Name: Nakshtra Chavan

Sap id.: 40778230014

Roll No.: L011

MSc Data Science and AI

Practical 5: Sharding using MongoDB

Create a folder and in that folder make 9 files/folders with names -> primary, secondary1, secondary2, server1, server2, server3, shard1, shard2, shard3 and run the commands mentioned below

REPLICATION

~~~~~~~~~~~~

\*\*OPEN CMD AND RUN FOLLOWING COMMANDS\*\*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

C:\Users\LENOVO>cd C:\mogoshard

start mongod --port=50000 --replSet="Server1" --dbpath="C:\mongoshard\primary"

start mongod --port=50001 --replSet="Server1" --dbpath="C:\mongoshard\secondary1"

start mongod --port=50002 --replSet="Server1" --dbpath="C:\mongoshard\secondary2"

\*\*OPEN CMD AND RUN FOLLOWING COMMANDS\*\*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Microsoft Windows [Version 10.0.22621.3155]

(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>mongosh --port=50000

Current Mongosh Log ID: 65f08313daf480d082a47e42

Connecting to: mongodb://127.0.0.1:50000/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.5

Using MongoDB: 7.0.5

Using Mongosh: 2.1.5

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

------

The server generated these startup warnings when booting

2024-03-12T21:59:01.395+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

2024-03-12T21:59:01.396+05:30: This server is bound to localhost. Remote systems will be unable to connect to this server. Start the server with --bind\_ip <address> to specify which IP addresses it should serve responses from, or with --bind\_ip\_all to bind to all interfaces. If this behavior is desired, start the server with --bind\_ip 127.0.0.1 to disable this warning

------

test> rs.initiate({

... \_id:"Server1",

... members:[

... {\_id:0, host:"localhost:50000"},

... {\_id:1, host:"localhost:50001"},

... {\_id:2, host:"localhost:50002"}

... ]

... });

{ ok: 1 }

Server1 [direct: secondary] test>

CONFIG SERVERS

~~~~~~~~~~~~~~~

\*\*OPEN CMD AND RUN FOLLOWING COMMANDS\*\*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

C:\Users\LENOVO>cd C:\mogoshard

start mongod --configsvr --port=1030 --replSet="Server1" --dbpath="C:\mongoshard\server1"

start mongod --configsvr --port=1040 --replSet="Server1" --dbpath="C:\mongoshard\server2"

start mongod --configsvr --port=1050 --replSet="Server1" --dbpath="C:\mongoshard\server3"

\*\*OPEN CMD AND RUN FOLLOWING COMMANDS\*\*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Microsoft Windows [Version 10.0.22621.3155]

(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>mongosh --host="localhost:1030"

Current Mongosh Log ID: 65f084803e226f2421899c2c

Connecting to: mongodb://localhost:1030/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.5

Using MongoDB: 7.0.5

Using Mongosh: 2.1.5

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

------

The server generated these startup warnings when booting

2024-03-12T22:04:01.822+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

2024-03-12T22:04:01.823+05:30: This server is bound to localhost. Remote systems will be unable to connect to this server. Start the server with --bind\_ip <address> to specify which IP addresses it should serve responses from, or with --bind\_ip\_all to bind to all interfaces. If this behavior is desired, start the server with --bind\_ip 127.0.0.1 to disable this warning

------

test> rs.initiate({

... \_id:"Server1",

... configsvr:true,

... members:[

... {\_id:0, host:"localhost:1030"},

... {\_id:1, host:"localhost:1040"},

... {\_id:2, host:"localhost:1050"}

... ]

... })

{ ok: 1 }

Server1 [direct: other] test>

SHARDS

~~~~~~~

\*\*OPEN CMD AND RUN FOLLOWING COMMANDS\*\*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

C:\Users\LENOVO>cd C:\mogoshard

start mongod --shardsvr --port=1130 --dbpath="C:\mongoshard\shard1" --replSet="Server1"

start mongod --shardsvr --port=1140 --dbpath="C:\mongoshard\shard2" --replSet="Server1"

start mongod --shardsvr --port=1150 --dbpath="C:\mongoshard\shard3" --replSet="Server1"

\*\*OPEN CMD AND RUN FOLLOWING COMMANDS\*\*

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Microsoft Windows [Version 10.0.22621.3155]

(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>mongosh --host="localhost:1130"

Current Mongosh Log ID: 65f0868d80f995ab2c101aae

Connecting to: mongodb://localhost:1130/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.5

Using MongoDB: 7.0.5

Using Mongosh: 2.1.5

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

------

The server generated these startup warnings when booting

2024-03-12T22:13:29.993+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

2024-03-12T22:13:29.994+05:30: This server is bound to localhost. Remote systems will be unable to connect to this server. Start the server with --bind\_ip <address> to specify which IP addresses it should serve responses from, or with --bind\_ip\_all to bind to all interfaces. If this behavior is desired, start the server with --bind\_ip 127.0.0.1 to disable this warning

------

test> rs.initiate({

... \_id:"Server1",

... members: [

... {\_id: 0, host: "localhost:1130"},

... {\_id: 1, host: "localhost:1140"},

... {\_id: 2, host: "localhost:1150"}

... ]

... })

{ ok: 1 }

Server1 [direct: other] test>