Getting Started with Ruby on Rails

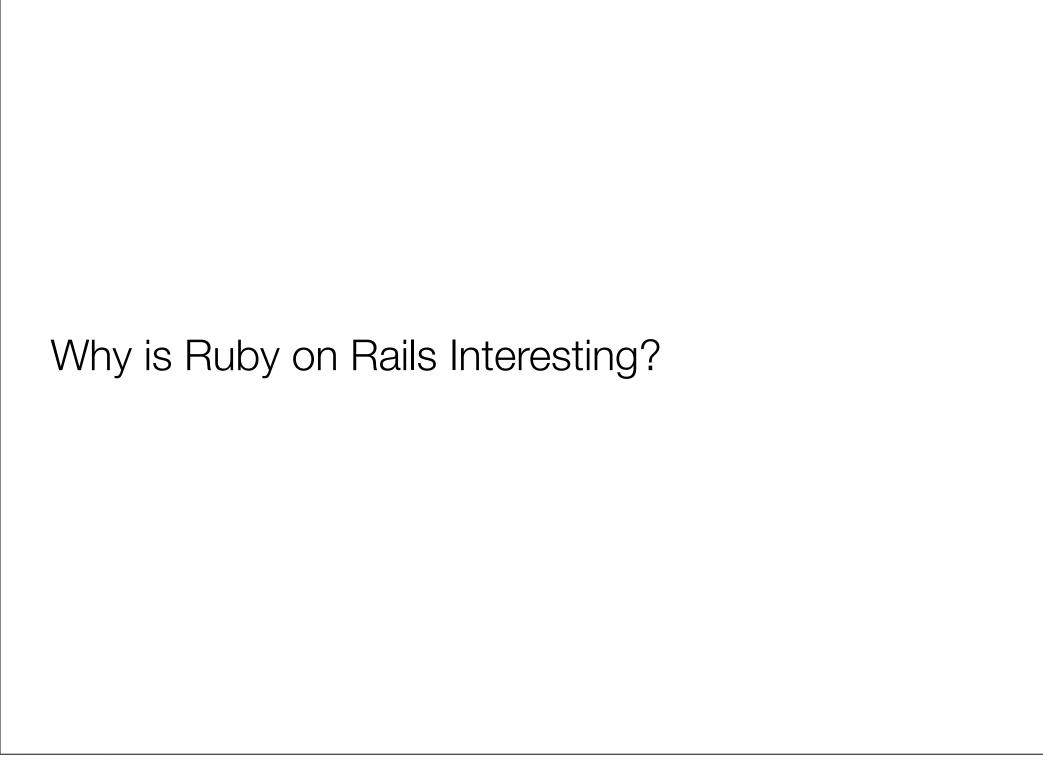
Prof. Paul Krause, University of Surrey Chapter 1: Lecture 1 Setting the Scene

Objectives of the course

- We aim to bring you to a "high level of proficiency in developing interactive web applications using the Ruby on Rails framework"
- We would also like you to gain understanding of:
 - Agile methods for developing software
 - Best practice in the use of HTML5 and CSS3

Objectives for today

- Why is Ruby on Rails interesting?
- Basic introduction to Ruby
 - But more programming exercises next time
- Introduce Rails
 - But we will start to explore it in much more detail in the next Chapter



Is Ruby on Rails really that special?

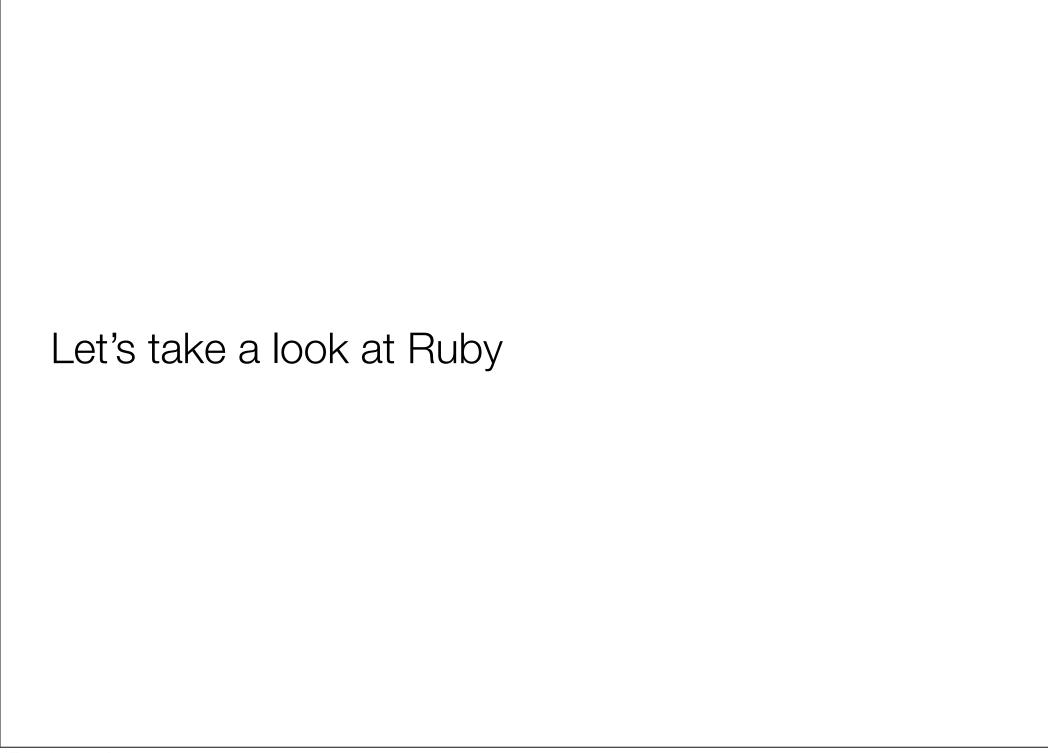
- From Obie Fernandez' introduction to *The Rails Way*:
 - "That first Rails experience, over the course of a few weeks in February 2005, was life-altering"
 - "All the best practices I had learned over the years about building web apps had been distilled into a single framework, ..."
 - "My interest in Java died a sudden death."

Opinionated Software?

- Convention over configuration
- Elegance is not optional
- Do Not Repeat Yourself
- Developer motivation and productivity are primary factors in project success

And the Icing

- Ruby Gems
- Ruby Gems
- and more Ruby Gems



Key Features of Ruby

- Easy syntax
- Fully OO
- Highly dynamic
- Strong Web frameworks
 - Ruby on Rails

Let's Try it!

- Open a Ruby shell
 - Oops, I need to show you how!
 - I will do that in the next lecture, but for the moment just sit back and watch it all happen!

"Hello World" in Java

```
class HelloWorld {
    public static void main(String[] args) {
        System.out.println("Hello World!")
    }
}
```

and in Ruby:

puts "Hello World!"

Even Better

Enter: 3.times {puts "Hello World!"}

Ruby's Objects

• Enter: 4 (return)

• Enter: 4.567.round

• Find out the class of something you have entered...

Ruby is Dynamically Typed

• Enter: n=1

• Enter: n.class

• Enter: n="fishpaste"

• Enter: n.class

How about: n+4; n.size; n.methods

Regular Expressions

- Regular expressions are written between slashes
- Enter: regex = /better/
- Find out what class it is.
- Enter: "Mine is bigger" =~ regex
- Enter: "Mine is better" =~ regex

Containers

• Enter: stack = [1, 2, 3]

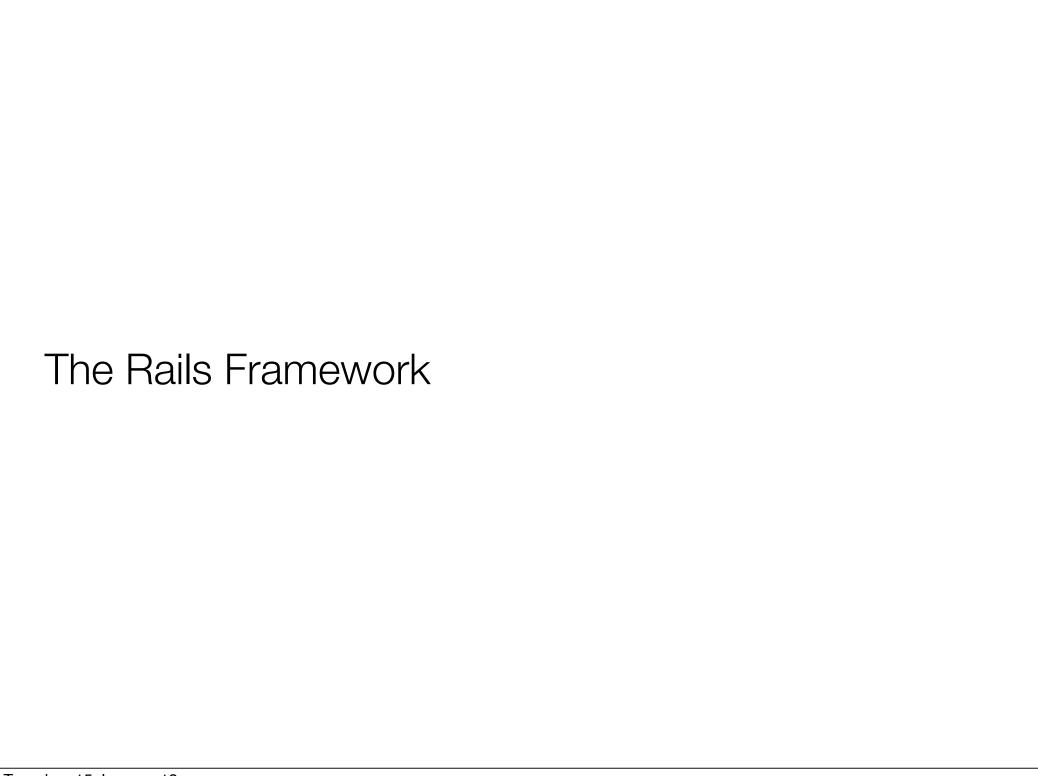
• Enter: stack.push "cat"

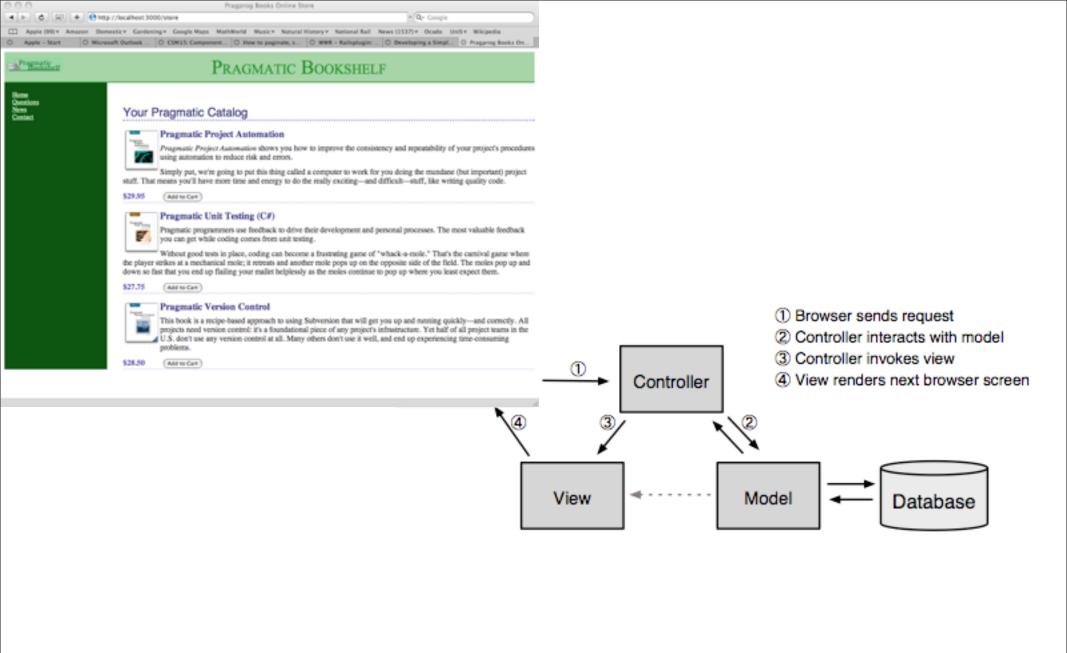
• Enter: stack.pop

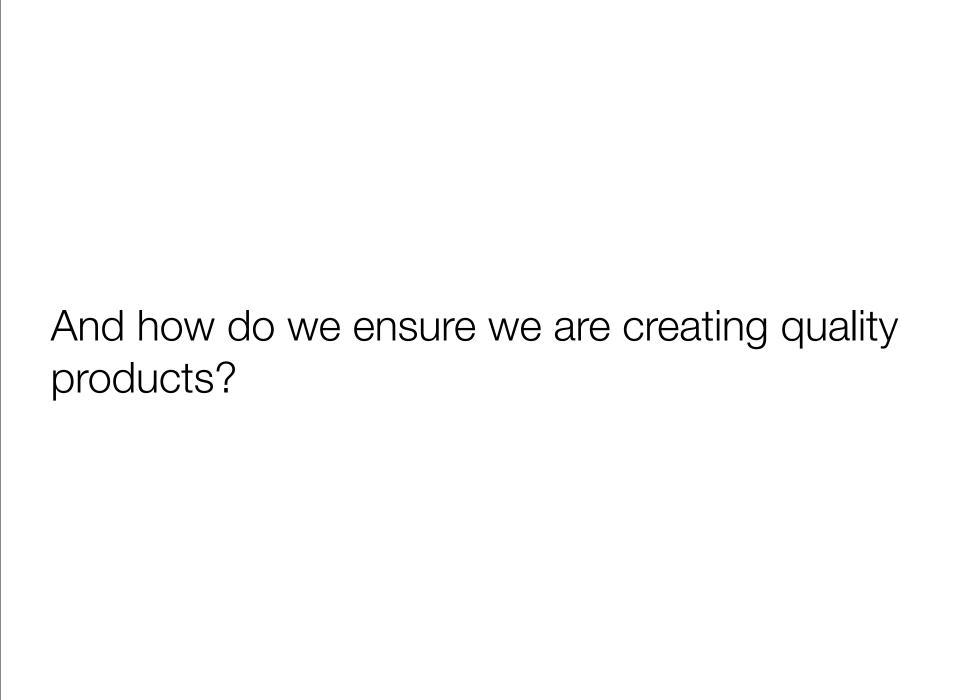
• Enter: stack

That's very nice, but

- Ruby was released by its designer Yukihiro Matsumoto in 1995
- Why is it only now, that it is generating so much interest?
- Let's explore Rails a little bit ...







The Answer

 All Agile Samurais use Test Driven Development



The Agile Samurai





Process, process, process

- Release frequent increments
- Write your test cases before you code
- Manage your versions in Git and GitHub
- Deploy into Heroku

Break Time

- We have covered some basics of Ruby
- We have very briefly introduced the Ruby on Rails framework
- Let's take a short break and then come back to exploring Ruby