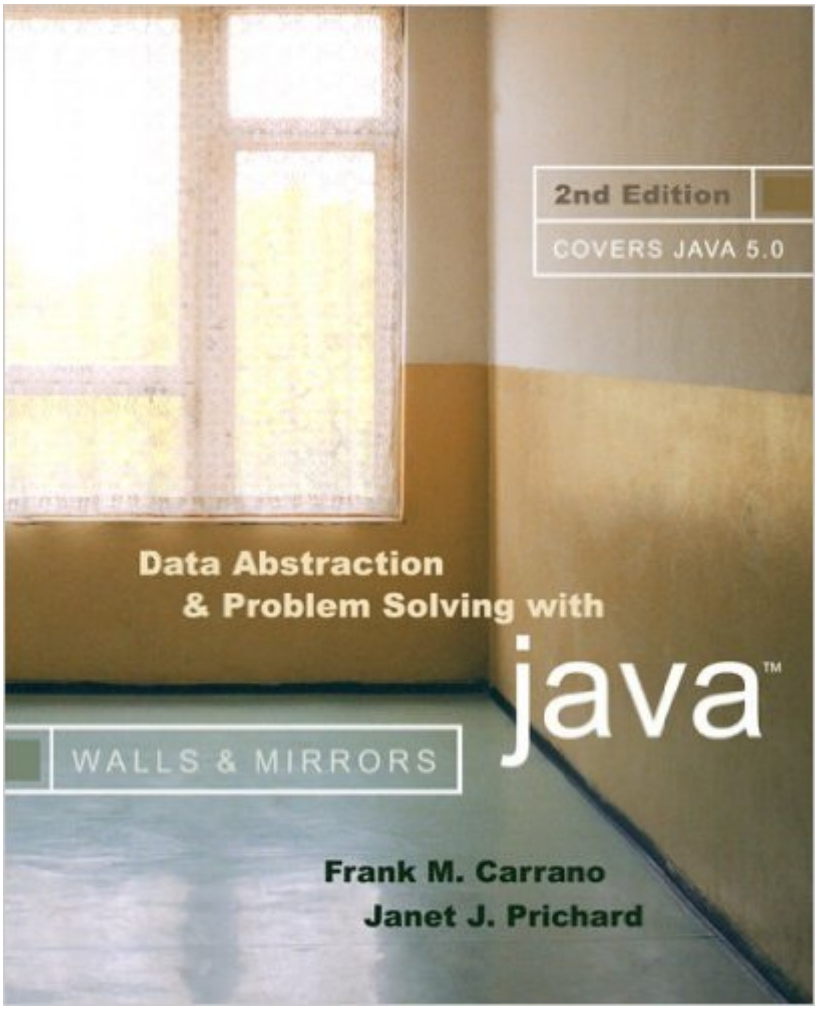
Data Abstraction And Problem Solving With Java (2nd Edition)



Synopsis

The second edition, in Java, of the classic Walls and Mirrors approach to programming designs solutions to problems using both data abstraction (the walls) and recursion (the Mirrors). Data Abstraction and Problem Solving with Java: Walls and Mirrors, 2e provides a focus on the important concepts of data abstraction and data structures in a way that beginning programmers find accessible.Â The first part of the book covers problem-solving techniques including a review of Java fundamentals, principles of programming and software engineering, recursion and data abstraction, and linked lists.Â Later chapters focus on problem solving with abstract data types including stacks, queues, algorithm efficiency and sorting, trees, and graphs.Â This edition contains enhanced material on OO implementation.Â MARKET: Readers searching for problem solving solutions through abstraction, algorithmic refinement, data structures and recursion.

Book Information

Paperback: 900 pages

Publisher: Addison Wesley; 2 edition (October 29, 2005)

Language: English

ISBN-10: 0321304284

ISBN-13: 978-0321304285

Product Dimensions: 7.4 x 1.7 x 9.2 inches

Shipping Weight: 2.8 pounds

Average Customer Review: 3.0 out of 5 starsÂ Â See all reviewsÂ (8 customer reviews)

Best Sellers Rank: #210,722 in Books (See Top 100 in Books) #29 inÂ Books > Computers & Technology > Programming > Algorithms > Data Structures #36 inÂ Books > Computers & Technology > Programming > Software Design, Testing & Engineering > Structured Design #128 inÂ Books > Computers & Technology > Computer Science > Systems Analysis & Design

Customer Reviews

I didn’t appreciate this book until after I was finished with my class and had moved on to upper level programing classes at my University. I had an excellent teacher for the class and just never read the book. Now, in my new class, which we are using c++, we are working with more complicated and in depth use of the same concepts and algorithms that are in this book. I was rusty on working with it so I searched a gazillion books and all over the web and was still confused about what I needed to do my project before I remembered that I had it before in java and grabbed this book off my shelf. I was amazed at how amazingly precise and well defined each algorithm and code was after search

for a solution all day. It teaches you HOW to program these concepts, not just give you the code. Shows you how to think about the problems. Very very good book.Those who think this book has too much psuedocode are most likely to be fairly new to programming and don't understand the syntax and how to piece things together as well as they might need; plus I don't recall ever enjoying learning any concepts with Java. The psuedocode in this book pretty much tells you exactly how to program the topic, and even more importantly, shows you exactly what is happening. Psuedocode can be difficult to visualize when you are new to programming, this is true, but with more a little experience, I find this book invaluable. The book is about programming concepts explained using Java, it is not a java book.

There are several problems with this book, from a student's standpoint. I concur with the reviewer above who stated that the book has too much pseudocode. It is very difficult to know exactly what to do when it comes to the actual programming, since there are so few concrete examples written in Java.Additionally, the writing is tedius and boring - the authors repeat the same point in many ways through each chapter, to the point where the same sentence is there tens of times, just worded slightly differently. It's confusing and frustrating for students trying to do the assigned reading, which takes hours due to the writing style and really doesn't convey much actual information.Finally, there are very few self-test questions with answers. How can we learn if we can't correct our mistakes? The exercises should have answers or solutions so we can see how we are doing. This is especially true for students who are teaching themselves. If they are taking a class and the Instructor wants to set problems or assignments, he or she should make up his own.

Bought this for an intermediate java course. The book covers a fair amount of the topics that one might expect to learn in such a course, and the book does an okay job of explaining as well. If you have to buy this book for a course, they i would say to buy used, and then think about keeping it as it could be a valuable resource for some later time. If you are just looking for a good intermediate java book to learn more on your own, i would consider looking elsewhere. 3/5.

I've had to read parts of other data structures books, and they've all been terrible. With this book, for the first time, I felt that the author was successful in clearly demonstrating the topics at hand. The examples and text are very clear and easy to understand. My only issue is that it's shallow in some areas. For example, the Balanced Trees section covers 2-3 trees and 2-3-4 trees, but only glosses over AVL and Red-Black trees. These topics are covered in the class I'm taking right now, so I was

somewhat dismayed that I had to turn to online resources for these. That said, I'm very glad the professor chose this book over any other!

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