

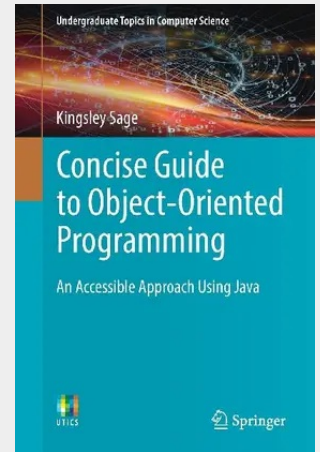
Concise Guide to Object-Oriented Programming

An Accessible Approach Using Java

This engaging textbook provides an accessible introduction to coding and the world of Object-Oriented (OO) programming, using Java as the illustrative programming language. Emphasis is placed on what is most helpful for the first-time coder, in order to develop and understand their knowledge and skills in a way that is relevant and practical. The examples presented in the text demonstrate how skills in OO programming can be used to create applications and programs that have real-world value in daily life.

Topics and features: presents an overview of programming and coding, a brief history of programming languages, and a concise introduction to programming in Java using BlueJ; discusses classes and objects, reviews various Java library objects and packages, and introduces the idea of the Application Programming Interface (API); highlights how OO design forms an essential role in producing a useful solution to a problem, and the importance of the concept of class polymorphism; examines what to do when code encounters an error condition, describing the exception handling mechanism and practical measures in defensive coding; investigates the work of arrays and collections, with a particular focus on fixed length arrays, the ArrayList, HashMap and HashSet; describes the basics of building a Graphical User Interface (GUI) using Swing, and the concept of a design pattern; outlines two complete applications, from conceptual design to implementation, illustrating the content covered by the rest of the book; provides code for all examples and projects at an associated website. This concise guide is ideal for the novice approaching OO programming for the first time, whether they are a student of computer science embarking on a one-semester course in this area, or someone learning for the purpose of professional development or self-improvement. The text does not require any prior knowledge of coding, software engineering, OO, or mathematics.

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