

## By Cedric Beust Next Generation Java Testing Testng And Advanced Concepts 1st First Edition

This book explains in detail how to implement unit tests using two very popular open source Java technologies: JUnit and Mockito. It presents a range of techniques necessary to write high quality unit tests - e.g. mocks, parametrized tests and matchers. It also discusses trade-offs related to the choices we have to make when dealing with some real-life code issues. The book stresses the importance of writing readable and maintainable unit tests, and puts a lot of stress on code quality. It shows how to achieve testable code and to eliminate common mistakes by following the Test Driven Development approach. Every topic discussed in the book is illustrated with code examples, and each chapter is accompanied by some exercises. By reading this book you will:

- Grasp the role and purpose of unit tests
- Write high-quality, readable and maintainable unit tests
- Learn how to use JUnit and Mockito (but also other useful tools)
- Avoid common pitfalls when writing unit tests
- Recognize bad unit tests, and fix them in no time
- Develop code following the Test Driven Development (TDD) approach
- Use mocks, stubs and test-spies intelligently
- Measure the quality of your tests using code coverage and mutation testing
- Learn how to improve your tests' code so it is an asset and not a burden
- Test collections, expected exceptions, time-dependent methods and much more
- Customize test reports so that they show you what you really need to know
- Master tools and techniques your team members have never even heard of (priceless!): )

Nowadays every developer is expected to write unit tests. While simple in theory, in practice writing high-quality unit tests can turn out to be a real challenge. This book will help.

“This book fills a huge gap in our knowledge of software testing. It does an excellent job describing how test automation differs from other test activities, and clearly lays out what kind of skills and knowledge are needed to automate tests. The book is essential reading for students of testing and a bible for practitioners.” –Jeff Offutt, Professor of Software Engineering, George Mason University

“This new book naturally expands upon its predecessor, Automated Software Testing, and is the perfect reference for software practitioners applying automated software testing to their development efforts. Mandatory reading for software testing professionals!” –Jeff Rashka, PMP, Coauthor of Automated Software Testing and Quality Web Systems

Testing accounts for an increasingly large percentage of the time and cost of new software development. Using automated software testing (AST), developers and software testers can optimize the software testing lifecycle and thus reduce cost. As technologies and development grow increasingly complex, AST becomes even more indispensable. This book builds on some of the proven practices and the automated testing lifecycle

methodology (ATLM) described in Automated Software Testing and provides a renewed practical, start-to-finish guide to implementing AST successfully. In Implementing Automated Software Testing, three leading experts explain AST in detail, systematically reviewing its components, capabilities, and limitations. Drawing on their experience deploying AST in both defense and commercial industry, they walk you through the entire implementation process—identifying best practices, crucial success factors, and key pitfalls along with solutions for avoiding them. You will learn how to: Make a realistic business case for AST, and use it to drive your initiative Clarify your testing requirements and develop an automation strategy that reflects them Build efficient test environments and choose the right automation tools and techniques for your environment Use proven metrics to continuously track your progress and adjust accordingly Whether you're a test professional, QA specialist, project manager, or developer, this book can help you bring unprecedented efficiency to testing—and then use AST to improve your entire development lifecycle.

An easy-to-understand guide that will get you acquainted with the core concepts of Selenium WebDriver Key Featuresa- Understand and work with the core concepts of Selenium WebDriver 3.0a- Learn how to design a Keyword driven framework with Database a- Find how to use Build triggers in Jenkins to automate tests DescriptionThe book starts by introducing the Selenium WebDriver 3 and Selenium Server by covering each aspect of it in detail. You will learn different concepts like instances and how instances relate to browser sessions. You will further explore the new features in Java 8 with the help of easy to follow examples. Moving on, you will create a Singleton class for fetching WebDriver instances and then explore the different kinds of waits in Selenium. You will then delve into the advanced WebDriver interactions using the Actions class and the JavascriptExecutor. You will then understand the various database operations which will help you with using the MySQL database to store our framework. Next, you will go through the TestNG framework, followed by parallel execution. Further, you will use Maven as a build tool and Jenkins as a build automation tool. You will go through the working of Selenium Grid along with Mobile automation. Lastly, you will be taken through Selenium 4 and it's AI integrated features.What will you learna- Learn the process of building a Selenium Framework a- Understand the Keyword Driven Framework concept a- Work with Document Object Model to access page elementsa- Integrate Maven and Jenkins with Selenium WebDrivera- Use Selenium Grid to run multiple tests across Who this book is forThis book has been designed for Automation developers who would like to build a Keyword Driven framework that fetches keywords from Database. It is also intended for audiences who are interested in understanding Selenium and designing a framework.Table of Contents1. First look at Selenium WebDriver and Web Elements 2. Looking at the various WebDrivers3. A brief look at Java 84. Deep dive into Selenium WebDriver5. Actions class and the JavascriptExecutor6. WebDriver Events7. Database Operations8. Introduction to TestNG framework9. Parallel Execution10. Understanding

Maven11. Jenkins Introduction and Scheduling12. Selenium grid and executing in the cloud13. Mobile test automation using Appium14. A look at Selenium-4

About the Author Pinakin Chaubal, a BE (Computer Science) with 19+ years of experience in the IT area. He has done PMP, ISTQB, HP0-M47 (QTP 11.0 Functional testing expert), and INS-21 (General Insurance). He is working as an Automation Architect at Intellect Design Arena Ltd. (Previously Polaris Consulting). Previously he has worked with companies like Patni, Accenture, ACS International (USA), L&T Infotech (USA & India), Polaris Financial Technology, and SQS. He carries six years of onsite experience in the US and eight months in Hong Kong & China, working closely with the client and getting involved in senior management and stakeholder meetings. The clients that he has worked for are YES Bank, HSBC, Travelers Insurance, Harleysville Insurance, Albertsons retail chain, Bellsouth Telecommunications GE-Fleet Services, and GE-Supply. He is the creator of Youtube channel 'Automation Geek,' which teaches PMP, ISTQB, Test Automation using Selenium and Cucumber, and Performance testing using JMeter 3.0. He is the author of 'Page Object Model using Selenium WebDriver and Java' and 'Selenium WebDriver Quick Start Guide'. He is also the reviewer of the newly released book on Selenium Frameworks - 'Selenium Framework Design in Data-Driven Testing' by Carl Cocchiaro.

What is this book about? The results of using J2EE in practice are often disappointing: applications are often slow, unduly complex, and take too long to develop. Rod Johnson believes that the problem lies not in J2EE itself, but in that it is often used badly. Many J2EE publications advocate approaches that, while fine in theory, often fail in reality, or deliver no real business value. Expert One-on-One: J2EE Design and Development aims to demystify J2EE development. Using a practical focus, it shows how to use J2EE technologies to reduce, rather than increase, complexity. Rod draws on his experience of designing successful high-volume J2EE applications and salvaging failing projects, as well as intimate knowledge of the J2EE specifications, to offer a real-world, how-to guide on how you too can make J2EE work in practice. It will help you to solve common problems with J2EE and avoid the expensive mistakes often made in J2EE projects. It will guide you through the complexity of the J2EE services and APIs to enable you to build the simplest possible solution, on time and on budget. Rod takes a practical, pragmatic approach, questioning J2EE orthodoxy where it has failed to deliver results in practice and instead suggesting effective, proven approaches. What does this book cover? In this book, you will learn When to use a distributed architecture When and how to use EJB How to develop an efficient data access strategy How to design a clean and maintainable web interface How to design J2EE applications for performance Who is this book for? This book would be of value to most enterprise developers. Although some of the discussion (for example, on performance and scalability) would be most relevant to architects and lead developers, the practical focus would make it useful to anyone with some familiarity with J2EE. Because of the complete design-

deployment coverage, a less advanced developer could work through the book along with a more introductory text, and successfully build and understand the sample application. This comprehensive coverage would also be useful to developers in smaller organisations, who might be called upon to fill several normally distinct roles. What is special about this book? Wondering what differentiates this book from others like it in the market? Take a look: It does not just discuss technology, but stress its practical application. The book is driven from the need to solve common tasks, rather than by the elements of J2EE. It discuss risks in J2EE development It takes the reader through the entire design, development and build process of a non-trivial application. This wouldn't be compressed into one or two chapters, like the Java Pet Store, but would be a realistic example comparable to the complexity of applications readers would need to build. At each point in the design, alternative choices would be discussed. This would be important both where there's a real problem with the obvious alternative, and where the obvious alternatives are perhaps equally valid. It emphasizes the use of OO design and design patterns in J2EE, without becoming a theoretical book

The ultra-bright femtosecond X-ray pulses provided by X-ray free electron lasers (XFELs) open up opportunities to study the structure and dynamics of a wide variety of systems beyond what is possible with synchrotron sources. This book introduces the principles and properties of currently operating and future XFELs, before outlining applications in materials science, chemistry and biology. Edited by pioneers in this exciting field, and featuring contributions from leading researchers, this book is ideal for researchers working with XFELs, synchrotron radiation, ultrafast and femtosecond crystallography and femtosecond spectroscopy.

Explains how to use Java's portable platforms to program and use threads effectively and efficiently while avoiding common mistakes

This book is written in a friendly, beginner's guide style with plenty of step-by-step instructions with appropriate examples. This book is great for developers and testers who are new to TestNg and want to learn how to use TestNG for writing their application as well as functional tests. This book assumes that you have experience in Java and OOPs concepts and have worked with certain IDE.

Securing the Smart Grid discusses the features of the smart grid, particularly its strengths and weaknesses, to better understand threats and attacks, and to prevent insecure deployments of smart grid technologies. A smart grid is a modernized electric grid that uses information and communications technology to be able to process information, such as the behaviors of suppliers and consumers. The book discusses different infrastructures in a smart grid, such as the automatic metering infrastructure (AMI). It also discusses the controls that consumers, device manufacturers, and utility companies can use to minimize the risk associated with the smart grid. It explains the smart grid components in detail so readers can understand how the confidentiality, integrity, and

availability of these components can be secured or compromised. This book will be a valuable reference for readers who secure the networks of smart grid deployments, as well as consumers who use smart grid devices. Details how old and new hacking techniques can be used against the grid and how to defend against them Discusses current security initiatives and how they fall short of what is needed Find out how hackers can use the new infrastructure against itself

Within the framework of Acceptance Test-Driven-Development (ATDD), customers, developers, and testers collaborate to create acceptance tests that thoroughly describe how software should work from the customer's viewpoint. By tightening the links between customers and agile teams, ATDD can significantly improve both software quality and developer productivity. This is the first start-to-finish, real-world guide to ATDD for every agile project participant. Leading agile consultant Ken Pugh begins with a dialogue among a customer, developer, and tester, explaining the "what, why, where, when, and how" of ATDD and illuminating the experience of participating in it. Next, Pugh presents a practical, complete reference to each facet of ATDD, from creating simple tests to evaluating their results. He concludes with five diverse case studies, each identifying a realistic set of problems and challenges with proven solutions. Coverage includes

- How to develop software with fully testable requirements
- How to simplify and componentize tests and use them to identify missing logic
- How to test user interfaces, service implementations, and other tricky elements of a software system
- How to identify requirements that are best handled outside software
- How to present test results, evaluate them, and use them to assess a project's overall progress
- How to build acceptance tests that are mutually beneficial for development organizations and customers
- How to scale ATDD to large projects

The author of *Developing Applications with Visual Basic and UML* (Addison-Wesley, 2000), a consultant on object-oriented distributed systems, presents a large-scale application to explain the lifecycle of building robust Java applications with the Unified Modeling Language using Rational's Software's Unified Plan. Reed also makes a short detour into his Synergy Process. Appends material on the Unified Plan and the BEA WebLogic application server. Assumes programmers' knowledge of Java and a willingness to evolve past a cavalier attitude toward project planning.

Describes thirty open source tools that are designed to improve Java development practices, including build tools, quality metrics tools, unit testing tools, issue management tools, and continuous integration tools.

Dependency Injection is an in-depth guide to the current best practices focusing the Dependency Injection pattern-the key concept in Spring and the rapidly-growing Google Guice. It explores Dependency Injection, sometimes called Inversion of Control, in fine detail with numerous practical examples. Developers will learn to apply important techniques, focusing on their strengths and limitations, with a particular emphasis on pitfalls, corner-cases, and best practices. This book is written for developers and architects who want to understand Dependency Injection and successfully leverage popular DI technologies such as Spring, Google Guice, PicoContainer, and many others. The book explores many small examples of anchor concepts and unfolds a larger example to show the big picture. Written primarily from a Java point-of-view, this book is appropriate for any developer with a working knowledge of object-oriented programming in Java, Ruby, or C#. 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.

Take a deep dive into building data-driven test frameworks using Selenium WebDriver Key Features A comprehensive guide to designing data-driven test frameworks using the Selenium 3 WebDriver API, AppiumDriver API, Java-Bindings, and TestNG Learn how to use Selenium Page Object Design Patterns and D.R.Y. (Don't Repeat Yourself) Approaches to software development in automated testing Discover the Selenium Grid Architecture and build your own grid for browser and mobile devices Use third party tools and services like ExtentReports for results processing, reporting, and SauceLabs for cloud-based test services Book Description The Selenium WebDriver 3.x Technology is an open source API available to test both Browser and Mobile applications. It is completely platform independent in that tests built for one browser or mobile device, will also work on all other browsers and mobile devices. Selenium supports all major development languages which allow it to be tied directly into the technology used to develop the applications. This guide will provide a step-by-step approach to designing and building a data-driven test framework using Selenium WebDriver, Java, and TestNG. The book starts off by introducing users to the Selenium Page Object Design Patterns and D.R.Y Approaches to Software Development. In doing so, it covers designing and building a Selenium WebDriver framework that supports both Browser and Mobile Devices. It will lead the user through a journey of architecting their own framework with a scalable driver class, Java utility classes, JSON Data Provider, Data-Driven Test Classes, and support for third party tools and plugins. Users will learn how to design and build a Selenium Grid from scratch to allow the framework to scale and support different browsers, mobile devices, versions, and platforms, and how they can leverage third party grids in the Cloud like SauceLabs. Other topics covered include designing abstract base and sub-classes, inheritance, dual-driver support, parallel testing, testing multi-branded applications, best practices for using locators, and data encapsulation. Finally, you will be presented with a sample fully-functional framework to get them up and running with the Selenium WebDriver for browser testing. By the end of the book, you will be able to design your own automation testing framework and perform data-driven testing with Selenium WebDriver. What you will learn Design the Selenium Driver Class for local, remote, and third party grid support Build Page Object Classes using the Selenium Page Object Model Develop Data-Driven Test Classes using the TestNG framework Encapsulate Data using the JSON Protocol Build a Selenium Grid for RemoteWebDriver Testing Construct Utility Classes for use in Synchronization, File I/O, Reporting and Test Listener Classes Run the sample framework and see the benefits of a live data-driven framework in real-time Who this book is for This book is intended for software quality assurance/testing professionals, software project managers, or software developers with prior experience in using Selenium and Java to test web-based applications. This book is geared towards the quality assurance and development professionals responsible for designing and building enterprise-based testing frameworks. The user should have a working knowledge of the Java, TestNG, and Selenium technologies

Standardwerk in 5. Neuauflage ! Dieses Buch bietet eine umfassende Einführung in die professionelle Java-Entwicklung und vermittelt Ihnen das notwendige Wissen, um stabile und erweiterbare Softwaresysteme auf Java-SE-Basis zu bauen. Praxisnahe

Beispiele helfen dabei, das Gelernte rasch umzusetzen. Neben der Praxis wird viel Wert auf das Verständnis zugrunde liegender Konzepte gelegt. Dabei kommen dem Autor Michael Inden seine umfangreichen Schulungs- und Entwicklererfahrungen zugute – und Ihnen als Leser damit ebenso. Diese Neuauflage wurde durchgehend überarbeitet und aktualisiert und berücksichtigt die Java-Versionen 9 bis 15. Ansonsten wurde der bewährte Themenmix der Voraufgaben beibehalten: Grundlagen, Analyse und Design: Professionelle Arbeitsumgebung – Objektorientiertes Design– Lambdas – Java-Grundlagen Bausteine stabiler Java-Applikationen: Collections-Framework – Stream-API – Datumsverarbeitung seit JDK 8 – Applikationsbausteine – Multithreading-Grundlagen – Modern Concurrency – Fortgeschrittene Java-Themen – Basiswissen Internationalisierung Fallstricke und Lösungen: Bad Smells – Refactorings – Entwurfsmuster Qualitätssicherung: Programmierstil und Coding Conventions – Unit Tests – Codereviews – Optimierungen Darüber hinaus thematisiert je ein Kapitel die Neuerungen in Java 12 bis 15 sowie die Modularisierung mit Project Jigsaw. Ergänzt wird das Ganze durch einen Anhang mit einen Überblick über Grundlagen zur Java Virtual Machine. "Es ist wirklich ein gelungenes Buch für Java-Programmierer die ihre Kenntnisse vertiefen und professionalisieren wollen!" (rn-wissen.de) "Vom motivierten Einsteiger bis zum Java-Profi, ein in Breite und Tiefe überzeugendes Werk [...] empfehle ich jedem, der sich ernsthaft mit professioneller Java-Entwicklung auseinandersetzen möchte."

Intermediate level, for programmers fairly familiar with Java, but new to the functional style of programming and lambda expressions. Get ready to program in a whole new way. Functional Programming in Java will help you quickly get on top of the new, essential Java 8 language features and the functional style that will change and improve your code. This short, targeted book will help you make the paradigm shift from the old imperative way to a less error-prone, more elegant, and concise coding style that's also a breeze to parallelize. You'll explore the syntax and semantics of lambda expressions, method and constructor references, and functional interfaces. You'll design and write applications better using the new standards in Java 8 and the JDK. Lambda expressions are lightweight, highly concise anonymous methods backed by functional interfaces in Java 8. You can use them to leap forward into a whole new world of programming in Java. With functional programming capabilities, which have been around for decades in other languages, you can now write elegant, concise, less error-prone code using standard Java. This book will guide you through the paradigm change, offer the essential details about the new features, and show you how to transition from your old way of coding to an improved style. In this book you'll see popular design patterns, such as decorator, builder, and strategy, come to life to solve common design problems, but with little ceremony and effort. With these new capabilities in hand, Functional Programming in Java will help you pick up techniques to implement designs that were beyond easy reach in earlier versions of Java. You'll see how you can reap the benefits of tail call optimization, memoization, and effortless parallelization techniques. Java 8 will change the way you write applications. If you're eager to take advantage of the new features in the language, this is the book for you. What you need: Java 8 with support for lambda expressions and the JDK is required to make use of the concepts and the examples in this book.

\*ONLY Beginning-level book that introduces major Open Source Java tools and frameworks from scratch \*Covers the most

successful and prevalent open source and some lightweight tools and frameworks, like Spring, JBoss, Hibernate, Tapestry, Ant, and more \*Shows how to build an enterprise application, end-to-end, integrating the different open source frameworks, including rapid enterprise Java application development

For nearly five years, one book has served as the definitive reference to Java for all serious developers: The Java Language Specification, by James Gosling, Bill Joy, and Guy Steele. Now, these world-renowned Java authorities (along with new co-author Gilad Bracha) have delivered a monumental update. This completely revised Second Edition covers the Java 2 Platform Standard Edition Version 1.3 with unprecedented depth and precision, offering the invaluable insights of Java's creators to every developer. There is no better source for learning everything about the Syntax and Semantics of the Java programming language. Developers will turn to this book again and again.

Are you in charge of your own testing? Do you have the advice you need to advance your test approach? "Dear Evil Tester" contains advice about testing that you won't hear anywhere else. "Dear Evil Tester" is a three pronged publication designed to: -provoke not placate, -make you react rather than relax, -help you laugh not languish. Starting gently with the laugh out loud Agony Uncle answers originally published in 'The Testing Planet'. "Dear Evil Tester" then provides new answers, to never before published questions, that will hit your beliefs where they change. Before presenting you with essays that will help you unleash your own inner Evil Tester. With advice on automating, communication, talking at conferences, psychotherapy for testers, exploratory testing, tools, technical testing, and more. Dear Evil Tester randomly samples the Software Testing stomping ground before walking all over it. "Dear Evil Tester" is a revolutionary testing book for the mind which shows you an alternative approach to testing built on responsibility, control and laughter. Read what our early reviewers had to say: "Wonderful stuff there. Real deep." Rob Sabourin, @RobertASabourin Author of "I Am a Bug" "The more you know about software testing, the more you will find to amuse you." Dot Graham, @dorothygraham Author of "Experiences of Test Automation" "laugh-out-loud episodes" Paul Gerrard, @paul\_gerrard Author of "The Tester's Pocketbook" "A great read for every Tester." Andy Glover, @cartoontester Author of "Cartoon Tester"

"The definitive guide, not just for JUnit, but unit testing in general."---Tyson S. Maxwell, Raytheon --

Master the skills required to effectively use Cucumber BDD which simplifies Agile development and fast-paced time-to-market KEY FEATURES ? A step-by-step explanation of each component of the Cucumber framework. ? Expert coverage on speeding up the implementation of the Cucumber framework. ? Includes Parallel Execution, Cloud Testing, Explore Gherkin, and many more.

DESCRIPTION In this book, readers will learn everything they need to know about Behavior-Driven Development (BDD) and a framework used for automation testing for BDD. The book is divided into three sections. The first section covers the building blocks of Cucumber such as Feature files, Step Definition classes, and Runner classes, among other things. These will serve as the building blocks for becoming more familiar with Cucumber. The second section covers the Page Object design pattern and Page Factories, both of which are useful in developing robust frameworks. The final section demonstrates Cucumber's integration with



TestNG and Maven. We will be putting each Maven build in Jenkins and configuring Jenkins to trigger automatically when a development build is completed. After reading this book, the test engineer will understand the concept of incorporating Cucumber as a BDD framework into his testing. As a result, he will be able to streamline the testing and bug detection processes. WHAT YOU WILL LEARN ? Understand the fundamentals of Test-Driven Development and Behavior-Driven Development. ? Investigate Cucumber's building blocks such as Feature Files and Step Definition Files. ? Learn the Base Class and inheritance concept within the Page Object Model Framework. ? Create a TestNG XML that calls the test runner class. ? Practice triggering POM xml testing. WHO THIS BOOK IS FOR This book is aimed at individuals who have a firm grasp of the fundamentals of Java and are interested in improving their knowledge of the BDD framework. TABLE OF CONTENTS Section 1: Understanding the Cucumber framework Chapter 1: Introduction to Behavior-Driven Development Chapter 2: Understanding Feature Files Chapter 3: Understanding Step Definition files Chapter 4: Learning about the TestRunner Section 2: Learning the Page Object Design Pattern Chapter 5: Understanding the Page Object Model and Creating Page Objects Chapter 6: Understanding Page Factories and Creating Page Factories Section 3: Integration with TestNG, Maven, and Jenkins Chapter 7: Configuring the TestNG Framework Chapter 8: Configuring Maven and Learning about POM.xml Chapter 9: POM.xml Execution from Eclipse and Command Line Chapter 10: Configuring POM.xml to Trigger TestNG xml Chapter 11: Configuring the Runner Class for Cucumber Reporter Plugin Chapter 12: Reporting Using Extent Reports Chapter 13: Parallel Execution Using Selenium Grid Chapter 14: Integration with Jenkins Summary Agile ALM is a guide for Java developers who want to integrate flexible agile practices and lightweight tooling along all phases of the software development process. The book introduces a new vision for managing change in requirements and process more efficiently and flexibly. It synthesizes technical and functional elements to provide a comprehensive approach to software development. About the Technology Agile Application Lifecycle Management (Agile ALM) combines flexible processes with lightweight tools in a comprehensive and practical approach to building, testing, integrating, and deploying software. Taking an agile approach to ALM improves product quality, reduces time to market, and makes for happier developers. About the Book Agile ALM is a guide for Java developers, testers, and release engineers. By following dozens of experience-driven examples, you'll learn to see the whole application lifecycle as a set of defined tasks, and then master the tools and practices you need to accomplish those tasks effectively. The book introduces state-of-the-art, lightweight tools that can radically improve the speed and fluidity of development and shows you how to integrate them into your processes. The tools and examples are Java-based, but the Agile ALM principles apply to all development platforms. 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. What's Inside A thorough introduction to Agile ALM Build an integrated Java-based Agile ALM toolchain Use Scrum for release management Reviewed by a team of 20 Agile ALM experts ===== Table of Contents PART 1 INTRODUCTION TO AGILE ALM Getting started with Agile ALM ALM and Agile strategiesPART 2 FUNCTIONAL AGILE ALM Using Scrum for release management Task-based developmentPART 3 INTEGRATION AND RELEASE MANAGEMENT Integration and release management Creating a productive

development environment Advanced CI tools and recipesPART 4 OUTSIDE-IN AND BARRIER-FREE DEVELOPMENT Requirements and test management Collaborative and barrier-free development with Groovy and Scala Enterprise Java developers must achieve broader, deeper test coverage, going beyond unit testing to implement functional and integration testing with systematic acceptance. Next Generation Java™ Testing introduces breakthrough Java testing techniques and TestNG, a powerful open source Java testing platform. Cédric Beust, TestNG's creator, and leading Java developer Hani Suleiman, present powerful, flexible testing patterns that will work with virtually any testing tool, framework, or language. They show how to leverage key Java platform improvements designed to facilitate effective testing, such as dependency injection and mock objects. They also thoroughly introduce TestNG, demonstrating how it overcomes the limitations of older frameworks and enables new techniques, making it far easier to test today's complex software systems. Pragmatic and results-focused, Next Generation Java™ Testing will help Java developers build more robust code for today's mission-critical environments. This book Illuminates the tradeoffs associated with testing, so you can make better decisions about what and how to test Introduces TestNG, explains its goals and features, and shows how to apply them in real-world environments Shows how to integrate TestNG with your existing code, development frameworks, and software libraries Demonstrates how to test crucial code features, such as encapsulation, state sharing, scopes, and thread safety Shows how to test application elements, including JavaEE APIs, databases, Web pages, and XML files Presents advanced techniques: testing partial failures, factories, dependent testing, remote invocation, cluster-based test farms, and more Walks through installing and using TestNG plug-ins for Eclipse, and IDEA Contains extensive code examples Whether you use TestNG, JUnit, or another testing framework, the testing design patterns presented in this book will show you how to improve your tests by giving you concrete advice on how to make your code and your design more testable.

This is a cookbook packed with code examples and step-by-step instructions to ease your learning curve. This book is intended for software quality assurance/testing professionals, software project managers, or software developers with prior experience in using Selenium and Java for testing web-based applications. This book also provides examples for C#, Python, and Ruby users.

Janet Gregory and Lisa Crispin pioneered the agile testing discipline with their previous work, Agile Testing. Now, in More Agile Testing, they reflect on all they've learned since. They address crucial emerging issues, share evolved agile practices, and cover key issues agile testers have asked to learn more about. Packed with new examples from real teams, this insightful guide offers detailed information about adapting agile testing for your environment; learning from experience and continually improving your test processes; scaling agile testing across teams; and overcoming the pitfalls

of automated testing. You'll find brand-new coverage of agile testing for the enterprise, distributed teams, mobile/embedded systems, regulated environments, data warehouse/BI systems, and DevOps practices. You'll come away understanding

- How to clarify testing activities within the team
- Ways to collaborate with business experts to identify valuable features and deliver the right capabilities
- How to design automated tests for superior reliability and easier maintenance
- How agile team members can improve and expand their testing skills
- How to plan “just enough,” balancing small increments with larger feature sets and the entire system
- How to use testing to identify and mitigate risks associated with your current agile processes and to prevent defects
- How to address challenges within your product or organizational context
- How to perform exploratory testing using “personas” and “tours”
- Exploratory testing approaches that engage the whole team, using test charters with session- and thread-based techniques
- How to bring new agile testers up to speed quickly—without overwhelming them

Janet Gregory is founder of DragonFire Inc., an agile quality process consultancy and training firm. Her passion is helping teams build quality systems. For almost fifteen years, she has worked as a coach and tester, introducing agile practices into companies of all sizes and helping users and testers understand their agile roles. She is a frequent speaker at agile and testing software conferences, and is a major contributor to the agile testing community. Lisa Crispin, an experienced agile testing practitioner and coach, regularly leads conference workshops on agile testing and contributes frequently to agile software publications. She enjoys collaborating as part of an awesome agile team to produce quality software. Since 1982, she has worked in a variety of roles on software teams, in a wide range of industries. She joined her first agile team in 2000 and continually learns from other teams and practitioners.

Next Generation Java Testing TestNG and Advanced Concepts Pearson Education

Java is one of the most widely used programming languages today. It was first released by Sun Microsystems in 1995. Over the years, its popularity has grown to the point where it plays an important role in most of our lives. From laptops to data centers, game consoles to scientific supercomputers, cell phones to the Internet, Java is everywhere! There are tons of applications and heaps of websites that will not work unless you have Java installed, and more are created every day. And, of course, Java is used to power what has become the world's most dominant mobile platform, Android. Advanced Topics In Java teaches the algorithms and concepts that any budding software developer should know. You'll delve into topics such as sorting, searching, merging, recursion, random numbers and simulation, among others. You will increase the range of problems you can solve when you learn how to create and manipulate versatile and popular data structures such as binary trees and hash tables. This book assumes you have a working knowledge of basic programming concepts such as variables, constants, assignment, selection (if..else) and looping (while, for). It also

assumes you are comfortable with writing functions and working with arrays. If you study this book carefully and do the exercises conscientiously, you would become a better and more agile software developer, more prepared to code today's applications - no matter the language.

This is the eBook version of the printed book. Enterprise Java developers must achieve broader, deeper test coverage, going beyond unit testing to implement functional and integration testing with systematic acceptance. Next Generation Java™ Testing introduces breakthrough Java testing techniques and TestNG, a powerful open source Java testing platform. Cédric Beust, TestNG's creator, and leading Java developer Hani Suleiman, present powerful, flexible testing patterns that will work with virtually any testing tool, framework, or language. They show how to leverage key Java platform improve.

An easy-to-understand guide that will get you acquainted with the core concepts of Selenium WebDriver KEY FEATURES - Learn how to build a Keyword Driven Automation Framework with Selenium using Java - Understand and work with the core concepts of Selenium WebDriver 3.0 - Find how to use Build triggers in Jenkins to automate tests DESCRIPTION The book starts by introducing the Selenium WebDriver 3 and Selenium Server by covering each aspect of it in detail. You will learn different concepts like instances and how instances relate to browser sessions. You will further explore the new features in Java 8 with the help of easy to follow examples. Moving on, you will create a Singleton class for fetching WebDriver instances and then explore the different kinds of waits in Selenium. You will then delve into the advanced WebDriver interactions using the Actions class and the JavascriptExecutor. You will then understand the various database operations which will help you with using the MySQL database to store our framework. Next, you will go through the TestNG framework, followed by parallel execution. Further, you will use Maven as a build tool and Jenkins as a build automation tool. You will go through the working of Selenium Grid along with Mobile automation. Lastly, you will be taken through Selenium 4 and it's AI integrated features. WHAT WILL YOU LEARN - Learn the process of building a Selenium Framework - Understand the Keyword Driven Framework concept - Work with Document Object Model to access page elements - Integrate Maven and Jenkins with Selenium WebDriver - Use Selenium Grid to run multiple tests across WHO THIS BOOK IS FOR This book has been designed for Automation developers who would like to build a Keyword Driven framework that fetches keywords from Database. It is also intended for audiences who are interested in understanding Selenium and designing a framework TABLE OF CONTENTS 1. First look at Selenium WebDriver and Web Elements 2. Looking at the various WebDrivers 3. A brief look at Java 8 4. Deep dive into Selenium WebDriver 5. Actions class and the JavascriptExecutor 6. WebDriver Events 7. Database Operations 8. Introduction to TestNG framework 9. Parallel Execution 10. Understanding Maven 11. Jenkins Introduction and Scheduling 12. Selenium grid

and executing in the cloud 13. Mobile test automation using Appium 14. A look at Selenium-4

Scala is a highly expressive, concise and scalable language. It is also the most prominent method of the new and exciting methodology known as object-functional programming. In this book, the authors show how Scala grows to the needs of the programmer, whether professional or hobbyist. They teach Scala with a step-by-step approach and explain how to exploit the full power of the industry-proven JVM technology. Readers can then dive into specially chosen design challenges and implementation problems, inspired by the trials of real-world software engineering. It also helps readers to embrace the power of static typing and automatic type inference. In addition, the book shows how to use the dual-object and functional-oriented natures combined at Scala's core, and so write code that is less 'boilerplate', giving a genuine increase in productivity.

What is this book about? Professional Java builds upon Ivor Horton's Beginning Java to provide the reader with an understanding of how professionals use Java to develop software solutions. Pro Java starts with an overview of best methods and tools for developing Java applications. It then examines the more sophisticated and nuanced parts of the Java JDK. The final and most extensive part of the book shows how to implement these ideas to build real-world applications, using both Java APIs as well as related Java open source tools. In short, this book provides a comprehensive treatment of the professional Java development process, without losing focus in exhaustive coverage of isolated features and APIs.

Presents an introduction to the new programming language for the Java Platform.

In test driven development, you first write an executable test of what your application code must do. Only then do you write the code itself and, with the test spurring you on, you improve your design. In acceptance test driven development (ATDD), you use the same technique to implement product features, benefiting from iterative development, rapid feedback cycles, and better-defined requirements. TDD and its supporting tools and techniques lead to better software faster. Test Driven brings under one cover practical TDD techniques distilled from several years of community experience. With examples in Java and the Java EE environment, it explores both the techniques and the mindset of TDD and ATDD. It uses carefully chosen examples to illustrate TDD tools and design patterns, not in the abstract but concretely in the context of the technologies you face at work. It is accessible to TDD beginners, and it offers effective and less well-known techniques to older TDD hands. 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. What's Inside Learn hands-on to test drive Java code How to avoid common TDD adoption pitfalls Acceptance test driven development and the Fit framework How to test Java EE components-Servlets, JSPs, and Spring Controllers Tough issues like multithreaded programs and data access code

A-list Programmers Reveal How to Develop Breakout Skills Find out what it takes to push your programming chops to the next level and design killer software by getting inside the minds of today's rock star programmers: Rod Johnson, Inventor of the Spring Framework Adrian Colyer, Pioneer of Aspect Oriented Programming Tools, Project Lead of AspectJ Java Posse--Tor Norbye, Joe Nuxoll, Carl Quinn, and Dick Wall Chris Wilson, Lead Architect of Microsoft Internet Explorer Nikhil Kothari, Architect of ASP.NET

AJAX Hani Suleiman, Author of "The Bile Blog" James Gosling, Father of Java Kohsuke Kawaguchi, Creator of the Hudson Continuous Integration Tool Herb Schildt, The World's Bestselling Programming Author Floyd Marinescu, Co-founder of ServerSide.com; Founder and Lead Editor of InfoQ.com Andy Hunt, Co-founder of the Pragmatic Programmers Dave Thomas, Object Oriented Software Pioneer Max Levchin, Co-founder and Former CTO of PayPal Libor Michalek, Co-founder of Slide.com Weird Al Yankovic, The Programmer's Rock Star

Pro Puppet is an in-depth guide to installing, using, and developing the popular configuration management tool Puppet. The book is a comprehensive follow-up to the previous title Pulling Strings with Puppet. Puppet provides a way to automate everything from user management to server configuration. You'll learn how to create Puppet recipes, extend Puppet, and use Facter to gather configuration data from your servers. Puppet is a must-have tool for system administrators, and Pro Puppet will teach you how to maximize its capabilities and customize it for your environment. Install and configure Puppet to immediately start automating tasks and create reporting solutions Learn insider tricks and techniques to better manage your infrastructure Become a Puppet expert!

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