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DB-Engines Ranking

https://db-engines.com/en/ranking

343 systems in ranking, July 2018

Rank Jul 2018	Rank Jun 2018	Rank Jul 2017	DBMS	Database Model	Score Jul 2018	Score Jun 2018	Score Jul 2017
1.	1.	1.	Oracle	Relational DBMS	1277.79	-33.47	-97.09
2.	2.	2.	MySQL	Relational DBMS	1196.07	-37.62	-153.04
3.	3.	3.	Microsoft SQL Server	Relational DBMS	1053.41	-34.32	-172.59
4.	4.	4.	PostgreSQL	Relational DBMS	405.81	-4.86	+36.37
5.	5.	5.	MongoDB	Document store	350.33	+6.54	+17.56
6.	6.	6.	DB2	Relational DBMS	186.20	+0.56	-5.05
7.	7.	↑ 9.	Redis	Key-value store	139.91	+3.61	+18.40
8.	8.	↑ 10.	Elasticsearch	Search engine	136.22	+5.18	+20.25
9.	9.	↓ 7.	Microsoft Access	Relational DBMS	132.58	+1.59	+6.45
10.	10.	↓ 8.	Cassandra	Wide column store	121.06	+1.84	-3.07
11.	11.	11.	SQLite	Relational DBMS	115.28	+1.02	+1.41
12.	12.	12.	Teradata	Relational DBMS	78.22	+2.45	-0.14
13.	↑ 14.	↑ 16.	Splunk	Search engine	69.24	+3.46	+8.94
14.	↓ 13.	↑ 18.	MariaDB	Relational DBMS	67.51	+1.67	+13.15
15.	↑ 16.	↓ 13.	SAP Adaptive Server	Relational DBMS	62.12	+0.64	-4.79
16.	↓ 15.	↓ 14.	Solr	Search engine	61.52	-0.55	-4.51
17.	17.	↓ 15.	HBase	Wide column store	60.77	+1.07	-2.85

Why MongoDB ???

Organization	Migrated From	Application
edmunds.com	Oracle	Billing, online advertising, user data
Cisco	Multiple RDBMS	Analytics, social networking
Craigslist	MySQL	Content management
Salesforce Marketing Cloud	RDBMS	Social marketing, analytics
Foursquare	PostgreSQL	Social, mobile networking platforms
MTV Networks	Multiple RDBMS	Centralized content management
Orange Digital	MySQL	Content Management

http://www.mongodb.com/customers

Introduction to NOSQL

- Open Source NoSQL Database
- Document Oriented
- Great for Unstructured data, especially when you have a lot of it

10gen

mongoDB

2007

2009

10gen

Hu(mongo)us

mongoDB

MongoDB as NoSQL Database

- A document-oriented database
  - Documents encapsulate and encode data (or information) in some standard formats or encodings
- NoSQL database
  - Non-adherence to the widely used relational database
  - Highly optimized for retrieve and append operations
- Uses BSON format
- Schema-less
- No more configuring database columns with types
- No joins
- Simple queries
- Makes sense with most web applications
- Easier and faster integration of data, not well suited for heavy and complex transactions systems.

CRUD


```
db.user.insert(
{
        first: "John",
        last : "Doe",
        age: 39
})
```

```
db.user.find(
{
        age: 39
})
```

```
db.user.update(
{age: 39},
{
        $set: {age: 40,
salary: 50000}
})
```

```
db.user.insert(
{
        first: "John",
        last : "Doe",
        age: 39
})
```

Demo of GridFS

1 Chunk Size = 255Kb = 255 * 1024 = **261120 bytes**

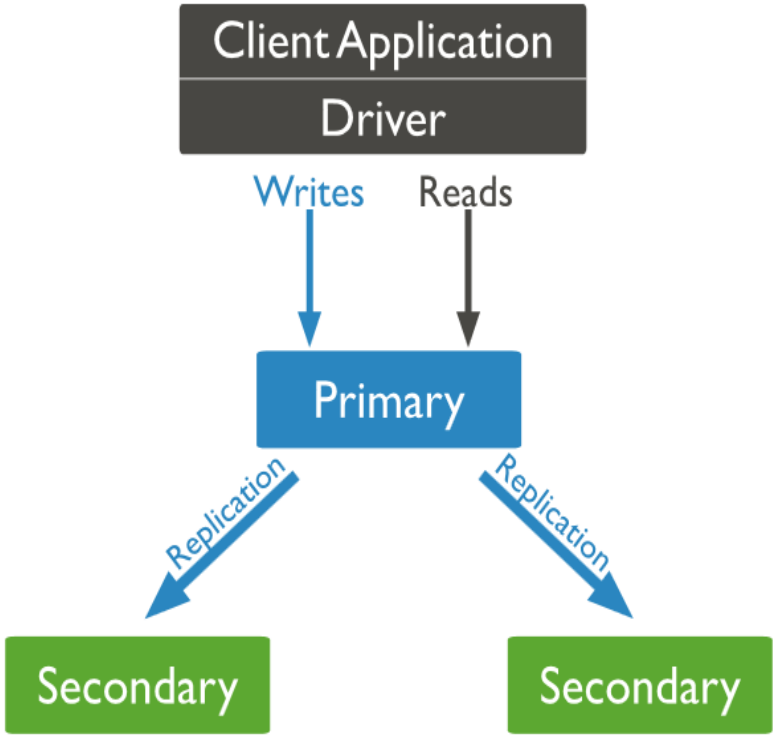
Upload File :

mongofiles --host “Amol-PC:27017” -d GridFS put zoozoo.mp4

Download File :

mongofiles.exe --host "Amol-PC:27017“ -d GridFs get zoozoo.mp4

Replication



- A *replica set* in MongoDB is a group of mongod processes that maintain the same data set.
- Replica sets provide redundancy and high availability,

Thanks

mongoDB

Any Question ????????