



Ruby on Rails

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Agenda

- What is Ruby on Rails?
- Why Ruby on Rails?
- Developing with Rails
- Deploying Rails Applications
- Getting Real Applications
- Available Documentation
- Demos
- Questions



What is Ruby on Rails?

- Full stack web application framework
- Written in the Ruby programming language
- Growing community since 2004
- Open Source and Free

- **Focused on developer productivity and getting the job done – fast!**



What is Ruby?

- Ruby is a object-oriented and dynamic programming language
- Written in 1995 by Yukihiro Matsumoto
- Influenced by Python, Perl and Lisp
- Easy to understand and work with
- Simple syntax
- Powerful dynamic features and **metaprogramming** capabilities



Why Ruby on Rails?

- Lot of frameworks exists on the market and a lot of programming languages for the web
 - Python – TurboGears, WebPy, Django
 - Java – JSP/Servlets, Struts
 - PHP – Symfony
- ... But Rails leads
- Rails give the developers a **real** productivity boost for developing web applications
- Because of Ruby and **domain specific languages**
- Convention over Configuration



Why Ruby on Rails?

```
class Project < ActiveRecord::Base  
  belongs_to :portfolio  
  has_one    :project_manager  
  has_many   :milestones  
end
```



Why Ruby on Rails for <your company>?

- Need to improve the quality and user experience of our web-based tools
- Need to improve our productivity for delivering tools
- **The right tool for the right job!**
- Java J2EE and Python for server-side software
- PHP and Rails for web-based software
- First candidate: **<your product>**

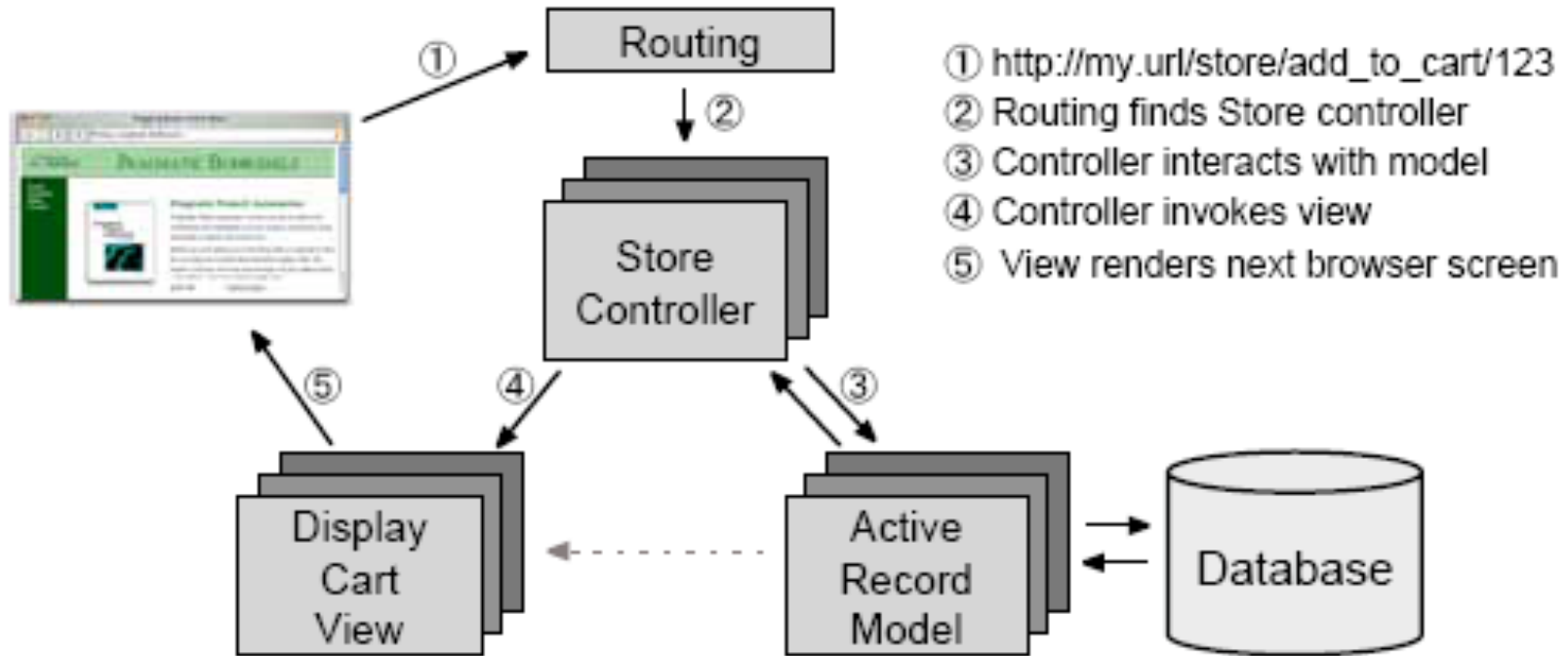


Developing with Rails (1)

- Rails gives the developer a solid infrastructure to build a web application
- Model View Controller
 - Common Design Pattern in Desktop Applications
- Model, the Object Relational Mapper
 - Automatically maps the database to objects
 - Very easy and natural to work with
 - Thin layer with SQL – dynamically generates SQL queries
 - `User.find_all`
 - `User.find(:first, :conditions => ["user = ? AND password = ?"], user, pass)`
- Controller, the logic of the application
- View, provides HTML templates and UI helpers



Developing with Rails (2)



Developing with Rails (3)

- Support many database back-ends
 - Oracle, MySQL, PostgreSQL, SQLite
- Built-in support for AJAX
 - Javascript
 - Document Object Model (DOM)
 - XMLHttpRequest
- Built-in functional and unit testing
 - Code tests while you develop
 - Test templates are automatically generated
- Rails comes with a complete toolbox of classes, helpers and utilities



Deploying Rails Applications

- Rails apps are compatible with Unix and Windows environments
- Rails apps can be deployed on multiple web server configurations
 - WEBrick – a standalone Ruby web server, easy for development
 - FastCGI – running behind Apache or LightTPD
 - CGI
- Easy control of the deployment with Capistrano
 - A scripting tool to control the deployment of the application on multiple sites
- Easy control of schema migration
 - `rake migrate VERSION=3`



Performances and Scalability

- Commercial web apps shows that it scales very well
- Architecture is compliant with classic web infrastructures
- Compliant with classic load balancing techniques

	Ease of Setup	Speed	Scalability
WEBrick	★★★★★	★★	★
Apache-CGI	★★★★	★	★★
Apache-FCGI	★★	★★★★	★★★★
LightTPD-FCGI	★	★★★★★	★★★★★



Getting Real Applications



Basecamp™

- Web-based project management application
- 400,000 request per day
- 2 web/application servers and 1 database back-ends
- Dual 2.4Ghz Xeon 2GB RAM – load between 0.5 and 1.5
- www.basecamphq.com



Campfire™

- Web-based enterprise real-time chat application
- Hundreds of accounts
- www.campfirenow.com

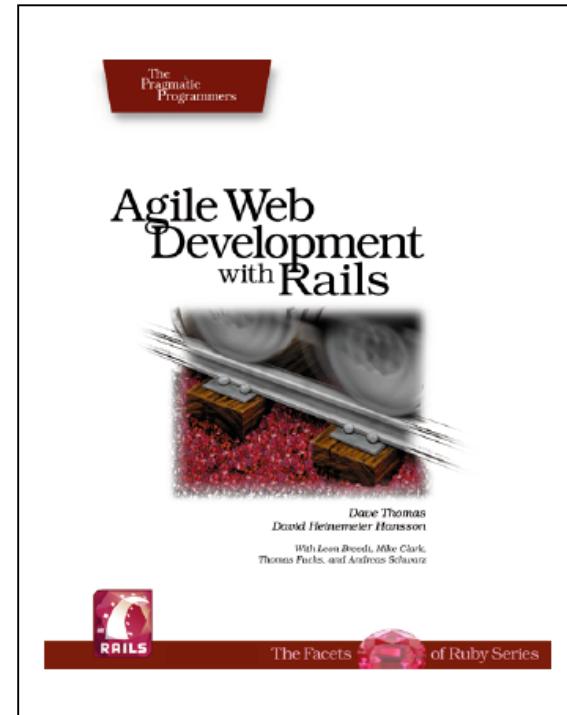


- Web-based podcasting application
- www.odeo.com



Available Documentation

- Books
 - Agile Web Development With Rails
 - Rails Recipes
 - Programming With Rails
 - Ruby on Rails: Up and Running
- Active and growing community
 - wiki.rubyonrails.com
 - api.rubyonrails.com



Demos

- Screencasts
- Building a weblog applications in **15 mins**
- Building a Flickr viewer using Web Services in **5 mins**

- rubyonrails.com/screencasts
- 37signals.com



Questions?

