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   Autore            Li Feifei

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                     Zhou, Peng Cai, Rong Zhang, Gui Huang, XiangWen Liu

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   Altri autori (Persone) ZhouXuan
                     CaiPeng
                     ZhangRong
                     HuangGui
                     LiuXiangWen

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   Sommario/riassunto This book analyzes in detail the technological evolution process of
                     databases in the era of cloud computing and explains how traditional
                     database technology has gradually developed to cloud-native form
                     from multiple perspectives such as architecture design, implementation

mechanism, and system optimization. This book emphasizes the full combination of theory and practice and also analyzes the SQL optimization and execution, transaction processing, caching and indexing principles of databases implemented by MySQL, PostgreSQL and other systems, what trade-offs and compromises are made in the face of actual application requirements, how to optimize in the face of complex application scenarios, and the reasons behind making various choices. At the same time, combined with Alibaba Cloud's R&D experience in the database field, this book focuses on a series of core technical principles of modern database evolution from system to service, such as the use of cloud computing resource pooling technology and distributed technology to achieve high availability, elastic expansion, and on-demand use of databases. The book is informative, combines theoretical depth and implementation details, and openly explores the new development direction of the database, which can inspire readers to think further.