RUN TIME CONFIGURATION OF MONGODB

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Group 6

RUNTIME DATABASE CONFIGURATION

- It can be done in two (2) different ways:
  - Command Line
  - Configuration Files

- provide MongoDB administrators with a large number of options and settings for controlling the operation of the database system.

- MongoDB uses the init script to initialize the configuration settings while it starts.

- We can set the configuration files by using this commands:
  - mongod --config/etc/mongod.conf
  - mongod -f/etc/mongod.conf

DIFFERENT PARTS OF CONFIGURATION FILES

Database Configuration

All information is provided like the database path, file destination and IP port so that you can set the configuration.

Security Consideration

Security related data and authorization information are stored here.

DIFFERENT PARTS OF CONFIGURATION FILES CONTD.

Security Consideration

bind_ip = 127.0.0.1,10.8.0.10,192.168.4.24

"bindIp" has three values: 127.0.0.1, the localhost interface; 10.8.0.10, a private IP address typically used for local networks and VPN interfaces; and 192.168.4.24, a private network interface typically used for local networks.

auth = true

"authorization" is true enables the authorization system within MongoDB.

Replication and Sharding Configuration

Replication

The primary server node copies data onto secondary server nodes.

Benefits of Replication

• It increases data availability and reliability thanks to there being multiple live copies of your data.

• Replication is also helpful in case of an event like hardware failure or a server crash.

Sharding

The primary server node copies data onto secondary server nodes.

Benefits of Sharding

• Increased read/write throughput
• Increased storage capacity
• Data Locality

2 Sharding Strategy

• Ranged Sharding
• Hashed Sharding

DIFFERENT PARTS
OF CONFIGURATION
FILES CONTD.

SHARDING
2 Sharding Strategy

Ranged Sharding

divides data into ranges based on the shard key values. Each chunk is then assigned a range based on the shard key values.

Hashed Sharding

involves computing a hash of the shard key field's value. Each chunk is then assigned a range based on the hashed shard key values.

BEST PRACTICES

EXAMPLES

```
fork = true
bind_ip = 127.0.0.1
port = 27017
quiet = true
dbpath = /srv/mongodb
logpath =/var/log/mongodb/mongod.log
logappend = true
journal = true
```

BEST PRACTICES

EXAMPLES
CONTD.

fork = true

fork is true, which enables a daemon mode for mongod, which detaches the MongoDB from the current session and allows you to run the database as a conventional server.

bind_ip = 127.0.0.1

bindIp is 127.0.0.1, which forces the server to only listen for requests on the localhost IP.

port = 27017

port is 27017, which is the default MongoDB port for database instances.

quiet = true

quiet is true. This disables all but the most critical entries in output/log file.

dbpath = /srv/mongodb

dbPath is /srv/mongodb, which specifies where MongoDB will store its data files.

logpath = /var/log/mongodb/mongod.log

systemLog.path is /var/log/mongodb/mongod.log which is where mongod will write its output.

logappend = true

logAppend is true, which ensures that mongod does not overwrite an existing log file following the server start operation.

journal = true

storage.journal.enabled is true, which enables journaling. Journaling ensures single instance write-durability.

GROUP 6

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