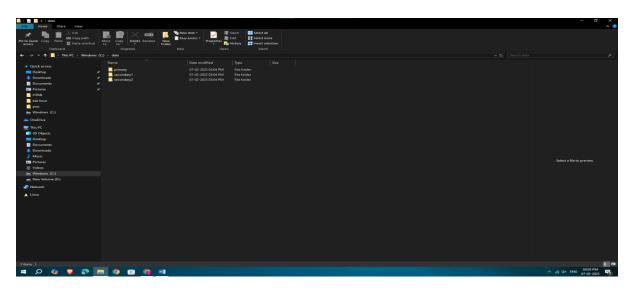
### PRACTICAL NO - 6

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"

```
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ry the new cross-platform PowerShell https://aka.ms/pscore6
 S-C:\Users\Admin> mongod --port=2717 --dbpath="C:\data\primary" --replSet="test-replica-set"

"t":{"$date":"2025-02-07T15:41:25.040+05:30"},"s":"I", "c":"CONTROL", "id":23285, "ctx":"-","msg":"Automatically di:
"t":{"$date":"2025-02-07T15:41:26.268+05:30"},"s":"I", "c":"NETWORK", "id":4915701, "ctx":"thread1","msg":"Initialize
xWireVersion":17},"outgoing":{"minWireVersion":6,"maxWireVersion":17},"isInternalClient":true}}}

"t":{"$date":"2025-02-07T15:41:26.268+05:30"},"s":"I", "c":"NETWORK", "id":4648602, "ctx":"thread1","msg":"Implicit TI
"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I", "c":"REPL", "id":5123008, "ctx":"thread1","msg":"Successful:
"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I", "c":"REPL", "id":5123008, "ctx":"thread1","msg":"Successful:
"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I", "c":"REPL", "id":5123008, "ctx":"thread1","msg":"Successful:
"t":{"$date":"2025-02-07T15:41:26.270+05:30"},"s":"I", "c":"REPL", "id":5123008, "ctx":"thread1","msg":"Successful:
                                                                                                                                                                                                           "id":4646111ent :true;;;;
"id":464602, "ctx":"thread1","msg":"Implicit T
"id":5123008, "ctx":"thread1","msg":"Successful
"id":5123008, "ctx":"thread1","msg":"Successful
"id":5123008, "ctx":"thread1","msg":"Successful
               "$date":"2025-02-07T15:41:26.270+05:30"},
                                                                                                                                                                                                             "id":5945603, "ctx":"thread1"
               "$date":"2025-02-07115:41:26.270+05:30"},
"$date":"2025-02-07T15:41:26.270+05:30"},
"$date":"2025-02-07T15:41:26.272+05:30"},
                                                                                                                                                                                                            "id":5945603, "ctx":"thread1", "msg":"Multi thre
"id":4615611, "ctx":"initandlisten", "msg":"Mong
                                                                                                                                                               "c":"CONTROL",
                                                                                                                                                              "c":"CONTROL",
                                                                                                                                                                                                                                                   "ctx":"initandlisten","msg":"Targ
                "$date":"2025-02-07T15:41:26.272+05:30"},
              "$date":"2025-02-07T15:41:26.272+05:30"},"s":
distmod":"windows","distarch":"x86_64","target
                                                                                                                                                                                                             "id":23403,
                  $date":"2025-02-07T15:41:26.272+05:30"},
                                                                                                                                                                                                            "id":51765, "ctx":"initandlisten","msg":"Open
```

**ADBMS Practical** MSC DS & AI Roll no: L035

#### Code:

Name: Gaurav Vishwakarma

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

## **Output:**

```
lindows PowerShell
Opyright (C) Microsoft Corporation. All rights reserved.
   ry the new cross-platform PowerShell https://aka.ms/pscore6
S C:\Users\Admin> mongod --port=2727 --dbpath="C:\data\secondary1" --replSet="test-replica-set"
("t":\"$date":"2025-02-07T15:44:09.925-05:30"},"s":"I", "c":"ONTROL", "id":23285, "ctx":"-","msg":"Automatically disabling TLS 1.0, t
("t":\"$date":"2025-02-07T15:44:11.150+05:30"),"s":"I", "c":"NETWORK", "id":4915701, "ctx":"thread1","msg":"Initialized wire specificati
axWireVersion":17}, "outgoing":\"minWireVersion":6,"maxWireVersion":17}, "isInternalClient":true})}
("t":\"$date":"2025-02-07T15:44:11.151+05:30"),"s":"I", "c":"NETWORK", "id":4646802, "ctx":"thread1","msg":"Implicit TCP FastOpen in use
("t":\"$date":"2025-02-07T15:44:11.153+05:30"),"s":"I", "c":"REPL", "id":5123008, "ctx":"thread1","msg":"Successfully registered Prim
("t":\"$date":"2025-02-07T15:44:11.153+05:30"),"s":"I", "c":"REPL", "id":5123008, "ctx":"thread1","msg":"Successfully registered Prim
("t":\"$date":"2025-02-07T15:44:11.153+05:30"),"s":"I", "c":"CONTROL", "id":5945603, "ctx":"thread1","msg":"Successfully registered Prim
("t":\"$date":"2025-02-07T15:44:11.153+05:30"),"s":"I", "c":"CONTROL", "id":5945603, "ctx":"thread1","msg":"Multi threading initialized"
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":23398, "ctx":"initandlisten","msg":"Target operating syste
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":23403, "ctx":"initandlisten","msg":"Build Info","attr":\"b"
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":23403, "ctx":"initandlisten","msg":"Build Info","attr":\"b"
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":51765, "ctx":"initandlisten","msg":"Operating System","att
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":51765, "ctx":"initandlisten","msg":"Operating System","att
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":51765, "ctx":"initandlisten","msg":"Operating System","att
("t":\"$date":"2025-02-07T15:44:11.155+05:30"),"s":"I", "c":"CONTROL", "id":51765, "ctx"
```

#### Code:

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

```
Windows PowerShell
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\Admin> mongod --port=2737 --dbpath="C:\data\secondary2" --replSet="test-replica-set"
{"t":{"$date":"2025-02-07T15:45:26.195+05:30"}, "s":"I", "c":"CONTROL", "id":23285, "ctx":"-", "msg":"Automatical
atklireVersion":17}, "outgoing":{"minWireVersion":6, "maxWireVersion":17}, "isInternalClient":true}}
{"t":("$date":"2025-02-07T15:45:27.436+05:30"}, "s":"I", "c":"NETWORK", "id":4648602, "ctx":"thread1", "msg":"Impli
{"t":("$date":"2025-02-07T15:45:27.438+05:30"}, "s":"I", "c":"NETWORK", "id":4648602, "ctx":"thread1", "msg":"Impli
{"t":("$date":"2025-02-07T15:45:27.438+05:30"}, "s":"I", "c":"REPL", "id":5123008, "ctx":"thread1", "msg":"Succe
{"t":("$date":"2025-02-07T15:45:27.438+05:30"}, "s":"I", "c":"CONTROL", "id":5123008, "ctx":"thread1", "msg":"Multi
{"t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":4615611, "ctx":"initandlisten", "msg":
{"t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":23398, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":23403, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":23403, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":23403, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":21951, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":21951, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27.439+05:30"}, "s":"I", "c":"CONTROL", "id":21951, "ctx":"initandlisten", "msg":
t":("$date":"2025-02-07T15:45:27
                                                                                                                                                                                                                                                                                                                                                                  "id":22315,
       t":{"$date":"2025-02-07T15:45:27.442+05:30"},"s":"I", "c":"STORAGE",
                                                                                                                                                                                                                                                                                                                                                                                                                                           "ctx":"initandlisten","msg
   og=(enabled=true,remove=true,path=journal,compressor=snappy),builtin_extension_config=(zstd=(compression_level=6)
```

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# Step 3: Open new window powershell

#### Code:

mongosh --host="localhost:2717"

## **Output:**

```
PS C:\Users\Admin> mongosh --host="localhost:271
Current Mongosh Log ID: 67a5dd929c4a73340650d095
Connecting to:
                                 mongodb://localhost:2717/?directConnection=true&serverSelectionTimeou
MongoServerSelectionError: Server selection timed out after 2000 ms
PS C:\Users\Admin> mongosh --host="localhost:271
Current Mongosh Log ID: 67a5ddad557f7b73e5f010b7
Connecting to:
                                  mongodb://localhost:2717/?directConnection=true&serverSelectionTimeou
Using MongoDB:
                                 6.0.13
Using Mongosh: 2.1.4
mongosh 2.3.9 is available for download: https://www.mongodb.com/try/download/shell
For mongosh info see: https://docs.mongodb.com/mongodb-shell/
   The server generated these startup warnings when booting 2025-02-07T15:41:26.705+05:30: Access control is not enabled for the database. Read and wr
iguration is unrestricted
2025-02-07T15:41:26.706+05:30: This server is bound to localhost. Remote systems will be un rver. Start the server with --bind_ip <address> to specify which IP addresses it should serve bind_ip_all to bind to all interfaces. If this behavior is desired, start the server with --b
 this warning
```

## Code:

rs.initiate()

```
test> rs.inititate()
TypeError: rs.inititate is not a function
test> rs.initiate()
{
  info2: 'no configuration specified. Using a default configuration for the set',
  me: 'localhost:2717',
  ok: 1
}
test-replica-set [direct: other] test>
```

#### Code:

Roll no: L035

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

## **Output:**

### Code:

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

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

### Code:

Roll no: L035

mongosh --host="localhost:2717"

show dbs

# **Output:**

### Code:

mongosh --host="localhost:2727"

show dbs

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## **Output:**

### Code:

mongosh --host="localhost:2737"

show dbs

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# 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()

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## **Output:**

```
The server generated these startup warnings when booting
2025-0-0715:55:23.314+05:30: Access control is not enabled for the database. Read and write access to data and
guration is unrestricted
2025-09715:55:23.314+05:30: This server is bound to localhost. Remote systems will be unable to connect to the
read start the server with --bind_ip <address> to specify which IP addresses it should serve responses from, or wi
pind_ip_all to bind to all interfaces. If this behavior is desired, start the server with --bind_ip 127.0.0.1 to di
this warning

cest-replica-set [direct: secondary] test> show dbs
admin 80.00 KiB
coral 436.00 KiB
coral 436.00 KiB
coral 436.00 KiB
cest-replica-set [direct: secondary] test> use practise
witched to db practise
est-replica-set [direct: secondary] practise> db.users.find()
bungoServeriorso [MostPrimary MostPrimary WostPromary Volumer of Consider using db.getMongo().setReadPref() or readPreferent
the connection string
est-replica-set [direct: secondary] practise> db.getMongo().setReadPref( secondaryPreference)

est-replica-set [direct: secondary] practise> db.users.find()
[{ _id: ObjectId( "MostPrimary Secondary Dractise> db.users.find()
[{ _id: ObjectId( "MostPrimary Secondary") practise> db.users.find()
[{ _id: ObjectId( "MostPrimary Seconda
```

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()