MongoDB Basics

Michael Albertson

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Contents

What is No-SQL?

- Denormalized
- Distributed with high scalability
- BASE instead of ACID
- CAP Theorem
- Not just SQL

What is MongoDB?

- Named for Humongous
- High scalability
- Fast writes
- BSON
- Geospatial indexing
- Aggregation (map and reduce)

My background with MongoDB

Trade offs

Upsides:

- Ease of use
- JavaScript on the backend

Downsides:

- Aggregation is slow
- XSS on the backend

Installation Demo

Shell Demo

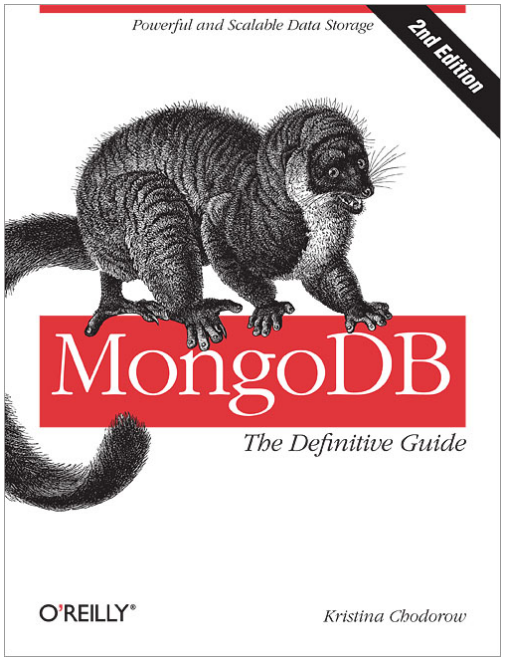
Geospatial Indexing

- Spherical or planar coordinates
- All spherical coordinates must be WGS 84
- Uses geohashing
- Only allows 2 dimensions
- 2dsphere requires GeoJSON

Demo

Suggested reading

- MongoDB: the Definitive Guide
- No ever got fired for using Hadoop in a cluster `http://research.microsoft.com/jump/163083`
- Towards robust distributed systems `https://www.cs.berkeley.edu/~brewer/cs262b-2004/PODC-keynote.pdf`



Any questions?

This talk should be available on GitHub.
If you want to contact me:

- Email: mdalbertsonjr@gmail.com
- Twitter: @mdalbertsonjr
- Radio: KJ6RAS