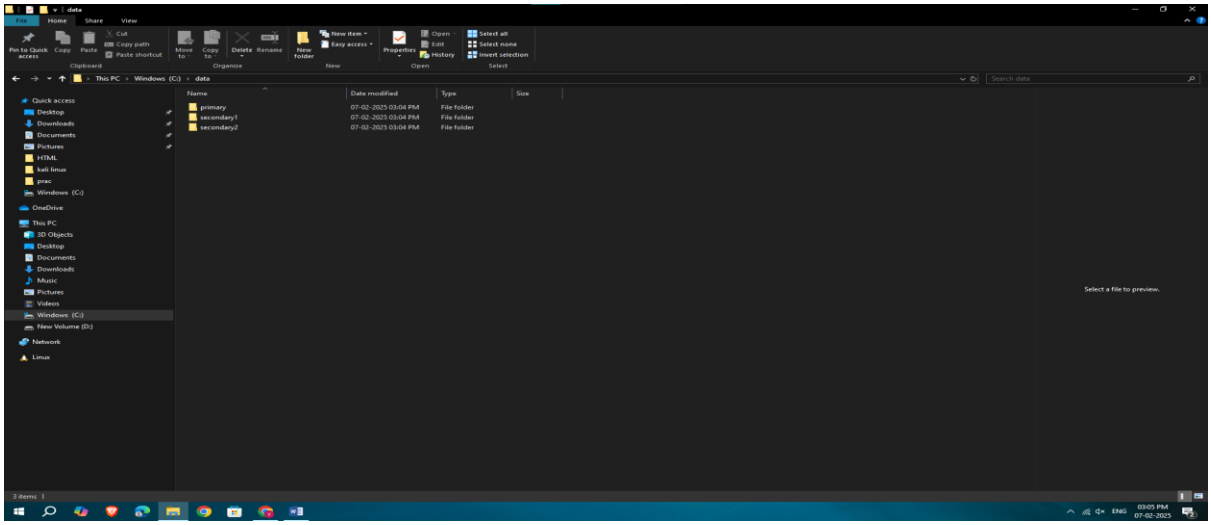
PRACTICAL N0 – 6

Aim: Replication using Mongodb

Step 1: Go to file manager > local C >file data>create three folder >primary, secondary1, secondary2



Step 2: Go to Window power shell and Create 3 port on new window powershell:2717, 2727, 2737

Code:

mongod --port=2717 --dbpath="C:\data\primary" --replSet="test-replica-set"

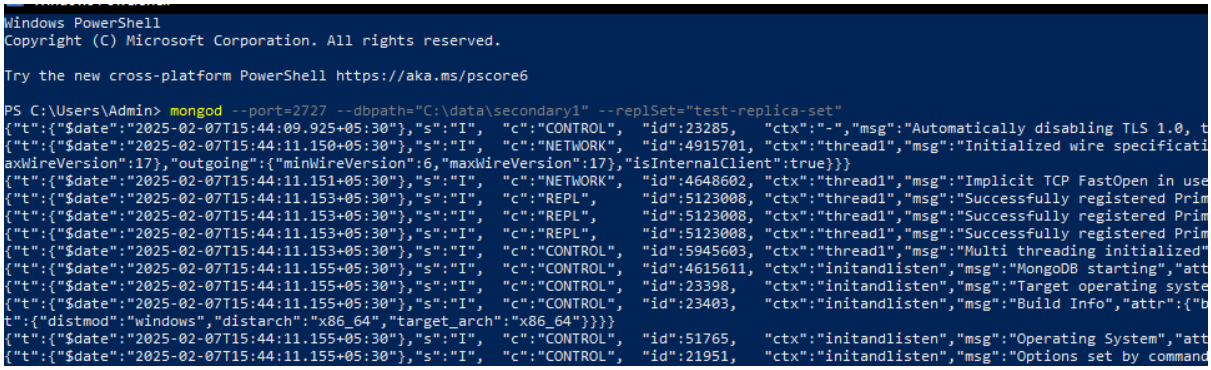
Output:

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Admin> mongod --port=2717 --dbpath="C:\data\primary" --replSet="test-replica-set"
{"t":{"$date":"2025-02-07T15:41:25.040+05:30"},"s":"I",  "c":"CONTROL",  "id":23285,   "ctx":"-","msg":"Automatically dis
{"t":{"$date":"2025-02-07T15:41:26.268+05:30"},"s":"I",  "c":"NETWORK",  "id":4915701, "ctx":"thread1","msg":"Initialized
axWireVersion":17},"outgoing":{"minWireVersion":6,"maxWireVersion":17},"isInternalClient":true}}}
{"t":{"$date":"2025-02-07T15:41:26.268+05:30"},"s":"I",  "c":"NETWORK",  "id":4648602, "ctx":"thread1","msg":"Implicit TC
{"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I",  "c":"REPL",     "id":5123008, "ctx":"thread1","msg":"Successfull
{"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I",  "c":"REPL",     "id":5123008, "ctx":"thread1","msg":"Successfull
{"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I",  "c":"REPL",     "id":5123008, "ctx":"thread1","msg":"Successfull
{"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I",  "c":"CONTROL",  "id":5945603, "ctx":"thread1","msg":"Multi threa
{"t":{"$date":"2025-02-07T15:41:26.272+05:30"},"s":"I",  "c":"CONTROL",  "id":4615611, "ctx":"initandlisten","msg":"Mongo
{"t":{"$date":"2025-02-07T15:41:26.272+05:30"},"s":"I",  "c":"CONTROL",  "id":23398,   "ctx":"initandlisten","msg":"Targe
{"t":{"$date":"2025-02-07T15:41:26.272+05:30"},"s":"I",  "c":"CONTROL",  "id":23403,   "ctx":"initandlisten","msg":"Build
t":{"distmod":"windows","distarch":"x86_64","target_arch":"x86_64"}}}}
{"t":{"$date":"2025-02-07T15:41:26.272+05:30"},"s":"I",  "c":"CONTROL",  "id":51765,   "ctx":"initandlisten","msg":"Opera
```

Code:

mongod --port=2727 --dbpath="C:\data\secondary1" --replSet="test-replica-set"

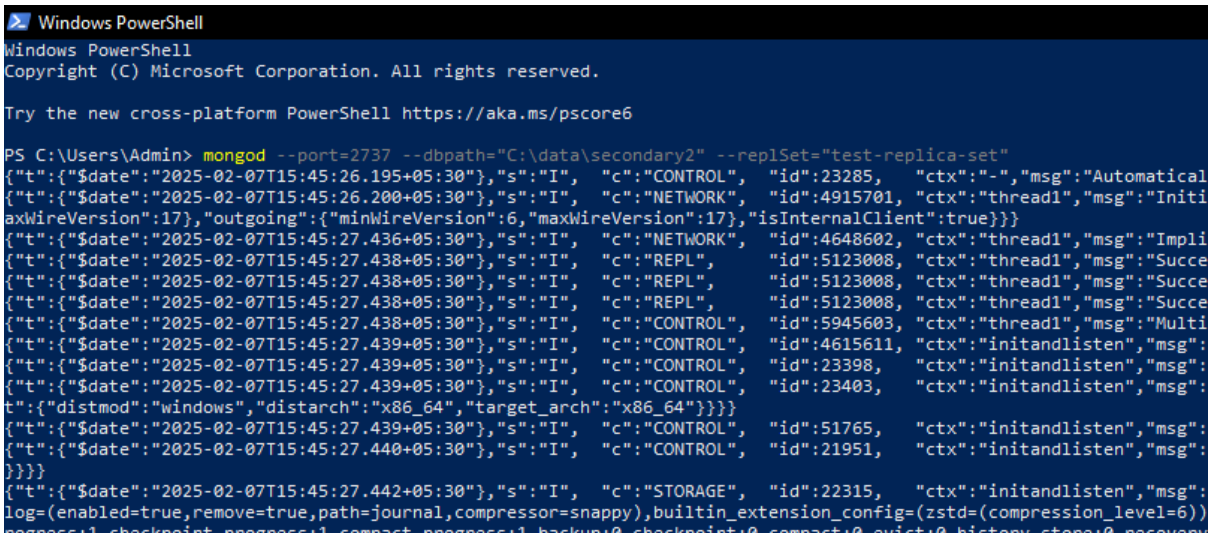
Output:



Code:

mongod --port=2737 --dbpath="C:\data\secondary2" --replSet="test-replica-set"

Output:

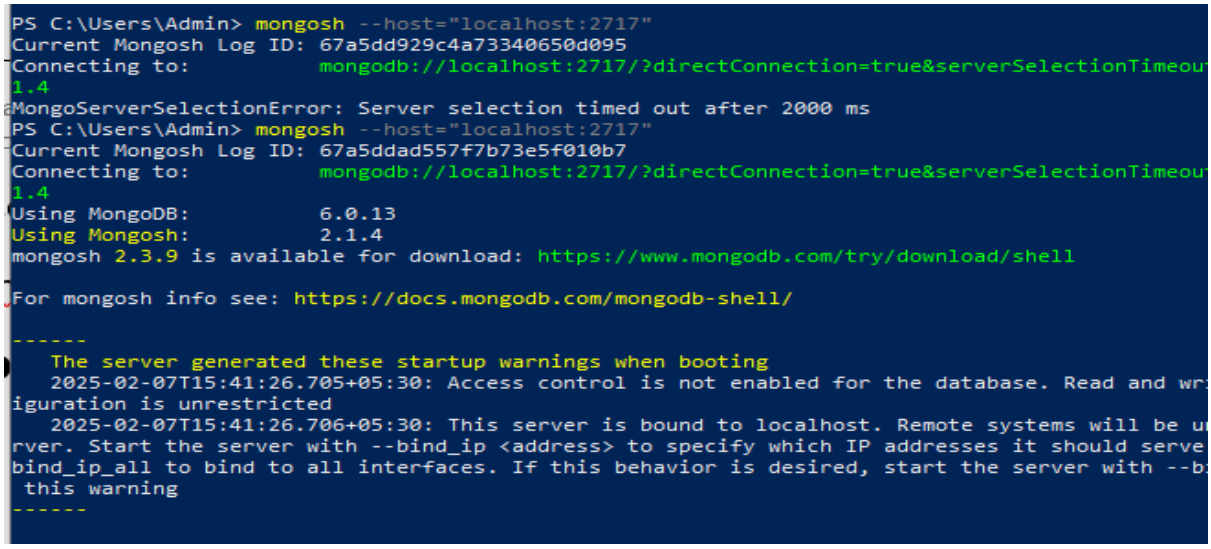


Step 3: Open new window powershell

Code:

mongosh --host="localhost:2717"

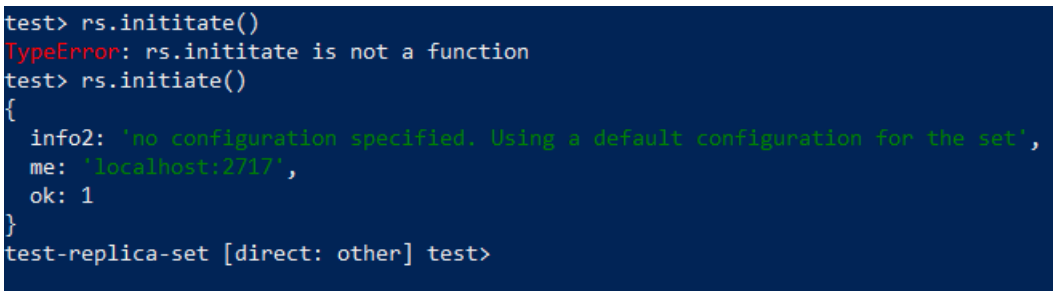
Output:



Code:

rs.initiate()

Output:



Code:

```
rs.add({host:"localhost:2727"});
```

Output:

```
test-replica-set [direct: other] test> rs.add({host:"localhost:2727"});
{
  ok: 1,
  '$clusterTime': {
    clusterTime: Timestamp({ t: 1738922990, i: 1 }),
    signature: {
      hash: Binary.createFromBase64('AAAAAAAAAAAAAAAAAAAAAAAAAAA=', 0),
      keyId: Long('0')
    }
  },
  operationTime: Timestamp({ t: 1738922990, i: 1 })
}
test-replica-set [direct: primary] test>
```

Code:

```
rs.add({host:"localhost:2737"});
```

Output:

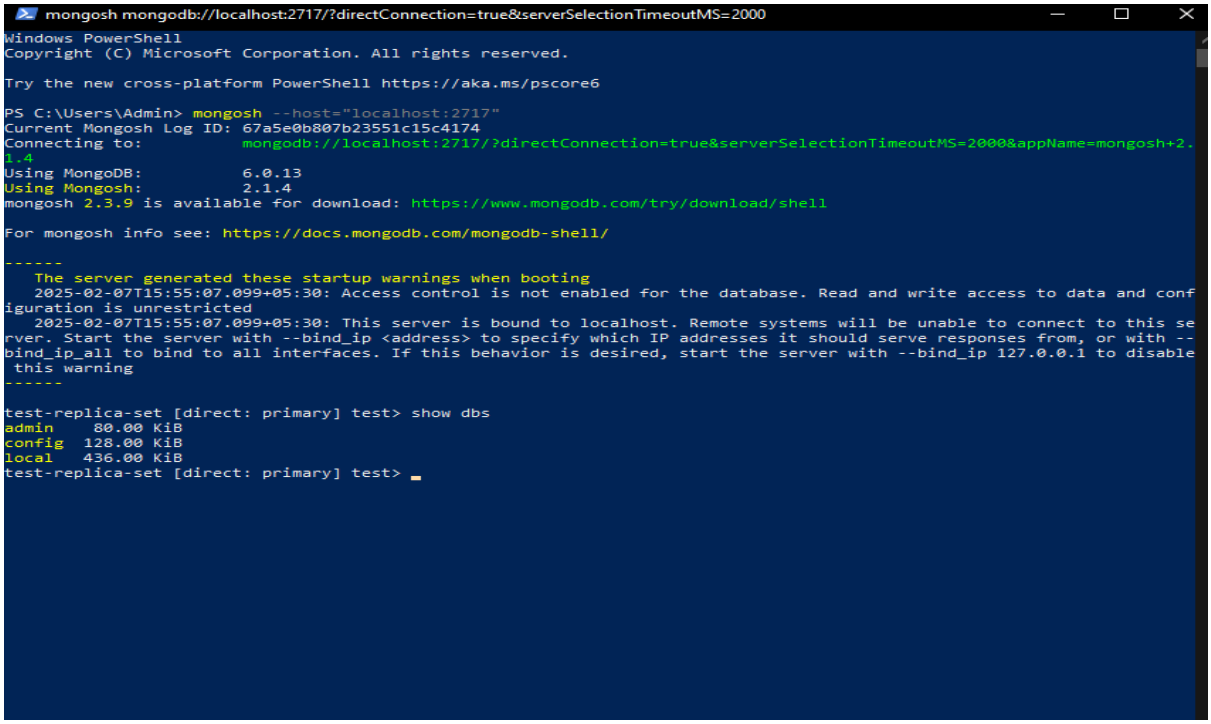
```
test-replica-set [direct: primary] test> rs.add({host:"localhost:2737"});
{
  ok: 1,
  '$clusterTime': {
    clusterTime: Timestamp({ t: 1738923119, i: 1 }),
    signature: {
      hash: Binary.createFromBase64('AAAAAAAAAAAAAAAAAAAAAAAAAAA=', 0),
      keyId: Long('0')
    }
  },
  operationTime: Timestamp({ t: 1738923119, i: 1 })
}
test-replica-set [direct: primary] test> AAA
```

Step 4: Open new 3 window shell and perform the following code

Code:

```
mongosh --host="localhost:2717"

show dbs
```

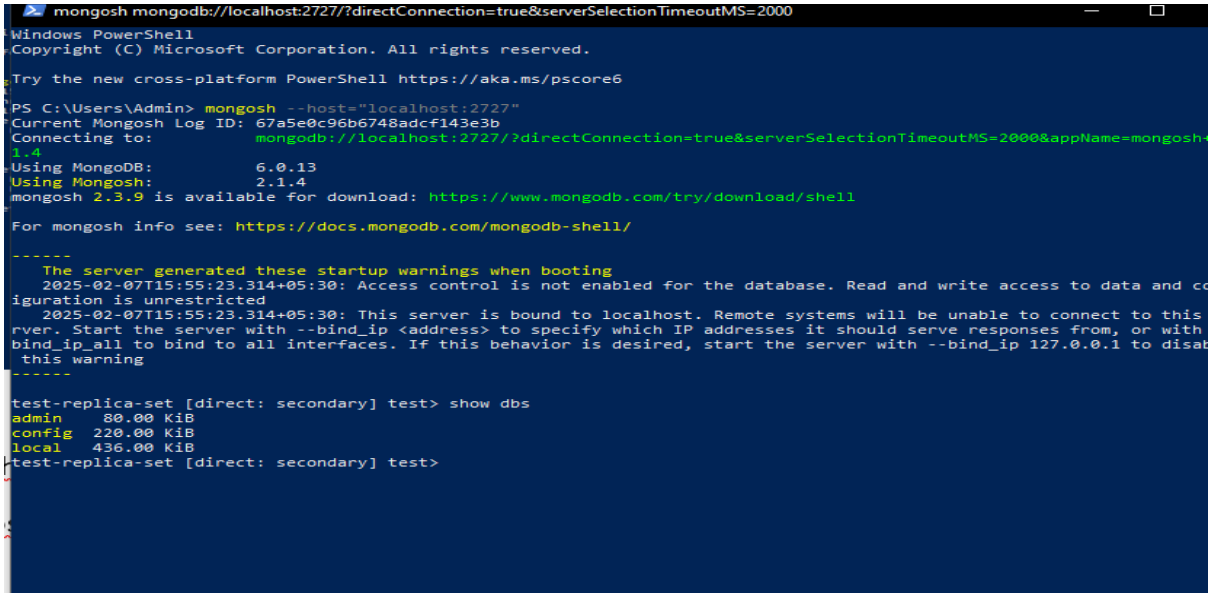
Output:



Code:

```
mongosh --host="localhost:2727"

show dbs
```

Output:

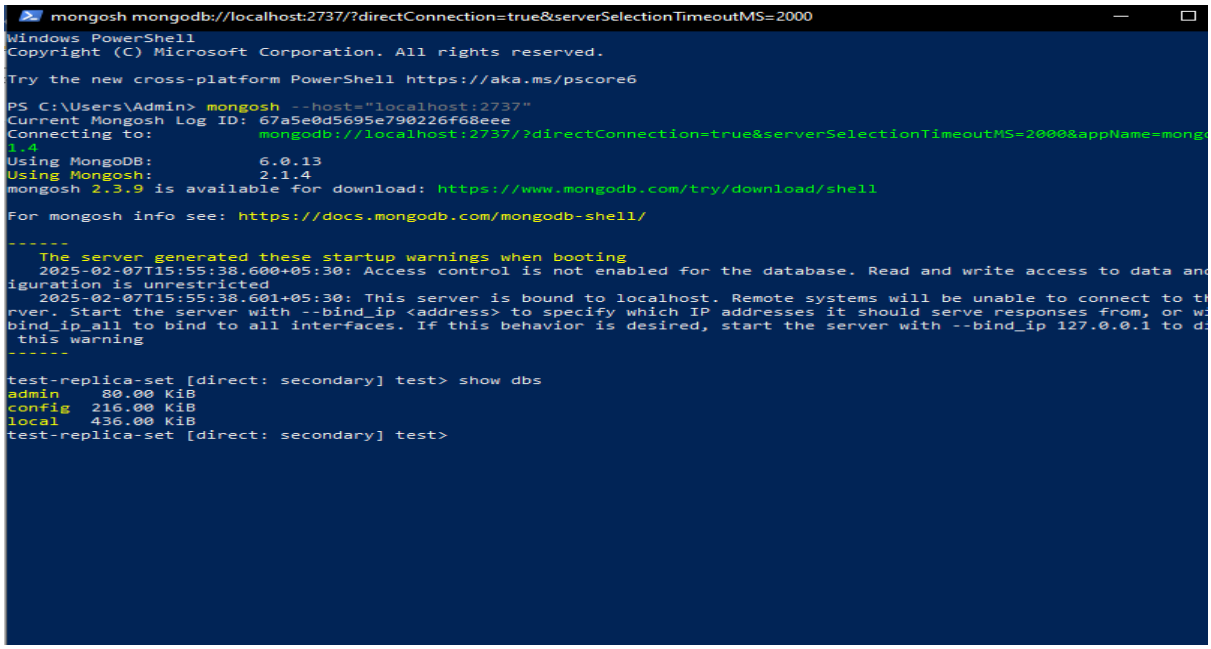


Code:

mongosh --host="localhost:2737"

show dbs

Output:

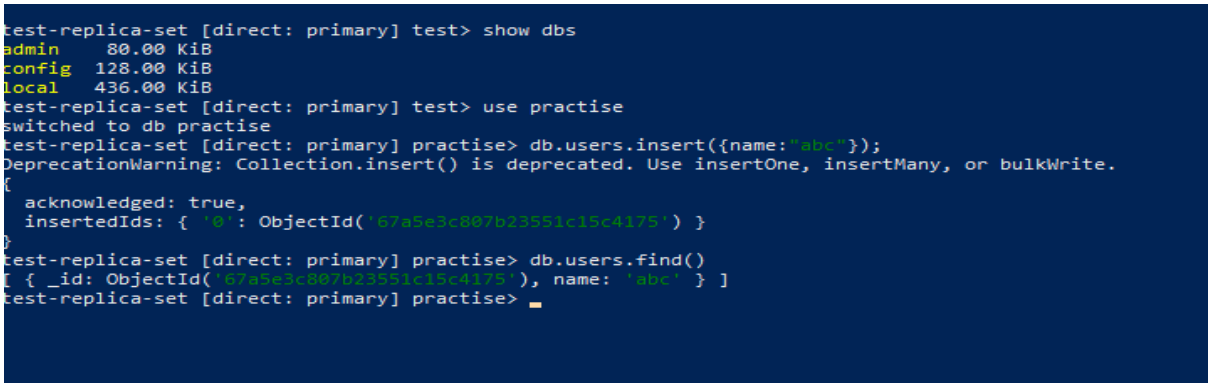


Step 5: Go to primary window shell and perform the following code

Code:

```
use practise

db.users.insert({name:"abc"});

db.users.find()
```

Output:

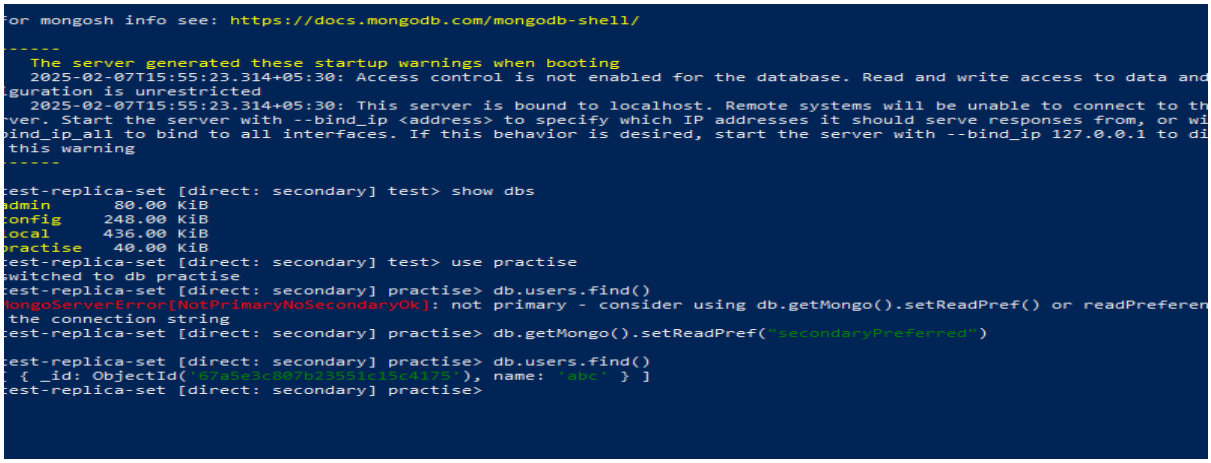


Step 6: Create new window power shell and perform following code

Code:

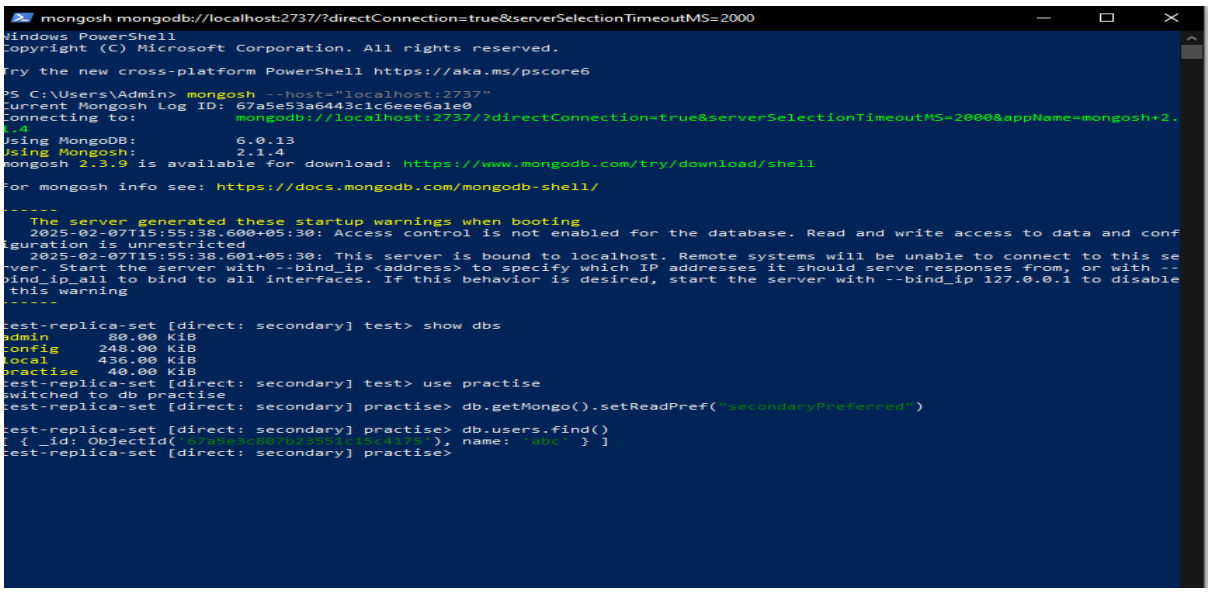
```
mongosh --host="localhost:2727"

show dbs

use practise

db.getMongo().setReadPref("secondaryPreferred")

db.users.find()
```

Output:



Step 7: Create new window power shell and perform following code

Code:

```
mongosh --host="localhost:2737"

show dbs

use practise

db.getMongo().setReadPref("secondaryPreferred")

db.users.find()
```

Output: