

Database Systems: The Complete Book (GOAL Series)

By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom

Download Read Online

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom

For Database Systems and Database Design and Application courses offered at the junior, senior and graduate levels in Computer Science departments. Written by well-known computer scientists, this introduction to database systems offers a comprehensive approach, focusing on database design, database use, and implementation of database applications and database management systems. The first half of the book provides in-depth coverage of databases from the point of view of the database designer, user, and application programmer. It covers the latest database standards SQL:1999, SQL/PSM, SQL/CLI, JDBC, ODL, and XML, with broader coverage of SQL than most other texts. The second half of the book provides in-depth coverage of databases from the point of view of the DBMS implementor. It focuses on storage structures, query processing, and transaction management. The book covers the main techniques in these areas with broader coverage of query optimization than most other texts, along with advanced topics including multidimensional and bitmap indexes, distributed transactions, and information integration techniques. Resources: Author Website http://infolab.stanford.edu/~ullman/dscb.html

Download Database Systems: The Complete Book (GOAL Series) ...pdf

Read Online Database Systems: The Complete Book (GOAL Series ...pdf

Database Systems: The Complete Book (GOAL Series)

By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom

For Database Systems and Database Design and Application courses offered at the junior, senior and graduate levels in Computer Science departments. Written by well-known computer scientists, this introduction to database systems offers a comprehensive approach, focusing on database design, database use, and implementation of database applications and database management systems. The first half of the book provides in-depth coverage of databases from the point of view of the database designer, user, and application programmer. It covers the latest database standards SQL:1999, SQL/PSM, SQL/CLI, JDBC, ODL, and XML, with broader coverage of SQL than most other texts. The second half of the book provides in-depth coverage of databases from the point of view of the DBMS implementor. It focuses on storage structures, query processing, and transaction management. The book covers the main techniques in these areas with broader coverage of query optimization than most other texts, along with advanced topics including multidimensional and bitmap indexes, distributed transactions, and information integration techniques. Resources: Author Website http://infolab.stanford.edu/~ullman/dscb.html

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom Bibliography

- Sales Rank: #375491 in Books
- Published on: 2001-10-12
- Original language: English
- Number of items: 1
- Dimensions: 9.20" h x 1.86" w x 7.22" l,
- Binding: Hardcover
- 1152 pages

Download Database Systems: The Complete Book (GOAL Series) ...pdf

Read Online Database Systems: The Complete Book (GOAL Series ...pdf

Download and Read Free Online Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom

Editorial Review

From the Back Cover

Hector Garcia-Molina, Jeffrey D. Ullman, and Jennifer Widom, well-known computer scientists at Stanford University, have written an introduction to database systems with a comprehensive approach. The first half of the book provides in-depth coverage of databases from the point of view of the database designer, user, and application programmer. It covers the latest database standards SQL-1999, SQL/PSM, SQL/CLI, JDBC, ODL, and XML, with broader coverage of SQL than most other texts. The second half of the book provides in-depth coverage of databases from the point of view of the DBMS implementor. It focuses on management, covering the principal techniques in these areas with broader coverage of query optimization than most other texts. Advanced topics include multidimensional and bitmap indexes, distributed transactions, and information integration techniques. This comprehensive book is valuable either as an academic textbook or as a professional reference book.

NOTEWORTHY FEATURES

- Offers a readable presentation with engaging, real-world examples. Includes aspects of SQL programming not found in some other texts: SQL/PSM (persistent stored modules), JDBC (Java interface), and SQL/CLI (ODBC, or open database connectivity).
- Introduces both object-oriented design, through the ODMG standard ODL, and object-relational design from the SQL-99 standard.
- Provides extensive coverage of query processing and query optimization, supported by an extended relational algebra that is designed to match the real features of SQL. Covers information integration, including warehousing, mediators, OLAP, data cubes, and data-mining techniques.
- Explains many important, specialized topics, such as error-correction in RAID disks, bitmap indexes, use of data statistics, and pointer swizzling.
- Supported by additional teaching materials on the book's home page at **http://www-db.stanford.edu/~ullman/dscb.html**.

About the Author

JEFFREY D. ULLMAN is the Stanford W. Ascherman Professor of Computer Science at Stanford University. He is the author or co-author of 16 books, including *Elements of ML Programming* (Prentice Hall 1998). His research interests include data mining, information integration, and electronic education. He is a member of the National Academy of Engineering, and recipient of a Guggenheim Fellowship, the Karl V. Karlstrom Outstanding Educator Award, the SIGMOD Contributions Award, and the Knuth Prize.

JENNIFER WIDOM is Associate Professor of Computer Science and Electrical Engineering at Stanford University. Her research interests include query processing on data streams, data caching and replication, semistructured data and XML, and data warehousing. She is a former Guggenheim Fellow and has served on numerous program committees, advisory boards, and editorial boards.

HECTOR GARCIA-MOLINA is the L. Bosack and S. Lerner Professor of Computer Science and Electrical Engineering, and Chair of the Department of Computer Science at Stanford University. His research interests include digital libraries, information integration, and database application on the Internet. He was a recipient

of the SIGMOD Innovations Award and is a member of PITAC (President's Information-Technology Advisory Council).

Excerpt. © Reprinted by permission. All rights reserved.

At Stanford, we are on the quarter system, and as a result, our introductory database instruction is divided into two courses. The first, CS145, is designed for students who will use database systems but not necessarily take a job implementing a DBMS. It is a prerequisite for CS245, which is the introduction to DBMS implementation. Students wishing to go further in the database field then take CS345 (theory), CS346 (DBMS implementation project), and CS347 (transaction processing and distributed databases).

Starting in 1997, we published a pair of books. *A First Course in Database Systems* was designed for CS145, and *Database System Implementation* was for CS245 and parts of CS346. Because many schools are on the semester system or combine the two kinds of database instruction into one introductory course, we felt that there was a need to produce the two books as a single volume. At the same time, the evolution of database systems has made a number of new topics imperative for a modern course. Thus, we have added, mostly to the application-programming area, topics such as object-relational data, SQL/PSM (stored programs), SQL/CLI (the emerging standard for the C/SQL interface), and JDBC (the same for Java/SQL). Use of the Book

We recommend that two quarters be devoted to the material in this book. If you follow the Stanford approach, you would cover the first ten chapters in the first quarter and the last ten in the second quarter. Should you wish to cover the material in a single semester, then there will have to be some omitted portions. In general, we suggest that Chapters 2-7, 11-13, and 17-18 should be given highest priority, but there are pieces from each of these chapters that can be skipped.

If, as we do in CS145, you give students a substantial database-application design and implementation project, then you may have to reorder the material somewhat, so that SQL instruction occurs earlier in the Book. You may wish to defer material such as dependencies, although students need normalization for design. Prerequisites

We have used the book at the "mezzanine" level, in courses taken both by undergraduates and beginning graduate students. The formal prerequisites for the courses are Sophomore-level treatments of: (1) Data structures, algorithms, and discrete math, and (2) Software systems, software engineering, and programming languages. Of this material, it is important that students have at least a rudimentary understanding of such topics as: algebraic expressions and laws, logic, basic data structures such as search trees and graphs, object-oriented programming concepts, and programming environments. However, we believe that adequate background is surely acquired by the end of the Junior year in a. typical computer science program. Exercises

The book contains extensive exercises, with some for almost every section. We indicate harder exercises or parts of exercises with an exclamation point. The hardest exercises have a double exclamation point.

Some of the exercises or parts are marked with a star. For these exercises, we shall endeavor to maintain solutions accessible through the book's web page. These solutions are publicly available and should be used for self-testing. Note that in a few cases, one exercise B asks for modification or adaptation of your solution to another exercise A. If certain parts of A have solutions, then you should expect the corresponding parts of B to have solutions as well. Support on the World Wide Web

The book's home page is

www-db.stanford/~ullman/dscb.html

Here are solutions to starred exercises, errata as we learn of them, and backup materials. We are making available the notes for each offering of CS145 and CS245 as we teach them, including homeworks, projects and exams.

Users Review

From reader reviews:

Phyllis Peters:

You will get this Database Systems: The Complete Book (GOAL Series) by visit the bookstore or Mall. Only viewing or reviewing it could possibly to be your solve difficulty if you get difficulties to your knowledge. Kinds of this e-book are various. Not only simply by written or printed and also can you enjoy this book simply by e-book. In the modern era like now, you just looking by your local mobile phone and searching what your problem. Right now, choose your current ways to get more information about your reserve. It is most important to arrange yourself to make your knowledge are still up-date. Let's try to choose correct ways for you.

Arthur Elsberry:

As a university student exactly feel bored to help reading. If their teacher requested them to go to the library or even make summary for some e-book, they are complained. Just little students that has reading's heart or real their leisure activity. They just do what the educator want, like asked to the library. They go to right now there but nothing reading very seriously. Any students feel that studying is not important, boring as well as can't see colorful pictures on there. Yeah, it is to become complicated. Book is very important in your case. As we know that on this time, many ways to get whatever you want. Likewise word says, ways to reach Chinese's country. Therefore , this Database Systems: The Complete Book (GOAL Series) can make you truly feel more interested to read.

Tom Seaman:

Guide is one of source of understanding. We can add our know-how from it. Not only for students but native or citizen want book to know the upgrade information of year to help year. As we know those publications have many advantages. Beside we all add our knowledge, may also bring us to around the world. By the book Database Systems: The Complete Book (GOAL Series) we can have more advantage. Don't that you be creative people? To get creative person must want to read a book. Just choose the best book that suited with your aim. Don't possibly be doubt to change your life at this book Database Systems: The Complete Book (GOAL Series). You can more attractive than now.

James Batts:

A lot of people said that they feel uninterested when they reading a publication. They are directly felt it when they get a half areas of the book. You can choose the actual book Database Systems: The Complete Book

(GOAL Series) to make your current reading is interesting. Your current skill of reading proficiency is developing when you such as reading. Try to choose straightforward book to make you enjoy to read it and mingle the impression about book and studying especially. It is to be first opinion for you to like to wide open a book and read it. Beside that the publication Database Systems: The Complete Book (GOAL Series) can to be your friend when you're experience alone and confuse using what must you're doing of this time.

Download and Read Online Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom #WCBHIV8F6GO

Read Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom for online ebook

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom books to read online.

Online Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom ebook PDF download

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom Doc

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom Mobipocket

Database Systems: The Complete Book (GOAL Series) By Hector Garcia-Molina, Jeffrey D. Ullman, Jennifer D. Widom EPub