

Mockito Essentials

A comprehensive guide to get started with Java and gain insights into major concepts such as object-oriented, functional, and reactive programming Key Features Strengthen your knowledge of important programming concepts and the latest features in Java Explore core programming topics including GUI programming, concurrency, and error handling Learn the idioms and best practices for writing high-quality Java code Book Description Java is one of the preferred languages among developers, used in everything right from smartphones, and game consoles to even supercomputers, and its new features simply add to the richness of the language. This book on Java programming begins by helping you learn how to install the Java Development Kit. You will then focus on understanding object-oriented programming (OOP), with exclusive insights into concepts like abstraction, encapsulation, inheritance, and polymorphism, which will help you when programming for real-world apps. Next, you'll cover fundamental programming structures of Java such as data structures and algorithms that will serve as the building blocks for your apps. You will also delve into core programming topics that will assist you with error handling, debugging, and testing your apps. As you progress, you'll move on to advanced topics such as Java libraries, database management, and network programming, which will hone your skills in building professional-grade apps. Further on, you'll understand how to create a graphic user interface using JavaFX and learn to build scalable apps by taking advantage of reactive and functional programming. By the end of this book, you'll not only be well versed with Java 10, 11, and 12, but also gain a perspective into the future of this language and software development in general. What you will learn Learn and apply object-oriented principles Gain insights into data structures and understand how they are used in Java Explore multithreaded, asynchronous, functional, and reactive programming Add a user-friendly graphic interface Find out what streams are and how they can help in data processing Discover the importance of microservices and use them to make your apps robust and scalable Explore Java design patterns and best practices to solve everyday problems Learn techniques and idioms for writing high-quality Java code Who this book is for Students, software developers, or anyone looking to learn new skills or even a language will find this book useful. Although this book is for beginners, professional programmers can benefit from it too. Previous knowledge of Java or any programming language is not required.

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 microservices Test-driven development Server-side virtualization About the Reader Written for Java developers familiar with Java EE, EEJ, 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

Master high quality software development driven by unit tests About This Book Design and implement robust system components by means of the de facto unit testing standard in Java Reduce defect rate and maintenance effort, plus simultaneously increase code quality and development pace Follow a step-by-step tutorial imparting the essential techniques based on real-world scenarios and code walkthroughs Who This Book Is For No matter what your specific background as a Java developer, whether you're simply interested in building up a safety net to reduce regressions of your desktop application or in improving your server-side reliability based on robust and reusable components, unit testing is the way to go. This book provides you with a comprehensive but concise entrance advancing your knowledge step-wise to a professional level. What You Will Learn Organize your test infrastructure and resources reasonably Understand and write well structured tests Decompose your requirements into small and independently testable units Increase your testing efficiency with on-the-fly generated stand-in components and deal with the particularities of exceptional flow Employ runners to adjust to specific test demands Use rules to increase testing safety and reduce boilerplate Use third party supplements to improve the expressiveness of your verification statements In Detail JUnit has matured to become the most important tool when it comes to automated developer tests in Java. Supported by all IDEs and build systems, it empowers programmers to deliver software features and to efficiently respond to more advanced practices like chaos or integration tests. However, writing good unit tests is a skill that needs to be learned; otherwise it's all too easy to end up in gridlocked development due to messed up production and testing code. Acquiring the best practices for unit testing will help you to prevent such problems and lead your projects to success with respect to quality and costs. This book explains JUnit concepts and best practices applied to the test first approach, a foundation for high quality Java components delivered in time and budget. From the beginning you'll be guided continuously through a practically relevant example and pick up background knowledge and development techniques step by step. Starting with the basics of tests organization you'll soon comprehend the necessity of well structured tests and delve into the relationship of requirement decomposition and the many-faceted world of test double usage. In conjunction with third-party tools you'll be trained in writing your tests efficiently, adapt your test case environment to particular demands and increase the expressiveness of your verification statements. Finally, you'll experience continuous integration as the perfect complement to support short feedback cycles and quality related reports for your whole team. The tutorial gives a profound entry point in the essentials of unit testing with JUnit and prepares you for test-related daily work challenges. Style and approach This is an intelligible tutorial based on an ongoing and non-trivial development example. Profound introductions of concepts and techniques are provided stepwise as the programming challenges evolve. This allows you to reproduce and practice the individual skills thoroughly.

If you are a .NET developer who is looking for a simpler way to build services, this is the book for you. It will show you how to write fast, maintainable APIs that are a pleasure to use and maintain starting from the database to the client and everything in-between.

Practical Unit Testing with JUnit and Mockito

JUnit in Action

Mastering Unit Testing Using Mockito and Junit Handbook

Apache Ignite Quick Start Guide

Developing Middleware in Java EE 8

Gradle Essentials

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 simple, readable and concise tests. Spock enables seamless integration testing, and with the intuitive Geb library, you can even handle the 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 spock integration tests, use Spock's built-in BDD test tools, and its functional web testing using Geb. Readers new to Groovy will appreciate the succinct language tutorial in chapter 3 that gives you just enough Groovy to use Spock effectively. What's Inside Testing with Spock From the ground up Write mock tests 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 Kapoulas 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

This book is a practical guide featuring a step-by-step approach that aims to help PHP developers who want to learn or improve their software testing skills. It also takes you through many real-life examples encountered by PHP developers to help you avoid common pitfalls. This book is a practical guide featuring a step-by-step approach that aims to help PHP developers who want to learn or improve their software testing skills. It also takes you through many real-life examples encountered by PHP developers to help you avoid common pitfalls.

Master the fundamentals of Android programming and apply your skills to create scalable and reliable apps using industry best practices Key FeaturesBuild apps with Kotlin, Google's preferred programming language for Android developmentUnlock solutions to development challenges with guidance from experienced Android professionalsImprove your apps by adding valuable features that make use of advanced functionalityBook Description Are you keen to get started building Android 11 apps, but don't know where to start? How to Build Android Apps with Kotlin is a comprehensive guide that will help kick-start your Android development practice. This book starts with the fundamentals of app development, enabling you to utilize Android Studio and Kotlin to create apps and run them on virtual devices through guided exercises. Progressing through the chapters, you'll delve into Android's RecyclerView to make the most of lists, images, and maps, and see how to fetch data from a web service. Moving ahead, you'll get to grips with testing, learn how to keep your architecture clean, understand how to persist data, and gain basic knowledge of the dependency injection pattern. Finally, you'll see how to publish your apps on the Google Play store. However, writing good unit tests is a skill that needs to be learned; otherwise it's all too easy to end up in gridlocked development due to messed up production and testing code. Acquiring the best practices for unit testing will help you to prevent such problems and lead your projects to success with respect to quality and costs. This book explains JUnit concepts and best practices applied to the test first approach, a foundation for high quality Java components delivered in time and budget. From the beginning you'll be guided continuously through a practically relevant example and pick up background knowledge and development techniques step by step. Starting with the basics of tests organization you'll soon comprehend the necessity of well structured tests and delve into the relationship of requirement decomposition and the many-faceted world of test double usage. In conjunction with third-party tools you'll be trained in writing your tests efficiently, adapt your test case environment to particular demands and increase the expressiveness of your verification statements. Finally, you'll experience continuous integration as the perfect complement to support short feedback cycles and quality related reports for your whole team. The tutorial gives a profound entry point in the essentials of unit testing with JUnit and prepares you for test-related daily work challenges. Style and approach This is an intelligible tutorial based on an ongoing and non-trivial development example. Profound introductions of concepts and techniques are provided stepwise as the programming challenges evolve. This allows you to reproduce and practice the individual skills thoroughly.

Siddhartha is a 1922 novel by Hermann Hesse that deals with the spiritual journey of self-discovery of a man named Siddhartha during the time of the Gautama Buddha. The book, Hesse's ninth novel, was written in German, in a simple, lyrical style. It was published in the U.S. in 1951 and became influential during the 1960s. Hesse dedicated the first part of it to Romain Rolland and the second to Wilhelm Gundert, his cousin. The word Siddhartha is made up of two words in the Sanskrit language, sidha (achieved) + artha (what was searched for), which together means "he who has found meaning (of existence)" or "he who has attained his goals". In fact, the Buddha's own name, before his renunciation, was Siddhartha Gautama, Prince of Kapilvastu. In this book, the Buddha is referred to as "Gotama".

8th International Symposium, SSBSE 2016, Raleigh, NC, USA, October 8-10, 2016, Proceedings

A hands-on guide to developing, testing, and publishing your first apps with Android

Konzepte und Techniken für die professionelle Java-Entwicklung

Search Based Software Engineering

Testing Java Microservices

Distributed data caching and processing made easy

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 ; 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

Includes more than 30 percent revised material and five new chapters, covering the new 2.1 features such as EJB Timer Service and JMS as well as the latest open source Java solutions The book was developed as part of TheServerSide.com online EJB community, ensuring a built-in audience Demonstrates how to build an EJB anti-pattern, program with EJB, adopt best practices, and harness advanced EJB concepts and techniques, including transactions, persistence, clustering, integration, and performance optimization Offers practical guidance on when not to use EJB and how to use simpler, less costly open source technologies in place of or in conjunction with EJB

Mockito EssentialsPackt Publishing Ltd

This book is for you if you are a developer with some experience in Java application development as well as a basic knowledge of JUnit testing. But for those whose skill set is void of any prior experience with JUnit testing, the book also covers basic fundamentals to get you acquainted with the concepts before putting them into practise.It is insanity to keep doing things the same way and expect them to improve. Any program is useful only when it is functional; hence, before applying complex tools, patterns, or APIs to your production code, checking software functionality is must. Automated JUnit tests help you verify your assumptions continuously, detect side effects quickly, and also help you save time.

Java Testing with Spock

Essential Tools and Best Practices for Deploying Code to Production

Android for Java Programmers

Pro CDI 2 In Java EE 8

Mastering Enterprise JavaBeans

Continuous Delivery In Java

Continuous delivery adds enormous value to the business and the entire software delivery lifecycle, but adopting this practice means mastering new skills typically outside of a developer 's comfort zone. In this practical book, Daniel Bryant and Abraham Mar í n-P é rez provide guidance to help experienced Java developers master skills such as architectural design, automated quality assurance, and application packaging and deployment on a variety of platforms. Not only will you learn how to create a comprehensive build pipeline for continually delivering effective software, but you 'll also explore how Java application architecture and deployment platforms have affected the way we rapidly and safely deliver new software to production environments. Get advice for beginning or completing your migration to continuous delivery Design architecture to enable the continuous delivery of Java applications Build application artifacts including fat JARs, virtual machine images, and operating system container (Docker) images Use continuous integration tooling like Jenkins, PMD, and find-sec-bugs to automate code quality checks Create a comprehensive build pipeline and design software to separate the deploy and release processes Explore why functional and system quality attribute testing is vital from development to delivery Learn how to effectively build and test applications locally and observe your system while it runs in production

This book is a quick and concise introduction to RabbitMQ. Follow the unique case study of Clever Conej Media as they progressively discover how to fully utilize RabbitMQ, containing clever examples and detailed explanations. Whether you are someone who develops enterprise messaging products professionally or a hobbyist who is already familiar with open source Message Queuing software and you are looking for a new challenge, then this is the book for you. Although you should be familiar with Java, Ruby, and Python to get the most out of the examples, RabbitMQ Essentials will give you the push you need to get started that no other RabbitMQ tutorial can provide you with.

This book constitutes the refereed proceedings of the 8th International Symposium on Search-Based Software Engineering, SSBSE 2016, held in Raleigh, NC, USA, in October 2016.The 13 revised full papers and 4 short papers presented together with 7 challenge track and 4 graduate student track papers were carefully reviewed and selected from 48 submissions. Search Based Software Engineering (SBSE) studies the application of meta-heuristic optimization techniques to various software engineering problems, ranging from requirements engineering to software testing and maintenance.

A comprehensive, hands-on guide on unit testing framework for Java programming Learn About This Book In-depth coverage of Jupiter, the new programming and extension model provided by 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)

Comprehensive guide to develop high quality Java applications

Building and Testing with Gradle

Der Weg zum Java-Profi

A step-by-step guide to learning essential concepts in Java SE 10, 11, and 12

GitHub Essentials

Mastering Software Testing with JUnit 5

Software testing can be regarded as an art, a craft, and a science. The practical, step-by-step approach presented in this book provides a bridge between these different viewpoints. A single worked example runs throughout, with consistent use of test automation. Each testing technique is introduced in the context of this example, helping students see its strengths and weaknesses. The technique is then explained in more detail, providing a deeper understanding of underlying principles. Finally the limitations of each giving learners concrete examples of when each technique succeeds or fails in finding faults. Coverage includes black-box testing, white-box testing, random testing, unit testing, object-oriented testing, and application testing. The authors also emphasise the process of applying the techniques, covering the steps of analysis, test design, test implementation, and interpretation of results. The book's web site has programming exercises and Java source code for all examples. 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 legender Konzepte gelegt. Dabei kommen dem Autor Michael Inden seine umfangreichen Schulungs- und Entwicklererfahrungen zugute - und Ihnen als Leser 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

Lösungen: Bad Smells - Refactorings - Entwurfsmuster Qualitätssicherung - Unit Tests - Codereviews - Optimierungsmuster Darüber hinaus thematisiert ihr 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) This book is a quick and concise introduction to RabbitMQ. Follow the unique case study of Clever Conej Media as they progressively discover how to fully utilize RabbitMQ, containing clever examples and detailed explanations. Whether you are someone who develops enterprise messaging products professionally or a hobbyist who is already familiar with open source Message Queuing software and you are looking for a new challenge, then this is the book for you. Although you should be familiar with Java, Ruby, and Python to get the most out of the examples, RabbitMQ Essentials will give you the push you need to get started that no other RabbitMQ tutorial can provide you with.

This textbook is about learning Android and developing native apps using the Java programming language. It follows Java and Object-Oriented (OO) programmers' experiences and expectations and thus enables them to easily map Android concepts to familiar ones. Each chapter of the book is dedicated to one or more Android development topics and has one or more illustrating apps. The topics covered include activities and transitions between activities, Android user interfaces and widgets, activity layouts, Android preferences, SQLite and firebase databases, XML and JSON processing, the content provider, services, message broadcasting, async task and threading, the media player, sensors, Android Google maps, etc. The book is intended for introductory or advanced Android courses to be taught in one or two semesters at universities and colleges. It uses code samples and exercises extensively to explain and clarify Android coding and concepts. It is written for students and programmers who have no prior Android programming have some Android programming skills and are excited to study more advanced concepts or acquire a deeper knowledge and understanding of Android programming. All the apps in the book are native Android apps and do not need to use or include third-party technologies to run.

Summary Spring Integration in Action is a hands-on guide to Spring-based messaging and integration. After addressing the core messaging patterns, such as those used in transformation and routing, the book turns to the adapters that enable integration with external systems. Readers will explore real-world enterprise integration scenarios using JMS, Web Services, file systems, and email. They will also learn about Spring Integration's support for working with XML. The book concludes with a practical guide to advanced system-management, and monitoring. The book features a foreword by Rod Johnson, Founder of the Spring Network. About the Technology Spring Integration extends the Spring Framework to support the patterns described in Greg Hople and Bobby Woolf's Enterprise Integration Patterns. Like the Spring Framework itself, it focuses on developer productivity, making it easier to build, test, and maintain enterprise integration solutions. About the Book Spring Integration in Action is an introduction and guide to enterprise integration framework. The book starts off by reviewing core messaging patterns, such as those used in transformation and routing. It then drills down into real-world enterprise integration scenarios using JMS, Web Services, filesystems, email, and more. You'll find an emphasis on testing, along with practical coverage of topics like concurrency, scheduling, system management, and monitoring. This book is accessible to developers who know Java. Experience with Spring and EIP is helpful but not assumed. Purchase of PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What's Inside Realistic examples Expert advice from Spring Integration creators Detailed coverage of Spring Integration 2 features About the Authors Mark Fisher is the Spring Integration founder and project lead. Jonas Partner, Marius Bogoevici, and Iwein Fuld have all been project committers and are recognized experts on Spring and Spring Integration. Table of Contents PART 1 BACKGROUND Introduction to Spring Integration Enterprise Messaging Messages and channels Message Endpoints Getting down to business Go beyond sequential processing: routing and filtering Splitting and aggregating messages PART 3 INTEGRATING SYSTEMS Handling messages with XML Payloads Spring Integration and the Java Message Service Email-based Integration Filesystem Integration Spring Integration and web services Chatting and tweeting PART 4 ADVANCED TOPICS Monitoring and management Managing scheduling and concurrency Batch applications and enterprise messaging applications with OSGi Testing

Achieving Success at Work & In Life. One Conversation at a Time

PHPUnit Essentials

Mockito Essentials

ServiceStack 4 Cookbook

Fierce Conversations

Learn Java 12 Programming

This book is a hands-on guide, full of practical examples to illustrate the concepts of Test Driven Development.If you are a developer who wants to develop software following Test Driven Development using Mockito and leveraging various Mockito features, this book is ideal for you. You don't need prior knowledge of TDD, Mockito, or JUnit.It is ideal for developers, who have some experience in Java application development as well as a basic knowledge of unit testing, but it covers the basic fundamentals of TDD and JUnit testing to get you acquainted with these concepts before delving into them. It shows how to make the most of conversations by communicating clearly and forcefully, offering advice on how to overcome barriers to meaningful conversation, confront tough issues, and leverage new skills for frictionless debate. This book is ideal for developers who have some experience in Java application development as well as some basic knowledge of test doubles and JUnit testing. This book also introduces you to the fundamentals of JUnit testing, test doubles, refactoring legacy code, and writing JUnit tests for GWT and web services.

Describes how to use the open source project automation tool to build and test software written in Java and other programming languages. Testing with JUnit Working Effectively with Legacy Code Mastering Unit Testing Using Mockito and JUnit Test Driven Development with Mockito Mockito For Spring

Play Framework Essentials

This is a focused guide with lots of practical recipes with presentations of business issues and presentation of the whole test of the system. This book shows the use of Mockito's popular unit testing frameworks such as JUnit, PowerMock, TestNG, and so on. If you are a software developer with no testing experience (especially with Mockito) and you want to start using Mockito in the most efficient way then this book is for you. This book assumes that you have a good knowledge level and understanding of Java-based unit testing frameworks. 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 tests 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 setup, 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!

With Google Web Toolkit, Java developers can build sophisticated Rich Internet Applications (RIAs) and complete Web sites using the powerful IDEs and tools they already use. Now, with GWT 2, Google Web Toolkit has become even more useful. Essential GWT shows how to use this latest version of GWT to create production solutions that combine superior style, performance, and interactivity with exceptional quality and maintainability. Federico Kereki quickly reviews the basics and then introduces intermediate and advanced GWT skills, covering issues ranging from building projects to testing and deploying final code. Throughout, he focuses on best-practice methodologies and design patterns. For example, you 'll learn how to use the MVP (model-view-presenter) pattern to improve application design and support automated testing for agile development. Kereki illuminates each concept with realistic code examples that help developers jump-start their projects and get great results more quickly. Working with the latest versions of open source tools such as Eclipse, Subversion, Apache, Tomcat, and MySQL, he demonstrates exactly how GWT fits into real Web development environments. Coverage includes Using the Google Plugin for Eclipse and the GWT Shell Script Detecting and working with browsers—and solving the problems they cause Building better user interfaces with the MVP pattern Using APIs for visualization, mapping, weather data, and more Internationalizing and localizing GWT code Securing GWT applications with cryptography, hashing, and encryption Testing with JUnit, Emma, GWTTestCase, Selenium, and Mock Objects Deploying client-only and client-plus-server GWT applications

Unleash the power of collaborative development workflow using GitHub, one step at a timeAbout This Book Effectively use GitHub by learning its key features that leverage the power of Git and make collaboration on code easy to work with • Be more productive on the development workflow of your projects using the valuable toolset that GitHub provides • Explore the world of GitHub by following simple step-by-step real world scenarios accompanied by helpful, explanatory screenshotsWho This Book Is ForIntended for experienced or novice developers with a basic knowledge of Git. If you ever wanted to learn how big projects like Twitter, Google or even GitHub collaborate on code then this book is for you!What You Will Learn • Create and upload repositories to your account• Create organizations and manage teams with different access levels on repositories• Use effectively the issue tracker and add context to issues with labels and milestones• Schedule and release versions of your software• Work effectively with a team and collaborate on code• Create, access, and personalize your user account and profile settings• Build a community around your project using the sophisticated tools GitHub provides• Build easy to deploy, free of charge static websites for your projectsIn DetailWhether you are an experienced developer or a novice, learning to work with Version Control Systems is a must in the software development world. Git is the most popular tool for that purpose and GitHub was built around it leveraging its powers by bringing it to the web.Starting with the basics of creating a repository you will then learn how to manage the issue tracker, the place where discussion about your project takes place. Continuing our journey we will explore how to use the wiki and write rich documentation that will accompany your project. Organization and team management will be the next stop and then onto the feature that made GitHub so well known, Pull Requests. Next we focus on creating simple web pages hosted on GitHub and lastly we explore the settings that are configurable for a user and a repository.Style and approachA step-by-step guide with real world scenarios accompanied by helpful images. Each topic is thoroughly explained with hands-on examples and code where needed. At the end of each chapter there is a Tips and tricks section presenting hidden or overlooked features of GitHub.

Unit Testing Principles, Practices, and Patterns

Essential GWT
Building for the Web with Google Web Toolkit 2
Pragmatic Unit Testing in Java 8 with JUnit
RabbitMQ Essentials

Build efficient, high-performance & scalable systems to process large volumes of data with Apache Ignite Key FeaturesUnderstand Apache Ignite's in-memory technologyCreate High-Performance app components with IgniteBuild a real-time data streaming and complex event processing systemBook Description Apache Ignite is a distributed in-memory platform designed to scale and process large volume of data. It can be integrated with microservices as well as monolithic systems, and can be used as a scalable, highly available and performant deployment platform for microservices. This book will teach you to use Apache Ignite for building a high-performance, scalable, highly available system architecture with data integrity. The book takes you through the basics of Apache Ignite and in-memory technologies. You will learn about installation and clustering Ignite nodes, caching topologies, and various caching strategies, such as cache aside, read and write through, and write behind. Next, you will delve into detailed aspects of Ignite's data grid: web session clustering and querying data. You will learn how to process large volumes of data using compute grid and Ignite's map-reduce and executor service. You will learn about the memory architecture of Apache Ignite and monitoring memory and caches. You will use Ignite for complex event processing, event streaming, and the time-series predictions of opportunities and threats. Additionally, you will go through off-heap and on-heap caching, swapping, and native and Spring framework integration with Apache Ignite. By the end of this book, you will be confident with all the features of Apache Ignite 2.x that can be used to build a high-performance system architecture. What you will learnUse Apache Ignite's data grid and implement web session clusteringGain high performance and linear scalability with in-memory distributed data processingCreate a microservice on top of Apache Ignite that can scale and performPerform ACID-compliant CRUD operations on an Ignite cacheRetrieve data from Apache Ignite's data grid using SQL, Scan and Lucene Text queryExplore complex event processing concepts and event streamingIntegrate your Ignite app with the Spring frameworkWho this book is for The book is for Big Data professionals who want to learn the essentials of Apache Ignite.

Prior experience in Java is necessary. JUnit in Action, Third Edition has been completely rewritten for this release. The book is full of examples that demonstrate JUnit's modern features, including its new architecture; nested, tagged, and dynamic tests; and dependency injection. Summary JUnit is the gold standard for unit testing Java applications. Filled with powerful new features designed to automate software testing, JUnit 5 boosts your productivity and helps avoid debugging nightmares. Whether you're just starting with JUnit or you want to ramp up on the new features, JUnit in Action, Third Edition has you covered. Extensively revised with new code and new chapters, JUnit in Action, Third Edition is an up-to-date guide to smooth software testing. Dozens of hands-on examples illustrate JUnit 5's innovations for dependency injection, nested testing, parameterized tests, and more. Throughout, you'll learn how to use JUnit 5 to automate your testing, for a process that consumes less resources, and gives you more time for developing. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology The JUnit framework is the gold standard for unit testing Java applications—and knowing it is an essential skill for Java developers. The latest version, JUnit 5, is a total overhaul, now supporting modern Java features like Lambdas and Streams. About the book JUnit in Action, Third Edition has been completely rewritten for this release. The book is full of examples that demonstrate JUnit's modern features, including its new architecture; nested, tagged, and dynamic tests; and dependency injection. You'll benefit from author Catalin Tudose's unique "pyramid" testing strategy, which breaks the testing process into layers and sets you on the path to bug-free code creation. What's inside Migrating from JUnit 4 to 5 Effective test automation Test-driven development and behavior-driven development Using mocks for test isolation Connecting JUnit 5 with Maven or Gradle About the reader For intermediate Java developers. About the author Catalin Tudose has a Ph.D. in Computer Science, and over 15 years of experience as a Senior Java Developer and Technical Team Lead. Previous editions were authored by Petar Tahchiev, Felipe Leme, Gary Gregory, and Vincent Massol. Table of Contents PART 1 – JUNIT 1 JUnit jump-start 2 Exploring core JUnit 3 JUnit architecture 4 Migrating from JUnit 4 to JUnit 5 5 Software testing principles PART 2 – DIFFERENT TESTING STRATEGIES 6 Test quality 7 Coarse-grained testing with stubs 8 Testing with mock objects 9 In-container testing PART 3 – WORKING WITH JUNIT 5 AND OTHER TOOLS 10 Running JUnit tests from Maven 3 11 Running JUnit tests from Gradle 6 12 JUnit 5 IDE support 13 Continuous integration with JUnit 5 PART 4 – WORKING WITH MODERN FRAMEWORKS AND JUNIT 5 14 JUnit 5 extension model 15 Presentation-layer testing 16 Testing Spring applications 17 Testing Spring Boot applications 18 Testing a REST API 19 Testing database applications PART 5 – DEVELOPING APPLICATIONS WITH JUNIT 5 20 Test-driven development with JUnit 5 21 Behavior-driven development in JUnit 5 22 Implementing a test pyramid strategy with JUnit 5

If you are an application developer with some experience in software testing and want to learn more about testing frameworks, then this technology and book is for you. Mockito for Spring will be perfect as your next step towards becoming a competent software tester with Spring and Mockito.

In Pro CDI 2 in Java EE 8, use CDI and the CDI 2.0 to automatically manage the life cycle of your enterprise Java, Java EE, or Jakarta EE application's beans using predefined scopes and define custom life cycles using scopes. In this book, you will see how you can implement dynamic and asynchronous communication between separate beans in your application with CDI events. The authors explain how to add new capabilities to the CDI platform by implementing these capabilities as extensions. They show you how to use CDI in a Java SE environment with the new CDI initialization and configuration API, and how to dynamically modify the configuration of beans at application startup by using dynamic bean building. This book is compatible with the new open source Eclipse Jakarta EE platform and tools. What You Will Learn Use qualifier annotations to inject specific bean implementations Programmatically retrieve bean instances from the CDI container in both Java SE and Java EE when injecting them into an object isn't possible Dynamically replace beans using the @Alternative annotation to, for example, replace a bean with a mock version for testing Work with annotation literals to get instances of annotations to use with the CDI API Discover how scopes and events interact Who This Book Is For Those who have some experience with CDI, but may not have experience with some of the more advanced features in CDI.

Salt Cookbook

How to Build Android Apps with Kotlin

Build robust middleware solutions using the latest technologies and trends

Top 100 Classic Novels

Get more out of your legacy systems: more performance, functionality, reliability, and manageability Is your code easy to change? Can you get nearly instantaneous feedback when you do change it? Do you understand it? If the answer to any of these questions is no, you have legacy code, and it is draining time and money away from your development efforts. In this book, Michael Feathers offers start-to-finish strategies for working more effectively with large, untested legacy code bases. This book draws on material Michael created for his renowned Object Mentor seminars: techniques Michael has used in mentoring to help hundreds of developers, technical managers, and testers bring their legacy systems under control. The topics covered include Understanding the mechanics of software change: adding features, fixing bugs, improving design, optimizing performance Getting legacy code into a test harness Writing tests that protect you against introducing new problems Techniques that can be used with any language or platform—with examples in Java, C++, C, and C# Accurately identifying where code changes need to be made Coping with legacy systems that aren't object-oriented Handling applications that don't seem to have any structure This book also includes a catalog of twenty-four dependency-breaking techniques that help you work with program elements in isolation and make safer changes.

A practical and easy-to-follow, yet comprehensive, guide to learning advanced JUnit testing. Each topic is explained and placed in context, and for the more inquisitive, there are more details of the concepts used. This book is for you if you are a developer with some experience in Java application development as well as a basic knowledge of JUnit testing. But for those whose skill set is void of any prior experience with JUnit testing, the book also covers basic fundamentals to get you acquainted with the concepts before putting them into practise.

Use Java features such as JAX-RS, EJBs, and JPAs to build powerful middleware for newer architectures such as the cloud Key Features Explore EJBs to build middleware solutions for enterprise and distributed applications Understand middleware designs such as event-based and message-driven web services Learn to design and maintain large-scale systems and vendor disputes Book Description Middleware is the infrastructure in software based applications that enables businesses to solve problems, operate more efficiently, and make money. As the use of middleware extends beyond a single application, the importance of having it written by experts increases substantially. This book will help you become an expert in developing middleware for a variety of applications. The book starts off by exploring the latest Java EE 8 APIs with newer features and managing dependencies with CDI 2.0. You will learn to implement object-to-relational mapping using JPA 2.1 and validate data using bean validation. You will also work with different types of EJB to develop business logic, and with design RESTful APIs by utilizing different HTTP methods and activating JAX-RS features in enterprise applications. You will learn to secure your middleware with Java Security 1.0 and implement various authentication techniques, such as OAuth authentication. In the concluding chapters, you will use various test technologies, such as JUnit and Mockito, to test applications, and Docker to deploy your enterprise applications. By the end of the book, you will be proficient in developing robust, effective, and distributed middleware for your business. What you will learn Implement the latest Java EE 8 APIs and manage dependencies with CDI 2.0 Perform CRUD operations and access databases with JPA 2.1 Use bean validation API 2.0 to validate data Develop business logic with EJB 3.2 Incorporate the REST architecture and RESTful API design patterns Perform serialization and deserialization on JSON documents using JSON-B Utilize JMS for messaging and queuing models and securing applications Test applications using JUnit and Mockito and deploy them using Docker Who this book is for Enterprise architects, designers, developers, and programmers who are interested in learning how to build robust middleware solutions for enterprise software will find this book useful. Prior knowledge of Java EE is essential