

Agile for CLOUD COMPUTING

- 1st-generation systems used HPCs & Hadoop
- 2nd-generation systems used COTS HW & P2P
- ☞ □ 3rd-generation systems use APP. SW & COTS HW



Rank	Database	Year	Creator	Firm	Goal	Model	Lang	I/F	Focus	Example	User	Rate	KPro
5	MongoDB	2007	Steve Francia	10gen	Generality	Document	C++	BSON	Large-scale Web Apps	CRM	Expedia	45%	48
		Rapid-prototyping, Queries, Indexes, Replication, Availability, Load-balancing, Auto-Sharding, etc.											
8	Cassandra	2008	Avinash Lakshman	Facebook	Reliability	Wide Column	Java	CQL	Fault-tolerant Data Stores	Mission Critical Data	iTunes	20%	15
		Distributed, Scalable, Performance, Durable, Caching, Operations, Transactions, Consistency											
10	Redis	2009	Salvatore Sanfilippo	Pivotal	Speed	Key Value	C	Binary	Real-time Messaging	Instant Messaging	Twitter	20%	14
Real-time, Memory-cached, Performance, Persistence, Replication, Data structures, Age-off, etc.													
14	HBase	2007	Mike Carafella	Powerset	Scale	Wide Column	Java	REST	Petabyte-size Data Stores	Image Repository	Ebay	10%	8
		Scalable, Performance, Data-replication, Flexible, Consistency, Auto-sharding, Metrics, etc.											
16	Elastic Search	2004	Shay Banon	Compass	Search	Document	Java	REST	Full-text Search	Information Portals	Wiki-media	5%	7
Real-time, Distributed, Multi-tenant, Document-based, Schema-free, Persistence, Availability, etc.													

3 - \$10M
 • Gen App
 • Reliable
 • Low Cplx

2 - \$100M
 • Schema
 • Dist P2P
 • Med Cplx

1 - \$1B
 • Limited
 • Sin PoF
 • High Cplx