource

Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   app/controllers/bars_controller.rb
        modified:   app/models/bar.rb

no changes added to commit (use "git add" and/or "git commit -a")
›Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
        modified:   app/controllers/bars_controller.rb
        modified:   app/models/bar.rb

no changes added to commit (use "git add" and/or "git commit -a")
›Jamess-MacBook-Pro:capstone_demoapp jim$ git diff
diff --git a/app/controllers/bars_controller.rb b/app/controllers/bars_controller.rb
index 7fbdecc..4ce22f3 100644
--- a/app/controllers/bars_controller.rb
+++ b/app/controllers/bars_controller.rb
@@ -7,7 +7,7 @@ class BarsController < ApplicationController
   end

   def show
-    #render json: @bar
+    render json: @bar
   end

   def create
diff --git a/app/models/bar.rb b/app/models/bar.rb
index 313571c..62b731e 100644
--- a/app/models/bar.rb
+++ b/app/models/bar.rb
@@ -1,5 +1,5 @@
 class Bar
   include Mongoid::Document
-  include Mongoid::Timestamps
+#  include Mongoid::Timestamps
   field :name, type: String
 end
```

```
        modified:   app/models/bar.rb

no changes added to commit (use "git add" and/or "git commit -a")
›Jamess-MacBook-Pro:capstone_demoapp jim$ git diff
diff --git a/app/controllers/bars_controller.rb b/app/controllers/bars_controller.rb
index 7fbdecc..4ce22f3 100644
--- a/app/controllers/bars_controller.rb
+++ b/app/controllers/bars_controller.rb
@@ -7,7 +7,7 @@ class BarsController < ApplicationController
   end

   def show
-    #render json: @bar
+    render json: @bar
   end

   def create
diff --git a/app/models/bar.rb b/app/models/bar.rb
index 313571c..62b731e 100644
--- a/app/models/bar.rb
+++ b/app/models/bar.rb
@@ -1,5 +1,5 @@
 class Bar
   include Mongoid::Document
-  include Mongoid::Timestamps
+#  include Mongoid::Timestamps
   field :name, type: String
 end
›Jamess-MacBook-Pro:capstone_demoapp jim$ git checkout app/
```

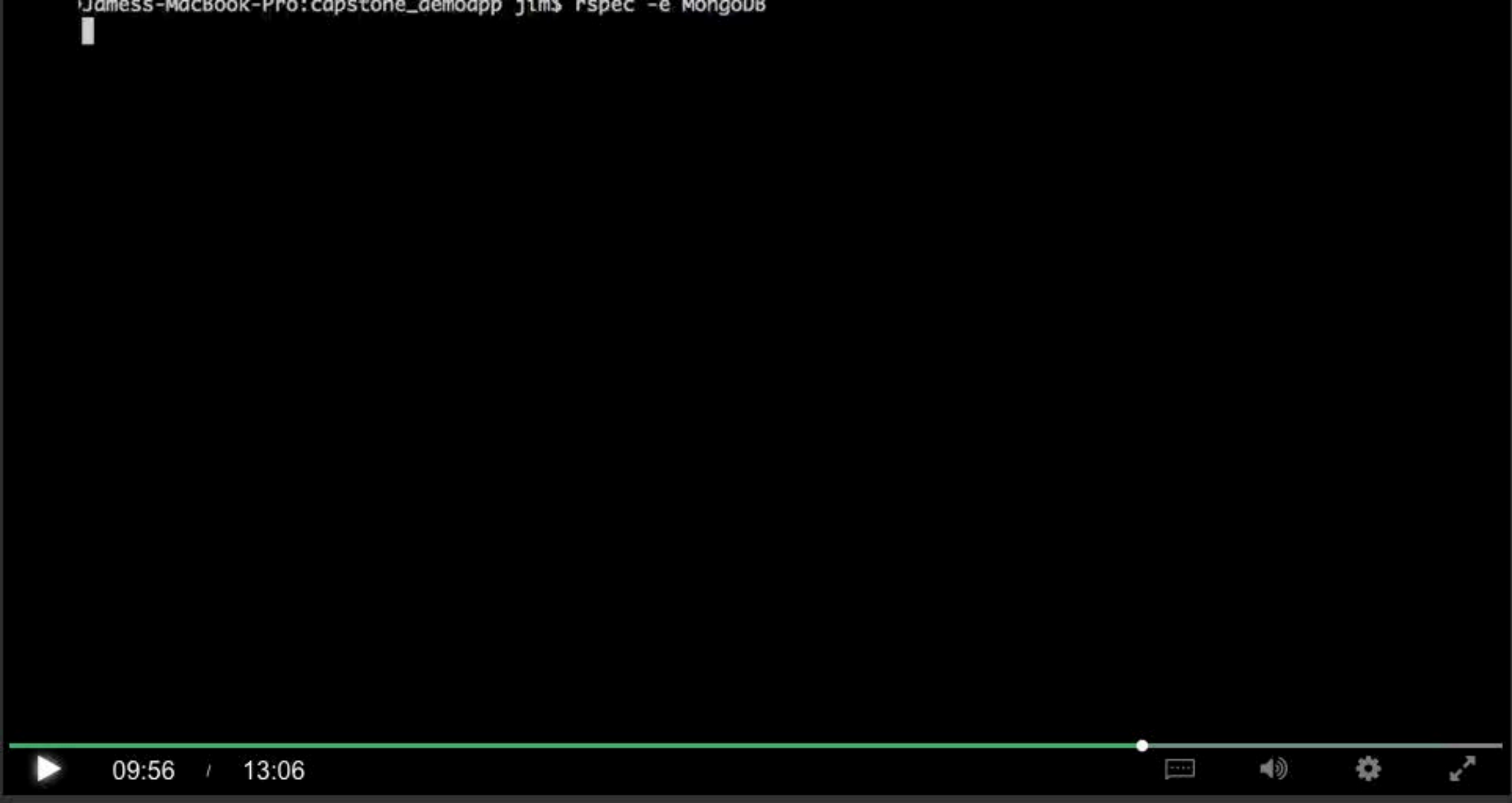
```
   def show
-    #render json: @bar
+    render json: @bar
   end

   def create
diff --git a/app/models/bar.rb b/app/models/bar.rb
index 313571c..62b731e 100644
--- a/app/models/bar.rb
+++ b/app/models/bar.rb
@@ -1,5 +1,5 @@
 class Bar
   include Mongoid::Document
-  include Mongoid::Timestamps
+#  include Mongoid::Timestamps
   field :name, type: String
 end
›Jamess-MacBook-Pro:capstone_demoapp jim$ git checkout app/
›Jamess-MacBook-Pro:capstone_demoapp jim$ git status
On branch master
nothing to commit, working directory clean
›Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
Run options: include {:full_description=>/MongoDB/}
..

Finished in 0.06165 seconds (files took 2.1 seconds to load)
2 examples, 0 failures
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ vi spec/requests/api_developments_spec.rb
```

```ruby

    it "expose RDBMS-backed API resource" do
      object=Foo.create(:name=>"test")
      expect(foos_path).to eq("/api/foos")
      get foo_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
    end
  end

  describe "MongoDB-backed" do
    before(:each) { Bar.delete_all }
    after(:each)  { Bar.delete_all }

    it "create MongoDB-backed model" do
      object=Bar.create(:name=>"test")
      expect(Bar.find(object.id).name).to eq("test")
    end

    it "expose MongoDB-backed API resource" do
      object=Bar.create(:name=>"test")
      expect(bars_path).to eq("/api/bars")
      get bar_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
      expect(parsed_body).to include("created_at")
    end
  end
end
```

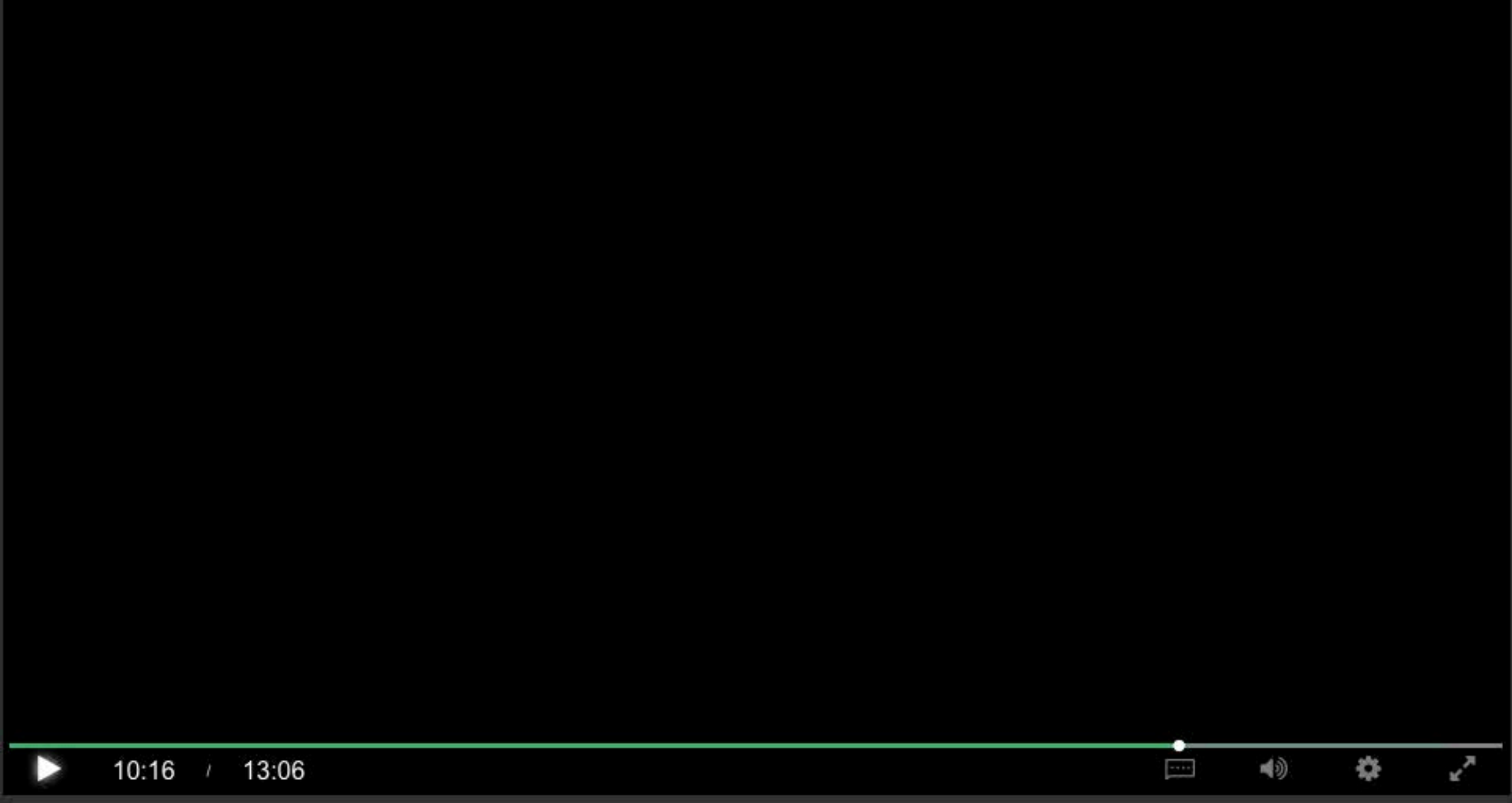
```ruby
16
17    it "expose RDBMS-backed API resource" do
18      object=Foo.create(:name=>"test")
19      expect(foos_path).to eq("/api/foos")
20      get foo_path(object.id)
21      expect(response).to have_http_status(:ok)
22      expect(parsed_body["name"]).to eq("test")
23    end
24  end
25
26  describe "MongoDB-backed" do
27    before(:each) { Bar.delete_all }
28    after(:each)  { Bar.delete_all }
29
30    it "create MongoDB-backed model" do
31      object=Bar.create(:name=>"test")
32      expect(Bar.find(object.id).name).to eq("test")
33    end
34
35    it "expose MongoDB-backed API resource" do
36      object=Bar.create(:name=>"test")
37      expect(bars_path).to eq("/api/bars")
38      get bar_path(object.id)
39      expect(response).to have_http_status(:ok)
40      expect(parsed_body["name"]).to eq("test")
41      expect(parsed_body).to include("created_at")
42      expect(parsed_body).to include("id"=>object.id.to_s)
43    end
44  end
```

```
Jamess-MacBook-Pro:capstone_demoapp jim$ rspec -e MongoDB
```



```
Failures:

  1) ApiDevelopments MongoDB-backed expose MongoDB-backed API resource
     Failure/Error: expect(parsed_body).to include("id"=>object.id.to_s)

       expected {"id" => {"$oid" => "5841f8828a68181d88403133"}, "name" => "test", "created_at" => "2016-12-02T2
2:41:06.646Z"..._at" => "2016-12-02T22:41:06.646Z", "url" => "http://www.example.com/api/bars/5841f8828a68181d88
403133"} to include {"id" => "5841f8828a68181d88403133"}
       Diff:
       @@ -1,2 +1,6 @@
       -"id" => "5841f8828a68181d88403133",
       +"created_at" => "2016-12-02T22:41:06.646Z",
       +"id" => {"$oid"=>"5841f8828a68181d88403133"},
       +"name" => "test",
       +"updated_at" => "2016-12-02T22:41:06.646Z",
       +"url" => "http://www.example.com/api/bars/5841f8828a68181d88403133",

     # ./spec/requests/api_developments_spec.rb:42:in `block (3 levels) in <top (required)>'

Finished in 0.06829 seconds (files took 1.67 seconds to load)
2 examples, 1 failure

Failed examples:

rspec ./spec/requests/api_developments_spec.rb:35 # ApiDevelopments MongoDB-backed expose MongoDB-backed API res
ource

James-MacBook-Pro:capstone_demoapp jim$
```

09:58 / 13:06


10:16 / 13:06

```
.. (up a dir)
/Users/jim/proj/fullstack/capstone_demoapp/app/views/bars/
  _bar.json.jbuilder
  index.json.jbuilder
  show.json.jbuilder
~
~
~
```

"app/views/bars/show.json.jbuilder" [noeol] 11L, 35C
10:18 / 13:06

.. (up a dir)
/Users/jim/proj/fullstack/capstone_demoapp/app/views/bars/
_bar.json.jbuilder
index.json.jbuilder
show.json.jbuilder
"NERD_tree_2" line 7 of 7 --100%-- col 3 ((1) of 2)
10:39
13:06

2 json.url bar_url(bar, format: :json)
"app/views/bars/_bar.json.jbuilder" [noeol] 2L, 92C
10:42 / 13:06

```ruby
      object=Foo.create(:name=>"test")
      expect(foos_path).to eq("/api/foos")
      get foo_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
    end
  end

  describe "MongoDB-backed" do
    before(:each) { Bar.delete_all }
    after(:each)  { Bar.delete_all }

    it "create MongoDB-backed model" do
      object=Bar.create(:name=>"test")
      expect(Bar.find(object.id).name).to eq("test")
    end

    it "expose MongoDB-backed API resource" do
      object=Bar.create(:name=>"test")
      expect(bars_path).to eq("/api/bars")
      get bar_path(object.id)
      expect(response).to have_http_status(:ok)
      expect(parsed_body["name"]).to eq("test")
      expect(parsed_body).to include("created_at")
      expect(parsed_body).to include("id"=>object.id.to_s)
    end
  end
end
```

```
2 json.url bar_url(bar, format: :json)
~
~
~
```

```
2 json.id bar.id.to_s
3 json.name bar.name
4 json.created_at bar.created_at
5 json.updated_at bar.updated_at
6 json.url bar_url(bar, format: :json)
~
~
~
```

```
2 json.id bar.id.to_s
3 json.name bar.name
4 json.created_at bar.created_at
5 json.updated_at bar.updated_at
6 json.url bar_url(bar, format: :json)
```

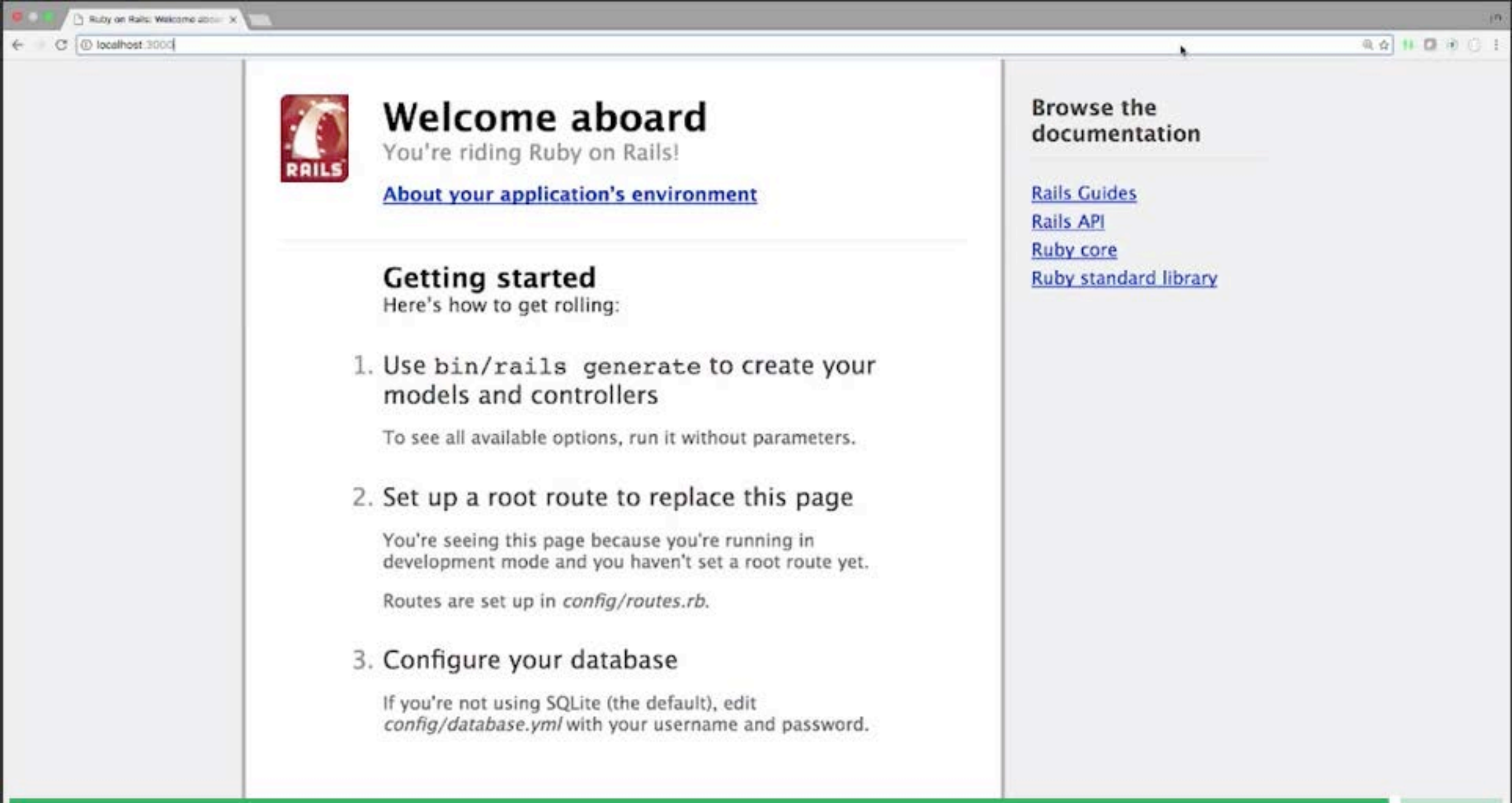
```
2
3 json.id bar.id.to_s
4 json.name bar.name
5 json.created_at bar.created_at
6 json.updated_at bar.updated_at
7 json.url bar_url(bar, format: :json)
~
~
~
```

```
Run options: include {:full_description=>/MongoDB/}
..

Finished in 0.06452 seconds (files took 1.74 seconds to load)
2 examples, 0 failures

Jamess-MacBook-Pro:capstone_demoapp jim$
```

```
Running via Spring preloader in process 8057
Loading development environment (Rails 4.2.6)
irb(main):001:0>
```

```
Running via Spring preloader in process 8124
Loading development environment (Rails 4.2.6)
irb(main):001:0> pp (1..3).each.map {|idx| Bar.create(:name=>"test#{idx}") }; nil
[#<Bar _id: 584200118a68181fbc05f264, created_at: 2016-12-02 23:13:21 UTC, updated_at: 2016-12-02 23:13:21 UTC,
name: "test1">,
 #<Bar _id: 584200118a68181fbc05f265, created_at: 2016-12-02 23:13:21 UTC, updated_at: 2016-12-02 23:13:21 UTC,
name: "test2">,
 #<Bar _id: 584200118a68181fbc05f266, created_at: 2016-12-02 23:13:21 UTC, updated_at: 2016-12-02 23:13:21 UTC,
name: "test3">]
=> nil
irb(main):002:0>
```

```
›Jamess-MacBook-Pro:capstone_demoapp jim$ rails c
Running via Spring preloader in process 8124
Loading development environment (Rails 4.2.6)
irb(main):001:0> pp (1..3).each.map {|idx| Bar.create(:name=>"test#{idx}") }; nil
[#<Bar _id: 584200118a68181fbc05f264, created_at: 2016-12-02 23:13:21 UTC, updated_at: 2016-12-02 23:13:21 UTC,
name: "test1">,
 #<Bar _id: 584200118a68181fbc05f265, created_at: 2016-12-02 23:13:21 UTC, updated_at: 2016-12-02 23:13:21 UTC,
name: "test2">,
 #<Bar _id: 584200118a68181fbc05f266, created_at: 2016-12-02 23:13:21 UTC, updated_at: 2016-12-02 23:13:21 UTC,
name: "test3">]
=> nil
irb(main):002:0> quit
›Jamess-MacBook-Pro:capstone_demoapp jim$ rails s
=> Booting WEBrick
=> Rails 4.2.6 application starting in development on http://localhost:3000
=> Run `rails server -h` for more startup options
=> Ctrl-C to shutdown server
[2016-12-02 18:14:11] INFO  WEBrick 1.3.1
[2016-12-02 18:14:11] INFO  ruby 2.2.3 (2015-08-18) [x86_64-darwin15]
[2016-12-02 18:14:11] INFO  WEBrick::HTTPServer#start: pid=8148 port=3000
```


Ruby on Rails: Welcome aboard
localhost:3000
Welcome aboard
You're riding Ruby on Rails!
About your application's environment
Getting started
Here's how to get rolling:
1. Use bin/rails generate to create your models and controllers
To see all available options, run it without parameters.
2. Set up a root route to replace this page
You're seeing this page because you're running in development mode and you haven't set a root route yet.
Routes are set up in config/routes.rb.
3. Configure your database
If you're not using SQLite (the default), edit config/database.yml with your username and password.
Browse the documentation
Rails Guides
Rails API
Ruby core
Ruby standard library

localhost:3000/api/bars
localhost:3000/api/bars
Raw
Parsed
[
{
"id": "584200118a68181fbc05f264",
"name": "test1",
"created_at": "2016-12-02T23:13:21.598Z",
"updated_at": "2016-12-02T23:13:21.598Z",
"url": "http://localhost:3000/api/bars/584200118a68181fbc05f264"
},
{
"id": "584200118a68181fbc05f265",
"name": "test2",
"created_at": "2016-12-02T23:13:21.603Z",
"updated_at": "2016-12-02T23:13:21.603Z",
"url": "http://localhost:3000/api/bars/584200118a68181fbc05f265"
},
{
"id": "584200118a68181fbc05f266",
"name": "test3",
"created_at": "2016-12-02T23:13:21.603Z",
"updated_at": "2016-12-02T23:13:21.603Z",
"url": "http://localhost:3000/api/bars/584200118a68181fbc05f266"
}
]

localhost:3000/api/bars/584200118a68181fbc05f264
Raw
Parsed
{
"id": "584200118a68181fbc05f264",
"name": "test1",
"created_at": "2016-12-02T23:13:21.598Z",
"updated_at": "2016-12-02T23:13:21.598Z",
"url": "http://localhost:3000/api/bars/584200118a68181fbc05f264"
}

Summary

- ✧ Integrated MongoDB into application using Mongoid
- ✧ Used scaffold generator to build skeletal resource
- ✧ Updated the marshalling behavior of the JSON view

What's Next?

- ✧ Regression Testing