

## How to create replica set in mongodb

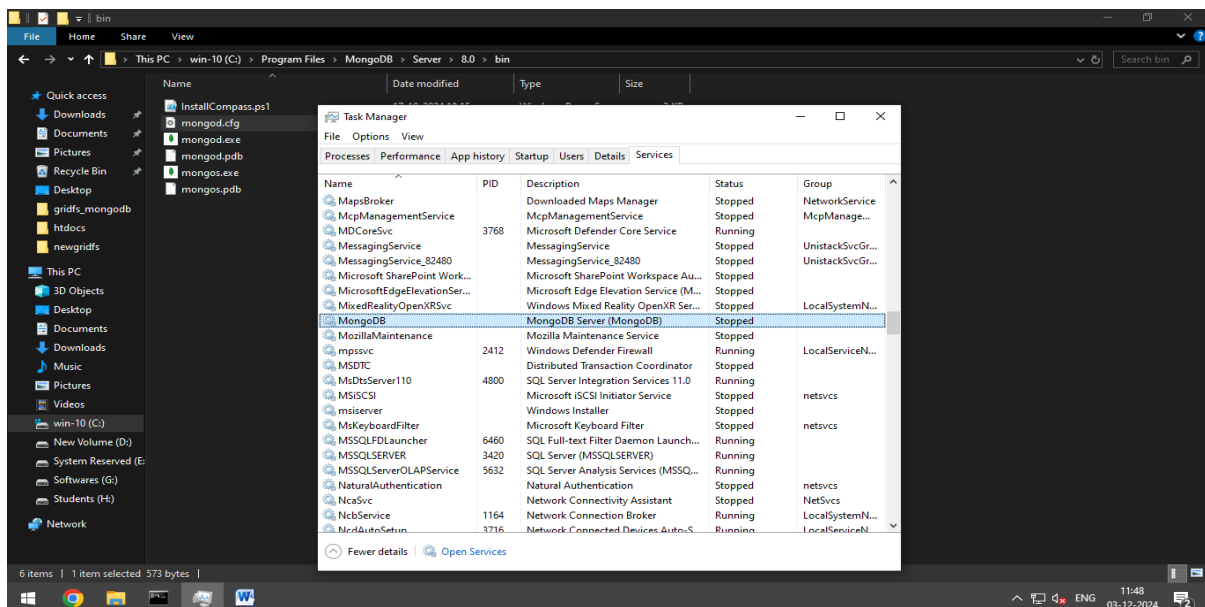
### Step 1: Install MongoDB

1. **Download MongoDB:**
  - Download the MongoDB Community Edition from [MongoDB's official website](#).
2. **Install MongoDB:**
  - Follow the installer instructions and set up MongoDB. Ensure the MongoDB bin directory is added to your system's PATH variable for ease of use.

### Step 2: Create Data Directories for Each Node

1. Create separate folders for each node (e.g., C:\data\replica1, C:\data\replica2, C:\data\replica3).
2. Inside each directory, create a subdirectory called db to store the database files

### Step 3: Stop Mongodb Server in taskmanager.



### Step 4: Create MongoDB Instances.( C:\Program Files\MongoDB\Server\8.0\bin\mongod.cfg)

```
path: C:\Program Files\MongoDB\Server\7.0\log\mongod.log

# network interfaces
net:
  port: 27017
  bindIp: 127.0.0.1

#processManagement:

#security:

#operationProfiling:

#replication:
replication:
  replSetName: "rs0"
```

#### Open cmd

mongod --replSet "rs0" --port 27017 --dbpath C:\data\replica1\db --bind\_ip localhost

## Open second cmd

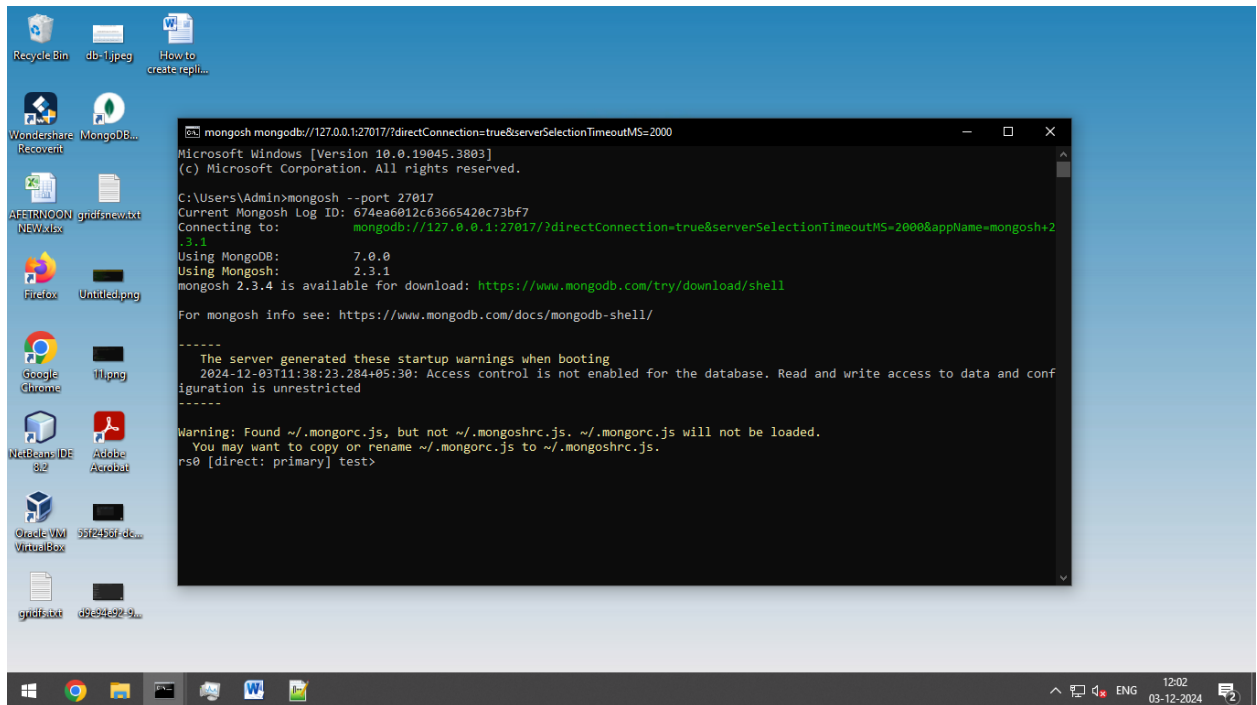
```
mongod --replSet "rs0" --port 27018 --dbpath C:\data\replica2\db --bind_ip localhost
```

## Open third cmd

```
mongod --replSet "rs0" --port 27019 --dbpath C:\data\replica3\db --bind_ip localhost
```

## Step 5: Connect to MongoDB and Initialize the Replica Set

1. Open another Command Prompt window.
2. Connect to one of the MongoDB instances



3. Initiate the replica set configuration  

```
rs.initiate({ _id: "rs0", members: [ { _id: 0, host: "localhost:27017" }, { _id: 1, host: "localhost:27018" }, { _id: 2, host: "localhost:27019" } ] });
```

## Step 5: Verify the Replica Set.

```
rs.status()
```

## Step 6: Test the Replica Set

## Step 6: Test the Replica Set

1. Insert data into the primary node:

```
use testDB
db.testCollection.insert({ name: "MongoDB replication test" })
```

2. Connect to a secondary node and try to read the data:

```
mongosh --port 27018
```

- o Enable reading from secondaries:

```
rs.slaveOk()
db.testCollection.find()
```

```
mongosh mongodb://127.0.0.1:27018/?directConnection=true&serverSelectionTimeoutMS=2000
Microsoft Windows [Version 10.0.19045.3803]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>mongosh --port 27018
Current Mongosh Log ID: 674eafaf4fc4fbce9cc73bf7
Connecting to:      mongodb://127.0.0.1:27018/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.3.1
Using MongoDB:      7.0.0
Using Mongosh:      2.3.1
mongosh 2.3.4 is available for download: https://www.mongodb.com/try/download/shell
For mongosh info see: https://www.mongodb.com/docs/mongosh-shell/

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The server generated these startup warnings when booting
2024-12-03T12:39:39.623+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
-----

Warning: Found ~/.mongorc.js, but not ~/.mongoshrc.js. ~/.mongorc.js will not be loaded.
You may want to copy or rename ~/.mongorc.js to ~/.mongoshrc.js.
rs0 [direct: secondary] test> show dbs
admin      80.00 KiB
config    136.00 KiB
local     420.00 KiB
testDB    40.00 KiB
rs0 [direct: secondary] test> use testDB
switched to db testDB
rs0 [direct: secondary] testDB> show collections
testCollection
rs0 [direct: secondary] testDB> db.testCollection.find()
[
  {
    _id: ObjectId('674eaf4499b5bb45d9c73bf8'),
    name: 'MongoDB replication test'
  }
]
rs0 [direct: secondary] testDB>
```

```
rs0 [direct: primary] test> rs.reconfig([{"_id": "rs0", "members": [{"_id": 0, "host": "localhost:27017"}, {"_id": 1, "host": "localhost:27018"}, {"_id": 2, "host": "localhost:27019"}]}, {"force": true});
```

```
rs0 [direct: secondary] test> show dbs
Person  40.00 KiB
admin   80.00 KiB
config 228.00 KiB
local  388.00 KiB
rs0 [direct: secondary] test> use Person
switched to db Person
rs0 [direct: secondary] Person> db.users.find()
MongoServerError: not primary and secondaryOk=false - consider using db.getMongo().setReadPref() or readPreference in the connection string
rs0 [direct: secondary] Person> db.getMongo().setReadPref('secondary')

rs0 [direct: secondary] Person> db.
```