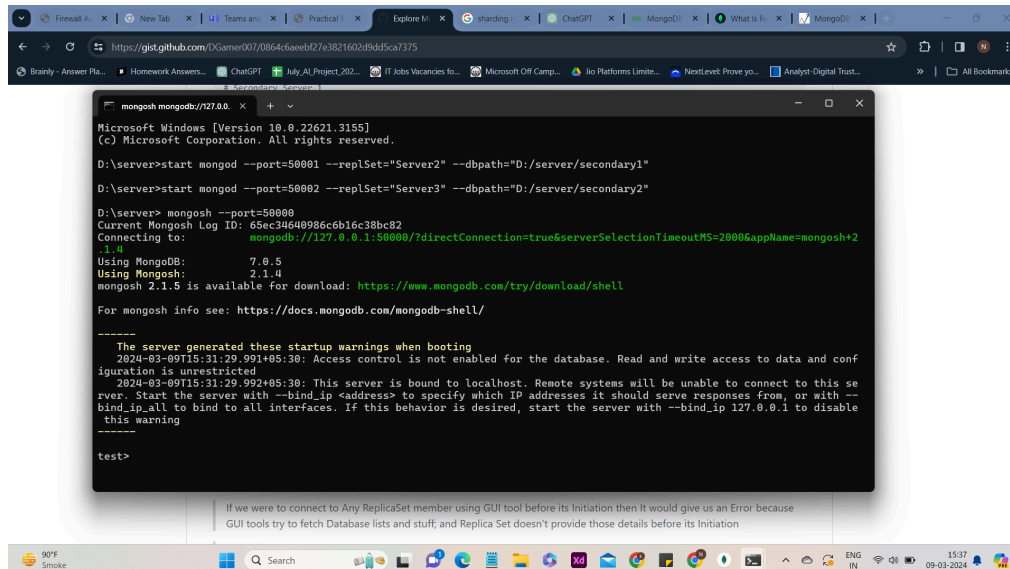


NAME: NIDHI SHETTY

ROLL NO.: 01

PRACTICAL NO.: 05 SHARDING

create a folder and in that folder make 9 files/folders with name(primary, secondary1, secondary2, server1, server2, server3, shard1, shard2, shard3) and run the commands mentioned below
Replication:



```
Microsoft Windows [Version 10.0.22621.3155]
(c) Microsoft Corporation. All rights reserved.

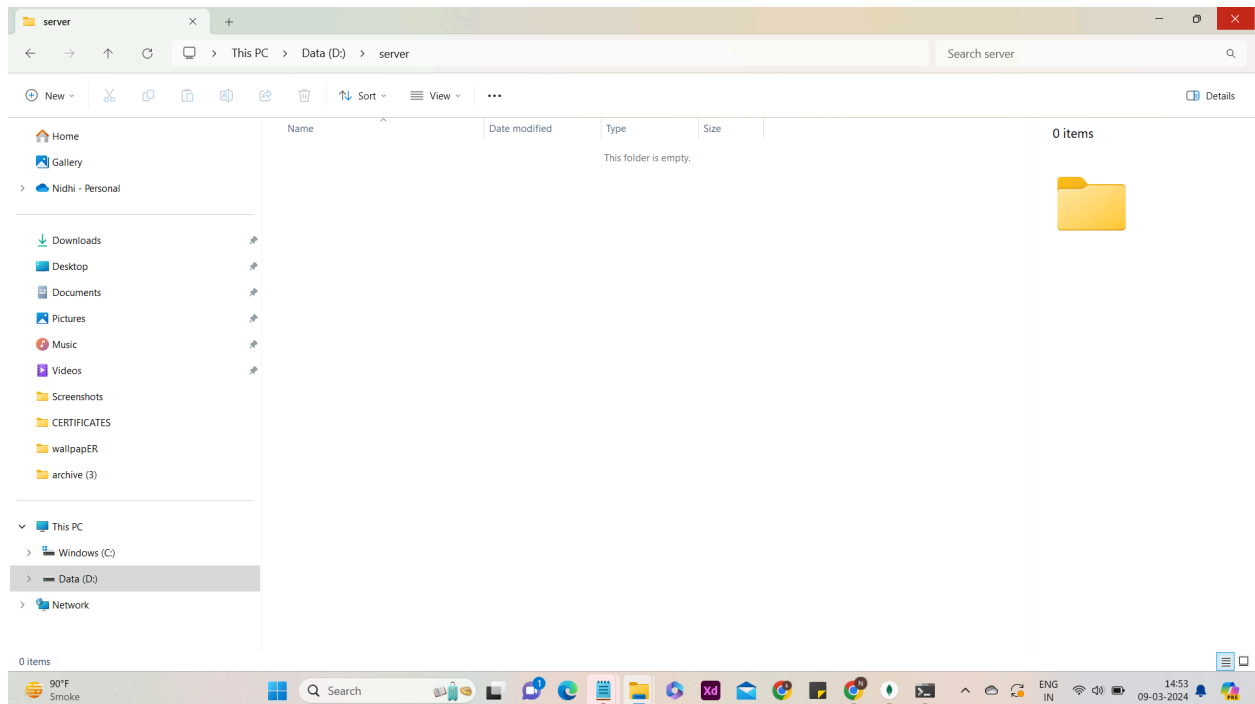
D:\server>start mongod --port=50001 --replSet="Server2" --dbpath="D:/server/secondary1"

D:\server>start mongod --port=50002 --replSet="Server3" --dbpath="D:/server/secondary2"

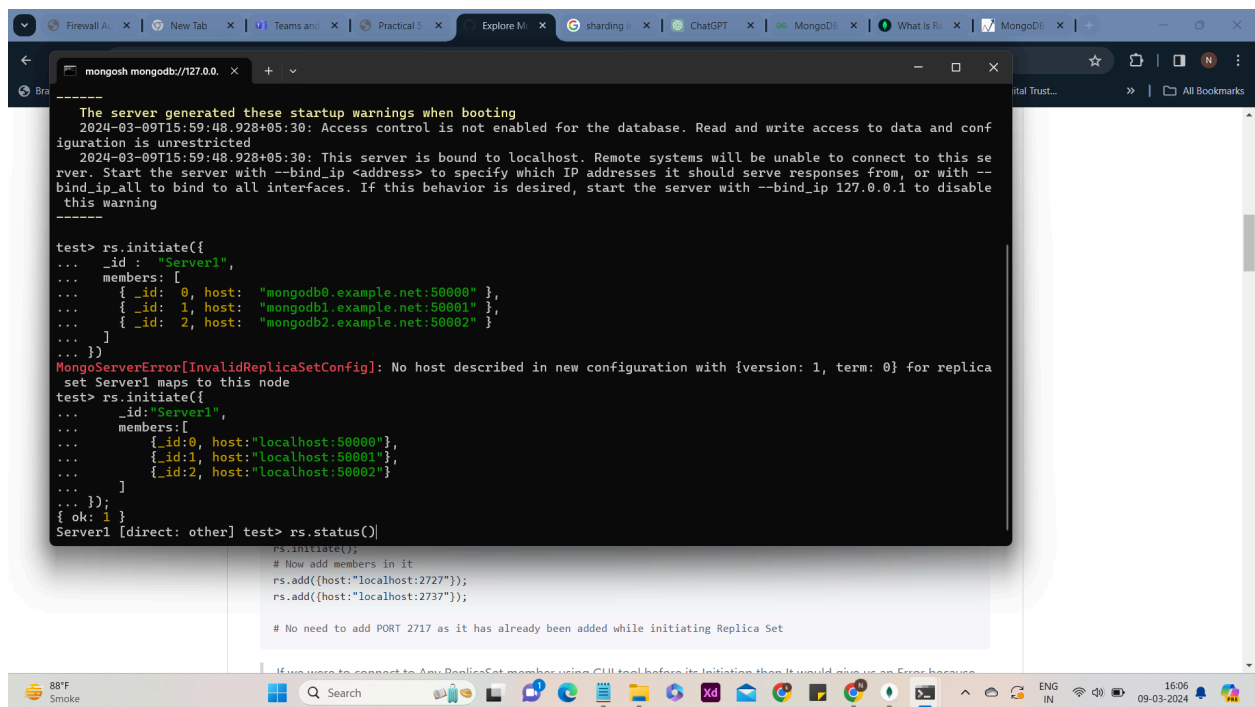
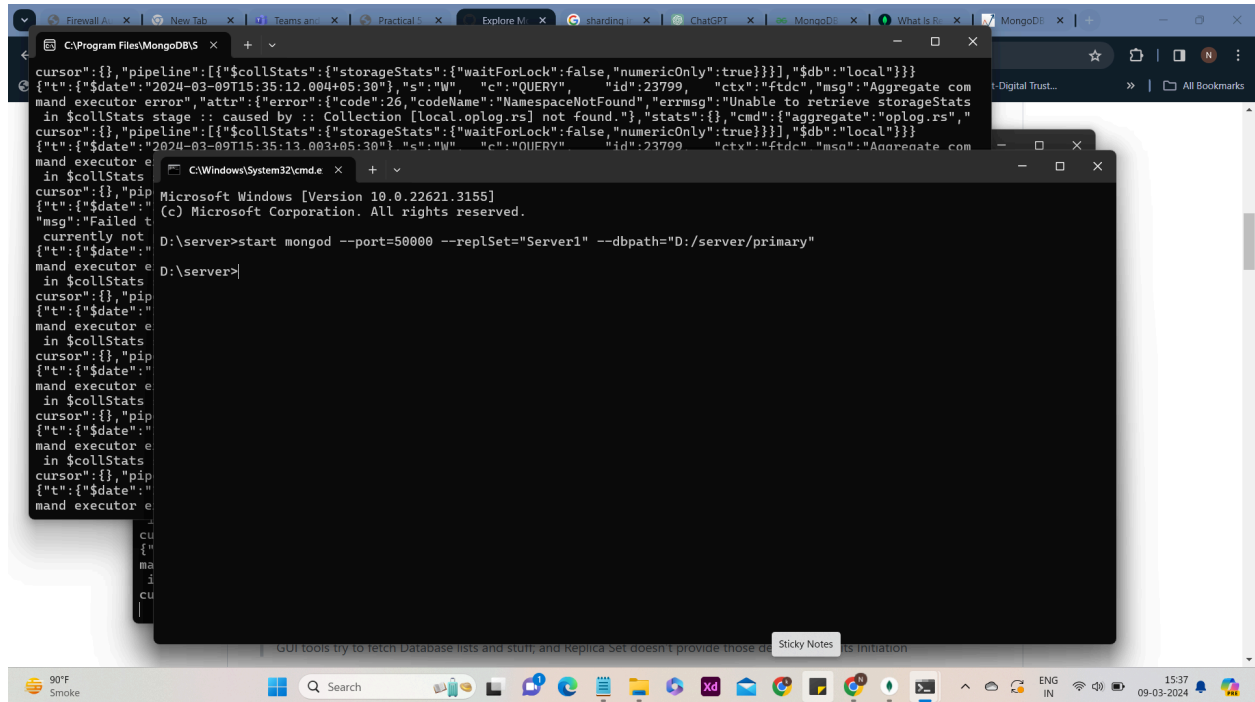
D:\server> mongosh --port=50000
Current Mongosh Log ID: 65ec34648986c6b16c38bc82
Connecting to:
  mongosh://127.0.0.1:50000/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.4
Using MongoDB:
  7.0.5
Using Mongosh:
  2.1.4
mongosh 2.1.5 is available for download: https://www.mongodb.com/try/download/shell
For mongosh info see: https://docs.mongodb.com/mongosh-shell/

-----
The server generated these startup warnings when booting
2024-03-09T15:31:29.991+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
2024-03-09T15:31:29.992+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>
```



ROLL NO.: 01



NAME: NIDHI SHETTY

ROLL NO.: 01

```
mongosh mongodb://127.0.0.1:27010
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22621.3155]
(c) Microsoft Corporation. All rights reserved.

D:\server>start mongod --port=50000 --replSet="Server1" --dbpath="D:/server/primary"

D:\server>

optimeurabdate: ISODate("2024-03-09T10:36:32.000Z"),
lastAppliedWallTime: ISODate("2024-03-09T10:36:32.799Z"),
lastDurableWallTime: ISODate("2024-03-09T10:36:32.799Z"),
lastHeartbeat: ISODate("2024-03-09T10:36:34.928Z"),
lastHeartbeatRecv: ISODate("2024-03-09T10:36:35.937Z"),
pingMs: Long(0),
lastHeartbeatMessage: "",
syncSourceHost: 'localhost:50000',
syncSourceId: 0,
```

```
C:\Program Files\MongoDB\
402",{"uid":{"uid":{"uid":"d9e7fa5f-6367-40f1-abd4-20e8823cbf95"},"connectionId":1,"connectionCount":10}}
{"t":{"date":"2024-03-09T16:06:32.690+05:30"},"s":"I", "c":"ACCESS", "id":5286307, "ctx":"conn1", "msg":"Failed to authenticate", "attr":{"client":"127.0.
0.1:59402", "isSpeculative":false, "isClusterMember":false, "mechanism":"","user":"","db":"","error":"AuthenticationAbandoned: Authentication session abandoned
, client has likely disconnected", "result":337, "metrics":{"conversation_duration":{"micros":70270168, "summary":{}}}, "extraInfo":{}}}
{"t":{"date":"2024-03-09T16:06:33.187+05:30"},"s":"I", "c":"CONNPPOOL", "id":22567, "ctx":"ReplNetwork", "msg":"Ending idle connection because the pool me
ets constraints", "attr":{"hostAndPort":"localhost:50000", "numOpenConns":1}}
{"t":{"date":"2024-03-09T16:06:33.220+05:30"},"s":"I", "c":"CONNPPOOL", "id":22567, "ctx":"ReplNetwork", "msg":"Ending idle connection because the pool me
ets constraints", "attr":{"hostAndPort":"localhost:50001", "numOpenConns":2}}
{"t":{"date":"2024-03-09T16:06:40.928+05:30"},"s":"I", "c":"NETWORK", "id":22943, "ctx":"listener", "msg":"Connection accepted", "attr":{"remote":"127.0.
0.1:59465", "uid":{"uid":{"uid":"6916276f-1033-463f-859d-fc9c49ab0427"},"connectionId":31, "connectionCount":11}}
{"t":{"date":"2024-03-09T16:06:40.931+05:30"},"s":"I", "c":"NETWORK", "id":51800, "ctx":"conn31", "msg":"client metadata", "attr":{"remote":"127.0.0.1:59
465", "client":"conn31", "doc":{"driver":{"name":"NetworkInterfaceTL-ReplNetwork", "version":"7.0.5"}, "os":{"type":"Windows", "name":"Microsoft Windows 10", "arc
hitecture":"x86_64", "version":"10.0 (build 22621)}}}}
{"t":{"date":"2024-03-09T16:06:40.954+05:30"},"s":"I", "c":"NETWORK", "id":6788700, "ctx":"conn31", "msg":"Received first command on ingress connection si
nce session start or auth handshake", "attr":{"elapsedMillis":23}}
{"t":{"date":"2024-03-09T16:06:49.544+05:30"},"s":"I", "c":"CONNPPOOL", "id":22576, "ctx":"ReplNetwork", "msg":"Connecting", "attr":{"hostAndPort":"Localho
st:50000"}}
{"t":{"date":"2024-03-09T16:07:01.074+05:30"},"s":"I", "c":"NETWORK", "id":22943, "ctx":"listener", "msg":"Connection accepted", "attr":{"remote":"127.0.
0.1:59475", "uid":{"uid":{"uid":"9275de61-726b-4691-9fb6-dd508bf4832d"},"connectionId":33, "connectionCount":12}}
{"t":{"date":"2024-03-09T16:07:01.077+05:30"},"s":"I", "c":"NETWORK", "id":51800, "ctx":"conn33", "msg":"client metadata", "attr":{"remote":"127.0.0.1:59
475", "client":"conn33", "doc":{"driver":{"name":"NetworkInterfaceTL-ReplNetwork", "version":"7.0.5"}, "os":{"type":"Windows", "name":"Microsoft Windows 10", "arc
hitecture":"x86_64", "version":"10.0 (build 22621)}}}}
{"t":{"date":"2024-03-09T16:07:03.067+05:30"},"s":"I", "c":"NETWORK", "id":6788700, "ctx":"conn33", "msg":"Received first command on ingress connection si
nce session start or auth handshake", "attr":{"elapsedMillis":1990}}
```

NAME: NIDHI SHETTY

ROLL NO.: 01

SHARDING:

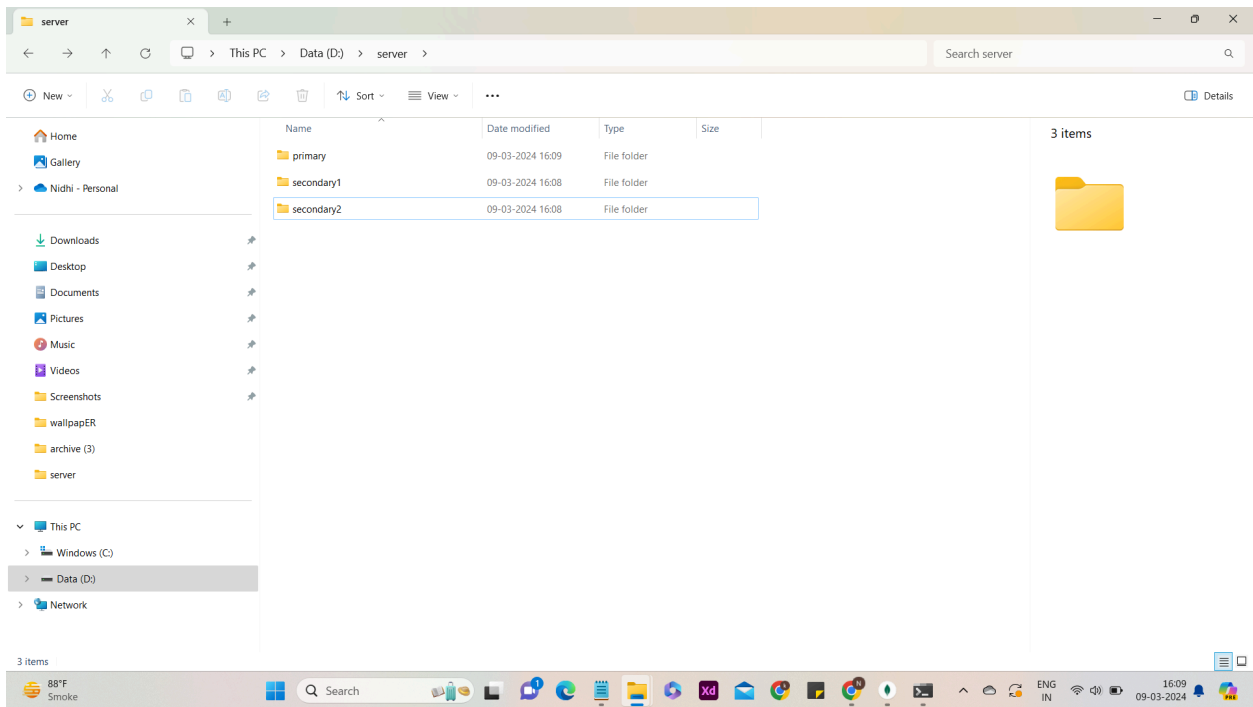
```
mongosh mongodb://127.0.0.1:27020
test> rs.initiate({
...   _id: "Server1",
...   members: [
...     { _id: 0, host: "localhost:50000" },
...     { _id: 1, host: "localhost:50001" },
...     { _id: 2, host: "localhost:50002" }
...   ]
... });
{ ok: 1 }
Server1 [direct: other] test> rs.status()
{
  set: 'Server1',
  date: ISODate('2024-03-09T10:36:36.628Z'),
  myState: 1,
  term: Long('1'),
  syncSourceHost: '',
  syncSourceId: -1,
  heartbeatIntervalMillis: Long('2000'),
  majorityVoteCount: 2,
  writeMajorityCount: 2,
  votingMembersCount: 3,
  writableVotingMembersCount: 3,
  optimes: {
    lastCommittedOpTime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    lastCommittedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
    readConcernMajorityOpTime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    appliedOpTime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    durableOpTime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
    lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z')
  },
  lastStableRecoveryTimestamp: Timestamp({ t: 1709980572, i: 1 }),
  electionCandidateMetrics: {
    lastElectionReason: 'electionTimeout',
    lastElectionDate: ISODate('2024-03-09T10:35:32.583Z'),
    electionTerm: Long('1'),
    lastCommittedOpTimeAtElection: { ts: Timestamp({ t: 1709980522, i: 1 }), t: Long('-1') },
    lastSeenOpTimeAtElection: { ts: Timestamp({ t: 1709980522, i: 1 }), t: Long('-1') },
    numVotesNeeded: 2,
    priorityAtElection: 1,
    electionTimeoutMillis: Long('10000'),
    wMajorityWriteAvailabilityDate: ISODate('2024-03-09T10:35:32.804Z')
  },
  members: [
    {
      _id: 0,
      name: 'localhost:50000',
      health: 1,
      state: 1,
      stateStr: 'PRIMARY',
      uptime: 409,
      optime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
      optimeDate: ISODate('2024-03-09T10:36:32.000Z'),
      lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
      lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z'),
      syncSourceHost: '',
      syncSourceId: -1,
      infoMessage: 'Could not find member to sync from',
      electionTime: Timestamp({ t: 1709980532, i: 1 }),
      electionDate: ISODate('2024-03-09T10:35:32.000Z'),
      configVersion: 1,
      configTerm: 1,
      self: true,
      lastHeartbeatMessage: ''
    },
    {
      _id: 1,
      name: 'localhost:50001',
      health: 1,
      state: 2,
      stateStr: 'SECONDARY',
      uptime: 70,
      optime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
      optimeDurable: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
      optimeDate: ISODate('2024-03-09T10:36:32.000Z'),
      optimeDurableDate: ISODate('2024-03-09T10:36:32.000Z'),
      lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
      lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z'),
      lastHeartbeat: ISODate('2024-03-09T10:36:34.913Z'),
      lastHeartbeatRecv: ISODate('2024-03-09T10:36:35.472Z'),
      pingMs: Long('0'),
      lastHeartbeatMessage: ''
    }
  ]
}
```

```
mongosh mongodb://127.0.0.1:27020
wMajorityWriteAvailabilityDate: ISODate('2024-03-09T10:35:32.804Z')
},
members: [
  {
    _id: 0,
    name: 'localhost:50000',
    health: 1,
    state: 1,
    stateStr: 'PRIMARY',
    uptime: 409,
    optime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    optimeDate: ISODate('2024-03-09T10:36:32.000Z'),
    lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
    lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z'),
    syncSourceHost: '',
    syncSourceId: -1,
    infoMessage: 'Could not find member to sync from',
    electionTime: Timestamp({ t: 1709980532, i: 1 }),
    electionDate: ISODate('2024-03-09T10:35:32.000Z'),
    configVersion: 1,
    configTerm: 1,
    self: true,
    lastHeartbeatMessage: ''
  },
  {
    _id: 1,
    name: 'localhost:50001',
    health: 1,
    state: 2,
    stateStr: 'SECONDARY',
    uptime: 70,
    optime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    optimeDurable: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
    optimeDate: ISODate('2024-03-09T10:36:32.000Z'),
    optimeDurableDate: ISODate('2024-03-09T10:36:32.000Z'),
    lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
    lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z'),
    lastHeartbeat: ISODate('2024-03-09T10:36:34.913Z'),
    lastHeartbeatRecv: ISODate('2024-03-09T10:36:35.472Z'),
    pingMs: Long('0'),
    lastHeartbeatMessage: ''
  }
]
```

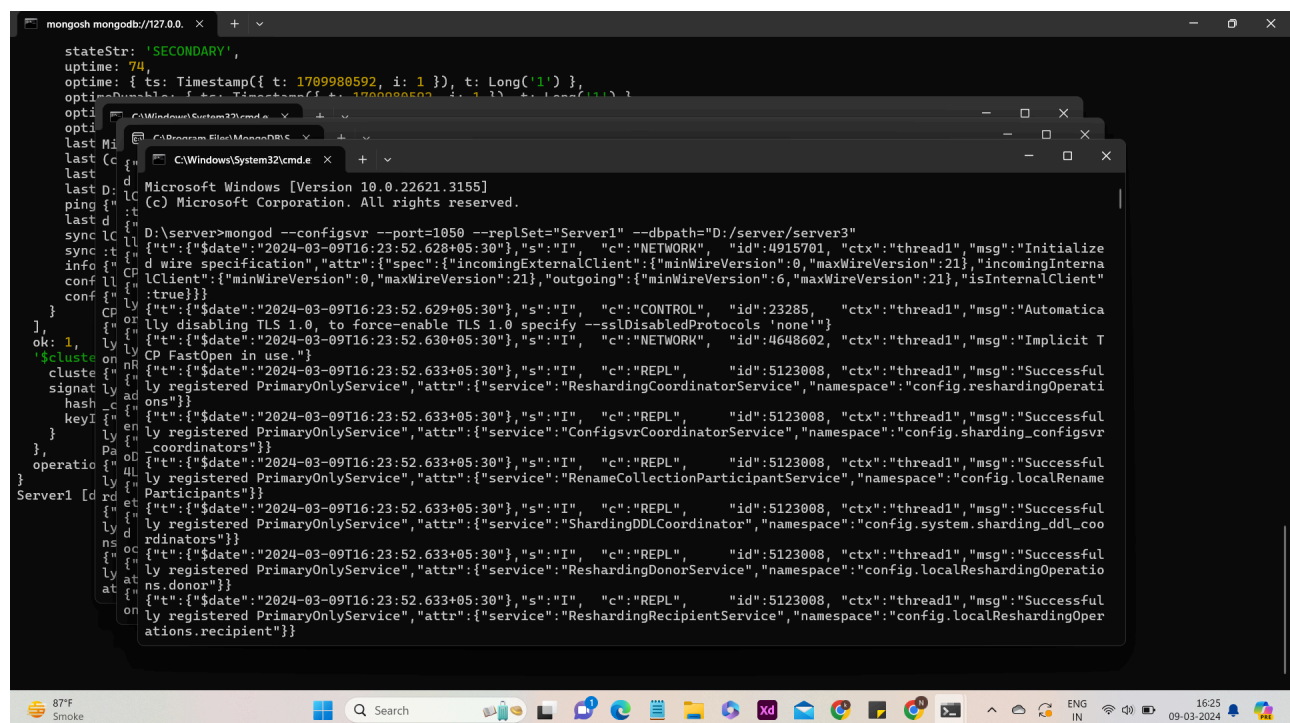
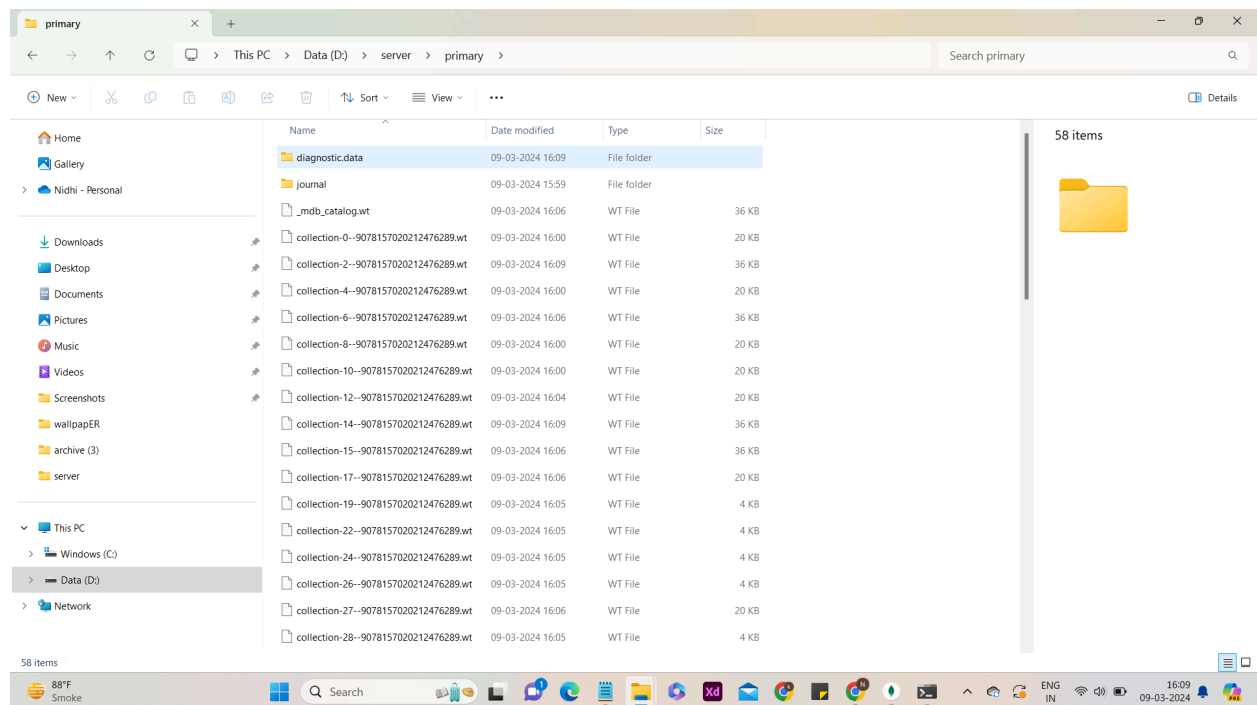
NAME: NIDHI SHETTY

ROLL NO.: 01

```
mongosh mongodb://127.0.0.1:27000
{
  lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
  lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z'),
  lastHeartbeat: ISODate('2024-03-09T10:36:34.913Z'),
  lastHeartbeatRecv: ISODate('2024-03-09T10:36:35.472Z'),
  pingMs: Long('0'),
  lastHeartbeatMessage: '',
  syncSourceHost: 'localhost:50000',
  syncSourceId: 0,
  infoMessage: '',
  configVersion: 1,
  configTerm: 1
},
{
  _id: 2,
  name: 'localhost:50002',
  health: 1,
  state: 2,
  stateStr: 'SECONDARY',
  uptime: 74,
  optime: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
  optimeDurable: { ts: Timestamp({ t: 1709980592, i: 1 }), t: Long('1') },
  optimeDate: ISODate('2024-03-09T10:36:32.000Z'),
  optimeDurableDate: ISODate('2024-03-09T10:36:32.000Z'),
  lastAppliedWallTime: ISODate('2024-03-09T10:36:32.799Z'),
  lastDurableWallTime: ISODate('2024-03-09T10:36:32.799Z'),
  lastHeartbeat: ISODate('2024-03-09T10:36:34.928Z'),
  lastHeartbeatRecv: ISODate('2024-03-09T10:36:35.937Z'),
  pingMs: Long('0'),
  lastHeartbeatMessage: '',
  syncSourceHost: 'localhost:50000',
  syncSourceId: 0,
  infoMessage: '',
  configVersion: 1,
  configTerm: 1
}
},
ok: 1,
'$clusterTime': {
  clusterTime: Timestamp({ t: 1709980592, i: 1 }),
  signature: {
    hash: Binary.createFromBase64('AAAAAAAAAAAAAAAAAAAAA=', 0),
  }
}
```



NAME: NIDHI SHETTY
ROLL NO.: 01



NAME: NIDHI SHETTY
ROLL NO.: 01

server

Search Results in Data (D:)

Search server

New

Sort

View

Details

Home

Gallery

Nidhi - Personal

Downloads

Desktop

Documents

Pictures

Music

Videos

Screenshots

CERTIFICATES

resume(2024)

server

This PC

Network

Name	Date modified	Type	Size
archive (3)	17-03-2024 22:10	File folder	
primary	09-03-2024 16:43	File folder	
secondary1	09-03-2024 16:43	File folder	
secondary2	09-03-2024 16:43	File folder	
server1	Date created: 09-03-2024 15:58 Size: 301 MB Folders: diagnostic.data, journal Files: _mdtb_catalog.wt, collection-0--1988571062103917507.wt, ...	File folder	
server2		File folder	
server3	09-03-2024 16:43	File folder	

server1

Details

Type

File location

Date modified

Properties

7 items

1 item selected

server1

Search Results in Data (D:)

Search server1

New

Sort

View

Details

Home

Gallery

Nidhi - Personal

Downloads

Desktop

Documents

Pictures

Music

Videos

Screenshots

CERTIFICATES

resume(2024)

server

This PC

Network

Name	Date modified	Type	Size
diagnostic.data	09-03-2024 16:21	File folder	
journal	Date created: 09-03-2024 16:21 Size: 300 MB Files: WiredTigerLog.0000000001, ...	File folder	
_mdtb_catalog	2024 16:21	WT File	20 KB
collection-0--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
collection-2--6042588341363096196.wt	09-03-2024 16:21	WT File	4 KB
collection-4--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
collection-6--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
collection-8--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
collection-10--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
index-1--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
index-3--6042588341363096196.wt	09-03-2024 16:21	WT File	4 KB
index-5--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
index-7--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
index-9--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
index-11--6042588341363096196.wt	09-03-2024 16:21	WT File	20 KB
mongod.lock	09-03-2024 16:21	LOCK File	0 KB
sizeStorer.wt	09-03-2024 16:21	WT File	20 KB
storage.bson	09-03-2024 16:21	BSON File	1 KB
WiredTiger	09-03-2024 16:21	File	1 KB

server1 (23 items)

Select a single file to get more information and share your cloud content.

23 items