

Chapter Database Fundamentals Mcgraw Hill Education

Written by leading industry experts, the Data Management Handbook is a comprehensive, single-volume guide to the most innovative ideas on how to plan, develop, and run a powerful data management function - as well as handle day-to-day operations. The book provides practical, hands-on guidance on the strategic, tactical, and technical aspects of dat

The Handbook of Data Structures and Applications was first published over a decade ago. This second edition aims to update the first by focusing on areas of research in data structures that have seen significant progress. While the discipline of data structures has not matured as rapidly as other areas of computer science, the book aims to update those areas that have seen advances. Retaining the seven-part structure of the first edition, the handbook begins with a review of introductory material, followed by a discussion of well-known classes of data structures, Priority Queues, Dictionary Structures, and Multidimensional structures. The editors next analyze miscellaneous data structures, which are well-known structures that elude easy classification. The book then addresses mechanisms and tools that were developed to facilitate the use of data structures in real programs. It concludes with an examination of the applications of data structures. Four new chapters have been added on Bloom Filters, Binary Decision Diagrams, Data Structures for Cheminformatics, and Data Structures for Big Data Stores, and updates have been made to other chapters that appeared in the first edition. The Handbook is invaluable for suggesting new ideas for research in data structures, and for revealing application contexts in which they can be deployed. Practitioners devising algorithms will gain insight into organizing data, allowing them to solve algorithmic problems more efficiently.

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

E. F. Codd's relational model of data has been described as one of the three greatest inventions of all time (the other two being agriculture and the scientific method), and his receipt of the 1981 ACM Turing Award—the top award in computer science—for inventing it was thoroughly deserved. The papers in which Codd first described his model were staggering in their originality; they had, and continue to have, a huge impact on just about every aspect of the way we do business in the world today. And yet few people, even in the professional database community, are truly familiar with those papers. This book is an attempt to remedy this sorry state of affairs. In it, well known author C. J. Date provides a detailed examination of all of Codd's major technical publications, explaining the nature of his contribution in depth, and in particular highlighting not only the many things he got right but also some of the things he got wrong.

Covering the basic concepts and principles of Information Technology (IT), this book gives energy managers the knowledge they need to supervise the IT work of a consultant or a vendor. The book provides the necessary information for the energy manager to successfully purchase, install, and operate complex, Web-based energy information and control systems. Filled with comprehensive information, this book addresses the most significant concepts and principles that the typical energy or facility manager might need with emphasis on computer networking, use of facility operation databases, and sharing data using the Web and the TCP/IP communications protocol.

Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications

Oracle Essentials

SQL Demystified

Concepts, Methodologies, Tools, and Applications

Database Modeling and Design

Data engineering has grown rapidly in the past decade, leaving many software engineers, data scientists, and analysts looking for a comprehensive view of this practice. With this practical book, you'll learn how to plan and build systems to serve the needs of your organization and customers by evaluating the best technologies available through the framework of the data engineering lifecycle. Authors Joe Reis and Matt Housley walk you through the data engineering lifecycle and show you how to stitch together a variety of cloud technologies to serve the needs of downstream data consumers. You'll understand how to apply the concepts of data generation, ingestion, orchestration, transformation, storage, and governance that are critical in any data environment regardless of the underlying technology. This book will help you: Get a concise overview of the entire data engineering landscape Assess data engineering problems using an end-to-end framework of best practices Cut through marketing hype when choosing data technologies, architecture, and processes Use the data engineering lifecycle to design and build a robust architecture Incorporate data governance and security across the data engineering lifecycle Database Management Systems provides comprehensive and up-to-date coverage of the fundamentals of database systems. Coherent explanations and practical examples have made this one of the leading texts in the field. The third edition continues in this tradition, enhancing it with more practical material. The new edition has been reorganized to allow more flexibility in the way the course is taught. Now, instructors can easily choose whether they would like to teach a course which emphasizes database application development or a course that emphasizes database systems issues. New overview chapters at the beginning of parts make it possible to skip other chapters in the part if you don't want the detail. More applications and examples have been added throughout the book, including SQL and Oracle examples. The applied flavor is further enhanced by the two new database applications chapters.

This study guide -- includes complete coverage of all exam topics with practice questions and chapter summaries. CD-ROM contains interactive exams that simulate the actual OCP exams and include hotlinked questions, answers, and explanations.

Learn the concepts, principles, design, implementation, and management issues of databases. You will adopt a methodical and pragmatic approach to solving database systems problems. Database Systems: A Pragmatic Approach provides a comprehensive, yet concise introduction to database systems, with special emphasis on the relational database model. This book discusses the database as an essential component of a software system, as well as a valuable, mission-critical corporate resource. New in this second edition is updated SQL content covering the latest release of the Oracle Database Management System along with a reorganized sequence of the topics which is more useful for learning. Also included are revised and additional illustrations, as well as a new chapter on using relational databases to anchor large, complex management support systems. There is also added reference content in the appendixes. This book is based on lecture notes that have been tested and proven over several years, with outstanding results. It combines a balance of theory with practice, to give you your best chance at success. Each chapter is organized systematically into brief sections, with itemization of the important points to be remembered. Additionally, the book includes a number of author Elvis Foster's original methodologies that add clarity and creativity to the database modeling and design experience. What You'll Learn Understand the relational model and the advantages it brings to software systems Design database schemas with integrity rules that ensure correctness of corporate data Query data using SQL in order to generate reports, charts, graphs, and other business results Understand what it means to be a database administrator, and why the profession is

highly paid Build and manage web-accessible databases in support of applications delivered via a browser Become familiar with the common database brands, their similarities and differences Explore special topics such as tree-based data, hashing for fast access, distributed and object databases, and more Who This Book Is For Students who are studying database technology, who aspire to a career as a database administrator or designer, and practicing database administrators and developers desiring to strengthen their knowledge of database theory 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.

Database Management Systems

Big Data: Concepts, Methodologies, Tools, and Applications

Fueling the Data Engine

Schaum's Outline of Fundamentals of Relational Databases

Database Internals

This textbook covers all central activities of data warehousing and analytics, including transformation, preparation, aggregation, integration, and analysis. It discusses the full spectrum of the journey of data from operational/transactional databases, to data warehouses and data analytics; as well as the role that data warehousing plays in the data processing lifecycle. It also explains in detail how data warehouses may be used by data engines, such as BI tools and analytics algorithms to produce reports, dashboards, patterns, and other useful information and knowledge. The book is divided into six parts, ranging from the basics of data warehouse design (Part I - Star Schema, Part II - Snowflake and Bridge Tables, Part III - Advanced Dimensions, and Part IV - Multi-Fact and Multi-Input), to more advanced data warehousing concepts (Part V - Data Warehousing and Evolution) and data analytics (Part VI - OLAP, BI, and Analytics). This textbook approaches data warehousing from the case study angle. Each chapter presents one or more case studies to thoroughly explain the concepts and has different levels of difficulty, hence learning is incremental. In addition, every chapter has also a section on further readings which give pointers and references to research papers related to the chapter. All these features make the book ideally suited for either introductory courses on data warehousing and data analytics, or even for self-studies by professionals. The book is accompanied by a web page that includes all the used datasets and codes as well as slides and solutions to exercises.

Get a Solid Foundation in Oracle Database Technology Master Oracle Database 11g fundamentals quickly and easily. Using self-paced tutorials, this book covers core database essentials, the

role of the administrator, high availability, and large database features. Oracle Database 11g: A Beginner's Guide walks you, step by step, through database setup, administration, programming, backup, and recovery. In-depth introductions to SQL and PL/SQL are included. Designed for easy learning, this exclusive Oracle Press guide offers:

- Core Concepts--Oracle Database 11g topics presented in logically organized chapters
- Critical Skills--Lists of specific skills covered in each chapter
- Projects--Practical exercises that show how to apply the critical skills learned in each chapter
- Progress Checks--Quick self-assessment sections to check your progress
- Notes--Extra information related to the topic being covered
- Mastery Checks--Chapter-ending quizzes to test your knowledge

Tough Test Questions? Missed Lectures? Not Enough Time? Fortunately for you, there's Schaum's Outlines. More than 40 million students have trusted Schaum's to help them succeed in the classroom and on exams. Schaum's is the key to faster learning and higher grades in every subject. Each Outline presents all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills. This Schaum's Outline gives you Practice problems with full explanations that reinforce knowledge Coverage of the most up-to-date developments in your course field In-depth review of practices and applications Fully compatible with your classroom text, Schaum's highlights all the important facts you need to know. Use Schaum's to shorten your study time--and get your best test scores! Schaum's Outlines--Problem Solved.

This book provides a comprehensive yet concise coverage of the concepts and technology of database systems and their evolution into knowledge-bases. The traditional material on database systems at senior undergraduate level is covered. An understanding of concepts is emphasized avoiding extremes in formalism or detail. Rather than be restricted to a single example used over an entire book, a variety of examples are used. These enable the reader to understand the basic abstractions which underlie description of many practical situations. A major portion of the book concerns database system technology with focus on the relational model. Various topics are discussed in detail, preparing the ground for more advanced work.

Database System Concepts by Silberschatz, Korth and Sudarshan is now in its 6th edition and is one of the cornerstone texts of database education. It presents the fundamental concepts of database management in an intuitive manner geared toward allowing students to begin working with databases as quickly as possible. The text is designed for a first course in databases at the

junior/senior undergraduate level or the first year graduate level. It also contains additional material that can be used as supplements or as introductory material for an advanced course. Because the authors present concepts as intuitive descriptions, a familiarity with basic data structures, computer organization, and a high-level programming language are the only prerequisites. 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.

Fundamentals of Database Systems

Proceedings of ICDSIA 2020

E. F. Codd and Relational Theory, Revised Edition

Oracle Database 11g A Beginner's Guide

Oracle Database 12c

This new book is an essential tool for utilizing the ANSI SQL outer join operation, and an indispensable guide to using this operation to perform simple or complex data modeling. It provides a comprehensive look at the outer join operation, its powerful syntax, and new features and capabilities that can be developed based on the operation's data modeling capacity.

Prepare to pass the OCP DBA Fundamentals II exam using this Oracle Press study guide. You'll get complete coverage of all exam topics followed by practice questions and chapter summaries. The CD-ROM contains hundreds of practice exam questions in an adaptive format.

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.

This volume contains the papers presented at the Fifth International Workshop on Database Machines. The papers cover a wide spectrum of topics on Database Machines and Knowledge Base Machines. Reports of major projects, ECRC, MCC, and ICOT are included. Topics on DBM cover new database machine architectures based on vector processing and hypercube parallel processing, VLSI oriented architecture, filter processor, sorting machine, concurrency control mechanism for DBM, main memory database, interconnection network for DBM, and performance evaluation. In this workshop much more attention was given to knowledge base management as compared to the previous four workshops. Many papers discuss deductive database processing. Architectures for semantic network, prolog, and production system were also proposed. We would like to express our deep thanks to all those who contributed to the success of the workshop. We would also like to express our appreciation for the valuable suggestions given to us by Prof. D. K. Hsiao, Prof. D.

This work has been revised and updated to provide a comprehensive treatment of database design for commercial database products and their applications. The 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.

Algorithmic Siege on our Humanity

Advanced ANSI SQL Data Modeling and Structure Processing

Introduction to Database and Knowledge-base Systems

Database System Concepts

OCPI Oracle9i Database: Fundamentals II Exam Guide

Learning DATABASE fundamentals just got a whole lot EASIER! Now you can design, build, and manage a fully functional database with ease. Thoroughly updated to cover the latest technologies and techniques, Databases Demystified, Second Edition gives you the hands-on help you need to get started. Written in a step-by-step format, this practical guide covers methods that can be used with any database, including Microsoft Access, MySQL, Microsoft SQL Server, and Oracle. You'll learn about relational

database components, database queries, SQL, the database life cycle, logical database design using normalization, and physical database design. Data and process modeling, database security, Online Analytical Processing (OLAP), and XML are also covered. Detailed examples and concise explanations make it easy to understand the material, and end-of-chapter quizzes and a final exam help reinforce learning. It's a no-brainer! You'll find out how to: Create and run database queries using the forms-based query tool in Microsoft Access Write SQL statements and queries Use entity relationship diagrams (ERDs) for data modeling Design physical tables Connect databases to users, computer systems, and applications Secure database data Handle cursor processing, transaction management, and performance tuning Integrate XML documents and objects into databases Simple enough for a beginner, but challenging enough for an advanced student, Databases Demystified, Second Edition is your self-paced guide to learning universal database concepts.

Database Systems: A Pragmatic Approach is a classroom textbook for use by students who are learning about relational databases, and the professors who teach them. It discusses the database as an essential component of a software system, as well as a valuable, mission critical corporate resource. The book is based on lecture notes that have been tested and proven over several years, with outstanding results. It also exemplifies mastery of the technique of combining and balancing theory with practice, to give students their best chance at success. Upholding his aim for brevity, comprehensive coverage, and relevance, author Elvis C. Foster's practical and methodical discussion style gets straight to the salient issues, and avoids unnecessary fluff as well as an overkill of theoretical calculations. The book discusses concepts, principles, design, implementation, and management issues of databases. Each chapter is organized systematically into brief, reader-friendly sections, with itemization of the important points to be remembered. It adopts a methodical and pragmatic approach to solving database systems problems. Diagrams and illustrations also sum up the salient points to enhance learning. Additionally, the book includes a number of Foster's original methodologies that add clarity and creativity to the database modeling and design experience while making a novel contribution to the discipline. Everything combines to make Database Systems: A Pragmatic Approach an excellent textbook for students, and an excellent resource on theory for the practitioner.

Presents an ideal mix of theory and practice, which allows the reader to understand the principle behind the application.; Coverage of performance tuning of datawarehouses offers readers the principles and

tools they need to handle large reporting databases.; Material can also be used in a non-Oracle environment; Highly experienced author.

Written by Oracle insiders, this indispensable guide distills an enormous amount of information about the Oracle Database into one compact volume. Ideal for novice and experienced DBAs, developers, managers, and users, Oracle Essentials walks you through technologies and features in Oracle's product line, including its architecture, data structures, networking, concurrency, and tuning. Complete with illustrations and helpful hints, this fifth edition provides a valuable one-stop overview of Oracle Database 12c, including an introduction to Oracle and cloud computing. Oracle Essentials provides the conceptual background you need to understand how Oracle truly works. Topics include: A complete overview of Oracle databases and data stores, and Fusion Middleware products and features Core concepts and structures in Oracle's architecture, including pluggable databases Oracle objects and the various datatypes Oracle supports System and database management, including Oracle Enterprise Manager 12c Security options, basic auditing capabilities, and options for meeting compliance needs Performance characteristics of disk, memory, and CPU tuning Basic principles of multiuser concurrency Oracle's online transaction processing (OLTP) Data warehouses, Big Data, and Oracle's business intelligence tools Backup and recovery, and high availability and failover solutions

Database Systems A Pragmatic Approach Apress

Intelligent Data Warehousing

Population Health Analytics

High-Performance Web Databases

Databases Demystified

Handbook of Data Management 1999 Edition

"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.

Written for researchers and technical professionals, this book emphasizes the theoretical aspects of database systems. Its 19 chapters discuss enhancement of current database models, refinement of contemporary techniques, the integration of database and Internet technology, and applications of unified modeling language.

Through clear language, step-by-step discussions, and quizzes at the end of each chapter, the author makes databases easy. Quickly learn the core skills needed to design, configure, manage, and manipulate databases, whether at work or at home. Topics such as exploring different database models, planning their design, minimizing redundant data, designing tables, applying database design concepts, and implementing database security are covered. This is that

fast, easy-to-understand tutorial that you've been looking for.

The digital age has presented an exponential growth in the amount of data available to individuals looking to draw conclusions based on given or collected information across industries. Challenges associated with the analysis, security, sharing, storage, and visualization of large and complex data sets continue to plague data scientists and analysts alike as traditional data processing applications struggle to adequately manage big data. *Big Data: Concepts, Methodologies, Tools, and Applications* is a multi-volume compendium of research-based perspectives and solutions within the realm of large-scale and complex data sets. Taking a multidisciplinary approach, this publication presents exhaustive coverage of crucial topics in the field of big data including diverse applications, storage solutions, analysis techniques, and methods for searching and transferring large data sets, in addition to security issues. Emphasizing essential research in the field of data science, this publication is an ideal reference source for data analysts, IT professionals, researchers, and academics.

E. F. Codd's relational model of data has been described as one of the three greatest inventions of all time (the other two being agriculture and the scientific method), and his receipt of the 1981 ACM Turing Award, the top award in computer science, for inventing it was thoroughly deserved. The papers in which Codd first described his model were staggering in their originality; they had, and continue to have, a huge impact on just about every aspect of the way we do business in the world today. And yet few people, even in the professional database community, are truly familiar with those papers. This book—a thorough overhaul and rewrite of an earlier book by the same name—is an attempt to remedy this sorry state of affairs. In it, well known author C. J. Date provides a detailed examination of all of Codd's major database publications, explaining the nature of his contribution in depth, and in particular highlighting not only the many things he got right but also some of the things he got wrong. Database theory and practice have evolved considerably since Codd first defined his relational model, back in 1969. This book draws on decades of experience to present the most up to date treatment of the material possible. Anyone with a professional interest in databases can benefit from the insights it contains. The book is product independent.

A Deep Dive into How Distributed Data Systems Work

Data Science and Intelligent Applications

Design, Development, and Deployment

Oracle Ocp Oracle 9I Database: Fundamentals Ii Exam Guide (With Cd)

Database Design: Know It All

This is the first book to devote complete coverage to the most recent release of the popular embedded open source database SQLite. The book acts as both an ideal tutorial and reference guide. It offers experienced database developers a thorough overview of its capabilities and APIs, yet is mindful of newcomers who may be making their first foray into the database environment with SQLite. Readers are presented with introductions to the SQLite extensions available for C, Java, Perl, PHP, Python, Ruby, and Tcl.

There's no easier, faster, or more practical way to learn the really tough subjects SQL Demystified explains how to use SQL (Structured Query Language)--the ubiquitous programming language for databases. Readers will learn to create database objects, add and retrieve data from a database, and modify existing data. This self-teaching guide comes complete with key

points, background information, quizzes at the end of each chapter, and even a final exam. Simple enough for beginners but challenging enough for advanced students, this is a lively and entertaining brush-up, introductory text, or classroom supplement.

Presents instructions on using MySQL, covering such topics as installation, querying, user management, security, and backups and recovery.

In recent years, the science of managing and analyzing large datasets has emerged as a critical area of research. In the race to answer vital questions and make knowledgeable decisions, impressive amounts of data are now being generated at a rapid pace, increasing the opportunities and challenges associated with the ability to effectively analyze this data.

DATA CONSCIENCE ALGORITHMIC SIEGE ON OUR HUMANITY EXPLORE HOW DATA STRUCTURES CAN HELP OR HINDER SOCIAL EQUITY Data has enjoyed 'bystander' status as we've attempted to digitize responsibility and morality in tech. In fact, data's importance should earn it a spot at the center of our thinking and strategy around building a better, more ethical world. It's use—and misuse—lies at the heart of many of the racist, gendered, classist, and otherwise oppressive practices of modern tech. In *Data Conscience: Algorithmic Siege on our Humanity*, computer science and data inclusivity thought leader Dr. Brandeis Hill Marshall delivers a call to action for rebel tech leaders, who acknowledge and are prepared to address the current limitations of software development. In the book, Dr. Brandeis Hill Marshall discusses how the philosophy of "move fast and break things" is, itself, broken, and requires change. You'll learn about the ways that discrimination rears its ugly head in the digital data space and how to address them with several known algorithms, including social network analysis, and linear regression A can't-miss resource for junior-level to senior-level software developers who have gotten their hands dirty with at least a handful of significant software development projects, *Data Conscience* also provides readers with: Discussions of the importance of transparency Explorations of computational thinking in practice Strategies for encouraging accountability in tech Ways to avoid double-edged data visualization Schemes for governing data structures with law and algorithms

A Pragmatic Approach

Learning MySQL

E. F. Codd and Relational Theory: A Detailed Review and Analysis of Codd's Major Database Writings

*Advanced Topics in Database Research
Information Technology for Energy Managers*

When it comes to choosing, using, and maintaining a database, understanding its internals is essential. But with so many distributed databases and tools available today, it ' s often difficult to understand what each one offers and how they differ. With this practical guide, Alex Petrov guides developers through the concepts behind modern database and storage engine internals. Throughout the book, you ' ll explore relevant material gleaned from numerous books, papers, blog posts, and the source code of several open source databases. These resources are listed at the end of parts one and two. You ' ll discover that the most significant distinctions among many modern databases reside in subsystems that determine how storage is organized and how data is distributed. This book examines:

- Storage engines: Explore storage classification and taxonomy, and dive into B-Tree-based and immutable Log Structured storage engines, with differences and use-cases for each
- Storage building blocks: Learn how database files are organized to build efficient storage, using auxiliary data structures such as Page Cache, Buffer Pool and Write-Ahead Log
- Distributed systems: Learn step-by-step how nodes and processes connect and build complex communication patterns
- Database clusters: Which consistency models are commonly used by modern databases and how distributed storage systems achieve consistency

Although the use of cloud computing platforms and applications has expanded rapidly, most books on the subject focus on high-level concepts. There has long been a need for a book that provides detailed guidance on how to develop secure clouds. Filling this void, *Developing and Securing the Cloud* provides a comprehensive overview of cloud computing technology. Supplying step-by-step instruction on how to develop and secure cloud computing platforms and web services, it includes an easy-to-understand, basic-level overview of cloud computing and its supporting technologies. Presenting a framework for secure cloud computing development, the book describes supporting technologies for the cloud such as web services and security. It details the various layers of the cloud computing framework, including the virtual machine monitor and hypervisor, cloud data storage, cloud data management, and virtual network monitor. It also provides several examples of cloud products and prototypes, including private, public, and U.S. government clouds. Reviewing recent developments in cloud computing, the book illustrates the essential concepts, issues, and challenges in developing and securing today ' s cloud computing platforms and applications. It also examines prototypes built on experimental cloud computing systems that the author and her team have developed at the University of Texas at Dallas. This diverse reference is suitable for those in industry, government, and academia. Technologists will develop the understanding required to select the appropriate tools for particular cloud applications. Developers will discover alternative designs for cloud development, and managers will understand if it ' s best to build their own clouds or contract

them out.

As Web-based systems and e-commerce carry businesses into the 21st century, databases are becoming workhorses that shoulder each and every online transaction. For organizations to have effective 24/7 Web operations, they need powerhouse databases that deliver at peak performance-all the time. High Performance Web Databases: Design, Development, and

This book includes selected papers from the International Conference on Data Science and Intelligent Applications (ICDSIA 2020), hosted by Gandhinagar Institute of Technology (GIT), Gujarat, India, on January 24–25, 2020. The proceedings present original and high-quality contributions on theory and practice concerning emerging technologies in the areas of data science and intelligent applications. The conference provides a forum for researchers from academia and industry to present and share their ideas, views and results, while also helping them approach the challenges of technological advancements from different viewpoints. The contributions cover a broad range of topics, including: collective intelligence, intelligent systems, IoT, fuzzy systems, Bayesian networks, ant colony optimization, data privacy and security, data mining, data warehousing, big data analytics, cloud computing, natural language processing, swarm intelligence, speech processing, machine learning and deep learning, and intelligent applications and systems. Helping strengthen the links between academia and industry, the book offers a valuable resource for instructors, students, industry practitioners, engineers, managers, researchers, and scientists alike.

As the focus of the health care delivery system continues to move toward a coordinated and accountable system, there is an increasing need for a single resource that focuses on analytics for population health. Population Health Analytics addresses that need by providing detailed information and a “ how to ” guide for achieving population health analytics. Comprehensive, current, and practical, this logically organized text builds from understanding data sources, to contextualizing data, modeling data, and gleaning insights from that data, which is a natural progression for organizations in progressing to higher levels of analytic capabilities. Furthermore, these frameworks for the population health process and analytics are grounded in an evidence base that is also aligned with theories and processes used in healthcare disciplines. This first of its kind text will prepare students to improve health outcomes, understand patterns of health behavior and more.

Database Machines and Knowledge Base Machines

Handbook of Data Structures and Applications

Developing and Securing the Cloud

Data Warehousing and Analytics

Database Technologies: Concepts, Methodologies, Tools, and Applications

Effective decision support systems (DSS) are quickly becoming key to businesses gaining a competitive advantage, and the effectiveness of these systems depends on the ability to construct, maintain, and extract information from data warehouses. While many still perceive data warehousing as a subdiscipline of management information systems (MIS), in fact many of its advances have and will continue to come from the computer science arena. Intelligent Data Warehousing presents the state of the art in data warehousing research and practice from a perspective that integrates business applications and computer science. It brings the intelligent techniques associated with artificial intelligence (AI) to the entire process of data warehousing, including data preparation, storage, and mining. Part I provides an overview of the main ideas and fundamentals of data mining, artificial intelligence, business intelligence, and data warehousing. Part II presents core materials on data warehousing, and Part III explores data analysis and knowledge discovery in the data warehousing environment, including how to perform intelligent data analysis and the discovery of influential association patterns. Bridging the gap between theoretical research and business applications, this book summarizes the main ideas behind recent research developments rather than setting forth technical details, and it presents case studies that show the how-to's of implementing these ideas. The result is a practical, first-of-its-kind book that brings together scattered research, unites MIS with computer science, and melds intelligent techniques with data warehousing.

Data Conscience

The Definitive Guide to SQLite

Database Systems

From Data Preparation to Data Mining