

PROJET BASE DE DONNEES

Nous allons d'abord créer des répertoires de configuration pour les 3 serveurs

```
mkdir C:\data\rs1
```

```
mkdir C:\data\rs2
```

```
mkdir C:\data\rs3
```

CREATE REPLICA SET BY NAME TEST FOR CONFIG SERVER

```
start mongod --configsvr -replSet myRepl -logpath \data\rs1\1.log -dbpath \data\rs1 --port 27021
```

```
start mongod --configsvr -replSet myRepl -logpath \data\rs2\2.log -dbpath \data\rs2 --port 27022
```

```
start mongod --configsvr -replSet myRepl -logpath \data\rs3\3.log -dbpath \data\rs3 --port 27023
```

CONFIGURATION ON PRIMARY

```
mongo --port 27021
```

CONFIGURATION PARAMETERS

```
config = { _id : «myRepl»,members :[  
{ _id :0,host:«localhost:27021»},  
{ _id :1,host: «localhost:27022»,  
{ _id :3,host: «localhost:27023»}  
]}
```

INITIATE CONFIGURATION

```
rs.initiate(config)
```

Nous allons d'abord créer les répertoires de configurations pour les différents shards

```
mkdir C:\data\shard
```

```
mkdir C:\data\shard\s0
```

```
mkdir C:\data\shard\s1
```

```
mkdir C:\data\shard\s2
```

```
mkdir C:\data\shard\s0\log
```

```
mkdir C:\data\shard\s1\log
```

```
mkdir C:\data\shard\s2\log
```

SHARDS CONFIGURATIONS

```
start mongod --shardsvr --port 27031 -logpath \data\shard\s0\log\s0.log --dbpath \data\shard\s0
```

```
start mongod --shardsvr --port 27032 -logpath \data\shard\s1\log\s1.log --dbpath \data\shard\s1
```

```
start mongod --shardsvr --port 27033 -logpath \data\shard\s2\log\s2.log --dbpath \data\shard\s2
```

START ROUTING SERVICE

```
start mongos --port 28000 --configdb myRepl/localhost:27021
```

```
start mongos --port 28000 --configdb myRepl/localhost:27022
```

```
start mongos --port 28000 --configdb myRepl/localhost:27023
```

ADD SHARDS TO THE MONGOS ROUTER

```
sh.addShard("localhost:27031")
```

```
sh.addShard("localhost:27032")
```

```
sh.addShard("localhost:27033")
```

EXPORT COUNTRY TABLE ON SQL WORLD FILE .CSV VIA PHPMYADMIN

CREATE DATABASE : COUNTRY IN MONGODB COMPASS

CREATE COLLECTIONS : COUNTRIES IN MONGODB COMPASS

CONNECT TO MONGOS ROUTEUR

```
mongo --host localhost --port 28000
```

ACTIVATE SHARDING ON DATABASE COUNTRY

```
sh.enableSharding(«country »)
```

SPECIFY SHARDING KEY

```
sh.shardCollection(«country.countries », {pays : « hashed »})
```

CREATE 3 CHUNKS BASED ON HASHED VALUE

```
sh.splitAt(« country.countries », {pays : NumberLong(«3722863311542467351 »)}) pour Africa
```

```
sh.splitAt(« country.countries », {pays : NumberLong(«-4981955172107974264»)}) pour Europe
```

```
sh.splitAt(« country.countries », {pays : NumberLong(«5309650673461668222»)}) pour Other
```

Les NumberLong représentent les valeurs minimales et maximales des clés de fractionnement chaque chunk

MOVE CHUNKS IN DIFFERENTS SHARDS

```
sh.moveChunk(« country.countries », {pays : « Africa», « shard0000 »)
```

```
sh.moveChunk(« country.countries », {pays : « Europe», « shard0001 »)
```

```
sh.moveChunk(« country.countries », {pays : « Other», « shard0002 »)
```

CREATE INDEX

```
db.countries.createIndex({pays : « text», {background : true})
```

GIT COMMAND TO EXPORT MONGODB PROJECT IN GITHUB

```
git clone https://github.com/Amadou667/projet-distribue-mongodb1.git
```

```
cd C:\Program Files\Git\projet-distribue-mongodb
```

```
git add .
```

```
git commit -m "architecture mongoDB distribuée"
```

```
git config --global user.email "baa386006 @gmail.com"
```

```
git config --global user.name "Amadou667"
```

```
git push origin main
```