Software Paradigms

Description: The first integrated, hierarchical model of software structures

This book provides the first fully integrated approach to software paradigms commonly used to develop large software applications, with coverage ranging from discrete problems to full-scale applications. The book focuses on providing a structure for understanding a hierarchy of software development paradigms and showing the relationships between the different paradigms.

In order to provide a clear understanding of how these “building blocks” are used to solve today's complex software design problems, the author assesses the benefits and disadvantages of each paradigm in terms of its contribution to the design process and, where applicable, provides a taxonomy for the paradigm of substructures.

Coverage includes paradigms in the areas of:

- Design patterns
- Software components
- Software architectures
- Frameworks

Chapters within each paradigm include design issues related to building and using the paradigm and feature numerous real-world applications.

Software Paradigms presents a practical overview of the hierarchy of paradigms, with emphasis on how they build upon each other. It is an excellent teaching tool for undergraduates and graduates, and a comprehensive and reliable reference for software engineers. Challenging questions at the end of each chapter pose research problems that will lead to more detailed investigations of the topics discussed within the chapter.

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ACKNOWLEDGMENTS.

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