

Practical Data Structures and Algorithms for Java Developers

From Fundamentals to Real-World Engineering

Master data structures and algorithms in Java through a practical, engineering-focused approach that goes beyond theory. With modern examples and a structured approach, this book emphasizes not only how algorithms work, but how to choose, adapt, and apply them in real-world systems.

To start, you will conquer fundamental concepts such as arrays and linked lists. From there, the book progresses through essential sorting and searching techniques such as QuickSort and Binary Search. Then, you will explore the implementation and use cases of stacks and queues, followed by tree and graph structures with traversal algorithms. The book ends with you tackling advanced topics, such as dynamic programming, tries, and advanced graph algorithms.

Finally, you will be ready to put your skills to the test and apply your knowledge in real-world situations for performance optimization.

What You Will Learn:

- Implement and optimize essential data structures in Java
- Solve complex algorithmic problems with confidence
- Master best practices for writing efficient, scalable Java code for enterprise applications

Who This Book Is For:

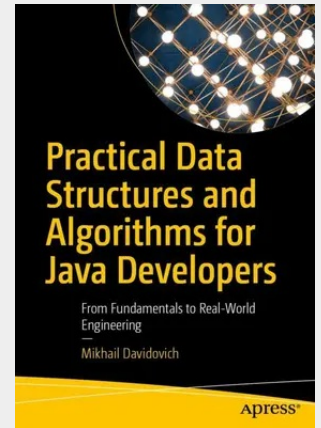
Java developers with a basic understanding of programming concepts who want to deepen their knowledge of data structures and algorithms. Secondary audiences include students, competitive programmers, and software engineers preparing for technical interviews.

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