Improve the performance of relational databases with indexes designed for today's hardware

Over the last few years, hardware and software have advanced beyond all recognition, so it's hardly surprising that relational database performance now receives much less attention. Unfortunately, the reality is that the improved hardware hasn't kept pace with the ever-increasing quantity of data processed today. Although disk packing densities have increased enormously, making storage costs extremely low and sequential read very fast, random reads are still painfully slow. Many of the old design recommendations are therefore no longer valid—the optimal point of indexing has come a long way. Consequently many of the old problems haven't actually gone away—they have simply changed their appearance.

This book provides an easy but effective approach to the design of indexes and tables. Using lots of examples and case studies, the authors describe how the DB2, Oracle, and SQL Server optimizers determine how to access data, and how CPU and response times for the resulting access paths can be quickly estimated. This enables comparisons to be made of the various designs, and helps you choose available choices for the most appropriate design.

This book is intended for anyone who wants to understand the issues of SQL performance or how to design tables and indexes effectively. With this title, readers with many years of experience of relational systems will be able to better grasp the implications that have been brought into play by the introduction of new hardware.
ABOUT THE AUTHOR

**Tapio Lahdenmaki** received his M.Sc. from the Helsinki Institute of Technology. He worked at IBM for over thirty years, as a Database Specialist since 1975 (first IMS, then DB2 and other relational DBMSs). He has taught hundreds of database performance courses in 20 different countries, and was the main author of IBM's current global courses for DB2 (for z/OS) performance. He is the author and co-author of several books and articles on database performance. Since 2003 he has been an independent consultant on database performance, and teaches a product-independent index design course.

**Mike Leach** recently retired from a position at IBM, with 20 years experience teaching database classes at IBM locations in the UK and other countries. In 1990, he and Mr. Leach developed a DB2 Application Performance course, which is still taught in IBM Education Centers around the world.

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