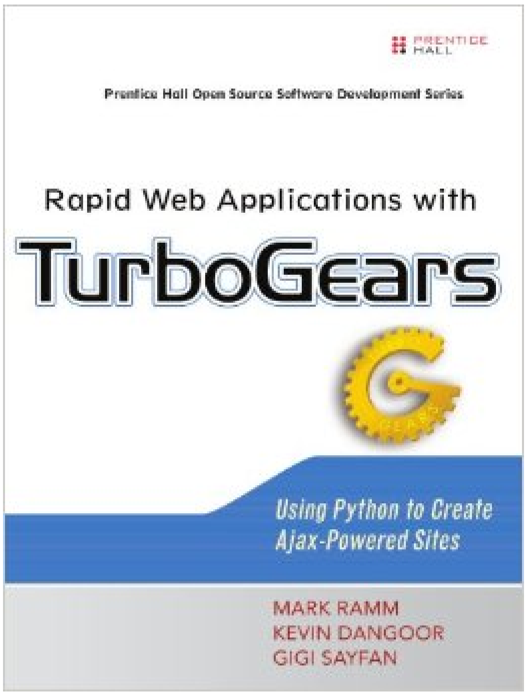
Rapid Web Applications With TurboGears: Using Python To Create Ajax-Powered Sites



PRENTICE HALL

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Rapid Web Applications with

TurboGears

Using Python to Create
Ajax-Powered Sites

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Synopsis

â œDear PHP, Itâ ™s over between us. You can keep the kitchen sink, but I want my MVC. With TurboGears, I was able to shed the most heinous FileMaker Pro legacy â ˆsoluÂ- tionâ ™ imaginable. It has relationships based on fields that change frequently, causing â ˆdisappearing data.â ™ I replaced it with an easy to maintain TurboGears application. Defunkifying and normalizing many years worth of munged data took twice as long as developing the TurboGearsâ ™s application itself. TurboGearsâ ™s excellent set of tools and best-of-breed approach makes it so easy to build applications quickly.â • â ”Isaac Csandl, Manager of Information Technology, Chicago Legal Search, Ltd. Â â œTurboGears has resulted in significant time savings for rPath. Before it was released, we exÂ- pected to spend significant time building a Web framework for our rPath Appliance Agent product. TurboGears sharpens our focus on building a quality application; it allows us to provide more value to our customers, rather than reinventing the Web wheel.â • â ”Michael K. Johnson, rPath Founding Engineer and Coauthor of Linux Application Development, Second Edition Â â œI think this is the first time that a Web frameworkâ ™s functionality has been so obvious.â • â ”Bruce Eckel, Author of Thinking in Java and Thinking in C++ Â â œTurboGears helped me build more complex Web applications more quickly and with fewer headaches than any other framework Iâ ™ve used. Just like Python itself, it made me more productive with a minimal learning curve.â • â ”Quentin Hartman, System Administrator Â â œTurboGears has changed the way I develop Web applications, from model, to view, to controller. Thanks to the power of TurboGears, I was able to develop the first version of WhatWhat in less than a week of my spare time.â • â ”Jonathan LaCour, Development Team Lead, Optio Â â œTurboGears has provided a way for me to greatly enhance my productivity by realÂ- izing the potential of Web-based agile development with Python.â • â ”Brandon Goldfedder, Vice President of Engineering, Information Extraction and Transport (IET Inc.), and Author of The Joy of Patterns Â â œTurboGears really changed the way I schedule project releases: It allows me to deliver them faster and with better quality than when I used to use GUI toolkits.â • â ”Jorge Godoy, Owner of G2C Tech Consultoria in Brazil, former Lead Developer for Conectiva documentation team Â â œWith TurboGears, I was able to transition my Python projects into Web applications as easily as possible.â • â ”Benjamin T. Hamilton, Software Engineer Â â œNorwegian-based company Scanmine AS makes extensive use of Python and Turbo-Gears in all parts of its operation. TurboGears makes it a breeze to build highly sophisÂ- ticated Web 2.0 applications with out-of-the-box features for multiple languages with full Unicode, REST, AJAX, RSS/Atom, and more. This enables Scanmine to put a face on their technology development in a minimal amount of time.

Â Â Â Â â œIt has been said that there are as many Web frameworks as there are Python Web programmers. This apparent Web framework fragmentation has long been perceived as a weakness, until TurboGears came along and turned weakness into strength.â • â ”Rune Hansen, Senior Systems Designer, Scanmine AS Â â œTurboGears is a well thought-out framework; the design choices it has made will help you be more productive. TurboGears will give you confidence with its foundation of stable best-of-breed Python components. If you are coming from other languages, consider working in TurboGears and Python to bring fun back into your Web developÂ- ment work.â • â ”Jeff Marshall, Partner with FrozenBear Â â œWhen we started developing Oprius Foundations with TurboGears, we werenâ ™t sure if it really would help us develop quicker and higher-quality code. After two months, we had a task manager to rival Tada List. After seven months, we had an entire contact management system to compete with the big boys.â • â ”Jason Chu, Lead Developer, Oprius Software Inc. Â â œConventional programming wisdom states that rewriting any working project from scratch is a bad idea. TurboGears was good enough to convince me to do this anyway, and I have been nothing but thrilled with the results. With TurboGears, I was able to implement an AJAX-based Web site with a nice Web API more easily than I ever thought possible. If you are trying to do either of those in Python, you owe it to yourÂ- self to look at this project. Using TurboGears was one of the few times in my programÂ- ming career where a task was significantly less complicated than I thought possible.â • â ”Adam Jones, Lead Programmer, RecursiveThought Software Â   Master TurboGears: The Easy Python Framework for Rapid Web Development Â TurboGears harnesses the power of Python to provide a dynamic and easy-to-use Web development framework: one that dramatically increases developer productivity, and makes it far easier to create dynamic, user-friendly, Ajax-enabled Web applications. Now, for the first time, thereâ ™s a definitive guide to TurboGearsâ ”coauthored by its creator, Kevin Dangoor. Â This book will help experienced Web developers get productive with TurboGearsâ ”fast. Youâ ™ll quickly build your first TurboGears Web applicationâ ”then extend it one step at a time, mastering the underlying libraries that make these enhancements possible. Next, the authors demonstrate TurboGears at work in a real-world application, by examining the code for â œWhatWhat Status,â • an open source project status tracking application. Finally, youâ ™ll gain deep insight into the model, view, and controller technologies TurboGears is built upon: knowledge that will help you build far more robust and capable Python applications. Coverage includes Understanding the architecture of a TurboGears application Mastering SQLObject, customizing it, and using it with TurboGears models Utilizing TurboGears view technologies, including dynamic templates and MochiKit for Ajax Bringing CSS, XHTML, and JavaScript together in reusable components with TurboGears Widgets Using CherryPy and TurboGears controller technologies: from decorators to deployment Exploring the TurboGears toolbox Ensuring security and managing user access permissions in TurboGears applications Â Preface Â xxiii Acknowledgments Â xxv Â Part I: TurboGears Fundamentals   Chapter 1: Introduction to TurboGears Â 3 Chapter 2 Getting Started with TurboGears Â 13 Chapter 3: The Architecture of a TurboGears Application Â 25 Â Part II: Building a Simple TurboGears Application Chapter 4: Creating a Simple Application Â 43 Chapter 5: Enhancing Our Bookmark Application Â 59   Part III: Exploring a Real World TurboGears Application Chapter 6: Exploring More Complex Models in WhatWhat Status Â 83 Chapter 7: Controllers, Views, and JavaScript in the WhatWhat Status Â 97 Chapter 8: RSS, Cookies, and Dynamic Views in WhatWhat Status Â 115 Chapter 9: Ajax and WhatWhat Status Projects Â 133 Â   Part IV: SQLObject and TurboGears Models   Chapter 10: SQLObject Basics Â 151 Chapter 11: Mastering SQLObject Â 165 Chapter 12: Customizing SQLObject Behavior Â 183 Â   Part V: TurboGears View Technologies   Chapter 13: Dynamic Templates with Kid Â 209 Chapter 14: Creating Better JavaScript with MochiKit Â 225 Chapter 15: Effective Ajax with MochiKit Â 273 Chapter 16: TurboGears Widgets: Bringing CSS, XHTML, and JavaScript Together in Reusable Components . 309 Â   Part VI: CherryPy and TurboGears Controller Technologies Chapter 17: CherryPy and TurboGears Decorators Â 335 Chapter 18: TurboGears Deployment Â 355 Â   Part VII: TurboGears Extras Chapter 19 The TurboGears Toolbox and Other Tools Â 371 Chapter 20: Internationalization Â 383 Chapter 21: Testing a TurboGears Application Â 397 Chapter 22: TurboGears Identity and Security Â 417 Â   Part VIII: Appendix Appendix: SQLAlchemy Â 431 Â Index Â 449

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Customer Reviews

I bought this book because I inherited a Turbogears-created website at work, and it seemed like a decent framework. The framework itself is still clearly having growing pains (it was REALLY tricky to get the right combination of versions-of-packages to get the website running on another platform), but the framework itself is NOT the subject of this review - the book is.The first thing I've noticed is that the editors were apparently asleep. There are TONS of typos, and I haven't even progressed past the first third of the book in terms of doing the tutorials. I don't recommend anyone try to use this book to LEARN anything about how it all fits together - the code was obviously never actually run in some circumstances (clear typos in the code caused me to have to edit the examples given - the "Bookmarker" example in Chapter 4 is a perfect example of this.) Short shrift is also given to anyone who's not intimately familiar with large python projects - I understand that this is not intended to be a python tutorial, but better explanation of flow-of-control is warranted in a lot of cases.I suppose the more advanced topics might be more useful - given the amount of trouble I'm having with the introductory material, though, I may never find out. I don't recommend this book to anyone who's trying to set up turbogears for the first time - I struggled mightily with a few Python-related issues, and the book was no help at all. I'm also REALLY disappointed that the majority of other reviewers of this book are people with a financial interest in it. This, alone, should be a big tipoff.I will probably wind up getting decent use out of the book - my work project isn't going away soon, and TurboGears as a framework seems decent. But I'm certainly glad I paid less than $25 for it (from a seller I assume must have had a used copy, though it was sold as "new"), and I don't recommend anyone else pay more.Disappointing.

For what it's worth, I participated in the proofreading process and I still purchased the print version.I happen to believe that Python will be the next programming language of choice for mainstream IT, and TurboGears makes it easier to build maintainable, cleanly architected web applications using Python. This book will be a foundation element of the growing TurboGears ecosystem, as it nicely complements the online documentation for TurboGears and the various frameworks that TG builds atop.The authors have a very casual narrative style to their writing, which greatly aids the overall readability of the book. It's almost as if you're reading the transcript of a top-notch training session. The base text is accompanied by a number of diagrams, tables, example snippets, annotations, sidebars, and screenshots. If you like to skim through your books, you'll feel right at home with this one.The books covers the entire vertical application stack from JavaScript down to basic Sqlite database installation and setup, and the entire application creation lifecycle from installing TurboGears to production deployment.I think that there is a second unintended audience for this book, namely those developers interested in building Ajax apps using MochiKit, even if they aren't using TurboGears (or Python) for their backend server development. MochiKit is the brilliant and highly acclaimed JavaScript framework created by Bob Ippolito that "makes JavaScript suck less".MochiKit is featured as a core element of the TurboGears application stack, and this book features more than 80 pages dedicated to MochiKit.In closing, the authors did a great job on this book. I highly recommend it.--Mike

I'm working on a Turbogears app. I find it a good framework. The book, however, is frustrating to work with. I rarely have time to read computer books sequentially. I generally jump around trying to find answers to my questions. I'm not finding answers... just partial examples throughout.For example, I would expect an AJAX example to have all the pieces necessary to implement an AJAX conversation with the file names clearly labeled. I would expect a diagram of how the pieces interact. What I find is little snippets of code without context and no diagrams anywhere in the book.I think the authors did a reasonable job of explaining Turbogears from their perspective. It was the editors' job to push them to explain things from their audience's perspective. This has the look of a rush job.

I was somewhat disappointed with this book, although I still found it to be useful for learning TurboGears. I won't mince words: the editing sucks. If you can get through the typos, though, you'll learn a fair amount and be better positioned to do something useful with TurboGears after you've read the book. Treat the book more as a tutorial than a reference.

I ordered this book immediately after "discovering" TurboGears. It is full of useful information, but the editing and organization leave a lot to be desired.It is VERY IMPORTANT to be familiar with Python, because a lot of the programming examples contain mistakes. Many of the issues look like search-and-replace problems, because half of the examples in a chapter might refer to a class named one thing, and the others might refer to a different name that is obviously the same thing if you are paying attention.Given that online documentation for TurboGears also seems somewhat disorganized and scattered, I'll be using this book as reference information while working on my first

TG-based site.Since the book provides a ton of information about a broad range of topics (TurboGears is, after-all, a conglomeration of a bunch of separate technologies), I’m overlooking the editing errors and giving it a 4 out of 5.

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