

psybergate

RUBY ON RAILS Processes and Paradigms

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psybergate

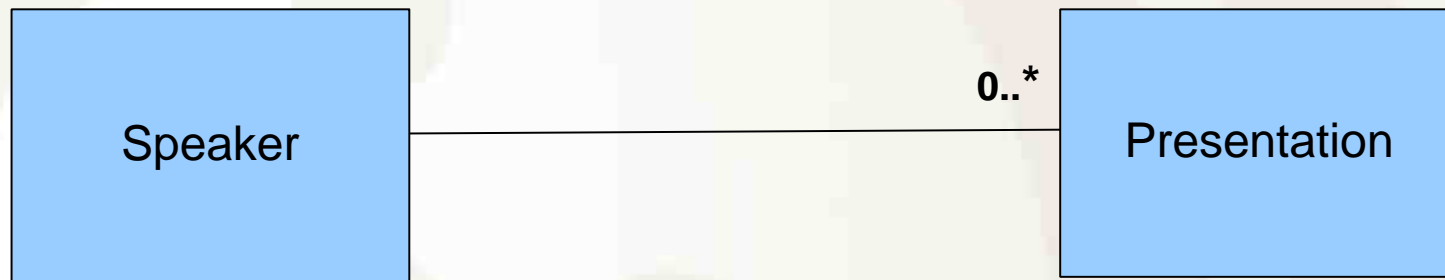
Overview

- Agility
- Code Generation and Construction
- Testing
- Database Management
- Deployment

Agility (From the Agile Manifesto)

- Individuals and Interactions over Processes and Tools
- Working Software over Comprehensive Documentation
- Customer Collaboration over Contract Negotiation
- Responding to Change over Following a Plan



















Simple Application Object Model



Generating the Application

Address  C:\projects

Folders 

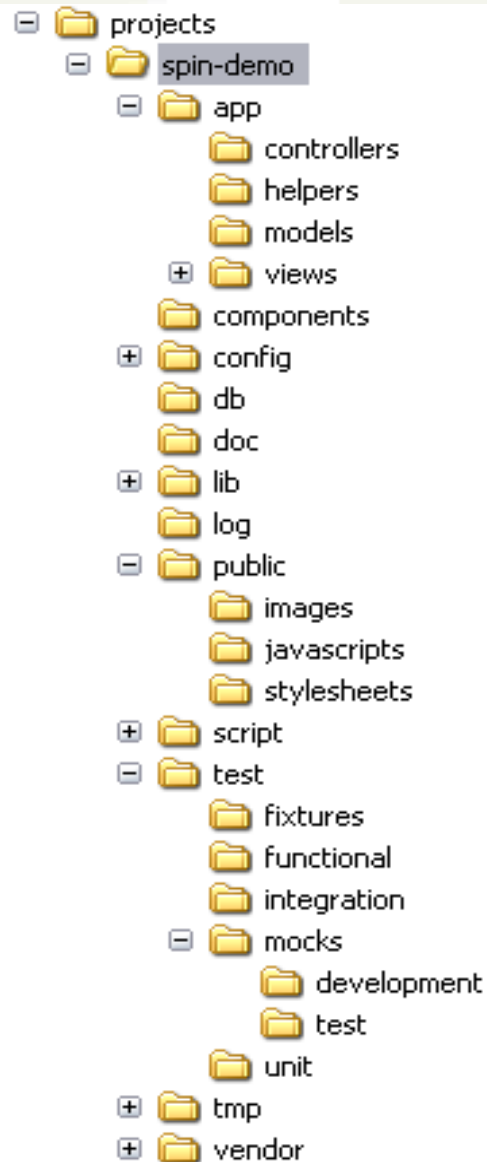
-  Desktop
-  My Documents
-  My Computer
 -  Local Disk (C:)
 -  \$VAULT\$.AVG
 -  dell
 -  Documents and Settings
 -  drivers
 -  dspace
 -  Fraps
 -  Gopal-Backups
 -  i386
 -  java-rt
 -  My Downloads
 -  myprograms
 -  myprojects
 -  Program Files
 -  projects

Generating the Application

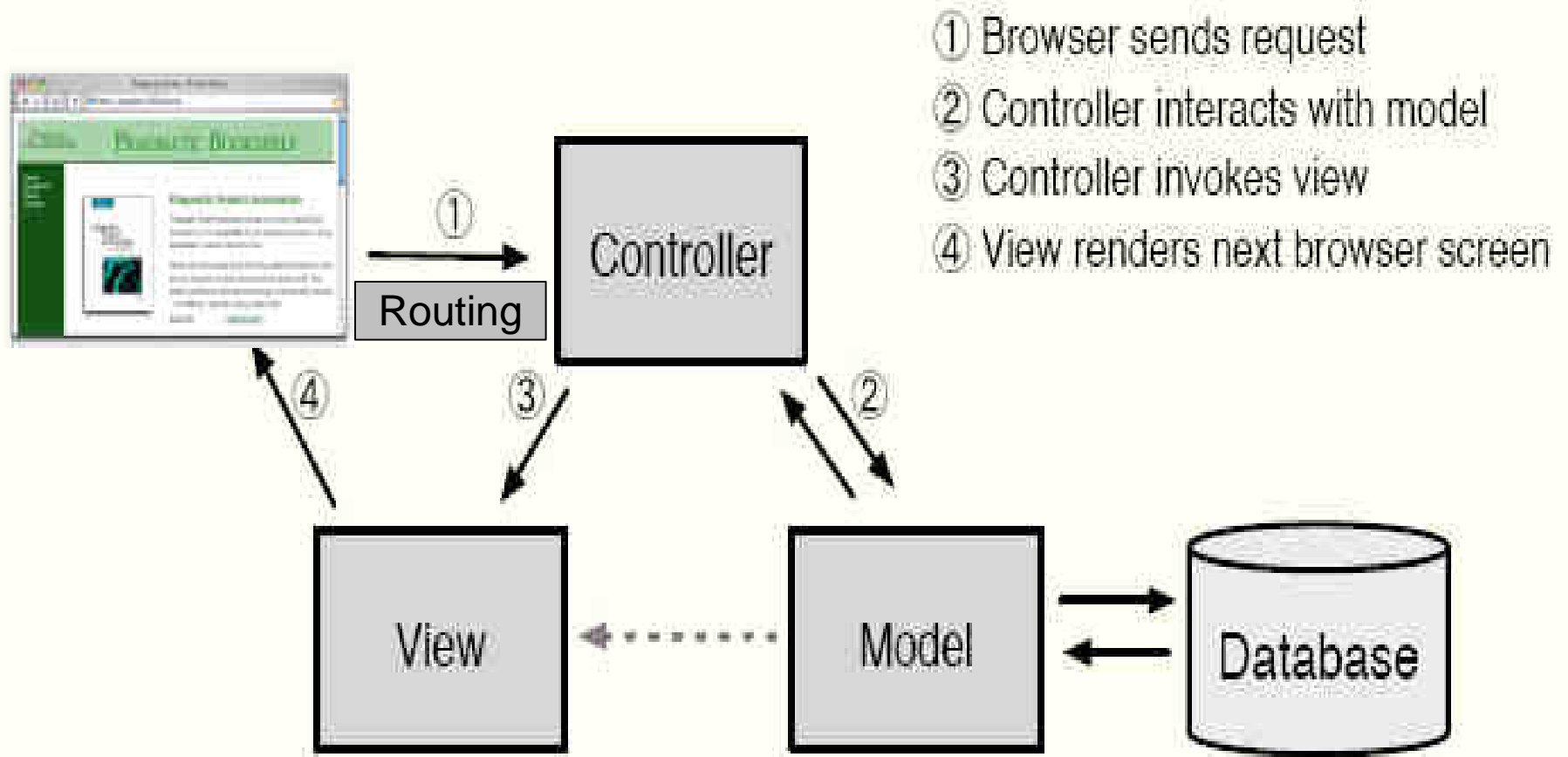
- rails project-name

```
C:\projects>rails spin-demo
create
create    app/controllers
create    app/helpers
create    app/models
create    app/views/layouts
create    config/environments
create    components
create    db
create    doc
```

Generating the Application



Rails MVC (From AWDWR)



- ① Browser sends request
- ② Controller interacts with model
- ③ Controller invokes view
- ④ View renders next browser screen

Routing

C:\projects\spin-demo\config

routes.rb

```
1 - ActionController::Routing::Routes.draw do |map|
2   # The priority is based upon order of creation: first created -> highest priority.
3
4   # Sample of regular route:
5   # map.connect 'products/:id', :controller => 'catalog', :action => 'view'
6   # Keep in mind you can assign values other than :controller and :action
7
8   # Sample of named route:
9   # map.purchase 'products/:id/purchase', :controller => 'catalog', :action => 'purchase'
10  # This route can be invoked with purchase_url(:id => product.id)
11
12  # You can have the root of your site routed by hooking up ''
13  # -- just remember to delete public/index.html.
14  # map.connect '', :controller => "welcome"
15
16  # Allow downloading Web Service WSDL as a file with an extension
17  # instead of a file named 'wsdl'
18  map.connect ':controller/service.wsdl', :action => 'wsdl'
19
20  # Install the default route as the lowest priority.
21  map.connect ':controller/:action/:id.:format'
22  map.connect ':controller/:action/:id'
23 end
24
```

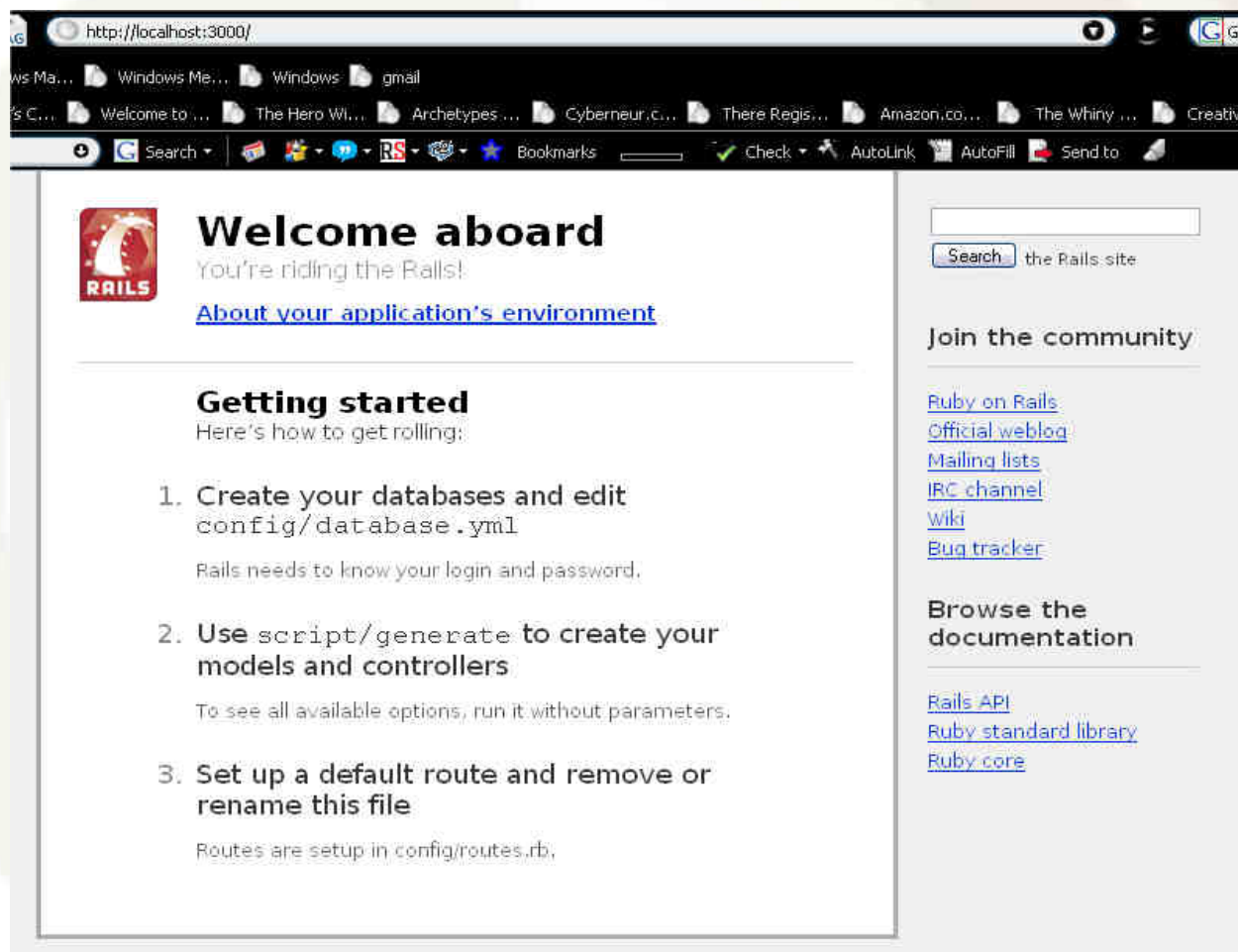
Running the Web Server

- ruby script/server

```
C:\projects\spin-demo>ruby script/server
=> Booting Mongrel (use 'script/server webrick' to force WEBrick)
=> Rails application starting on http://0.0.0.0:3000
=> Call with -d to detach
=> Ctrl-C to shutdown server
** Starting Mongrel listening at 0.0.0.0:3000
** Starting Rails with development environment...
** Rails loaded.
** Loading any Rails specific GemPlugins
** Signals ready. INT => stop (no restart).
** Mongrel available at 0.0.0.0:3000
** Use CTRL-C to stop.
```

Tadaa...

- <http://localhost:3000>

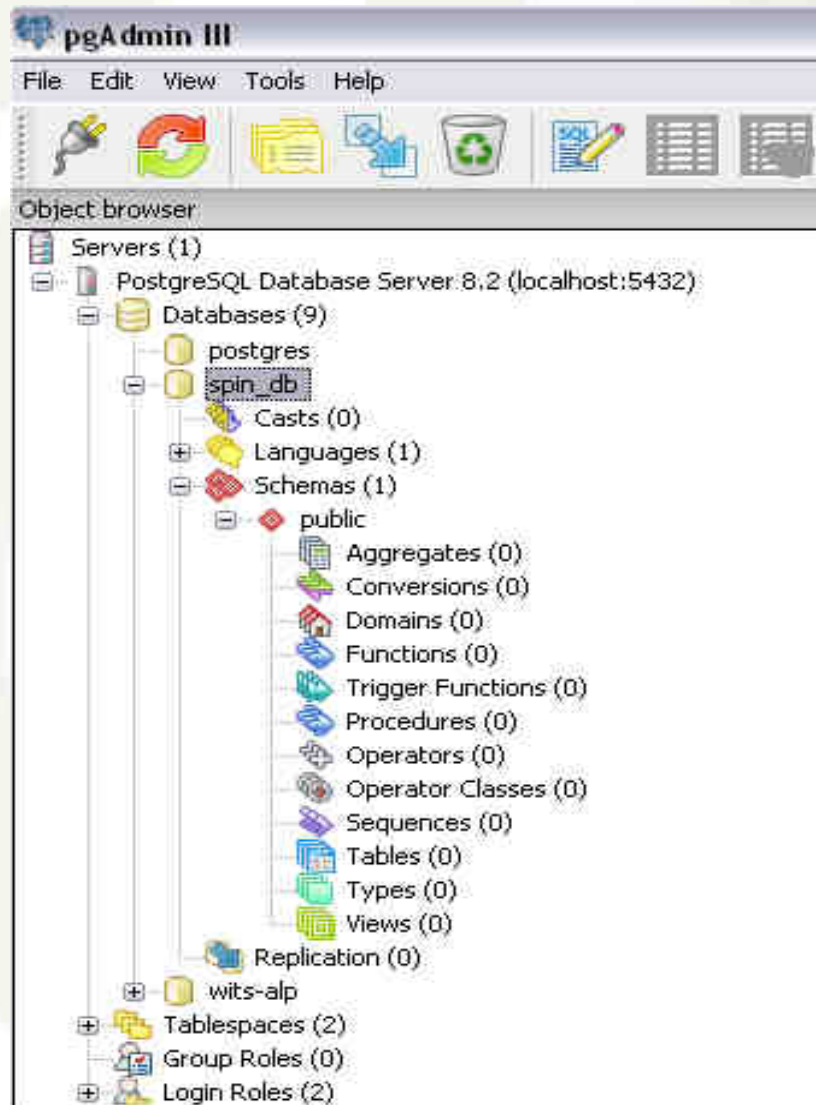


The screenshot shows a web browser window with the address bar set to <http://localhost:3000/>. The browser's address bar and tabs are visible at the top. The main content area displays the 'Welcome aboard' page for Ruby on Rails. On the left, there is a RAILS logo and the text 'Welcome aboard You're riding the Rails!'. Below this is a link to 'About your application's environment'. The main section is titled 'Getting started' and contains a list of three steps: 1. Create your databases and edit config/database.yml, 2. Use script/generate to create your models and controllers, and 3. Set up a default route and remove or rename this file. On the right side, there is a search bar with the text 'Search the Rails site' and a section titled 'Join the community' with links to 'Ruby on Rails', 'Official weblog', 'Mailing lists', 'IRC channel', 'Wiki', and 'Bug tracker'. Below that is a section titled 'Browse the documentation' with links to 'Rails API', 'Ruby standard library', and 'Ruby core'.

The Database

- Convention over Configuration
- Rake
- Ruby-based DBMS-Agnostic Schema
- Migrations

Create the Database



```
CREATE DATABASE spin_db  
WITH OWNER = sa  
ENCODING = 'UTF8'  
TABLESPACE = pg_default;
```

Configure the App to see the Db

C:\projects\spin-demo\config

1 database.yml

```
1 - development:
2   adapter: postgresql
3   database: spin_demo
4   username: sa
5   password: password
6   host: localhost
7   encoding: UTF8
8
9
10  # Warning: The database defined as 'test' will be erased and
11  # re-generated from your development database when you run 'rake'.
12  # Do not set this db to the same as development or production.
13 - test:
14   adapter: postgresql
15   database: spin-demo_test
16   username: sa
17   password: password
18   host: localhost
19   encoding: UTF8
20
21 - production:
22   adapter: postgresql
23   database: spin-demo_production
24   username: sa
25   password: password
26   host: localhost
27   encoding: UTF8
28
29
```

Test the Database Connection

```
rake  
db:migrate
```

```
C:\projects\spin-demo>rake db:migrate  
(in C:/projects/spin-demo)  
rake aborted!  
FATAL C3D000 Mdatabase "spin_demo" does not exist  
(See full trace by running task with --trace)
```

Take 2 - Success

C:\projects\spin-demo\config

1 database.yml

```
1 - development:  
2   adapter: postgresql  
3   database: spin_db  
4   username: sa  
5   password: password  
6   host: localhost  
7   encoding: UTF8
```

```
C:\projects\spin-demo>rake db:migrate  
(in C:/projects/spin-demo)
```

```
C:\projects\spin-demo>
```

Generate the Speaker Model

```
C:\projects\spin-demo>ruby script/generate model speaker
exists  app/models/
exists  test/unit/
exists  test/fixtures/
create  app/models/speaker.rb
create  test/unit/speaker_test.rb
create  test/fixtures/speakers.yml
create  db/migrate
create  db/migrate/001_create_speakers.rb
```



The screenshot shows a file explorer window displaying the path C:\projects\spin-demo\app\models. Below it, a SciTE code editor window titled 'speaker.rb - SciTE' is open. The editor shows the following code:

```
1  - class Speaker < ActiveRecord::Base
2    end
3
```

The Database: Migrations

C:\projects\spin-demo\db\migrate

1_001_create_speakers.rb

```
1 - class CreateSpeakers < ActiveRecord::Migration
2 -   def self.up
3 -     create_table :speakers do |t|
4       end
5     end
6
7 -   def self.down
8     drop_table :speakers
9   end
10 end
11
```

1_001_create_speakers.rb

```
1 - class CreateSpeakers < ActiveRecord::Migration
2 -   def self.up
3 -     create_table :speakers do |t|
4       t.column "surname", :string, :limit => 30, :null => false
5       t.column "first_name", :string, :limit => 30, :null => false
6       t.column "telephone_no", :string, :limit => 20
7       t.column "e_mail", :string, :limit => 30
8     end
9   end
10
11 -   def self.down
12     drop_table :speakers
13   end
14 end
15
```

The Database: Migrations

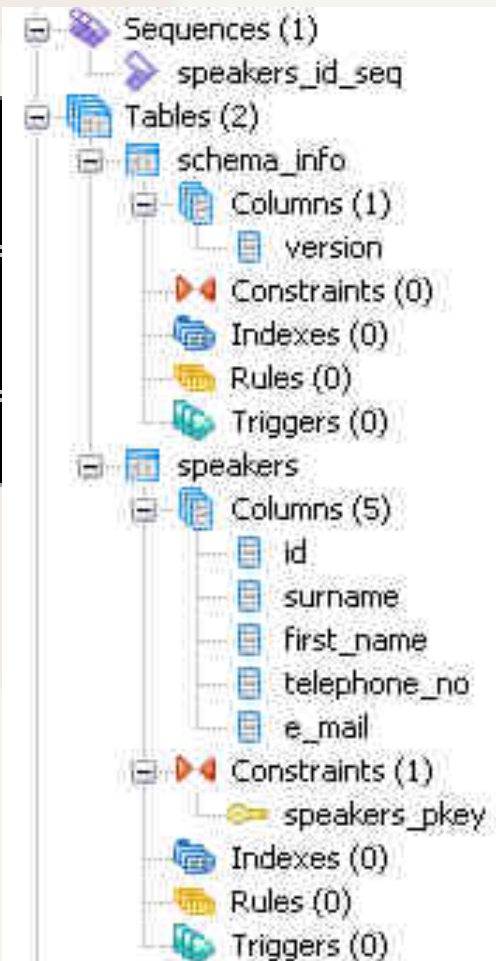
rake

db:migrate

```
C:\projects\spin-demo>rake db:migrate
(in C:/projects/spin-demo)
== CreateSpeakers: migrating =====
-- create_table(:speakers)
   -> 0.3120s
== CreateSpeakers: migrated (0.3120s) ==
```

To Roll Back:

```
rake db:migrate
VERSION=0
```



Generate the Speaker Controller

```
ruby script/generate controller  
speaker
```

```
C:\projects\spin-demo>ruby script/generate controller speaker  
exists  app/controllers/  
exists  app/helpers/  
create  app/views/speaker  
exists  test/functional/  
create  app/controllers/speaker_controller.rb  
create  test/functional/speaker_controller_test.rb  
create  app/helpers/speaker_helper.rb
```

The Generated Controller

C:\projects\spin-demo\app\controllers

speaker_controller.rb - SciTE

File Edit Search View Tools Options Language Buffers Help

1 speaker_controller.rb

```
1 - class SpeakerController < ApplicationController
2   end
3
```

Action Controller: Exception caught - Mozilla Firefox

File Edit View History del.icio.us Bookmarks Tools Help

← · → · ↻ · 🔍 · 🏠 · 📄 TAG <http://localhost:3000/speaker/list>

Unknown action

No action responded to list

Scaffolding The Controller and View

```
speaker_controller.rb - SciTE
File Edit Search View Tools Options Language Buffers Help
1 speaker_controller.rb
1 - class SpeakerController < ApplicationController
2   scaffold :speaker
3 end
4 |
```



Listing speakers

Surname First name Telephone no E mail

[New speaker](#)

More Scaffolding

Scaffolding - Mozilla Firefox

File Edit View History del.icio.us Bookmarks Tools Help

← → ↻ 🔍 🏠 TAG <http://localhost:3000/speaker/new>

New speaker

Surname

First name

Telephone no

E mail

[Back](#)

Even More Scaffolding (etc. etc. etc...)



The screenshot shows a Mozilla Firefox browser window titled "Scaffolding - Mozilla Firefox". The address bar displays "http://localhost:3000/speaker/list". The page content includes a green message "Speaker was successfully created", a heading "Listing speakers", and a table with columns "Surname", "First name", "Telephone no", and "E mail". A single row of data is visible: "Ramasammy-Cook", "Gopal", "021 448 0532", and "gopal@psybergate.com". Below the table are links for "Show", "Edit", and "Destroy". At the bottom left of the page is a link "New speaker".

Speaker was successfully created

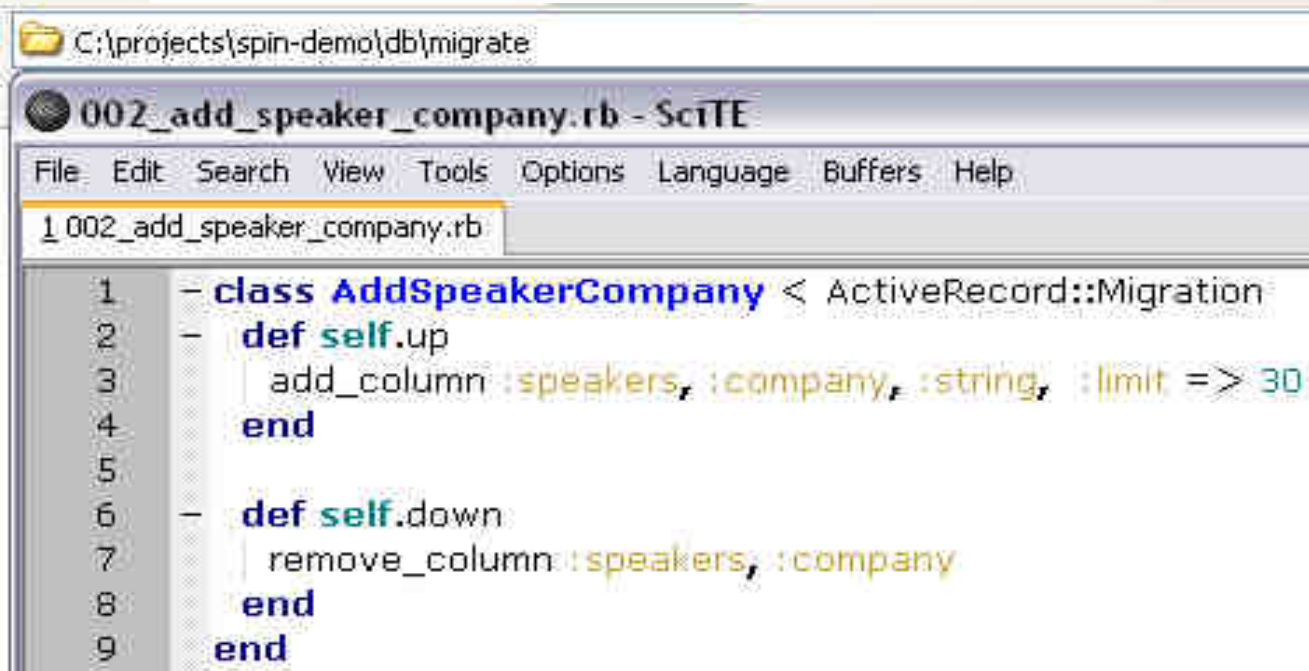
Listing speakers

Surname	First name	Telephone no	E mail
Ramasammy-Cook	Gopal	021 448 0532	gopal@psybergate.com Show Edit Destroy

[New speaker](#)

The Database: Back to Migrations

```
C:\projects\spin-demo>ruby script/generate migration add_speaker_company
exists db/migrate
create db/migrate/002_add_speaker_company.rb
```



The screenshot shows a ScITE editor window titled "002_add_speaker_company.rb - ScITE". The window displays the following Ruby code:

```
1 - class AddSpeakerCompany < ActiveRecord::Migration
2 -   def self.up
3     add_column :speakers, :company, :string, :limit => 30
4   end
5
6 -   def self.down
7     remove_column :speakers, :company
8   end
9 end
```

Back to the Scaffold

Listing speakers

Surname	First name	Telephone no	E mail	Company
Ramasammy-Cook	Gopal	021 448 0532	gopal@psybergate.com	Show Edit Destroy

[New speaker](#)

Editing speaker

Surname

First name

Telephone no

E mail

Company

[Show](#) | [Back](#)

Validation

New speaker

Surname

First name

Telephone no

E mail

Company

[Back](#)

Speaker was successfully created

Listing speakers

Surname	First name	Telephone no	E mail	Company	
Ramasammy-Cook	Gopal	021 448 0532	gopal@psybergate.com	Psybergate	Show Edit Destroy
	Joe	021 345 6345	joe's email	The Factory	Show Edit Destroy

[New speaker](#)

Validation

C:\projects\spin-demo\app\models

1 speaker.rb

```
1  - class Speaker < ActiveRecord::Base
2
3    validates_presence_of :surname, :first_name, :e_mail
4
5    validates_format_of :e_mail, :if => :e_mail?,
6      :with => /^[^([A-Za-z0-9]+_+)|([A-Za-
7      :message => "is not valid"
8
9    end
10
```

Validation

Editing speaker

2 errors prohibited this speaker from being saved

There were problems with the following fields:

- Surname can't be blank
- E mail is not valid

Surname

First name

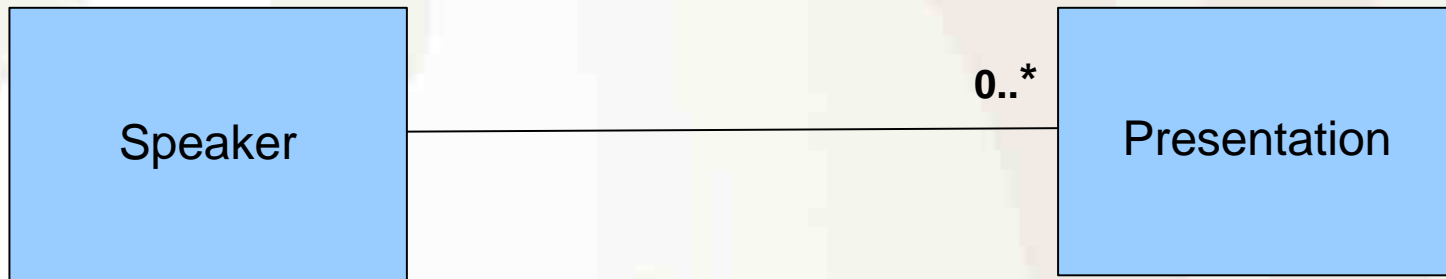
Telephone no

E mail

Company

[Show](#) | [Back](#)

ORM with ActiveRecord



ORM with ActiveRecord

```
C:\projects\spin-demo>ruby script/generate model presentation
exists  app/models/
exists  test/unit/
exists  test/fixtures/
create  app/models/presentation.rb
create  test/unit/presentation_test.rb
create  test/fixtures/presentations.yml
exists  db/migrate
create  db/migrate/003_create_presentations.rb
```

ORM with ActiveRecord

```
C:\projects\spin-demo\app\models

presentation.rb - SciTE
File Edit Search View Tools Options Language Buffers Help
presentation.rb
1 - class Presentation < ActiveRecord::Base
2   belongs_to :speaker
3 end
4
```

```
speaker.rb
1 - class Speaker < ActiveRecord::Base
2
3   has_many :presentations
4
5   validates_presence_of :surname, :first_name, :e_mail
6
7   validates_format_of :e_mail, :if => :e_mail?,
8     :with => /^[A-Za-z0-9]+\+|([A-Za-
9     :message => "is not valid"
10
11 end
```

Create the Presentations Table

```
C:\projects\spin-demo\db\migrate

003_create_presentations.rb - SciTE
File Edit Search View Tools Options Language Buffers Help
003_create_presentations.rb

1  class CreatePresentations < ActiveRecord::Migration
2  def self.up
3    create_table :presentations do |t|
4      t.column "title", :string, :limit => 30, :null => false
5      t.column "speaker_id", :integer, :null => false
6      t.column "presentation_date", :date, :null => false
7    end
8  end
9
10 def self.down
11   drop_table :presentations
12 end
13 end
14
```

```
C:\projects\spin-demo>rake db:migrate
(in C:/projects/spin-demo)
== CreatePresentations: migrating =====
-- create_table(:presentations)
   -> 0.1090s
== CreatePresentations: migrated (0.1090s) =====
```

Generating Externalized Scaffolding

```
C:\projects\spin-demo>ruby script/generate scaffold presentation presentation
exists app/controllers/
exists app/helpers/
create app/views/presentation
exists app/views/layouts/
exists test/functional/
dependency model
exists app/models/
exists test/unit/
exists test/fixtures/
skip app/models/presentation.rb
identical test/unit/presentation_test.rb
identical test/fixtures/presentations.yml
create app/views/presentation/_form.rhtml
create app/views/presentation/list.rhtml
create app/views/presentation/show.rhtml
create app/views/presentation/new.rhtml
create app/views/presentation/edit.rhtml
create app/controllers/presentation_controller.rb
create test/functional/presentation_controller_test.rb
create app/helpers/presentation_helper.rb
create app/views/layouts/presentation.rhtml
create public/stylesheets/scaffold.css
```

Externalized Scaffolding - Controller

```
C:\projects\spin-demo\app\controllers
presentation_controller.rb
1 class PresentationController < ApplicationController
2   def index
3     list
4     render :action => 'list'
5   end
6
7   # GETs should be safe (see http://www.w3.org/2001/tag/doc/whenToUseGet.html)
8   verify :method => :post, :only => [ :destroy, :create, :update ],
9         :redirect_to => { :action => :list }
10
11   def list
12     @presentation_pages, @presentations = paginate :presentations, :per_page => 10
13   end
14
15   def show
16     @presentation = Presentation.find(params[:id])
17   end
18
19   def new
20     @presentation = Presentation.new
21   end
22
23   def create
24     @presentation = Presentation.new(params[:presentation])
25     if @presentation.save
26       flash[:notice] = 'Presentation was successfully created.'
27       redirect_to :action => 'list'
28     else
29       render :action => 'new'
30     end
31   end
32
33   def edit
34     @presentation = Presentation.find(params[:id])
35   end
36
37   def update
38     @presentation = Presentation.find(params[:id])
39     if @presentation.update_attributes(params[:presentation])
40       flash[:notice] = 'Presentation was successfully updated.'
41       redirect_to :action => 'show', :id => @presentation
42     else
43       render :action => 'edit'
44     end
45   end
46
47   def destroy
48     Presentation.find(params[:id]).destroy
49     redirect_to :action => 'list'
50   end
51 end
```

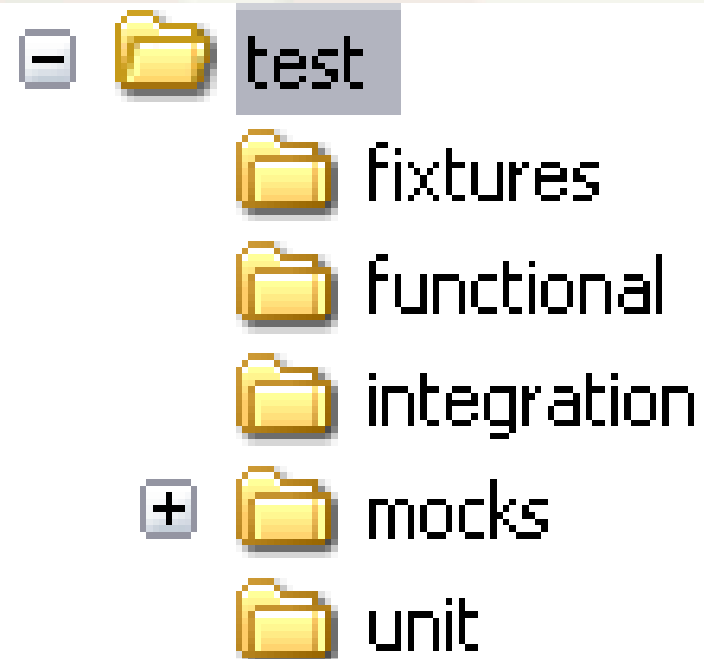
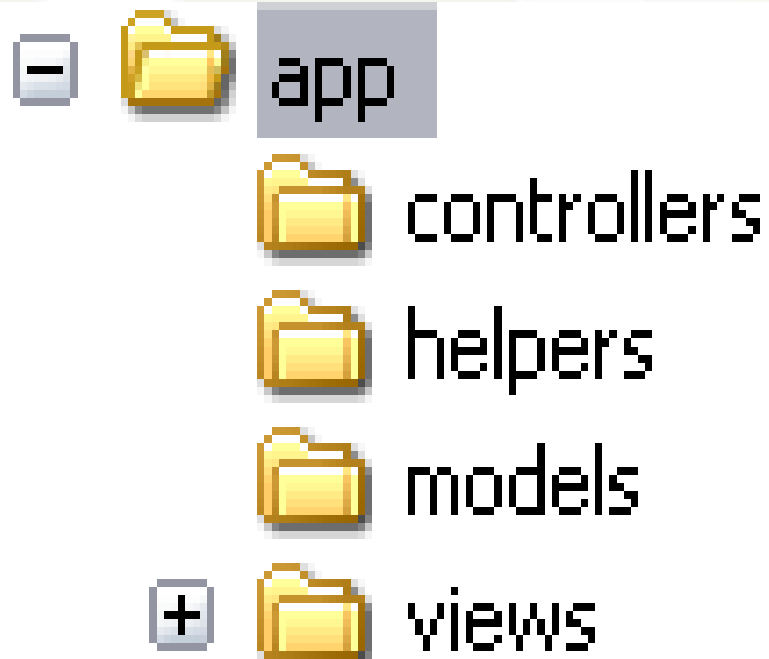
Externalized Scaffolding - View

```
C:\projects\spin-demo\app\views\presentation
list.rhtml - SciTE
File Edit Search View Tools Options Language Buffers Help
list.rhtml
1 <h1>Listing presentations</h1>
2
3 <table>
4   <tr>
5     <% for column in Presentation.content_columns %>
6       <th><%= column.human_name %></th>
7     <% end %>
8   </tr>
9
10  <% for presentation in @presentations %>
11    <tr>
12      <% for column in Presentation.content_columns %>
13        <td><%=h presentation.send(column.name) %></td>
14      <% end %>
15      <td><%= link_to 'Show', :action => 'show', :id => presentation %></td>
16      <td><%= link_to 'Edit', :action => 'edit', :id => presentation %></td>
17      <td><%= link_to 'Destroy', { :action => 'destroy', :id => presentation }, :confir
18    </tr>
19  <% end %>
20 </table>
21
22 <%= link_to 'Previous page', { :page => @presentation_pages.current.previous } if
23 <%= link_to 'Next page', { :page => @presentation_pages.current.next } if @prese
24
25 <br />
26
27 <%= link_to 'New presentation', :action => 'new' %>
28
```

Externalized Scaffolding - Style

```
C:\projects\spin-demo\public\stylesheets
scaffold.css - SciTE
File Edit Search View Tools Options Language Buffers Help
└ scaffold.css
1  body { background-color: #fff; color: #333; }
2
3  - body, p, ol, ul, td {
4    font-family: verdana, arial, helvetica, sans-serif;
5    font-size: 13px;
6    line-height: 18px;
7  }
8
9  - pre {
10   background-color: #eee;
11   padding: 10px;
12   font-size: 11px;
13 }
14
15 a { color: #000; }
16 a:visited { color: #666; }
17 a:hover { color: #fff; background-color:#000; }
18
19 - .fieldWithErrors {
20   padding: 2px;
21   background-color: red;
22   display: table;
23 }
24
25 - #errorExplanation {
26   width: 400px;
27   border: 2px solid red;
28   padding: 7px;
29   padding-bottom: 12px;
30   margin-bottom: 20px;
31   background-color: #f0f0f0;
32 }
33
34 - #errorExplanation h2 {
35   text-align: left;
36   font-weight: bold;
37   padding: 5px 5px 5px 15px;
```

Testing



Testing

- Unit Tests – testing Models
- Functional Tests – testing a single Controller
- Integration Tests – testing the Application's use-cases or user stories
- Fixtures – Allow you to populate your test database with sample data before running tests
- Mocks – Used during testing to stub interactions with external systems such as a credit card processing service

Unit Testing

```
C:\projects\spin-demo\test\unit

speaker_test.rb - SciTE
File Edit Search View Tools Options Language Buffers Help
speaker_test.rb
1 require File.dirname(__FILE__) + '/../test_helper'
2
3 - class SpeakerTest < Test::Unit::TestCase
4   fixtures :speakers
5
6   # Replace this with your real tests.
7   - def test_truth
8     assert true
9   end
10 end
11
```

Unit Testing

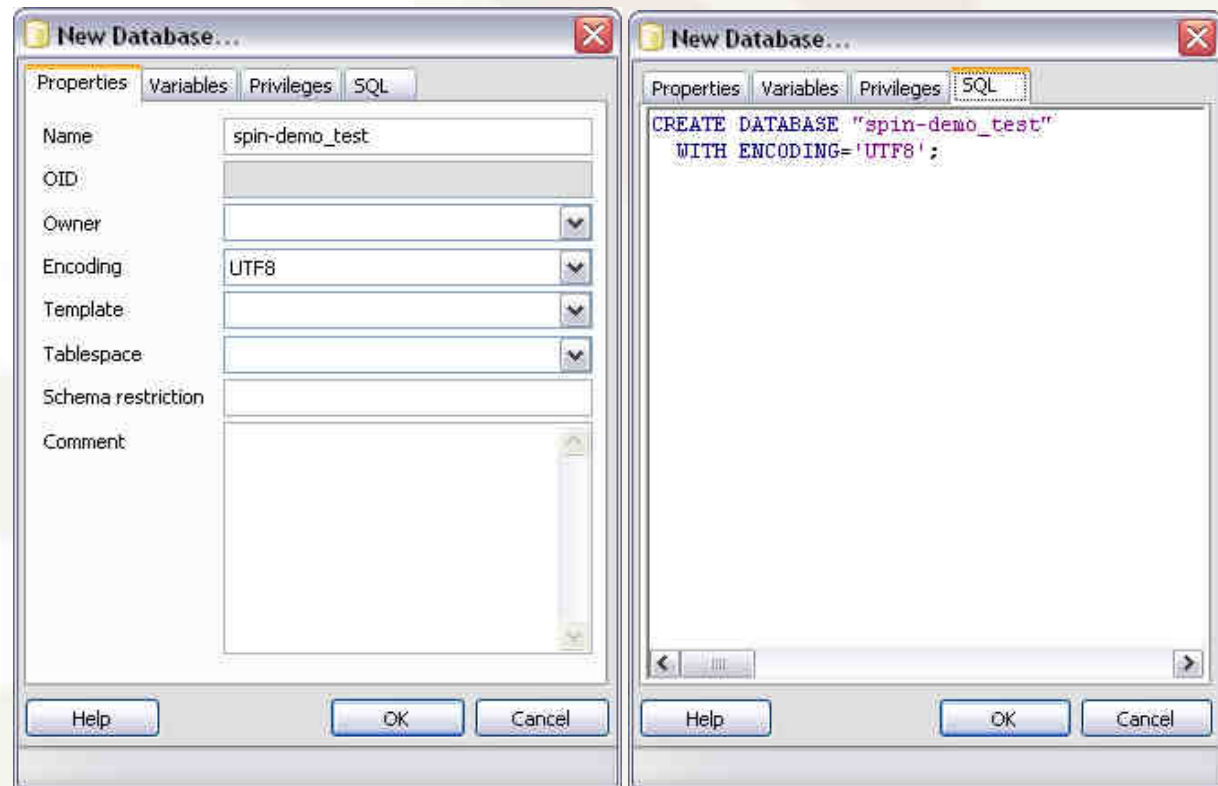
```
C:\projects\spin-demo>ruby test/unit/speaker_test.rb
Loaded suite test/unit/speaker_test
Started
EE
Finished in 0.328 seconds.

1) Error:
test_truth(SpeakerTest):
RuntimeError: FATAL      C3D000 Mdatabase "spin-demo_test" does not exist
  c:/ruby/lib/ruby/gems/1.8/gems/postgres-pr-0.4.0/lib/postgres-pr/connection.rb:10:in `connect'
  c:/ruby/lib/ruby/gems/1.8/gems/postgres-pr-0.4.0/lib/postgres-pr/connection.rb:10:in `connect'
  c:/ruby/lib/ruby/gems/1.8/gems/postgres-pr-0.4.0/lib/postgres-pr/connection.rb:10:in `connect'
  ...
```

```
1 tests, 0 assertions, 0 failures, 1 errors
```

Unit Testing

```
10 # Warning: The database defined as 'test' will be erased and
11 # re-generated from your development database when you run 'rake'.
12 # Do not set this db to the same as development or production.
13 - test:
14   adapter: postgresql
15   database: spin-demo_test
16   username: sa
17   password: password
18   host: localhost
19   encoding: UTF8
```

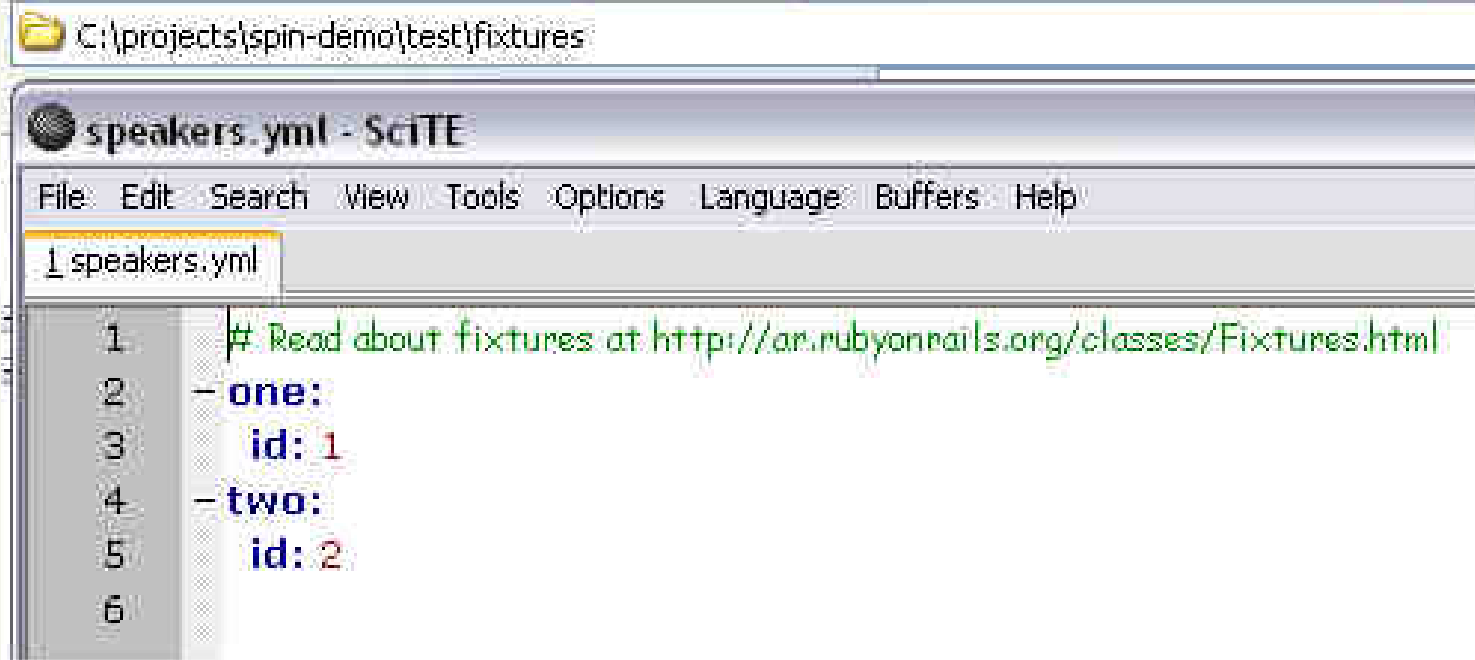


Unit Testing

```
C:\projects\spin-demo>rake db:test:prepare  
(in C:/projects/spin-demo)
```

```
C:\projects\spin-demo>ruby test/unit/speaker_test.rb  
Loaded suite test/unit/speaker_test  
Started  
EE  
Finished in 0.156 seconds.  
  
1) Error:  
test_invalid_with_empty_attributes(SpeakerTest):  
ActiveRecord::StatementInvalid: RuntimeError: ERROR C23502 Mnull value in c  
olumn "surname" violates not-null constraint FexecMain.c L1795 RExecCon  
straints: INSERT INTO speakers ("id") VALUES (2)
```

Unit Testing



The image shows a screenshot of a file explorer window and a code editor. The file explorer window is titled "C:\projects\spin-demo\test\fixtures" and contains a file named "speakers.yml". The code editor window is titled "speakers.yml - ScITE" and shows the following code:

```
1 # Read about fixtures at http://ar.rubyonrails.org/classes/Fixtures.html
2 - one:
3   id: 1
4 - two:
5   id: 2
6
```

Unit Testing

```
C:\projects\spin-demo\test\fixtures

speakers.yml - SciTE
File Edit Search View Tools Options Language Buffers Help
speakers.yml
1 # Read about fixtures at http://ar.rubyonrails.org/classes/Fixtures.html
2 - one:
3   id: 1
4   surname: Bloggs
5   first_name: Joe
6   e_mail: joe@thecompany.co.za
7   company: The Company
8 - two:
9   id: 2
10  surname: Pan
11  first_name: Peter
12  e_mail: peter@thecompany.co.za
13  company: The Company
14 |
```

Unit Testing

```
C:\projects\spin-demo>ruby test/unit/speaker_test.rb
Loaded suite test/unit/speaker_test
Started
.
Finished in 0.156 seconds.

1 tests, 1 assertions, 0 failures, 0 errors
C:\projects\spin-demo>
```

Unit Testing

_ speaker.rb

```
1  - class Speaker < ActiveRecord::Base
2
3    validates_presence_of :surname, :first_name, :e_mail
4
5    validates_format_of :e_mail, :if => :e_mail?,
6                        :with => /^[^([A-Za-z0-9]+_+)|([A-Za-
7                        :message => "is not valid"
8
9    end
10
```

Unit Testing

```
C:\projects\spin-demo\test\unit

speaker_test.rb - SciTE
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speaker_test.rb

1 require File.dirname(__FILE__) + '/../test_helper'
2
3 - class SpeakerTest < Test::Unit::TestCase
4   fixtures :speakers
5
6   # Replace this with your real tests.
7   - def test_truth
8     assert true
9   end
10
11   # Tests that speaker is invalid when attributes are empty
12   - def test_invalid_with_empty_attributes
13     speaker = Speaker.new
14     assert !speaker.valid?
15     assert speaker.errors.invalid?(:surname)
16     assert speaker.errors.invalid?(:first_name)
17     assert speaker.errors.invalid?(:e_mail)
18   end
19
20 end
21
```

```
C:\projects\spin-demo>ruby test/unit/speaker_test.rb
Loaded suite test/unit/speaker_test
Started
.
Finished in 0.14 seconds.

2 tests, 5 assertions, 0 failures, 0 errors
C:\projects\spin-demo>
```

Functional Testing


```
C:\projects\spin-demo\test\functional

speaker_controller_test.rb - SciTE
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speaker_controller_test.rb

1 require File.dirname(__FILE__) + '/../test_helper'
2 require 'speaker_controller'
3
4 # Re-raise errors caught by the controller.
5 class SpeakerController; def rescue_action(e) raise e end; end
6
7 - class SpeakerControllerTest < Test::Unit::TestCase
8 -   def setup
9     @controller = SpeakerController.new
10    @request = ActionController::TestRequest.new
11    @response = ActionController::TestResponse.new
12  end
13
14 # Replace this with your real tests.
15 - def test_truth
16   assert true
17 end
18 end
19
```

Integration Testing

```
C:\projects\spin-demo>ruby script/generate integration_test application_flows
exists test/integration/
create test/integration/application_flows_test.rb
```



```
1 require "#{File.dirname(__FILE__)}/../test_helper"
2
3 - class ApplicationFlowsTest < ActionController::IntegrationTest
4   # fixtures :your, :models
5
6   # Replace this with your real tests.
7   - def test_truth
8     assert true
9   end
10 end
11
```

Running Batches of Test Classes

- rake test:units
- rake test:functionals
- rake test:integration
- rake test

The Rails Application Console

```
ruby
script/console
```

```
C:\projects\spin-demo>ruby script/console
Loading development environment.
>> s = Speaker.new
=> #<Speaker:0x49ab880 @attributes={"company"=>nil, "telephone_no"=>nil, "first_name"=>nil, "surname"=>nil,
>
>> s.company = 'Psybergate'
=> "Psybergate"
>> s.valid?
=> false
>> s
=> #<Speaker:0x49ab880 @errors=#<ActiveRecord::Errors:0x493c700 @errors={"first_name"=>["can't be blank"],
_mail"=>["can't be blank"]}, @base=#<Speaker:0x49ab880 ...>, @attributes={"company"=>"Psybergate", "teleph
"surname"=>nil, "e_mail"=>nil}, @new_record=true>
>> s.presentations
=> []
>> p1 = Presentation.new
=> #<Presentation:0x492f99c @attributes={"presentation_date"=>nil, "title"=>nil, "speaker_id"=>nil}, @new_r
>> p2 = Presentation.new
=> #<Presentation:0x4929d1c @attributes={"presentation_date"=>nil, "title"=>nil, "speaker_id"=>nil}, @new_r
>> s.presentations[0] = p1
=> #<Presentation:0x492f99c @attributes={"presentation_date"=>nil, "title"=>nil, "speaker_id"=>nil}, @new_r
>> s.presentations[1] = p2
=> #<Presentation:0x4929d1c @attributes={"presentation_date"=>nil, "title"=>nil, "speaker_id"=>nil}, @new_r
>> s.presentations[0].title = 'Cool Bananas'
=> "Cool Bananas"
>> p1
=> #<Presentation:0x492f99c @attributes={"presentation_date"=>nil, "title"=>"Cool Bananas", "speaker_id"=>n
>>
```

Some External Testing Tools

- Watir – for automated acceptance testing
- WatirRecorder (previously WatirMaker) for recording Watir scripts

Deployment

- Read Chapter 26 of AWDWR 2nd Ed – **Securing Your Rails Application**
- Start Early
- Understand your production server options and what's currently recommended (DON'T use Webrick, CGI, FastCGI. **DO proxy to Mongrel from a front-end web server such as Apache**)
- Consider **Capistrano/Subversion** for repeatable automated deployment
- Production housekeeping

Deployment

C:\projects\spin-demo\config

environment.rb

```
1  # Be sure to restart your web server when you modify this file.
2
3  # Uncomment below to force Rails into production mode when
4  # you don't control web/app server and can't set it the proper way
5  # ENV['RAILS_ENV'] ||= 'production'
6
7  # Specifies gem version of Rails to use when vendor/rails is not present
8  RAILS_GEM_VERSION = '1.2.3' unless defined? RAILS_GEM_VERSION
9
10 # Bootstrap the Rails environment, frameworks, and default configuration
11 require File.join(File.dirname(__FILE__), 'boot')
12
13 - Rails::Initializer.run do |config|
14   # Settings in config/environments/* take precedence over those specified here
15
16   # Skip frameworks you're not going to use (only works if using vendor/rails)
17   # config.frameworks -= [ :action_web_service, :action_mailer ]
18
19   # Only load the plugins named here, by default all plugins in vendor/plugins are loaded
```

Deployment



Thank You...

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