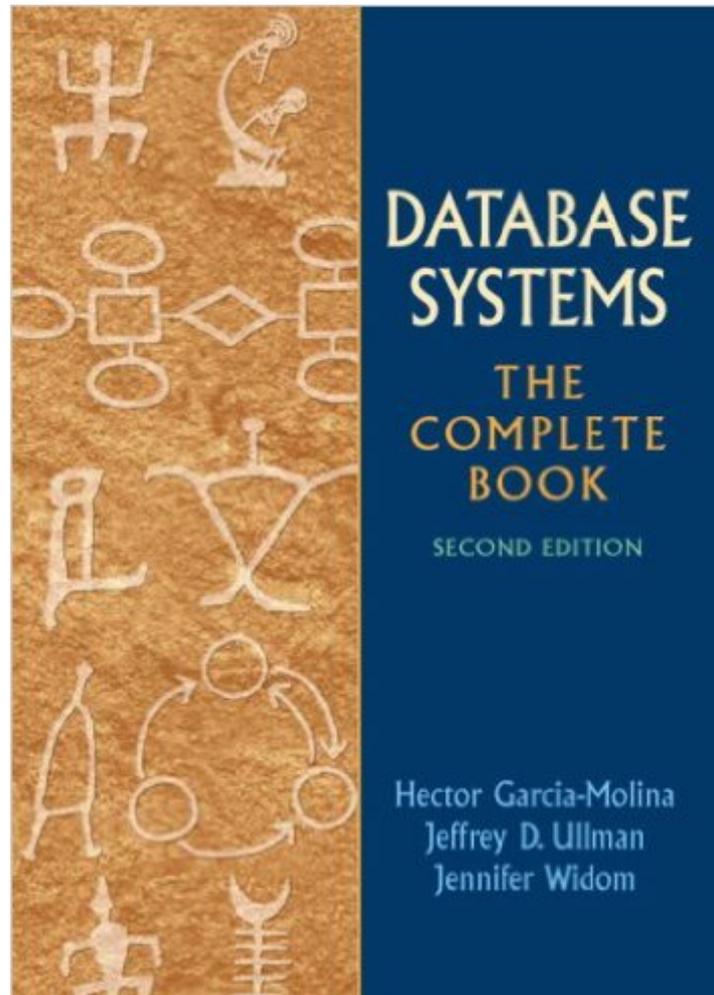# Database Systems: The Complete Book (2nd Edition)

# Synopsis

Database Systems: The Complete Book is ideal for Database Systems and Database Design and Application courses offered at the junior, senior and graduate levels in Computer Science departments. A basic understanding of algebraic expressions and laws, logic, basic data structure, OOP concepts, and programming environments is implied.  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. Â  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.

# Book Information

Hardcover: 1248 pages

Publisher: Pearson; 2 edition (June 15, 2008)

Language: English

ISBN-10: 0131873253

ISBN-13: 978-0131873254

Product Dimensions:  7.2 x 1.9 x 9.4 inches

Shipping Weight: 4.2 pounds (View shipping rates and policies)

Average Customer Review:  3.6 out of 5 starsÂ Â See all reviewsÂ (29 customer reviews)

Best Sellers Rank: #74,379 in Books (See Top 100 in Books)   #12 inÂ Books > Computers & Technology > Programming > Software Design, Testing & Engineering > Structured Design   #94 inÂ Books > Textbooks > Computer Science > Database Storage & Design   #196 inÂ Books > Computers & Technology > Databases & Big Data

# Customer Reviews

If you want to learn Relational Database Theory, try to locate a copy of David Maier's book, The Theory of Relational Databases. His explanations are perfect and perfectly simple. Dr. Widom

seems to go to great lengths to avoid using Codd's original terminology, i.e. first normal form, second normal form, and third normal form. She also seems to go to great lengths to make it more complicated than it is. Why? Not all tables can be put in BCNF. Frankly, I never encountered a situation where I needed to. Third normal form is adequate for the majority of circumstances and is always achievable. Dr. Widom ignores first, second, and third normal forms and proceeds to a tedious algorithm for BCNF leaving most students scratching their heads. The material is disorganized and piecemeal and does not do justice to Codd's work. The relational algebra and sql sections are reasonable. Regarding the later chapters on programming languages for XML, you are better off buying books that are limited to these topics. There are some errors in the text in the few examples provided which was frustrating. To be fair, Dr. Widom's video lecture series is outstanding.

An excellent book on database systems, keyed for the beginner/novice. Some familiarity with databases and files is nice to have, but could be used as a first course book. The authors are all noted in their area, and the content is great...better than great, excellent. However, the overall presentation of the material -- the graphics and visuals -- are not nearly as well done as is possible (and standard) for today's top text books. More and better use of color, more case studies, and just in general better graphics/visuals would make this a much more effective (and fun) book. And that's the reason for the average rating...it's just average in its presentation and therefore its effectiveness as a text.

This is not a review of this book content. I just would like to warn other potential buyers that Kindle edition is a single license. I got used to having all other books available across my computers, a tablet, a kindle and a iphone (very handy while waiting in car, doctors office etc.). Being spoiled this way this restriction feels like a significant nuisance. I wish there was some indication of this limitation in a product description.

I personally liked this book and could sit down and read it. My friends found it horrible to read and used it just for reference. If you are used to reading technical papers, scientific papers, or reading proofs you will enjoy it. It has a moderate amount of depth to it, but presents the material in an understandable way. I chose this book over the Introductory book because it had more information, and I plan to keep it after my class as a reference.

I used this book for a database class, and in spite of paying very little attention in the lectures, I got an A, primarily because this book is thorough and exactly dense enough: it doesn't drown you with detail but certainly makes you work to get concepts. This book taught me everything I know about databases, and several other people since then.

While this book has its uses, it also has some of the standard flaws of academic computer science books, notably being overly pedantic and verbose at times, not to mention exorbitantly priced for the relatively little practical info you will get from it. There is some good -- albeit somewhat elementary -- coverage of a number of useful topics such as the relational algebra, relational design theory, index construction and data structures, and data mining. However, at five years old, the selection of topics can feel pretty dated for a text claiming to be "The Complete Book" on database systems. Nary a mention of NoSQL or JSON, this text is focused entirely on relational databases and XML.

This book has plenty of topics. It just covers them too lightly. I used this book for a graduate course in Database Systems as one of the primary texts and found it to be lacking a number of details. This is not my first database class and luckily I still had other texts from those previous classes. If not for that I'd have been toast. If you have to use this book, plan on buying/borrowing secondary references.

This book was assigned for a class I am taking. It is poorly written. The algorithms are not explained clearly and have important details missing. To be fair, I am not sure how this book reads to someone who is already familiar with databases, but as learning material it is absolutely terrible. I do not recommend it at all.

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