NoSQL Distilled: A Brief Guide To The Emerging World Of Polyglot Persistence
The need to handle increasingly larger data volumes is one factor driving the adoption of a new class of nonrelational databases. Advocates of NoSQL databases claim they can be used to build systems that are more performant, scale better, and are easier to program. NoSQL Distilled is a concise but thorough introduction to this rapidly emerging technology. Pramod J. Sadalage and Martin Fowler explain how NoSQL databases work and the ways that they may be a superior alternative to a traditional RDBMS. The authors provide a fast-paced guide to the concepts you need to know in order to evaluate whether NoSQL databases are right for your needs and, if so, which technologies you should explore further. The first part of the book concentrates on core concepts, including schemaless data models, aggregates, new distribution models, the CAP theorem, and map-reduce. In the second part, the authors explore architectural and design issues associated with implementing NoSQL. They also present realistic use cases that demonstrate NoSQL databases at work and feature representative examples using Riak, MongoDB, Cassandra, and Neo4j. In addition, by drawing on Pramod Sadalage’s pioneering work, NoSQL Distilled shows how to implement evolutionary design with schema migration: an essential technique for applying NoSQL databases. The book concludes by describing how NoSQL is ushering in a new age of Polyglot Persistence, where multiple data-storage worlds coexist, and architects can choose the technology best optimized for each type of data access.

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Customer Reviews
The book serves its purpose. It is a brief guide to NoSQL products. It is the first practitioners' book in many years that I could finish reading within a few days with considerable pleasure. It gives me what I want to know even though I disagree with some of the points in it. The organization of the book is logical, according to the topics that the authors would like to present. Chapters two and three on the complex structures "aggregates" and graphs are the best and essential chapters. From these two chapters, the readers could understand the main points of NoSQL systems. Regarding the contents, I am surprised by the misuse of the very common terms "relational database" and "RDBMS". Most of the time when the book refers to relational database, it actually means RDBMS (and vice versa). The book (as well as many other NoSQL advocates elsewhere) states that relational databases use ACID transactions and are not good at horizontal fragmentation (sharding) in a distributed environment. I still remember E. F. Codd’s original relational database model which addresses relational data structure, entity and referential integrity constraints, and relational complete languages but says nothing about transaction processing. Transaction processing is considered a separate area from data modeling (transaction processing is explained in great details in Jim Gray’s book). Also, perhaps the first book in the area, "Distributed Databases" by Ceri and Pelagatti refers to relational database almost exclusively and even uses the relational algebra select to demonstrate horizontal fragmentation. Relational RDBMSs have managed distributed databases for decades. I thought the whole database world knew this.

Back in August, I wrote an article for the Developer Tips Newsletter titled "Domino Was NoSQL Before NoSQL Was Cool". In it, I talked a little about how Domino’s "NoSQL" database is both a blessing and a curse when it comes to trying to explain exactly where Domino fits in your environment. To get deeper into the whole topic of NoSQL (and to see how Domino fits in that world), I read "NoSQL Distilled: A Brief Guide to the Emerging World of Polyglot Persistence" by Pramodkumar J Sadalage and Martin Fowler. Not only do I now have a better understanding of the entire NoSQL topic, but I also better understand some of the unique ways that Domino has dealt with the pros and cons of this style of data storage. Sadalage and Fowler do an excellent job in making NoSQL Distilled an "easy" read in terms of interest and flow. Their goal is not to give you an encyclopedic knowledge of every type of NoSQL implementation and product offering. Instead, they aim to give you a solid grasp of the basics, with references back to actual database implementations that use the various structures. Even after reading just the first two chapters, you should have a much clearer understanding of what makes up a NoSQL database and the various data models used to implement it. I could have stopped right there and still have been happy with the value. But
it continues to deliver throughout each remaining chapter. Part 2 of the book is where many of the "I get it" moments happened for me. As a Domino developer, I naturally read chapter 9, Document Databases, with interest. That's the structure that Domino uses (and is in fact mentioned by name in the chapter), as well as CouchDB.

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