



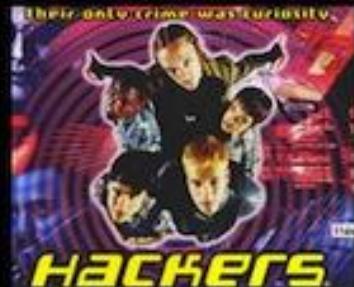
**KEEP CALM
AND
CODE IN
RUBY**



I am Vysakh.

I am a web developer.

WEB DEVELOPER



What my friends think I do



What my mom thinks I do



What society thinks I do



What my boss thinks I do



What I think I do



What I actually do



i

love

RUBY

so

much

```
#include <stdio.h> /* needed for printf */

int main()
{
    printf("Hello World\n");

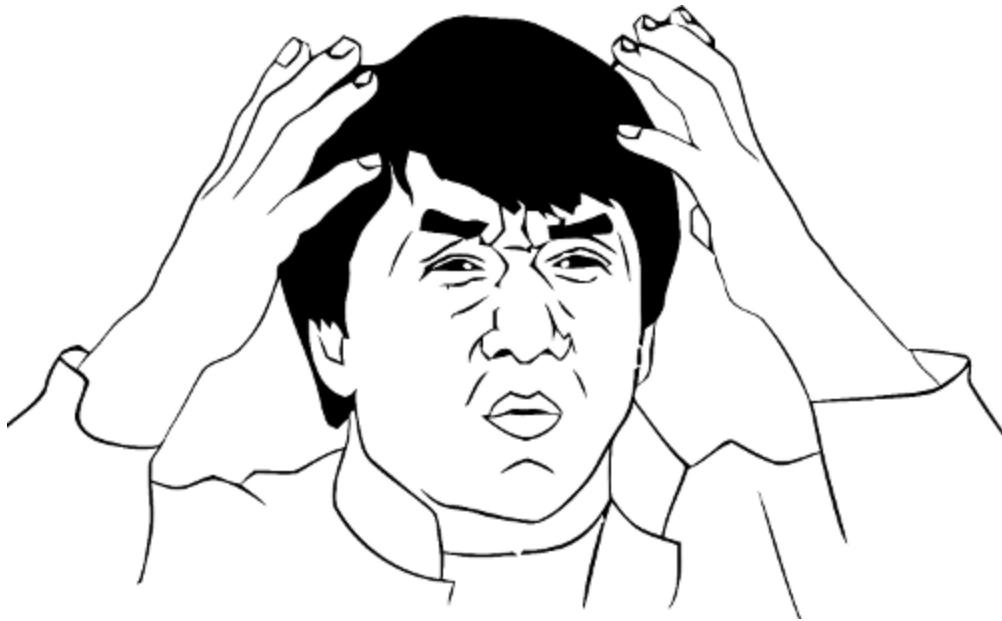
    return 1;
}
```

**REMOVE LINES THAT YOU
HATE**

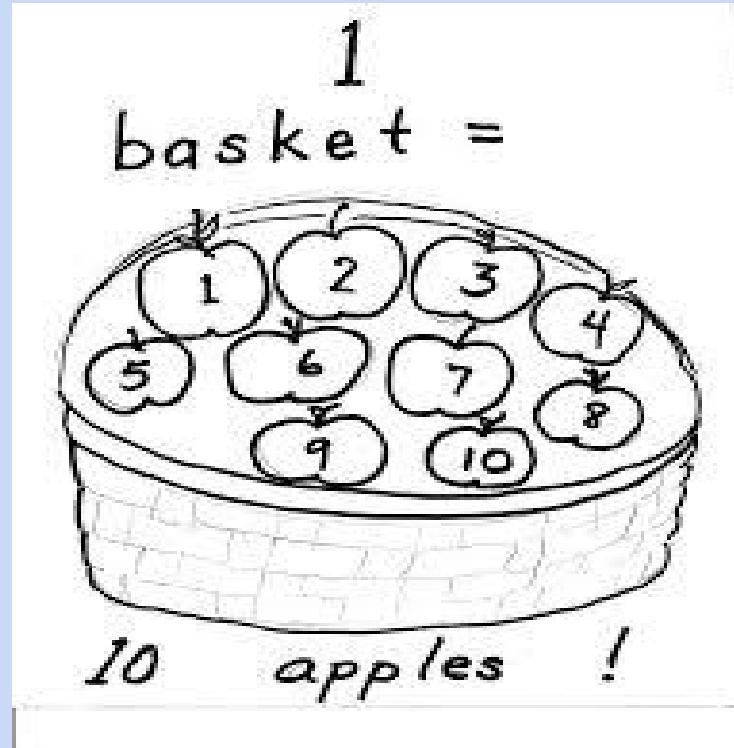


In Ruby

puts "Hello world"



Variables



You have

- basket A with 10 apples
- basket B with 20 apples.

Find the sum and difference



basketa = 10 apples
basketb = 20 apples

sum = basketa + basketb
 $\Rightarrow 10 + 20 = 30$

difference = basketb - basketa
 $\Rightarrow 20 - 10 = 10$



In Ruby

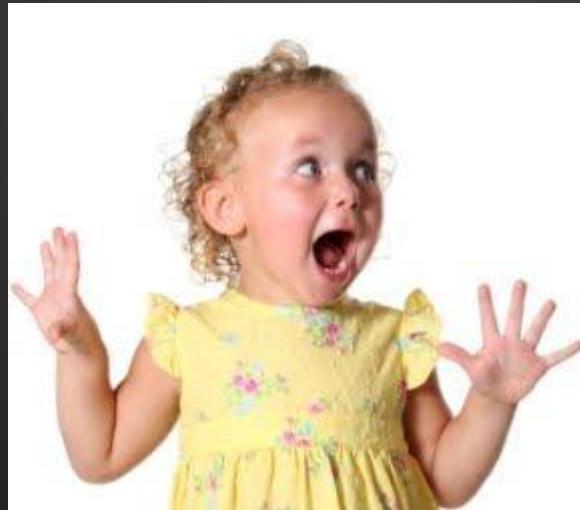
```
basketa = 10
```

```
basketb = 20
```

```
sum      = basketa + basketb
```

```
difference = basketb - basketa
```

It is just like what you wrote in your
kindergarten answer sheet



Creator of Ruby - Matz



Running the code

```
[0:2.1] ~/chennairb 51x14
→ chennairb ruby love-code.rb
I love you
→ chennairb ┌
```

Ruby is executed line by line

So output of a single line/logic can be seen
using `irb`

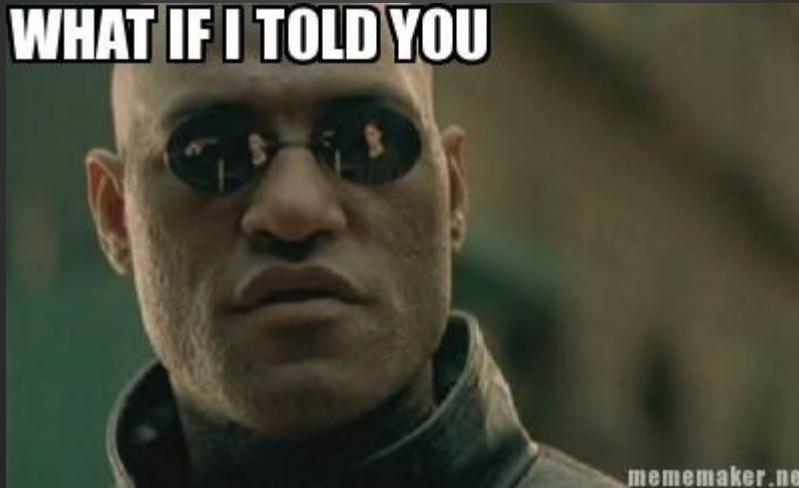
Opening up irb in the terminal

```
[0:2.1] irb 51x14
→ chennairb  irb
irb(main):001:0> print "Hello world"
Hello world=> nil
irb(main):002:0> █
```

Instead of executing as a program file. Useful for learning, debugging.

Conditionals

WHAT IF I TOLD YOU



mememaker.net

Is the weather cold today?

TRUE

Wear something warm.

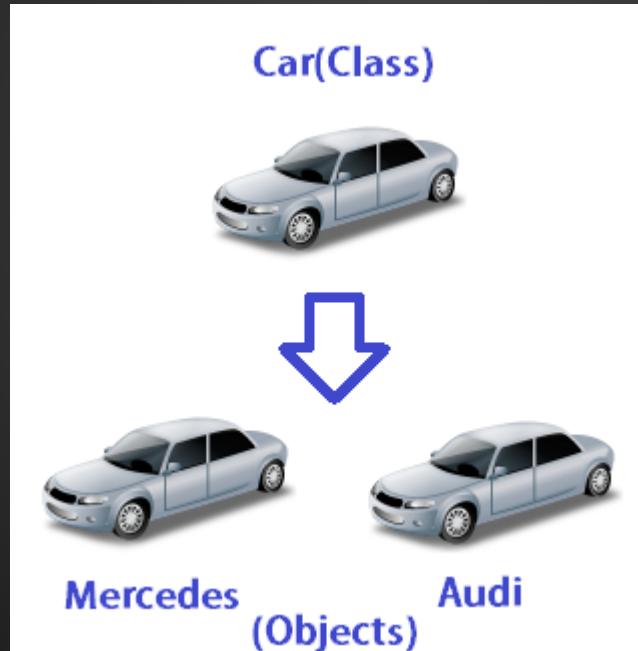
FALSE

Don't wear something warm.

Ruby code

```
cold_weather = true  
  
if cold_weather  
    puts "Wear something warm"  
else  
    puts "Don't wear something"  
end
```

Most thing in Ruby is Object



2.odd?()

=> false

“Vysakh”.length()

=> 6

Brackets are optional in Ruby

```
2.odd?
```

```
=> false
```

```
"Vysakh".length
```

```
=> 6
```



*Ruby makes me
happy.*

Array or list



02/21/2013 02:38

In Ruby

```
shopping = [ "milk", "cheese", "olive oil"]
```

Loops



In Ruby

```
20.times do  
  puts "I must do my homework"  
end
```



Also, there are

- loop
- while loop
- for loop
- step
- upto

A person wearing a white button-down shirt, a black bow tie, and a brown fedora hat stands in a room with large windows. They have their arms wide open and are holding a small object in their right hand. The room has light-colored walls and several wooden chairs are visible in the background.

Ruby is all about making programmer
HAPPY



Mam, please take
each item for me to
bill



cart = ["biscuit", milk", "shampoo"]



Mam, please take
each item for me to
bill

```
cart = ["biscuit", milk", "shampoo"]
```

```
cart.each do |item|  
  puts item  
end
```

HASH

btw - by the way

brb - be right back

Hy I - talk to you later

lol - laugh out loud

2day - to day



In Ruby

```
slang = {  
    "lol" => "laugh out loud",  
    "brb" => "Be right back"  
}
```

```
slang["lol"]  
=> laugh out loud
```

Use symbols instead of string

```
slang = {  
    :lol => "laugh out loud",  
    :brb => "Be right back"  
}
```

```
slang[:lol]  
=> laugh out loud
```

Symbols in Ruby

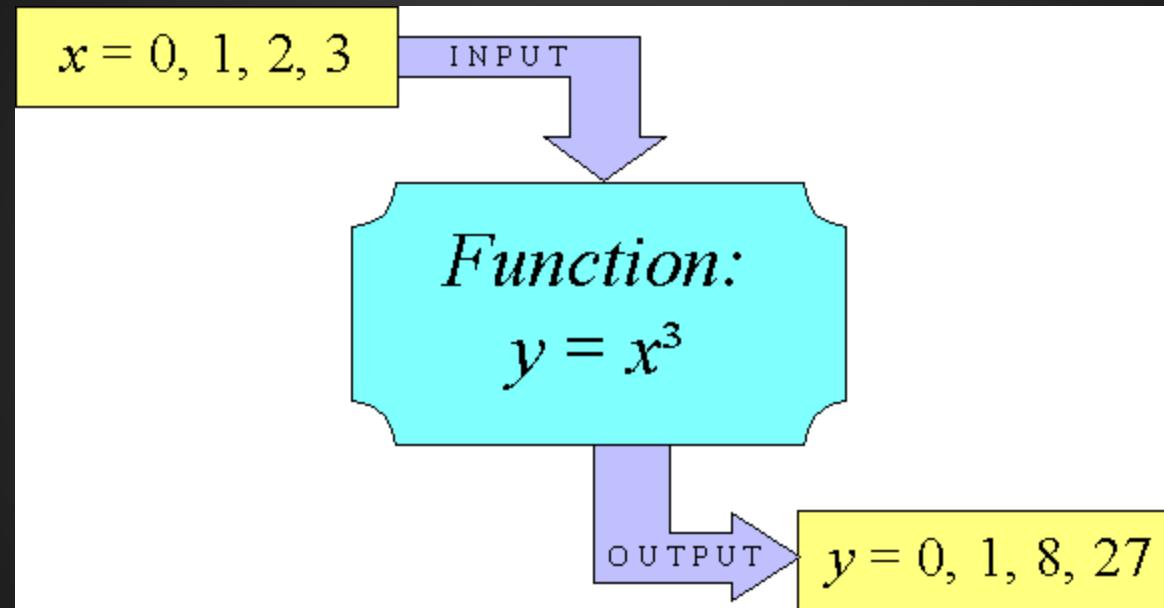
```
:hand.class  
=> Symbol
```

Alternate way to write hash

```
slang = {  
    lol: "laugh out loud",  
    brb: "Be right back"  
}
```

```
slang[:lol]  
=> laugh out loud
```

Functions



In Ruby

```
def y(x)
  x**3
end
```

```
y(3) # => 27
y(2) # => 8
```

Object Oriented Programming

Decides to make a hotel where

- he makes the food
- he takes the order
- he receives the money

Decides to change!

- Separates jobs(functions)
- A person of one job need not know about other.
- The person should have specific attributes like name, salary, rating.

Waiter

attributes:

- name
- salary
- rating

Jobs/functions:

- take order
- get food from chef
- get bill

Chef

attributes:

- name
- salary
- specialization
- rating

Jobs/functions:

- make food

Waiter

attributes:

- name => Kaipulla
- salary => 10000
- rating => 10

Jobs/functions:

- take order
- get food from chef
- get bill





Inheritance

```
[44] pry(main)> class Bird
[44] pry(main)*   def locomotion
[44] pry(main)*     "flying"
[44] pry(main)*   end
[44] pry(main)*   def reproduction
[44] pry(main)*     "eggs"
[44] pry(main)*   end
[44] pry(main)* end
=> :reproduction
[45] pry(main)> class Eagle < Bird
[45] pry(main)* end
=> nil
[46] pry(main)> eaglet = Eagle.new
=> #<Eagle:0x23052d64>
[47] pry(main)> eaglet.locomotion
=> "flying"
[48] pry(main)> eaglet.reproduction
=> "eggs"
[49] pry(main)> █
```

Install ruby using
a version manager (RVM or rbenv or other)

Installing Ruby using rbenv

PUBLIC



fesplugas / rbenv-installer

[Watch](#) ▾ 30[Star](#) 303[Fork](#) 69

Install rbenv and friends and update all of them when you want to ...

193 commits

2 branches

0 releases

9 contributors



branch: master ▾

[rbenv-installer](#) /

Suggest installing Ruby 2.1.0

fesplugas authored 2 months ago

latest commit 4185e7f865



Added 'rbenv-gem-rehash' to plugins list.

2 months ago



Update MIT-LICENSE

2 years ago



Suggest installing Ruby 2.1.0

2 months ago



README.md

SSH clone URL

git@github.com:fesplugas/rbenv-installer.git

You can clone with [HTTPS](#), [SSH](#), or [Subversion](#). [Download ZIP](#)

rbenv installer

This tool is used to install `rbenv` and some plugins. It also provides scripts to install required software to be able to compile **Ruby**.

Code

Issues 8

Pull Requests 5

Pulse

Graphs

Network

Installing and setting Ruby

```
→ ~ curl https://raw.github.com/fesplugas/rbenv-installer/master/bin/rbe  
staller | bash  
→ ~ rbenv install 2.1.0  
→ ~ rbenv global 2.1.0
```



Sorry! :(no more maggi



Creator of Ruby on Rails

@dhh



Installing Rails

```
vysakh@vysakh-HEC41: ~ 51x14
→ ~ gem install rails
```

Creating a new rails project

```
vysakh@vysakh-HEC41: ~ 48x13  
→ ~ rails new myproject
```

```
create config/locales
create config/locales/en.yml
create config/boot.rb
create config/database.yml
create db
create db/seeds.rb
create lib
create lib/tasks
create lib/tasks/.keep
create lib/assets
create lib/assets/.keep
create log
create log/.keep
create public
create public/404.html
create public/422.html
create public/500.html
create public/favicon.ico
create public/robots.txt
create test/fixtures
create test/fixtures/.keep
create test/controllers
create test/controllers/.keep
create test/mailers
create test/mailers/.keep
create test/models
create test/models/.keep
create test/helpers
create test/helpers/.keep
create test/integration
create test/integration/.keep
create test/test_helper.rb
create tmp/cache
create tmp/cache/assets
create vendor/assets/javascripts
create vendor/assets/javascripts/.keep
create vendor/assets/stylesheets
create vendor/assets/stylesheets/.keep
run bundle install
```



Files generated with “rails new myproject” command



When
bundle
installing

Directory structure

Gemfile

This has the list of Ruby gems



A Ruby library is called
as a **Ruby Gem**

Say, I wrote a ruby lib

I could share it with other devs

by pushing to rubygems.org

Other person can get it by
gem install lib-name or writing in Gemfile

And doing bundle

app/ dir is the holy grail

What does browser understand?

**What enhances the
beauty of the browser?**

All those assets are in
app/assets directory

app/views is the place

where all your html files for different req

Header

Nav

Main

Footer

All views are inserted

inside the layout:

app/views/layouts/application.html.erb

Start the Rails server

```
_rails_command s 89x25
→ ~ cd myproject/
→ myproject rails s
=> Booting WEBrick
=> Rails 4.1.0.rc1 application starting in development on http://0.0.0.0:3000
=> Run `rails server -h` for more startup options
=> Notice: server is listening on all interfaces (0.0.0.0). Consider using 127.0.0.1 (--binding option)
=> Ctrl-C to shutdown server
[2014-03-20 19:52:54] INFO  WEBrick 1.3.1
[2014-03-20 19:52:54] INFO  ruby 2.1.0 (2013-12-25) [i686-linux]
[2014-03-20 19:52:54] INFO  WEBrick::HTTPServer#start: pid=4457 port=3000
```

Check the browser

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 `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](#)

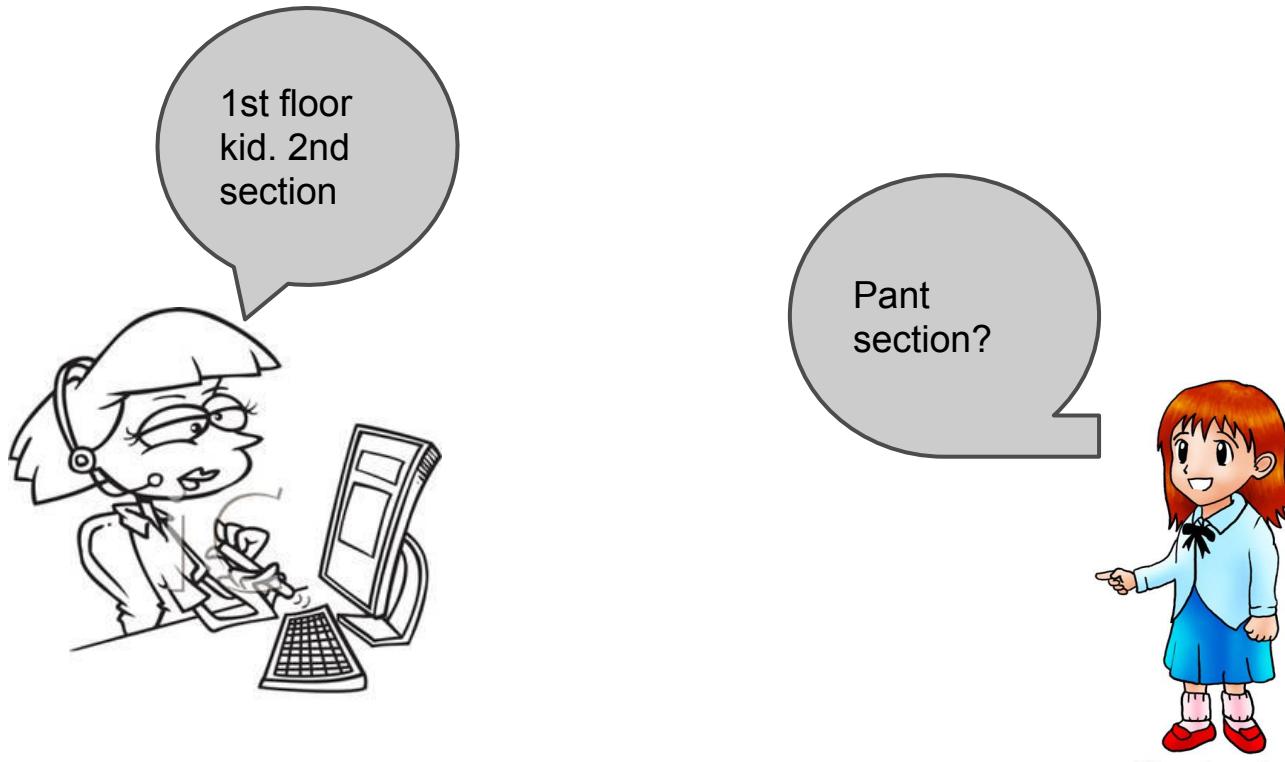
[Ruby core](#)

[Ruby standard library](#)

Understanding Rails

The request lifecycle

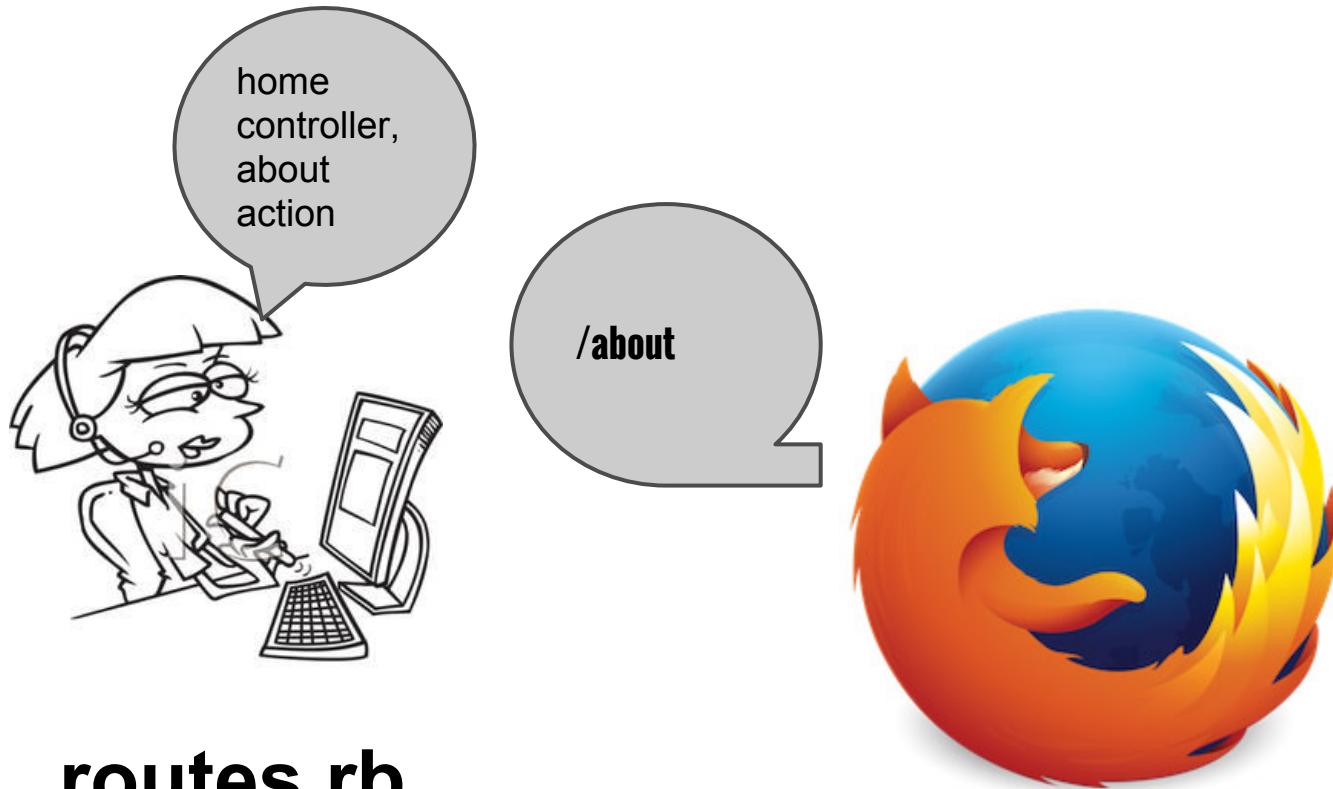
A dress shop



1st floor

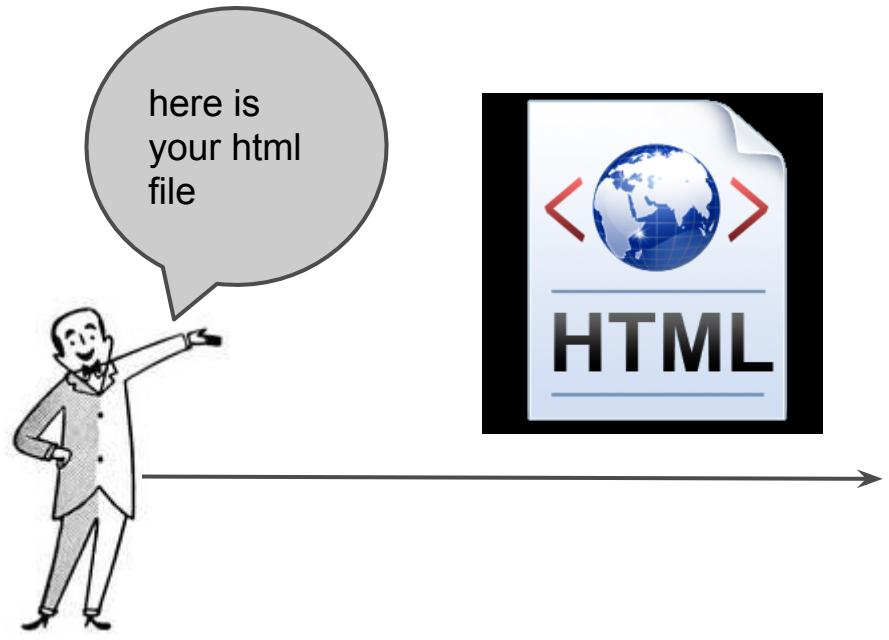


A Rails server



routes.rb

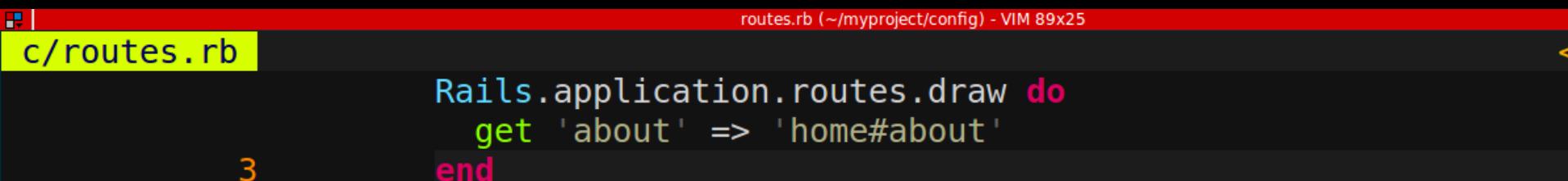
A Rails server



**home controller,
about action**

Lets do it in Rails

Configure the routes to get /about



A screenshot of a terminal window showing the contents of a file named 'routes.rb'. The window title bar says 'routes.rb (~/myproject/config) - VIM 89x25'. The file content is:

```
routes.rb (~/myproject/config) - VIM 89x25
c/routes.rb
Rails.application.routes.draw do
  get 'about' => 'home#about'
end
3
```

filename: config/routes.rb

c/routes.rb | [No Name] a/c/home_controller.rb < buffers

```
class HomeController < ApplicationController
  def about
  end
end
```

"app/controllers/home_controller.rb" line 3 of 4 --75%-- col 3

```
vysakh@vysakh-HEC41: ~/myproject 122x20
→ myproject rails g controller home about
   create app/controllers/home_controller.rb
   route  get 'home/about'
  invoke  erb
  create   app/views/home
  create   app/views/home/about.html.erb
 invoke  test_unit
  create   test/controllers/home_controller_test.rb
 invoke  helper
  create   app/helpers/home_helper.rb
 invoke  test_unit
  create   test/helpers/home_helper_test.rb
 invoke  assets
 invoke  coffee
  create   app/assets/javascripts/home.js.coffee
 invoke  scss
  create   app/assets/stylesheets/home.css.scss
→ myproject
```

The corresponding html

about.html.erb (~/myproject/app/views/home) - VIM 89x25

```
Name] | a/c/home_controller.rb    a/v/h/about.html.erb <|  
<h1>Home#about</h1>  
<p>Find me in app/views/home/about.html.erb</p>
```

Lets open the browser

and go to '/about' url

Home#about

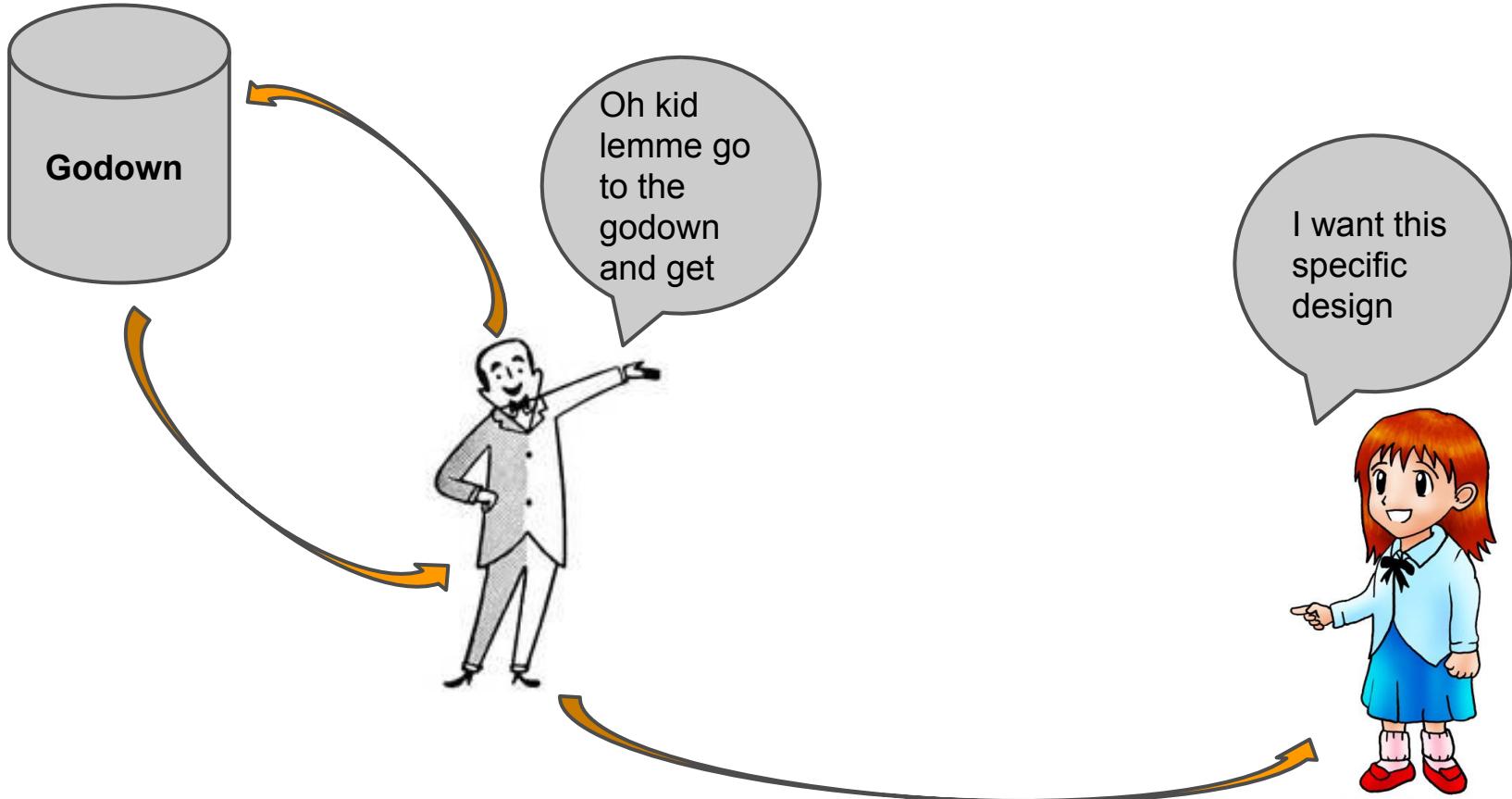
Find me in app/views/home/about.html.erb

Coming back to the kid and pant story

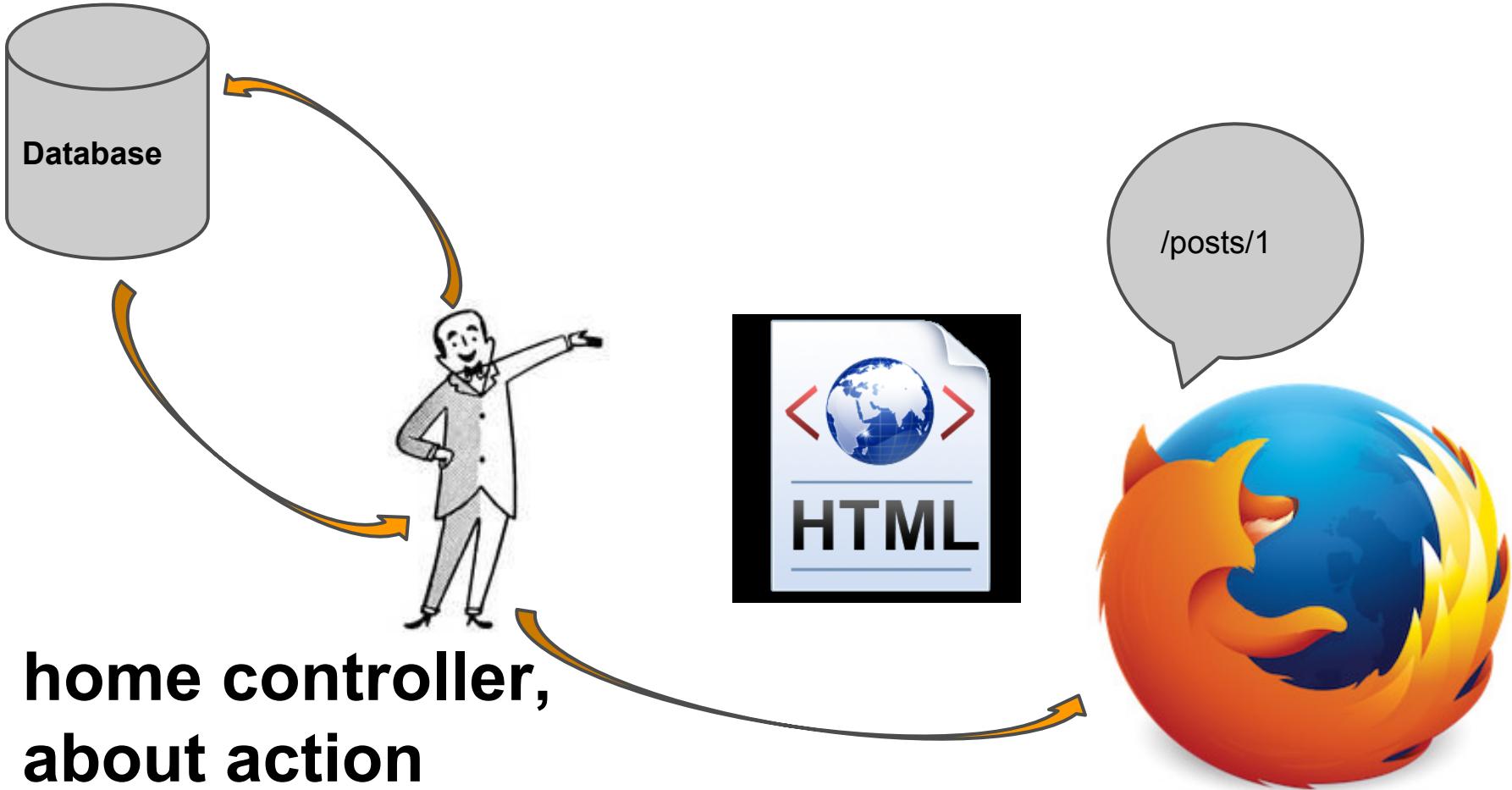
When the pant is not

available in the section?

1st floor



In Rails



Lets create a table

and have an abstraction(model)

This will create model, migration files

```
about.html.erb (~/myproject/app/views/home) - VIM 89x1
vysakh@vysakh-HEC41: ~/myproject 79x22
→ myproject rails g model post title:string body:text
   invoke active_record
   create db/migrate/20140320165729_create_posts.rb
   create app/models/post.rb
   invoke test_unit
   create test/models/post_test.rb
   create test/fixtures/posts.yml
→ myproject
```

migration - A ruby file that will create, modify tables

```
20140320165729_create_posts.rb (~/myproject/db/migrate) - VIM 96x25
d/m/20140320165729 create_posts.rb
1      class CreatePosts < ActiveRecord::Migration
        def change
            | create_table :posts do |t|
            |     t.string :title
            |     t.text :body
            |
            |     t.timestamps
            | end
        end
    end
```

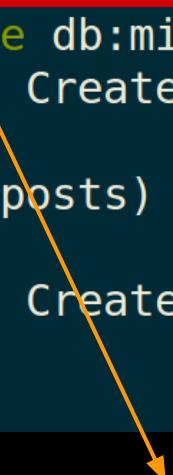
The diagram shows a Ruby migration file with annotations. An arrow points from the word 'posts' in the line 'create_table :posts do' to the text 'posts table'. Another arrow points from the line 't.string :title' to the text 'title column of type string'.

Lets create the tables

from the ruby file(migration)

This creates the posts table

```
vysakh@vysakh-HEC41: ~/myproject 74x20
→ myproject rake db:migrate
== 20140320165729 CreatePosts: migrating ==
=====
-- create_table(:posts)
 -> 0.0032s
== 20140320165729 CreatePosts: migrated (0.0034s) ==
=====
```



Rake, a simple ruby build program with capabilities similar to make

Lets create, manipulate
table records through Rails model

app/models/post.rb

post.rb (~/myproject/app/models) - VIM 74x20

a/m/post.rb

```
1 class Post < ActiveRecord::Base  
end
```

Post is a Ruby class that Inherits ActiveRecord

**Active Record is an
Object Relation Mapping(ORM) layer**

tables map to classes,

```
_rails_command console 74x20
→ myproject rails console
Loading development environment (Rails 4.1.0.rc1)
irb(main):001:0> Post.table_name
=> "posts"
irb(main):002:0> █
```

Rows map to objects

Columns map to object attributes

_rails_command console 74x20

→ myproject rails console

Loading development environment (Rails 4.1.0.rc1)

irb(main):001:0> post = Post.create title: "Title", body: "test"
(0.2ms) begin transaction

SQL (0.4ms) INSERT INTO "posts" ("body", "created_at", "title", "updated_at") VALUES (?, ?, ?, ?) [[{"body": "test"}, {"created_at": "2014-03-20 17:20:06.969019"}, {"title": "Title"}, {"updated_at": "2014-03-20 17:20:06.969019"}]]

(164.0ms) commit transaction

=> #<Post id: 2, title: "Title", body: "test", created_at: "2014-03-20 17:20:06", updated_at: "2014-03-20 17:20:06">

irb(main):002:0> post.title

=> "Title"

irb(main):003:0> post.body

=> "test"

Few operations

```
_rails command c 74x20
→ myproject rails c
Loading development environment (Rails 4.1.0.rc1)
irb(main):001:0> Post.find(1)
  Post Load (0.3ms)  SELECT "posts".* FROM "posts" WHERE "posts"."id" =
? LIMIT 1  [["id", 1]]
=> #<Post id: 1, title: "Rails is omakase", body: ":trollface", created_at
: "2014-03-20 17:15:56", updated_at: "2014-03-20 17:15:56">
irb(main):002:0> Post.first
  Post Load (0.5ms)  SELECT "posts".* FROM "posts" ORDER BY "posts"."id"
" ASC LIMIT 1
=> #<Post id: 1, title: "Rails is omakase", body: ":trollface", created_at
: "2014-03-20 17:15:56", updated_at: "2014-03-20 17:15:56">
irb(main):003:0> █
```

Lets use this query in
Rails controller and give it to the user

c/routes.rb

a/c/posts_controller.rb

< buffers

```
class PostsController < ApplicationController
  def show
    @post = Post.find(params[:id])
  end
end
```

3



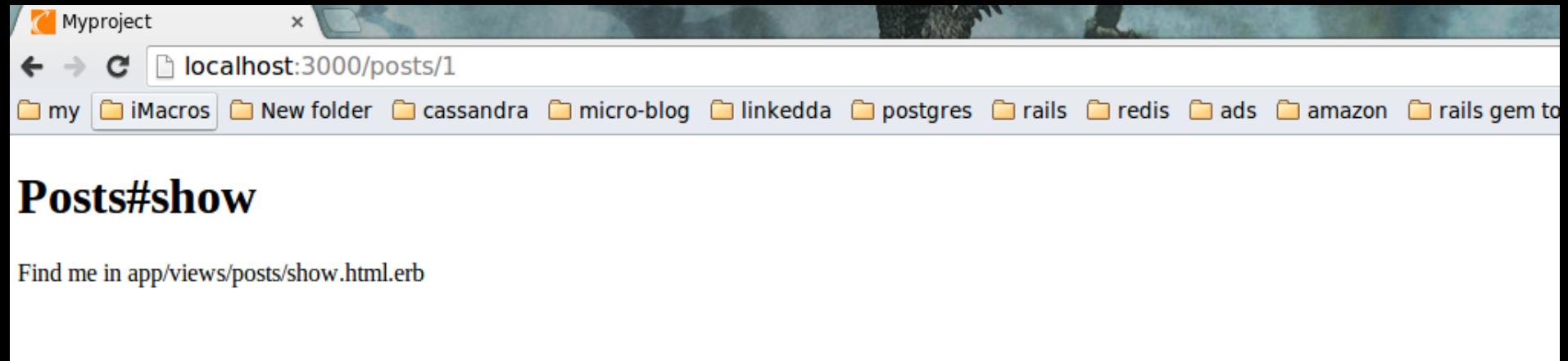
vysakh@vysakh-HEC41: ~/myproject 134x20

```
→ myproject rails generate controller posts show
   create app/controllers/posts_controller.rb
   route  get 'posts/show'
  invoke  erb
  create   app/views/posts
  create   app/views/posts/show.html.erb
  invoke  test_unit
  create   test/controllers/posts_controller_test.rb
  invoke  helper
  create   app/helpers/posts_helper.rb
  invoke  test_unit
  create   test/helpers/posts_helper_test.rb
  invoke  assets
  invoke  coffee
  create   app/assets/javascripts/posts.js.coffee
  invoke  scss
  create   app/assets/stylesheets/posts.css.scss
→ myproject
```

Configure the routes file

```
c/routes.rb    a/c/posts_controller.rb
Rails.application.routes.draw do
  get 'posts/:id' => 'posts#show'
  get 'about' => 'home#about'
end
```

Open up the browser

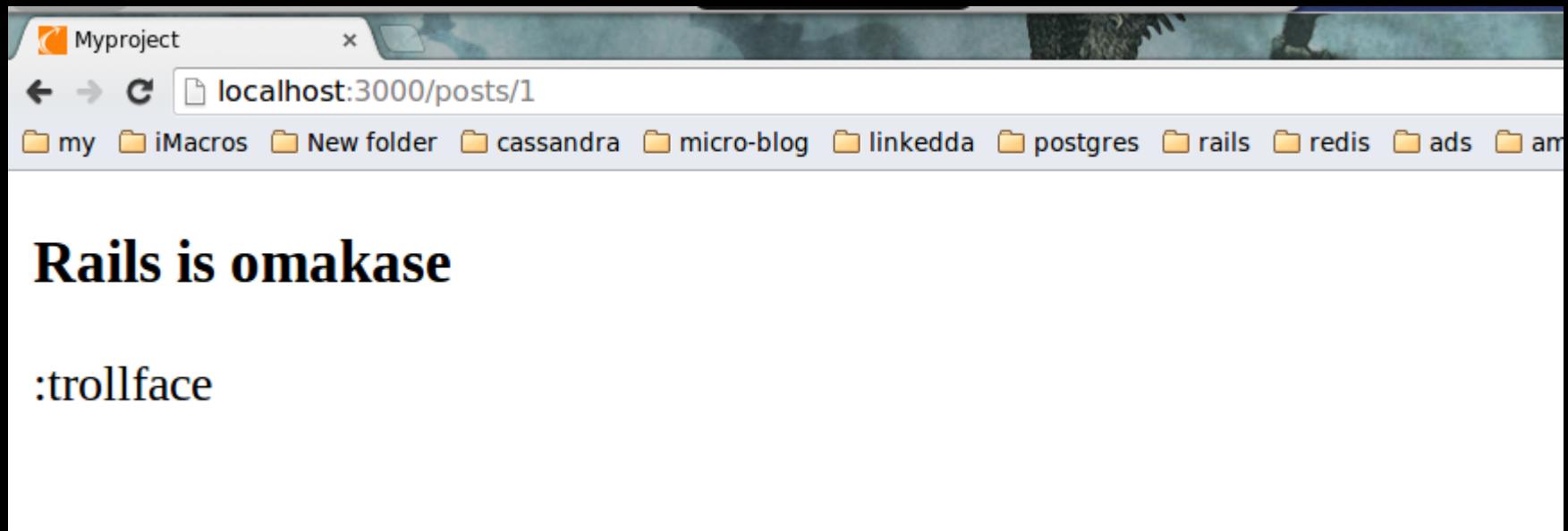


Show the title, description in html

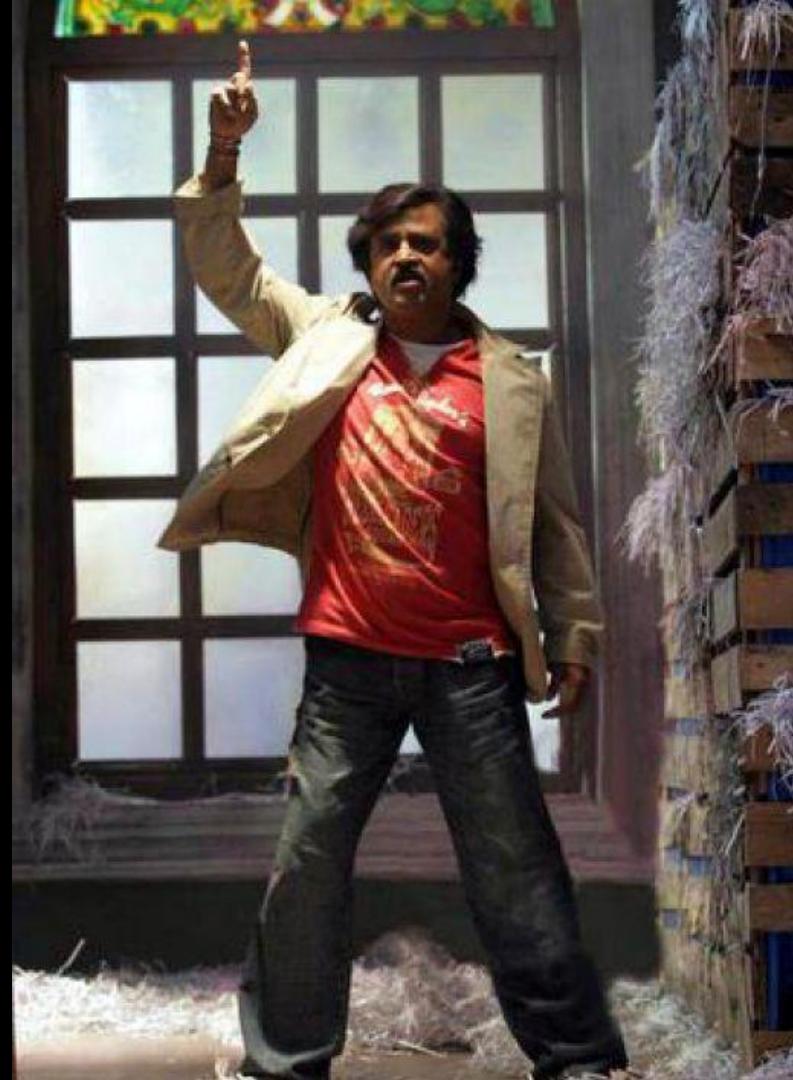
```
show.html.erb (~./myproject/app/views/posts) - vim 103x20
/posts_controller.rb    a/v/p/show.html.erb
<h3> <%= @post.title %> </h3>
<p> <%= @post.body %> </p>
```

app/views/show.html.erb

Now lets check the browser



Now lets do all this in
one command -> scaffold



```
invoke scss
→ myproject
→ myproject rails g scaffold authors name:string
Plural version of the model detected, using singularized version. Override with --force-plural.
  invoke active_record
  create db/migrate/20140320174147_create_authors.rb
  create app/models/author.rb
  invoke test_unit
  create test/models/author_test.rb
  create test/fixtures/authors.yml
  invoke resource_route
  route resources :authors
  invoke scaffold_controller
  create app/controllers/authors_controller.rb
  invoke erb
  create app/views/authors
  create app/views/authors/index.html.erb
  create app/views/authors/edit.html.erb
  create app/views/authors/show.html.erb
  create app/views/authors/new.html.erb
  create app/views/authors/_form.html.erb
  invoke test_unit
  create test/controllers/authors_controller_test.rb
  invoke helper
  create app/helpers/authors_helper.rb
  invoke test_unit
  create test/helpers/authors_helper_test.rb
  invoke jbuilder
  create app/views/authors/index.json.jbuilder
  create app/views/authors/show.json.jbuilder
  invoke assets
  invoke coffee
  create app/assets/javascripts/authors.js.coffee
  invoke scss
  create app/assets/stylesheets/authors.css.scss
  invoke scss
  identical app/assets/stylesheets/scaffolds.css.scss
→ myproject
```

This will generate all files
based on REST Architecture

If people say developing
a web app takes lot of time

A close-up photograph of a man with dark skin, wearing a dark blue turban and a light-colored shirt with a subtle floral pattern. He has a well-groomed black mustache and is looking slightly to his left with a neutral expression. The background is blurred green foliage.

KEEP CALM

AND SAY AAHAN

Guides and resources

Ruby

<http://tryruby.org>

<http://www.codecademy.com/en/tracks/ruby>

<http://ruby.learncodethehardway.org/book/>

Ruby on Rails

railstutorial.org/book

railsforzombies.org

guides.rubyonrails.org/getting_started

railscasts.com

Local Ruby Community - chennai.rb

<http://chennai-ruby.org/>



Please don't stalk me !

```
[:facebook, :twitter, :github].each { p "vysakh0"}
```

```
blogs = {
    prattle: "vysakh.quora.com",
    tech_stuff: "vysakh.github.io"
}
```