Presentation Title: Relational Database Fundamentals
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Problem

Where do I learn more about Relational Database Management Systems and modeling databases?

It is impossible to, in one hour, develop an understanding of relational database management systems, let alone how to design them. The only way to understand anything is to dive off into the deep end and start experimenting with the tools and technology surrounding the topic. However, there are quite a few excellent books on the market about databases, programming databases, modeling entity-relationship diagrams and learning Standard Query Language (SQL). It will serve you well in the future to spend some time reading about the RDBMS technology and methodologies. Here are a few book titles to get you started.

Hernandez, M.J., 1997, *Database Design for Mere Mortals*, Addison-Wesley, ISBN 0-201-69471-9

> This is a great introductory read on the subject of database design and understanding how relational database management systems works. Hernandez writes in a very accessible manner with plenty of illustrations and explanation. The lay person who reads this book will be rewarded with an excellent understanding of the subject matter and will reference this book often.

Howe, D.R., 1989, *Data Analysis for Database Design*, 2nd Edition, Edward Arnold, ISBN 0-7131-3688-X

> Howe writes in a very academic fashion and employs a very esoteric notation for conceptual database modeling. I took the time to read through this manual very carefully and attempted all the exercises therein. These exercises combined with the use of a continuous business example that is used throughout the book provided a wealth of knowledge and understanding.

Date, C.J., 1999, *An Introduction to Database Systems, Volume I*, 7th Edition, Addison-Wesley, ISBN 0201385902

> This is the seminal work on database systems. This is not a book for the faint-hearted (but then again neither are relational databases!). The chapters on database normalization are a must read for advanced designers of relational database management systems.

Ensor, D, & Stevenson, I., 1997, *Oracle Design*, A Nutshell Handbook, O' Reilly, 1-56592-268-9

> I liked this book for several reasons. Firstly, the authors concentrated on database design not just from a conceptual/entity-relationship perspective but also from a physical database implementation (sizing of workspaces, placement of workspaces on disk drives, where to locate processing). Secondly, this book concentrates on the different types of architecture for different environments (decision support, client server, on-line transaction processing) and (although the title indicates otherwise) is very applicable to any major database software.

Celko, J., 1995, *Instant SQL Programming*, Wrox, ISBN 1-874416-50-8

> No list of books on database design would be complete without a reference to the Standard Query Language (SQL) – the universal language of database access. In my opinion, Joe Celko is an SQL demi-god. He serves on the ANSI SQL Standards committee and he has written numerous books on SQL. This book provides an excellent overview of the major elements of the SQL language. The book comes with a run-time version of SQL-Anywhere (a fully functional relational database management system) which allows the reader to practice writing queries against a live database. At some point most end users or database application developers need to write SQL from scratch (even with the plethora of visual query building tools on the market). The book is an invaluable resource on the bookshelf of any database user.