The Pi4j Project Home

The java projects book enables you to develop java applications using an easy and simple approac.The book is designed for the readers,who are familiar with java programming.The book provides numerous listings and figures for an affective understanding of java concepts.The book consists of a CD that includes source code for all the java applications. Table of contents: Chapter 1 Creating a calculator applications Chapter 2 Creating analog clock applications Chapter 3 Creating a 9-box puzzle game Chapter 4 Student information management system Chapter 5 Creating a text editor applications Chapter 6 Creating an online test applications Chapter 7 Creating a shopping cart applications Chapter 8 Share trading application Chapter 9 Online banking applications

Use Raspberry Pi with Java to create innovative devices that power the internet of things! Raspberry Pi with Java: Programming the Internet of Things (IoT) fills an important gap in knowledge between seasoned Java developers and embedded-hardware gurus, taking a project-based approach to skills development from which both hobbyists and professionals can learn. By starting with simple projects based on open-source libraries such as Pi4J, hobbyists can get immediate results without a significant investment in time or hardware. Later projects target simplified industrial use cases where professionals can start to apply their skills to practical problems in the fields of home automation, healthcare, and robotics. This progression prepares you to be an active participant in the IoT revolution that is reshaping our lives. For the hobbyist: Hardware used in projects is affordable and easily accessible Follows a project-based learning approach with a gradual learning curve Projects are based on open-source code repositories with commercial friendly licenses For the professional computer engineer: Uses an industry-standard platform that allows for high performance, secure, production-ready applications Introduces Java SE Embedded for large devices and Java ME Embedded for small devices Code is portable to a wide variety of ARM and MIPS based platforms Provides practical skill development with advanced projects in the fields of home automation, healthcare, and robotics

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

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems

their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

Monumental Java

Raspberry Pi with Java: Programming the Internet of Things (IoT) (Oracle Press)

Professional Java Tools for Extreme Programming

Exploring Java 9

Create a powerful Industrial IoT infrastructure using Industry 4.0

Build Modularized Applications in Java

"Monumental Java" by J. F. Scheltema is a book about monuments of Java's past. The author enriches the world with an exhaustive treatise on ancient Javanese architecture and sculpture. Excerpt: "Java's ancient monuments are eloquent evidence of that innate consciousness of something beyond earthly existence which moves men to propitiate the principle of life by sacrifice in temples as gloriously divine as mortal hand can raise. Fear, however, especially where Buddhism moulded their thought by contemplation intent upon absorption of self, entered little into the religion of the children of this pearl of islands." Build and program projects that tap into the Internet of Things (IoT) using Arduino, Raspberry Pi, and BeagleBone Black! This innovative guide gets you started right away working with the most popular processing platforms, wireless communication technologies, the Cloud, and a variety of sensors. You'll learn how to take advantage of the utility and versatility of the IoT and connect devices and systems to the Internet using sensors. Each project features a list of the tools and components, how-to explanations with photos and illustrations, and complete programming code. All projects can be modified and expanded, so you can build on your skills. The Internet of Things: DIY Projects with Arduino, Raspberry Pi, and BeagleBone Black Covers the basics of Java, C#, Python, JavaScript, and other programming languages used in the projects Shows you how to use IBM's Net Beans IDE and the Eclipse IDE Explains how to set up small-scale networks to connect the projects to the Internet Includes essential tips for setting up and using a MySQL database. The fun, DIY projects in the book include: Raspberry Pi home temperature measurements Raspberry Pi surveillance webcams Raspberry Pi home weather station Arduino garage door controller Arduino irrigation controller Arduino outdoor lighting controller Beaglebone message panel Beaglebone remote control SDR Machine-to-machine demonstration project

Learn how to build scalable, resilient, and effective applications in Java that suit your software requirements. Key Features Explore advanced technologies that Java 11 delivers such as web programming and parallel computing Discover modern programming paradigms such as microservices, cloud computing and enterprise structures Build highly responsive applications with this practical introduction to Reactive programming Book Description Java is one of the most commonly used software languages by programmers and developers. In this book, you'll learn the new features of Java 11 quickly and experience a simple and powerful approach to software development. You'll see how to use the Java runtime tools, understand the Java environment, and create a simple namesorting Java application. Further on, you'll learn about advanced technologies that Java delivers, such as web programming and parallel

computing, and will develop a mastermind game. Moving on, we provide more simple examples, to build a foundation before diving into some complex data structure problems that will solidify your Java 11 skills. With a special focus on the features of new projects: Project Valhalla, Project Panama, Project Amber, and Project Loom, this book will help you get employed as a top-notch Java developer. By the end of the book, you'll have a firm foundation to continue your journey toward becoming a professional Java developer. What you will learn Compile, package, and run a program using a build management tool Get to know the principles of test-driven development Separate the wiring of multiple modules from application logic Use Java annotations for configuration Master the scripting API built into the Java language Understand static versus dynamic implementation of code Who this book is for This book is for anyone who wants to learn the Java programming language. No programming experience required. If you have prior experience, it will help you through the book more easily.

Raspberry Pi 3 Projects for Java ProgrammersPackt Publishing Ltd

IBM Technology for Java Virtual Machine in IBM i5/OS

Practical Java Machine Learning

Java and Mac OS X

Simplicity and Power Beyond Java EE

Mastering Java

Eclipse Modeling Framework

Discover all the new features and changes in Java 9, including module systems—JPMS or Project Jigsaw. This book covers the whole Java application development life cycle. You'll review all the important concepts, including module descriptor, unnamed module, automatic module, and command line tools. Exploring Java 9 also serves as a practical guide for migration to module systems. Code samples from real-world scenarios solidify a foundation for learning and development and allow you to apply best practices in actual development. Additionally, you'll learn about concurrency, ECMAScript 6 features in Nashorn and Parser API, stack-walking API, Stream and Optional, utilities classes, and I/O. And it's now possible to build modularized applications in Java. You'll see how JPMS affects not only the JDK itself, but also applications that are developed upon it. What You'll Learn • Build modularized applications in Java • Migrate to module systems • Master enhanced method handles Who This Book Is ForJava developers with basic development skills

Summary Java's much-awaited "Project Jigsaw" is finally here! Java 11 includes a built-in modularity framework, and The Java Module System is your guide to discovering it. In this new book, you'll learn how the module system improves reliability and maintainability, and how it can be used to reduce tight coupling of system components. Foreword by Kevlin Henney. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. You'll find registration instructions inside the print book. About the Technology Packaging code into neat, well-defined units makes it easier to deliver safe and reliable applications. The Java Platform Module System is a language standard for creating these units. With modules, you can closely control how JARs interact and easily identify any missing dependencies at startup. This shift in design is so fundamental that starting with Java 9, all core Java APIs are distributed as modules, and libraries, frameworks, and applications will benefit from doing the same. About the Book The Java Module System is your in-depth guide to creating and using Java modules. With detailed examples and easy-to-understand diagrams, you'll learn the anatomy of a modular Java application. Along the way, you'll master best practices for designing with modules, debugging your modular app, and deploying to

production. What's inside The anatomy of a modular Java app Building modules from source to JAR Migrating to modular Java Decoupling dependencies and refining APIs Handling reflection and versioning Customizing runtime images Updated for Java 11 About the Reader Perfect for developers with some Java experience. About the Author Nicolai Parlog is a developer, author, speaker, and trainer. His home is codefx.org. Table of Contents PART 1 - Hello, modules First piece of the puzzle Anatomy of a modular application Defining modules and their properties Building modules from source to JAR Running and debugging modular applications PART 2 - Adapting real-world projects Compatibility challenges when moving to Java 9 or later Recurring challenges when running on Java 9 or later Incremental modularization of existing projects Migration and modularization strategies PART 3 - Advanced module system features Using services to decouple modules Refining dependencies and APIs Reflection in a modular world Module versions: What's possible and what's not Customizing runtime images with jlink Putting the pieces together

PROGRAMMING HOME PROJECTS WITH JAVA teaches Java GUI (Graphical User Interface) programming concepts and provides detailed step-by-step instructions in building many fun and useful projects. To grasp the concepts presented in PROGRAMMING HOME PROJECTS WITH JAVA, you should possess a working knowledge of programming with Java and be acquainted with using the Swing control library. Our tutorial LEARN JAVA GUI APPLICATIONS can help you gain this needed exposure. PROGRAMMING HOME PROJECTS WITH JAVA explains (in simple, easy-to-follow terms) how to build a Java GUI project. Students learn about project design, the Java Swing controls, many elements of the Java language, and how to distribute finished projects. The projects built include: Dual-Mode Stopwatch - Allows you to time tasks you may be doing. Consumer Loan Assistant - Helps you see just how much those credit cards will cost you. Flash Card Math Quiz - Lets you practice basic addition, subtraction, multiplication and division skills. Multiple Choice Exam - Quizzes a user on matching pairs of items, like countries/capitals, and words/meanings. Blackjack Card Game - Play the classic card game against the computer and learn why gambling is very risky. Weight Monitor - Track your weight each day and monitor your progress toward established goals. Home Inventory Manager - Helps you keep track of all your belongings - even includes photographs. Snowball Toss Game - Lets you throw snowballs at another player or against the computer. The tutorial includes over 850 pages of FULL-COLOR self-study notes. The Java source code and all needed multimedia files are available for download from the publisher's website: (www.KidwareSoftware.com) after book registration. PROGRAMMING HOME PROJECTS WITH JAVA requires a Microsoft Windows XP-SP2, Vista, or the Windows 7 operating system. You also need the Java Development Kit (a free download). This tutorial also uses JCreator(r) 5.0 as the IDE (Integrated Development Environment) for building and testing Java applications. "Programming Home Projects with Java guides students through building some fun, practical applications, while learning programming concepts and design flow. Students can extend and customize the project to make it their own, and share with friends - a great learning motivator " - Carly Orr, Computer Science Teacher, Vancouver B For too long, developers have worked on disorganized application projects, where every part seemed to have its own build system, and no common repository existed for information about the state of the project. Now there's help. The long-awaited official documentation to Maven is here. Written by Maven creator Jason Van Zyl and his team at Sonatype, Maven: The Definitive Guide clearly explains how this tool can bring order to your software development projects. Maven is largely replacing Ant as the build tool of choice for large open source Java projects because, unlike Ant, Maven is also a project management tool that can run reports, generate a project website, and facilitate communication among members of a working team. To use Maven, everything you need to know is in this guide. The first part demonstrates the tool's capabilities through the development, from ideation to deployment, of several sample

applications -- a simple software development project, a simple web application, a multi-module project, and a multi-module enterprise project. The second part offers a complete reference guide that includes: The POM and Project Relationships The Build Lifecycle Plugins Project website generation Advanced site generation Reporting Properties Build Profiles The Maven Repository Team Collaboration Writing Plugins IDEs such as Eclipse, IntelliJ, ands NetBeans Using and creating assemblies Developing with Maven Archetypes Several sources for Maven have appeared online for some time, but nothing served as an introduction and comprehensive reference guide to this tool -- until now. Maven: The Definitive Guide is the ideal book to help you manage development projects for software, web applications, and enterprise applications. And it comes straight from the source.

Java for Artists

An Effective Project Based Approach Including Web Development, Data Structures, GUI Programming and Object Oriented Programming (Beginner to Advanced)

Advanced Intelligent Computing Theories and Applications. With Aspects of Theoretical and Methodological Issues

Learn object-oriented programming and kickstart your career in software development

The Art, Philosophy, and Science of Object-oriented Programming

Hands-On Industrial Internet of Things

Build a strong and efficient IoT infrastructure at industrial and enterprise level by mastering Industrial IoT network Key FeaturesGain hands-on experience working with industrial architectureExplore the potential of cloud-based Industrial IoT platforms, analytics, and protocolsImprove business models and transform your workforce with Industry 4.0Book Description We live in an era where advanced automation is used to achieve accurate results. To set up an automation environment, you need to first configure a network that can be accessed anywhere and by any device. This book is a practical guide that helps you discover the technologies and use cases for Industrial Internet of Things (IIOT). Hands-On Industrial Internet of Things takes you through the implementation of industrial processes and specialized control devices and protocols. You'll study the process of identifying and connecting to different industrial data sources gathered from different sensors. Furthermore, you'll be able to connect these sensors to cloud network, such as AWS IoT, Azure IoT, Google IoT, and OEM IoT platforms, and extract data from the cloud to your devices. As you progress through the chapters, you'll gain hands-on experience in using open source Node-Red, Kafka, Cassandra, and Python. You will also learn how to develop streaming and batch-based Machine Learning algorithms. By the end of this book, you will have mastered the features of Industry 4.0 and be able to build stronger, faster, and more reliable IoT infrastructure in your Industry. What you will learnExplore industrial processes, devices, and protocolsDesign and implement the I-IoT network flowGather and transfer industrial data in a secure wayGet to grips with popular cloud-based platformsUnderstand diagnostic analytics to answer critical workforce

questionsDiscover the Edge device and understand Edge and Fog computingImplement equipment and process management to achieve business-specific goalsWho this book is for If you're an IoT architect, developer, or stakeholder working with architectural aspects of Industrial Internet of Things, this book is for you.

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

Apache Tomcat is the most popular open-source de-facto Java Web application server, standard for today's Web developers using JSP/Servlets. Apache Tomcat 7 covers details on installation and administration of Apache Tomcat 7. It explains key parts of the Tomcat architecture, and provides an introduction to Java Servlet and JSP APIs in the context of the Apache Tomcat server. In addition to basic concepts and administration tasks, Apache Tomcat 7 covers some of the most frequently used advanced features of Tomcat, including security, Apache web server integration, load balancing, and embedding Tomcat server in Java applications. Finally, through a practical primer, it shows how to integrate and use some of the most popular Java technologies with Apache Tomcat. In summary, Apache Tomcat 7 offers both novice and intermediate Apache Tomcat users a practical and comprehensive guide to this powerful software.

While other books only touch on the subject, this book is designed to provide in-depth guidance so that the reader can become a java master. There are lots of examples as this book guides the reader from a beginner to advanced level. The reader will learn: Chapter 1: Java

Basics Chapter 2: Java Data Structures and Algorithms Chapter 3: Java Web Development Chapter 4: Java GUI Programming Chapter 5: Object-Oriented Programming Chapter 6: Java Interview Questions
Maven: The Definitive Guide
Learn the fundamentals of Java 11 programming by building industry grade practical projects, 2nd Edition
Hands-On Enterprise Java Microservices with Eclipse MicroProfile
Jewels from Java Report
Architecting and Developing Secure Web Services Using Java
JAVA SWING PROJECT(student information system)

This is desktop application implemented in core java(swing)as a front end and database handled in mysql database server. using this application new java programmer can understands how to develop project and how it works. In this project we can insert new data into database,update existing data according to the need,search,delete,..etc operation very easily. It is 1OO% useful project for guidance in project developments.

InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

JBoss Seam is an exciting new application framework based on the Java EE platform that is used to build rich, web-based business applications. Seam is rapidly capturing the interest of Java enterprise developers because of its focus on simplicity, ease of use, transparent integration, and scalability. Seam in Action offers a practical and in-depth look at JBoss Seam. The book puts Seam head-to-head with the complexities in the Java EE architecture. The author presents an unbiased view of Seam from outside the walls of RedHat/JBoss, focusing on such topics as Spring integration and deployment to alternative application servers to steer clear of vendor lock-in. By the end of the book, you should expect to not only gain a deep understanding of Seam, but also come away with the confidence to teach the material to others. To start off, you will see a working Java EE-compliant application come together by the end of the second chapter. As you progress through the book, you will discover how Seam eliminates unnecessary layers and configurations, solves the most common JSF pain points, and establishes the missing link between JSF, EJB 3 and JavaBean components. The author also shows you how Seam opens doors for you to incorporate technologies you previously have not had time to learn, such as business processes and stateful page flows (jBPM), Ajax remoting, PDF generation, asynchronous tasks, and more. All too often, developers spend a majority of their time integrating disparate technologies, manually tracking state, struggling to

understand JSF, wrestling with Hibernate exceptions, and constantly redeploying applications, rather than on the logic pertaining to the business at hand. Seam in Action dives deep into thorough explanations of how Seam eliminates these non-core tasks by leveraging configuration by exception, Java 5 annotations, and aspect-oriented programming. 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. The International Conference on Intelligent Computing (ICIC) was formed to p- vide an annual forum dedicated to the emerging and challenging topics in artificial intelligence, machine learning, bioinformatics, and computational biology, etc. It aims to bring together researchers and practitioners from both academia and ind- try to share ideas, problems and solutions related to the multifaceted aspects of intelligent computing. ICIC 2008, held in Shanghai, China, September 15–18, 2008, constituted the 4th International Conference on Intelligent Computing. It built upon the success of ICIC 2007, ICIC 2006 and ICIC 2005 held in Qingdao, Kunming and Hefei, China, 2007, 2006 and 2005, respectively. This year, the conference concentrated mainly on the theories and methodologies as well as the emerging applications of intelligent computing. Its aim was to unify the picture of contemporary intelligent computing techniques as an integral concept that highlights the trends in advanced computational intelligence and bridges theoretical research with applications. Therefore, the theme for this conference was "Emerging Intelligent Computing Technology and Applications". Papers focusing on this theme were solicited, addressing theories, methodologies, and applications in science and technology. Build and optimize your microservice architecture with Java EMF Projects with Google Cloud Platform and Amazon Web Services Fourth International Conference on Intelligent Computing, ICIC 2008 Shanghai, China, September 15-18, 2008 Proceedings Programming Home Projects with Java Developing Java Web Services

How to use UML to model Enterprise JavaBeans, Swing components, CORBA, and other popular technologies Enterprise Java with UML is the first comprehensive guide on using UML (Unified Modeling Language) to model Java applications. Written by three well-known members of the UML and Java community, the book presents strategies for developing enterprise systems using Java and related technologies -- XML, Servlets, Enterprise JavaBeans, Swing Components, CORBA, RMI, and others. The authors explain how UML is used as a modeling tool for object-oriented computer systems in the real world, break down common situations that development teams encounter, and discuss the tradeoffs of using different technologies in different combinations. They also explore different products, looking closely at their strengths

and weaknesses. Four in-depth studies complete the presentation, showing readers how to make the right decision for their project through examples of both successes and failures.

Covers today's most important aspects of Java development.

The new third edition of this highly regarded introduction to Java networking programming has been thoroughly revised to cover all of the 100+ significant updates to Java Developers Kit (JDK) 1.5. It is a clear, complete introduction to developing network programs (both applets and applications) using Java, covering everything from networking fundamentals to remote method invocation (RMI).Java Network Programming, 3rd Edition includes chapters on TCP and UDP sockets, multicasting protocol and content handlers, servlets, multithreaded network programming, I/O, HTML parsing and display, the Java Mail API, and the Java Secure Sockets Extension. There's also significant information on the New I/O API that was developed in large part because of the needs of network programmers.This invaluable book is a complete, single source guide to writing sophisticated network applications. Packed with useful examples, it is the essential resource for any serious Java developer.

A new edition of this title is available, ISBN-10: 0137129394 ISBN-13: 9780137129393 Discover JBoss Seam: the Unified Framework for Simpler, More Powerful Web Development JBoss Seam integrates EJB 3.0 and JSF components under a unified framework that simplifies and accelerates Java EE web development. Now, JBoss Seam's project leader and technology evangelist take you inside this powerful new technology, showing exactly how to put it to work. Michael Yuan and Thomas Heute show how JBoss Seam enables you to create web applications that would have been difficult or impossible with previous Java frameworks. Through hands-on examples and a complete case study application, you'll learn how to leverage JBoss Seam's breakthrough state management capabilities; integrate business processes and rules; use AJAX with Seam; and deploy your application into production, one step at a time. Coverage includes How JBoss Seam builds on–and goes beyond–the Java EE platform • Using the "Stateful Framework": conversations, workspaces, concurrent conversations, and transactions • Integrating the web and data components: validation, clickable data tables, and bookmarkable web pages • Creating AJAX and custom UI components, enabling AJAX for existing JSF components, and JavaScript integration via Seam Remoting • Managing business processes, defining stateful pageflows, and implementing rule-based security • Testing and optimizing JBoss Seam applications • Deploying in diverse environments: with Tomcat, with production databases, in clusters, without EJB 3, and more

Seam in Action
Apache Tomcat 7
Java Power Tools
Ant, XDoclet, JUnit, Cactus, and Maven
The Definitive Guide
Languages and Compilers for Parallel Computing

EMF: Eclipse Modeling Framework Dave Steinberg Frank Budinsky Marcelo Paternostro Ed Merks Series Editors: Erich Gamma • Lee Nackman • John Wiegand The Authoritative Guide to EMF Modeling and Code Generation The Eclipse Modeling Framework enables developers to rapidly construct robust applications based on surprisingly simple models in this thoroughly revised Second Edition, the project's developers offer expert guidance insight, and examples for solving real-world problems with EMF, accelerating development processes, and improving software quality. This edition contains more than 40% new

material, plus updates throughout to make it even more useful and practical. The auth
illuminate the key concepts and techniques of EMF modeling, analyze EMF's most impo
framework classes and generator patterns, guide you through choosing optimal design
introduce powerful framework customizations and programming techniques. Coverage
includes • Defining models with Java, UML, XML Schema, and Ecore • NEW: Using
extended Ecore modeling to fully unify XML with UML and Java • Generating high-quali
code to implement models and editors • Understanding and customizing generated cod
Complete documentation of @model Javadoc tags, generator model properties, and res
save and load options • NEW: Leveraging the latest EMF features, including extended
metadata, feature maps, EStore, cross-reference adapters, copiers, and content types
Chapters on change recording, validation, and utilizing EMF in stand-alone and Eclipse
applications • NEW: Modeling generics with Ecore and generating Java 5 code About th
Authors Dave Steinberg is a software developer in IBM Software Group. He has worke
Eclipse and modeling technologies since joining the company, and has been a committe
the EMF project since its debut in 2002. Frank Budinsky, a senior architect in IBM Sof
Group, is an original coinventor of EMF and a founding member of the EMF project at
Eclipse. He is currently cochair of the Service Data Objects (SDO) specification technic
committee at OASIS and lead SDO architect for IBM. Marcelo Paternostro is a softwar
architect and engineer in IBM Software Group. He is an EMF committer and has been a
active contributor to several other Eclipse projects. Before joining IBM, Marcelo mana
designed, and implemented numerous projects using Rational's tools and processes. Ed
is the project lead of EMF and a colead of the top-level Modeling project at Eclipse. He
a Ph.D. in Computing Science and has many years of in-depth experience in the design
implementation of languages, frameworks, and application development environments.
works as a software consultant in partnership with itemis AG.
Publisher's Note: Products purchased from Third Party sellers are not guaranteed by th
publisher for quality, authenticity, or access to any online entitlements included with t
product. Use Raspberry Pi with Java to create innovative devices that power the inter
things! Raspberry Pi with Java: Programming the Internet of Things (IoT) fills an import
gap in knowledge between seasoned Java developers and embedded-hardware gurus, t
project-based approach to skills development from which both hobbyists and professio
can learn. By starting with simple projects based on open-source libraries such as Pi4J
hobbyists can get immediate results without a significant investment in time or hardw
Later projects target simplified industrial use cases where professionals can start to a
their skills to practical problems in the fields of home automation, healthcare, and rob
This progression prepares you to be an active participant in the IoT revolution that is
reshaping our lives. For the hobbyist: Hardware used in projects is affordable and easil
accessible Follows a project-based learning approach with a gradual learning curve Pro
are based on open-source code repositories with commercial friendly licenses For the
professional computer engineer: Uses an industry-standard platform that allows for hig
performance, secure, production-ready applications Introduces Java SE Embedded for la
devices and Java ME Embedded for small devices Code is portable to a wide variety of
and MIPS based platforms Provides practical skill development with advanced projects
fields of home automation, healthcare, and robotics
This IBM Redbooks publication gives a broad understanding of a new 32-bit Java Virtua
Machine (JVM) in IBM i5/OS. With the arrival of this new JVM, IBM System i platform

comfortably supports Java and WebSphere applications on a wide array of different se
models: from entry size boxes to the huge enterprise systems. This book provides in-d
information about setting Java and IBM WebSphere environments with new 32-bit JVM
tuning its performance, and monitoring or troubleshooting its runtime with the new se
tools. Information in this book helps system architects, Java application developers, an
system administrators in their work with 32-bit JVM in i5/OS. Important: Despite the
this book targets i5/OS implementation, most information in this book applies to all IB
server platforms, where the new 32-bit JVM is supported.
Learn the art of building enticing projects by unleashing the potential of Raspberry Pi
Java About This Book Explore the small yet powerful mini computer in order to run java
applications Leverage Java libraries to build exciting projects on home automation, IoT,
Robotics by leveraging Java libraries Get acquainted with connecting electronic sensor
your Raspberry Pi 3 using Java APIs. Who This Book Is For The book is aimed at Java
programmers who are eager to get their hands-on Raspberry Pi and build interesting p
using java. They have a very basic knowledge of Raspberry Pi. What You Will Learn Use
presence detection using the integrated bluetooth chip Automatic light switch using p
detection Use a centralized IoT service to publish data using RPC Control a robot by dr
motors using PWM Create a small web service capable of performing actions on the
Raspberry Pi and supply readings Image capture using Java together with the OpenCV
framework In Detail Raspberry Pi is a small, low cost and yet very powerful developme
platform. It is used to interact with attached electronics by the use of it's GPIO pins f
multiple use cases, mainly Home Automation and Robotics. Our book is a project-based
that will show you how to utilize the Raspberry Pi's GPIO with Java and how you can
leverage this utilization with your knowledge of Java. You will start with installing and
up the necessary hardware to create a seamless development platform. You will then
straightaway start by building a project that will utilize light for presence detection. N
will program the application, capable of handling real time data using MQTT and utilize
to publish data to adafruit.io. Further, you will build a wireless robot on top of the zum
chassis with the Raspberry Pi as the main controller. Lastly, you will end the book with
advanced projects that will help you to create a multi-purpose IoT controller along wit
building a security camera that will perform image capture and recognize faces with th
of notifications. By the end of the book, you will be able to build your own real world u
projects not limited to Home Automation, IoT and/or Robotics utilizing logic, user and v
interfaces. Style and approach The book will contain projects that ensure a java progra
gets started with building interesting projects using the small yet powerful Raspberry
will start with brushing up your Raspberry Pi skills followed by building 5-6 projects
Java Cookbook
JBoss Seam
Enterprise Java with UML
The The Java Workshop
Making Java Groovy
Integrating and Extending BIRT
Explore the new way of building and maintaining test cases with Java test driven
development (TDD) using JUnit 5. This book doesn't just talk about the new
concepts, it shows you ways of applying them in TDD and Java 8 to continuously
deliver code that excels in all metrics. Unit testing and test driven development

have now become part of every developer's skill set. For Java developers, the most popular testing tool has been JUnit, and JUnit 5 is built using the latest features of Java. With Java Unit Testing with JUnit 5, you'll master these new features, including method parameters, extensions, assertions and assumptions, and dynamic tests. You'll also see how to write clean tests with less code. This book is a departure from using older practices and presents new ways of performing tests, building assertions, and injecting dependencies. What You Will Learn Write tests the JUnit 5 way Run your tests from within your IDE Integrate tests with your build and static analysis tools Migrate from JUnit 4 to JUnit 5 Who This Book Is For Java developers both with and without any prior unit testing experience.

The official Eclipse Series programmer's guide to integrating and extending BIRT, by its creators at Actuate: fully updated for BIRT 2.6 • •Shows how to develop custom reports in Java using BIRT's APIs. •Fully explains all org.eclipse.birt package classes. •The complete programmer and reporting professional's companion to THE BIRT Field Guide: the definitive technical resource for a worldwide community of users that has downloaded 10 million copies of BIRT. The second of a two-book series on business intelligence and reporting technology, Integrating and Extending BIRT, Third Edition thoroughly introduces BIRT 2.6's architecture, reporting framework, and most powerful improvements. The authors - all members of BIRT's extended development team at Actuate - demonstrate how to create powerful customized reports using scripting and the latest BIRT APIs. Then, using many downloadable code examples, they also demonstrate how to extend the BIRT Framework with new plug-ins built using the Eclipse Plug-in Development Environment. Writing for programmers and experienced report developers, they cover all facets of BIRT integration and extensibility, including: • •Deploying BIRT reports to an application server. •Understanding BIRT architecture. •Utilizing scripting in BIRT report designs. •Making the most of the org.eclipse.birt package classes. •Integrating BIRT functionality into applications. •Working with the BIRT Extension Framework

Build machine learning (ML) solutions for Java development. This book shows you that when designing ML apps, data is the key driver and must be considered throughout all phases of the project life cycle. Practical Java Machine Learning helps you understand the importance of data and how to organize it for use within your ML project. You will be introduced to tools which can help you identify and manage your data including JSON, visualization, NoSQL databases, and cloud platforms including Google Cloud Platform and Amazon Web Services. Practical Java Machine Learning includes multiple projects, with particular focus on the Android mobile platform and features such as sensors, camera, and connectivity, each of which produce data that can power unique machine learning solutions. You will learn to build a variety of applications that demonstrate the capabilities of the Google Cloud Platform machine learning API, including data visualization for Java; document classification using the Weka ML environment; audio file classification for Android using ML with spectrogram voice data; and machine learning using device sensor data. After reading this book, you will come away with case study examples and projects that you can take away as templates for re-use and exploration for your own machine learning programming projects with Java. What You Will LearnIdentify, organize, and architect the data required for ML projects Deploy ML solutions in conjunction with cloud providers such as Google and Amazon Determine which algorithm is the most appropriate for a

specific ML problem Implement Java ML solutions on Android mobile devices Create Java ML solutions to work with sensor data Build Java streaming based solutionsWho This Book Is For Experienced Java developers who have not implemented machine learning techniques before.

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.

Network World

Building Web Apps with Spring 5 and Angular

Test Driven Development with JUnit 5

The Internet of Things: Do-It-Yourself at Home Projects for Arduino, Raspberry Pi and BeagleBone Black

Solutions and Examples for Java Developers

InfoWorld

A complete guide to build robust and scalable web applications with Spring and Angular. About This Book This hands on guide will teach you how to build an end-to-end modern web application using Spring and Angular. It is easy to read and will benefit Java developers who have been used to develop the back-end part of web application while front-end (UI) has been left for UI developers. Learn the core aspects involved in developing the backend and the UI, right from designing to integrating and deploying. Who This Book Is For This book is targeted towards Java Web Developers with a basic knowledge of Spring who want to build complete web applications in a fast and effective way. They will want to gain a stronghold on both frontend and backend development to advance in their careers. What You Will Learn Set up development environment for Spring Web App and Angular app. Process web request and response and build REST API endpoints. Create data access components using Spring Web MVC framework and Hibernate Use Junit 5 to test your application Learn the fundamental concepts around building Angular Configure and use Routes and Components. Protect Angular app content from common web vulnerabilities and attacks. Integrate Angular apps with Spring Boot Web API endpoints Deploy the web application based on CI and CD using Jenkins and Docker containers In Detail Spring is the most popular application development framework being adopted by millions of developers around the world to create high performing, easily testable, reusable code. Its lightweight nature and extensibility helps you write robust and highly-scalable server-side web applications. Coupled with the power and efficiency of Angular, creating web applications has never been easier. If you want build end-to-end modern

web application using Spring and Angular, then this book is for you. The book directly heads to show you how to create the backend with Spring, showing you how to configure the Spring MVC and handle Web requests. It will take you through the key aspects such as building REST API endpoints, using Hibernate, working with Junit 5 etc. Once you have secured and tested the backend, we will go ahead and start working on the front end with Angular. You will learn about fundamentals of Angular and Typescript and create an SPA using components, routing etc. Finally, you will see how to integrate both the applications with REST protocol and deploy the application using tools such as Jenkins and Docker. Style and approach This is a straightforward guide that shows how to build a complete web application in Angular and Spring.

Java For Artists: The Art, Philosophy, and Science of Object-Oriented Programming is a Java programming language text/tradebook that targets beginner and intermediate Java programmers.

This Java book will guide you through Java development and help you build the knowledge and confidence to progress from the basics to become a skilled Java developer. All the key tools that you'll need to solve real-world problems are clearly explained and demonstrated with engaging, practical examples.

Professional Java Tools for Extreme Programming is a practical, code-intensive guide to the tools that Enterprise Java developers need when using Extreme Programming (XP) methods. It covers the key tools used to automate the most complex parts of the XP process: application integration, testing, and deployment.

The Java Module System

Java Gems
Java Projects
Java Network Programming
Raspberry Pi 3 Projects for Java Programmers
An effective guide to designing, building, and deploying enterprise Java microservices with Eclipse MicroProfile Key FeaturesCreate cloud-native microservices with ease using this detailed guideAvoid vendor lock-in when implementing microservices using Eclipse MicroProfileDiscover why MicroProfile is a great specification for building microservices

in multi-cloud environmentsBook Description Eclipse MicroProfile has gained momentum in the industry as a multi-vendor, interoperable, community-driven specification. It is a major disruptor that allows organizations with large investments in enterprise Java to move to microservices without spending a lot on retraining their workforce. This book is based on MicroProfile 2.2, however, it will guide you in running your applications in MicroProfile 3.0. You'll start by understanding why microservices are important in the digital economy and how MicroProfile addresses the need for enterprise Java microservices. You'll learn about the subprojects that make up a MicroProfile, its value proposition to organizations and developers, and its processes and governance. As you advance, the book takes you through the capabilities and code examples of MicroProfile's subprojects – Config, Fault Tolerance, Health Check, JWT Propagation, Metrics, and OpenTracing. Finally, you'll be guided in developing a conference application using Eclipse MicroProfile, and explore possible scenarios of what's next in MicroProfile with Jakarta EE. By the end of this book, you'll have gained a clear understanding of Eclipse MicroProfile and its role in enterprise Java microservices. What you will learnUnderstand why microservices are important in the digital economyAnalyze how MicroProfile addresses the need for enterprise Java microservicesTest and secure your applications with Eclipse MicroProfileGet to grips with various MicroProfile capabilities such as OpenAPI and Typesafe REST ClientExplore reactive programming with MicroProfile Stream and Messaging candidate APIsDiscover and implement coding best practices using MicroProfileWho this book is for If you're a Java developer who wants to create enterprise microservices, this book is for you. Familiarity with Java EE and the concept of microservices will help you get the most out of this book.
Java Unit Testing with JUnit 5