

Next Generation Java Testing Testng And Advanced Concepts By Beust Cric Suleiman Hani 2007 Paperback

Summary Gradle in Action is a comprehensive guide to end-to-end project automation with Gradle. Starting with the basics, this practical, easy-to-read book discusses how to build a full-fledged, real-world project. Along the way, it touches on advanced topics like testing, continuous integration, and monitoring code quality. You'll also explore tasks like setting up your target environment and deploying your software. About the Technology Gradle is a general-purpose build automation tool. It extends the usage patterns established by its forerunners, Ant and Maven, and allows builds that are expressive, maintainable, and easy to understand. Using a flexible Groovy-based DSL, Gradle provides declarative and extendable language elements that let you model your project's needs the way you want. About the Book Gradle in Action is a comprehensive guide to end-to-end project automation with Gradle. Starting with the basics, this practical, easy-to-read book discusses how to establish an effective build process for a full-fledged, real-world project. Along the way, it covers advanced topics like testing, continuous integration, and monitoring code quality. You'll also explore tasks like setting up your target environment and deploying your software. The book assumes a basic background in Java, but no knowledge of Groovy. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. Whats Inside A comprehensive guide to Gradle Practical, real-world examples Transitioning from Ant and Maven In-depth plugin development Continuous delivery with Gradle About the Author Benjamin Muschko is a member of the Gradleware engineering team and the author of several popular Gradle plugins. Table of Contents PART 1 INTRODUCING GRADLE Introduction to project automation Next-generation builds with Gradle Building a Gradle project by example PART 2 MASTERING THE FUNDAMENTALS Build script essentials Dependency management Multiproject builds Testing with Gradle Extending Gradle Integration and migration PART 3 FROM BUILD TO DEPLOYMENT IDE support and tooling Building polyglot projects Code quality management and monitoring Continuous integration Artifact assembly and publishing Infrastructure provisioning and deployment

Summary Making Java Groovy is a practical handbook for developers who want to blend Groovy into their day-to-day work with Java. It starts by introducing the key differences between Java and Groovy—and how you can use them to your advantage. Then, it guides you step-by-step through realistic development challenges, from web applications to web services to desktop applications, and shows how Groovy makes them easier to put into production. About this Book You don't need the full force of Java when you're writing a build script, a simple system utility, or a lightweight web app—but that's where Groovy shines brightest. This elegant JVM-based dynamic language extends and simplifies Java so you can concentrate on the task at hand instead of managing minute details and unnecessary complexity. Making Java Groov is a practical guide for developers who want to benefit from Groovy in their work with Java. It starts by introducing the key differences between Java and Groovy and how to use them to your advantage. Then, you'll focus on the situations you face every day, like consuming and creating RESTful web services, working with databases, and using the Spring framework. You'll also explore the great Groovy tools for build processes, testing, and deployment and learn how to write Groovy-based domain-specific languages that simplify Java development. Written for developers familiar with Java. No Groovy experience required. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside Easier Java Closures, builders, and metaprogramming Gradle for builds, Spock for testing Groovy frameworks like Grails and Griffon About the Author Ken Kousen is an independent consultant and trainer specializing in Spring, Hibernate, Groovy, and Grails. Table of Contents PART 1. UP TO SPEED WITH GROOVY Why add Groovy to Java? Groovy by example Code-level integration Using Groovy features in Java PART 2: GROOVY TOOLS Build processes Testing Groovy and Java projects PART 3: GROOVY IN THE REAL WORLD The Spring framework Database access RESTful web services Building and testing web applications

A refresher for Java developers on how to use Selenium IDE and Selenium Grid to automate web browsers KEY FEATURES ● Extensive practical demonstration of Selenium with numerous real-world examples. ● Includes thorough examination of various test automation ideas. ● Covers tools in conjunction with Selenium for implementing browser and web test automation projects. DESCRIPTION This book introduces setting up the environment for writing test scripts after covering Selenium and its capabilities. Numerous functionalities, including the web driver interface, the web element interface, and locators, are illustrated in-depth using the By class. Additionally, the book presents tasks such as HTML element manipulation, mouse and keyboard operations, dropdown, table, window, alert, frame, action class, and synchronization. Along with Selenium IDE and Selenium WebDriver, the book also covers another critical feature, which is the implementation of Selenium Grid, that allows the test suite to execute in parallel across several settings. Several add-on automation scripts, such as those for taking screenshots, object and data information, are thoroughly displayed and explained in this book. The book discusses tools like TestNG and Maven that aid in the overall development of the test project ecosystem. After reading the book, you should feel extremely competent in utilizing Selenium to automate a variety of web and browser testing scenarios and tasks. WHAT YOU WILL LEARN ● Get trained to automate the end-to-end testing of online applications with Selenium WebDriver. ● Confidently configure the Selenium Grid for cross-browser testing. ● Create locators quickly for various HTML elements on the page. ● Opportunities to improve test writing skills with the popular unit test framework, TestNG. ● An in-depth explanation of the management of objects and data in the test project. WHO THIS BOOK IS FOR This book is intended for software test engineers who wish to develop a strong foundation in Selenium implementation to create test automation solutions. Basic knowledge of testing and Java as a programming language is required. AUTHOR BIO Pallavi is a multi-skilled professional and has donned many hats in her career span. She founded 5 Elements Learning, where she acted as a coach, writer, and speaker on test automation solutions and collaborated with learning enthusiasts, organizations, and mentors from across the globe. She is a Steering Committee member at Agile Testing Alliance(ATA). She has contributed to Selenium Documentation, at the Selenium Project. She is the author of the book 'Selenium with Python Beginners' with BPB Publications. She has curated, organized, and acted as a jury for various international conferences and meetups like Selenium Conference India, StepIn Delhi, Selenium Conference by ATA, APISummit by ATA, and Global Testing Retreat by ATA. She is a firm believer in the larger good and likes to live by example. She volunteers her resources for Jabarkhet forest reserve, People for animals, and Wildlife SOS. She lives in the National Capital Region with her doctor parents, her husband, two children [sometimes she wonders though!], and a Labrador. She likes to pen her thoughts as short stories, poems, and anecdotes. She is a firm believer in giving and living by example which she continues to learn, as life continues. Leverage the power of Spring MVC, Spring Boot, Spring Cloud, and additional popular web frameworks. About This Book Discover key Spring Framework-related technology standards such as Spring core, Spring-AOP, Spring data access frameworks, and Spring testing to develop robust Java applications easily This course is packed with tips and tricks that demonstrate Industry best practices on developing a Spring-MVC-based application Learn how to efficiently build and implement microservices in Spring, and how to use Docker and Mesos to push the boundaries and explore new possibilities Who This Book Is For This course is intended for Java developers interested in building enterprise-level applications with Spring Framework. Prior knowledge of Java programming and web development concepts (and a basic knowledge of XML) is expected. What You Will Learn Understand the architecture of Spring Framework and how to set up the key components of the Spring Application Development Environment Configure Spring Container and manage Spring beans using XML and Annotation Practice Spring AOP concepts such as Aspect, Advice, Pointcut, and Introduction Integrate bean validation and custom validation Use error handling and exception resolving Get to grips with REST-based web service development and Ajax Use Spring Boot to develop microservices Find out how to avoid common pitfalls when developing microservices Get familiar with end-to-end microservices written in Spring Framework and Spring Boot In Detail This carefully designed course aims to get you started with Spring, the most widely adopted Java framework, and then goes on to more advanced topics such as building microservices using Spring Boot within Spring. With additional coverage of popular web frameworks such as Struts, WebWork, Java Server Faces, Tapestry, Docker, and Mesos, you'll have all the skills and expertise you need to build great applications. Starting with the Spring Framework architecture and setting up the key components of the Spring Application Development Environment, you will learn how to configure Spring Container and manage Spring beans using XML and Annotation. Next, you will delve into Spring MVC, which will help you build flexible and loosely coupled web applications. You'll also get to grips with testing applications for reliability. Moving on, this course will help you implement the microservice architecture in Spring Framework, Spring Boot, and Spring Cloud. Written to the latest specifications of Spring, this book will help you build modern, Internet-scale Java applications in no time. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Learning Spring Application Development by Ravi Kant Soni Spring MVC Beginner's Guide - Second Edition by Amuthan Ganeshan Spring Microservices by Rajesh RV Style and approach This is a step-by-step guide for building a complete application and developing scalable microservices using Spring Framework, Spring Boot, and a set of Spring Cloud components

Pragmatic Unit Testing in Java 8 with JUnit

Build data-driven test frameworks using Selenium WebDriver, AppiumDriver, Java, and TestNG

Building and Testing with Gradle

A guide for Java developers

Java Testing and Design

To learn about software-testing job opportunities and practice with sample scripts on how to automate software applications using Selenium WebDriver, TestNG, JUnit, Cucumber BDD within Eclipse-based Java Projects and build an extensive Data Driven Automation Framework that consists of Screenshot capability, Log4J Integration, XSLT Reporting, Parameterisation, Object Repositories, Excel Sheets–based Data Input/Outputs, Cross Browser Tests using Firefox, Chrome and Internet Explorer, this book is an unmatched one. You can also enhance tests with Page Object Model, Reuse Selenium IDE scripts to Load Testing using JMeter!

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.

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.

You Must Read This Book If Your Are Ready To Learn The Most Powerful Test Framework TestNG is a Test Framework for Java Note: Book available on your tablet, phone, PDF, PC, Mac, and paperback. You will find details of downloading the PDF document inside the book. 3 Tips To Master Selenium Within 30 Days Copy and paste this URL <http://tinyurl.com/3-Tips-For-Selenium> into your browser to receive your tips Did You Know A Test Framework Joins The Programming And Testing Components Of Automation? Java Is The Most Popular Programming Language And TestNG Is The Most Powerful Test Framework Do you know how automation includes programming and testing? Getting Started With TestNG shows how Test Frameworks facilitate the process of automation. There is a reason why TestNG stands for Test Next Generation. Why Next Generation? TestNG is the next generation because it is powerful and designed for automation engineers who use Java. A combination of Java the most popular programming language and TestNG the most powerful test framework is dynamite. Target Audience: Readers with knowledge of Java programming Readers with knowledge of Selenium WebDriver Don't Miss Out! You Need To Read This Book So You Can Learn: ? Difference Between Test Frameworks and Automation Design Frameworks ? How To Install TestNG ? How To Perform Dependency Testing ? How To Perform Data Driven Testing ? How To Perform Cross Browser Testing ? TestNG Annotations ? TestNG Assertions Scroll Up and Order Your Copy Practice and Implement Page Object Design Pattern, Test Suites in Cucumber, POM TestNG Integration, Cucumber Reports, and work with Selenium Grid (English Edition)

Understanding Next-Generation Builds

TestNG and Advanced Concepts

Software Testing and Analysis

Electronic Government

Solutions and Examples for Java Developers

From lambda expressions and JavaFX 8 to new support for network programming and mobile development, Java 8 brings a wealth of changes. This cookbook helps you get up to speed right away with hundreds of hands-on recipes across a broad range of Java topics. You'll learn useful techniques for everything from debugging and data structures to GUI development and functional programming. Each recipe includes self-contained code solutions that you can freely use, along with a discussion of how and why they work. If you are familiar with Java basics, this cookbook will bolster your knowledge of the language in general and Java 8's main APIs in particular. Recipes include: Methods for compiling, running, and debugging Manipulating, comparing, and rearranging text Regular expressions for string- and pattern-matching Handling numbers, dates, and times Structuring data with collections, arrays, and other types Object-oriented and functional programming techniques Directory and filesystem operations Working with graphics, audio, and video GUI development, including JavaFX and handlers Network programming on both client and server Database access, using JPA, Hibernate, and JDBC Processing JSON and XML for data storage Multithreading and concurrency

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.

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 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

Agile Processes in Software Engineering and Extreme Programming

Testing Java Microservices

Selenium WebDriver

A Model-Driven and Service-Oriented Approach

Lean-Agile Acceptance Test-Driven-Development

Spring: Developing Java Applications for the Enterprise

Describes how to use the open source project automation tool to build and test software written in Java and other programming languages.

This classroom-tested new edition features expanded coverage of the basics and test automation frameworks, with new exercises and examples.

*Fully Updated to Cover Major Enhancements to Seam 2.x In Seam Framework, Second Edition, the authors of the leading guide to Seam programming have systematically updated their text to reflect the major improvements introduced with Seam 2.x. This author team—all key Seam project contributors—teach Seam 2.x through detailed example applications that reveal how Seam simplifies many tasks that were previously difficult or impractical. Their robust descriptions are complemented by in-depth feature discussions that demonstrate how to use Seam's power to the fullest. Whether you're new to Seam programming or a seasoned Seam developer who wants to achieve deeper mastery of Seam 2.x, this book will be an indispensable resource. Coverage includes Using improvements to Seam's conversation model, transaction management, and other features Enhancing security, performing end-to-end validation, and providing custom exception pages Using Quartz to execute timer jobs in your application Generating bookmarkable RESTful Web pages the easy way Developing highly scalable applications with Seam 2.x's new multilayer caching Simplifying development with Groovy, the scripting language that runs directly on the JVM Using jBPM business processes to improve page flow Previewing Web Beans (JSR-299), the future core of Seam that will transform Java EE Web development *Download source code for this book's case study application at solutionsfit.com/seam.*

Summary Testing Java Microservices teaches you to implement unit and integration tests for microservice systems running on the JVM. You'll work with a microservice environment built using Java EE, WildFly Swarm, and Docker. You'll learn how to increase your test coverage and productivity, and gain confidence that your system will work as you expect. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Microservice applications present special testing challenges. Even simple services need to handle unpredictable loads, and distributed message-based designs pose unique security and performance concerns. These challenges increase when you throw in asynchronous communication and containers. About the Book Testing Java Microservices teaches you to implement unit and integration tests for microservice systems running on the JVM. You'll work with a microservice environment built using Java EE, WildFly Swarm, and Docker. You'll advance from writing simple unit tests for individual services to more-advanced practices like chaos or integration tests. As you move towards a continuous-delivery pipeline, you'll also master live system testing using technologies like the Arquillian, Wiremock, and Mockito frameworks, along with techniques like contract testing and over-the-wire service virtualization. Master these microservice-specific practices and tools and you'll greatly increase your test coverage and productivity, and gain confidence that your system will work as you expect. What's Inside Test automation Integration testing microservice systems Testing container-centric systems Service virtualization About the Reader Written for Java developers familiar with Java EE, EE4J, Spring, or Spring Boot. About the Authors Alex Soto Bueno and Jason Porter are Arquillian team members. Andy Gumbrecht is an Apache TomEE developer and PMC. They all have extensive enterprise-testing experience. Table of Contents An introduction to microservices Application under test Unit-testing microservices Component-testing microservices Integration-testing microservices Contract tests End-to-end testing Docker and testing Service virtualization Continuous delivery in microservices

Techniques, Practices, and Patterns for Building and Maintaining Effective Software Projects

Java Testing with Spock

Construction and Evolution of Code Generators

Making Java Groovy

Introduction to Software Testing

Effective Unit Testing

A superior primer on software testing and quality assurance, from integration to execution and automation This important new work fills the pressing need for a user-friendly text that aims to provide software engineers, software quality professionals, software developers, and students with the fundamental developments in testing theory and common testing practices. Software Testing and Quality Assurance: Theory and Practice equips readers with a solid understanding of: Practices that support the production of quality software Software testing techniques Life-cycle models for requirements, defects, test cases, and test results Process models for units, integration, system, and acceptance testing How to build test teams, including recruiting and retaining test engineers Quality Models, Capability Maturity Model, Testing Maturity Model, and Test Process Improvement Model Expertly balancing theory with practice, and complemented with an abundance of pedagogical tools, including test questions, examples, teaching suggestions, and chapter summaries, this book is a valuable, self-contained tool for professionals and an ideal introductory text for courses in software testing, quality assurance, and software engineering.

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

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.

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 teamLeverage test automation to improve your organization'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.

Gradle in Action
Selenium with Java – A Beginner's Guide
xUnit Test Patterns
Experience the Evolution of Java EE
Selenium Framework Design in Data-Driven Testing

Comprehensive guide to develop high quality Java applications
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, HttpNit, Cactus, Tomcat, XDoclet—and then digs right in, providing recipes for implementing the tools in real-world environments.

Automatic code generation is an essential cornerstone of model-driven approaches to software development. Currently, lots of techniques are available that support the specification and implementation of code generators, such as engines based on templates or rule-based transformations. All those techniques have in common that code generators are either directly programmed or described by means of textual specifications. This monograph presents Genesys, a general approach, which advocates the graphical development of code generators for arbitrary source and target languages, on the basis of models and services. In particular, it is designed to support incremental language development on arbitrary metalevels. The use of models allows building code generators in a truly platform-independent and domain-specific way. Furthermore, models are amenable to formal verification methods such as model checking, which increase the reliability and robustness of the code generators. Services enable the reuse and integration of existing code generation frameworks and tools regardless of their complexity, and at the same time manifest as easy-to-use building blocks which facilitate agile development through quick interchangeability. Both, models and services, are reusable and thus form a growing repository for the fast creation and evolution of code generators.

This book constitutes the refereed proceedings of the 7th International Conference on Electronic Government, EGOV 2008, held in Torino, Italy, in August/September 2008 within the DEXA 2008 conference cluster. The 32 revised full papers presented were carefully reviewed and selected from 119 submissions. The papers are organized in topical sections on strategies and frameworks, motivators, and contexts, assessment, evaluation and benefit models for ICT investments, inclusion and user-centred design, interoperability and application of semantic technologies in e-government.

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

Practical Unit Testing with JUnit and Mockito
Using Arquillian, Hoverfly, AssertJ, JUnit, Selenium, and Mockito
Seam Framework

Process, Principles and Techniques
Complete Guide to Test Automation

Next Generation Java Testing

Teaches readers how to test and analyze software to achieve an acceptable level of quality at an acceptable cost Readers will be able to minimize software failures, increase quality, and effectively manage costs Covers techniques that are suitable for near-term application, with sufficient technical background to indicate how and when to apply them Provides balanced coverage of software testing & analysis approaches By incorporating modern topics and strategies, this book will be the standard software-testing textbook A comprehensive, hands-on guide on unit testing framework for Java programming language About This Book In-depth coverage of Jupiter, the new programming and extension model provided by JUnit 5 Integration of JUnit 5 with other frameworks such as Mockito, Spring, Selenium, Cucumber, and Docker Best practices for writing meaningful Jupiter test cases Who This Book Is For This book is for Java software engineers and testers. If you are a Java developer who is keen on improving the quality of your code and building world class applications then this book is for you. Prior experience of the concepts of automated testing will be helpful. What You Will Learn The importance of software testing and its impact on software quality The options available for testing Java applications The architecture, features and extension model of JUnit 5 Writing test cases using the Jupiter programming model How to use the latest and advanced features of JUnit 5 Integrating JUnit 5 with existing third-party frameworks Best practices for writing meaningful JUnit 5 test cases Managing software testing activities in a living software project In Detail When building an application it is of utmost importance to have clean code, a productive environment and efficient systems in place. Having automated unit testing in place helps developers to achieve these goals. The JUnit testing framework is a popular choice among Java developers and has recently released a major version update with JUnit 5. This book shows you how to make use of the power of JUnit 5 to write better software. The book begins with an introduction to software quality and software testing. After that, you will see an in-depth analysis of all the features of Jupiter, the new programming and extension model provided by JUnit 5. You will learn how to integrate JUnit 5 with other frameworks such as Mockito, Spring, Selenium, Cucumber, and Docker. After the technical features of JUnit 5, the final part of this book will train you for the daily work of a software tester. You will learn best practices for writing meaningful tests. Finally, you will learn how software testing fits into the overall software development process, and sits alongside continuous integration, defect tracking, and test reporting. Style and approach The book offers definitive and comprehensive coverage of all the Unit testing concepts with JUnit and its features using several real world examples so that readers can put their learning to practice almost immediately. This book is structured in three parts: Software testing foundations (software quality and Java testing) JUnit 5 in depth (programming and extension model of JUnit 5) Software testing in practice (how to write and manage JUnit 5 tests)

Summary Java Testing with Spock teaches you how to use Spock for a wide range of testing use cases in Java. Readers new to Groovy will appreciate the succinct language tutorial that'll give you just enough Groovy to use Spock effectively. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Spock combines the features of tools like JUnit, Mockito, and JBehave into a single powerful Java testing library. With Spock, you use Groovy to write more readable and concise tests. Spock enables seamless integration testing, and with the intuitive Geb library, you can even handle functional testing of web applications. About the Book Java Testing with Spock teaches you how to use Spock for a wide range of testing use cases in Java. You'll start with a quick overview of Spock and work through writing unit tests using the Groovy language. You'll discover best practices for test design as you learn to write mocks, implement integration tests, use Spock's built-in BDD testing tools, and do functional web testing using Geb. Readers new to Groovy will appreciate the succinct language tutorial in chapter 2 that gives you just enough Groovy to use Spock effectively. What's Inside Testing with Spock from the ground up Write mocks without an external library BDD tests your business analyst can read Just enough Groovy to use Spock About the Reader Written for Java developers. Knowledge of Groovy and JUnit is helpful but not required. About the Author Konstantinos Kapelonis is a software engineer who works with Java daily. Table of Contents PART 1 FOUNDATIONS AND BRIEF TOUR OF SPOCK Introducing the Spock testing framework Groovy knowledge for Spock testing A tour of Spock functionality PART 2 STRUCTURING SPOCK TESTS Writing unit tests with Spock Parameterized tests Mocking and stubbing PART 3 SPOCK IN THE ENTERPRISE Integration and functional testing with Spock Spock features for enterprise testing

ETAPS 2009 was the 12th instance of the European Joint Conferences on Theory and Practice of Software. ETAPS is an annual federated conference that was established in 1998 by combining a number of existing and new conferences. This year it comprised 7 conferences (CC, ESOP, FASE, FOSSACS, TACAS), 22 satellite workshops (ACCAT, ARSPA-WITS, Bytecode, COCV, COMPASS, FESCA, FinCo, FORMED, GaLoP, GT-VMT, HFL, LDTA, MBT, MLQA, OpenCert, PLACES, QAPL, RC, SafeCert, TAASN, TERMGRAPH, andWING), four tutorials, andseveninvitedlectures (excludingthose thatwere specific to the satellite events). The 7 main conferences received this year 532 submissions (including 30 tool demonstration papers), 141 of which were accepted (10 tool demos), giving an overall acceptance rate of about 26%, with most of the conferences at around 25%. Congratulations therefore to all the authors who made it to the final programme! I hope that most of the other authors will still have found a way of participating in this exciting event, and that you will all continue submitting to ETAPS and contributing towards making it the best conference on software science and engineering. The events that comprise ETAPS address various aspects of the system development process, including specification, design, implementation, analysis and improvement. The languages, methodologies and tools which support these activities are all well within its scope. Different blends of theory and practice are represented, with an inclination towards theory with a practical motivation on the one hand and soundly based practice on the other.

Java Power Tools

Java Cookbook

Selenium Framework Design in Keyword-Driven Testing

9th International Conference, XP 2008, Limerick, Ireland, June 10-14, 2008, Proceedings

From Unit Testing to Automated Web Tests

Software Testing and Quality Assurance

Next Generation Java TestingNext Generation Java TestingTestNG and Advanced ConceptsPearson Education

The XP conference series established in 2000 was the first conference dedicated to agile processes in software engineering. The idea of the conference is to offer a unique setting for advancing the state of the art in the research and practice of agile processes. This year's conference was the ninth consecutive edition of this international event. The conference has grown to be the largest conference on agile software development outside North America. The XP conference enjoys being one of those conferences that truly brings practitioners and academics together. About 70% of XP participants come from industry and the number of academics has grown steadily over the years. XP is more of an experience rather than a regular conference. It offers several different ways to interact and strives to create a truly collaborative environment where new ideas and exciting findings can be presented and shared. For example, this year's open space session, which was "a conference within a conference", was larger than ever before. Agile software development is a unique phenomenon from several perspectives.

Extensively class-tested, this textbook takes an innovative approach to software testing; it defines testing as the process of applying a few well-defined, general-purpose test criteria to a structure or model of the software. It incorporates the latest innovations in testing, including techniques to test modern types of software such as OO, web applications, and embedded software. The book contains numerous examples throughout. An instructor's solution manual, PowerPoint slides, sample syllabi, additional examples and updates, testing tools for students, and example software programs in Java are available on an extensive website.

This book constitutes the refereed proceedings of the 12th International Conference on Fundamental Approaches to Software Engineering, FASE 2009, held in York, UK, in March 2009, as part of ETAPS 2009, the European Joint Conferences on Theory and Practice of Software. The 30 revised full papers presented together with 2 tool demonstrations were carefully reviewed and selected from 123 regular and 9 tool paper submissions. The topics addressed are model-driven development, synthesis and adaptation, modeling, testing and debugging, model analysis, patterns, security, queries and error handling, and tools (demos) and program analysis.

Mastering Software Testing with JUnit 5

Mastering Behavior-Driven Development Using Cucumber

TestNG Beginner's Guide

Getting Started With Testng

Refactoring Test Code

Java Extreme Programming Cookbook

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 Osherove'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 Testworthiness PART 3 DIVERSIONS Testable design Writing tests in other JVM languages Speeding up test execution

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.

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

The Pragmatic Programmers classic is back! Freshly updated for modern software development, Pragmatic Unit Testing in Java 8 With JUnit teaches you how to write and run easily maintained unit tests in JUnit with confidence. You'll learn mnemonics to help you know what tests to write, how to remember all the boundary conditions, and what the qualities of a good test are. You'll see how unit tests can pay off by allowing you to keep your system code clean, and you'll learn how to handle the stuff that seems too tough to test. Pragmatic Unit Testing in Java 8 With JUnit steps you through all the important unit testing topics. If you've never written a unit test, you'll see screen shots from Eclipse, IntelliJ IDEA, and NetBeans that will help you get past the hard part—getting set up and started. Once past the basics, you'll learn why you want to write unit tests and how to effectively use JUnit. But the meaty part of the book is its collected unit testing wisdom from people who've been there, done that on production systems for at least 15 years: veteran author and developer Jeff Langr, building on the wisdom of Pragmatic Programmers Andy Hunt and Dave Thomas. You'll learn: How to craft your unit tests to minimize your effort in maintaining them. How to use unit tests to help keep your system clean. How to test the tough stuff. Memorable mnemonics to help you remember what's important when writing unit tests. How to help your team reap and sustain the benefits of unit testing. You won't just learn about unit testing in theory—you'll work through numerous code examples. When it comes to programming, hands-on is the only way to learn!

7th International Conference, EGOV 2008, Torino, Italy, August 31 - September 5, 2008, Proceedings

Agile ALM

Fundamental Approaches to Software Engineering

12th International Conference, FASE 2009, Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2009, York, UK, March 22-29, 2009, Proceedings

Web Browser Automation for Testing using Selenium with Java

Selenium Python Framework Design in Keyword-Driven Testing

Shows how to understand what application you want to write, what strategies are likely to get you there, and then how to measure your level of success. This book teaches you a method to build production-worthy, scalable, and well performing Web-enabled applications.

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-4About the AuthorPinakin 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.

Build and test software written in Java and many other languages with Gradle, the open source project automation tool that's getting a lot of attention. This concise introduction provides numerous code examples to help you explore Gradle, both as a build tool and as a complete solution for automating the compilation, test, and release process of simple and enterprise-level applications. Discover how Gradle improves on the best ideas of Ant, Maven, and other build tools, with standards for developers who want them and lots of flexibility for those who prefer less structure. Use Gradle with Groovy, Clojure, Scala, and languages beyond the JVM, such as Flex and C Get started building a simple Java program using Gradle's command line tooling and a small build script Learn how to configure and construct tasks, Gradle's fundamental unit of build activity Take advantage of Gradle's integration with Ant Use Gradle to integrate with or transition from Maven, and to build software more cleanly Perform application unit and integration tests using JUnit, TestNG, Spock, and Geb

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

Lightweight tools and Agile strategies
Software Automation Testing Secrets Revealed Part 2
Unit Testing Principles, Practices, and Patterns
A Java Test Framework
Theory and Practice
Automate Your Test Using Selenium and Appium