**Synopsis**

This best-selling text introduces the theory behind databases in a concise yet comprehensive manner, providing database design methodology that can be used by both technical and non-technical readers. The methodology for relational Database Management Systems is presented in simple, step-by-step instructions in conjunction with a realistic worked example using three explicit phases: conceptual, logical, and physical database design. 

**Background:** Introduction to Databases; Database Environment; Database Architectures and the Web. The Relational Model and Languages: The Relational model; Relational Algebra and Relational Calculus; SQL: Data Manipulation; SQL: Data Definition; Query-By-Example (QBE). Database Analysis and Design: Database System Lifecycle; Database Analysis and the DreamHome Case Study; Entity-"Relationship Modeling; Enhanced Entity-"Relationship Modeling; Normalization; Advanced Normalization. Methodology: Methodology "Conceptual Database Design; Methodology "Logical Database Design for Relational Model; Methodology "Physical Database Design for Relational Databases; Methodology "Monitoring and Tuning the Operational System. Selected Database Issues: Security and Administration; Professional, Legal, and Ethical Issues; Transaction Management; Query Processing. Distributed DBMSs and Replication: Distributed DBMS "Concepts and Design; Distributed DBMS "Advanced Concepts; Replication and Mobile Databases. Object DBMSs: Object-Oriented DBMS "Concepts and Design; Object-Oriented DBMS "Standards and Languages; Object-Relational DBMSs. Web and DBMSs: Web Technology and DBMSs; Semistructured Data and XML. Business Intelligence Technologies: Data Warehousing Concepts; Data Warehousing Design; OLAP; Data Mining. Appendices: Users' Requirements Specification for DreamHome Case Study; Other Case Studies; Alternative Data Modeling Notations; Summary of the Database Design Methodology for Relational Databases; Introduction to Pyrrho: "A Liteweight RDBMS. Web Appendices: File Organization and Storage Structures; When Is a DBMS Relational?; Commercial DBMSs: Access and Oracle; Programmatic SQL; Estimating Disk Space Requirements; Introduction to Object-Orientation; Example Web Scripts. This book is ideal for readers interested in database management or database design.

**Book Information**

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Comprehensive - that is the first word that comes to my mind after reading the book Database Systems: A Practical Approach to Design, Implementation and Management. If you are in search of a book that will help you in mastering the subject of Database Management Systems this is it. The coverage is exhaustive and in-depth. While reading the table of contents and preface, I thought that the authors were very ambitious in the scope and are promising too much. But after reading the book, I am glad to say that I was mistaken - the authors have very successfully delivered whatever they have promised and more.

The book is ideal for a student of database management systems. It is also a valuable book for the practicing professional. In fact the people, who are in the database profession, who uses databases or develop applications involving database management systems, will find this book invaluable and will be able to appreciate it much more than a beginner. It is a connoisseur’s delight. The authors assume nothing. Each and every concept is built from scratch. The level of detail is so impressive that one can think this book as a collection of books of various database-related topics. For example, the section on SQL is so comprehensive that, it can stand on its own as a separate book. Such detailed coverage is found for all the topics in the book and is one of its best features. The case studies, worked examples and the presentation style, the concepts in boxes, excellent illustration, review questions, etc. will go a long way in improving the usefulness of the book.

Another feature that makes this book stand out form other books on database management, is its coverage of the latest technologies.

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