
Read Free Starting To Unit Test Not As Hard As You Think

Eventually, you will unquestionably discover a further experience and skill by spending more cash. still when? get you endure that you require to get those all needs subsequent to having significantly cash? Why dont you try to get something basic in the beginning? Thats something that will guide you to comprehend even more around the globe, experience, some places, later history, amusement, and a lot more?

It is your categorically own era to ham it up reviewing habit. among guides you could enjoy now is **Starting To Unit Test Not As Hard As You Think** below.

1KXHRE - PAGE COLLINS

Master the Shiny web framework—and take your R skills to a whole new level. By letting you move beyond static reports, Shiny helps you create fully interactive web apps for data analyses. Users will be able to jump between datasets, explore different subsets or facets of the data, run models with parameter values of their choosing, customize visualizations, and much more. Hadley Wickham from RStudio shows data scientists, data analysts, statisticians, and scientific researchers with no knowledge of HTML, CSS, or JavaScript how to create rich web apps from R. This in-depth guide provides a learning path that you can follow with confidence, as you go from a Shiny beginner to an expert developer who can write large, complex apps that are maintainable and performant. Get started: Discover how the major pieces of a Shiny app fit together Put Shiny in action: Explore Shiny functionality with a focus on code samples, example apps, and useful techniques Master reactivity: Go deep into the theory and practice of reactive programming and examine reactive graph components Apply best practices: Examine useful techniques for making your Shiny apps work well in production

ASP.NET MVC insiders cover the latest updates to the technology in this popular Wrox reference MVC 5 is the newest update to the popular Microsoft technology that enables you to build dynamic, data-driven websites. Like previous versions, this guide shows you step-by-step techniques on using MVC to best advantage, with plenty of practical tutorials to illustrate the concepts. It covers controllers, views, and models; forms and HTML helpers; data annotation and validation; membership, authorization, and security. MVC 5, the latest version of MVC, adds sophisticated features such as single page applications, mobile optimization, and adaptive rendering A team of top Microsoft MVP experts, along with visionaries in the field, provide practical advice on basic and advanced MVC topics Covers controllers, views, models, forms, data annotations, authorization and security, Ajax, routing, ASP.NET web API, dependency injection, unit testing, real-world application, and much more Professional ASP.NET MVC 5 is the comprehensive resource you need to make the best use of the updated Model-View-Controller technology.

Summary The Art of Unit Testing, Second Edition guides you step by step from writing your first simple tests to developing robust test sets that are maintainable, readable, and trustworthy. You'll master the foundational ideas and quickly move to high-value subjects like mocks, stubs, and isolation, including frameworks such as Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, working with legacy code, and even "untestable" code. Along the way, you'll learn about integration testing and techniques and tools for testing databases and other technologies. About this Book You know you should be unit testing, so why aren't you doing it? If you're new to unit testing, if you find unit testing tedious, or if you're just not getting enough payoff for the effort you put into it, keep reading. The Art of Unit Testing, Second Edition guides you step by step from writing your first simple unit tests to building complete test sets that are maintainable, readable, and trustworthy. You'll move quickly to more complicated subjects like mocks and stubs, while learning to use isolation (mocking) frameworks like Moq, FakeItEasy, and Typemock Isolator. You'll explore test patterns and organization, refactor code applications, and learn how to test "untestable" code. Along the way, you'll learn about integration testing and techniques for testing with databases. The examples in the book use C#, but will benefit anyone using a statically typed language such as Java or C++. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Create readable, maintainable, trustworthy tests Fakes, stubs, mock objects, and isolation (mocking) frameworks Simple dependency injection techniques Refactoring legacy code About the Author Roy Osherove has been coding for over 15 years, and he consults and trains teams worldwide on the gentle art of unit testing and test-driven development. His blog is at ArtOfUnitTesting.com. Table of Contents PART 1 GETTING STARTED The basics of unit testing A first unit test PART 2 CORE TECHNIQUES Using stubs to break dependencies Interaction testing using mock objects Isolation (mocking) frameworks Digging deeper into isolation frameworks PART 3 THE TEST CODE Test hierarchies and organization The pillars of good unit tests PART 4 DESIGN AND PROCESS Integrating unit testing into the organization Working with legacy code Design and testability

Unit testing. You've heard the term. Probably a lot. You know you should probably figure out how it works, since everyone's always talking about it and a lot of companies require developers to know it. But you don't really know it and you're worried that you'll look uninformed if you cop to not knowing it. Well, relax. This book assumes you have absolutely no idea how it works and walks you through the practice from the very beginning. You'll learn the basics, but more importantly, you'll learn the business value, the path to walk not to get frustrated, what's testable and what isn't, and, and everything else that a practical unit testing newbie could possibly want to know.

Crispin and Gregory define agile testing and illustrate the tester's role with examples from real agile teams. They teach you how to use the agile testing quadrants to identify what testing is needed, who should do it, and what tools might help. The book chronicles an agile software development iteration from the viewpoint of a tester and explains the seven key success factors of agile testing.

Professional game developer Nitschke shares his experience with the XNA Framework, and teaches readers how to use the free XNA Game Studio Express 2.0 to build cutting edge 2D and 3D games.

Presents a guide to unit testing with the NUnit library in C# along with providing information on writing code, detecting and fixing problems, testing pieces of code, and testing with a team.

A comprehensive guide to exploring software architecture concepts and implementing best practices Key Features Enhance your skills to grow your career as a software architect Design efficient software architectures using patterns and best practices Learn how software architecture relates to an

organization as well as software development methodology Book Description The Software Architect's Handbook is a comprehensive guide to help developers, architects, and senior programmers advance their career in the software architecture domain. This book takes you through all the important concepts, right from design principles to different considerations at various stages of your career in software architecture. The book begins by covering the fundamentals, benefits, and purpose of software architecture. You will discover how software architecture relates to an organization, followed by identifying its significant quality attributes. Once you have covered the basics, you will explore design patterns, best practices, and paradigms for efficient software development. The book discusses which factors you need to consider for performance and security enhancements. You will learn to write documentation for your architectures and make appropriate decisions when considering DevOps. In addition to this, you will explore how to design legacy applications before understanding how to create software architectures that evolve as the market, business requirements, frameworks, tools, and best practices change over time. By the end of this book, you will not only have studied software architecture concepts but also built the soft skills necessary to grow in this field. What you will learn Design software architectures using patterns and best practices Explore the different considerations for designing software architecture Discover what it takes to continuously improve as a software architect Create loosely coupled systems that can support change Understand DevOps and how it affects software architecture Integrate, refactor, and re-architect legacy applications Who this book is for The Software Architect's Handbook is for you if you are a software architect, chief technical officer (CTO), or senior developer looking to gain a firm grasp of software architecture.

Thought-provoking and accessible in approach, this updated and expanded second edition of the Starting to Unit Test: Not as Hard as You Think provides a user-friendly introduction to the subject, Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for advanced graduate-level students. We hope you find this book useful in shaping your future career. Feel free to send us your enquiries related to our publications to info@risepress.pw Rise Press

Explore the tools and techniques to build scalable and secured RESTful web services and web applications using C# 8 and ASP. NET Core 3.1 Key FeaturesDelve into MVC patterns, configuration, routing, and deployment to build professional-grade applicationsLearn how to integrate ASP applications with the JavaScript frameworks React, Vue, and AngularImprove the performance of applications and the development team by implementing advanced ASP.NET Core conceptsBook Description ASP.NET has been the preferred choice of web developers for a long time. With ASP.NET Core 3, Microsoft has made internal changes to the framework along with introducing new additions that will change the way you approach web development. This second edition has been thoroughly updated to help you make the most of the latest features in the framework, right from gRPC and conventions to Blazor, which has a new chapter dedicated to it. You'll begin with an overview of the essential topics, exploring the Model-View-Controller (MVC) pattern, various platforms, dependencies, and frameworks. Next, you'll learn how to set up and configure the MVC environment, before delving into advanced routing options. As you advance, you'll get to grips with controllers and actions to process requests, and later understand how to create HTML inputs for models. Moving on, you'll discover the essential aspects of syntax and processes when working with Razor. You'll also get up to speed with client-side development and explore the testing, logging, scalability, and security aspects of ASP.NET Core. Finally, you'll learn how to deploy ASP.NET Core to several environments, such as Azure, Amazon Web Services (AWS), and Docker. By the end of the book, you'll be well versed in development in ASP.NET Core and will have a deep understanding of how to interact with the framework and work cross-platform. What you will learnUnderstand the new capabilities of ASP.NET Core 3.1Become well versed in how to configure ASP.NET Core to use it to its full potentialCreate controllers and action methods, and understand how to maintain stateImplement and validate forms and retrieve information from themImprove productivity by enforcing reuse, process forms, and effective security measuresDelve into the new Blazor development modelDeploy ASP.NET Core applications to new environments, such as Microsoft Azure, AWS, and DockerWho this book is for If you are a developer with basic knowledge of ASP.NET MVC and want to build powerful applications, then this book is for you. Developers who want to explore the latest changes in ASP.NET Core 3.1 to build professional-level applications will also find this book useful. Familiarity with C#, ASP.NET Core, HTML, and CSS is expected to get the most out of this book. One skill that's essential for any professional JavaScript developer is the ability to write testable code. This book shows you what writing and maintaining testable JavaScript for the client- or server-side actually entails, whether you're creating a new application or rewriting legacy code. From methods to reduce code complexity to unit testing, code coverage, debugging, and automation, you'll learn a holistic approach for writing JavaScript code that you and your colleagues can easily fix and maintain going forward. Testing JavaScript code is complicated. This book helps experienced JavaScript developers simply the process considerably. Get an overview of Agile, test-driven development, and behavior-driven development Use patterns from static languages and standards-based JavaScript to reduce code complexity Learn the advantages of event-based architectures, including modularity, loose coupling, and reusability Explore tools for writing and running unit tests at the functional and application level Generate code coverage to measure the scope and effectiveness of your tests Conduct integration, performance, and load testing, using Selenium or CasperJS Use tools for in-browser, Node.js, mobile, and production debugging Understand what, when, and how to automate your development processes

Get more out of your legacy systems: more performance, functionality, reliability, and manageability Is your code easy to change? Can you get nearly instantaneous feedback when you do change it? Do you understand it? If the answer to any of these questions is no, you have legacy code, and it is draining time and money away from your development efforts. In this book, Michael Feathers offers start-to-finish strategies for working more effec-

tively with large, untested legacy code bases. This book draws on material Michael created for his renowned Object Mentor seminars: techniques Michael has used in mentoring to help hundreds of developers, technical managers, and testers bring their legacy systems under control. The topics covered include Understanding the mechanics of software change: adding features, fixing bugs, improving design, optimizing performance Getting legacy code into a test harness Writing tests that protect you against introducing new problems Techniques that can be used with any language or platform—with examples in Java, C++, C, and C# Accurately identifying where code changes need to be made Coping with legacy systems that aren't object-oriented Handling applications that don't seem to have any structure This book also includes a catalog of twenty-four dependency-breaking techniques that help you work with program elements in isolation and make safer changes.

Quickly learn the ropes with the Rust programming language using this practical, step-by-step guide In *Beginning Rust Programming*, accomplished programmer and author Ric Messier delivers a highly practical, real-world guide to coding with Rust. Avoiding dry, theoretical content and “Hello, world”-type tutorials of questionable utility, the book dives immediately into functional Rust programming that takes advantage of the language’s blazing speed and memory efficiency. Designed from the ground up to give you a running start to using the multiparadigm system programming language, this book will teach you to: Solve real-world computer science problems of practical importance Use Rust’s rich type system and ownership model to guarantee memory-safety and thread-safety Integrate Rust with other programming languages and use it for embedded devices Perfect for programmers with some experience in other languages, like C or C++, *Beginning Rust Programming* is also a great pick for students new to programming and seeking a user-friendly and robust language with which to start their coding career.

Software testing is indispensable and is one of the most discussed topics in software development today. Many companies address this issue by assigning a dedicated software testing phase towards the end of their development cycle. However, quality cannot be tested into a buggy application. Early and continuous unit testing has been shown to be crucial for high quality software and low defect rates. Yet current books on testing ignore the developer's point of view and give little guidance on how to bring the overwhelming amount of testing theory into practice. *Unit Testing in Java* represents a practical introduction to unit testing for software developers. It introduces the basic test-first approach and then discusses a large number of special issues and problem cases. The book instructs developers through each step and motivates them to explore further. Shows how the discovery and avoidance of software errors is a demanding and creative activity in its own right and can build confidence early in a project. Demonstrates how automated tests can detect the unwanted effects of small changes in code within the entire system. Discusses how testing works with persistency, concurrency, distribution, and web applications. Includes a discussion of testing with C++ and Smalltalk.

Azure Resource Manager (ARM) templates are declarations of Azure resources in the JSON format to provision and maintain them using infrastructure as code. This book gives practical solutions and examples for provisioning and managing various Azure services using ARM templates.

Basic computer programming can be intimidating to anyone who has ever attempted to write their first line of code. *Idiot's Guides: Basic Programming* takes the fear out of learning programming by teaching readers the basics of programming with Python, an open-source (free) environment which is considered one of the easiest languages to learn for beginners, Python has consistent syntax, a solid standardized library, and a simplicity that isn't always present in other languages. Readers will learn not only the "how" of programming but the "why" so that they not only know how to write code, but why that code works, and how it relates to other languages and forms of programming. Readers will learn how to program through simple projects that help them to learn how basic programming works, while encouraging them to be creative and enabling them to see the tangible results of their coding.

"At a time when bulk power systems operate close to their design limits, the restructuring of the electric power industry has created vulnerability to potential blackouts. Prompt and effective power system restoration is essential for the minimization of downtime and costs to the utility and its customers, which mount rapidly after a system blackout. *Power System Restoration* meets the complex challenges that arise from the dynamic capabilities of new technology in areas such as large-scale system analysis, communication and control, data management, artificial intelligence, and allied disciplines. It provides an up-to-date description of the restoration methodologies and implementation strategies practiced internationally. The book opens with a general overview of the restoration process and then covers: * Techniques used in restoration planning and training * Knowledge-based systems as operational aids in restoration * Issues associated with hydro and thermal power plants * High and extra-high voltage transmission systems * Restoration of distribution systems *Power System Restoration* is essential reading for all power system planners and operating engineers in the power industry. It is also a valuable reference for researchers, practicing power engineers, and engineering students." Sponsored by: IEEE Power Engineering Society

A true professional's guide to C# 6 *Professional C# 6 and .NET Core 1.0* provides complete coverage of the latest updates, features, and capabilities, giving you everything you need for C#. Get expert instruction on the latest changes to Visual Studio 2015, Windows Runtime, ADO.NET, ASP.NET, Windows Store Apps, Windows Workflow Foundation, and more, with clear explanations, no-nonsense pacing, and valuable expert insight. This incredibly useful guide serves as both tutorial and desk reference, providing a professional-level review of C# architecture and its application in a number of areas. You'll gain a solid background in managed code and .NET constructs within the context of the 2015 release, so you can get acclimated quickly and get back to work. The new updates can actively streamline your workflow, with major changes including reimagined C# refactoring support, a new .NET Web app stack, and the .NET compiler platform that makes C# and Visual Basic compilers available as APIs. This book walks you through the changes with a comprehensive C# review. Explore the new Visual Studio templates for ASP.NET Core 1.0, Web Forms, and MVC Learn about the networking switch to HttpClient and ASP.NET Web API's replacement of WCF Data Services Work with the latest updates to the event log, Windows Runtime 2.0, and Windows 8.1 deployment and localization Dig deep into the new .NET 5.0 GC behaviors and the Migrations addition to ADO.NET Microsoft has stepped up both the cadence and magnitude of their software releases. *Professional C# 6 and .NET Core 1.0* shows you everything you need to know about working with C# in a real-world context.

A *Functional Start to Computing with Python* enables students to quickly learn computing without having to use loops, variables, and object abstractions at the start. Requiring no prior programming experience, the book draws on Python's flexible data types and operations as well as its capacity

for defining new functions. Along with the specifics of Python, the text covers important concepts of computing, including software engineering motivation, algorithms behind syntax rules, advanced functional programming ideas, and, briefly, finite state machines. Taking a student-friendly, interactive approach to teach computing, the book addresses more difficult concepts and abstractions later in the text. The author presents ample explanations of data types, operators, and expressions. He also describes comprehensions—the powerful specifications of lists and dictionaries—before introducing loops and variables. This approach helps students better understand assignment syntax and iteration by giving them a mental model of sophisticated data first. Web Resource The book's supplementary website at <http://functionalfirstpython.com/> provides many ancillaries, including: Interactive flashcards on Python language elements Links to extra support for each chapter Unit testing and programming exercises An interactive Python stepper tool Chapter-by-chapter points Material for lectures

As iOS apps become increasingly complex and business-critical, iOS developers must ensure consistently superior code quality. This means adopting best practices for creating and testing iOS apps. Test-Driven Development (TDD) is one of the most powerful of these best practices. *Test-Driven iOS Development* is the first book 100% focused on helping you successfully implement TDD and unit testing in an iOS environment. Long-time iOS/Mac developer Graham Lee helps you rapidly integrate TDD into your existing processes using Apple's Xcode 4 and the OUnit unit testing framework. He guides you through constructing an entire Objective-C iOS app in a test-driven manner, from initial specification to functional product. Lee also introduces powerful patterns for applying TDD in iOS development, and previews powerful automated testing capabilities that will soon arrive on the iOS platform. Coverage includes Understanding the purpose, benefits, and costs of unit testing in iOS environments Mastering the principles of TDD, and applying them in areas from app design to refactoring Writing usable, readable, and repeatable iOS unit tests Using OUnit to set up your Xcode project for TDD Using domain analysis to identify the classes and interactions your app needs, and designing it accordingly Considering third-party tools for iOS unit testing Building networking code in a test-driven manner Automating testing of view controller code that interacts with users Designing to interfaces, not implementations Testing concurrent code that typically runs in the background Applying TDD to existing apps Preparing for Behavior Driven Development (BDD) The only iOS-specific guide to TDD and unit testing, *Test-Driven iOS Development* covers both essential concepts and practical implementation.

Another day without Test-Driven Development means more time wasted chasing bugs and watching your code deteriorate. You thought TDD was for someone else, but it's not! It's for you, the embedded C programmer. TDD helps you prevent defects and build software with a long useful life. This is the first book to teach the hows and whys of TDD for C programmers. TDD is a modern programming practice C developers need to know. It's a different way to program—unit tests are written in a tight feedback loop with the production code, assuring your code does what you think. You get valuable feedback every few minutes. You find mistakes before they become bugs. You get early warning of design problems. You get immediate notification of side effect defects. You get to spend more time adding valuable features to your product. James is one of the few experts in applying TDD to embedded C. With his 1.5 decades of training, coaching, and practicing TDD in C, C++, Java, and C# he will lead you from being a novice in TDD to using the techniques that few have mastered. This book is full of code written for embedded C programmers. You don't just see the end product, you see code and tests evolve. James leads you through the thought process and decisions made each step of the way. You'll learn techniques for test-driving code right next to the hardware, and you'll learn design principles and how to apply them to C to keep your code clean and flexible. To run the examples in this book, you will need a C/C++ development environment on your machine, and the GNU GCC tool chain or Microsoft Visual Studio for C++ (some project conversion may be needed).

Learn how to improve your C# coding skills using unit testing. Despite its name, unit testing is really a coding technique, not a testing technique. Unit testing is done by programmers, for programmers. It's primarily for our benefit: we get improved confidence in our code, better ability to make deadlines, less time spent in the debugger, and less time beating on the code to make it work correctly. This book shows how to write tests, but more importantly, it goes where other books fear to tread and gives you concrete advice and examples of what to test—the common things that go wrong in all of our programs. Discover the tricky hiding places where bugs breed, and how to catch them using the freely available NUnit framework. It's easy to learn how to think of all the things in your code that are likely to break. We'll show you how with helpful mnemonics, summarized in a handy tip sheet (also available from our www.pragmaticprogrammer.com website). With this book you will: Write better code, and take less time to write it Discover the tricky places where bugs breed Learn how to think of all the things that could go wrong Test individual pieces of code without having to include the whole project Test effectively with the whole team We'll also cover how to use Mock Objects for testing, how to write high quality test code, and how to use unit testing to improve your design skills. We'll show you frequent "gotchas"—along with the fixes—to save you time when problems come up. But the best part is that you don't need a sweeping mandate to change your whole team or your whole company. You don't need to adopt Extreme Programming, or Test-Driven Development, or change your development process in order to reap the proven benefits of unit testing. You can start unit testing, the pragmatic way, right away.

Rely on this robust and thorough guide to build and maintain successful test automation. As the software industry shifts from traditional waterfall paradigms into more agile ones, test automation becomes a highly important tool that allows your development teams to deliver software at an ever-increasing pace without compromising quality. Even though it may seem trivial to automate the repetitive tester's work, using test automation efficiently and properly is not trivial. Many test automation endeavors end up in the “graveyard” of software projects. There are many things that affect the value of test automation, and also its costs. This book aims to cover all of these aspects in great detail so you can make decisions to create the best test automation solution that will not only help your test automation project to succeed, but also allow the entire software project to thrive. One of the most important details that affects the success of the test automation is how easy it is to maintain the automated tests. *Complete Guide to Test Automation* provides a detailed hands-on guide for writing highly maintainable test code. What You'll Learn Know the real value to be expected from test automation Discover the key traits that will make your test automation project succeed Be aware of the different considerations to take into account when planning automated tests vs. manual tests Determine who should implement the tests and the implications of this decision Architect the test project and fit it to the architecture of the tested application Design and implement highly reliable automated tests Begin gaining value from test automation earlier Integrate test automation into the business processes of the development team Leverage test automation to improve your organiza-

tion's performance and quality, even without formal authority Understand how different types of automated tests will fit into your testing strategy, including unit testing, load and performance testing, visual testing, and more Who This Book Is For Those involved with software development such as test automation leads, QA managers, test automation developers, and development managers. Some parts of the book assume hands-on experience in writing code in an object-oriented language (mainly C# or Java), although most of the content is also relevant for nonprogrammers.

If you are an Android developer looking to test your applications or optimize your application development process, then this book is for you. No previous experience in application testing is required.

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.

When testing becomes a developer's habit good things tend to happen—good productivity, good code, and good job satisfaction. If you want some of that, there's no better way to start your testing habit, nor to continue feeding it, than with "" JUnit Recipes,"" In this book you will find one hundred and thirty-seven solutions to a range of problems, from simple to complex, selected for you by an experienced developer and master tester. Each recipe follows the same organization giving you the problem and its background before discussing your options in solving it. JUnit - the unit testing framework for Java - is simple to use, but some code can be tricky to test. When you're facing such code you will be glad to have this book. It is a how-to reference full of practical advice on all issues of testing, from how to name your test case classes to how to test complicated J2EE applications. Its valuable advice includes side matters that can have a big payoff, like how to organize your test data or how to manage expensive test resources. What's Inside: - Getting started with JUnit - Recipes for: servlets JSPs EJBs Database code much more - Difficult-to-test designs, and how to fix them - How testing saves time - Choose a JUnit extension: HTMLUnit XMLUnit ServletUnit EasyMock and more!

Brimming with over 100 "recipes" for getting down to business and actually doing XP, the Java Extreme Programming Cookbook doesn't try to "sell" you on XP; it succinctly documents the most important features of popular open source tools for XP in Java—including Ant, Junit, Http'nit, Cactus, Tomcat, XDoclet—and then digs right in, providing recipes for implementing the tools in real-world environments.

About software development through constant testing.

In just 24 sessions of one hour or less, Sams Teach Yourself Xcode 4 in 24 Hours will help you achieve breakthrough productivity with Apple's new Xcode 4.3+ development environment for OS X and iOS devices. Every lesson introduces new concepts and builds on what you've already learned, giving you a rock-solid foundation for real-world success! Step-by-step instructions carefully walk you through the most common Xcode 4 development tasks. Quizzes and Exercises at the end of each chapter help you test your knowledge. By the Way notes present interesting information related to the discussion. Did You Know? tips offer advice or show you easier ways to perform tasks. Watch Out! cautions alert you to possible problems and give you advice on how to avoid them. Printed in full color—figures and code appear as they do in Xcode 4.3+ Master the MVC design pattern at the heart of iOS and OS X development Use Xcode project templates to get a head start on advanced application features Efficiently use the Xcode Code Editor and get fast, contextually-aware answers with the built-in help system Use iOS Storyboards to visually describe an application's workflow Get started with Core Data to simplify data management and data-driven user interfaces Use frameworks and libraries to package functionality and promote time-saving code reuse Use Git and Subversion source control for managing distributed projects Prepare Unit tests and use the Xcode debugger to keep your projects error free Package your apps for the App Store Use the command-line Xcode tools for scripting and build automation

If you program in C++ you've been neglected. Test-driven development (TDD) is a modern software development practice that can dramatically reduce the number of defects in systems, produce more maintainable code, and give you the confidence to change your software to meet changing needs. But C++ programmers have been ignored by those promoting TDD—until now. In this book, Jeff Langr gives you hands-on lessons in the challenges and rewards of doing TDD in C++. Modern C++ Programming With Test-Driven Development, the only comprehensive treatment on TDD in C++ provides you with everything you need to know about TDD, and the challenges and benefits of implementing it in your C++ systems. Its many detailed code examples take you step-by-step from TDD basics to advanced concepts. As a veteran C++ programmer, you're already writing high-quality code, and you work hard to maintain code quality. It doesn't have to be that hard. In this book, you'll learn: how to use TDD to improve legacy C++ systems how to identify and deal with troublesome system dependencies how to do dependency injection, which is particularly tricky in C++ how to use testing tools for C++ that aid TDD new C++11 features that facilitate TDD As you grow in TDD mastery, you'll discover how to keep a massive C++ system from becoming a design mess over time, as well as particular C++ trouble spots to avoid. You'll find out how to prevent your tests from being a maintenance burden and how to think in TDD without giving up your hard-won C++ skills. Finally, you'll see how to grow and sustain TDD in your team. Whether you're a complete unit-testing novice or an experienced tester, this book will lead you to mastery of test-driven development in C++. What You Need A C++ compiler running under Windows or Linux, preferably one that supports C++11. Examples presented in the book were built under gcc 4.7.2. Google Mock 1.6 (downloadable for free; it contains Google Test as well) or an alternate C++ unit testing tool. Most examples in the book are written for Google Mock, but it isn't difficult to translate them to your tool of choice. A good programmer's editor or IDE. cmake, preferably. Of course, you can use your own preferred make too. CMakeLists.txt files are provided for each project. Examples provided were built using cmake version 2.8.9. Various freely-available third-party libraries are used as the basis for examples in the book. These include: cURL JsonCpp Boost (filesystem, date_time/gregorian, algorithm, assign) Several examples use the boost headers/libraries. Only one example uses cURL and Json

Cpp.

Beginning Oracle PL/SQL gets you started in using the built-in language that every Oracle developer and database administrator must know. Oracle Database is chock-full of built-in application features that are free for the using, and PL/SQL is your ticket to learning about and using those features from your own code. With it, you can centralize business logic in the database, you can offload application logic, and you can automate database- and application-administration tasks. Author Don Bales provides in Beginning Oracle PL/SQL a fast-paced and example-filled tutorial. Learn from Don's extensive experience to discover the most commonly used aspects of PL/SQL, without wasting time on obscure and obsolete features. The author takes his 20+ years of experience and a wealth of statistics he's gathered on PL/SQL usage over those years and applies the 80/20 rule: cover what's most needed and used by PL/SQL professionals and avoid what's not necessary! The result is a book that covers all the key features of PL/SQL without wasting your time discussing esoteric and obsolete parts of the language. Learn what really matters, so that you can get to work feeling confident with what you know about PL/SQL. Covers the key topics that matter, including variables and datatypes, executing statements, working with cursors, bulk operations, real-world objects, debugging, testing, and more. Teaches you to write production-level, object-oriented PL/SQL. You'll explore relational PL/SQL, but unlike most other books on the subject, this one emphasizes the use of PL/SQLs object-oriented features as well. Guides you in working through real examples of using of PL/SQL. You'll learn PL/SQL by applying it to real-world business problems, not by heavy theory.

Radically improve your testing practice and software quality with new testing styles, good patterns, and reliable automation. Key Features A practical and results-driven approach to unit testing Refine your existing unit tests by implementing modern best practices Learn the four pillars of a good unit test Safely automate your testing process to save time and money Spot which tests need refactoring, and which need to be deleted entirely Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Great testing practices maximize your project quality and delivery speed by identifying bad code early in the development process. Wrong tests will break your code, multiply bugs, and increase time and costs. You owe it to yourself—and your projects—to learn how to do excellent unit testing. Unit Testing Principles, Patterns and Practices teaches you to design and write tests that target key areas of your code including the domain model. In this clearly written guide, you learn to develop professional-quality tests and test suites and integrate testing throughout the application life cycle. As you adopt a testing mindset, you'll be amazed at how better tests cause you to write better code. What You Will Learn Universal guidelines to assess any unit test Testing to identify and avoid anti-patterns Refactoring tests along with the production code Using integration tests to verify the whole system This Book Is Written For For readers who know the basics of unit testing. Examples are written in C# and can easily be applied to any language. About the Author Vladimir Khorikov is an author, blogger, and Microsoft MVP. He has mentored numerous teams on the ins and outs of unit testing. Table of Contents: PART 1 THE BIGGER PICTURE 1 | The goal of unit testing 2 | What is a unit test? 3 | The anatomy of a unit test PART 2 MAKING YOUR TESTS WORK FOR YOU 4 | The four pillars of a good unit test 5 | Mocks and test fragility 6 | Styles of unit testing 7 | Refactoring toward valuable unit tests PART 3 INTEGRATION TESTING 8 | Why integration testing? 9 | Mocking best practices 10 | Testing the database PART 4 UNIT TESTING ANTI-PATTERNS 11 | Unit testing anti-patterns

New edition of the top book on MVC from the top ASP.NET experts at Microsoft! MVC 3.0 is the latest update to Microsoft's Model-View-Controller technology, which enables developers to build dynamic, data-driven web sites. This in-depth book shows you step by step how to use MVC 3.0. Written by top ASP.NET MVC experts at Microsoft, the latest edition of this popular book covers new and updated features such as the new View engine, Razor, NuGet, and much more. The book's practical tutorials reinforce concepts and allow you create real-world applications. Topics include controllers and actions, forms and HTML helpers, Ajax, unit testing, and much more. Shows developers and programmers how to use ASP.NET MVC 3.0, Microsoft's new version of its Model-View-Controller technology for developing dynamic, data-driven web sites Features an expert author team?all are members of Microsoft's ASP.NET team Uses a step-by-step approach to explain all major features and functionalities and provides practical tutorials to allow you to create real-world applications Goes into theory as well as practical application and covers such topics as Razor, NuGet (PowerShell inside Visual Studio 2010), and new layout features Move your development skills to the next level with MVC 3.0 and Professional ASP.NET MVC 3.0.

The professional's guide to C# 7, with expert guidance on the newest features Professional C# 7 and .NET Core 2.0 provides experienced programmers with the information they need to work effectively with the world's leading programming language. The latest C# update added many new features that help you get more done in less time, and this book is your ideal guide for getting up to speed quickly. C# 7 focuses on data consumption, code simplification, and performance, with new support for local functions, tuple types, record types, pattern matching, non-nullable reference types, immutable types, and better support for variables. Improvements to Visual Studio will bring significant changes to the way C# developers interact with the space, bringing .NET to non-Microsoft platforms and incorporating tools from other platforms like Docker, Gulp, and NPM. Guided by a leading .NET expert and steeped in real-world practicality, this guide is designed to get you up to date and back to work. With Microsoft speeding up its release cadence while offering more significant improvement with each update, it has never been more important to get a handle on new tools and features quickly. This book is designed to do just that, and more—everything you need to know about C# is right here, in the single-volume resource on every developer's shelf. Tour the many new and enhanced features packed into C# 7 and .NET Core 2.0 Learn how the latest Visual Studio update makes developers' jobs easier Streamline your workflow with a new focus on code simplification and performance enhancement Delve into improvements made for localization, networking, diagnostics, deployments, and more Whether you're entirely new to C# or just transitioning to C# 7, having a solid grasp of the latest features allows you to exploit the language's full functionality to create robust, high-quality apps. Professional C# 7 and .NET Core 2.0 is the one-stop guide to everything you need to know.

This guide for programmers teaches how to practice Test Driven Development (TDD), also called Test First Development. Contrary to the accepted approach to testing, when you practice TDD you write tests for code before you write the code being tested. This text provides examples in Java.

By now you'll have heard of ASP.NET MVC. This exciting new approach to developing ASP.NET web applications has taken the development world by storm over the last few years. Now a mature technology suitable for mainstream use, its adoption has exploded in recent times. Until recently, ASP.NET MVC was regarded as an advanced technology only suitable for experienced developers with a strong knowledge of classic ASP.NET and C# coding behind them. This book overturns that prejudice and shows that the beautiful simplicity of ASP.NET MVC is just as suitable for novice developers

venturing into real-world application design for the first time. With the aid of a fully worked demo application this book explains and demonstrates for you the three pillars of MVC in action. You'll see how the Model, View and Controller patterns work together in a complementary manner to provide MVC's powerful results. There's never been a better time to learn how to use ASP.NET MVC 4. The technology will speed your development times, reduce the verbosity of your code and simplify your application designs all at once. Take the first step towards ASP.NET MVC mastery with Beginning ASP.NET MVC 4. What you'll learn How to get started with ASP.NET MVC. What tools and components you'll need and how to download and set up the demo application on your system. Understand the details of the MVC pattern with deep-dives into each of the Model, View and Controller elements supported by working code showing them in action. How to apply and extend the MVC patterns to real world solutions: adding AJAX and jQuery, validation and securing user data, testing and deploying the finished application. All of these are discussed and demonstrated. Who this book is for This book is written for readers with basic ASP.NET expertise, such as you might gain from reading Beginning ASP.NET 4.5 in C#. You should be familiar with the underlying structure of ASP.NET applications and comfortable following examples that are underpinned with straight-forward C# code. If you've just found your feet with ASP.NET and are looking to take the next step on the road to mastery then this is the book for you. Table of Contents Introducing ASP.NET MVC 4 Installing ASP.NET MVC 4 The "Have You Seen Me?" ASP.NET MVC 4 Web Application Controllers Views Models Data Validation Ajax and jQuery Security Routing Testing the Application Deploying the Application

This book details Jay Fields' strong opinions on the best way to test, while acknowledging alternative styles and various contexts in which tests are written. Whether you prefer Jay Fields' style or not, this book will help you write better Unit Tests. From the Preface: Over a dozen years ago I read Refactoring for the first time; it immediately became my bible. While Refactoring isn't about testing, it explicitly states: If you want to refactor, the essential precondition is having solid tests. At that time, if Refactoring deemed it necessary, I unquestionably complied. That was the beginning of my quest to create productive unit tests. Throughout the 12+ years that followed reading Refactoring I made many mistakes, learned countless lessons, and developed a set of guidelines that I believe make unit testing a productive use of programmer time. This book provides a single place to examine those mistakes, pass on the lessons learned, and provide direction for those that want to test in a way that I've found to be the most productive. The book does touch on some theory and definition, but the main purpose is to show you how to take tests that are causing you pain and turn them into tests that you're happy to work with.

Unit test frameworks are a key element of popular development methodologies such as eXtreme Programming (XP) and Agile Development. But unit testing has moved far beyond eXtreme Programming; it is now common in many different types of application development. Unit tests help ensure low-level code correctness, reduce software development cycle time, improve developer productivity, and produce more robust software. Until now, there was little documentation available on unit testing, and most sources addressed specific frameworks and specific languages, rather than explaining the use of unit testing as a language-independent, standalone development methodology. This invaluable new book covers the theory and background of unit test frameworks, offers step-by-step instruction in basic unit test development, provides useful code examples in both Java and C++,

and includes details on some of the most commonly used frameworks today from the XUnit family, including JUnit for Java, CppUnit for C++, and NUnit for .NET. Unit Test Frameworks includes clear, concise, and detailed descriptions of: The theory and design of unit test frameworks Examples of unit tests and frameworks Different types of unit tests Popular unit test frameworks And more It also includes the complete source code for CppUnit for C++, and NUnit for .NET.

By taking you through the development of a real web application from beginning to end, the second edition of this hands-on guide demonstrates the practical advantages of test-driven development (TDD) with Python. You'll learn how to write and run tests before building each part of your app, and then develop the minimum amount of code required to pass those tests. The result? Clean code that works. In the process, you'll learn the basics of Django, Selenium, Git, jQuery, and Mock, along with current web development techniques. If you're ready to take your Python skills to the next level, this book—updated for Python 3.6—clearly demonstrates how TDD encourages simple designs and inspires confidence. Dive into the TDD workflow, including the unit test/code cycle and refactoring Use unit tests for classes and functions, and functional tests for user interactions within the browser Learn when and how to use mock objects, and the pros and cons of isolated vs. integrated tests Test and automate your deployments with a staging server Apply tests to the third-party plugins you integrate into your site Run tests automatically by using a Continuous Integration environment Use TDD to build a REST API with a front-end Ajax interface

Summary Effective Unit Testing is written to show how to write good tests—tests that are concise and to the point, expressive, useful, and maintainable. Inspired by Roy Oshero's bestselling The Art of Unit Testing, this book focuses on tools and practices specific to the Java world. It introduces you to emerging techniques like behavior-driven development and specification by example, and shows you how to add robust practices into your toolkit. About Testing Test the components before you assemble them into a full application, and you'll get better software. For Java developers, there's now a decade of experience with well-crafted tests that anticipate problems, identify known and unknown dependencies in the code, and allow you to test components both in isolation and in the context of a full application. About this Book Effective Unit Testing teaches Java developers how to write unit tests that are concise, expressive, useful, and maintainable. Offering crisp explanations and easy-to-absorb examples, it introduces emerging techniques like behavior-driven development and specification by example. Programmers who are already unit testing will learn the current state of the art. Those who are new to the game will learn practices that will serve them well for the rest of their career. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. About the Author Lasse Koskela is a coach, trainer, consultant, and programmer. He hacks on open source projects, helps companies improve their productivity, and speaks frequently at conferences around the world. Lasse is the author of Test Driven, also published by Manning. What's Inside A thorough introduction to unit testing Choosing best-of-breed tools Writing tests using dynamic languages Efficient test automation Table of Contents PART 1 FOUNDATIONS The promise of good tests In search of good Test doubles PART 2 CATALOG Readability Maintainability Trustworthiness PART 3 DIVERSIONS Testable design Writing tests in other JVM languages Speeding up test execution