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Object-Oriented Data Structures Using Java - Nell Dale 2016-09-01
Object-Oriented Data Structures Using Java, Fourth Edition presents traditional data structures and object-oriented topics with an emphasis on problem-solving, theory, and software engineering principles.

Data Abstraction and Problem Solving with C++ - Frank M. Carrano 2016-02-26

For courses in C++ Data Structures Concepts of Data Abstraction and Manipulation for C++ Programmers The Seventh Edition of Data Abstraction & Problem Solving with C++: Walls and Mirrors introduces fundamental computer science concepts related to the study of data structures. The text Explores problem solving and the efficient access and manipulation of data and is intended for readers who already have a basic understanding of C++. The "walls and mirrors" mentioned in the title represent problem-solving techniques that appear throughout the text. Data abstraction hides the details of a module from the rest of the program, whereas recursion is a repetitive technique that solves a problem by solving smaller versions of the same problems, much as images in facing mirrors grow smaller with each reflection. Along with general changes to improve clarity and correctness, this Seventh Edition includes new notes, programming tips, and sample problems.

Object-oriented Data Structures Using Java - Nell B. Dale 2002

Data Structures in Java is a continuation of Nell Dale's best-selling Introduction to Java and Software Design text. Data Structures is designed for students who have already taken one semester of computer science and are able to take a problem of medium complexity, write an algorithm to solve the problem, code the algorithm in a programming language, and demonstrate the correctness of their solution. The focus is on teaching computer science principles with chapter concepts being reinforced by case studies. The object-oriented concepts of encapsulation, inheritance, and polymorphism are covered, while the book remains centered on abstract data types.

Data Abstraction and Problem Solving with Java - Frank M. Carrano 2001
This work focuses on the important concepts of data abstraction and data structures. It also introduces students to java classes along with other basic concepts of object-oriented programming, including inheritance, polymorphism, interfaces and packages.

Fundamental Approaches to Software Engineering - José Fiadeiro 2008-04-03

This proceedings volume covers requirements and architectures, models and model transformations, conceptual models and UML, service engineering and adaptable services, verification and testing, and objects and components.

Java - Walter Savitch 2014-03-03

Note: You are purchasing a standalone product; MyProgrammingLab does not come packaged with this content. If you would like to purchase both the physical text and MyProgrammingLab search for ISBN-10: 0133862119/ISBN-13: 9780133862119. That package includes ISBN-10: 0133766268/ISBN-13: 9780133766264 and ISBN-10: 0133841030 /ISBN-13: 9780133841039. MyProgrammingLab is not a self-paced technology and should only be purchased when required by an instructor. Java: An Introduction to Problem Solving and Programming, 7e, is ideal for introductory Computer Science courses using Java, and other introductory programming courses in departments of Computer Science, Computer Engineering, CIS, MIS, IT, and Business. It also serves as a useful Java fundamentals reference for programmers. Students are introduced to object-oriented programming and important concepts such as design, testing and debugging, programming style, interfaces inheritance, and exception handling. The Java coverage is a concise, accessible introduction that covers key language features. Objects are covered thoroughly and early in the text, with an emphasis on application programs over applets. MyProgrammingLab for Java is a total learning package. MyProgrammingLab is an online homework, tutorial, and assessment program that truly engages students in learning. It helps students better prepare for class, quizzes, and exams—resulting in better performance in the course—and provides educators a dynamic set of tools for gauging individual and class progress. Teaching and Learning Experience This program presents a better teaching and learning experience—for you and your students. Personalized Learning with MyProgrammingLab: Through the power of practice and immediate personalized feedback, MyProgrammingLab helps students fully grasp the logic, semantics, and syntax of programming. A Concise, Accessible Introduction to Java: Key Java language features are covered in an accessible manner that resonates with introductory programmers. Tried-and-true Pedagogy: Numerous case studies, programming examples, and programming tips are used to help teach problem-solving and programming techniques. Flexible

Coverage that Fits your Course: Flexibility charts and optional graphics sections allow instructors to order chapters and sections based on their course needs. Instructor and Student Resources that Enhance Learning: Resources are available to expand on the topics presented in the text.

Oswaal ISC Question Bank Class 11 Computer Science Book Chapterwise & Topicwise (For 2023 Exam) - Oswaal Editorial Board 2022-05-28

- Strictly as per the latest syllabus for Board 2023 Exam.
- Includes Questions of the both -Objective & Subjective Types Questions
- Chapterwise and Topicwise Revision Notes for in-depth study
- Modified & Empowered Mind Maps & Mnemonics(Only PCMB) for quick learning
- Unit wise Self -Assessment Tests
- Concept videos for blended learning
- Previous Years' Examination Questions and Answers with detailed explanation to facilitate exam-oriented preparation.
- Commonly made error & Answering Tips to aid in exam preparation.
- Includes Academically important Questions (AI)

Data Structures and Abstractions with Java - Frank M. Carrano 2014-08-13

Data Structures and Abstractions with Java is suitable for one- or two-semester courses in data structures (CS-2) in the departments of Computer Science, Computer Engineering, Business, and Management Information Systems. This book is also useful for programmers and software engineers interested in learning more about data structures and abstractions. This is the most student-friendly data structures text available that introduces ADTs in individual, brief chapters -- each with pedagogical tools to help students master each concept. Using the latest features of Java, this unique object-oriented presentation makes a clear distinction between specification and implementation to simplify learning, while providing maximum classroom flexibility. Teaching and Learning Experience This book will provide a better teaching and learning experience--for you and your students. It will help: Aid comprehension and facilitate teaching with an approachable format and content organization: Material is organized into small segments that focus a reader's attention and provide greater instructional flexibility.

Support learning with student-friendly pedagogy: In-text and online features help students master the material.

Software Technologies - Andreas Holzinger 2015-10-16

This book constitutes the thoroughly refereed proceedings of the 9th International Joint Conference on Software Technologies, ICSOFT 2014, held in Vienna, Austria, in August 2014. The 15 revised full papers and 6 short papers presented were carefully reviewed and selected from 145 submissions. The papers focus on enterprise software technologies; software engineering and systems security; distributed systems; and software project management.

Data Structures and Abstractions with Java - Frank M. Carrano 2007

Using the latest features of Java 5, this unique object-oriented presentation introduces readers to data structures via thirty, manageable chapters. KEY FeaturesTOPICS: 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.

Data Structures and Algorithms in Java - Michael T. Goodrich 2014-01-28

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.

Object-Oriented Data Structures Using Java - Nell Dale 2011-02-27

Continuing the success of the popular second edition, the updated and revised Object-Oriented Data Structures Using Java, Third Edition is sure to be an essential resource for students learning data structures using the Java programming language. It presents traditional data structures and object-oriented topics with an emphasis on problem-solving, theory, and software engineering principles. Beginning early and continuing throughout the text, the authors introduce and expand upon the use of many Java features including packages, interfaces, abstract classes, inheritance, and exceptions. Numerous case studies provide readers with real-world examples and demonstrate possible solutions to interesting problems. The authors' lucid writing style guides readers through the rigor of standard data structures and presents essential concepts from logical, applications, and implementation levels. Key concepts throughout the Third Edition have been clarified to increase student comprehension and retention, and end-of-chapter exercises have been updated and modified. New and Key Features to the Third Edition: - Includes the use of generics throughout the text, providing the dual benefits of allowing for a type safe use of data structures plus exposing students to modern approaches. -This text is among the first data structures textbooks to address the topic of concurrency and synchronization, which are growing in the importance as computer systems move to using more cores and threads to obtain additional performance with each new generation. Concurrency and synchronization are introduced in the new Section 5.7, where it begins with the basics of Java threads. -Provides numerous case studies and examples of the problem solving process. Each case study includes problem description, an analysis of the problem input and required output, and a discussion of the appropriate data structures to use. -Expanded chapter exercises allow you as the instructor to reinforce topics for your students using both theoretical and practical questions. -Chapters conclude with a chapter summary that highlights the most important topics of the chapter and ties together related topics.

Data Structures - Elliot B. Koffman 2016

Java, Java, Java - Ralph Morelli 2006

Functional and flexible, this guide takes an objects-first approach to Java programming and problem using games and puzzles. Updated to cover Java version 1.5 features, such as generic types, enumerated types, and the Scanner class. Offers independent introductions to both a command-line interface and a graphical user interface (GUI). Features coverage of Unified Modeling Language (UML), the industry-standard, object-oriented design tool. Illustrates key aspects of Java with a collection of game and puzzle examples. Instructor and Student resources available online. For introductory computer programming students or professionals interested in learning Java.

Data Structures Using Java - Yedidyah Langsam 2003

This book employs an object-oriented approach to teaching data structures using Java. Many worked examples and approximately 300 additional examples make this book easily accessible to the reader. Most of the concepts in the book are illustrated by several examples, allowing readers to visualize the processes being taught. Introduces abstract concepts, shows how those concepts are useful in problem solving, and then shows the abstractions can be made concrete by using a programming language. Equal emphasis is placed on both the abstract and the concrete versions of a concept, so that the reader learns about the concept itself, its implementation, and its application. For anyone with an interest in learning more about data structures.

PROBLEM SOLVING AND PYTHON PROGRAMMING - Dr. MUTHU KUMAR B

Mastering Web Services Security - Bret Hartman 2003-02-17

Uncovers the steps software architects and developers will need to take in order to plan and build a real-world, secure Web services system. Authors are leading security experts involved in developing the standards for XML and Web services security. Focuses on XML-based security and presents code examples based on popular EJB and .NET

application servers. Explains how to handle difficult-to-solve problems such as passing user credentials and controlling delegation of those credentials across multiple applications. Companion Web site includes the source code from the book as well as additional examples and product information.

Understanding Web Services - Eric Newcomer 2002

Discusses application-to-application Internet communication, network standards, major architectural approaches, the role of Web services, and ebXML.

Data Abstraction & Problem Solving with Java - Janet J. Prichard 2010-10 Rev. ed. of: *Data abstraction and problem solving with Java* / Frank M. Carrano, Janet J. Prichard. 2007.

JAVA AND OBJECT-ORIENTED PROGRAMMING PARADIGM - DEBASISH JANA 2005-01-01

This practice-oriented text explores the intricacies of Java language in the light of different procedural and object-oriented paradigms. It is primarily focussed on the Object-Oriented Programming (OOP) paradigm using Java as a language. The text begins with the programming overview and introduces the reader to the important object-oriented (OO) terms. It then deals with Java development as well as runtime environment set-up along with the steps of compilation and running of a simple program. The text explains the philosophy of Java by highlighting its core features and demonstrating its advantages over C++. Besides, it covers GUI through Java applets, Swing, as well as concurrency handling and synchronization through threads. A chapter is exclusively devoted to fundamental data structures and their applications in Java. The book shows how Unified Modeling Language (UML) represents objects, classes, components, relationships, and architectural design. This comprehensive and student friendly book is intended as a text for the students of computer science and engineering, computer applications (BCA/MCA), and IT courses.

Data Structures and Algorithms Using Java - William McAllister 2009
Data Structures & Theory of Computation

Objects, Abstraction, Data Structures and Design Using Java

Version 5.0 - Elliot B. Koffman 2004-11-10

This version of the book uses the latest Java technology, Java 2 Standard Edition Version 5.0 (J2SE V. 5.0), or otherwise known as "Version 5.0." This revolutionary book intertwines problem solving and software engineering with the study of traditional data structures topics. The book emphasizes the use of objects and object-oriented design. Early chapters provide background coverage of software engineering. Then, in the chapters on data structures, these principles are applied. The authors encourage use of a five-step process for the solution of case studies: problem specification, analysis, design, implementation, and testing. As is done in industry, these steps are sometimes performed in an iterative fashion rather than in strict sequence. The Java Application Programming Interface (API) is used throughout the text. Wherever possible, the specification and interface for a data structure follow the Java Collections Framework. Emphasizes the use of objects and object-oriented design Provides a primer on the Java language and offers background coverage of software engineering Encourages an iterative five-step process for the solution of case studies: problem specification, analysis, design, implementation, and testing The Java Application Programming Interface (API) is used throughout

Formal Techniques for Networked and Distributed Systems - FORTE 2003 - Hartmut König 2003-11-03

This volume contains the proceedings of FORTE 2003, the 23rd IFIP TC 6/ WG 6.1 International Conference on Formal Techniques for Networked and Distributed Systems, held in Berlin, Germany, September 29–October 2, 2003. FORTE denotes a series of international working conferences on formal description techniques (FDTs) applied to computer networks and distributed systems. The conference series started in 1981 under the name PSTV. In 1988 a second series under the name FORTE was set up. Both series were united to FORTE/PSTV in 1996. Two years ago the conference name was changed to its current form. The last five meetings of this long conference series were held in Paris, France (1998), Beijing, China (1999), Pisa, Italy (2000), Cheju Island, Korea (2001), and Houston, USA (2002). The 23rd FORTE conference was especially

dedicated to the application of formal description techniques to practice, especially in the Internet and communication domain. The scope of the papers presented at FORTE 2003 covered the application of formal techniques, timed automata, FDT-based design, verification and testing of communication systems and distributed systems, and the verification of security protocols. In addition, work-in-progress papers were presented which have been published in a separate volume.

Data Abstraction and Problem Solving with Java - Frank M. Carrano 2006

The Second Edition of Data Abstraction and Problem Solving with Java: Walls and Mirrors presents fundamental problem-solving and object-oriented programming skills by focusing on data abstraction (the walls) and recursion (the mirrors). It is fully revised to use the latest version of the Java programming language (Java 5.0). Java 5.0 is particularly well suited for presenting object-oriented programming, and helps enhance this edition's increased focus on object-oriented programming and data abstraction. Clear, accessible writing is complemented by a pedagogically rich presentation throughout this textbook.

Data Structures - Elliot B. Koffman 2010-01-26

This book lays the foundation for programmers to build their skills. The focus is placed on how to implement effective programs using the JCL instead of producing mathematical proofs. The coverage is updated and streamlined to provide a more accessible approach to programming. They'll be able to develop a thorough understanding of basic data structures and algorithms through an objects-first approach. Data structures are discussed in the context of software engineering principles. Updated case studies also show programmers how to apply essential design skills and concepts.

Programming and Problem Solving with Java -

Data Structures and Problem Solving Using Java - Mark Allen Weiss 2002
Uses Java to teach data structures and algorithms from the perspective of abstract thinking and problem solving.

Fourth International Workshop on Object-Oriented Real-Time

Dependable Systems - 1999

Problem Solving with Algorithms and Data Structures Using Python - Bradley N. Miller 2011

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.

ECOOP 2012 -- Object-Oriented Programming - James Noble 2012-06-28

This book constitutes the refereed proceedings of the 26th European Conference on Object-Oriented Programming, ECOOP 2012, held in Beijing, China, in June 2012. The 27 revised full papers presented together with two keynote lectures were carefully reviewed and selected from a total of 140 submissions. The papers are organized in topical sections on extensibility, language evaluation, ownership and initialisation, language features, special-purpose analyses, javascript, hardcore theory, modularity, updates and interference, general-purpose

analyses.

Computer Science - Robert Sedgewick 2016-06-17

Named a Notable Book in the 21st Annual Best of Computing list by the ACM! Robert Sedgewick and Kevin Wayne's *Computer Science: An Interdisciplinary Approach* is the ideal modern introduction to computer science with Java programming for both students and professionals. Taking a broad, applications-based approach, Sedgewick and Wayne teach through important examples from science, mathematics, engineering, finance, and commercial computing. The book demystifies computation, explains its intellectual underpinnings, and covers the essential elements of programming and computational problem solving in today's environments. The authors begin by introducing basic programming elements such as variables, conditionals, loops, arrays, and I/O. Next, they turn to functions, introducing key modular programming concepts, including components and reuse. They present a modern introduction to object-oriented programming, covering current programming paradigms and approaches to data abstraction. Building on this foundation, Sedgewick and Wayne widen their focus to the broader discipline of computer science. They introduce classical sorting and searching algorithms, fundamental data structures and their application, and scientific techniques for assessing an implementation's performance. Using abstract models, readers learn to answer basic questions about computation, gaining insight for practical application. Finally, the authors show how machine architecture links the theory of computing to real computers, and to the field's history and evolution. For each concept, the authors present all the information readers need to build confidence, together with examples that solve intriguing problems. Each chapter contains question-and-answer sections, self-study drills, and challenging problems that demand creative solutions. Companion web site (introcs.cs.princeton.edu/java) contains Extensive supplementary information, including suggested approaches to programming assignments, checklists, and FAQs Graphics and sound libraries Links to program code and test data Solutions to selected exercises Chapter summaries Detailed instructions for installing a Java programming

environment Detailed problem sets and projects Companion 20-part series of video lectures is available at informit.com/title/9780134493831

OBJECT-ORIENTED PROGRAMMING WITH C++ AND JAVA - DEBASIS SAMANTA 2006-01-01

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.

Oswaal ISC Sample Question Papers Class-11 Computer Science (For 2023 Exam) - Oswaal Editorial Board 2022-10-01

This product covers the following: • 10 Sample Papers-5 Solved & 5 Self Assessment Papers strictly designed as per the latest CISCE Syllabus & Board Specimen paper • On-Tips Notes & Revision Notes 1000+ concepts for Quick Revision • Mind Maps & Mnemonics for better learning • MCQs & Objective Type Questions 200+MCQs for Practice *Java for Artists* - Rick Miller 2006

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

Data Abstraction and Problem Solving with C++ - Frank M. Carrano 1998

"Focusing on data abstraction and data structures, the second edition of this very successful book continues to emphasize the needs of both the instructor and the student. The book illustrates the role of classes and

abstract data types (ADTs) in the problem-solving process as the foundation for an object-oriented approach. Throughout the next, the distinction between specification and implementation is continually stressed. The text covers major applications of ADTs, such as searching a flight map and performing an event-driven simulation. It also offers early, extensive coverage of recursion and uses this technique in many examples and exercises. Overall, the lucid writing style, widespread use of examples, and flexible coverage of material have helped make this a leading book in the field." --Book Jacket.

Objects, Abstraction, Data Structures and Design - Elliot B. Koffman 2005-10-20

"It is a practical book with emphasis on real problems the programmers encounter daily." --Dr.Tim H. Lin, California State Polytechnic University, Pomona "My overall impressions of this book are excellent. This book emphasizes the three areas I want: advanced C++, data structures and the STL and is much stronger in these areas than other competing books." --Al Verbanec, Pennsylvania State University Think, Then Code When it comes to writing code, preparation is crucial to success. Before you can begin writing successful code, you need to first work through your options and analyze the expected performance of your design.

That's why Elliot Koffman and Paul Wolfgang's *Objects, Abstraction, Data Structures, and Design: Using C++* encourages you to Think, Then Code, to help you make good decisions in those critical first steps in the software design process. The text helps you thoroughly understand basic data structures and algorithms, as well as essential design skills and principles. Approximately 20 case studies show you how to apply those skills and principles to real-world problems. Along the way, you'll gain an understanding of why different data structures are needed, the applications they are suited for, and the advantages and disadvantages of their possible implementations. Key Features * Object-oriented approach. * Data structures are presented in the context of software design principles. * 20 case studies reinforce good programming practice. * Problem-solving methodology used throughout... "Think, then code!" * Emphasis on the C++ Standard Library. * Effective pedagogy.

Learning Java Through Games - Lubomir Stanchev 2013-11-12

Learning Java Through Games teaches students how to use the different features of the Java language as well as how to program. Suitable for self-study or as part of a two-course introduction to programming, the book covers as much material as possible from the latest Java standard while requiring no previous programming experience. Taking an application-motivated approach, the text presents an abundance of games. Students must read through the whole chapter to understand all the features that are needed to implement the game. Most chapters start with a description of a game and then introduce different Java constructs for implementing the features of the game on need-to-use bases. The text teaches students not only how to write code that works but also how to follow good software practices. All sample programs in the text strive to achieve low cohesion and high coupling—the hallmarks of well-designed code. Many programs are refactored multiple times to achieve code that is easy to understand, reuse, and maintain. The first part of the book covers basic programming techniques, such as conditional statements, loops, methods, arrays, and classes. The second part focuses on more advanced topics, including class inheritance, recursions, sorting algorithms, GUI programming, exception handling, files, and applets.

Informatics in Schools: Contributing to 21st Century Education -

Ivan Kalas 2011-11-10

This book constitutes the refereed proceedings of the 5th International Conference on Informatics in Schools: Situation, Evolution and Perspectives, ISSEP 2011, held in Bratislava, Slovakia, in October 2011. The 20 revised full papers presented were carefully reviewed and selected from 69 submissions. A broad variety of topics related to teaching informatics in schools is addressed ranging from national experience reports to paedagogical and methodological issues. The papers are organized in topical sections on informatics education - the spectrum of options, national perspectives, outreach programmes, teacher education, informatics in primary schools, advanced concepts of informatics in schools, as well as competitions and exams.

Programming and Problem Solving with Java - Nell B. Dale 2008

Extensively revised, the new Second Edition of Programming and Problem Solving with Java continues to be the most student-friendly text available. The authors carefully broke the text into smaller, more manageable pieces by reorganizing chapters, allowing student to focus more sharply on the important information at hand. Using Dale and Weems' highly effective "progressive objects" approach, students begin with very simple yet useful class design in parallel with the introduction of Java's basic data types, arithmetic operations, control structures, and file I/O. Students see first hand how the library of objects steadily grows larger, enabling ever more sophisticated applications to be developed through reuse. Later chapters focus on inheritance and polymorphism, using the firm foundation that has been established by steadily developing numerous classes in the early part of the text. A new chapter on Data Structures and Collections has been added making the text ideal for a one or two-semester course. With its numerous new case studies, end-of-chapter material, and clear descriptive examples, the Second Edition is an exceptional text for discovering Java as a first programming language!

Data Structures - Elliot B. Koffman 2021-02-03

Data Structures: Abstraction and Design Using Java offers a coherent and well-balanced presentation of data structure implementation and data structure applications with a strong emphasis on problem solving and software design. Step-by-step, the authors introduce each new data structure as an abstract data type (ADT), explain its underlying theory and computational complexity, provide its specification in the form of a Java interface, and demonstrate its implementation as one or more Java classes. Case studies using the data structures covered in the chapter show complete and detailed solutions to real-world problems, while a variety of software design tools are discussed to help students "Think, then code." The book supplements its rigorous coverage of basic data structures and algorithms with chapters on sets and maps, balanced binary search trees, graphs, event-oriented programming, testing and debugging, and other key topics. Now available as an enhanced e-book, the fourth edition of Data Structures: Abstraction and Design Using Java

enables students to measure their progress after completing each section through interactive questions, quick-check questions, and review questions.