

## Advanced Java Networking

This book completes the Apress Java learning journey and is a comprehensive approach to learning Java APIs, extensions, and modules such as Java EE integration, mobile Java modules, JavaFX, and JDBC. In this book, you'll learn how to build user interfaces with Swing and JavaFX as well as how to write network programs with the new Java 9 and much more. Java APIs, Extensions and Libraries is for Java programmers who are familiar with the fundamentals of the Java language and Java programming, who are now ready to call upon the power of extended Java functionality available from the huge array of Java APIs, extensions, and libraries. After reading and learning from this book you'll be ready to become a professional Java programmer. What You'll Learn Extend your Java skills beyond the fundamental object-oriented concepts and core language features Apply Java Swing for building Java front ends Get started with Java network programming Connect to databases and access data from Java programs using the JDBC API Work with JavaFX, RMI (Remote Method Invocation), and JNI (Java Native Interface) Use the new scripting features of Java Who This Book Is For Java programmers who are familiar with the fundamentals of the Java language and Java programming.

The increasing popularity of the Internet has resulted in the majority of today's programming tasks and applications involving some form of networking. Almost every programming language provides some networking facilities. However, unlike other programming languages, Java had support for network programming built into it right from the start. Java, therefore, allows you to develop powerful network applications with exceptional ease. This book introduces you to the world of Java network programming and takes you far inside it. The chapters of this book are grouped in five sections. The first section looks at network basics. Java networking preliminaries are then covered in the following section. The third section explores classes that are provided by Java to handle a variety of network tasks. Java API's that are used for distributed network programming are covered in section four. The fifth and final section investigates new networking features and improvements offered by JDK 1.4. Who is this book for? Familiarity with networking is not needed for reading this book, but a working knowledge of Java is required. The book, however, does cover core Java classes that are relevant to networking. Both the beginner and the more advanced programmer, therefore, should benefit from this book. By the end of the book, you will have acquired a deep understanding of various network concepts and protocols and developed extensive knowledge of Java APIs that you can use to develop sophisticated network applications. What does this book cover? Networking in JDK 1.3 and 1.4; Network Basics; Java I/O, Threads; Java security model, JCA, JAAS, JCE and JSSE; TCP, UDP Multicasting; Java URL handler architecture; Serialization, RMI, CORBA; Servlets, JavaMail, JMS.

This book is designed to introduce object-oriented programming (OOP) in C++ and Java, and is divided into four areas of coverage: Preliminaries: Explains the basic features of C, C++, and Java such as data types, operators, control structures, storage classes, and array structures. Part I : Covers classes, objects, data abstraction, function overloading, information hiding, memory management, inheritance, binding, polymorphism, class template using working illustrations based on simple concepts. Part II : Discusses all the paradigms of Java programming with ready-to-use programs. Part III : Contains eight Java packages with their full structures. The book offers straightforward explanations of the concepts of OOP and discusses the use of C++ and Java in OOP through small but effective illustrations. It is ideally suited for undergraduate/postgraduate courses in computer science. The IT professionals should also find the book useful.

Advanced Java NetworkingPrentice Hall

This book provides a solid overview of mobile phone programming for readers in both academia and industry. Coverage includes all commercial realizations of the Symbian, Windows Mobile and Linux platforms. The text introduces each programming language (JAVA, Python, C/C++) and offers a set of development environments "step by step," to help familiarize developers with limitations, pitfalls, and challenges.

Intended for those professionals with previous programming experience, this text introduces the fundamentals of Java with an emphasis on design. The Unified Modelling Language (UML) coverage lets instructors present object-oriented concepts in a graphical form. On its own, C# simplifies network programming. Combine it with the precise instruction found in C# Network Programming, and you'll find that building network applications is easier and quicker than ever. This book helps newcomers get started with a look at the basics of network programming as they relate to C#, including the language's network classes, the Winsock interface, and DNS resolution. Spend as much time here as you need, then dig into the core topics of the network layer. You'll learn to make socket connections via TCP and "connectionless" connections via UDP. You'll also discover just how much help C# gives you with some of your toughest chores, such as asynchronous socket programming, multithreading, and multicasting. Network-layer techniques are just a means to an end, of course, and so this book keeps going, providing a series of detailed application-layer programming examples that show you how to work with real protocols and real network environments to build and implement a variety of applications. Use SNMP to manage network devices, SMTP to communicate with remote mail servers, and HTTP to Web-enable your applications. And use classes native to C# to query and modify Active Directory entries. Rounding it all out is plenty of advanced coverage to push your C# network programming skills to the limit. For example, you'll learn two ways to share application methods across the network: using Web services and remoting. You'll also master the security features intrinsic to C# and .NET--features that stand to benefit all of your programming projects.

An insider's guide to writing Java-powered Web pages with JavaStudio, this book shows how without writing a single line of code. The hands-on format can be used as both a tutorial and reference, depending on the experience level. The CD-ROM contains a full, working 30-day "try and buy" version of JavaStudio.

The #1 Guide to Advanced Java Programming, Fully Updated for Java 11 Core Java has long been recognized as the leading, no-nonsense tutorial and reference for experienced programmers who want to write robust Java code for real-world applications. Now, Core Java, Volume II—Advanced Features, Eleventh Edition, has been updated for Java 11, with up-to-date coverage of advanced UI and enterprise programming, networking, security, and Java's powerful new module system. Cay S. Horstmann explores sophisticated new language and library features with the depth and completeness that readers expect from Core Java. He demonstrates how to use these features to build professional-quality applications, using thoroughly tested examples that reflect modern Java style and best practices, including modularization. Horstmann's examples are carefully crafted for easy understanding and maximum practical value, so you can consistently use them to jump-start your own code. Master advanced techniques, idioms, and best practices for writing superior Java code Take full advantage of modern Java I/O APIs, object serialization, and regular expressions Efficiently connect to network services, implement network clients and servers, and harvest web data Query databases

and manage database connections with the latest version of JDBC Simplify all aspects of date and time programming with the Java Date and Time API Write internationalized programs that localize dates, times, numbers, text, and GUIs Process code in three powerful ways: the scripting API, compiler API, and annotation processing Learn how to migrate legacy code to the Java Platform Module System Leverage the modern Java security features most valuable to application programmers Program advanced client-side user interfaces, and generate images on the server Use JNI to interoperate with native C code See Core Java, Volume I—Fundamentals, Eleventh Edition (ISBN-13:

978-0-13-516630-7), for expert coverage of fundamental Java and UI programming, including objects, generics, collections, lambda expressions, Swing design, concurrency, and functional programming. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details. Introduction | Object Oriented Programming | Programming Methods | Control Statement | Looping Statements | Scanning Methods | Program Method | Arrays | String Operation | Object Based Programming | Object Oriented Programming | Exception Handling | Threading | File Operation | Simple Gui | Event Handling Methods | Advanced Gui | Java Graphics | Two Dimensional Drawing & Transformations | Three Dimensional Viewing& Trans Formations | Computer Aided Design | Animation | Javadatabase Connectivity | Networking | E-Commerce | Advanced Software Technology | Projects In Java | Subjective Questions| Bibliography | Index

Explains how to implement and maintain JavaBeans, covering event listeners and adapters, object validation, property editors and customizers, and using JavaBeans in Visual Basic programs

The author of the best-selling Java in a Nutshell has created an entire book of real-world Java programming examples that you can learn from. If you learn best "by example," this is the book for you. This third edition covers Java 1.4 and contains 193 complete, practical examples: over 21,900 lines of densely commented, professionally written Java code, covering 20 distinct client-side and server-side APIs. It includes new chapters on the Java Sound API and the New I/O API. The chapters on XML and servlets have been rewritten to cover the latest versions of the specifications and to demonstrate best practices for Java 1.4. New and updated examples throughout the book demonstrate many other new Java features and APIs. Java Examples in a Nutshell is a companion volume to Java in a Nutshell, Java Foundation Classes in a Nutshell, and Java Enterprise in a Nutshell. It picks up where those quick references leave off, providing a wealth of examples for both novices and experts. This book doesn't hold your hand; it simply delivers well-commented working examples with succinct explanations to help you learn and explore Java and its APIs. Java Examples in a Nutshell contains examples that demonstrate: Core APIs, including I/O, New I/O, threads, networking, security, serialization, and reflection Desktop APIs, highlighting Swing GUIs, Java 2D graphics, preferences, printing, drag-and-

drop, JavaBeans, applets, and sound Enterprise APIs, including JDBC (database access), JAXP (XML parsing and transformation), Servlets 2.4, JSP 2.0 (JavaServer Pages), and RMI The book begins with introductory examples demonstrating structured and object-oriented programming techniques for new Java programmers. A special index at the end of the book makes it easy to look up examples that use a particular Java class or accomplish a desired task. In between, each chapter includes exercises that challenge readers and suggest further avenues for exploration. Most Internet applications use sockets to implement network communication protocols. TCP/IP Sockets in Java: Practical Guide for Programmers, with its focused, tutorial-based coverage, helps you master the tasks and techniques essential to virtually all client-server projects using sockets in Java. Later chapters teach you to implement more specialized functionality; incisive discussions of programming constructs and protocol implementations equip you with a deeper understanding that is invaluable for meeting future challenges. No other resource presents so concisely or so effectively the exact material you need to get up and running with Java sockets programming right away. For those who program using the C language, be sure to check out this book's companion, TCP/IP Sockets in C: Practical Guide for Programmers. For example code from the text, sample programming exercises, Powerpoint slides, and more, click on the grey "Companion Site" button to the right. \*Concise, no-nonsense explanations of issues often troublesome for students, including message construction and parsing, underlying mechanisms and Java I/O \*Comprehensive example-based coverage of the most important TCP/IP techniques-including iterative and threaded servers, timeouts and asynchronous message processing \*Includes a detailed, easy-to-use reference to the relevant JAVA class libraries \*A companion Web site provides online code for all the example programs given in the book \*Provides a guide to common errors and a reference offering detailed documentation of the sockets interface \*Perfect for a practitioner who may even want just to "look into" this technology. \*Provides tutorial-based instruction in key sockets programming techniques, focusing exclusively on Jva and complemented by example code. \*Covers challenging sockets programming issues: message construction and parsing, underlying TCP/IP protocol mechanisms, Java I/O, iterate and threaded servers, and timeouts. \*Includes references to the relevant Java class libraries that often go beyond the "official" Java documentation in clarity and explanation. \*Provides code for all example programs, along with additional exercises, via companion Web site. This book brings for you all of knowledge you need to start multi-thread, FILE IO programming from basic to advance by JAVA language. Just by 19 LESSONS, you can analysis easily a game include: - Creating a new Thread - Thread Scheduling and Priority - Multithreading issues in Swing Applications - Thread Pool, Executor, Callable/Future - Avoid deadLock and how to make data synchronization - File and Directory - File I/O Basic to Advance There are many examples & case studies for the practice of programming. Let's enjoy it!

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Fully updated to reflect Java SE 7 language changes, *Advance Java®*, Volume II—Advanced Features, Fifteenth Best Selling Edition, is the definitive guide to Java's most powerful features for enterprise and desktop application development. "I was fortunate indeed to have worked with a fantastic team on the design and implementation of the concurrency features added to the Java platform in Java 5.0 and Java 6. Now this same team provides the best explanation yet of these new features, and of concurrency in general. Concurrency is no longer a subject for advanced users only. Every Java developer should read this book." --Martin Buchholz JDK Concurrency Czar, Sun Microsystems "For the past 30 years, computer performance has been driven by Moore's Law; from now on, it will be driven by Amdahl's Law. Writing code that effectively exploits multiple processors can be very challenging. *Java Concurrency in Practice* provides you with the concepts and techniques needed to write safe and scalable Java programs for today's--and tomorrow's--systems." --Doron Rajwan Research Scientist, Intel Corp "This is the book you need if you're writing--or designing, or debugging, or maintaining, or contemplating--multithreaded Java programs. If you've ever had to synchronize a method and you weren't sure why, you owe it to yourself and your users to read this book, cover to cover." --Ted Neward Author of *Effective Enterprise Java* "Brian addresses the fundamental issues and complexities of

concurrency with uncommon clarity. This book is a must-read for anyone who uses threads and cares about performance." --Kirk Pepperdine CTO, JavaPerformanceTuning.com "This book covers a very deep and subtle topic in a very clear and concise way, making it the perfect Java Concurrency reference manual. Each page is filled with the problems (and solutions!) that programmers struggle with every day. Effectively exploiting concurrency is becoming more and more important now that Moore's Law is delivering more cores but not faster cores, and this book will show you how to do it." --Dr. Cliff Click Senior Software Engineer, Azul Systems "I have a strong interest in concurrency, and have probably written more thread deadlocks and made more synchronization mistakes than most programmers. Brian's book is the most readable on the topic of threading and concurrency in Java, and deals with this difficult subject with a wonderful hands-on approach. This is a book I am recommending to all my readers of The Java Specialists' Newsletter, because it is interesting, useful, and relevant to the problems facing Java developers today." --Dr. Heinz Kabutz The Java Specialists' Designed for serious programmers, this reliable, unbiased, no-nonsense tutorial illuminates advanced Java language and library features with thoroughly tested code examples. As in previous editions, all code is easy to understand and displays modern best-practice solutions to the realworld challenges faced by professional developers. Volume II quickly brings you up-to-speed on key Java SE 7 enhancements, ranging from the new file I/O API to improved concurrency utilities. All code examples are updated to reflect these enhancements. Complete descriptions of new language and platform features are highlighted and integrated with insightful explanations of advanced Java programming techniques. You'll learn all you need to build robust production software with Streams, files, and regular expressions XML Networking Database programming facilities JNDI/LDAP directory integration Internationalization Advanced Swing techniques JavaBeans components Web services Advanced platform security features Annotations Distributed objects Native methods, and more For detailed coverage of fundamental Java SE 7 features, including objects, classes, inheritance, interfaces, reflection, events, exceptions, graphics, Swing, generics, collections, concurrency, and debugging,

This book is a one time reference and a solid introduction, written from the programmer s point of view that contains hundreds of examples covering every aspect of Java 6. It helps you master the entire spectrum of Java 6 from Generics to Security enhancements; from new applet deployment enhancements to Networking; from Servlets to XML; from Sound and Animation to database handling; from Java Naming from Internationalization to Dynamic Scripting and Groovy and much more.

"You're a junior developer with a couple of years of Java under your belt and you've hit the Java wall of mystery. The knowledge blocker where complex concepts like concurrency and network programming or generics and collections leave you baffled and unable to proceed. In

this video, Java wizard Ken Kousen de-mystifies all to transport you to a smarter place. A place where your newfound Java skills work magic into the day-to-day practices of database programming, network programming and back-end web development. Spells uncovered include: generic programming, concurrency, interfaces, inheritance, objects, the new I/O packages, working with relational databases, networking, testing, inner classes, and the new features of Java 8. Put on your cape and zoom."--Resource description page.

A practical handbook for computer network administrators focusing on routers, which connect the various pieces of a network. The text discusses everyday issues such as selecting routing protocols and configuring them to handle most common situations.

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Advanced Java is the next advanced level concept of Java programming. ... The advanced java programming covers the Swings, Socket Programming, AWT, Thread Concepts as well as the Collection objects and classes. "Advanced Java" is nothing but specialization in domains such as web, networking, data base handling In this section you will find the Java topics that should be part of Advanced Java study course. We have extensive collection of Advance Java online course materials. The links to these Advance Java Tutorials are provided for easy reference. You can easily locate the topics of your interest by just clicking on the link provided. This Advanced Java book increases the advance java skills and helps the programmers to better utilize the advance features of Java technology. After learning our Advance Java Tutorials you will be able to apply the advance concepts to develop the applications. To complete the Advance Java successfully, you should be familiar and have programming experience in basic Java programming. You must have good exposure to the object-oriented programming (OOP) concepts of Java language. Core java is used for developing general java application where as Advanced java Program is used for developing the web based application and enterprise application. Core java is having the concept of Java Fundamentals, Applet, Swings, JDBC, JavaBeans. technology without this no one can jump on any advance java technology. SO BUY THIS BOOK NOW AND BECOME EXPERT IN JAVA

Explains how to configure Windows Me for maximum control and flexibility, avoid the Home Networking and System Restore wizard, and use Windows Script Host to eliminate annoyances.

Answering the need for an accessible overview of the field, this text/reference presents a manageable introduction to both the theoretical and practical aspects of computer networks and network programming. Clearly structured and easy to follow, the book describes cutting-edge developments in network architectures, communication protocols, and programming techniques and models, supported by code examples for hands-on practice with creating network-based applications. Features: presents detailed coverage of network architectures; gently introduces the reader to the basic ideas underpinning computer networking, before gradually building up to more advanced concepts; provides numerous step-by-step descriptions of practical examples; examines a range of network programming techniques; reviews network-based data storage and multimedia transfer; includes an extensive set of practical code examples, together with detailed comments and explanations.

The first end-to-end, practical guide for building enterprise-wide Java applications. This title covers all the issues--from managing legacy code to building CORBA-based distributed applications, and beyond. The CD-ROM contains source code and valuable Java application tools.

The object oriented paradigm has become one of the dominant forces in the computing world. According to a recent survey, by the

year 2000, more than 80% of development organizations are expected to use object technology as the basis for their distributed development strategies. Handbook of Object Technology encompasses the entire spectrum of disciplines and topics related to this rapidly expanding field - outlining emerging technologies, latest advances, current trends, new specifications, and ongoing research. The handbook divides into 13 sections, each containing chapters related to that specific discipline. Up-to-date, non-abstract information provides the reader with practical, useful knowledge - directly applicable to the understanding and improvement of the reader's job or the area of interest related to this technology. Handbook of Object Technology discusses: the processes, notation, and tools for classical OO methodologies as well as information on future methodologies prevalent and emerging OO languages standards and specifications frameworks and patterns databases metrics business objects intranets analysis/design tools client/server application development environments

A guide to developing network programs covers networking fundamentals as well as TCP and UDP sockets, multicasting protocol, content handlers, servlets, I/O, parsing, Java Mail API, and Java Secure Sockets Extension.

The #1 Deep-Dive Guide to Advanced Java Programming, Fully Updated for Java 11 Core Java has long been recognized as the leading, no-nonsense tutorial and reference for experienced programmers who want to write robust Java code for real-world applications. Now, Core Java, Volume II--Advanced Features, Eleventh Edition, has been updated for Java 11, with revised coverage of advanced UI and enterprise programming, networking, security, and Java's powerful new module system. Cay S. Horstmann explores sophisticated new language and library features with the depth and completeness that readers expect from Core Java . He demonstrates how to use these features to build professional-quality applications, using thoroughly tested examples that reflect modern Java style and best practices, including modularization. Horstmann's examples are carefully crafted for easy understanding and maximum practical value, so you can consistently use them to jump-start your own code. Master advanced techniques, idioms, and best practices for writing superior Java code Build robust production software with streams, files, and regular expressions Take full advantage of Java I/O APIs, object serialization, and regular expressions Efficiently connect to network services, implement network clients and servers, and harvest web data Query databases and manage database connections with Java 9's JDBC 4.3 Simplify all aspects of date and time programming with the Java Date and Time API Write internationalized programs that localize dates, times, numbers, text, and GUIs Process code in three powerful ways: the scripting API, compiler API, and annotation processing Deepen your understanding of the Java Platform Module System, and migrate code to work with it Leverage the modern Java security features most valuable to application programmers Program advanced client-side user interfaces, and generate images on the server Write more responsive code with Java's improved process API and contended locking Leverage Smart Java compilation and recent enhancements to compiler control Use JNI to interoperate with native C code See Core Java, Volume I--Fundamentals, Eleventh Edition (ISBN-13: 978-0-13-516630-7), for expert coverage of fundamental Java and UI programming, including objects, generics, collections, lambda expressions, Swing design, concurrency, and functional programming. Register your book for convenient access to downloads, updates, and/or

corrections as they become available ...

"Java provides numerous classes that have developed over the years to meet evolving networking needs. These range from low-level socket and IP-based approaches to those encapsulated in software services. This practical tutorial provides a complete introduction to developing network programs with Java. We start with the basics of networking and then explore how Java supports the development of clients/servers. You'll explore how to use Java's network class library to rapidly and effortlessly accomplish common networking tasks such as writing multithreaded servers, network scalability, implementing application protocols, and filtering clients and client names. Java NIO packages are examined as well as multitasking, building hands-on NIO buffers, scatter and gather, and transferring data to channels and selectors. By the end of this video tutorial, you will have mastered networking fundamentals (and advanced concepts) in Java to ensure you understand (and are capable of building) networked programs."--Resource description page.

Java's rich, comprehensive networking interfaces make it an ideal platform for building today's networked, Internet-centered applications, components, and Web services. Now, two Java networking experts demystify Java's complex networking API, giving developers practical insight into the key techniques of network development, and providing extensive code examples that show exactly how it's done. David and Michael Reilly begin by reviewing fundamental Internet architecture and TCP/IP protocol concepts all network programmers need to understand, as well as general Java features and techniques that are especially important in network programming, such as exception handling and input/output. Using practical examples, they show how to write clients and servers using UDP and TCP; how to build multithreaded network applications; and how to utilize HTTP and access the Web using Java. The book includes detailed coverage of server-side application development; distributed computing development with RMI and CORBA; and email-enabling applications with the powerful JavaMail API. For all beginning to intermediate Java programmers, network programmers who need to learn to work with Java.

This book brings for you all of knowledge you need to start multi-thread, FILE IO programming from basic to advance by JAVA language. Just by 19 LESSONS, you can analysis easily a game include: - Creating a new Thread - Thread Scheduling and Priority - Multithreading issues in Swing Applications - Thread Pool, Executor, Callable/Future - Avoid deadLock and how to make data synchronization - File and Directory - File I/O Basic to Advance There are many examples & case studys for practice of programming. Let's enjoy! ----- ALITTLE IN THE BOOK MULTITHREADING & CONCURRENT 1. Introduction 1.1 Multitasking (or Multi-processing) 1.2 Multithreading (within a Process) 2. The Infamous "Unresponsive User Interface" 2.1 Example 1: Unresponsive UI 2.2 Example 2: Still Unresponsive UI with Thread 2.3 Example 3: Responsive UI with Thread 2.4 Example 4: SwingWorker 3. Creating a new Thread 3.1 Interface Runnable 3.2 Class Thread 3.3 Creating a new Thread by sub-classing Thread and overriding run() 3.4 Creating a new Thread by implementing the Runnable Interface 3.5 Methods in the Thread Class 3.6 Daemon threads 3.7 The Life Cycle of a Thread 4. Thread Scheduling and Priority 5. Monitor Lock & Synchronization ..... FILE IO & NETWORKING IN JAVA 1. File and Directory 1.1 Class java.io.File (Pre-JDK 7)

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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.

Both authors have taught the course of “Distributed Systems” for many years in the respective schools. During the teaching, we feel strongly that “Distributed systems” have evolved from traditional “LAN” based distributed systems towards “Internet based” systems. Although there exist many excellent textbooks on this topic, because of the fast development of distributed systems and network programming/protocols, we have difficulty in finding an appropriate textbook for the course of “distributed systems” with orientation to the requirement of the undergraduate level study for today’s distributed technology. Specifically, from - to-date concepts, algorithms, and models to implementations for both distributed system designs and application programming. Thus the philosophy behind this book is to integrate the concepts, algorithm designs and implementations of distributed systems based on network programming. After using several materials of other textbooks and research books, we found that many texts treat the distributed systems with separation of concepts, algorithm design and network programming and it is very difficult for students to map the concepts of distributed systems to the algorithm design, prototyping and implementations. This book intends to enable readers, especially postgraduates and senior undergraduate level, to study up-to-date concepts, algorithms and network programming skills for building modern distributed systems. It enables students not only to master the concepts of distributed network system but also to readily use the material introduced into implementation practices.

Harness the hidden power of Java to build network-enabled applications with lower network traffic and faster processes  
About This Book Learn to deliver superior server-to-server communication through the networking channels Gain expertise of the networking features of your own applications to support various network architectures such as client/server and peer-to-peer Explore the issues that impact scalability, affect security, and allow applications to work in a heterogeneous environment Who This Book Is For Learning Network Programming with Java is oriented to developers

who wish to use network technologies to enhance the utility of their applications. You should have a working knowledge of Java and an interest in learning the latest in network programming techniques using Java. No prior experience with network development or special software beyond the Java SDK is needed. Upon completion of the book, beginner and experienced developers will be able to use Java to access resources across a network and the Internet. What You Will Learn

- Connect to other applications using sockets
- Use channels and buffers to enhance communication between applications
- Access network services and develop client/server applications
- Explore the critical elements of peer-to-peer applications and current technologies available
- Use UDP to perform multicasting
- Address scalability through the use of core and advanced threading techniques
- Incorporate techniques into an application to make it more secure
- Configure and address interoperability issues to enable your applications to work in a heterogeneous environment

In Detail Network-aware applications are becoming more prevalent and play an ever-increasing role in the world today. Connecting and using an Internet-based service is a frequent requirement for many applications. Java provides numerous classes that have evolved over the years to meet evolving network needs. These range from low-level socket and IP-based approaches to those encapsulated in software services. This book explores how Java supports networks, starting with the basics and then advancing to more complex topics. An overview of each relevant network technology is presented followed by detailed examples of how to use Java to support these technologies. We start with the basics of networking and then explore how Java supports the development of client/server and peer-to-peer applications. The NIO packages are examined as well as multitasking and how network applications can address practical issues such as security. A discussion on networking concepts will put many network issues into perspective and let you focus on the appropriate technology for the problem at hand. The examples used will provide a good starting point to develop similar capabilities for many of your network needs.

**Style and approach** Each network technology's terms and concepts are introduced first. This is followed up with code examples to explain these technologies. Many of the examples are supplemented with alternate Java 8 solutions when appropriate. Knowledge of Java 8 is not necessary but these examples will help you better understand the power of Java 8.

Advanced Java is a textbook specially designed for undergraduate and post graduate students of Computer Science. It focuses on developing the applications both at basic and moderate level. This text book is divided into seven units. The first unit introduces Java network programming. In this unit along with the basic concepts of networking, the programming using Sockets, InetAddress, URL and URLConnection class is discussed in a lucid manner. The second unit is based on JDBC programming. In this unit, connecting with the database is discussed with examples and illustrations. Then next two chapters focuses on server side programming by means of Servlet programming and JSP. In third unit, the

illustration of how to create and execute servlets is given. Then the concept of cookies and session management is discussed. In the next subsequent unit the Java Server Pages - its overview and programming is studied. In the last three units the advanced concepts of Java programming such as JSF, Hibernate and Java Web Framework : Spring is discussed. The contents of this textbook is supported with numerous illustrations, examples, program codes, and screenshots. With its lucid presentation and inclusion of numerous examples the book will be very useful for the readers. "Advanced Java Networking is the up-to-the-minute, insider's guide to Java's fast-growing set of networking alternatives. Sun Microsystems Java Evangelist Prashant Sridharan shows how Java has been designed to optimize networked applications, covering architectural elements such as multithreading, serialization, and I/O. Then, step-by-step, he demonstrates how to create networked Java applications for client/server computing on the Internet, using each Java networking API." "Advanced Java Networking provides new insight into the next generation of Java networking tools, including both Sun and third-party technologies."--BOOK JACKET.Title Summary field provided by Blackwell North America, Inc. All Rights Reserved

Advanced Java Game Programming teaches you how to create desktop and Internet computer games using the latest Java programming language techniques. Whereas other Java game programming books focus on introductory Java material, this book covers game programming for experienced Java developers. David Wallace Croft, founder of the Game Developers Java Users Group (GameJUG), has assembled an open-source reusable game library—a Swing animation engine that allows developers to use these techniques and put out new games very rapidly. The open-source game library also includes a reusable game deployment framework and a multiplayer networking library with HTTP firewall tunneling capability for applets. All of the code is open source, including the example games. The animation has been scrupulously tested and optimized in the Swing environment, and Croft clearly explains how the code works in great detail. The graphics and audio libraries used in the examples are public domain and may also be used royalty-free for creating new games.

The book provides complete coverage of fundamental IP networking in Java. It introduces the concepts behind TCP/IP and UDP and their intended use and purpose; gives complete coverage of Java networking APIs, includes an extended discussion of advanced server design, so that the various design principles and tradeoffs concerned are discussed and equips the reader with analytic queuing-theory tools to evaluate design alternatives; covers UDP multicasting, and covers multi-homed hosts, leading the reader to understand the extra programming steps and design considerations required in such environments. After reading this book the reader will have an advanced knowledge of fundamental network design and programming concepts in the Java language, enabling them to design and implement distributed applications with

advanced features and to predict their performance. Special emphasis is given to the scalable I/O facilities of Java 1.4 as well as complete treatments of multi-homing and UDP both unicast and multicast.

Security Education and Critical Infrastructures presents the most recent developments in research and practice on teaching information security, and covers topics including: -Curriculum design; -Laboratory systems and exercises; -Security education program assessment; -Distance learning and web-based teaching of security; -Teaching computer forensics; -Laboratory-based system defense games; -Security education tools; -Education in security policies, management and system certification; -Case studies.

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