Fault-tolerant availability

Riak replicates key/value stores across a cluster of nodes with a default n\_val of three. In the case of node outages due to network partition or hardware failures, data can still be written to a neighboring node beyond the initial three, and read-back due to its "masterless" peer-to-peer architecture.

Queries

Riak provides a REST-ful API through HTTP and Protocol Buffers for basic PUT, GET, POST, and DELETE functions. More complex queries are also possible, including secondary indexes, search (via Apache Solr), and MapReduce.

Book: <http://www.littleriakbook.com/#toc_0>

* Key/Value
* Buckets
* Replication
* Partitions
* Consistent Hashing
* For many high-traffic read/write use-cases, like an online shopping cart where even minor delays will cause people to just shop elsewhere, this (Availability) is not an acceptable sacrifice.
* RIAK - tunable AP system

Not all systems require such extreme amounts of uptime, and if you don't, Riak may not be for you.

Implementation:

community supplied drivers, none official