

ReplicaSet :

Nous avons suivi ce tuto pour l'installation du ReplicaSet sur notre service de Chat

<https://openclassrooms.com/fr/courses/4462426-maitrisez-les-bases-de-donnees-nosql/4474611-protégez-vous-des-pannes-avec-les-replicaset>

Création de 3 serveurs (1 primary et 2 secondary) et un arbiter tous les trois connectés :

```
},
"lastStableCheckpointTimestamp" : Timestamp(1586944084, 1),
"members" : [
  {
    "_id" : 0,
    "name" : "localhost:27018",
    "health" : 1,
    "state" : 1,
    "stateStr" : "PRIMARY",
    "uptime" : 6276,
    "optime" : {
      "ts" : Timestamp(1586944114, 1),
      "t" : NumberLong(9)
    },
    "optimeDate" : ISODate("2020-04-15T09:48:34Z"),
    "syncingTo" : "",
    "syncSourceHost" : "",
    "syncSourceId" : -1,
    "infoMessage" : "",
    "electionTime" : Timestamp(1586939632, 1),
    "electionDate" : ISODate("2020-04-15T08:33:52Z"),
    "configVersion" : 4,
    "self" : true,
    "lastHeartbeatMessage" : ""
  },
  {
    "_id" : 1,
    "name" : "localhost:27020",
    "health" : 1,
    "state" : 2,
    "stateStr" : "SECONDARY",
    "uptime" : 3126,
    "optime" : {
      "ts" : Timestamp(1586944114, 1),
      "t" : NumberLong(9)
    },
    "optimeDurable" : {
      "ts" : Timestamp(1586944114, 1),
      "t" : NumberLong(9)
    }
  }
]
```

```
{
  "_id" : 2,
  "name" : "localhost:27019",
  "health" : 1,
  "state" : 2,
  "stateStr" : "SECONDARY",
  "uptime" : 4527,
  "optime" : {
    "ts" : Timestamp(1586944114, 1),
    "t" : NumberLong(9)
  },
  "optimeDurable" : {
    "ts" : Timestamp(1586944114, 1),
    "t" : NumberLong(9)
  },
  "optimeDate" : ISODate("2020-04-15T09:48:34Z"),
  "optimeDurableDate" : ISODate("2020-04-15T09:48:34Z"),
  "lastHeartbeat" : ISODate("2020-04-15T09:48:37.923Z"),
  "lastHeartbeatRecv" : ISODate("2020-04-15T09:48:36.682Z"),
  "pingMs" : NumberLong(0),
  "lastHeartbeatMessage" : "",
  "syncingTo" : "localhost:27018",
  "syncSourceHost" : "localhost:27018",
  "syncSourceId" : 0,
  "infoMessage" : "",
  "configVersion" : 4
},
{
  "_id" : 3,
  "name" : "localhost:30000",
  "health" : 1,
  "state" : 7,
  "stateStr" : "ARBITER",
  "uptime" : 4575,
  "lastHeartbeat" : ISODate("2020-04-15T09:48:37.328Z"),
  "lastHeartbeatRecv" : ISODate("2020-04-15T09:48:37.593Z"),
  "pingMs" : NumberLong(0),
  "lastHeartbeatMessage" : "",
  "syncingTo" : "",
  "syncSourceHost" : "",
  "syncSourceId" : -1,
  "infoMessage" : "",
  "configVersion" : 4
}
```

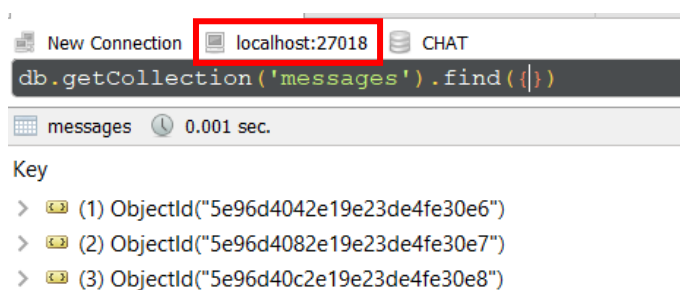
Quand on kill le primary (ici 27018) l'arbitre désigne un des replicat en primary ici c'est le 27020

```
C:\Users\chiheb\Desktop\INF0834\TP5-6>mongo --port 27020
MongoDB shell version v4.0.13
connecting to: mongodb://127.0.0.1:27020/?gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("89a3028f-3a83-4e0d-9416-1010ae55cdd9") }
MongoDB server version: 4.0.13
Server has startup warnings:
2020-04-15T01:56:31.626-0700 I CONTROL [initandlisten]
2020-04-15T01:56:31.626-0700 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2020-04-15T01:56:31.629-0700 I CONTROL [initandlisten] **      Read and write access to data and configuration is unrestricted.
2020-04-15T01:56:31.631-0700 I CONTROL [initandlisten]
2020-04-15T01:56:31.631-0700 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2020-04-15T01:56:31.637-0700 I CONTROL [initandlisten] **      Remote systems will be unable to connect to this server.
2020-04-15T01:56:31.638-0700 I CONTROL [initandlisten] **      Start the server with --bind_ip <address> to specify which IP
2020-04-15T01:56:31.639-0700 I CONTROL [initandlisten] **      addresses it should serve responses from, or with --bind_ip_all to
2020-04-15T01:56:31.640-0700 I CONTROL [initandlisten] **      bind to all interfaces. If this behavior is desired, start the
2020-04-15T01:56:31.643-0700 I CONTROL [initandlisten] **      server with --bind_ip 127.0.0.1 to disable this warning.
2020-04-15T01:56:31.651-0700 I CONTROL [initandlisten]
2020-04-15T10:56:31.974+0200 I REPL [replexec-0]
2020-04-15T10:56:31.975+0200 I REPL [replexec-0] ** WARNING: This replica set uses arbiters, but readConcern:majority is enabled
2020-04-15T10:56:31.986+0200 I REPL [replexec-0] **      for this node. This is not a recommended configuration. Please see
2020-04-15T10:56:32.001+0200 I REPL [replexec-0] **      https://dochub.mongodb.org/core/psa-disable-rc-majority-4.0
2020-04-15T10:56:32.004+0200 I REPL [replexec-0]
---
Enable MongoDB's free cloud-based monitoring service, which will then receive and display
metrics about your deployment (disk utilization, CPU, operation statistics, etc).

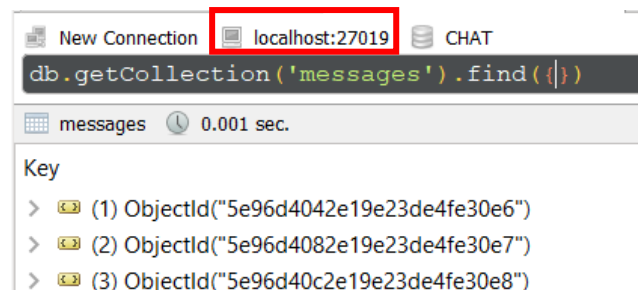
The monitoring data will be available on a MongoDB website with a unique URL accessible to you
and anyone you share the URL with. MongoDB may use this information to make product
improvements and to suggest MongoDB products and deployment options to you.

To enable free monitoring, run the following command: db.enableFreeMonitoring()
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
rs0:PRIMARY>
```

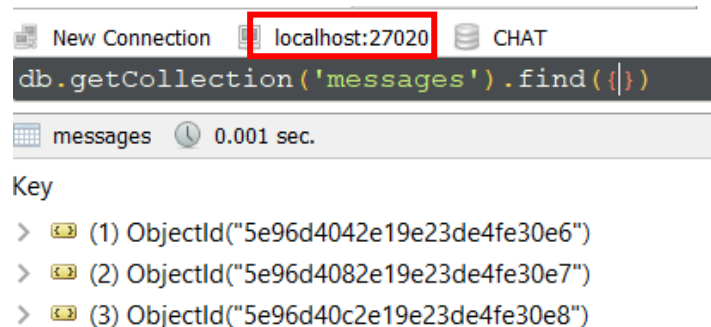
De plus les données on été répliquée sur les deux autres serveurs (27019 et 27020)



```
New Connection localhost:27018 CHAT
db.getCollection('messages').find({})
messages 0.001 sec.
Key
> (1) ObjectId("5e96d4042e19e23de4fe30e6")
> (2) ObjectId("5e96d4082e19e23de4fe30e7")
> (3) ObjectId("5e96d40c2e19e23de4fe30e8")
```



```
New Connection localhost:27019 CHAT
db.getCollection('messages').find({})
messages 0.001 sec.
Key
> (1) ObjectId("5e96d4042e19e23de4fe30e6")
> (2) ObjectId("5e96d4082e19e23de4fe30e7")
> (3) ObjectId("5e96d40c2e19e23de4fe30e8")
```



```
New Connection localhost:27020 CHAT
db.getCollection('messages').find({})
messages 0.001 sec.
Key
> (1) ObjectId("5e96d4042e19e23de4fe30e6")
> (2) ObjectId("5e96d4082e19e23de4fe30e7")
> (3) ObjectId("5e96d40c2e19e23de4fe30e8")
```