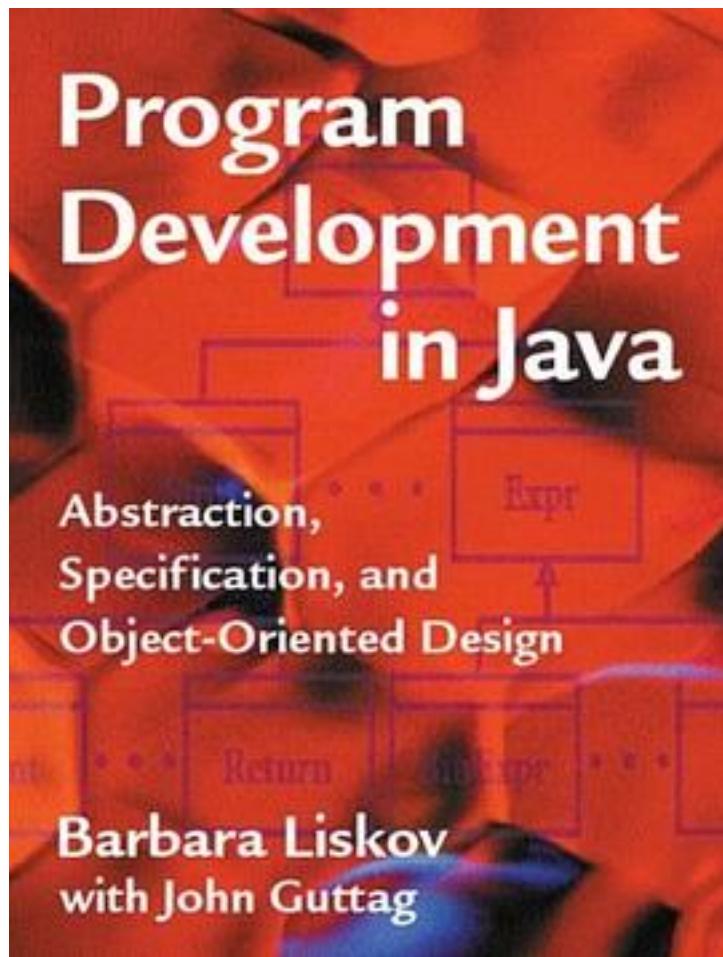


# Program Development in Java



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Written by a world-renowned expert on programming methodology, this book shows how to build production-quality programs--programs that are reliable, easy to maintain, and quick to modify. Its emphasis is on modular program construction: how

to get the modules right and how to organize a program as a collection of modules. The book presents a methodology effective for either an individual programmer, who may be writing a small program or a single module in a larger one; or a software engineer, who may be part of a team developing a complex program comprised of many modules. Both audiences will acquire a solid foundation for object-oriented program design and component-based software development from this methodology. Because each module in a program corresponds to an abstraction, such as a collection of documents or a routine to search the collection for documents of interest, the book first explains the kinds of abstractions most useful to programmers: procedures; iteration abstractions; and, most critically, data abstractions. Indeed, the author treats data abstraction as the central paradigm in object-oriented program design and implementation. The author also shows, with numerous examples, how to develop informal specifications that define these abstractions--specifications that describe what the modules do--and then discusses how to implement the modules so that they do what they are supposed to do with acceptable performance. Other topics discussed include: Encapsulation and the need for an implementation to provide the behavior defined by the specification Tradeoffs between simplicity and performance Techniques to help readers of code understand and reason about it, focusing on such properties as rep invariants and abstraction functions Type hierarchy and its use in defining families of related data abstractions Debugging, testing, and requirements analysis Program design as a top-down, iterative process, and design patterns The Java programming language is used for the book's examples. However, the techniques presented are language independent, and an introduction to key Java concepts is included for programmers who may not be familiar with the language.

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## 标签

Java

计算机

programming

OO

计算机科学

编程原理

编程

OOD

## 评论

我居然借到了这本书。。

绝对的好书，学编程的人都该看看

Pretty good when discussing data abstraction, but towards the end it is still OO nonsense.

Allen, then Barbara.

书很不错啊，但是太过理论了，讲了一些理所当然的东西，到后来不想看了，因为觉得对现阶段的我帮助不是很大。

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## 书评

Liskov大师写给初学者的书，虽然不难，但是对培养理论水平很有好处。不愧是大师，视角和深度和一般人不一样。简单说，和普通介绍编程语法的书不同，这本书主要讲的是程序理论，更注重规范，语义等深层次的东西。

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