**Docker compose up**

PS D:\desktop\ВРОС\lab3> docker compose up -d

[+] Running 26/26

- shard03-b Pulled 25.0s

- b7a3e92f19af Pull complete 9.9s

- ebc52c729dca Pull complete 10.4s

- configsvr02 Pulled 25.1s

- shard01-a Pulled 25.1s

- shard01-c Pulled 25.1s

- da8ef40b9eca Pull complete 9.3s

- router01 Pulled 25.1s

- 58690f9b18fc Pull complete 9.1s

- configsvr01 Pulled 25.0s

- shard03-c Pulled 25.1s

- shard03-a Pulled 25.1s

- b51569e7c507 Pull complete 9.2s

- shard02-a Pulled 25.1s

- a0dc15b16822 Pull complete 9.5s

- 6aa1ba699846 Pull complete 10.3s

- shard01-b Pulled 25.1s

- 22b97876323d Pull complete 18.7s

- configsvr03 Pulled 25.1s

- fb15d46c38dc Pull complete 9.4s

- shard02-c Pulled 25.0s

- shard02-b Pulled 25.1s

- ed4a7b863fa1 Pull complete 10.1s

- a58b030ea8e4 Pull complete 10.2s

- 52e8c440d4d6 Pull complete 18.6s

- router02 Pulled 25.1s

[+] Running 15/15

- Network lab3\_default Created 0.8s

- Container router-01 Started 7.2s

- Container shard-02-node-b Started 5.6s

- Container shard-03-node-b Started 5.6s

- Container shard-01-node-a Started 9.4s

- Container mongo-config-01 Started 10.8s

- Container mongo-config-03 Started 13.4s

- Container shard-03-node-c Started 11.6s

- Container shard-03-node-a Started 10.5s

- Container shard-02-node-c Started 6.8s

- Container router-02 Started 12.9s

- Container shard-02-node-a Started 14.5s

- Container mongo-config-02 Started 8.1s

- Container shard-01-node-c Started 4.7s

- Container shard-01-node-b Started

**sudo sh init\_rs.sh**

PS D:\desktop\ВРОС\lab3> docker-compose exec configsvr01 sh -c "mongo < /scripts/init-configserver.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("d6608b9e-15fa-4412-a87c-56e009e54be4") }

MongoDB server version: 4.0.28

{

"operationTime" : Timestamp(1671368875, 2),

"ok" : 0,

"errmsg" : "already initialized",

"code" : 23,

"codeName" : "AlreadyInitialized",

"$gleStats" : {

"lastOpTime" : Timestamp(0, 0),

"electionId" : ObjectId("7fffffff0000000000000001")

},

"$clusterTime" : {

"clusterTime" : Timestamp(1671368875, 2),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

bye

PS D:\desktop\ВРОС\lab3>

PS D:\desktop\ВРОС\lab3> docker-compose exec shard01-a sh -c "mongo < /scripts/init-shard01.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("17b2b4c2-0fc4-40da-9b0f-6f3c8d03d954") }

MongoDB server version: 4.0.28

{

"operationTime" : Timestamp(1671368874, 1),

"ok" : 0,

"errmsg" : "already initialized",

"codeName" : "AlreadyInitialized",

"$clusterTime" : {

"clusterTime" : Timestamp(1671368874, 1),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

bye

PS D:\desktop\ВРОС\lab3> docker-compose exec shard02-a sh -c "mongo < /scripts/init-shard02.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("6172740b-0733-411e-a8cc-dce274ddb6f7") }

MongoDB server version: 4.0.28

{

"operationTime" : Timestamp(1671368875, 1),

"ok" : 0,

"errmsg" : "already initialized",

"code" : 23,

"codeName" : "AlreadyInitialized",

"$clusterTime" : {

"clusterTime" : Timestamp(1671368875, 1),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

bye

PS D:\desktop\ВРОС\lab3> docker-compose exec shard03-a sh -c "mongo < /scripts/init-shard03.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("a863141e-6bda-4d08-8b0a-fcd305b34709") }

MongoDB server version: 4.0.28

{

"operationTime" : Timestamp(1671368881, 1),

"ok" : 0,

"errmsg" : "already initialized",

"code" : 23,

"codeName" : "AlreadyInitialized",

"$clusterTime" : {

"clusterTime" : Timestamp(1671368881, 1),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

bye

**docker-compose exec router01 sh -c “mongo < .scripts/init-router.js”**

docker-compose exec router01 sh -c "mongo < /scripts/init-router.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("eaca4171-148c-49f1-a970-99a10ff57058") }

MongoDB server version: 4.0.28

{

"shardAdded" : "rs-shard-01",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 7),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 7),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-01",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 7),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 7),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-01",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 7),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 7),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-02",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 12),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 12),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-02",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 12),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 12),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-02",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 12),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 12),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-03",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 16),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 16),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-03",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 16),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 16),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"shardAdded" : "rs-shard-03",

"ok" : 1,

"operationTime" : Timestamp(1671368976, 16),

"$clusterTime" : {

"clusterTime" : Timestamp(1671368976, 16),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

bye

**Використання згенерованих даних rides.csv**

PS D:\desktop\ВРОС\lab3> docker-compose exec router01 sh -c "mongo < /scripts/collection.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("2e4c25c2-81bd-43a5-b793-248dcb1fcca7") }

MongoDB server version: 4.0.28

{

"operationTime" : Timestamp(1671374483, 3),

"$clusterTime" : {

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

{

"collectionsharded" : "taxi.rides",

"collectionUUID" : UUID("07e742a5-e7d4-456c-9295-556b462e76be"),

"ok" : 1,

"operationTime" : Timestamp(1671374484, 24),

"$clusterTime" : {

"clusterTime" : Timestamp(1671374484, 24),

"signature" : {

"hash" : BinData(0,"AAAAAAAAAAAAAAAAAAAAAAAAAAA="),

"keyId" : NumberLong(0)

}

}

}

bye

PS D:\desktop\ВРОС\lab3> docker-compose exec router01 sh -c "mongoimport --port 27017 -d taxi -c rides --type csv --file /data/rides.csv --headerline"

2022-12-18T14:41:26.214+0000 connected to: localhost:27017

2022-12-18T14:41:26.319+0000 imported 1000 documents

PS D:\desktop\ВРОС\lab3> docker-compose exec router01 sh -c "mongo < /scripts/query.js"

MongoDB shell version v4.0.28

connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb

Implicit session: session { "id" : UUID("0f74e75c-259c-4316-b336-a22196f8fa67") }

MongoDB server version: 4.0.28

switched to db taxi

100

bye