



NoSQL Databases

NoSQL Concepts

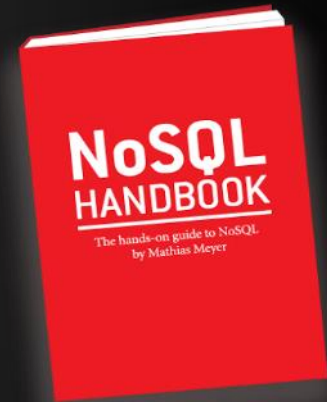
Databases

Telerik Software Academy

<http://academy.telerik.com>



- ◆ NoSQL Databases
 - ◆ Overview
 - ◆ Data models
- ◆ Relational vs NoSQL Databases





Not only SQL OR ~~SQL~~

NoSQL Databases

Overview, Models, Concepts, Examples

Relational vs. NoSQL Databases

◆ Relational databases

- ◆ Data stored as table rows
- ◆ Relationships between related rows
- ◆ Single entity spans multiple tables
- ◆ RDBMS systems are very mature, rock solid

◆ NoSQL databases

- ◆ Data stored as documents or other values
- ◆ Single entity (document) is a single record
- ◆ Documents do not have a fixed structure

- ◆ Document model
 - ◆ Set of documents, e.g. JSON strings
- ◆ Key-value model
 - ◆ Set of key-value pairs
- ◆ Hierarchical key-value
 - ◆ Hierarchy of key-value pairs
- ◆ Wide-column model
 - ◆ Key-value model with schema
- ◆ Object model
 - ◆ Set of OOP-style objects



What is NoSQL Database?

◆ NoSQL databases

- ◆ Schema-free document storage
 - ◆ Still support indexing and querying
 - ◆ Still support CRUD operations (create, read, update, delete)
 - ◆ Still supports concurrency and transactions
- ◆ Can have nested values
- ◆ Highly optimized for append / retrieve
- ◆ Great performance and scalability
- ◆ NoSQL == “No SQL” or “Not Only SQL”?

Relational vs. NoSQL Models

Relational Model

Name	Doncho Minkov
Gender	male
Phone	+359333777555
Email	minkov@abv.bg
Site	http://minkov.it

*
1

Street	Al. Malinov 31
Post Code	1729

*
1

Town	Sofia
------	-------

*
1

Country	Bulgaria
---------	----------

Document Model

Name: Doncho Minkov

Gender: male

Phone: +359333777555

Address:

- Street: Al. Malinov 31

- Post Code: 1729

- Town: Sofia

- Country: Bulgaria

Email: minkov@abv.bg

Site: http://minkov.it



Questions?

Free Trainings @ Telerik Academy

- ◆ Telerik School Academy

- ◆ schoolacademy.telerik.com



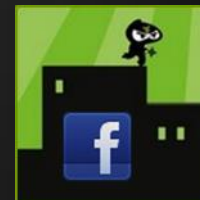
- ◆ Telerik Software Academy

- ◆ academy.telerik.com



- ◆ Telerik Academy @ Facebook

- ◆ facebook.com/TelerikAcademy



- ◆ Telerik Software Academy Forums

- ◆ forums.academy.telerik.com

