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Object-Oriented Data Structures Using Java-Dale 2016-09 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.

Object-Oriented Data Structures Using Java-Nell Dale 2011-02-27 Data Structures & Theory of Computation

Index Data Structures in Object-Oriented Databases-Thomas A. Mueck 2012-12-06 Object-oriented database management systems (OODBMS) are used to implement and maintain large object databases on persistent storage. Regardless whether the underlying database model follows the object-oriented, the relational or the object-relational paradigm, a key feature of any DBMS product is content based access to data sets. On the one hand this feature provides user-friendly query interfaces based on predicates to describe the desired data. On the other hand it poses challenging questions regarding DBMS design and implementation as well as the application development process on top of the DBMS. The reason for the latter is that the actual query performance depends on a technically meaningful use of access support mechanisms. In particular, if chosen and applied properly, such a mechanism speeds up the execution of predicate based queries. In the object-oriented world, such queries may involve arbitrarily complex terms referring to inheritance hierarchies and aggregation paths. These features are attractive at the application level, however, they increase the complexity of appropriate access support mechanisms which are known to be technically non-trivial in the relational world.

C++-Saumyendra Sengupta 2012-12-06 This book provides a broad coverage of fundamental and advanced concepts of data structures and algorithms. The material presented includes a treatment of elementary data structures such as arrays, lists, stacks, and trees, as well as newer structures that have emerged to support the processing of multidimensional or spatial data files. These newer structures and algorithms have received increasing attention in recent years in conjunction with the rapid growth in computer-aided design, computer graphics, and related fields in which multidimensional data structures are of great interest. Our main objective is to mesh the underlying concepts with application examples that are of practical use and are timely in their
implementations. To this end, we have used mainly the Abstract Data Structure (or Abstract Data Type (ADT)) approach to define structures for data and operations. Object-oriented programming (OOP) methodologies are employed to implement these ADT concepts. In OOP, data and operations for an ADT are combined into a single entity (object). ADTs are used to specify the objects—arrays, stacks, queues, trees, and graphs. OOP allows the programmer to more closely mimic the real-world applications. This OOP is more structured and modular than previous attempts. OOP has become de facto state-of-the-art in the 1990s.

Data Structures and Algorithms with Object-Oriented Design Patterns in Java—Bruno R. Preiss 2000 Create sound software designs with data structures that use modern object-oriented design patterns! Author Bruno Preiss presents the fundamentals of data structures and algorithms from a modern, object-oriented perspective. The text promotes object-oriented design using Java and illustrates the use of the latest object-oriented design patterns. Virtually all the data structures are discussed in the context of a single class hierarchy. This framework clearly shows the relationships between data structures and illustrates how polymorphism and inheritance can be used effectively. Key Features of the Text * All data structures are presented using a common framework. This shows the relationship between the data structures and how they are implemented. * Object-oriented design patterns are used to demonstrate how a good design fits together and transcends the problem at hand. * A single Java software design is used throughout the text to provide a better understanding of the operation of complicated data structures. * Just-in-time presentation of mathematical analysis techniques introduces students to mathematical concepts as needed. Visit the Text's Web Site A comprehensive web site is available for users of the text at www.wiley.com/college/preiss. The site includes: * The Web Book (a hypertext version of the complete book) * Links to the Java Source Code (all the program examples from the text) * Opus5 Package (a Java package comprised of all the source code from the text) * Documentation (source code documentation) * Demo Applets (various Java applets that illustrate data structures and algorithms from the text) * Archive (JAR format archive of the source code from the text) * Front Matter (table of contents and preface) * Solutions Manual (password required) * Errata

Data Structures and Algorithms—John Beidler 2012-12-06 This textbook provides an in depth course on data structures in the context of object oriented development. Its main themes are abstraction, implementation, encapsulation, and measurement: that is, that the software process begins with abstraction of data types, which then lead to alternate representations and encapsulation, and finally to resource measurement. A clear object oriented approach, making use of Booch components, will provide readers with a useful library of data structure components and experience in software reuse. Students using this book are expected to have a reasonable understanding of the basic logical structures such as stacks and queues. Throughout, Ada 95 is used and the author takes full advantage of Ada's encapsulation features and the ability to present specifications without implementational details. Ada code is supported by two suites available over the World Wide Web.

Data Structures and Software Development in an Object-oriented Domain—Jean-Paul Tremblay 2003 This first edition book integrates data structures, library design, and software principles into one package. The authors begin with simple software engineering concepts, and repeatedly use them to develop applications throughout the text. The topics covered include fundamental design concepts and principles; object oriented analysis and design; and design for reuse. For computer programmers.

Data Structures and Object Oriented Programming with C++ (For Anna University)—Khurana Rohit 2010 Data Structures and Object-Oriented Programming with C++ has been specifically designed and written to meet the requirements of the engineering students. This is a core subject in the curriculum of all Computer Science programs. The aim of this book is to help the students develop programming and analytical skills simultaneously such that they are able to design programs with maximum efficiency. C language has been used in the book to permit the execution of basic data structures in a variety of ways. This book also provides an in-depth coverage of object-oriented concepts, such as encapsulation.
abstraction, inheritance, polymorphism, message passing and dynamic binding, templates, exception handling, streams and standard template library (STL) in C++.

**Data Structures, Algorithms, and Object-oriented Programming**
Gregory L. Heileman 1996

**ADA Plus Data Structures**
Nell B. Dale 2007 Data Structures & Theory of Computation

**Fundamentals of OOP and Data Structures in Java**
Richard Wiener 2000-06-05 A book for an undergraduate course on data structures which integrates the concepts of object-oriented programming and GUI programming.

**Object-oriented C++ Data Structures for Real Programmers**
Jan L. Harrington 2002 Data structures play a key role in any serious development project, determining how the program acquires, stores, updates, and processes its in-memory data. Many of the basic techniques for constructing and governing access to data structures are well-documented, but most are structured programming techniques that do not translate well in an object-oriented environment. Object-Oriented C++ Data Structures for Real Programmers corrects this imbalance, teaching experienced C++ and Java developers the most effective methods for designing and implementing highly functional data structures in any type of object-oriented programming effort. The first part of the book introduces the various approaches, focusing on the purposes for which each is most suited. From there, the author examines advanced functionality that can be achieved in a number of ways, helping readers choose and apply the optimal technique. Key Features * Advanced coverage from an accomplished developer and programming author * Written explicitly for experienced object-oriented programmers * Helps you choose the best way to build the desired functionality, then provides the instruction you need to do it * Covers all major data structure approaches, including arrays, vectors, lists, stacks, and queues * Explains how to achieve a wide range of functionality, including data sorting, searching, hashing, dictionaries, and indexes

**Object-Orientation, Abstraction, and Data Structures Using Scala**
Mark C. Lewis 2017-01-06 Praise for the first edition: "The well-written, comprehensive book...[is] aiming to become a de facto reference for the language and its features and capabilities. The pace is appropriate for beginners; programming concepts are introduced progressively through a range of examples and then used as tools for building applications in various domains, including sophisticated data structures and algorithms...Highly recommended. Students of all levels, faculty, and professionals/practitioners. —D. Papamichail, University of Miami in CHOICE Magazine

Mark Lewis’ Introduction to the Art of Programming Using Scala was the first textbook to use Scala for introductory CS courses. Fully revised and expanded, the new edition of this popular text has been divided into two books. Object-Orientation, Abstraction, and Data Structures Using Scala, Second Edition is intended to be used as a textbook for a second or third semester course in Computer Science. The Scala programming language provides powerful constructs for expressing both object orientation and abstraction. This book provides students with these tools of object orientation to help them structure solutions to larger, more complex problems, and to expand on their knowledge of abstraction so that they can make their code more powerful and flexible. The book also illustrates key concepts through the creation of data structures, showing how data structures can be written, and the strengths and weaknesses of each one. Libraries that provide the functionality needed to do real programming are also explored in the text, including GUIs, multithreading, and networking. The book is filled with end-of-chapter projects and exercises, and the authors have also posted a number of different supplements on the book website. Video lectures for each chapter in the book are also available on YouTube. The videos show construction of code from the ground up and this type of “live coding” is invaluable for learning to program, as it allows students into the mind of a more experienced programmer, where they can see the thought processes associated with the development of the code. About the Authors Mark Lewis is an Associate Professor at Trinity University. He teaches a number of different courses,
spanning from first semester introductory courses to advanced seminars. His research interests included simulations and modeling, programming languages, and numerical modeling of rings around planets with nearby moons. Lisa Lacher is an Assistant Professor at the University of Houston, Clear Lake with over 25 years of professional software development experience. She teaches a number of different courses spanning from first semester introductory courses to graduate level courses. Her research interests include Computer Science Education, Agile Software Development, Human Computer Interaction and Usability Engineering, as well as Measurement and Empirical Software Engineering.

DATA STRUCTURES AND ALGORITHMS WITH OBJECT- ORIENTED DESIGN PATTERNS IN C++-Bruno R. Preiss 2008-05 About The Book: Bruno Preiss presents readers with a modern, object-oriented perspective for looking at data structures and algorithms, clearly showing how to use polymorphism and inheritance, and including fragments from working and tested programs. The book uses a single class hierarchy as a framework to present all of the data structures. This framework clearly shows the relationships between data structures and illustrates how polymorphism and inheritance can be used effectively.

Java: Data Structures and Programming-Liwu Li 2012-12-06 This introduction to the Java language integrates a discussion of object-oriented programming with the design and implementation of data structures. It covers the most important topics, including algorithm analysis; time and space complexities; Java built-in data structure classes; input and output, data, and access streams; and the persistency of data.

Object Oriented Data Structures-K. S. Easwarakumar 2000-12-01

Object Oriented Data Structures Using Java-Nell B. Dale 2005

Java Methods-Maria Litvin 2015-02-15 This book offers a thorough introduction to the concepts and practices of object-oriented programming in Java. It also introduces the most common data structures and related algorithms and their implementations in the Java collections framework. Chapters 1-14 follow the syllabus of the AP Computer Science in Java course. They will prepare you well for the AP CS exam. Chapters 15-18 on file input and output, graphics, graphical user interfaces, and events handling in Java will give you a better sense of real-world Java programming; this material also makes case studies, labs, and exercises more fun. Chapters 19-26 deal with more advanced data structures and algorithms. Chapter 27, Design Patterns, introduces more intricate aspects of object-oriented design and serves as an introduction to design patterns. The last chapter, Computing in Context, discusses creative, responsible, and ethical computer use.

Data Structures-William Joseph Collins 1992-01 This is the first text designed for an elementary data structures course to incorporate the important concepts of object-oriented programming. Specifically, the text uses objects in the definition, design and implementation of abstract data types.

Data Structures and Algorithms in Java-Peter Drake 2013-03-15 This new book provides a concise and engaging introduction to Java and object-oriented programming with an abundance of original examples, use of Unified Modeling Language throughout, and coverage of the new Java 1.5. Addressing critical concepts up front, the book’s five-part structure covers object-oriented programming, linear structures, algorithms, trees and collections, and advanced topics. KEY FEATURES: "Data Structures and Algorithms in Java" takes a practical approach to real-world programming and introduces readers to the process of crafting programs by working through the development of projects, often providing multiple versions of the code and consideration for alternate designs. The book features the extensive use of games as examples; a gradual development of classes analogous to the Java Collections Framework; complete, working code in the book and online; and strong pedagogy including extended examples in
most chapters along with exercises, problems and projects. For readers and professionals with a familiarity with the basic control structures of Java or C and a precalculus level of mathematics who want to expand their knowledge to Java data structures and algorithms. Ideal for a second undergraduate course in computer science.

**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.

**Java Methods A&AB**-Maria Litvin 2006-03-01

Once again, the Litvins bring you a textbook that expertly covers the subject, is fun to read, and works for students with different learning styles. In one volume, this edition covers both introductory Java/OOP A-level material and AB-level topics (data structures and algorithms). The book follows Java 5.0 and incorporates many other changes, big and small, to reflect the current priorities of the AP CS program. This edition offers an early focus on object-oriented programming and design and an expanded discussion of the Java collections framework. What has not changed is the authors' respect for students, clear explanation of concepts, common sense about practical software development issues, and realistic and fun case studies and labs. By choosing this book, you have joined the many thousands of students who have mastered computer science fundamentals and received high grades on AP CS exams using the Litvins' C++ and Java books. - Back cover.

**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.

**C++**-Saumyendra Sengupta 1994

**Data Structures and Object-oriented Programming**- 2006

**C++ Plus Data Structures**-Nell B. Dale 2003

**Data Structures In C**- 2009
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.

Introduction to Data Structures and Algorithms with C++-Glenn W. Rowe 1997 This is a complete introduction to the critical topic of data structures, written from the object-oriented perspective most students and practitioners are adopting. The book introduces data structures using C++, a language whose classes and object-oriented constructs are specifically designed to efficiently implement data structures. The opening chapters introduce the ideas behind object-oriented programming and C++; once these ideas are explained, the book introduces data structures and algorithms from an O-O point of view. All standard data structures are described, including stacks, queues, sets, linked lists, trees, and graphs. Searching and sorting algorithms are also studied. This book is for students and others working with data structures, especially object-oriented developers interested in ways data structures can enhance their effectiveness.

Data Structures & Other Objects Using C++-Michael Main 1997 Where will you be ten years from now? How will a course in data structures help you? Perhaps you will be a software engineer writing large software in specialized areas such as computer graphics. The authors of such programs, today and in the future, require a ready knowledge of proven methods for representing data. For example, the graphics program that generated the cover of this book uses a collection of three-dimensional objects—a programmer must use the knowledge of data structures to make decisions on how to represent such collections. As a programmer, you must also possess an unshakable understanding of fundamental programming techniques and algorithms to manipulate the data structures. The graphics program is again a good example, using recursion to generate beautiful fractal patterns, and using efficient sorting algorithms in the process of removing hidden objects. With many accessible examples, this book provides the knowledge of data representations and algorithms in a way that will be immediately useful to you with C++. This book also focuses on foundational material that will continue to be useful to you over the next ten years and beyond. Data Structures and Other Objects Using C++ provides: a balanced approach to data structures and object-oriented programming early, self-contained coverage of key C++ and object-oriented programming topics a solid foundation in specifying, designing, implementing, and using simple container classes, lists, stacks, queues, trees, and more accessible coverage of fundamental topics such as container classes, pointers and linked lists, time analysis, testing, recursion, searching and sorting extensive appendices that will make this book a valuable resource for years to come 0805374701B04062001

Data Structures and Algorithms in Python-Michael T. Goodrich 2013-03-08 Based on the authors’ market leading data structures books in Java and C++, this textbook offers a comprehensive, definitive introduction to data structures in Python by authoritative authors. Data Structures and Algorithms in Python is the first authoritative object-oriented book available for the Python data structures course. Designed to provide a comprehensive introduction to data structures and algorithms, including their design, analysis, and implementation, the text will maintain the same general structure as Data Structures and Algorithms in Java and Data Structures and Algorithms in C++.

C++ Plus Data Structures-Nell Dale 2016-08-24 Nell Dale’s C++ Plus Data Structures, Sixth Edition explores the specifications, applications, and implementations of abstract data types. Topics covered include modularization, data encapsulation, information hiding, object-oriented decomposition, algorithm analysis, and more.

Object-oriented Data Structures Using Java-Nell B. Dale 2006 Data Structures & Theory of Computation

Java Methods-Maria Litvin 2021-10-15

Clean Code-Robert C. Martin 2009 Looks at the principles and clean code, includes case studies showcasing the practices of writing clean code, and contains a list of heuristics and "smells" accumulated from the process of writing clean code.

The Object of Data Abstraction and Structures Using Java-David D. Riley 2003 The Object of Data Abstraction and Structures Using Java is the perfect book for your data structures course. It presents traditional data structures topics with a distinct object-oriented flavor that offers students useful approaches for data structure design and implementation.

Data Structures and Other Objects Using Java-Michael Main 2011-11 Data Structures and Other Objects Using Java is a gradual, “just-in-time” introduction to Data Structures for a CS2 course. Each chapter provides a review of the key aspects of object-oriented programming and a syntax review, giving students the foundation for understanding significant programming concepts. With this framework they are able to accomplish writing functional data structures by using a five-step method for working with data types; understanding the data type abstractly, writing a specification, using the data type, designing and implementing the data type, and analyzing the implementation. Students learn to think analytically about the efficiency and efficacy of design while gaining exposure to useful Java classes libraries.

Data Structures and Other Objects Using C++-Michael Main 2011 Data Structures and Other Objects Using C++ takes a gentle approach to the data structures course in C++. Providing an early, self-contained review of object-oriented programming and C++, this text gives students a firm grasp of key concepts and allows those experienced in another language to adjust easily. Flexible by design, professors have the option of emphasizing object-oriented programming, covering recursion and sorting early, or accelerating the pace of the course. Finally, a solid foundation in building and using abstract data types is also provided, along with an assortment of advanced topics such as B-trees for project building and graphs.

Data Structures and Other Objects Using Java-Michael Main 2006 Takes a gentle approach to learning data structures using the Java programming language. Providing an early, self-contained review of object-oriented programming and Java, this text gives readers a firm grasp of key concepts and allows those experienced in another language to adjust easily. It has a solid foundation in building and using abstract data types, along with an assortment of advanced topics such as B-trees for project building and graph. It incorporates Java 5.0 including the use of scanner class and generic data types (generics). MARKET: This book is if for anyone interested in learning how to write effective data structures using the Java language.