RubyOnRails

Jens Himmelreich

I. Was ist das?

II. Wie funktioniert das?

III. Wo funktioniert das nicht?

I.

Was ist das?

abstrakt

RubyOnRails

RubyOnRails

Ruby

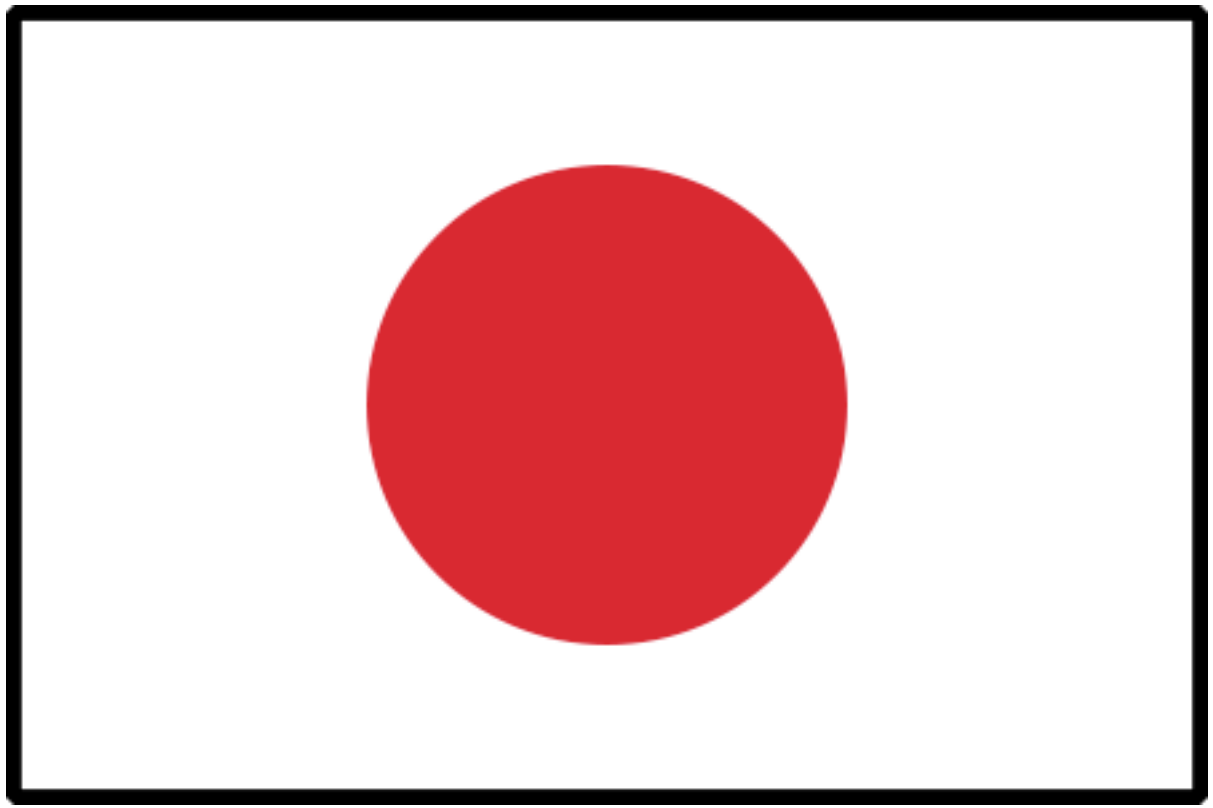
Programmiersprache

* 24. 2. 1993

geboren

Yukihiro Matsumoto

Vater



Geburtsland

interpretiert,
objektorientiert

Perl

Smalltalk

Eiffel

RubyOnRails

Rails

Webapplikationsframework

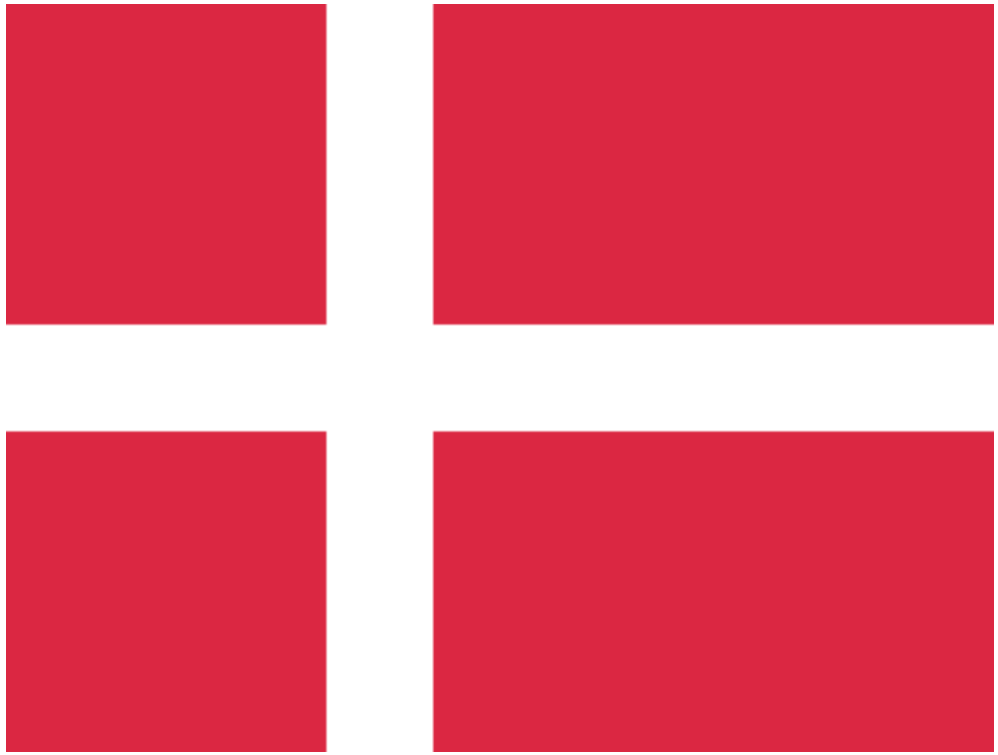

RAILS

* Juli 2004

geboren

David Heinemeier Hansson

Vater



Geburtsland

MVC

Model-View-Controller

ActiveRecord

‚OR-Mapper‘

ActionPack

Controller/Template Framework

Ruby On Rails

Schiene

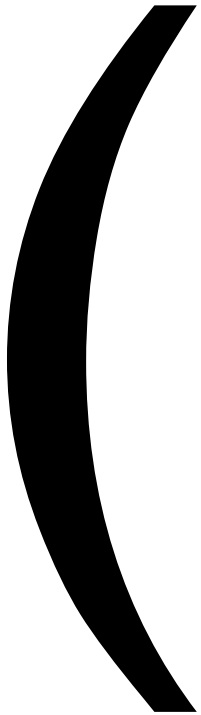
Konvention

konkret

Hello World

```
$ rails hello_world
```

```
$ cd hello_world/
$ ls -1F
README
Rakefile
app/
components/
config/
db/
doc/
lib/
log/
public/
script/
test/
tmp/
vendor/

$
```



```
$ mysqladmin -u root create hello_world_development
```

```
$ ./script/generate migration CreateMessages
      create  db/migrate
      create  db/migrate/001_create_messages.rb
$
$ mate db/migrate/001_create_messages.rb
```

TextMate.rb

```
class CreateMessages < ActiveRecord::Migration
  def self.up
  end

  def self.down
  end
end
```

Line: 1 Column: 1 Ruby on Rails Soft Tabs: 2

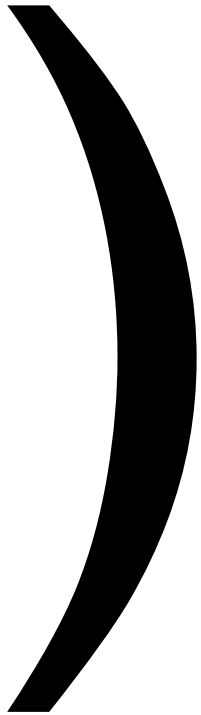
TextMate.rb

```
class CreateMessages < ActiveRecord::Migration
  def self.up
    create_table "messages" do |t|
      t.column :text, :string
    end
  end

  def self.down
    drop_table "messages"
  end
end
```

Line: 1 Column: 1 Ruby on Rails Soft Tabs: 2

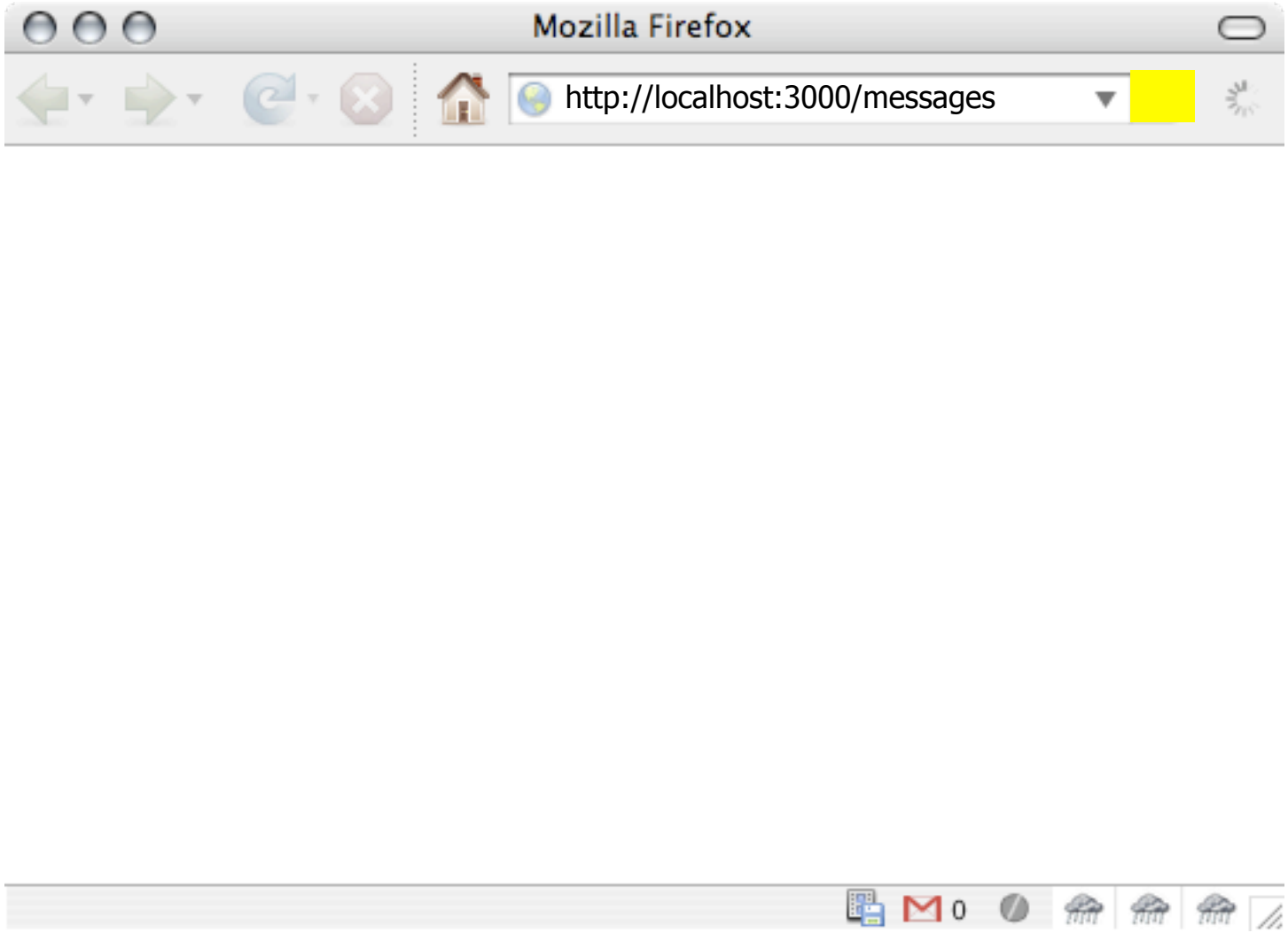
```
$ rake db:migrate
== CreateMessages: migrating
==============================================
-- create_table("messages")
   -> 0.0618s
== CreateMessages: migrated (0.0620s)
=====================================

$
```

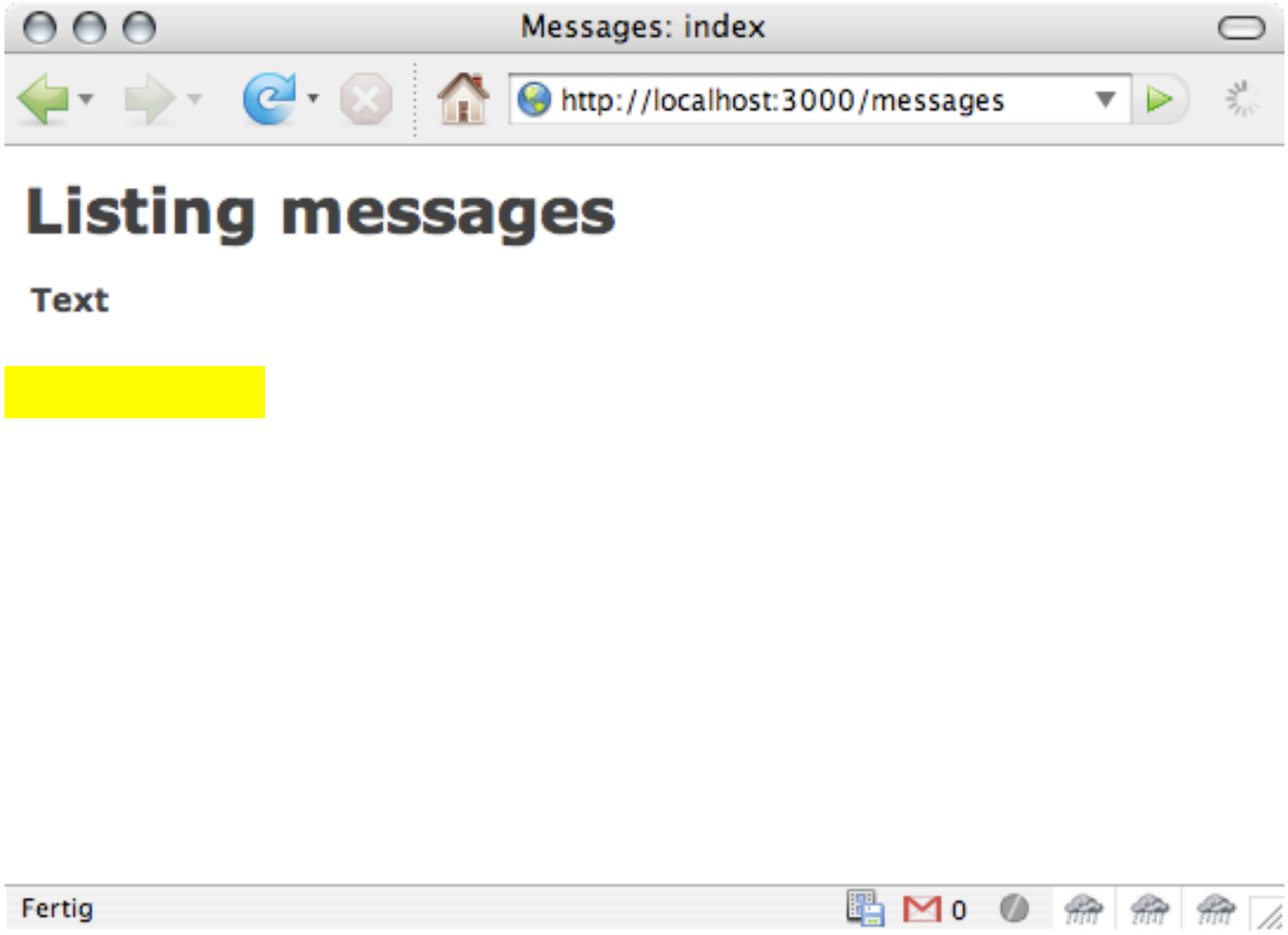
```
$ mysql -u root hello_world_development

mysql> desc messages;

+-------+--------------+------+-----+
| Field | Type         | Null | Key |
+-------+--------------+------+-----+
| id    | int(11)      | NO   | PRI |
| text  | varchar(255) | YES  |     |
+-------+--------------+------+-----+
2 rows in set (0.07 sec)

mysql>
```

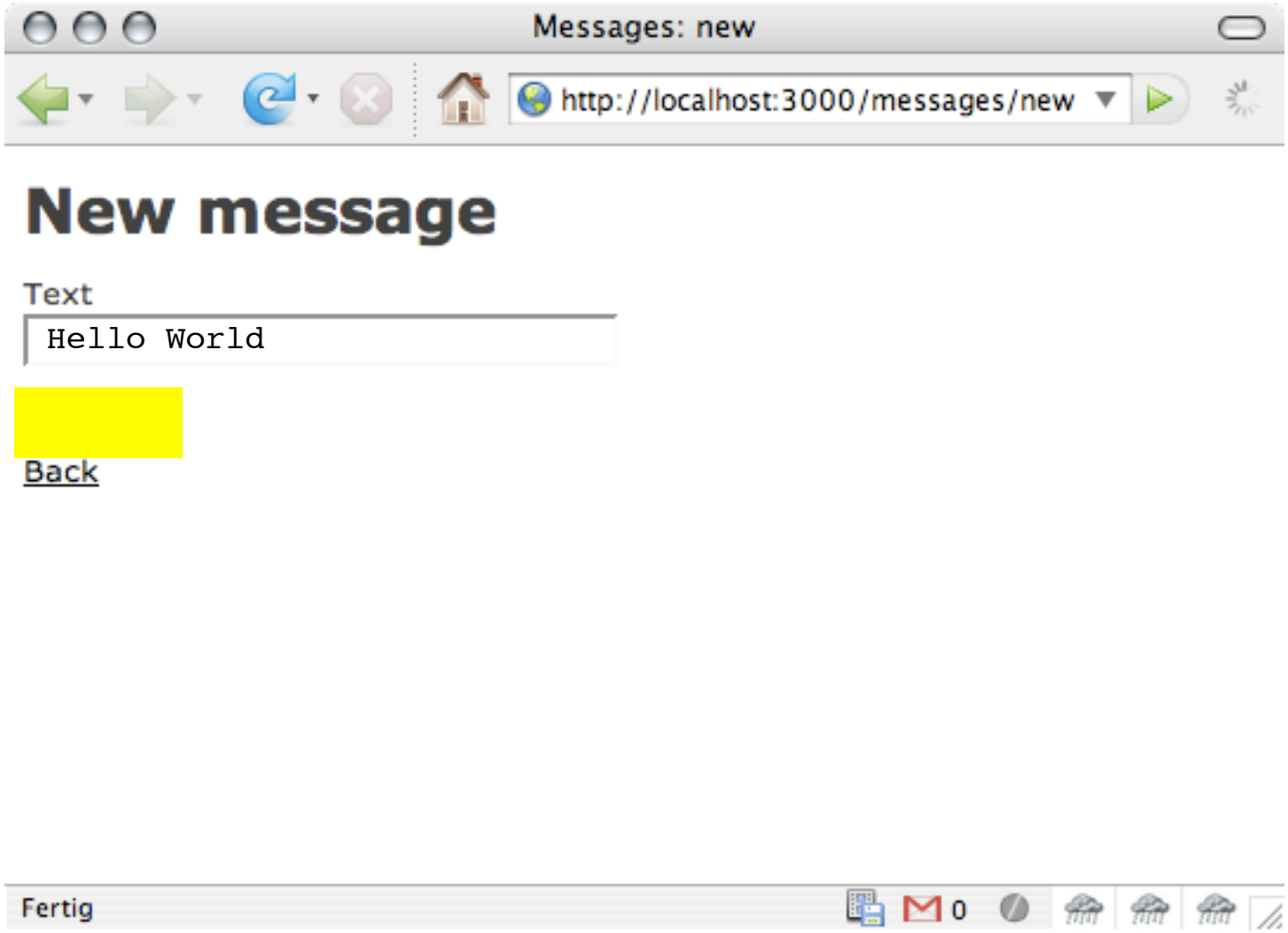


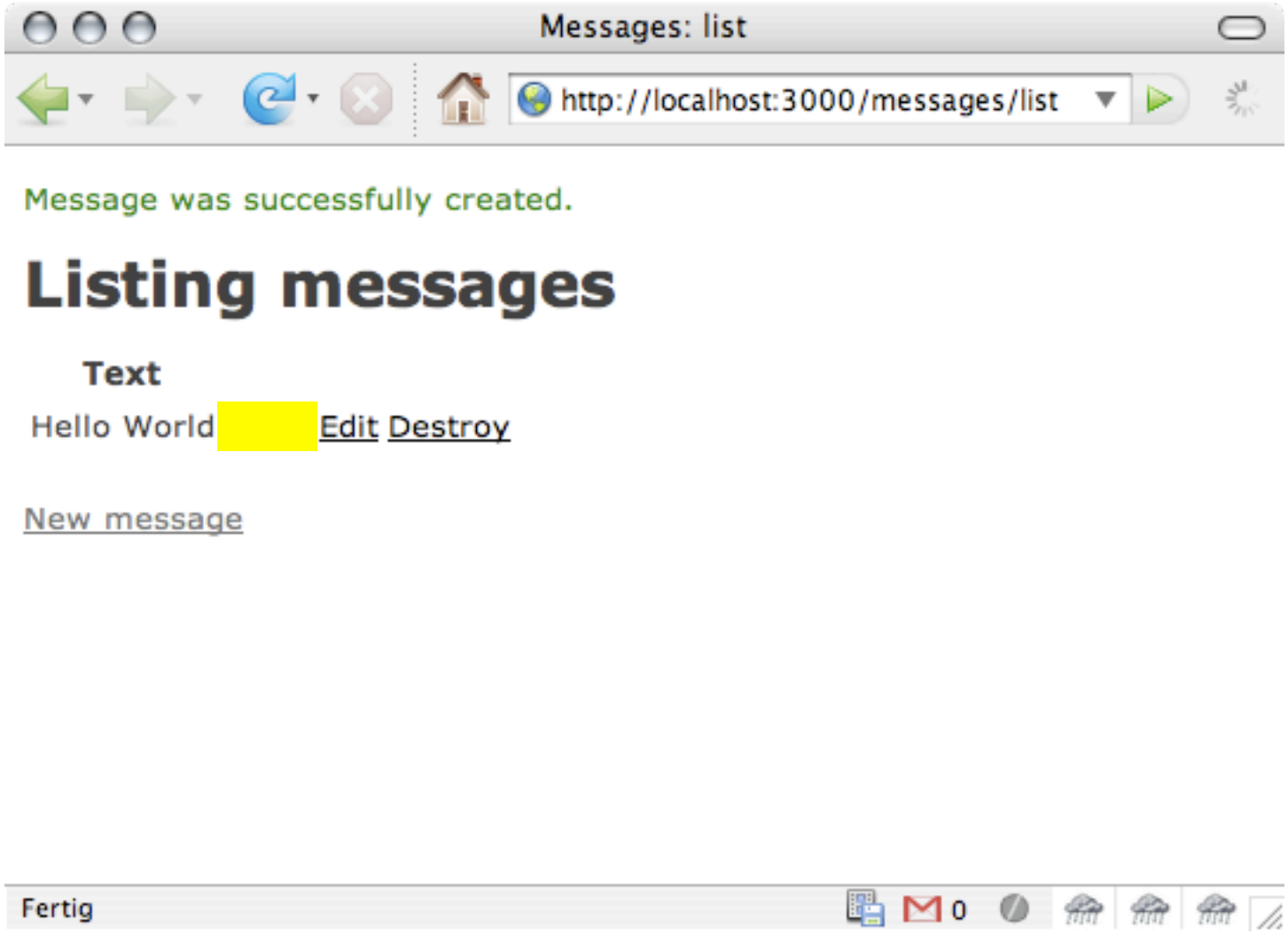
```
$ ./script/generate scaffold Message
  create  app/models/message.rb
  create  test/unit/message_test.rb
  create  test/fixtures/messages.yml
  create  app/views/messages/_form.rhtml
  create  app/views/messages/list.rhtml
  create  app/views/messages/show.rhtml
  create  app/views/messages/new.rhtml
  create  app/views/messages/edit.rhtml
  create  app/controllers/messages_controller.rb
  create  test/functional/messages_controller_test.rb
  create  app/helpers/messages_helper.rb
  create  app/views/layouts/messages.rhtml
  create  public/stylesheets/scaffold.css

$
```

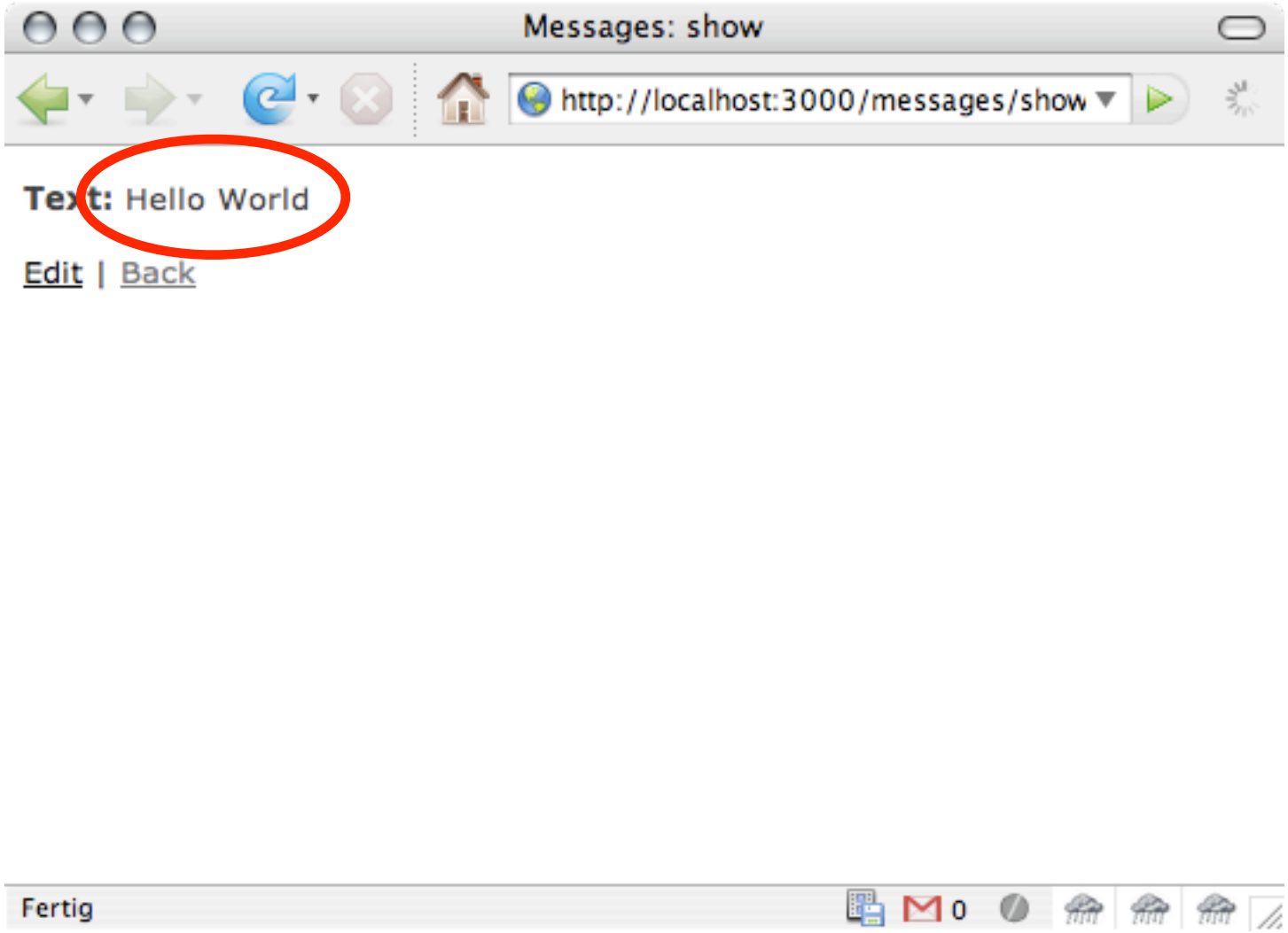
```
$ ./script/server webrick
=> Booting WEBrick...
=> Rails application started on http://0.0.0.0:3000
=> Ctrl-C to shutdown server; call with --help for
options
[2007-05-07 10:23:25] INFO  WEBrick 1.3.1
[2007-05-07 10:23:25] INFO  ruby 1.8.5 (2006-08-25)
[i686-darwin8.7.1]
[2007-05-07 10:23:25] INFO
WEBrick::HTTPServer#start: pid=6136 port=3000
```


Mozilla Firefox
http://localhost:3000/messages
0


Messages: index
http://localhost:3000/messages
Listing messages
Text
Fertig
0


Messages: new
http://localhost:3000/messages/new
New message
Text
Hello World
Back
Fertig
0


Messages: list
http://localhost:3000/messages/list
Message was successfully created.
Listing messages
Text
Hello World
Edit
Destroy
New message
Fertig
0


Messages: show
http://localhost:3000/messages/show
Text: Hello World
Edit | Back
Fertig
0

```
$ rails hello_world
```

+

```
$ ./script/generate scaffold Message
```

=

Text: Hello World

II.
Wie funktioniert das?

Convention over Configuration

Struktur

statisch

Verzeichnis-struktur

```
$ ls -1F
README
Rakefile
app/
components/
config/
db/
doc/
lib/
log/
public/
script/
test/
tmp/
vendor/

$
```

```
$ ls -1F app
controllers/
helpers/
models/
views/

$
```

```
$ ls -1F app/models/
message.rb

$
```

```
$ ls -1F app/controllers/
application.rb
messages_controller.rb

$
```

```
$ ls -1F app/views/
layouts/
messages/

$ ls -1F app/views/messages/
_form.rhtml
edit.rhtml
list.rhtml
new.rhtml
show.rhtml

$
```

```
$ ls -1F app/helpers/
application_helper.rb
messages_helper.rb

$
```

```
$ ls -1F
README
Rakefile
app/
components/
config/
db/
doc/
lib/
log/
public/
script/
test/
tmp/
vendor/

$
```

```
$ ls -1F config/
boot.rb
database.yml
environment.rb
environments/
routes.rb

$ ls -1F config/environments/
development.rb
production.rb
test.rb

$
```

```
$ ls -1F db
migrate/
schema.rb

$ ls -1F db/migrate/
001_create_messages.rb

$
```

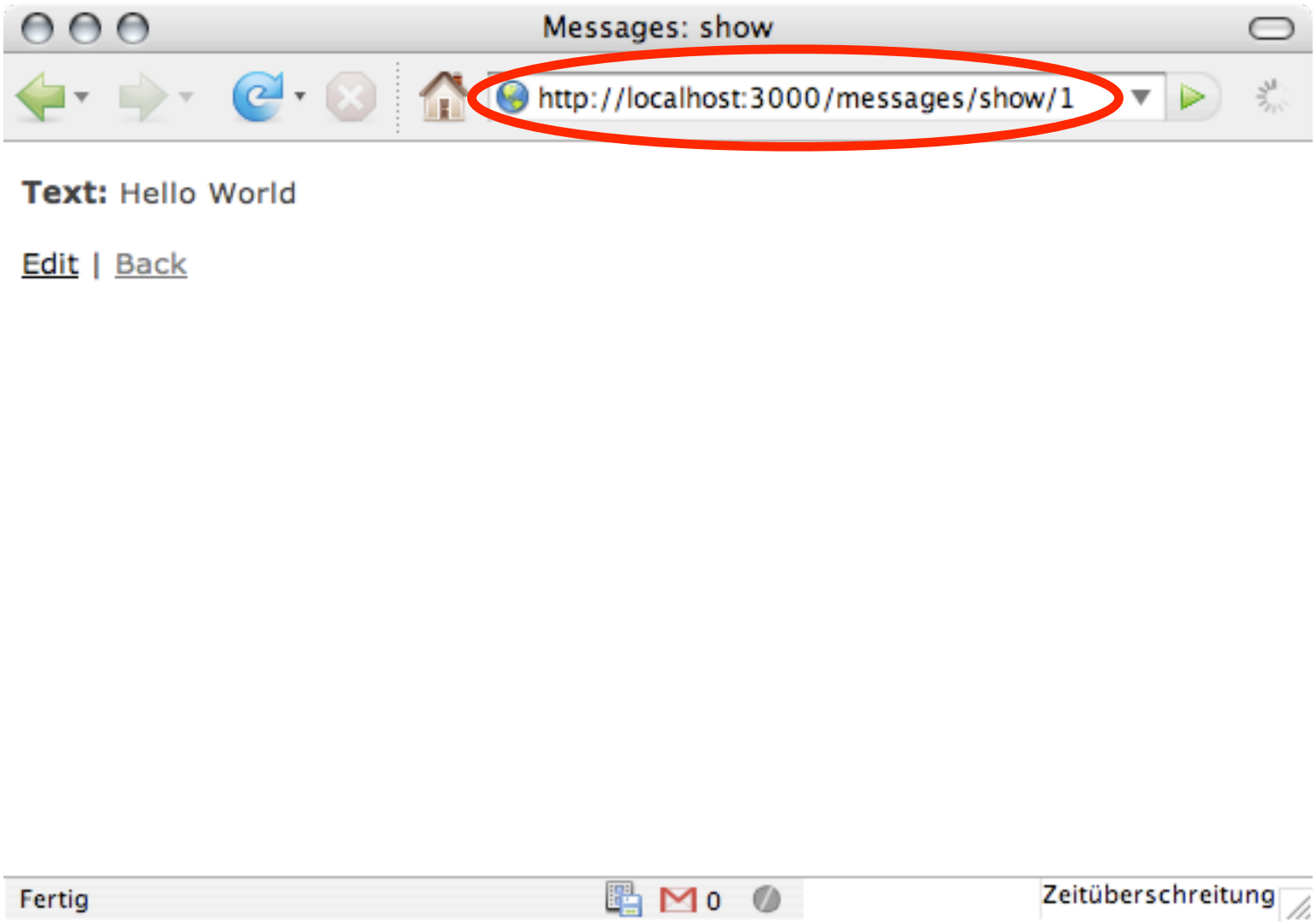
```
$ ls -1F
README
Rakefile
app/
components/
config/
db/
doc/
lib/
log/
public/
script/
test/
tmp/
vendor/

$
```

```
$ ls -1F test
fixtures/
functional/
integration/
mocks/
test_helper.rb
unit/

$
```

dynamisch

Namens-konventionen

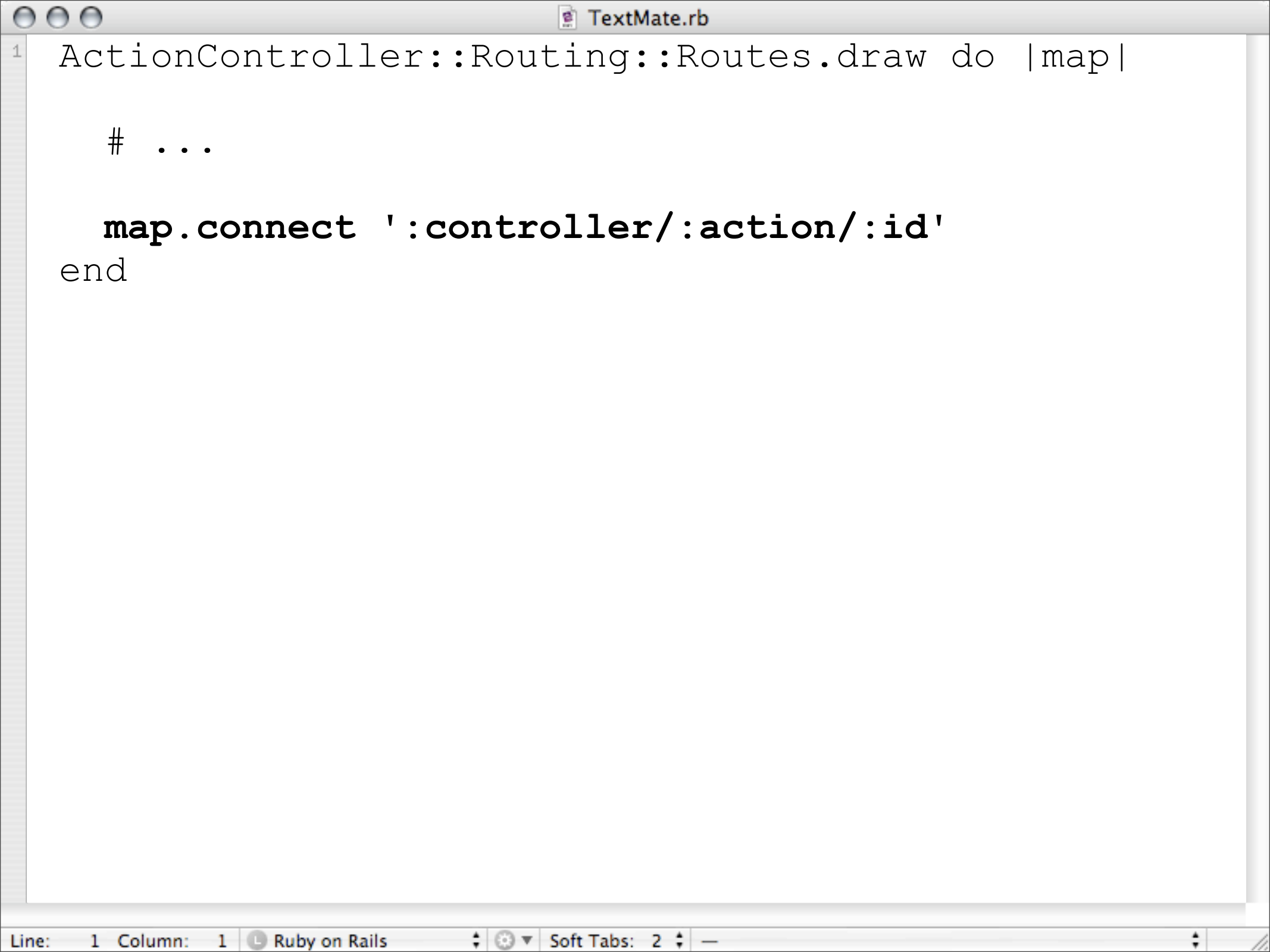
```
$ rails hello_world

$ ./script/generate scaffold Message

$
```


Messages: show
http://localhost:3000/messages/show/1
Text: Hello World
Edit | Back
Fertig
0
Zeitüberschreitung

http://localhost:3000/messages/show/1

/messages/show/1

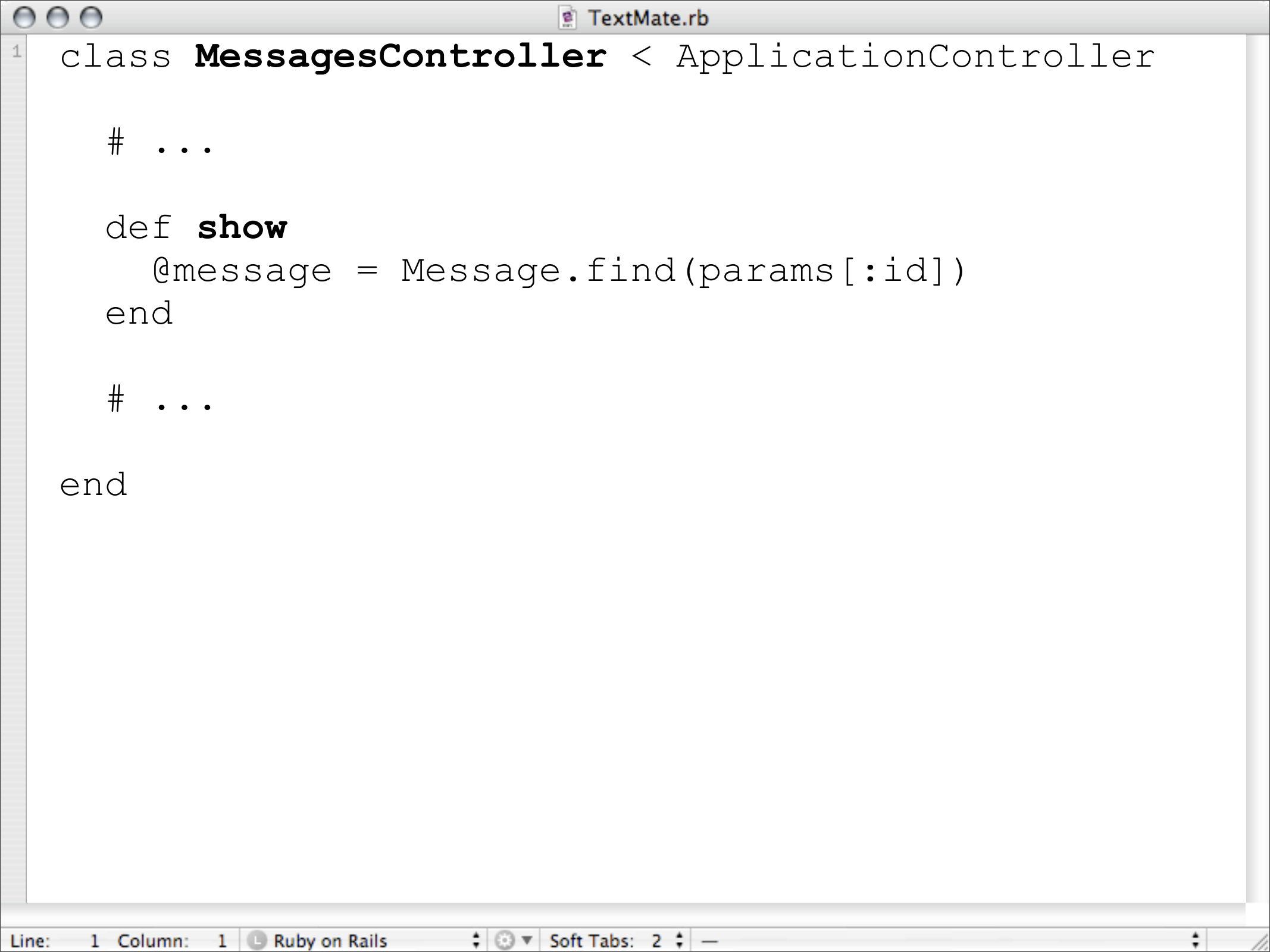
```
$ mate config/routes.rb
```


TextMate.rb
1
ActionController::Routing::Routes.draw do |map|
...
map.connect ':controller/:action/:id'
end
Line: 1 Column: 1
Ruby on Rails
Soft Tabs: 2

/messages/show/1

:controller = messages
:action = show
:id = 1

```
$ mate app/controllers/messages_controller.rb
```


TextMate.rb
class MessagesController < ApplicationController
...
def show
@message = Message.find(params[:id])
end
...
end
Line: 1 Column: 1
Ruby on Rails
Soft Tabs: 2

```
$ mate app/models/message.rb
```

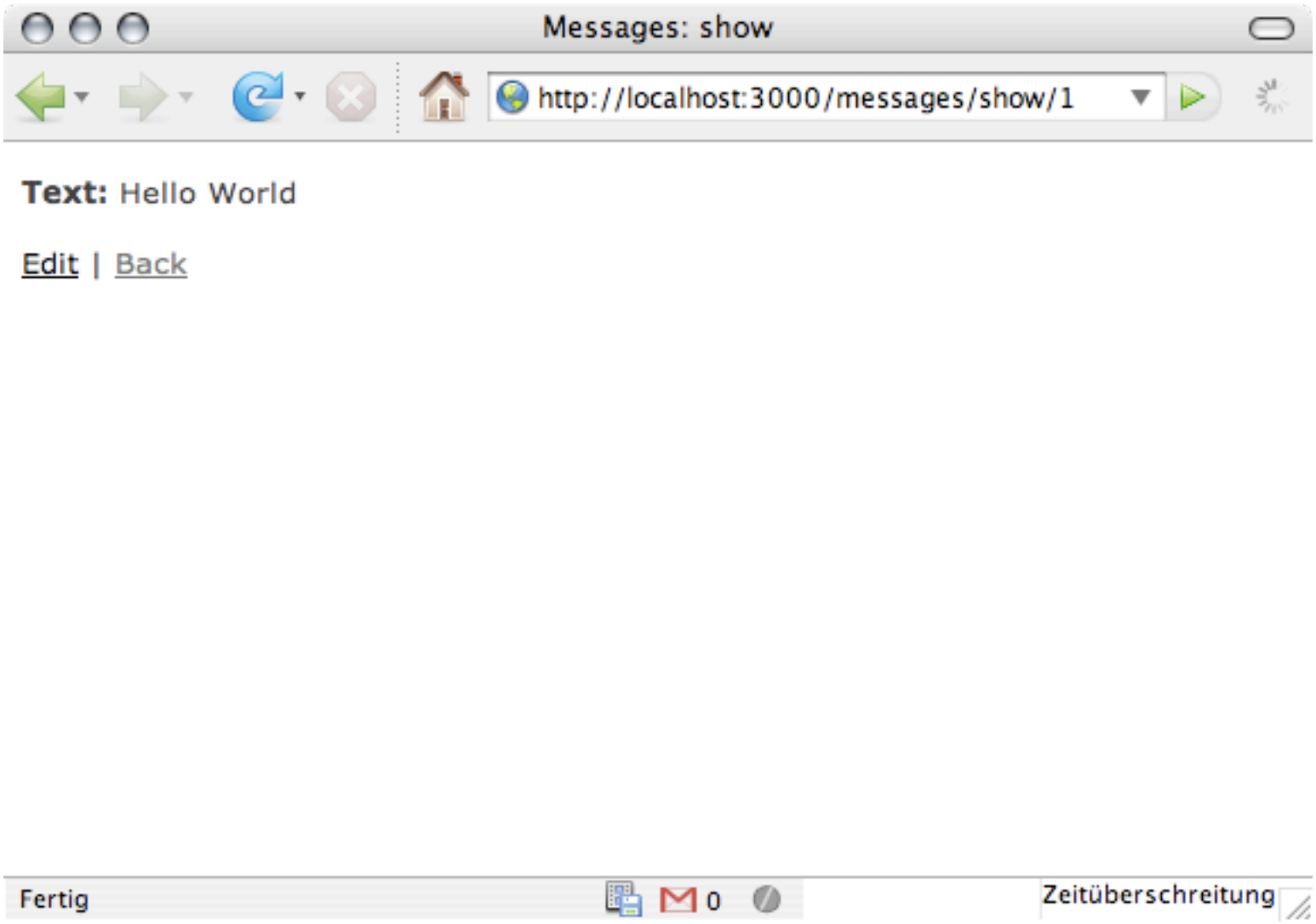

TextMate.rb
1
class Message < ActiveRecord::Base
end
Line: 1 Column: 1
Ruby on Rails
Soft Tabs: 2

```
$ ls -1F app/views/messages/
_form.rhtml
edit.rhtml
list.rhtml
new.rhtml
show.rhtml
```

TextMate.rb
<% for column in Message.content_columns %>

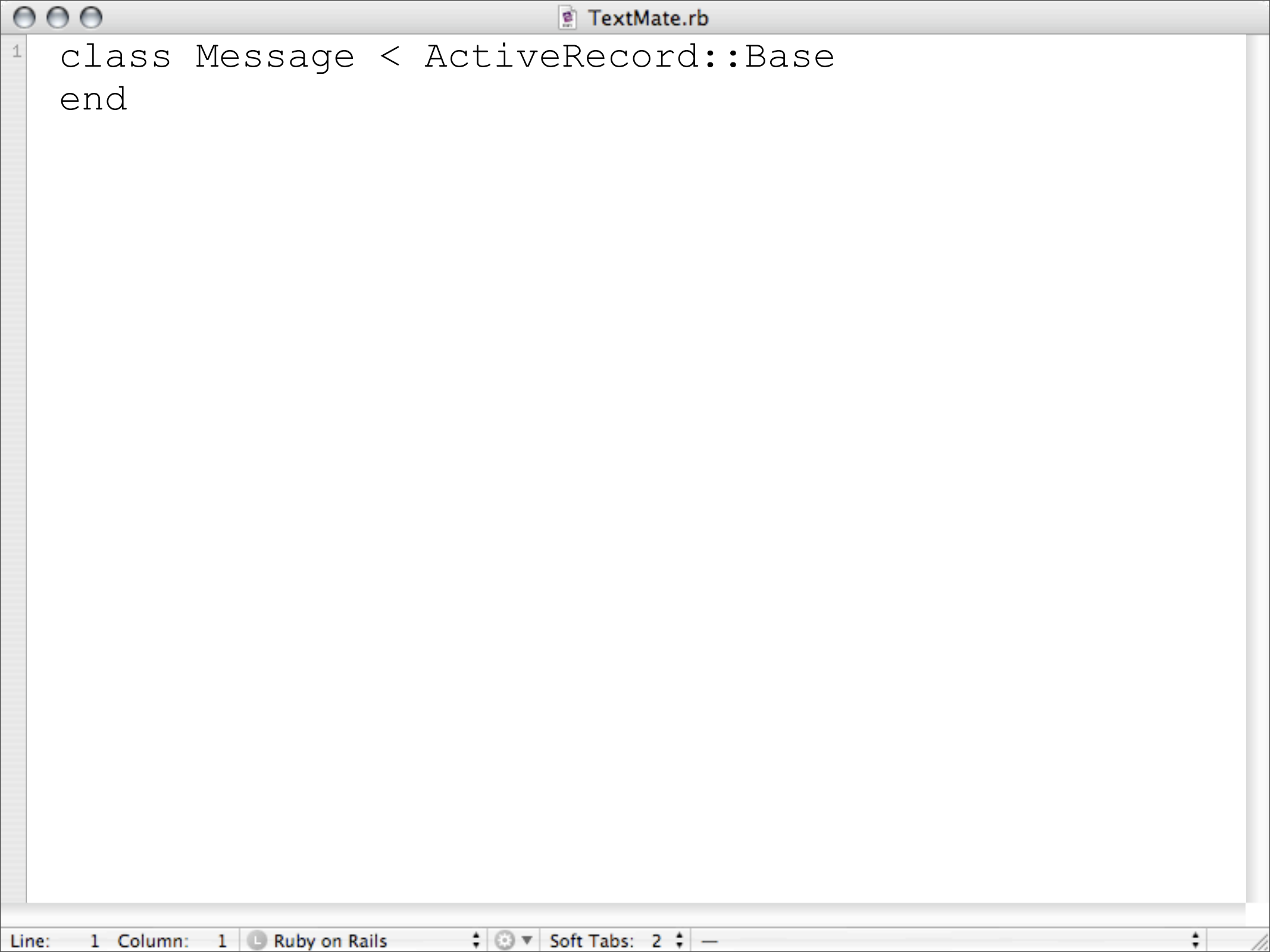
<%= column.human_name %>:
<%=h @message.send(column.name) %>

<% end %>
<%= link_to 'Edit',
:action => 'edit',
:id => @message %> |
<%= link_to 'Back',
:action => 'list' %>
Line: 1 Column: 1 Ruby on Rails Soft Tabs: 2


Messages: show
http://localhost:3000/messages/show/1
Text: Hello World
Edit | Back
Fertig
0
Zeitüberschreitung

ActiveRecord


messages
id
text


TextMate.rb
1
class Message < ActiveRecord::Base
end
Line: 1 Column: 1
Ruby on Rails
Soft Tabs: 2

class Message

≈

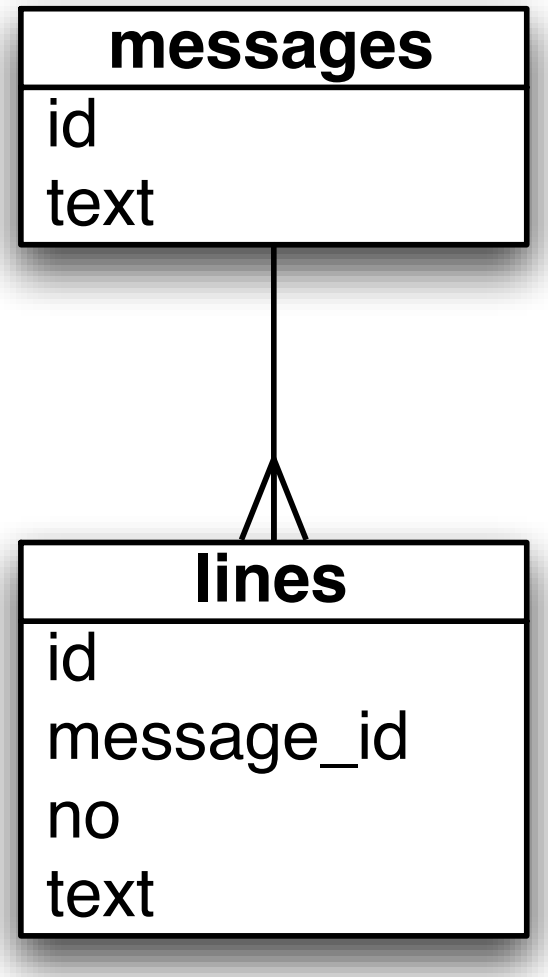
Tabelle messages

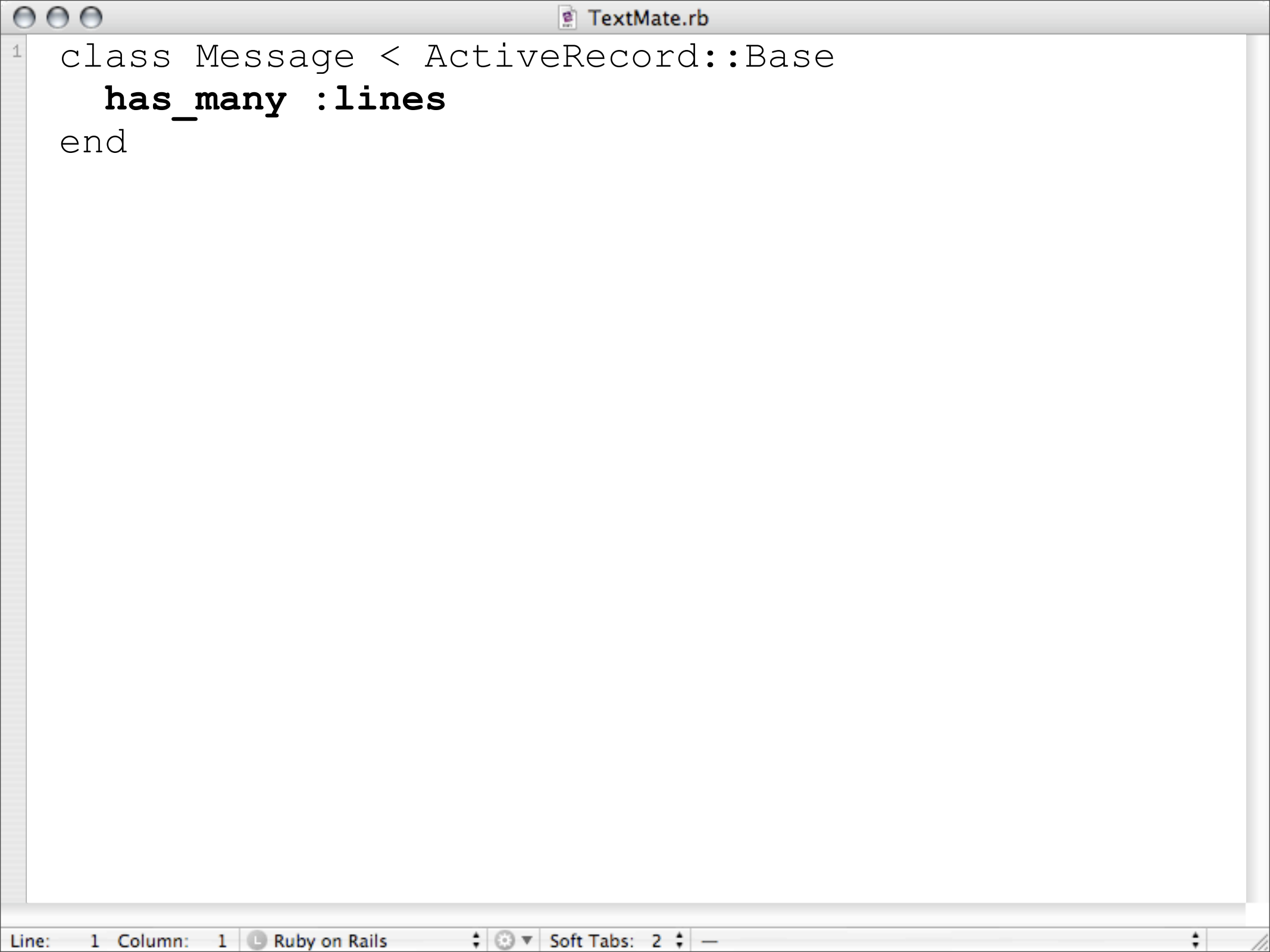
Property text

≈

Feld text

```
$ ./script/console
Loading development environment.
>> m = Message.new :text => 'hello'
>> m.save
>> m.id
>> 1
>> exit

$ ./script/console
Loading development environment.
>> m = Message.find 1
>> m.text
>> "hello"
```


messages
id
text
lines
id
message_id
no
text


TextMate.rb
1
class Message < ActiveRecord::Base
has_many :lines
end
Line: 1 Column: 1
Ruby on Rails
Soft Tabs: 2

```
$ ./script/console
Loading development environment.
>> m = Message.new :text => 'abc'
>> m.save
>> m.id
>> 2
>> m.lines << Line.new(:text => 'def')
>> exit

$ ./script/console
Loading development environment.
>> m = Message.find 2
>> m.lines.first.text
>> "def"
```

Convention over Configuration

statisch - Verzeichnisstruktur
dynamisch - Namenskonvetion

No Impedance Mismatch

Browser

Applikationsserver

Datenbank

HTML, JavaScript

Java, Ruby, Python

SQL

HTML, JavaScript

Java - Hibernate

RubyOnRails

rhtml, rjs

Ruby

ActiveRecord

AJAX

integriert

`link_to` **`link_to_remote`**

`form_tag` **`form_remote_tag`**

rjs-Template

```
page.replace_html
   "cart", :partial => "cart"
```

Railsentwicklung

Prototype-,
script.aculo.us-
Entwicklung

III.
Wo funktioniert das nicht?

Convention over Configuration

ActiveRecord

Zusammengesetzte Schlüssel

Klassenstruktur

≠

Tabellenstruktur

Application-Database

SingleTableInheritance

Rails

Deployment

Webkonnektor

webrick

fastcgi

lighttpd

mod_ruby

apache

mongrel

Ruby

Bibliotheken

Threading

Garbage Collection

Performance

Antworten

Rails + rBatis

Rails + SQL

Plugins

Performance

Page-Caching

Action-Caching
Fragment-Caching

YARV

jruby

xruby

Ende

Vielen Dank für
ihre Aufmerksamkeit …

… und noch ein
Veranstaltungshinweis in
eigener Sache …

Agilität und Mikropolitik

Dienstag 29. Mai
20:00 Lagerhaus
Agile Gruppe Bremen
agb.wikipaces.com

Fragen?