

SQL vs NoSQL

Computing

What each is actually optimised for, past the marketing.

Relational

- Schema defined up front
- Joins across tables are cheap
- Strong transactional guarantees
- Ad-hoc queries are easy
- Scales up more easily than out

Document / key-value

- Flexible or absent schema
- Data denormalised into one document
- Horizontal scaling is the design goal
- Queries must be planned in advance
- Joins are expensive or unavailable

THE DIFFERENCE THAT MATTERS

Modern relational databases store and index JSON. Modern document stores have transactions. The distinction is narrower than

Most applications that chose NoSQL for scale never reached the scale where it mattered — and paid for the missing joins daily.