Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide

By Zhiqun Chen

Download now

Read Online →

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen

Java Card technology provides a secure, vendor-independent, ubiquitous Java platform for smart cards and other memory constrained devices. It opens the smart card marketplace to third-party application development and enables programmers to develop smart card applications for a wide variety of vendors products. This book is the comprehensive guide to developing applications with Java Card technology. It introduces you to the Java Card platform and features detailed discussions of programming concepts. It also provides a step-by-step Java Card applet development guide to get you up and running. Specific topics covered include: *Smart card basics *Java Card virtual machine *Persistent and transient objects *Atomicity and transactions *Handling APDUs *Applet firewall and object sharing *Java Card platform security *A step-by-step applet development guide *Applet optimization guidelines *A comprehensive reference to Java Card APIs With Java Card technology, smart card programming will finally enter the mainstream of application development. This book provides the authoritative and practical information you need to enter this rapidly growing arena.

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide

By Zhiqun Chen

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen

Java Card technology provides a secure, vendor-independent, ubiquitous Java platform for smart cards and other memory constrained devices. It opens the smart card marketplace to third-party application development and enables programmers to develop smart card applications for a wide variety of vendors products. This book is the comprehensive guide to developing applications with Java Card technology. It introduces you to the Java Card platform and features detailed discussions of programming concepts. It also provides a step-by-step Java Card applet development guide to get you up and running. Specific topics covered include: *Smart card basics *Java Card virtual machine *Persistent and transient objects *Atomicity and transactions *Handling APDUs *Applet firewall and object sharing *Java Card platform security *A step-by-step applet development guide *Applet optimization guidelines *A comprehensive reference to Java Card APIs With Java Card technology, smart card programming will finally enter the mainstream of application development. This book provides the authoritative and practical information you need to enter this rapidly growing arena.

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen Bibliography

- Rank: #1776421 in Books
- Published on: 2000-06-16
- Original language: English
- Number of items: 1
- Dimensions: 9.10" h x .90" w x 7.20" l, 1.45 pounds
- Binding: Paperback
- 400 pages

 Download Java Card¿ Technology for Smart Cards: Architectu ...pdf

 Read Online Java Card¿ Technology for Smart Cards: Architec ...pdf

Download and Read Free Online Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen

Editorial Review

From the Inside Flap
Audience for This Book

Java Card™ technology combines a subset of the Java programming language with a runtime environment optimized for smart cards and other memory-constrained devices. This book is intended for a wide technical audience with different needs of understanding Java Card technology.

First and foremost, it is written for Java Card applet developers. You will find a smart card tutorial, in-depth discussions on various Java Card features, helpful programming tips for applet development, and the reference to the Java Card APIs.

Second, this book is supplementary reading for Java Card platform implementors. It provides further discussion of many topics in the Java Card specifications and includes code examples to clarify those topics.

Third, this book is useful for technical managers or anyone who wants to gain an overall understanding of Java Card technology. In particular, the first three chapters are introductions to orient you within the technology from both a technical and marketing point of view.

Throughout this book, I assume that readers are familiar with the fundamentals of the Java language. For those who want to learn more about the Java language, the book by Arnold and Gosling is a good resource. Organization of This Book

This book is written in a bottom-up fashion. Each chapter was a step to the next one, so it is best if you read the chapters in order. Part 1: Introduction

Chapter 1 introduces smart cards and Java Card technology—history, benefits, and applications. Chapter 2 discusses smart card basics as a foundation for exploring the rest of the book. Part 2: Java Card Technology

Chapter 3 gives an overview of Java Card technology—the system architecture and its components. Chapter 4 discusses the properties and the behavior of persistent and transient objects in the Java Card platform and how to create and use those objects. Chapter 5 explains what atomicity means in the Java Card platform and how to develop an applet using transactions to protect data integrity. Chapter 6 discusses exceptions in the Java Card platform and how applets throw and handle exceptions. Chapter 7 explains how applets run within the JCRE and demonstrates the techniques of applet writing.

Chapter 8 describes the techniques of handling APDUs in an applet.

Chapter 9 explains the behavior of objects, exceptions, and applets under the control of the applet firewall and discusses how applets can safely share data using object sharing mechanisms. Chapter 10 first introduces many important cryptographic concepts and algorithms. It then outlines the cryptographic APIs in the Java Card platform and demonstrates how to use these APIs through code examples. Chapter 11 describes the security features in the Java Card platform and discusses how these security features are enforced through a variety of mechanisms. Along with the discussion, this chapter summarizes the topics covered in Part 2. Part 3: Programming Guide and Tips

Chapter 12 walks you through a step-by-step process of creating a simple electronic wallet applet.

Chapter 13 provides a number of recommendations for optimizing applets. In many cases, a discussion is provided with the recommendation to help you understand various design trade-offs. Chapter 14 discusses issues related to using the int data type when writing Java Card applets. Part 4: Appendices

Appendix A describes the subset of the Java programming language that is supported in the Java Card platform. Appendix B provides a comprehensive reference to the Java Card 2.1 APIs. The Version Covered in This Book

This book is based on Java Card version 2.1, the latest release when the book was written. At the meantime, the next version 2.1.1 is underway. Version 2.1.1 will include minor enhancement updates to version 2.1. The contents and techniques covered in the book will continue to be relevant to future Java Card releases, and new things will be incorporated in future editions of this book.0201703297P04062001

From the Back Cover

Java Card™ technology provides a secure, vendor-independent, ubiquitous Java™ platform for smart cards and other memory constrained devices. It opens the smart card marketplace to third-party application development and enables programmers to develop smart card applications for a wide variety of vendors' products.

This book is the comprehensive guide to developing applications with Java Card technology. It introduces you to the Java Card platform and features detailed discussions of programming concepts. It also provides a step-by-step Java Card applet development guide to get you up and running.

- Specific topics covered include:
- Smart card basics
- Java Card virtual machine
- Persistent and transient objects
- Atomicity and transactions
- Handling APDUs
- Applet firewall and object sharing
- Java Card platform security
- A step-by-step applet development guide
- Applet optimization guidelines
- A comprehensive reference to Java Card APIs

With Java Card technology, smart card programming will finally enter the mainstream of application development. This book provides the authoritative and practical information you need to enter this rapidly growing arena.

0201703297B04062001

About the Author

Zhiqun Chen is on the engineering team that designed and implemented Java Card APIs and is currently working on Sun's Java Card virtual machine reference implementation. She has extensive experience writing financial applets with Java Card technology and was involved in developing Open Platform card

applications, Mondex terminal, and server applications for Java Electronic Commerce Framework.™

0201703297AB04062001

Users Review

From reader reviews:

Mary Richie:

Book will be written, printed, or outlined for everything. You can know everything you want by a publication. Book has a different type. To be sure that book is important thing to bring us around the world. Close to that you can your reading ability was fluently. A guide Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide will make you to possibly be smarter. You can feel much more confidence if you can know about anything. But some of you think that will open or reading some sort of book make you bored. It is not necessarily make you fun. Why they can be thought like that? Have you searching for best book or acceptable book with you?

Jonathan Zahn:

What do you about book? It is not important along? Or just adding material when you need something to explain what your own problem? How about your spare time? Or are you busy man or woman? If you don't have spare time to accomplish others business, it is make you feel bored faster. And you have spare time? What did you do? Everybody has many questions above. They should answer that question simply because just their can do that. It said that about guide. Book is familiar in each person. Yes, it is appropriate. Because start from on pre-school until university need that Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide to read.

Stella Carpenter:

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide can be one of your nice books that are good idea. Most of us recommend that straight away because this book has good vocabulary that could increase your knowledge in terminology, easy to understand, bit entertaining however delivering the information. The author giving his/her effort to get every word into joy arrangement in writing Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide yet doesn't forget the main point, giving the reader the hottest and based confirm resource data that maybe you can be one among it. This great information can easily drawn you into brand-new stage of crucial considering.

Minnie Weiner:

In this age globalization it is important to someone to get information. The information will make someone to understand the condition of the world. The condition of the world makes the information easier to share. You can find a lot of sources to get information example: internet, newspapers, book, and soon. You can view that now, a lot of publisher that print many kinds of book. The actual book that recommended for you is

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide this reserve consist a lot of the information on the condition of this world now. This kind of book was represented how do the world has grown up. The vocabulary styles that writer use to explain it is easy to understand. Often the writer made some research when he makes this book. Here is why this book suitable all of you.

Download and Read Online Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen #J9IN0VMX2A5

Read Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen for online ebook

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen books to read online.

Online Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen ebook PDF download

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen Doc

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen Mobipocket

Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen EPub

J9IN0VMX2A5: Java Card¿ Technology for Smart Cards: Architecture and Programmer's Guide By Zhiqun Chen