

## An in-depth introduction to concurrent and distributed computing with Java

Combining the two key types of Java programming, *Concurrent and Distributed Computing in Java* offers both professionals and students a comprehensive guide to fundamental concepts necessary for mastering Java programming.

The text is presented in two parts. The first deals with techniques for programming in shared-memory based systems and covers concepts in Java such as:

- Threads
- Synchronized methods
- Waits and notify
- Multi-threaded programming
- Algorithms for mutual exclusion, consensus, atomic objects, and wait-free data structures

The second half of the text deals with programming in a message-passing system, and covers:

- Resource allocation problems
- Logical clocks
- Global property detection
- Leader election
- Message ordering
- Agreement algorithms
- Checkpointing
- Message logging

Avoiding excessive mathematical notation while explaining important concepts with both rigor and clarity, this up-to-date text will prove a valuable resource for interested professionals and students alike.

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