

## Everyday Rails Testing With Rspec Kindle Edition Aaron Sumner

This book is for everyone who needs to test the web. As a tester, you'll automate your tests. As a developer, you'll build more robust solutions. And as a team, you'll gain a vocabulary and a means to coordinate how to write and organize automated tests for the web. Follow the testing pyramid and level up your skills in user interface testing, integration testing, and unit testing. Your new skills will free you up to do other, more important things while letting the computer do the one thing it's really good at: quickly running thousands of repetitive tasks. This book shows you how to do three things: How to write really good automated tests for the web. How to pick and choose the right ones. \* How to explain, coordinate, and share your efforts with others. If you're a traditional software tester who has never written an automated test before, this is the perfect book for getting started. Together, we'll go through everything you'll need to start writing your own tests. If you're a developer, but haven't thought much about testing, this book will show you how to move fast without breaking stuff. You'll test RESTful web services and legacy systems, and see how to organize your tests. And if you're a team lead, this is the Rosetta Stone you've been looking for. This book will help you bridge that testing gap between your developers and your testers by giving your team a model to discuss automated testing, and most importantly, to coordinate their efforts. The Way of the Web Tester is packed with cartoons, graphics, best practices, war stories, plenty of humor, and hands-on tutorial exercises that will get you doing the right things, the right way.

What others in the trenches say about The Pragmatic Programmer... “The cool thing about this book is that it’s great for keeping the programming process fresh. The book helps you to continue to grow and clearly comes from people who have been there.” —Kent Beck, author of *Extreme Programming Explained: Embrace Change* “I found this book to be a great mix of solid advice and wonderful analogies!” —Martin Fowler, author of *Refactoring* and *UML Distilled* “I would buy a copy, read it twice, then tell all my colleagues to run out and grab a copy. This is a book I would never loan because I would worry about it being lost.” —Kevin Ruland, Management Science, MSG-Logistics “The wisdom and practical experience of the authors is obvious. The topics presented are relevant and useful.... By far its greatest strength for me has been the outstanding analogies—tracer bullets, broken windows, and the fabulous helicopter-based explanation of the need for orthogonality, especially in a crisis situation. I have little doubt that this book will eventually become an excellent source of useful information for journeymen programmers and expert mentors alike.” —John Lakos, author of *Large-Scale C++ Software Design* “This is the sort of book I will buy a dozen copies of when it comes out so I can give it to my clients.” —Eric Vought, Software Engineer “Most modern books on software development fail to cover the basics of what makes a great software developer, instead spending their time on syntax or technology where in reality the greatest leverage possible for any software team is in having talented developers who really know their craft well. An excellent book.” —Pete McBreen, Independent Consultant “Since reading this book, I have implemented many of the practical suggestions and tips it contains. Across the board, they have saved my company time and money while helping me get my job done quicker! This should be a desktop reference for everyone who works with code for a living.” —Jared Richardson, Senior Software Developer, iRenaissance, Inc. “I would like to see this issued to every new employee at my company....” —Chris Cleeland, Senior Software Engineer, Object Computing, Inc. “If I’m putting together a project, it’s the authors of this book that I want. . . . And failing that I’d settle for people who’ve read their book.” —Ward Cunningham Straight from the programming trenches, *The Pragmatic Programmer* cuts through the increasing specialization and technicalities of modern software development to examine the core process--taking a requirement and producing working, maintainable code

that delights its users. It covers topics ranging from personal responsibility and career development to architectural techniques for keeping your code flexible and easy to adapt and reuse. Read this book, and you'll learn how to Fight software rot; Avoid the trap of duplicating knowledge; Write flexible, dynamic, and adaptable code; Avoid programming by coincidence; Bullet-proof your code with contracts, assertions, and exceptions; Capture real requirements; Test ruthlessly and effectively; Delight your users; Build teams of pragmatic programmers; and Make your developments more precise with automation. Written as a series of self-contained sections and filled with entertaining anecdotes, thoughtful examples, and interesting analogies, *The Pragmatic Programmer* illustrates the best practices and major pitfalls of many different aspects of software development. Whether you're a new coder, an experienced programmer, or a manager responsible for software projects, use these lessons daily, and you'll quickly see improvements in personal productivity, accuracy, and job satisfaction. You'll learn skills and develop habits and attitudes that form the foundation for long-term success in your career. You'll become a Pragmatic Programmer.

*You Will Learn Ruby!* Zed Shaw has perfected the world's best system for learning Ruby. Follow it and you will succeed—just like the hundreds of thousands of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else. In *Learn Ruby the Hard Way, Third Edition*, you'll learn Ruby by working through 52 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how software works; what good programs look like; how to read, write, and think about code; and how to find and fix your mistakes using tricks professional programmers use. Most importantly, you'll learn the following, which you need to start writing excellent Ruby software of your own:

- Installing your Ruby environment
- Organizing and writing code
- Ruby symbols and keywords
- Basic mathematics
- Variables and printing
- Strings and text
- Interacting with users
- Working with files
- Using and creating functions
- Looping and logic
- Arrays and elements
- Hashmaps
- Program design
- Object-oriented programming
- Inheritance and composition
- Modules, classes, and objects
- Project “skeleton” directories
- Debugging and automated testing
- Advanced user input
- Text processing
- Basic game development
- Basic web development

It'll Be Hard At First. But Soon, You'll Just Get It—And That Will Feel Great! This tutorial will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful, popular programming languages. You'll be a Ruby programmer. Watch Zed, too! The accompanying DVD contains 5+ hours of passionate, powerful teaching: a complete Ruby video course! Zed Shaw is an avid guitar player, programmer, and writer whose books teach people all over the world how to write software. His book *Learn Python the Hard Way* has been read by millions of people around the world. His software has been used by many large and small companies. His essays are often quoted and read by members of many geek communities. He is an entertaining and lively writer, who is sure to keep you laughing and make you think.

If you're a web developer or designer ready to learn Ruby on Rails, this hands-on guide is the ideal way to get started. Rather than toss you into the middle of the framework's Model-View-Controller architecture, as many books do, *Learning Rails 5* begins with the foundations of the Web you already know. You'll learn how to create something visible with Rails' view layer before diving into the more difficult inner layers: the database models and controller code. All you need to begin your Rails journey is HTML experience. Each chapter includes exercises and review questions to test your understanding as you go. Present content by building an application with a basic view and a simple controller. Build forms and process their results, progressing from simple to more complex. Use Rails scaffolding and REST to build effective applications quickly. Connect forms to models and create code that maps directly to database structures. Build applications that combine data

from multiple tables Use migrations to track changes to your database over time Add common elements such as sessions, cookies, and authentication

You can test just about anything with Cucumber. We certainly have, and in Cucumber Recipes we'll show you how to apply our hard-won field experience to your own projects. Once you've mastered the basics, this book will show you how to get the most out of Cucumber--from specific situations to advanced test-writing advice. With over forty practical recipes, you'll test desktop, web, mobile, and server applications across a variety of platforms. This book gives you tools that you can use today to automate any system that you encounter, and do it well. The Cucumber Book showed you how your team can work together to write executable specifications--documents that tell a clear story and also happen to be working test code. We'll arm you with ready-rolled solutions to real-world problems: your tests will run faster, read more clearly, and work in any environment. Our first tips will help you fit Cucumber into your workflow. Powerful filters will tame tables full of test data, transforming them into the format your application needs. Custom output formatters will generate reports for any occasion. Continuous Integration servers will run your Cucumber tests every time the code changes. Next, you'll find recipes tailored to the platform you're running on. Ever wanted to know how to test a Grails app from Cucumber? Need to put a Windows program through its paces? How about a mobile app running on Android or iOS? We'll show you how to do all of these. Throughout the book, you'll see how to make Cucumber sing as you interoperate with different platforms, languages, and environments. From embedded circuits to Python and PHP web apps, Cucumber has something for you. What You Need: You'll need basic working knowledge of Cucumber and Ruby. Individual recipes may have additional requirements; for example, a recipe on Windows automation might pull in an open source GUI driver. We've written the recipes for compatibility with Ruby 1.9.3 and 1.8.7, plus Cucumber 1.1.4. Other versions may work as well, but these are the ones we test with.

It's easy to write correct Ruby code, but to gain the fluency needed to write great Ruby code, you must go beyond syntax and absorb the "Ruby way" of thinking and problem solving. In Eloquent Ruby, Russ Olsen helps you write Ruby like true Rubyists do--so you can leverage its immense, surprising power. Olsen draws on years of experience internalizing the Ruby culture and teaching Ruby to other programmers. He guides you to the "Ah Ha!" moments when it suddenly becomes clear why Ruby works the way it does, and how you can take advantage of this language's elegance and expressiveness. Eloquent Ruby starts small, answering tactical questions focused on a single statement, method, test, or bug. You'll learn how to write code that actually looks like Ruby (not Java or C#); why Ruby has so many control structures; how to use strings, expressions, and symbols; and what dynamic typing is really good for. Next, the book addresses bigger questions related to building methods and classes. You'll discover why Ruby classes contain so many tiny methods, when to use operator overloading, and when to avoid it. Olsen explains how to write Ruby code that writes its own code--and why you'll want to. He concludes with powerful project-level features and techniques ranging from gems to Domain Specific Languages. A part of the renowned Addison-Wesley Professional Ruby Series, Eloquent Ruby will help you "put on your Ruby-colored glasses" and get results that make you a true believer.

Test-Driven Infrastructure with Chef demonstrates a radical approach to developing web infrastructure that combines the powerful Chef configuration management framework with Cucumber, the leading Behavior-driven development (BDD) tool. Learn how to deliver real business value by developing infrastructure code test-first. Infrastructure consultant Stephen Nelson-Smith shows you how this unique approach allows you to make significant changes without the fear of unexpected side effects--a great benefit when you're developing code to control your production infrastructures. By using the test-first approach introduced in this book, you gain increased security, code quality, and peace of mind. Learn the core principles behind the infrastructure-as-code approach, including modularity, cooperation, extensibility, and

flexibility Take a high-level tour of the Chef framework, tool, and API, as well as the community behind the project Set up a workstation to interact with the Chef API Get an overview of Cucumber and learn the principles of BDD Start using Cucumber-Chef, the open source infrastructure testing platform Explore test-driven infrastructure development with a hands-on tutorial

This short early adopter book details both how you'll upgrade existing web applications from Rails 4.2 to 5 and how to create new applications in Rails 5. The headline features, Rails API and Action Cable are each looked at in detail, building small example projects to demonstrate how to build a JSON API and add real-time interactions in order to create a single-page application. All the breaking changes are shown, along with how to fix your app to work with the new release. The improvements to ActiveRecord and the testing framework are fully detailed. After reading and using Rails 5 Revealed, you'll be poised to move forward with building your apps with the latest major release of Ruby on Rails. What You'll Learn Discover the new features in Rails 5 and how to upgrade your application from Rails 4.2 Gain knowledge about the changes to ActiveRecord See the improvements to the Rails testing framework Build API servers using Rails API Create WebSocket applications using Action Cable Who This Book Is For Existing Rails developers who are looking to quickly get up to speed with the changes in the new Rails 5 framework.

The Ruby programming language is perfect for beginners: easy to learn, powerful, and fun to use! But wouldn't it be more fun if you were learning with the help of some wizards and dragons? Ruby Wizardry is a playful, illustrated tale that will teach you how to program in Ruby by taking you on a fantastical journey. As you follow the adventures of young heroes Ruben and Scarlet, you'll learn real programming skills, like how to: –Use fundamental concepts like variables, symbols, arrays, and strings –Work with Ruby hashes to create a programmable breakfast menu –Control program flow with loops and conditionals to help the Royal Plumber –Test your wild and crazy ideas in IRB and save your programs as scripts –Create a class of mini-wizards, each with their own superpower! –Organize and reuse your code with methods and lists –Write your own amazing interactive stories using Ruby Along the way, you'll meet colorful characters from around the kingdom, like the hacker Queen, the Off-White Knight, and Wherefore the minstrel. Ruby Wizardry will have you (or your little wizard) hooked on programming in no time. For ages 10+ (and their parents!)

Provides information on using R and Ruby to model a mathematical problem and find a solution.

"Our tests are broken again!" "Why does the suite take so long to run?" "What value are we getting from these tests anyway?" Solve your testing problems by building and maintaining quality software with RSpec - the popular BDD-flavored Ruby testing framework. This definitive guide from RSpec's lead developer shows you how to use RSpec to drive more maintainable designs, specify and document expected behavior, and prevent regressions during refactoring. Build a project using RSpec to design, describe, and test the behavior of your code. Whether you're new to automated tests or have been using them for years, this book will help you write more effective tests. RSpec has been downloaded more than 100 million times and has inspired countless test frameworks in other languages. Use this influential Ruby testing framework to iteratively develop a project with the confidence that comes from well-tested code. This book guides you through creating a Ruby project with RSpec, and explores the individual components in detail. Start by learning the basics of installing and using RSpec. Then build a real-world JSON API, using RSpec

throughout the process to drive a BDD-style outside-in workflow. Apply an effective test strategy to write fast, robust tests that support evolutionary design through refactoring. The rest of the book provides the definitive guide to RSpec's components. Use rspec-core's metadata to slice and dice your spec suite. Dig into rspec-expectations' matchers: compose them in flexible ways, specify expected outcomes with precision, and diagnose problems quickly with the help of good failure messages. Write fast, isolated tests with rspec-mocks' test doubles while pushing your code toward simpler interfaces. The authors, with a combined 20 years of automated testing experience, share testing wisdom that will lead to a fun, productive testing experience. What You Need: To follow along with the book, you'll need Ruby 2.2+. The book will guide you through installing RSpec 3 and setting up a new project to use it.

Now you can bring the best of Ruby into the world of Java, with Using JRuby. Come to the source for the JRuby core team's insights and insider tips. You'll learn how to call Java objects seamlessly from Ruby, and deal with Java idioms such as interfaces and overloaded functions. Run Ruby code from Java, and make a Java program scriptable in Ruby. See how to compile Ruby into .class files that are callable from Java, Scala, Clojure, or any other JVM language. In Using JRuby you'll venture into the wide world of open-source Ruby and Java libraries. Write Ruby on Rails web applications that run on Java servers like Tomcat. Use Java's JDBC or Hibernate to easily connect Ruby to industry-standard databases. Test your Java program using Ruby's elegant Cucumber and RSpec frameworks. Create dazzling desktop user interfaces with frameworks like Limelight and Monkeybars. Package a Rails or plain Ruby project for easy deployment to any Java environment. JRuby lets you merge the best of several possible worlds, so you can create unique software using the best tools available. This book is your definitive guide.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Used by sites as varied as Twitter, GitHub, Disney, and Airbnb, Ruby on Rails is one of the most popular frameworks for developing web applications, but it can be challenging to learn and use. Whether you're new to web development or new only to Rails, Ruby on Rails™ Tutorial, Fourth Edition, is the solution. Best-selling author and leading Rails developer Michael Hartl teaches Rails by guiding you through the development of three example applications of increasing sophistication. The tutorial's examples focus on the general principles of web development needed for virtually any kind of website. The updates to this edition include full compatibility with Rails 5, a division of the largest chapters into more manageable units, and a huge number of new exercises interspersed in each chapter for maximum reinforcement of the material. This indispensable guide provides integrated tutorials not only for Rails, but also for the essential Ruby, HTML, CSS, and SQL skills you need when developing web applications. Hartl explains how each new technique solves a real-world problem, and then he demonstrates it with bite-sized code that's simple enough to understand, yet novel enough to be useful. Whatever your previous web development experience, this book will guide you to true Rails mastery. This book will help you Install and set up your Rails development environment, including pre-installed integrated development environment (IDE) in the cloud Go beyond generated code to truly understand how to build Rails applications from scratch Learn testing and test-driven development (TDD) Effectively

use the Model-View-Controller (MVC) pattern Structure applications using the REST architecture Build static pages and transform them into dynamic ones Master the Ruby programming skills all Rails developers need Create high-quality site layouts and data models Implement registration and authentication systems, including validation and secure passwords Update, display, and delete users Upload images in production using a cloud storage service Implement account activation and password reset, including sending email with Rails Add social features and microblogging, including an introduction to Ajax Record version changes with Git and create a secure remote repository at Bitbucket Deploy your applications early and often with Heroku

Scripted GUI Testing with Ruby is a practical, quick-moving tutorial based on real life, and real-world GUI applications. Right out of the gate you'll start working with code to drive a desktop GUI. You'll discover the kinds of gotchas and edge cases that don't exist in simple, toy programs. As you add more tests, you'll learn how to organize your test code and write lucid examples. The result is a series of "smoke tests" team will run on Continuous Integration servers. Next, we'll explore a variety of different testing tips and tricks. You'll employ a series of increasingly random and punishing test monkeys to try to crash programs. Table-driven techniques will show you how to check dozens of different input combinations. See how to use longer acceptance tests (in the form of stories) to represent the way a typical customer would use your program. The book uses examples from Windows, OS X, and cross-platform Java desktop programs as well as Web applications. You'll develop test scripts in Ruby; you don't need to be a Ruby expert, but basic comfort with the language will be helpful.

Behaviour Driven Development is about writing software that matters. It is an approach to agile software development that takes cues from Test Driven Development, Domain Driven Design, and Acceptance Test Driven Planning. RSpec and Cucumber are the leading Behaviour Driven Development tools in Ruby. RSpec supports Test Driven Development in Ruby through the BDD lens, keeping your focus on design and documentation while also supporting thorough testing and quick fault isolation. Cucumber, RSpec's steadfast companion, supports Acceptance Test Driven Planning with business-facing, executable requirements documentation that helps to ensure that you are writing relevant software targeted at real business needs. The RSpec Book will introduce you to RSpec, Cucumber, and a number of other tools that make up the Ruby BDD family. Replete with tutorials and practical examples, the RSpec Book will help you get your BDD on, taking you from executable requirements to working software that is clean, well tested, well documented, flexible and highly maintainable.

Learn Rails the way the Rails core team recommends it, along with the tens of thousands of developers who have used this broad, far-reaching tutorial and reference. If you're new to Rails, you'll get step-by-step guidance. If you're an experienced developer, get the comprehensive, insider information you need for the latest version of Ruby on Rails. The new edition of this award-winning classic is completely updated for Rails 5.1 and Ruby 2.4, with information on system testing, Webpack, and advanced JavaScript. Ruby on Rails helps you produce high-quality, beautiful-looking web applications quickly---you concentrate on creating the application, and Rails takes care of the details. Rails 5.1 brings many improvements, and this edition is updated to cover the new features and changes in best practices. We start with a step-by-step walkthrough of building a real application, and in-depth

chapters look at the built-in Rails features. Follow along with an extended tutorial as you write a web-based store application. Eliminate tedious configuration and housekeeping; seamlessly incorporate Ajax and JavaScript; send emails and manage background jobs with ActiveJob; build real-time features using WebSockets and ActionCable. Test your applications as you write them using the built-in unit, integration, and system testing frameworks; internationalize your applications; and deploy your applications easily and securely. New in this edition is support for Webpack and advanced JavaScript, as well as Rails' new browser-based system testing. Rails 1.0 was released in December 2005. This book was there from the start, and didn't just evolve alongside Rails, it evolved with Rails. It has been developed in consultation with the Rails core team. In fact, Rails itself is tested against the code in this book. What You Need: All you need is a Windows, Mac OS X, or Linux machine to do development on. This book will take you through the steps to install Rails and its dependencies. If you aren't familiar with the Ruby programming language, this book contains a chapter that covers the basics necessary to understand the material in the book.

Have you ever wondered why some people can achieve such amazing goals in their business or personal life ? I believe we can all achieve extraordinary goals in all areas of our lives? If you have a big dream, but think "I can't - it's too big, too ambitious, too extreme..." this book is for you. I used to have all those thoughts. Before I ran my first 10km run, no way did I think about a 300-mile foot race, the Yukon Arctic Ultra, in -55 degrees. When I was fixing typewriters for a living, I couldn't dream of managing a 450 strong European sales force as a senior Director. These were unthinkable goals. UNREALISTIC and UNACHIEVABLE, not even on my radar. 70 miles into the 300 mile Arctic foot race I started to build a picture of why I had managed to achieve so many "impossible" goals. Over the next 5 days, alone in the cold and dark, I developed the 7P Formula for achieving any Big Goal. If you have a Big Goal you always wanted to achieve, or a dream that you want to turn into a Big Goal, the 7P Formula will enable you to achieve it. Please join me on this journey of discovery.

Use Michael Hartl's Acclaimed Video Lessons and Best-Selling Book Side by Side to Master Rails Fast! LiveLessons™ DVD with 18+ hours of video instruction—a \$150 value Michael Hartl's Ruby on Rails™ 3 Tutorial, the #1 hands-on guide to Rails web programming—a \$40 value A \$190 value, this package delivers instant skills, answers, and solutions from 18+ hours of video LiveLessons (a \$150 value)...plus deeper insights from Ruby on Rails™ 3 Tutorial, the #1 Rails development guide (a \$40 value). About the LiveLessons DVD These focused video lessons help you learn crucial new skills fast—and put them to work immediately! Watch top Rails developer Michael Hartl guide you through building a complete application using today's best practices for MVC and REST design, layout, Ruby coding, security, testing, deployment, and more. Just place the DVD video in your computer's DVD drive, and master Rails the easy way.

For more than a decade, Ruby developers have turned to The Ruby Way for reliable “how-to” guidance on effective Ruby programming. Now, Hal Fulton and André Arko have thoroughly updated this classic guide to cover new language enhancements and developers’ experiences through Ruby 2.1. The new edition illuminates Ruby 2.1 through 400+ examples, each answering the question: “How do I do this in Ruby?” For each example, they present both a task description and realistic technical

constraints. Next, they walk step-by-step through presenting one good solution, offering detailed explanations to promote deeper understanding. Conveniently organized by topic, *The Ruby Way*, Third Edition makes it easier than ever to find the specific solution you want—and to write better code by reflecting Ruby’s unique philosophy and spirit. Coverage includes Ruby 2.1 overview: terminology, philosophy, and basic principles Best practices for strings and regular expressions Efficiently internationalizing your code Performing calculations (including trigonometry, calculus, statistics, and time/date calculations) Working with “Rubyesque” objects such as symbols and ranges Using arrays, hashes, stacks, queues, trees, graphs, and other data structures Efficiently storing data with YAML, JSON, and SQLite3 Leveraging object-oriented and dynamic features, from multiple constructors to program inspection Building GUIs with Shoes 4, Ruby/Tk, Ruby/GTK3, QtRuby, and other toolkits Improving thread performance by understanding Ruby’s synchronization methods and avoiding its pitfalls Automating system administration with Ruby Data formats: JSON, XML, RSS, Atom, RMagick, PDF, and more Testing and debugging with RSpec, Minitest, Cucumber, byebug, and pry Measuring Ruby program performance Packaging and distributing code, and managing dependencies with Bundler Network programming: clients, time servers, POP, SMTP, IMAP, Open-URI Web applications: HTTP servers, Rails, Sinatra, HTML generation, and more Writing distributed Ruby software with drb Choosing modern development tools that maximize your productivity All source code for this book may be downloaded at [www.rubyhacker.com](http://www.rubyhacker.com). [informit.com/aw](http://informit.com/aw) [informit.com/ruby](http://informit.com/ruby) [rubyhacker.com](http://rubyhacker.com) [therubyway](http://therubyway) [therubyway.io](http://therubyway.io)

How do you write truly elegant code with Ruby? *Ruby Best Practices* is for programmers who want to use Ruby as experienced Rubyists do. Written by the developer of the Ruby project Prawn, this concise book explains how to design beautiful APIs and domain-specific languages with Ruby, as well as how to work with functional programming ideas and techniques that can simplify your code and make you more productive. You'll learn how to write code that's readable, expressive, and much more. *Ruby Best Practices* will help you: Understand the secret powers unlocked by Ruby's code blocks Learn how to bend Ruby code without breaking it, such as mixing in modules on the fly Discover the ins and outs of testing and debugging, and how to design for testability Learn to write faster code by keeping things simple Develop strategies for text processing and file management, including regular expressions Understand how and why things can go wrong Reduce cultural barriers by leveraging Ruby's multilingual capabilities This book also offers you comprehensive chapters on driving code through tests, designing APIs, and project maintenance. Learn how to make the most of this rich, beautiful language with *Ruby Best Practices*.

Streamline software development with Jenkins, the popular Java-based open source tool that has revolutionized the way teams think about Continuous Integration (CI). This complete guide shows you how to automate your build, integration, release, and deployment processes with Jenkins—and demonstrates how CI can save you time, money, and many headaches. Ideal for developers, software architects, and project managers, *Jenkins: The Definitive Guide* is both a CI tutorial and a comprehensive Jenkins reference. Through its wealth of best practices and real-world tips, you'll discover how easy it is to set up a CI service with Jenkins. Learn how to install, configure, and secure your Jenkins server Organize and monitor general-purpose build jobs

Integrate automated tests to verify builds, and set up code quality reporting Establish effective team notification strategies and techniques Configure build pipelines, parameterized jobs, matrix builds, and other advanced jobs Manage a farm of Jenkins servers to run distributed builds Implement automated deployment and continuous delivery

The Complete Guide to Avoiding and Fixing Common Rails 3 Code and Design Problems As developers worldwide have adopted the powerful Ruby on Rails web framework, many have fallen victim to common mistakes that reduce code quality, performance, reliability, stability, scalability, and maintainability. Rails™ AntiPatterns identifies these widespread Rails code and design problems, explains why they're bad and why they happen—and shows exactly what to do instead. The book is organized into concise, modular chapters—each outlines a single common AntiPattern and offers detailed, cookbook-style code solutions that were previously difficult or impossible to find. Leading Rails developers Chad Pytel and Tammer Saleh also offer specific guidance for refactoring existing bad code or design to reflect sound object-oriented principles and established Rails best practices. With their help, developers, architects, and testers can dramatically improve new and existing applications, avoid future problems, and establish superior Rails coding standards throughout their organizations. This book will help you understand, avoid, and solve problems with Model layer code, from general object-oriented programming violations to complex SQL and excessive redundancy Domain modeling, including schema and database issues such as normalization and serialization View layer tools and conventions Controller-layer code, including RESTful code Service-related APIs, including timeouts, exceptions, backgrounding, and response codes Third-party code, including plug-ins and gems Testing, from test suites to test-driven development processes Scaling and deployment Database issues, including migrations and validations System design for “graceful degradation” in the real world

Provides information on creating Web-based applications using Ruby.

Learn the basics of test driven development (TDD) using Ruby. You will carry out problem domain analysis, solution domain analysis, designing test cases, and writing tests first. These fundamental concepts will give you a solid TDD foundation to build upon. Test Driven Development in Ruby is written by a developer for developers. The concepts are first explained, then a coding demo illustrates how to apply the theory in practice. At the end of each chapter an exercise is given to reinforce the material. Complete with working files and code samples, you'll be able to work alongside the author, a trainer, by following the material in this book. What You Will Learn Carry out problem domain analysis, solution domain analysis, designing test cases, and writing tests first Use assertions Discover the structure of a test and the TDD cycle Gain an understanding of minimal implementation, starter test, story test, and next test Handle refactoring using Ruby Hide implementation details Test precisely and concretely Make your code robust Who This Book Is For Experienced Ruby programmers or web developers with some prior experience with Ruby.

Get past the myths of testing in agile environments - and implement agile testing the RIGHT way. \* \* For everyone concerned with agile testing: developers, testers, managers, customers, and other stakeholders. \* Covers every key

issue: Values, practices, organizational and cultural challenges, collaboration, metrics, infrastructure, documentation, tools, and more. \* By two of the world's most experienced agile testing practitioners and consultants. Software testing has always been crucial, but it may be even more crucial in agile environments that rely heavily on repeated iterations of software capable of passing tests. There are, however, many myths associated with testing in agile environments. This book helps agile team members overcome those myths -- and implement testing that truly maximizes software quality and value. Long-time agile testers Lisa Crispin and Janet Gregory offer powerful insights for three large, diverse groups of readers: experienced testers who are new to agile; members of newly-created agile teams who aren't sure how to perform testing or work with testers; and test/QA managers whose development teams are implementing agile. Readers will learn specific agile testing practices and techniques that can mean the difference between success and failure; discover how to transition 'traditional' test teams to agile; and learn how to integrate testers smoothly into agile teams. Drawing on extensive experience, the authors illuminate topics ranging from culture to test planning to automated tools. They cover every form of testing: business-facing tests, technology-facing tests, exploratory tests, context-driven and scenario tests, load, stability, and endurance tests, and more. Using this book's techniques, readers can improve the effectiveness and reduce the risks of any agile project or initiative.

Provides information on testing procedures and tools for Rails 2 and Rails 3.

“Foy is a gifted writer and his descriptions of the philosophies that( impacted the design and implementation of Merb are definitely useful to( everyone affected by the changes in Rails 3.” —Obie Fernandez, Series Editor The Expert Guide to Building Merb Applications Thousands of Ruby and Rails developers are discovering the extraordinary scalability, agility, flexibility, and performance offered by the new Merb MVC framework. The Merb Way is the first comprehensive guide to using, extending, and deploying Merb. Like the bestseller The Rails Way (Addison-Wesley, 2008), this book can either be read cover-to-cover as a tutorial or used for modular coverage that makes it an ideal task reference. Foy Savas systematically covers everything developers need to know to build production-quality Merb applications, offering detailed code examples for jumpstarting virtually any project. Savas is not only involved in the Merb project as an open source contributor: He uses Merb every day as a professional developer. Drawing on his extensive practical expertise, he delves deeply into the Merb framework’s architecture and source code, revealing its elegance and offering powerful best practices for using it. To maximize this book’s practical value, he also covers the tools most widely used alongside Merb, including the DataMapper ORM, the RSpec tester (and associated behavior-driven development techniques), and several leading Merb plugins. The Merb Way will help you Master Merb innovations that will be incorporated into Rails 3 Understand the fundamentals of Merb development, one step at a time Use Merb’s sophisticated application router to

guide incoming requests Explore the Merb stack, master its configuration options, and dive into its internals Use Merb controllers to integrate application code, handle responses, and manage sessions, filters, and exceptions Build templates with both ERB (Erubis) and HAML Use the DataMapper ORM to represent object properties and behaviors Learn best practices for RESTful development with Merb Leverage Helpers to simplify many common development tasks Refactor code, encapsulate it in gems, and share it across multiple applications Customize the responses your application sends to each user Gain a deep, practical understanding of Merb plugins and extensibility Authenticate users with Merb's modular authentication plugin Configure, generate, describe, and test Merb mailers Use the merb-parts gem to create component-like regions on Web pages Cache content to relieve stress on Web servers Make the most of Behavior Driven Development and testing with RSpec

Rails: Novice to Ninja is an easy-to-follow, practical and fun guide to Ruby on Rails for beginners. It covers all you need to get up and running, from installing Ruby, Rails and SQLite to building and deploying a fully-featured web application. The third edition of this book has been fully updated to cover Rails 5, the latest version of the framework. Unlike other Rails books, this book doesn't assume that you are an experienced web developer, or that you've used Ruby before. An entire chapter is devoted to learning Ruby in a fun way, using the interactive Ruby console, so you can follow along at home. You'll be an accomplished Ruby programmer in no time! You'll then start using Rails to build a practical, working project: a Reddit-like social news application. As you'll build the app, you'll gain valuable experience of using Rails features such as user authentication, session cookies, and automated testing. The book finishes with chapters on debugging, benchmarking and deployment to a live web server.

Getting paid using Stripe or PayPal is only the beginning of creating a fully functional e-commerce application. You also need to handle failure cases, inventory management, administration, security, reporting, and be compliant with legal issues. Manage one-time transactions and recurring subscriptions, handle inventory management, issue discounts and refunds, mitigate administration and compliance issues, and test your code to ensure your customers have a smooth, hassle-free experience. An e-commerce payment application is literally rewarding to build--you can see the return on investment as genuine money is added to your account. But it can be stressful to manage, with security and compliance concerns and administration issues. And your entire business may depend on these features working smoothly. Let Noel Rappin guide you through the setup and complications of dealing with online financial transactions. Go beyond just the interaction with the gateway service and build an application that will be robust and useful over time. Set up a Stripe and PayPal payment gateway and accept credit card payments. Use the Stripe API to improve security by validating credit card data without sending it through your own server. Design your application for maximum flexibility against the

inevitable complexities of business logic, including handling discounts. Manage the multiple failure points of dealing with payment gateways and test for failure cases. Use background jobs to simplify third party interactions. Handle administrative tasks such as issuing refunds and discounts while maintaining data integrity and security. Create subscription plans and manage recurring payments, and stay on top of legal issues regarding taxes, reporting, and compliance. Pay affiliates or contributors from your application. By the end, you will know how to create a fully-functional web payment-taking machine. What You Need: The code in this book works with Ruby 2.3.1 and Rails 5, though nearly all of the code will run with earlier versions of Ruby and Rails.

Learn the Python skills and culture you need to become a productive member of any Python project. About This Book Taking a practical approach to studying Python A clear appreciation of the sequence-oriented parts of Python Emphasis on the way in which Python code is structured Learn how to produce bug-free code by using testing tools Who This Book Is For The Python Apprentice is for anyone who wants to start building, creating and contributing towards a Python project. No previous knowledge of Python is required, although at least some familiarity with programming in another language is helpful. What You Will Learn Learn the language of Python itself Get a start on the Python standard library Learn how to integrate 3rd party libraries Develop libraries on your own Become familiar with the basics of Python testing In Detail Experienced programmers want to know how to enhance their craft and we want to help them start as apprentices with Python. We know that before mastering Python you need to learn the culture and the tools to become a productive member of any Python project. Our goal with this book is to give you a practical and thorough introduction to Python programming, providing you with the insight and technical craftsmanship you need to be a productive member of any Python project. Python is a big language, and it's not our intention with this book to cover everything there is to know. We just want to make sure that you, as the developer, know the tools, basic idioms and of course the ins and outs of the language, the standard library and other modules to be able to jump into most projects. Style and approach We introduce topics gently and then revisit them on multiple occasions to add the depth required to support your progression as a Python developer. We've worked hard to structure the syllabus to avoid forward references. On only a few occasions do we require you to accept techniques on trust, before explaining them later; where we do, it's to deliberately establish good habits.

Rails 5 and Ruby 2.2 bring many improvements, including new APIs and substantial performance enhancements, and the fifth edition of this award-winning classic is now updated! If you're new to Rails, you'll get step-by-step guidance. If you're an experienced developer, this book will give you the comprehensive, insider information you need for the latest version of Ruby on Rails. Ruby on Rails helps you produce high-quality, beautiful-looking web applications quickly. You

concentrate on creating the application, and Rails takes care of the details. Learn Rails the way the Rails core team recommends it, along with the tens of thousands of developers who have used this broad, far-reaching tutorial and reference. We start with a step-by-step walkthrough of building a real application, and in-depth chapters look at the built-in Rails features. Follow along with an extended tutorial as you write a web-based store application. Eliminate tedious configuration and housekeeping; internationalize your applications; incorporate Ajax, REST, web services, and e-mail handling into your applications; test your applications as you write them using the built-in testing frameworks; and deploy your applications easily and securely. New in this edition is coverage of Action Cable, and completely updated code for Rails 5. Rails 1.0 was released in December 2005, more than 10 years ago. This book was there from the start, and didn't just evolve alongside Rails, it evolved with Rails. It has been developed in consultation with the Rails core team. In fact, Rails itself is tested against the code in this book. What You Need: All you need is a Windows, Mac OS X, or Linux machine to do development on. This book will take you through the steps to install Rails and its dependencies. If you aren't familiar with the Ruby programming language, this book contains a chapter that covers the basics necessary to understand the material in the book.

Your customers want rock-solid, bug-free software that does exactly what they expect it to do. Yet they can't always articulate their ideas clearly enough for you to turn them into code. You need Cucumber: a testing, communication, and requirements tool—all rolled into one. All the code in this book is updated for Cucumber 2.4, Rails 5, and RSpec 3.5. Express your customers' wild ideas as a set of clear, executable specifications that everyone on the team can read. Feed those examples into Cucumber and let it guide your development. Build just the right code to keep your customers happy. You can use Cucumber to test almost any system or any platform. Get started by using the core features of Cucumber and working with Cucumber's Gherkin DSL to describe-in plain language-the behavior your customers want from the system. Then write Ruby code that interprets those plain-language specifications and checks them against your application. Next, consolidate the knowledge you've gained with a worked example, where you'll learn more advanced Cucumber techniques, test asynchronous systems, and test systems that use a database. Recipes highlight some of the most difficult and commonly seen situations the authors have helped teams solve. With these patterns and techniques, test Ajax-heavy web applications with Capybara and Selenium, REST web services, Ruby on Rails applications, command-line applications, legacy applications, and more. Written by the creator of Cucumber and the co-founders of Cucumber Ltd., this authoritative guide will give you and your team all the knowledge you need to start using Cucumber with confidence. What You Need: Windows, Mac OS X (with XCode) or Linux, Ruby 1.9.2 and upwards, Cucumber 2.4, Rails 5, and RSpec 3.5

Learn Rails the way the Rails core team recommends it, along with the tens of thousands of developers who have used this broad, far-reaching tutorial and reference. If you're new to Rails, you'll get step-by-step guidance. If you're an experienced developer, get the comprehensive, insider information you need for the latest version of Ruby on Rails. The new edition of this award-winning classic is completely updated for Rails 6 and Ruby 2.6, with information on system testing, Webpack, and advanced JavaScript. Ruby on Rails helps you produce high-quality, beautiful-looking web applications quickly - you concentrate on creating the application, and Rails takes care of the details. Rails 6 brings many improvements, and this edition is updated to cover the new features and changes in best practices. We start with a step-by-step walkthrough of building a real application, and in-depth chapters look at the built-in Rails features. Follow along with an extended tutorial as you write a web-based store application. Eliminate tedious configuration and housekeeping, seamlessly incorporate Ajax and JavaScript, send and receive emails, manage background jobs with ActiveJob, and build real-time features using WebSockets and ActionCable. Test your applications as you write them using the built-in unit, integration, and system testing frameworks, internationalize your applications, and deploy your applications easily and securely. New in this edition is coverage of Action Mailer, which allows you to receive emails in your app as well as ActionText, a zero-configuration rich text editing feature. Rails 1.0 was released in December 2005. This book was there from the start, and didn't just evolve alongside Rails, it evolved with Rails. It has been developed in consultation with the Rails core team. In fact, Rails itself is tested against the code in this book. What You Need: All you need is a Windows, Mac OS X, or Linux machine to do development on. This book will take you through the steps to install Rails and its dependencies. If you aren't familiar with the Ruby programming language, this book contains a chapter that covers the basics necessary to understand the material in the book.

The expert guide to building Ruby on Rails applications Ruby on Rails strips complexity from the development process, enabling professional developers to focus on what matters most: delivering business value. Now, for the first time, there's a comprehensive, authoritative guide to building production-quality software with Rails. Pioneering Rails developer Obie Fernandez and a team of experts illuminate the entire Rails API, along with the Ruby idioms, design approaches, libraries, and plug-ins that make Rails so valuable. Drawing on their unsurpassed experience, they address the real challenges development teams face, showing how to use Rails' tools and best practices to maximize productivity and build polished applications users will enjoy. Using detailed code examples, Obie systematically covers Rails' key capabilities and subsystems. He presents advanced programming techniques, introduces open source libraries that facilitate easy Rails adoption, and offers important insights into testing and production deployment. Dive deep into the Rails codebase together, discovering why Rails behaves as it does—and how to make it behave the way you want it to.

This book will help you Increase your productivity as a web developer Realize the overall joy of programming with Ruby on Rails Learn what's new in Rails 2.0 Drive design and protect long-term maintainability with TestUnit and RSpec Understand and manage complex program flow in Rails controllers Leverage Rails' support for designing REST-compliant APIs Master sophisticated Rails routing concepts and techniques Examine and troubleshoot Rails routing Make the most of ActiveRecord object-relational mapping Utilize Ajax within your Rails applications Incorporate logins and authentication into your application Extend Rails with the best third-party plug-ins and write your own Integrate email services into your applications with ActionMailer Choose the right Rails production configurations Streamline deployment with Capistrano

Does your Rails code suffer from bloat, brittleness, or inaccuracy? Cure these problems with the regular application of test-driven development. You'll use Rails 5.1, Minitest 5, and RSpec 3.6, as well as popular testing libraries such as `factory_girl` and `Cucumber`. Updates include Rails 5.1 system tests and `Webpack` integration. Do what the doctor ordered to make your applications feel all better. Side effects may include better code, fewer bugs, and happier developers. Your Ruby on Rails application is sick. Deadlines are looming, but every time you make the slightest change to the code, something else breaks. Nobody remembers what that tricky piece of code was supposed to do, and nobody can tell what it actually does. Plus, it has bugs. You need test-driven development: a process for improving the design, maintainability, and long-term viability of software. With both practical code examples and discussion of why testing works, this book starts with the most basic features delivered as part of core Ruby on Rails. Once you've integrated those features into your coding practice, work with popular third-party testing tools such as `RSpec`, `Jasmine`, `Cucumber`, and `factory_girl`. Test the component parts of a Rails application, including the back-end model logic and the front-end display logic. With Rails examples, use testing to enable your code to respond better to future change. Plus, see how to handle real-world testing situations. This new edition has been updated to Rails 5.1 and `RSpec` 3.6 and contains full coverage of new Rails features, including system tests and the `Webpack`-based JavaScript setup. What You Need: Ruby 2.4, Rails 5.1

The Complete Guide to Writing More Maintainable, Manageable, Pleasing, and Powerful Ruby Applications Ruby's widely admired ease of use has a downside: Too many Ruby and Rails applications have been created without concern for their long-term maintenance or evolution. The Web is awash in Ruby code that is now virtually impossible to change or extend. This text helps you solve that problem by using powerful real-world object-oriented design techniques, which it thoroughly explains using simple and practical Ruby examples. Sandi Metz has distilled a lifetime of conversations and presentations about object-oriented design into a set of Ruby-focused practices for crafting manageable, extensible, and pleasing code. She shows you how to build new applications that can survive success and repair existing applications

that have become impossible to change. Each technique is illustrated with extended examples, all downloadable from the companion Web site, [poodr.info](http://poodr.info). The first title to focus squarely on object-oriented Ruby application design, *Practical Object-Oriented Design in Ruby* will guide you to superior outcomes, whatever your previous Ruby experience. Novice Ruby programmers will find specific rules to live by; intermediate Ruby programmers will find valuable principles they can flexibly interpret and apply; and advanced Ruby programmers will find a common language they can use to lead development and guide their colleagues. This guide will help you

- Understand how object-oriented programming can help you craft Ruby code that is easier to maintain and upgrade
- Decide what belongs in a single Ruby class
- Avoid entangling objects that should be kept separate
- Define flexible interfaces among objects
- Reduce programming overhead costs with duck typing
- Successfully apply inheritance
- Build objects via composition
- Design cost-effective tests
- Solve common problems associated with poorly designed Ruby code

Docker does for DevOps what Rails did for web development--it gives you a new set of superpowers. Gone are "works on my machine" woes and lengthy setup tasks, replaced instead by a simple, consistent, Docker-based development environment that will have your team up and running in seconds. Gain hands-on, real-world experience with a tool that's rapidly becoming fundamental to software development. Go from zero all the way to production as Docker transforms the massive leap of deploying your app in the cloud into a baby step. Docker makes life as a Ruby and Rails developer easier. It helps build, ship, and run your applications, solving major problems you face every day. It allows you to run applications at scale, adding new resources as needed. Docker provides a reliable, consistent environment that's guaranteed to work the same everywhere. Docker lets you do all things DevOps without needing a PhD in infrastructure and operations. Want to spin up a cluster to run your app? No problem. Scale it up or down at will? You bet. Start by running a Ruby script without having Ruby installed on the local machine. Then Dockerize a Rails application and run it using containers, including creating your own custom Docker images tailored for running Rails apps. Describe your app declaratively using Docker Compose, specifying the software dependencies along with everything needed to run the application. Then set up continuous integration, as well as your deployment pipeline and infrastructure. Along the way, find out the best practices for using Docker in development and production environments. This book gives you a solid foundation on using Docker and fitting it into your development workflow and deployment process. What You Need: All you need is a Windows, Mac OS X or Linux machine to do development on. This book guides you through the process of installing Docker. Some basic familiarity with Linux/Unix is recommended even if you're using a Windows machine.

The RSpec Book Behaviour Driven Development with RSpec, Cucumber, and Friends

Automated testing is a cornerstone of agile development. An effective testing strategy will deliver new functionality more

aggressively, accelerate user feedback, and improve quality. However, for many developers, creating effective automated tests is a unique and unfamiliar challenge. xUnit Test Patterns is the definitive guide to writing automated tests using xUnit, the most popular unit testing framework in use today. Agile coach and test automation expert Gerard Meszaros describes 68 proven patterns for making tests easier to write, understand, and maintain. He then shows you how to make them more robust and repeatable--and far more cost-effective. Loaded with information, this book feels like three books in one. The first part is a detailed tutorial on test automation that covers everything from test strategy to in-depth test coding. The second part, a catalog of 18 frequently encountered "test smells," provides trouble-shooting guidelines to help you determine the root cause of problems and the most applicable patterns. The third part contains detailed descriptions of each pattern, including refactoring instructions illustrated by extensive code samples in multiple programming languages.

Get ready to see Rails as you've never seen it before. Learn how to extend the framework, change its behavior, and replace whole components to bend it to your will. Eight different test-driven tutorials will help you understand Rails' inner workings and prepare you to tackle complicated projects with solutions that are well-tested, modular, and easy to maintain. This second edition of the bestselling Crafting Rails Applications has been updated to Rails 4 and discusses new topics such as streaming, mountable engines, and thread safety. Rails is one of the most extensible frameworks out there. This pioneering book deep-dives into the Rails plugin APIs and shows you, the intermediate Rails developer, how to use them to write better web applications and make your day-to-day work with Rails more productive. Rails Core developer Jose Valim guides you through eight different tutorials, each using test-driven development to build a new Rails plugin or application that solves common problems with these APIs. You'll learn how the Rails rendering stack works and customize it to read templates from the database while you discover how to mimic Active Record behavior, such as validations, in any other object. You'll find out how Rails integrates with Rack, the different ways to stream data from your web application, and how to mix Rails engines and Sinatra applications into your Rails apps, so you can choose the most appropriate tool for the job. In addition, you'll improve your productivity by customizing generators and responders. This book will help you understand Rails' inner workings, including generators, template handlers, internationalization, routing, and responders. With the knowledge you'll gain, you'll create well-tested, modular, and robust solutions for your next project.

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