



book covers the basic foundation of design as well as more advanced techniques, and also incorporates coverage of data warehousing and OLAP (On-Line Analytical Processing), data mining, object-relational, multimedia, and temporal/spatial design.

At its core, information security deals with the secure and accurate transfer of information. While information security has long been important, it was, perhaps, brought more clearly into mainstream focus with the so-called "Y2K" issue. The Y2K scare was the fear that computer networks and the systems that are controlled or operated by software would fail with the turn of the millennium, since their clocks could lose synchronization by not recognizing a number (instruction) with three zeros. A positive outcome of this scare was the creation of several Computer Emergency Response Teams (CERTs) around the world that now work - operatively to exchange expertise and information, and to coordinate in case major problems should arise in the modern IT environment. The terrorist attacks of 11 September 2001 raised security concerns to a new level. The international community responded on at least two fronts; one front being the transfer of reliable information via secure networks and the other being the collection of information about potential terrorists. As a sign of this new emphasis on security, since 2001, all major academic publishers have started technical journals focused on security, and every major communications conference (for example, Globecom and ICC) has organized workshops and sessions on security issues. In addition, the IEEE has created a technical committee on Communication and Information Security. The first editor was intimately involved with security for the Athens Olympic Games of 2004.

The present book's subject is multidimensional data models and data modeling concepts as they are applied in real data warehouses. The book aims to present the most important concepts within this subject in a precise and understandable manner. The book's coverage of fundamental concepts includes data cubes and their elements, such as dimensions, facts, and measures and their representation in a relational setting; it includes architecture-related concepts; and it includes the querying of multidimensional databases. The book also covers advanced multidimensional concepts that are considered to be particularly important. This coverage includes advanced dimension-related concepts such as slowly changing dimensions, degenerate and junk dimensions, outriggers, parent-child hierarchies, and unbalanced, non-covering, and non-strict hierarchies. The book offers a principled overview of key implementation techniques that are particularly important to multidimensional databases, including materialized views, bitmap indices, join indices, and star join processing. The book ends with a chapter that presents the literature on which the book is based and offers further readings for those readers who wish to engage in more in-depth study of specific aspects of the book's subject.

Table of Contents: Introduction / Fundamental Concepts / Advanced Concepts / Implementation Issues / Further Readings

This 3rd edition provides chemical engineers with process control techniques that

are used in practice while offering detailed mathematical analysis. Numerous examples and simulations are used to illustrate key theoretical concepts. New exercises are integrated throughout several chapters to reinforce concepts. The rapidly increasing volume of information contained in relational databases places a strain on databases, performance, and maintainability: DBAs are under greater pressure than ever to optimize database structure for system performance and administration. Physical Database Design discusses the concept of how physical structures of databases affect performance, including specific examples, guidelines, and best and worst practices for a variety of DBMSs and configurations. Something as simple as improving the table index design has a profound impact on performance. Every form of relational database, such as Online Transaction Processing (OLTP), Enterprise Resource Management (ERP), Data Mining (DM), or Management Resource Planning (MRP), can be improved using the methods provided in the book. The first complete treatment on physical database design, written by the authors of the seminal, Database Modeling and Design: Logical Design, Fourth Edition Includes an introduction to the major concepts of physical database design as well as detailed examples, using methodologies and tools most popular for relational databases today: Oracle, DB2 (IBM), and SQL Server (Microsoft) Focuses on physical database design for exploiting B+tree indexing, clustered indexes, multidimensional clustering (MDC), range partitioning, shared nothing partitioning, shared disk data placement, materialized views, bitmap indexes, automated design tools, and more!

This edition combines clear explanations of database theory and design with up-to-date coverage of models and real systems. It features excellent examples and access to Addison Wesley's database Web site that includes further teaching, tutorials and many useful student resources.

Within the context of integrated health management domains, pharmacoinformatics aims at maximizing the benefits from the use of information systems and technologies for the provision of decision support tools necessary for improved drug management, use, and administration practices.

Pharmacoinformatics and Drug Discovery Technologies: Theories and Applications offers the latest the field has to offer to practitioners and academics alike, presented through theoretical frameworks, case studies, and future directions. This vital resource gathers an integrated pattern of high quality publications from around the world providing current, cutting-edge, and provocative scientific work in the three domains of pharmacoinformatics: decision making domains, knowledge utilization and representation environment, and the technological and infrastructural context.

"This book explores new media such as online music stores, iPods, games, and digital TV and the way corporations are seeking innovative ways to (re)engage with their consumers in the digital era"--Provided by publisher.

Mobile Commerce (M-Commerce) comprises applications and services that are

accessible from Internet-enabled mobile devices. It involves new technologies, services, and business models. While it is different from traditional e-Commerce it can also be seen as an extension of e-Commerce in the sense that it, among others, makes e-Commerce available in a modern way to new application areas and to a new set of customers. The Internet is on its way to leave traces in all aspects of our life independently of where we are. Already today, mobile phones and PDAs become an indispensable part of our life as a source for all kinds of information and services and, especially, as our permanently available interface to our environment. Very soon they will turn into widespread intelligent assistants capable of anticipating many of our wishes and needs. However, for all these changes to happen, key issues of interoperability, usability, security, and privacy still need to be addressed. The Techniques and Applications for Mobile Commerce (TAMoCo) conference series addresses these issues. It provides scientists, practitioners, and students a platform to discuss the latest trends in the exciting above mentioned areas. This book is structured into three parts; (I) Wireless Technologies for the Extended Enterprise: Current State and Future Developments, (II) E-Service Environments: Aspect-Oriented Techniques and Mobile Devices; and (III) AutoMoCo: Autonomic Computing and Mobile Commerce.

"This multiple-volume publications exhibits the most up-to-date collection of research results and recent discoveries in the transfer of knowledge access across the globe"--Provided by publisher.

This book brings all of the elements of database design together in a single volume, saving the reader the time and expense of making multiple purchases. It consolidates both introductory and advanced topics, thereby covering the gamut of database design methodology ? from ER and UML techniques, to conceptual data modeling and table transformation, to storing XML and querying moving objects databases. The proposed book expertly combines the finest database design material from the Morgan Kaufmann portfolio. Individual chapters are derived from a select group of MK books authored by the best and brightest in the field. These chapters are combined into one comprehensive volume in a way that allows it to be used as a reference work for those interested in new and developing aspects of database design. This book represents a quick and efficient way to unite valuable content from leading database design experts, thereby creating a definitive, one-stop-shopping opportunity for customers to receive the information they would otherwise need to round up from separate sources. Chapters contributed by various recognized experts in the field let the reader remain up to date and fully informed from multiple viewpoints. Details multiple relational models and modeling languages, enhancing the reader's technical expertise and familiarity with design-related requirements specification. Coverage of both theory and practice brings all of the elements of database design together in a single volume, saving the reader the time and expense of making multiple purchases.

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The Routledge Handbook of Transportation offers a current and comprehensive survey of transportation planning and engineering research. It provides a step-by-step introduction to research related to traffic engineering and control, transportation planning, and performance measurement and evaluation of transportation alternatives. The Handbook of Transportation



practice. In this insightful book, author C.J. Date explains relational theory in depth, and demonstrates through numerous examples and exercises how you can apply it directly to your use of SQL. This second edition includes new material on recursive queries, “missing information” without nulls, new update operators, and topics such as aggregate operators, grouping and ungrouping, and view updating. If you have a modest-to-advanced background in SQL, you’ll learn how to deal with a host of common SQL dilemmas. Why is proper column naming so important? Nulls in your database are causing you to get wrong answers. Why? What can you do about it? Is it possible to write an SQL query to find employees who have never been in the same department for more than six months at a time? SQL supports “quantified comparisons,” but they’re better avoided. Why? How do you avoid them? Constraints are crucially important, but most SQL products don’t support them properly. What can you do to resolve this situation? Database theory and practice have evolved since the relational model was developed more than 40 years ago. SQL and Relational Theory draws on decades of research to present the most up-to-date treatment of SQL available. C.J. Date has a stature that is unique within the database industry. A prolific writer well known for the bestselling textbook *An Introduction to Database Systems* (Addison-Wesley), he has an exceptionally clear style when writing about complex principles and theory.

Applications of Negotiating and Learning Agents to User Query Performance with Database Feedback

"This book provides comprehensive coverage and definitions of the most important issues, concepts, trends, and technologies in fuzzy topics applied to databases, discussing current investigation into uncertainty and imprecision management by means of fuzzy sets and fuzzy logic in the field of databases and data mining. It offers a guide to fuzzy information processing in databases"--Provided by publisher.

Transactions are a concept related to the logical database as seen from the perspective of database application programmers: a transaction is a sequence of database actions that is to be executed as an atomic unit of work. The processing of transactions on databases is a well- established area with many of its foundations having already been laid in the late 1970s and early 1980s. The unique feature of this textbook is that it bridges the gap between the theory of transactions on the logical database and the implementation of the related actions on the underlying physical database. The authors relate the logical database, which is composed of a dynamically changing set of data items with unique keys, and the underlying physical database with a set of fixed-size data and index pages on disk. Their treatment of transaction processing builds on the “do-redo-undo” recovery paradigm, and all methods and algorithms presented are carefully designed to be compatible with this paradigm as well as with write-ahead logging, steal-and-no-force buffering, and fine-grained concurrency control. Chapters 1 to 6 address the basics needed to fully appreciate transaction

processing on a centralized database system within the context of our transaction model, covering topics like ACID properties, database integrity, buffering, rollbacks, isolation, and the interplay of logical locks and physical latches. Chapters 7 and 8 present advanced features including deadlock-free algorithms for reading, inserting and deleting tuples, while the remaining chapters cover additional advanced topics extending on the preceding foundational chapters, including multi-granular locking, bulk actions, versioning, distributed updates, and write-intensive transactions. This book is primarily intended as a text for advanced undergraduate or graduate courses on database management in general or transaction processing in particular.

Manufacturers worldwide are faced with unprecedented challenges from international competition, changing production processes and technologies, shorter production life-cycles, market globalization and environmental requirements. Fundamental to meeting these challenges is the understanding and control of information across all stages of the Computer Integrated Manufacturing (CIM) process. Modern Manufacturing presents the state of the art in the information-oriented aspects of CIM and Intelligent Manufacturing Systems. Particular emphasis is placed on the impact of new software engineering technologies, the object-oriented approach, database design, hierarchical control and intelligent systems. The contributions are written by experts from Europe and the USA.

Written for the undergraduate, one-term course, Essentials of Software Engineering, Fourth Edition provides students with a systematic engineering approach to software engineering principles and methodologies. Comprehensive, yet concise, the Fourth Edition includes new information on areas of high interest to computer scientists, including Big Data and developing in the cloud.

Many books on Database Management Systems (DBMS) are available in the market, they are incomplete very formal and dry. My attempt is to make DBMS very simple so that a student feels as if the teacher is sitting behind him and guiding him. This text is bolstered with many examples and Case Studies. In this book, the experiments are also included which are to be performed in DBMS lab. Every effort has been made to alleviate the treatment of the book for easy flow of understanding of the students as well as the professors alike. This textbook of DBMS for all graduate and post-graduate programmes of Delhi University, GGSIPU, Rajiv Gandhi Technical University, UPTU, WBTU, BPUT, PTU and so on. The salient features of this book are: - 1. Multiple Choice Questions 2. Conceptual Short Questions 3. Important Points are highlighted / Bold faced. 4. Very lucid and simplified approach 5. Bolstered with numerous examples and CASE Studies 6. Experiments based on SQL incorporated. 7. DBMS Projects added Question Papers of various universities are also included.

The essays in this book argue that the active learning strategies that teachers trained in composition use for their literature courses can be exported to other disciplines to enhance both teacher performance and student learning. The book

provides and explains examples of those strategies and illustrates how they have been effectively used in other disciplines.

Database System Concepts, 5/e, is intended for a first course in databases at the junior or senior undergraduate, or first-year graduate, level. In addition to basic material for a first course, the text contains advanced material that can be used for course supplements, or as introductory material for an advanced course. The authors assume only a familiarity with basic data structures, computer organization, and a high-level programming language such as Java, C, or Pascal. Concepts are presented as intuitive descriptions, and many are based on the running example of a bank enterprise. Important theoretical results are covered, but formal proofs are omitted. In place of proofs, figures and examples are used to suggest why a result is true. The fundamental concepts and algorithms covered in the book are often based on those used in existing commercial or experimental database systems. The aim is to present these concepts and algorithms in a general setting that is not tied to one particular database system. Details of particular commercial database systems are discussed in the case studies which constitute Part 8 of the book. The fifth edition of Database System Concepts retains the overall style of prior editions while evolving the content and organization to reflect the changes that are occurring in the way databases are designed, managed, and used. Key Handles:

- Early coverage of SQL in two chapters
- Think of SQL as doing or creating Queries
- Silberschatz uses a bank analogy throughout his text with Running Examples
- Case studies are incorporated that represent a different database, this is in the last Part of the text
- Focuses on cutting edge material, such as xml, web based database systems

Developments in technologies have evolved in a much wider use of technology throughout science, government, and business; resulting in the expansion of geographic information systems. GIS is the academic study and practice of presenting geographical data through a system designed to capture, store, analyze, and manage geographic information. Geographic Information Systems: Concepts, Methodologies, Tools, and Applications is a collection of knowledge on the latest advancements and research of geographic information systems. This book aims to be useful for academics and practitioners involved in geographical data.

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to our environment. Very soon they will turn into widespread intelligent assistants capable of anticipating many of our wishes and needs, but, for all these changes to happen, key issues of interoperability, usability, security and privacy still need to be addressed. The Techniques and Applications for Mobile Commerce (TAMoCo) conference series addresses these issues. It provides scientists, practitioners, and students with a platform to discuss the latest trends in the exciting above mentioned areas. This book is structured into three parts; Wireless Technologies for the Extended Enterprise: Current State and Future Developments; E-Service Environments: Aspect-Oriented Techniques and Mobile Devices; and AutoMoCo: Autonomic Computing and Mobile Commerce. This book, written by veteran Oracle database administrator Iggy Fernandez, a regular on the Oracle conference circuit and the editor of NoCOUG Journal, is a manageable introduction to key Oracle database administration topics including planning, installation, monitoring, troubleshooting, maintenance, and backups, to name just a few. As is clear from the table of contents, this book is not simply a recitation of Oracle Database features such as what you find in the reference guides available for free download on the Oracle web site. For example, the chapter on database monitoring explains how to monitor database availability, database changes, database security, database backups, database growth, database workload, database performance, and database capacity. The chapters of this book are logically organized into four parts that closely track the way your database administration career will naturally evolve. Part 1 gives you necessary background in relational database theory and Oracle Database concepts, Part 2 teaches you how to implement an Oracle database correctly, Part 3 exposes you to the daily routine of a database administrator, and Part 4 introduces you to the fine art of performance tuning. Each chapter has exercises designed to help you apply the lessons of the chapter. Each chapter also includes a list of reference works that contain more information on the topic of the chapter. In this book, you'll find information that you won't find in other books on Oracle Database. Here you'll discover not only technical information, but also guidance on work practices that are as vital to your success as technical skills. The author's favorite chapter is "The Big Picture and the Ten Deliverables." If you take the lessons in that chapter to heart, you can quickly become a much better Oracle database administrator than you ever thought possible.

Presents problems and methodologies related to the syntax, semantics, and ambiguities of visual languages. Defines and formalizes visual languages for interactive computing, as well as visual notation interpretation.

"This reference expands the field of database technologies through four-volumes of in-depth, advanced research articles from nearly 300 of the world's leading professionals"--Provided by publisher.

The Art of Getting Computer Science PhD is an autobiographical book where Emdad Ahmed highlighted the experiences that he has gone through during the past 25 years (1988-2012) in various capacities both as Computer Science

student as well as Computer Science faculty at different higher educational institutions in USA, Australia and Bangladesh. This book will be a valuable source of reference for computing professional at large. In the 150 pages book Emdad Ahmed tells the story in a lively manner balancing computer science hard job and life.

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