Choosing amongst MongoDB Management Platforms!!

Ops Manager / Cloud Manager/ Atlas ?!!

User

Got MongoDB & SA Experts
& can manage by yourself (on on-Prem) - Go for it

Got little MongoDB knowledge
& can manage by yourself (on your own Cloud) - Go for it

No much MongoDB knowledge, but still
you want Hassle free & Fully Managed - Go for it

OPS MANAGER

Self-hosted, Managment Platform

To deploy, monitor, back up, and scale MongoDB on your own infrastructure.

https://www.mongodb.com/products/ops-manager

- Self-hosted Management Platform
- Deployments on your own Infra

CLOUD MANAGER

Cloud-based

Deploy, Monitor, Backup , Automate

https://www.mongodb.com/cloud/cloud-manager

- Deploy MongoDB on your own
- Cloud-based Management Platform

MONGODB ATLAS

Fully Managed

Deploy, Monitor, Backup , Automate

https://cloud.mongodb.com/

- Fully Managed
- Automayed Deplyoments
- Simple Config Changes
- High Availability
- Built-in Security
- Automated Backups
- Live Migration Service
- Supports 3 Major Cloud Vendors

Credits : Srinivas Mutyala
https://www.linkedin.com/in/mutyalasrinivas/

MongoDB Learning Path (DBA/ Architect)

Introduction to NoSQL

Introduction to MongoDB

Introduction to JSON & JS

MongoDB Installation (Linux)

CRUD Opetations

Mongo Compass (GUI Tool)

GridFS (Storing Media Files)

MongoDB Architecture (File Structure)

Aggregation Framework

Security

Replication (High Availability)

Sharding (Horizontal Scalability)

Use Cases / Case Studies

Backup/Recovery

Performance Tuning

ACID Transactions

MongoDB Atlas/ Ops Manager

https://cloud.mongodb.com/

Study Meterials / Resources (Certification path)

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Study Guide/ MongoDB Univeristy Videos

https://learn.mongodb.com/learn/course/mongodb-associate-dba-exam-study-guide
https://learn.mongodb.com/catalog?labels=%5B%22Role%22%5D&values=%5B%22Administrator%22%5D

Practice Exam / Exam Dumps

https://learn.mongodb.com/learn/course/associate-database-administrator-practice-questions/prep-questions/questions

Certifcaiton - MongoDB DBA Associate

https://learn.mongodb.com/learn/dashboard
https://learn.mongodb.com/pages/mongodb-associate-database-administrator-exam

https://learn.mongodb.com/pages/mongodb-associate-database-administrator-exam

MongoDB Learning Path (Developer)

Credits : Srinivas Mutyala
https://www.linkedin.com/in/mutyalasrinivas/

Introduction to NoSQL

Introduction to MongoDB

Introduction to JSON & JS

CRUD Opetations

Mongo Compass (GUI Tool)

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MongoDB Architecture (File Structure)

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Use Cases / Case Studies

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https://learn.mongodb.com/learn/course/mongodb-associate-developer-exam-study-guide

https://learn.mongodb.com/catalog?labels=%5B%22Role%22%5D&values=%5B%22Developer%22%5D

Practice Exam

https://learn.mongodb.com/pages/mongodb-developer-practice-questions

Certifcaiton - MongoDB Developer Associate

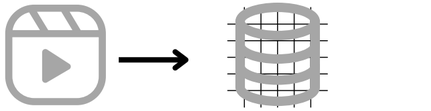
https://learn.mongodb.com/pages/mongodb-associate-database-administrator-exam

https://learn.mongodb.com/learn/dashboard

https://learn.mongodb.com/pages/mongodb-associate-database-administrator-exam

MONGO DB Explained In-short

GridFS to insert Audio/Video files to DB



Storage Engine : Wired Tiger (wt)
Crash Resiliency : Journal Log
Compress Methods : Snappy/glip/none
Storage Format : BSON with wt ext

INDEXES

Primary Index : On _id
Unique
Composite (2 or more fields)
Multi Key (On Array Fields)
Time to Live
Partial Filter / Sparse
Wild Card
Text
GeoSpacial .. many more

AGGREGATION FRAMEWORK

Complex queries

ENTERPRISE FEATURES

Auditing
AD/LDAP
Encryption at Rest
In-Memory Storage Engine
Queryable Encryption

GUIS

Mongo Compass (Free)
Studio 3T (commercial)

MANAGEMENT TOOLS/APPS

MongoDB Atlas (Cloud)
Cloud Manager (Enterprise)
Ops Manager (OnPrem)

GENERAL LOG

mongod.log

CONFIGGURATION

/etc/mongod.conf (YAML File)

ACID TRANSACTIONS

If 2/+ nodes - It's Replication (High Availability)

db.collection.find()
= select * from collection;

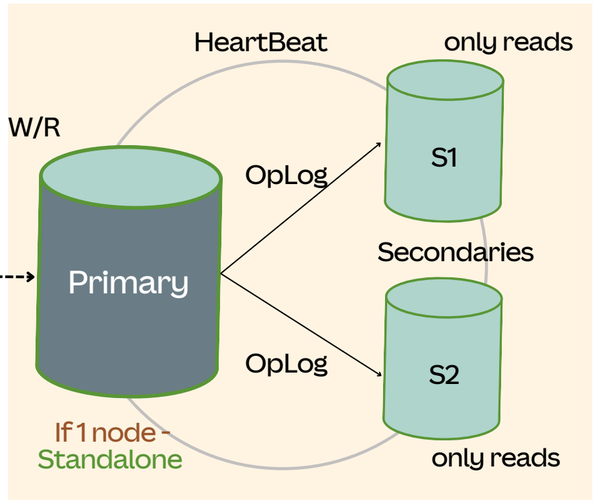
APPLICATION

Driver
java/C# ...many more

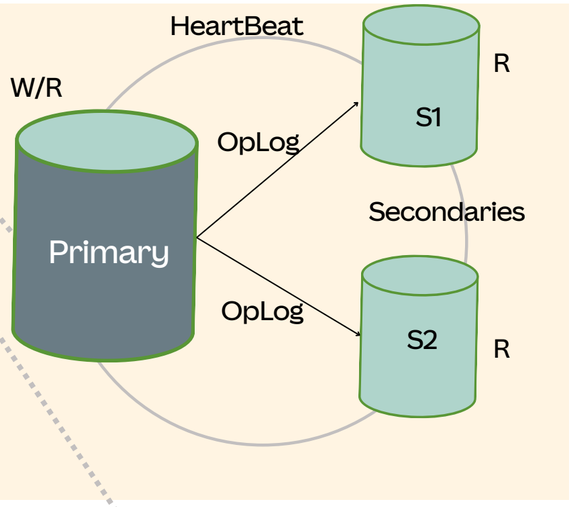
db.collection.insertMany([{ JSON1}, { JSON2}, . . .])

Example JSON : {
_id : 7654,
name : 'Sahiti',
address : { roadNo: 123, landMark: 'TWC'},
favourites : ['chess', 'music'],
gpa : 4.5
}

thru mognos
thru mongos



Shard1



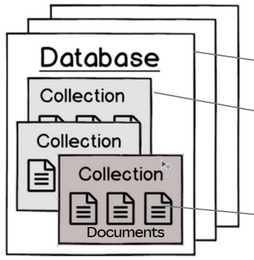
Shard2

Shard N

Sharding (Horizontal Scalability)

3 TYPES
RANGE
HASH
DC-AWARE

- Sharding (Similar to Partitioning) with Shard Key
- mongos (Query Router)
- config servers (PSS) (meta data)
- Balancer (data/chunk migrations between shards)



DBVERSITY
http://www.dbversity.com

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