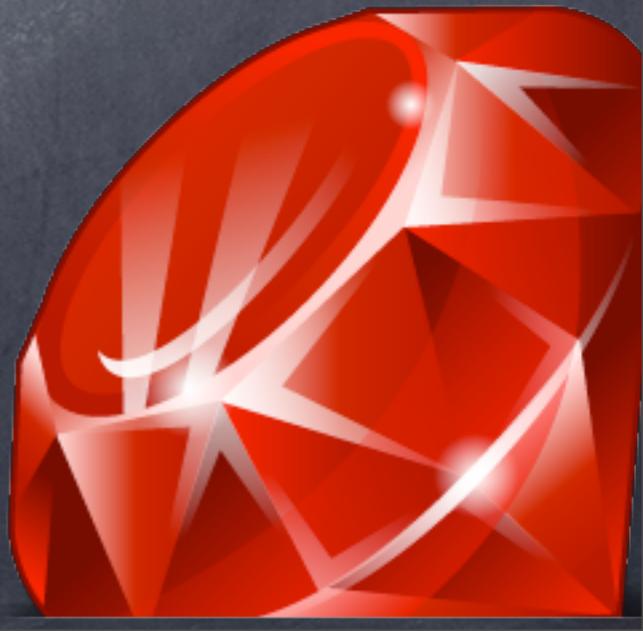




# Ruby the Core Language

Fall 2014



# Introductions

The image shows a blue and white name tag template. At the top, it says "Hello my name is..". Below that, there are four fields: "Name" (with "Renée Hendricksen" and an eye icon), "Email" (with "renée@nird.us" and an eye icon), "Background" (with an eye icon), and "Hidden Talent" (with an eye icon). There are also small circular icons in the corners of the white area.

Hello  
my name is..

Renée Hendricksen

renée@nird.us

Background

Hidden Talent

# Class Structure

- ⦿ Lecture, Demos, In-Class Exercises
- ⦿ Experimentation & Exploration
- ⦿ Resources & Homework
- ⦿ Questions & Parking Lot

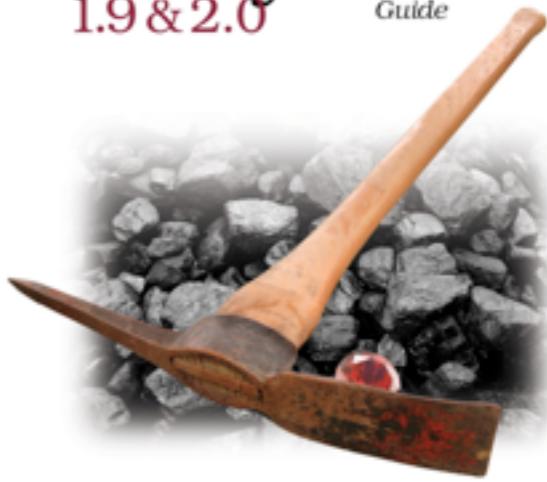
# TextBook

The  
Pragmatic  
Programmers

For Ruby 1.9  
and Ruby 2.0

## Programming Ruby 1.9 & 2.0

*The Pragmatic  
Programmers'  
Guide*



*Dave Thomas*  
with Chad Fowler and Andy Hunt

The Facets of Ruby Series

- ⦿ Pragmatic Programmers: Programming Ruby 1.9 & 2.0 by Dave Thomas

# Grades?!



- ⦿ Attendance (2 absences) - 25%
- ⦿ Homework (1-2 hours a week) - 25%
- ⦿ 2 Take-Home Tests - 25%
- ⦿ 1 Project - 25%

# Office Hours

- Renée: Tuesday 7pm-9pm
- Chat, Phone, Skype, E-mail, iChat, NIRD offices



# Ruby

- ⦿ Created by Yukihiko "Matz" Matsumoto
- ⦿ Ruby 1.0 released in 1996
- ⦿ Ruby is for People
- ⦿ MINSWAN



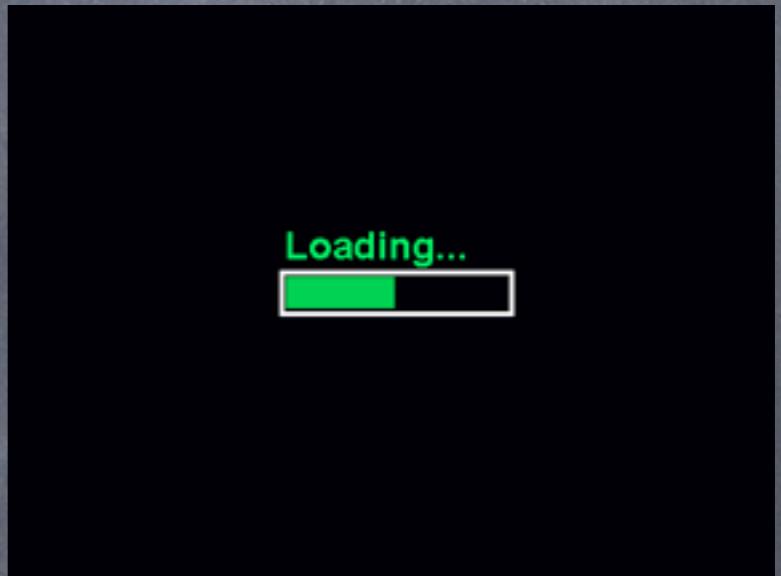
# The Ruby World

- ⌚ Toolsets
- ⌚ Best Practices
- ⌚ Common Uses



# Install Check

- ⌚ Command Prompt
- ⌚ Git
- ⌚ Ruby
- ⌚ Rspec
- ⌚ Editor (Syntax Highlighting)



# Install Check

- ⦿ Command Prompt (CLI)
  - ⦿ Mac: Terminal, iTerm, etc...
  - ⦿ Unix: bash, zsh, csh, etc....
  - ⦿ Windows: Command Prompt w/ Ruby on Rails

# Git

- ⦿ which git
  - ⦿ ex: /usr/local/bin/git
- ⦿ git --version
  - ⦿ ex: git version 1.7.10.2

# Ruby

- ⦿ which ruby
  - ⦿ ex: /Users/renée/.rvm/rubies/ruby-1.9.3-p194/bin/ruby
- ⦿ ruby -v
  - ⦿ ex: ruby 1.9.3p194 (2012-04-20 revision 35410) [x86\_64-darwin11.3.0]

# Ruby Interpreter

- ⦿ irb
- ⦿ ex:
- ⦿ 1.9.3-p194 :001 > 1+2
- ⦿ => 3
- ⦿ 1.9.3-p194 :002 > exit

# RSpec

- ⦿ `gem install rspec`
  - ⦿ `ex:` Fetching: rspec-core-2.11.1.gem (100%)
- ⦿ `gem install rspec-collection_matcher`
  - ⦿ `ex:` Fetching: rspec-collection\_matchers-1.0.0.gem (100%)
- ⦿ `gem list`
  - ⦿ `ex:`
  - ⦿ diff-lcs (1.1.3), rspec (2.11.0), rspec-core (2.11.1), rspec-expectations (2.11.3), rspec-mocks (2.11.3)
- ⦿ `rspec -v`
  - ⦿ `ex:`
  - ⦿ 2.11.1

# Editor

- ⦿ Sublime, Komodo, RubyMine, Vim (!), Emacs (!), Redcar, brackets, atom
- ⦿ Mac: TextMate

# Git

- ⦿ Source Control System
- ⦿ Timeline, Track Changes
- ⦿ Branching and Merging
- ⦿ Code Safety



# Git Commands

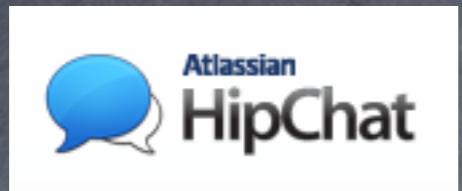
- ⌚ git clone / init
- ⌚ git status
- ⌚ git add / rm
- ⌚ git commit
- ⌚ git push
- ⌚ git log

# GitHub



# Setup a GitHub Account

- ☞ Sign-up: <https://github.com/signup/free>
- ☞ Set-up: <https://help.github.com/articles/set-up-git#platform-all>
- ☞ SSH Key: <https://help.github.com/articles/generating-ssh-keys#platform-all>



# Chat

- ⌚ <https://uweruby.hipchat.com/>
- ⌚ In-Class Back-Channel
- ⌚ Questions, Discussion



# Demo!

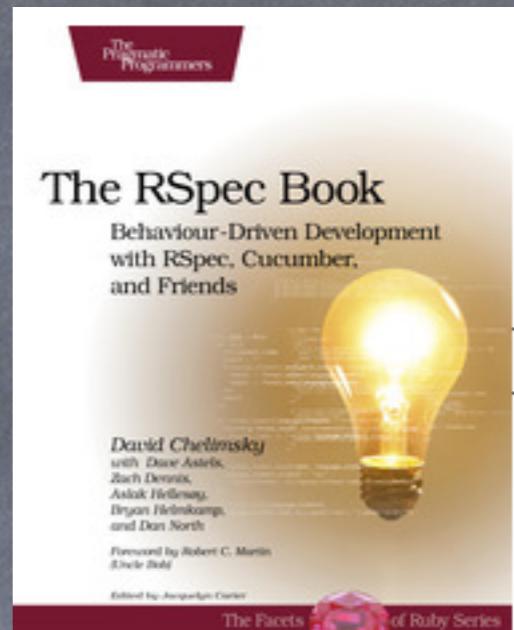
- ☛ Fork on GitHub
- ☛ Clone my copy
- ☛ Make changes
- ☛ Commit and Push changes
- ☛ Send a pull request

# In-Class Exercise!

- ➊ Fork
- ➋ Clone
- ➌ Change
- ➍ Push
- ➎ Pull Request

# RSpec Intro

- ⦿ Code that Tests code!
- ⦿ Test Driven Development
- ⦿ Red-Green-Refactor
- ⦿ Test First Teaching
- ⦿ Ruby Domain Specific Language (DSL) for testing



# RSpec Specifics

- ⦿ Describe (What) / Context (When)
- ⦿ It (Does)
- ⦿ Should or Expect
- ⦿ Matchers
- ⦿ <http://rubydoc.info/gems/rspec-expectations/2.4.0/RSpec/Matchers>

# Rspec Demo!

- ➊ make a new rspec file
- ➋ run rspec
- ➌ walk through rspec\_spec.rb

# In-Class Exercise

- ➊ Run `exercises/rspec_spec.rb`
- ➋ Fix the broken in-class test
- ➌ Add the 3 pending in-class tests (don't forget the `do/end` and `should!`)

# Homework!

- ⦿ Read Chapter 3 Classes, Objects, and Variables
- ⦿ p.86-90 Strings (Strings section in Chapter 6 Standard Types)
- ⦿ Answer Questions, Make Spec Pass