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Autore	Liu Yanhong Annie <1965->
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Nota di contenuto	Machine generated contents note: 1. Introduction; 2. Loops: incrementalize; 3. Sets: incrementalize and implement; 4. Recursion: iterate and incrementalize; 5. Rules: iterate, incrementalize, and implement; 6. Objects: incrementalize across module abstraction; 7. Conclusion.
Sommario/riassunto	A systematic program design method can help developers ensure the correctness and performance of programs while minimizing the development cost. This book describes a method that starts with a clear specification of a computation and derives an efficient implementation by step-wise program analysis and transformations. The method applies to problems specified in imperative, database, functional, logic and object-oriented programming languages with different data, control and module abstractions. Designed for courses or self-study, this book includes numerous exercises and examples that require minimal computer science background, making it accessible to novices. Experienced practitioners and researchers will appreciate the detailed examples in a wide range of application areas

including hardware design, image processing, access control, query optimization and program analysis. The last section of the book points out directions for future studies.
