

iamtalented

Introduction to Ruby on Rails

The Future

Today

What's Happening?

0930 Introductions

1000 Programming with Ruby

1130 Let's build a Web App

1230 Lunch

1330 Continue with Web App

1600 Closing

**What is
Programming?**

Open a
Word Document

Play a Song



Play a Game

Perform
Calculations


Ruby

- A Computer's Language

Yukihiro “Matz” Matsumoto

- Created Ruby in mid 1990s
- Influenced by Perl, Smalltalk, Eiffel, Ada, and Lisp.
- Ruby 1.8 (2003), 1.9 (2007), 2.0 (Feb 2013), 2.1 (Dec 2013), 2.2 (Dec 2014)
- Gained popularity with Rails around 2005





**I hope to see Ruby help every programmer in the world
to be productive, to enjoy programming, and to be happy.
That is the primary purpose of Ruby language.**

– Yukihiro “Matz” Matsumoto

Let's try tryruby.org

tryruby.org

IRB

Data Types

- Numbers
- Strings
- Booleans
- Symbols
- Arrays
- Hashes

irb

```
>> 1_00.class
```

```
>> '10'.class
```

```
>> true.class
```

```
>> :i.class
```

```
>> [1,'1',:i, [1,2]]
```

```
>> {a: '1', :b => '2' }
```

Operators

- `+` : Addition
- `-` : Subtraction
- `*` : Multiplication
- `/` : Division
- `**` : Exponentiation
- `%` : Modulo

```
irb
```

```
>> 1 + 1
```

```
>> 1 - 1
```

```
>> 1 * 5
```

```
>> 9 / 3
```

```
>> 2 ** 2
```

```
>> 9 % 8
```

String Interpolation

irb

```
>> my_name = 'Winston'  
>> "I am #{my_name}"  
=> "I am Winston"
```


if

```
if is_true  
  # do something  
end
```

irb

```
>> if 1+1 != 3  
>>   "that's true"  
>> end  
=> "that's true"
```

if-else

```
if is_true
  # do something
else
  # do something
end
```

irb

```
>> hungry = false
>> if hungry
>>   "time to eat"
>> else
>>   "code some more"
>> end
=> "code some more"
```

while

```
while is_true do
  # do something
  # modify to false
end
```

irb

```
>> counter = 1
>> while counter < 6 do
>>   puts counter
>>   counter = counter + 1
>> end
1
2
3
4
5
```

Infinite Loop

```
while never_ending  
  # do something  
end
```

irb

```
>> x = 1  
>> while x > 0  
>>   puts x  
>> end  
1  
1  
1  
1  
1  
1  
> ctrl-c
```

Break

**What is
a Web Application?**

Internet?



A Restaurant!



In a Restaurant

You tell the **WAITER** what you would like to eat (a **DISH**) by pointing on the **MENU**.

The **WAITER** delivers your request to the **CHEF**.

The **CHEF** prepares your **DISH**, and sends it back through the **WAITER** again.

Online

You tell the **INTERNET** what you would like to see (a **PAGE**) by pointing in the **BROWSER**.

The **INTERNET** delivers your request to the **SERVER**.

The **SERVER** prepares your **PAGE**, and sends it back through the **INTERNET** again.

Internet?



Web Apps act like... **Chefs**

- Take requests
- Do something with the requests
- Send the results back

**Let's build
a Web Application**

Ruby on Rails



<http://rubyonrails.org>



David Heinemeier Hansson (DHH)

- ~ Partner of Basecamp (formerly 37Signals)
- ~ also a race car driver

Ruby on Rails Powered

- Twitter
- Groupon
- Airbnb
- Shopify
- Hulu
- Viki
- Bloomberg
- Slideshare
- Basecamp
- Zendesk
- Friendster
- Wego

<http://www.nitrous.io>

Nitrous

Winston

← → ↻ <https://www.nitrous.io/app#/boxes/new> ☆ 🔔 🌐 📄 bw f? 🏠 ⚙️


NITROUS

⚡ 120 / 310


Invites Boxes Public Keys Home Help ▾ winston ▾

New Box


Pick a template




Ruby/Rails




Node.js




Python/Django



Go



PHP



Meteor

Name

gray-wheels-87

✎

Region

Southeast Asia

⬆ ⬆

Memory

512 MB

⬆

⚡ 160

Storage

1500 MB

⬆

⚡ 30

Remaining N2O

-70

⚡ 190

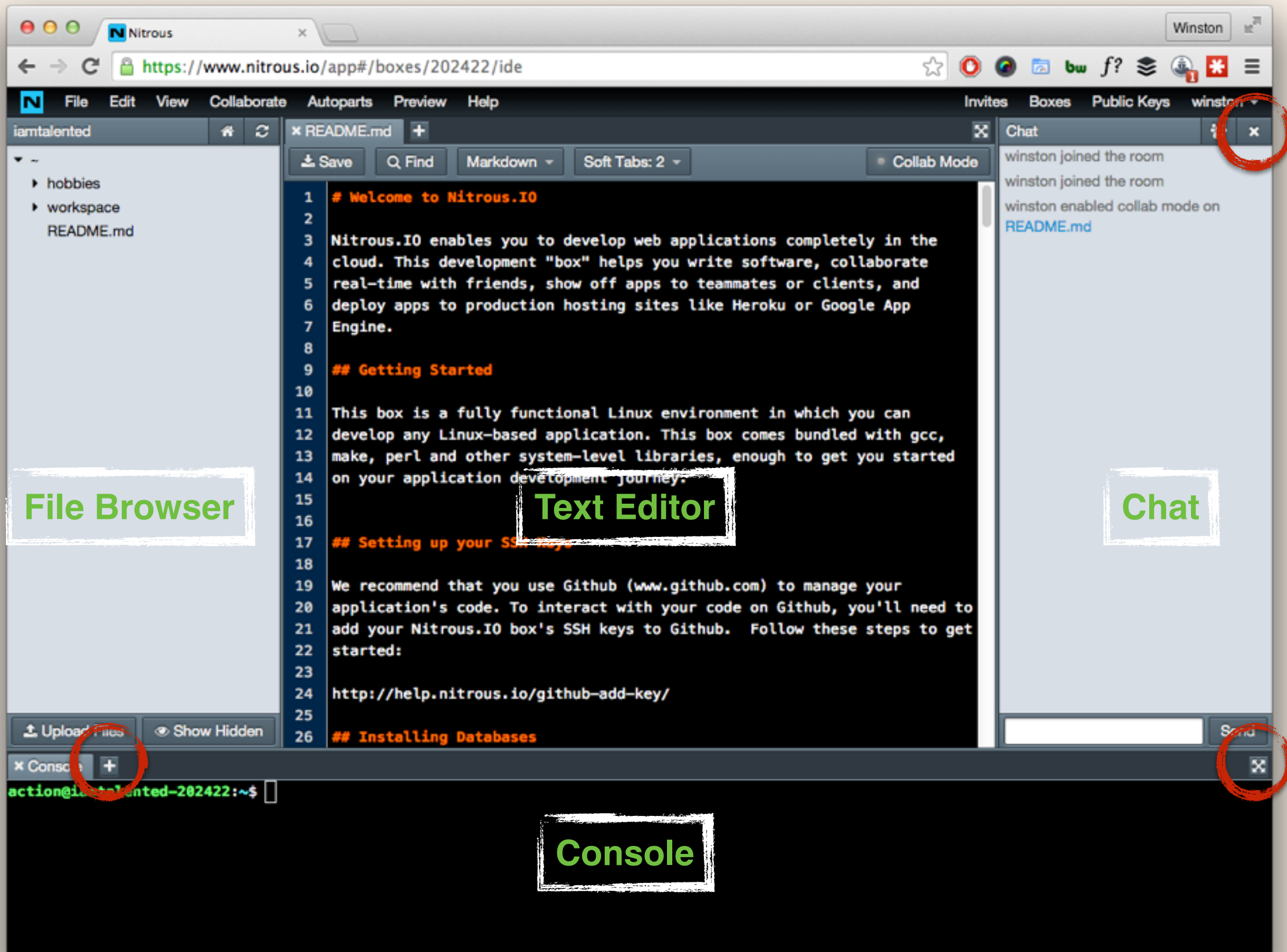
Download a Github repo

Optional, e.g. <https://github.com/rails/rails>

Create Box

Cancel

You do not have enough N2O to create this box. [Get More](#)



Console Commands

irb

```
>> pwd
```

```
>> ls -la
```

```
>> ruby -v
```

```
>> rails -v
```

Create a Rails app

irb

```
>> cd workspace
```

```
>> rails new hobbies
```

```
>> cd hobbies
```

```
>> ls -la
```

Start a Rails app

irb

```
>> rails server  
==> Booting WEBrick  
...  
...  
...  
>> <ctrl+c>
```

Nitrous Winston

https://www.nitrous.io/apse1/boxes/202422/ide

File Edit View Collaborate Autoparts Preview Help

iamtalented

- hobbies
- workspace
- README.md

Port 3000

Port 4000

Port 8080

Port 8888

Set Password...

Preview Help

Soft Tabs: 2

Collab Mode

Chat

winston joined the room

winston joined the room

winston enabled collab mode on [README.md](#)

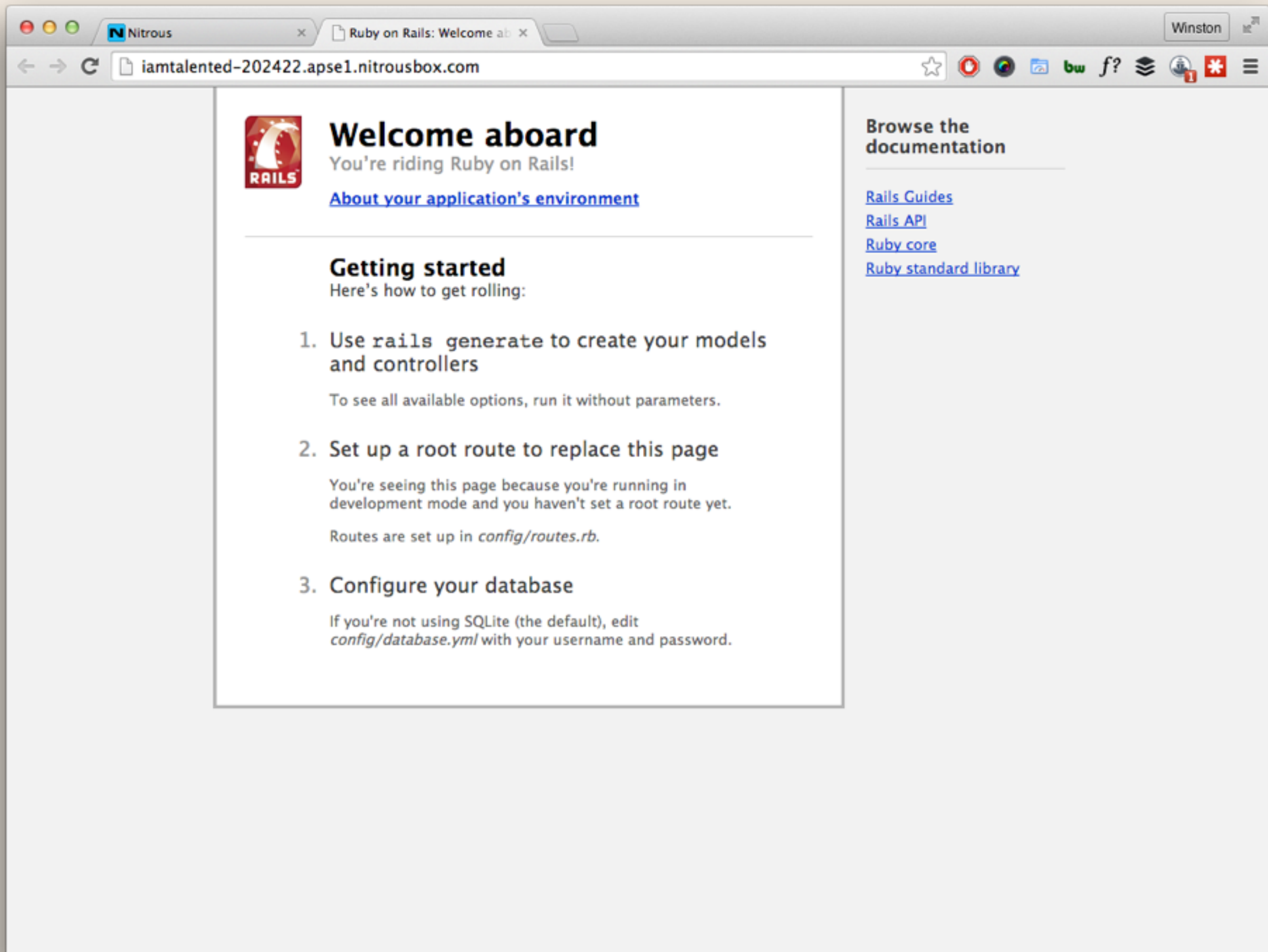
```
1 # Welcome to Nitrous.IO!
2
3 Nitrous.IO is a cloud-based IDE that helps you develop web applications completely in the
4 cloud. It's a great way to get started with web development, and it's also a great way
5 to run off apps to teammates or clients, and
6 deploy your apps to production. You can host your apps on hosting sites like Heroku or Google App
7 Engine.
8
9 ## Getting Started
10
11 This box is a fully functional Linux environment in which you can
12 develop any Linux-based application. This box comes bundled with gcc,
13 make, perl and other system-level libraries, enough to get you started
14 on your application development journey.
15
16
17 ## Setting up your SSH Keys
18
19 We recommend that you use Github (www.github.com) to manage your
20 application's code. To interact with your code on Github, you'll need to
21 add your Nitrous.IO box's SSH keys to Github. Follow these steps to get
22 started:
23
24 http://help.nitrous.io/github-add-key/
25
26 ## Installing Databases
```

Upload Files Show Hidden

Console

action@iamtalented-202422:~\$

iamtalented-202422.apse1.nitrousbox.com



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

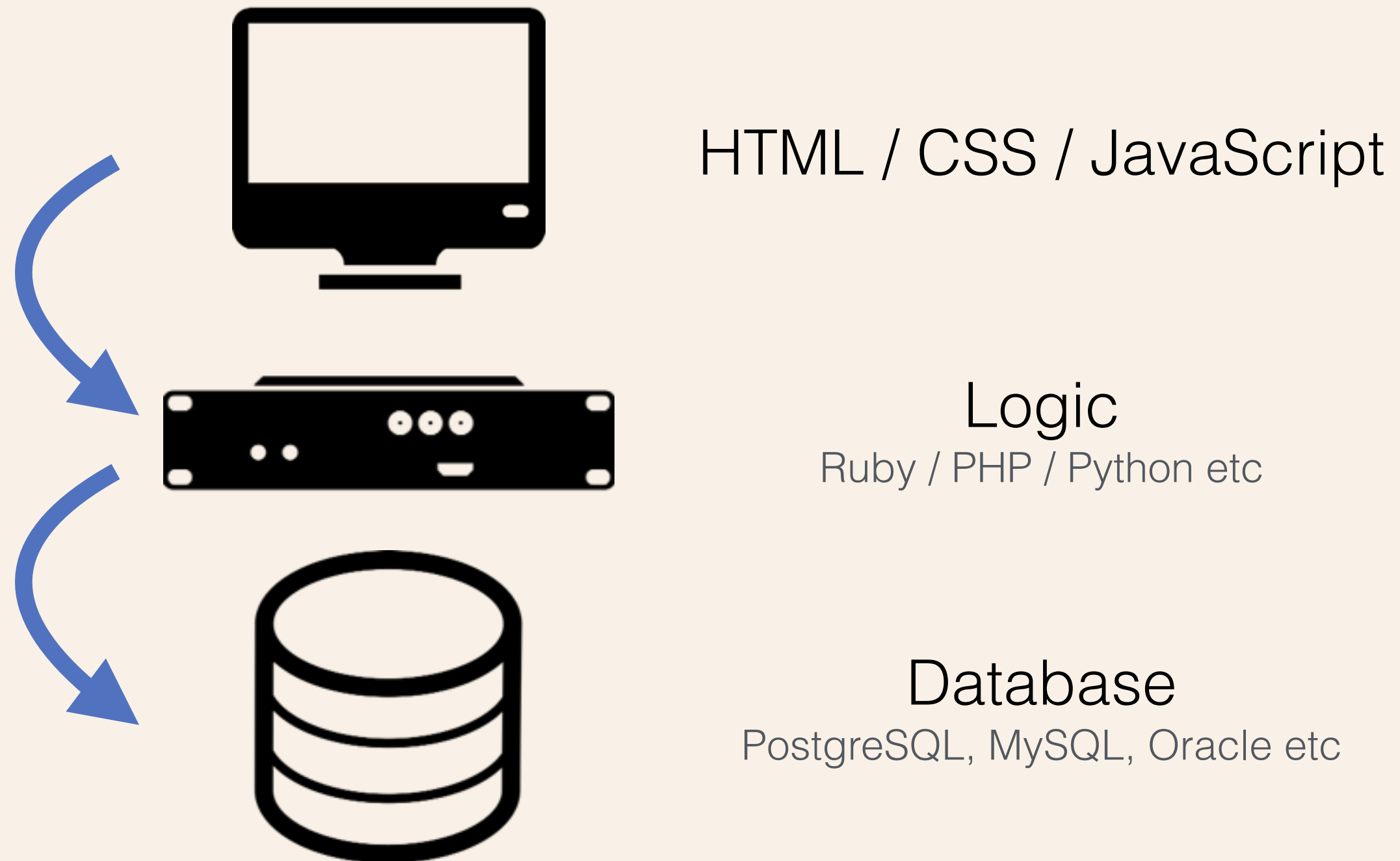
[Rails Guides](#)

[Rails API](#)

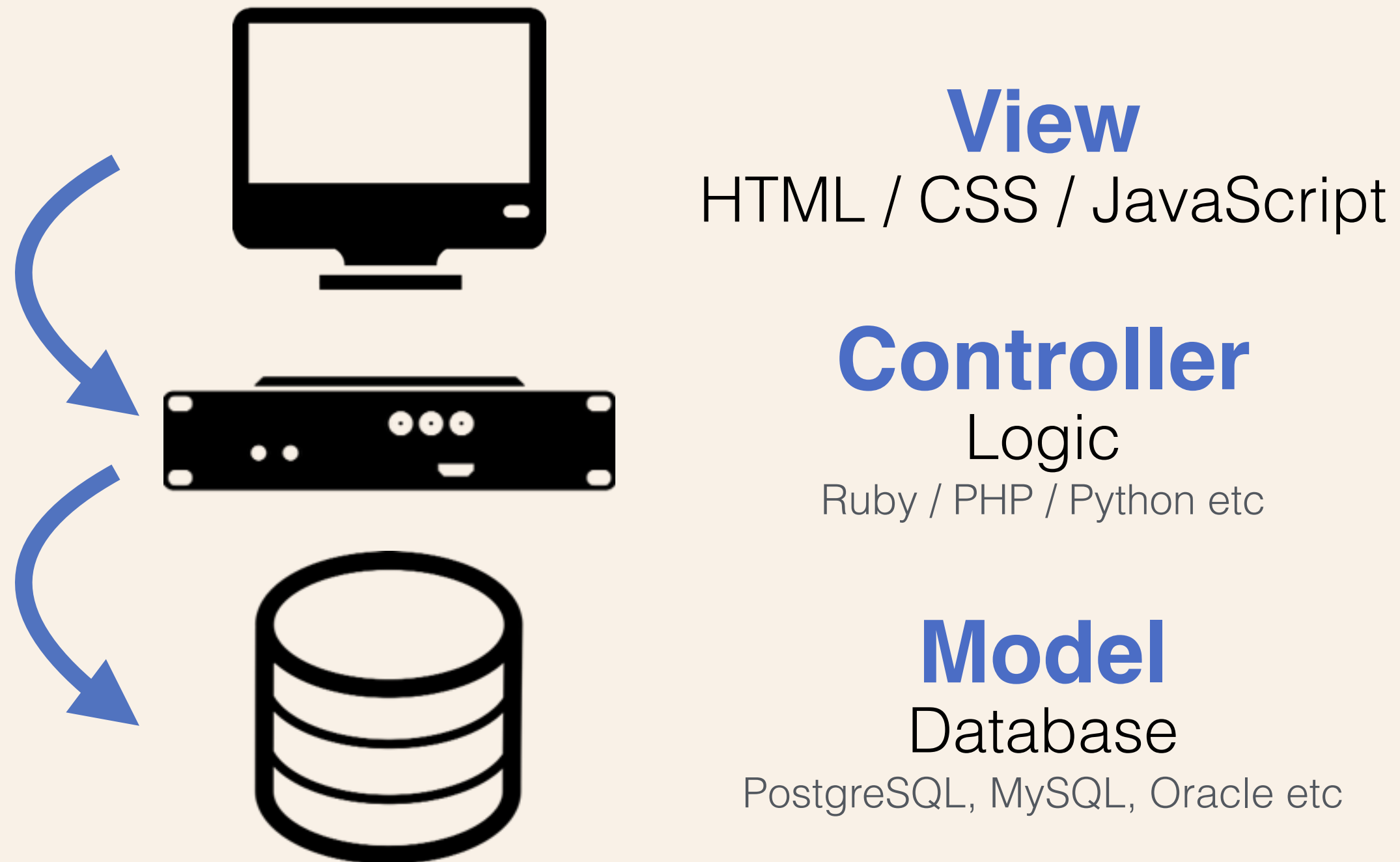
[Ruby core](#)

[Ruby standard library](#)

Model-View-Controller

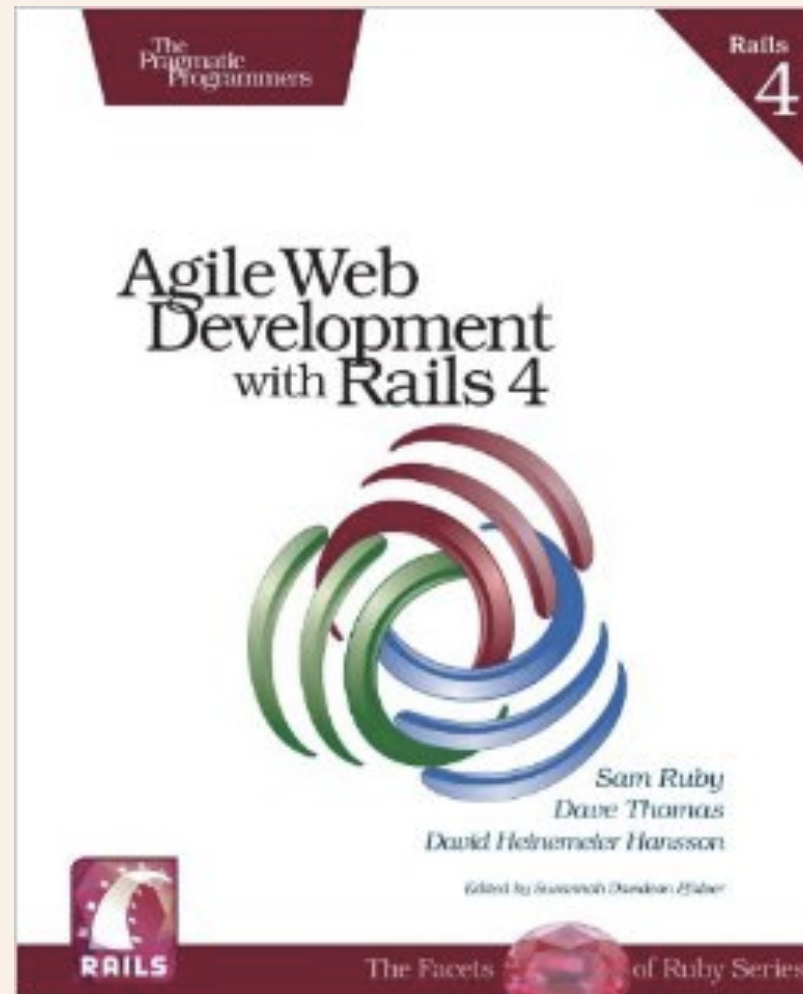


Model-View-Controller




Follow Along

The Book



<http://pragprog.com/book/rails4/agile-web-development-with-rails-4>



**I think everyone should learn how to program a computer,
because it teaches you how to think.**

**I view computer science as a liberal art, something
everyone should learn to do.**

– Steve Jobs

Congratulations!