

Java In Two Semesters 3rd Edition

A comprehensive guide to get started with Java and gain insights into major concepts such as object-oriented, functional, and reactive programming

Key Features

- Strengthen your knowledge of important programming concepts and the latest features in Java**
- Explore core programming topics including GUI programming, concurrency, and error handling**
- Learn the idioms and best practices for writing high-quality Java code**

Book Description Java is one of the preferred languages among developers, used in everything right from smartphones, and game consoles to even supercomputers, and its new features simply add to the richness of the language. This book on Java programming begins by helping you learn how to install the Java Development Kit. You will then focus on understanding object-oriented programming (OOP), with exclusive insights into concepts like abstraction, encapsulation, inheritance, and polymorphism, which will help you when programming for real-world apps. Next, you'll cover fundamental programming structures of Java such as data structures and algorithms that will serve as the building blocks for your apps. You will also delve into core programming topics that will assist you with error handling, debugging, and testing your apps. As you progress, you'll move on to advanced topics such as Java libraries, database management, and network programming, which will hone your skills in building professional-grade apps. Further on, you'll understand how to create a graphic user interface using JavaFX and learn to build scalable apps by taking advantage of reactive and functional programming. By the end of this book, you'll not only be well versed with Java 10, 11, and 12, but also gain a perspective into the future of this language and software development in general. What you will learn

- Learn and apply object-oriented principles**
- Gain insights into data structures and understand how they are used in Java**
- Explore multithreaded, asynchronous, functional, and reactive programming**
- Add a user-friendly graphic interface to your application**
- Find out what streams are and how they can help in data processing**
- Discover the importance of microservices and use them to make your apps robust and scalable**
- Explore Java design patterns and best practices to solve everyday problems**
- Learn techniques and idioms for writing high-**

quality Java code Who this book is for Students, software developers, or anyone looking to learn new skills or even a language will find this book useful. Although this book is for beginners, professional programmers can benefit from it too. Previous knowledge of Java or any programming language is not required.

Comprehensive treatment focuses on creation of efficient data structures and algorithms and selection or design of data structure best suited to specific problems. This edition uses Java as the programming language.

From the bestselling author of Blink and The Tipping Point, Malcolm Gladwell's Outliers: The Story of Success overturns conventional wisdom about genius to show us what makes an ordinary person an extreme overachiever. Why do some people achieve so much more than others? Can they lie so far out of the ordinary? In this provocative and inspiring book, Malcolm Gladwell looks at everyone from rock stars to professional athletes, software billionaires to scientific geniuses, to show that the story of success is far more surprising, and far more fascinating, than we could ever have imagined. He reveals that it's as much about where we're from and what we do, as who we are - and that no one, not even a genius, ever makes it alone. Outliers will change the way you think about your own life story, and about what makes us all unique. 'Gladwell is not only a brilliant storyteller; he can see what those stories tell us, the lessons they contain' Guardian 'Malcolm Gladwell is a global phenomenon ... he has a genius for making everything he writes seem like an impossible adventure' Observer 'He is the best kind of writer - the kind who makes you feel like you're a genius, rather than he's a genius' The Times

Written for the moderately experienced Java programmer, this book builds on readers' existing knowledge of object-oriented programming and covers all important aspects of Standard C++—emphasizing more lower-level C-style details later in the presentation. Chapter topics include philosophy of C++, simplest C++, pointers and reference variables, object-based programming: classes, operator overloading, object-oriented programming: inheritance, templates, abnormal control flow, input and output, collections: the standard template library, primitive arrays and strings, C-style C++, and using Java and C++:

the JNI. For new C++ programmers converted from Java. This practical text contains fairly "traditional" coverage of data structures with a clear and complete use of algorithm analysis, and some emphasis on file processing techniques as relevant to modern programmers. It fully integrates OO programming with these topics, as part of the detailed presentation of OO programming itself. Chapter topics include lists, stacks, and queues; binary and general trees; graphs; file processing and external sorting; searching; indexing; and limits to computation. For programmers who need a good reference on data structures. A Modular Structured Approach Using C++

Digital Image Processing

14th Nordic-Baltic Conference on Biomedical Engineering and Medical Physics

Data Structures and Algorithm Analysis in Java, Third Edition

Programming Fundamentals

Java SE 8 for the Really Impatient

Big Java: Early Objects, 7th Edition focuses on the essentials of effective learning and is suitable for a two-semester introduction to programming sequence. This text requires no prior programming experience and only a modest amount of high school algebra. Objects and classes from the standard library are used where appropriate in early sections with coverage on object-oriented design starting in Chapter 8. This gradual approach allows students to use objects throughout their study of the core algorithmic topics, without teaching bad habits that must be un-learned later. The second half covers algorithms and data structures at a level suitable for beginning students. Choosing the enhanced eText format allows students to develop their coding skills using targeted, progressive interactivities designed to integrate with the eText. All sections include built-in activities, open-ended review exercises, programming exercises, and projects to help students practice programming and build confidence. These activities go far beyond simplistic multiple-choice questions and animations. They have been designed to guide students along a learning path for mastering the complexities of programming. Students demonstrate comprehension of programming structures, then practice programming with simple steps in scaffolded settings, and finally write complete, automatically graded programs. The perpetual access VitalSource Enhanced eText, when integrated with your school's learning management system, provides the capability to monitor student progress in VitalSource SCORECenter and track grades for homework or participation. *Enhanced eText and interactive functionality available through select vendors and may require LMS integration approval for SCORECenter.

THIS TEXTBOOK is about computer science. It is also about Python.

However, there is much more. The study of algorithms and data structures is central to understanding what computer science is all about. Learning computer science is not unlike learning any other type of difficult subject matter. The only way to be successful is through deliberate and incremental exposure to the fundamental ideas. A beginning computer scientist needs practice so that there is a thorough understanding before continuing on to the more complex parts of the curriculum. In addition, a beginner needs to be given the opportunity to be successful and gain confidence. This textbook is designed to serve as a text for a first course on data structures and algorithms, typically taught as the second course in the computer science curriculum. Even though the second course is considered more advanced than the first course, this book assumes you are beginners at this level. You may still be struggling with some of the basic ideas and skills from a first computer science course and yet be ready to further explore the discipline and continue to practice problem solving. We cover abstract data types and data structures, writing algorithms, and solving problems. We look at a number of data structures and solve classic problems that arise. The tools and techniques that you learn here will be applied over and over as you continue your study of computer science.

Java developers know that design patterns offer powerful productivity benefits but few books have been specific enough to address their programming challenges. With "Java Design Patterns", there's finally a hands-on guide focused specifically on real-world Java development. The book covers three main categories of design patterns--creational, structural, and behavioral--and the example programs and useful variations can be found on the accompanying CD-ROM.

Comprehensive treatment focuses on creation of efficient data structures and algorithms and selection or design of data structure best suited to specific problems. This edition uses C++ as the programming language.

14th Nordic - Baltic Conference on Biomedical Engineering and Medical Physics - NBC-2008 - brought together scientists not only from the Nordic - Baltic region, but from the entire world. This volume presents the Proceedings of this international conference, jointly organized by the Latvian Medical Engineering and Physics Society, Riga Technical University and University of Latvia in close cooperation with International Federation of Medical and Biological Engineering (IFMBE) The topics covered by the Conference Proceedings include: Biomaterials and Tissue Engineering; Biomechanics, Artificial Organs, Implants and Rehabilitation; Biomedical Instrumentation and Measurements, Biosensors and Transducers; Biomedical Optics and Lasers; Healthcare Management, Education and Training; Information Technology to Health; Medical Imaging, Telemedicine and E-Health; Medical Physics; Micro- and Nanoobjects, Nanostructured Systems, Biophysics

Java: The Complete Reference, Eleventh Edition

Fundamentals of Database Systems

Java 8 Lambdas

An Introduction to Information Systems

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

Late Objects

Authoritative but accessible information on Java programming fundamentals As one of the most popular programming languages in the world, Java is widely used in everything from application software to web applications. This helpful book escorts you through the fundamentals and concepts of Java programming using a first/late objects approach. Packed with extensive opportunities for programming practice, Java For Everyone is an ideal resource for learning all there is to know about Java programming. Serves as an authoritative guide on the fundamentals of Java programming Features accessible coverage compatible with Java 5, 6, 7 Uses first/late objects approach and provides a variety of opportunities for programming practice If you're interested in learning the basics of Java programming, then this is the book you need.

If you're new to Java—or new to programming—this best-selling book will guide you through the language features and APIs of Java 11. With fun, compelling, and realistic examples, authors Marc Loy, Patrick Niemeyer, and Daniel Leuck introduce you to Java fundamentals—including its class libraries, programming techniques, and idioms—with an eye toward building real applications. You'll learn powerful new ways to manage resources and exceptions in your applications—along with core language features included in recent Java versions. Develop with Java, using the compiler, interpreter, and other tools Explore Java's built-in thread facilities and concurrency package Learn text processing and the powerful regular expressions API Write advanced networked or web-based applications and services For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

The design and analysis of efficient data structures has long been recognized as a key component of the Computer Science curriculum. Goodrich, Tomassia and Goldwasser's approach to this classic topic is based on the object-oriented paradigm as the framework of choice for the design of data structures. For each ADT presented in the text, the authors provide an associated Java interface. Concrete data structures realizing the ADTs are provided as Java classes implementing the interfaces. The Java code implementing fundamental data structures in this book is organized in a single Java package, net.datastructures. This package forms a coherent library of data structures and algorithms in Java specifically designed for educational purposes in a way that is complimentary with the Java Collections Framework. A tutorial introducing Java basics covers programming principles, integrating applets with Web applications, and using threads, arrays, and sockets.

Java

Introduction to Constraint Databases

An Algorithmic Introduction Using Java

The First Semester

Java Design Patterns

A Computer Science Perspective

A Student Guide to Object-Oriented Development is an introductory text that follows the software development process, from requirements capture to implementation, using an object-oriented approach. The book uses object-oriented techniques to present a practical viewpoint on developing software, providing the reader with a basic understanding of object-oriented concepts by developing the subject in an uncomplicated and easy-to-

follow manner. It is based on a main worked case study for teaching purposes, plus others with password-protected answers on the web for use in coursework or exams. Readers can benefit from the authors' years of teaching experience. The book outlines standard object-oriented modelling techniques and illustrates them with a variety of examples and exercises, using UML as the modelling language and Java as the language of implementation. It adopts a simple, step by step approach to object-oriented development, and includes case studies, examples, and exercises with solutions to consolidate learning. There are 13 chapters covering a variety of topics such as sequence and collaboration diagrams; state diagrams; activity diagrams; and implementation diagrams. This book is an ideal reference for students taking undergraduate introductory/intermediate computing and information systems courses, as well as business studies courses and conversion masters' programmes. Adopts a simple, step by step approach to object-oriented development Includes case studies, examples, and exercises with solutions to consolidate learning Benefit from the authors' years of teaching experience

*Java Concepts: Late Objects, 3rd Edition focuses on the essentials of effective learning and is suitable for a two-semester introduction to programming sequence. This text requires no prior programming experience and only a modest amount of high school algebra. It provides an approachable introduction to fundamental programming techniques and design skills, helping students master basic concepts and become competent coders. Each important concept is introduced in easy-to-understand terms before more complicated examples are discussed. Choosing the enhanced eText format allows students to develop their coding skills using targeted, progressive interactivities designed to integrate with the eText. All sections include built-in activities, open-ended review exercises, programming exercises, and projects to help students practice programming and build confidence. These activities go far beyond simplistic multiple-choice questions and animations. They have been designed to guide students along a learning path for mastering the complexities of programming. Students demonstrate comprehension of programming structures, then practice programming with simple steps in scaffolded settings, and finally write complete, automatically graded programs. The perpetual access VitalSource Enhanced eText, when integrated with your school's learning management system, provides the capability to monitor student progress in VitalSource SCORECenter and track grades for homework or participation. *Enhanced eText and interactive functionality available through select vendors and may require LMS integration approval for SCORECenter.*

Using the latest features of Java 5, this unique object-oriented presentation introduces readers to data structures via thirty, manageable chapters. KEY Features TOPICS: Introduces each ADT in its own chapter, including examples or applications. Provides a variety of exercises and projects, plus additional self-assessment questions throughout. the text Includes generic data types as well as enumerations, for-each loops, the interface Iterable, the class Scanner, assert statements, and autoboxing and unboxing. Identifies important Java code as a Listing. Provides Notes and Programming Tips in each chapter. For programmers and software engineers

interested in learning more about data structures and abstractions.

Build enhanced visual experiences and design and deploy modern, easy-to-maintain, client applications across a variety of platforms. This book will show you how these applications can take advantage of the latest user interface components, 3D technology, and cloud services to create immersive visualizations and allow high-value data manipulation. The Definitive Guide to Modern Java Clients with JavaFX is a professional reference for building Java applications for desktop, mobile, and embedded in the Cloud age. It offers end-to-end coverage of the latest features in JavaFX and Java 13. After reading this book, you will be equipped to upgrade legacy client applications, develop cross-platform applications in Java, and build enhanced desktop and mobile native clients. What You Will Learn Create modern client applications in Java using the latest JavaFX and Java 13 Build enterprise clients that will enable integration with existing cloud services Use advanced visualization and 3D features Deploy on desktop, mobile, and embedded devices Who This Book Is For Professional Java developers who are interested in learning the latest client Java development techniques to fill out their skillset.

What will you learn from this book? This brain-friendly guide teaches you everything from JavaScript language fundamentals to advanced topics, including objects, functions, and the browser's document object model. You won't just be reading—you'll be playing games, solving puzzles, pondering mysteries, and interacting with JavaScript in ways you never imagined. And you'll write real code, lots of it, so you can start building your own web applications. Prepare to open your mind as you learn (and nail) key topics including: The inner details of JavaScript How JavaScript works with the browser The secrets of JavaScript types Using arrays The power of functions How to work with objects Making use of prototypes Understanding closures Writing and testing applications What's so special about this book? We think your time is too valuable to waste struggling with new concepts. Using the latest research in cognitive science and learning theory to craft a multi-sensory learning experience, Head First JavaScript Programming uses a visually rich format designed for the way your brain works, not a text-heavy approach that puts you to sleep. This book replaces Head First JavaScript, which is now out of print.

The Story of Success

Data Structures and Algorithms in Java

Head First Java

A Brain-Friendly Guide

Computerworld

Graphic Java 2: Swing

This textbook is about learning Android and developing native apps using the Java programming language. It follows Java and Object-Oriented (OO) programmers' experiences and expectations and thus enables them to easily map Android concepts to familiar ones. Each chapter of the book is dedicated to one or more Android development topics and has

one or more illustrating apps. The topics covered include activities and transitions between activities, Android user interfaces and widgets, activity layouts, Android debugging and testing, fragments, shared preferences, SQLite and firebase databases, XML and JSON processing, the content provider, services, message broadcasting, async task and threading, the media player, sensors, Android Google maps, etc. The book is intended for introductory or advanced Android courses to be taught in one or two semesters at universities and colleges. It uses code samples and exercises extensively to explain and clarify Android coding and concepts. It is written for students and programmers who have no prior Android programming knowledge as well as those who already have some Android programming skills and are excited to study more advanced concepts or acquire a deeper knowledge and understanding of Android programming. All the apps in the book are native Android apps and do not need to use or include third-party technologies to run.

The Java Virtual Machine (JVM) is the underlying technology behind Java's most distinctive features including size, security and cross-platform delivery. This guide shows programmers how to write programs for the Java Virtual Machine.

Differing from other books on the subject, this one uses the framework of constraint databases to provide a natural and powerful generalization of relational databases. An important theme running through the text is showing how relational databases can smoothly develop into constraint databases, without sacrificing any of the benefits of relational databases whilst gaining new advantages. Peter Revesz begins by discussing data models and how queries may be addressed to them. From here, he develops the theory of relational and constraint databases, including Datalog and the relational calculus, concluding with three sample constraint database systems -- DISCO, DINGO, and RATHER. Advanced undergraduates and graduates in computer science will find this a clear introduction to the subject, while professionals and researchers will appreciate this novel perspective on their subject.

Java in Two Semesters Featuring JavaFX Springer

Learning a complex new language is no easy task especially when it is an object-oriented computer programming language like Java. You might think the problem is your brain. It

seems to have a mind of its own, a mind that doesn't always want to take in the dry, technical stuff you're forced to study. The fact is your brain craves novelty. It's constantly searching, scanning, waiting for something unusual to happen. After all, that's the way it was built to help you stay alive. It takes all the routine, ordinary, dull stuff and filters it to the background so it won't interfere with your brain's real work--recording things that matter. How does your brain know what matters? It's like the creators of the Head First approach say, suppose you're out for a hike and a tiger jumps in front of you, what happens in your brain? Neurons fire. Emotions crank up. Chemicals surge. That's how your brain knows. And that's how your brain will learn Java. Head First Java combines puzzles, strong visuals, mysteries, and soul-searching interviews with famous Java objects to engage you in many different ways. It's fast, it's fun, and it's effective. And, despite its playful appearance, Head First Java is serious stuff: a complete introduction to object-oriented programming and Java. You'll learn everything from the fundamentals to advanced topics, including threads, network sockets, and distributed programming with RMI. And the new. second edition focuses on Java 5.0, the latest version of the Java language and development platform. Because Java 5.0 is a major update to the platform, with deep, code-level changes, even more careful study and implementation is required. So learning the Head First way is more important than ever. If you've read a Head First book, you know what to expect--a visually rich format designed for the way your brain works. If you haven't, you're in for a treat. You'll see why people say it's unlike any other Java book you've ever read. By exploiting how your brain works, Head First Java compresses the time it takes to learn and retain--complex information. Its unique approach not only shows you what you need to know about Java syntax, it teaches you to think like a Java programmer. If you want to be bored, buy some other book. But if you want to understand Java, this book's for you.

Head First JavaScript Programming
Pragmatic Functional Programming
NBC 2008. 16-20 June 2008. Riga, Latvia
Starting Out with Python
Web Technologies
Learn Java 12 Programming

This book covers the essential knowledge and skills needed by a student who is specializing in software engineering. Readers will learn principles of object orientation, software development, software modeling, software design, requirements analysis, and testing. The use of the Unified Modelling Language to develop software is taught in depth. Many concepts are illustrated using complete examples, with code written in Java.

Written as an introduction for undergraduate students, this textbook covers the most important methods in digital image processing. Formal and mathematical aspects are discussed at a fundamental level and various practical examples and exercises supplement the text. The book uses the image processing environment ImageJ, freely distributed by the National Institute of Health. A comprehensive website supports the book, and contains full source code for all examples in the book, a question and answer forum, slides for instructors, etc. Digital Image Processing in Java is the definitive textbook for computer science students studying image processing and digital processing.

"Web Technologies illuminates the fundamental principles and technologies of the World Wide Web, helping students master contemporary Web development and understand emerging Web innovations."--BOOK JACKET.

For courses in Python programming. A clear and student-friendly introduction to the fundamentals of Python In Starting Out with Python, 4th Edition Tony Gaddis' accessible coverage introduces students to the basics of programming in a high level language. Python, an easy-to-learn and increasingly popular object-oriented language, allows readers to become comfortable with the fundamentals of programming without the troublesome syntax that can be challenging for novices. With the knowledge acquired using Python, students gain confidence in their skills and learn to recognize the logic behind developing high-quality programs. Starting Out with Python discusses control structures, functions, arrays, and pointers before objects and classes. As with all Gaddis texts, clear and easy-to-read code listings, concise and practical real-world examples, focused explanations, and an abundance of exercises appear in every chapter. Updates to the 4th Edition include revised, improved problems throughout, and new Turtle Graphics sections that provide flexibility as assignable, optional material. Also Available with MyLab Programming. MyLab(tm)Programming is an online learning system designed to engage students and improve results. MyLabProgramming consists of programming exercises correlated to the concepts and objectives in this book. Through practice exercises and immediate, personalized feedback, MyLab Programming improves the programming competence of beginning students who often struggle with the basic concepts of programming languages. Note: You are purchasing a standalone product; MyLab Programming does not come packaged with this content. Students, if interested in purchasing this title with MyLab Programming, ask your instructor for the correct package ISBN and Course ID. Instructors, contact your Pearson representative for more information. If you would like to purchase both the physical text and MyLab Programming, search for: 0134543661 / 9780134543666 Starting Out with Python Plus MyLab Programming with Pearson eText -- Access Card Package, 4/e Package consists of: 0134444329 / 9780134444321 Starting Out with Python 0134484967 / 9780134484969 MyLab Programming with Pearson eText -- Access Code Card -- for Starting Out with Python Students can use the URL and phone number below to help answer their questions: <http://247pearsoned.custhelp.com/app/home> 800-677-6337

Programming Language Pragmatics, Third Edition, is the most comprehensive programming language book available today. Taking the perspective that language design and implementation are tightly interconnected and that neither can be fully understood in isolation, this critically acclaimed and bestselling book has been thoroughly updated to cover the most recent developments in programming language design, including Java 6 and 7, C++0X, C# 3.0, F#, Fortran 2003 and 2008, Ada 2005, and Scheme R6RS. A new chapter on run-time program management covers virtual machines, managed code, just-in-time and dynamic compilation, reflection, binary translation and rewriting, mobile code, sandboxing, and debugging and program analysis tools. Over 800 numbered examples are provided to help the reader quickly cross-reference and access content. This text is designed for undergraduate Computer Science students, programmers, and systems and software engineers. Classic programming foundations text now updated to familiarize students with the languages they are most likely to encounter in the workforce, including including Java 7, C++, C# 3.0, F#, Fortran 2008, Ada 2005, Scheme R6RS, and Perl 6. New and expanded coverage of concurrency and run-time systems ensures students and professionals understand the most important advances driving software today. Includes over 800 numbered examples to help the reader quickly cross-reference and access content.

Early Objects

Formal Software Development

From VDM to Java

Programming for the Java Virtual Machine

A Practical Introduction to Data Structures and Algorithm Analysis

Fundamentals of Computer Organization and Design

If you're a developer with core Java SE skills, this hands-on book takes you through the language changes in Java 8 triggered by the addition of lambda expressions. You'll learn through code examples, exercises, and fluid explanations how these anonymous functions will help you write simple, clean, library-level code that solves business problems. Lambda expressions are a fairly simple change to Java, and the first part of the book shows you how to use them properly. Later chapters show you how lambda functions help you improve performance with parallelism, write simpler concurrent code, and model your domain more accurately, including building better DSLs. Use exercises in each chapter to help you master lambda expressions in Java 8 quickly Explore streams, advanced collections, and other Java 8 library improvements Leverage multicore CPUs and improve performance with data parallelism Use techniques to "lambdify" your existing codebase or library code Learn practical solutions for lambda expression unit testing and debugging Implement SOLID principles of object-oriented programming with lambdas Write concurrent applications that efficiently perform message passing and non-blocking I/O

This book concisely introduces Java 8's most valuable new features, including lambda expressions (closures) and streams. If you're an experienced Java programmer, the author's practical insights and sample code will help you quickly take advantage of these and other Java language and platform improvements. This edition combines clear explanations of database theory and design with up-to-date coverage of models and real systems. It features excellent examples and access to Addison Wesley's database Web site that includes further teaching, tutorials and many useful student resources.

A new advanced textbook/reference providing a comprehensive survey of hardware and software architectural principles and methods of computer systems organization and design. The book is suitable for a first course in computer organization. The style is similar to that of the author's book on assembly language in that it strongly supports self-study by students. This organization facilitates compressed presentation of material. Emphasis is also placed on related concepts to practical designs/chips. Topics: material presentation suitable for self-study; concepts related to practical designs and implementations; extensive examples and figures; details provided on several digital logic simulation packages; free MASM download instructions provided; and end-of-chapter exercises.

Java - the First Semester takes an integrated approach to software development rather than being simply a programming text, thereby enabling students to understand the industrial implications of Java programming.

Outliers

A Student Guide to Object-Oriented Development

Data Structures and Algorithm Analysis in C++, Third Edition

Programming Language Pragmatics

The Definitive Guide to Modern Java Clients with JavaFX

Programming Fundamentals - A Modular Structured Approach using C++ is written by Kenneth Leroy Busbee, a faculty member at Houston Community College in Houston, Texas. The materials used in this textbook/collection were developed by the author and others as independent modules for publication within the Connexions environment. Programming fundamentals are often divided into three college courses: Modular/Structured, Object Oriented and Data Structures. This textbook/collection covers the rest of those three courses.

This easy-to-follow textbook teaches Java programming from first principles, as well as covering design and testing methodologies. The text is divided into two parts. Each part supports a one-semester module, the first part addressing fundamental programming concepts, and the second part building on this foundation, teaching the skills required to develop more advanced applications. This fully updated and greatly enhanced fourth edition covers the key developments introduced in Java 8, including material on JavaFX, lambda expressions and the Stream API. Topics and features: begins by introducing fundamental programming concepts such as declaration of variables, control structures, methods and arrays; goes on to cover the fundamental object-oriented concepts of classes and objects, inheritance and polymorphism; uses JavaFX throughout for constructing event-driven graphical interfaces; includes advanced topics such as interfaces and lambda expressions, generics, collection classes and exceptions; explains file-handling techniques, packages, multi-threaded programs, socket programming, remote database access and processing collections using streams; includes self-test questions and programming exercises at the end of each chapter, as well as two illuminating case studies; provides additional resources at its associated website (simply go to springer.com and search for "Java in Two Semesters"), including a guide on how to install and use the NetBeans™ Java IDE. Offering a gentle introduction to the field, assuming no prior knowledge of the subject, Java in Two Semesters is the ideal companion to undergraduate modules in software development or programming.

A clear, student-friendly and engaging introduction to how information technology is used in business. Featuring several case studies, video interviews, thorough pedagogy and completely up-to-date chapters, this textbook will be a core resource for undergraduate students of Business Information Systems, a compulsory module in business degrees.

This is a gently-paced software engineering text that concentrates on the use of formal methods for the development of high integrity software. It assumes no previous knowledge of formal methods, and presents a practical and comprehensive treatment of the subject suitable for second and third year undergraduates on computing courses, and students on taught master's courses. The book is packed with

examples and exercises throughout.

Written for experienced programmers who need detailed explanations of the JFC libraries, this volume covers all aspects of the swing framework. Swing is the long-awaited successor to the AWT's heavyweight components.

A Tutorial

Java in Two Semesters

Problem Solving with Algorithms and Data Structures Using Python

Java For Everyone

Big Java

Featuring JavaFX

The Definitive Java Programming Guide Fully updated for Java SE 11, Java: The Complete Reference, Eleventh Edition explains how to develop, compile, debug, and run Java programs. Best-selling programming author Herb Schildt covers the entire Java language, including its syntax, keywords, and fundamental programming principles. You ' ll also find information on key portions of the Java API library, such as I/O, the Collections Framework, the stream library, and the concurrency utilities. Swing, JavaBeans, and servlets are examined and numerous examples demonstrate Java in action. Of course, the very important module system is discussed in detail. This Oracle Press resource also offers an introduction to JShell, Java ' s interactive programming tool. Best of all, the book is written in the clear, crisp, uncompromising style that has made Schildt the choice of millions worldwide. Coverage includes:

- Data types, variables, arrays, and operators
- Control statements
- Classes, objects, and methods
- Method overloading and overriding
- Inheritance
- Local variable type inference
- Interfaces and packages
- Exception handling
- Multithreaded programming
- Enumerations, autoboxing, and annotations
- The I/O classes
- Generics
- Lambda expressions
- Modules
- String handling
- The Collections Framework
- Networking
- Event handling
- AWT
- Swing
- The Concurrent API
- The Stream API
- Regular expressions
- JavaBeans
- Servlets

Much, much more Code examples in the book are available for download at www.OraclePressBooks.com.

C++ for Java Programmers

Data Structures and Abstractions with Java

Object-oriented Software Engineering

Practical Software Development Using UML and Java

Cross-Platform Mobile and Cloud Development

An Introduction to Real-World Programming with Java