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Enrollment no – BT21GCS161

Dimensional and NoSQL Databases

Assignment – 07

Activity - MongoDB Installation and Configurations.

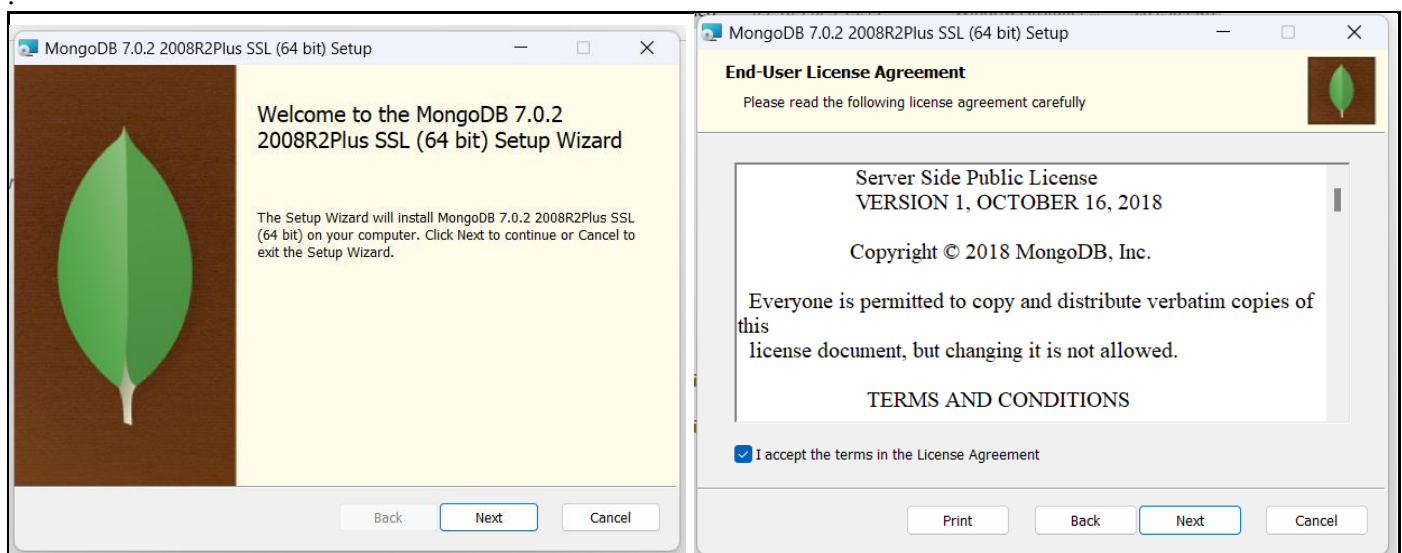
MongoDB Installation: -

Step-1: Click on the link:

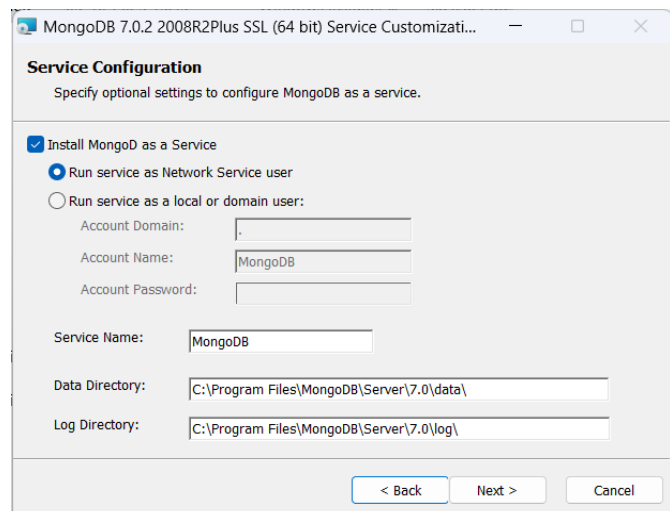
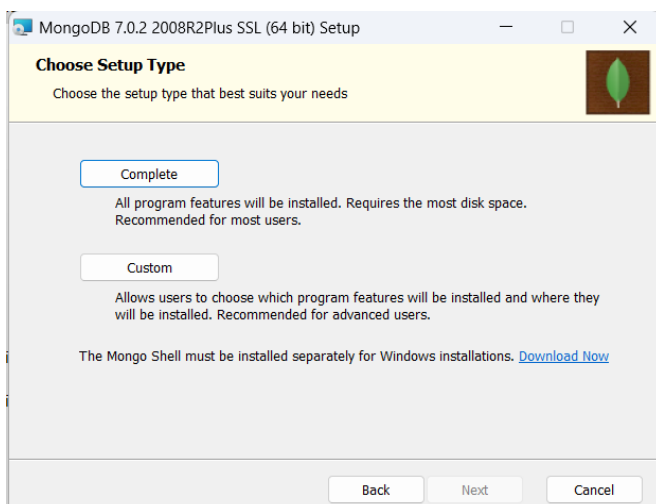
<https://www.mongodb.com/try/download/community>

Step-2: Download the “msi” package. Double click on the .msi package

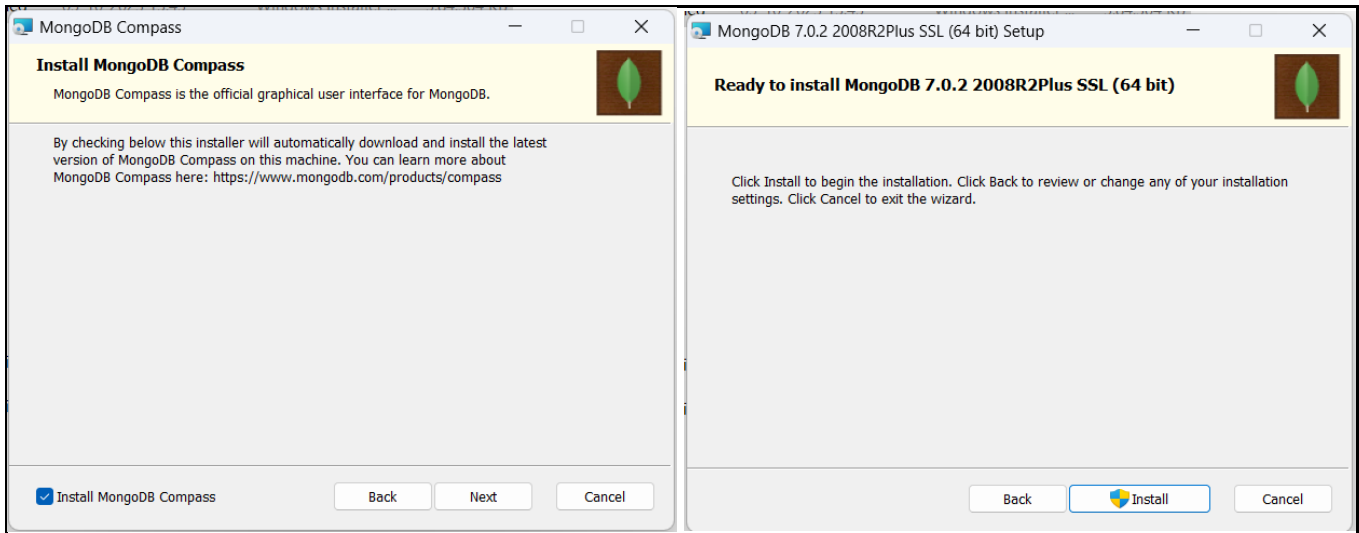
- Click Next to start installation.
- Accept the licence agreement then click Next.



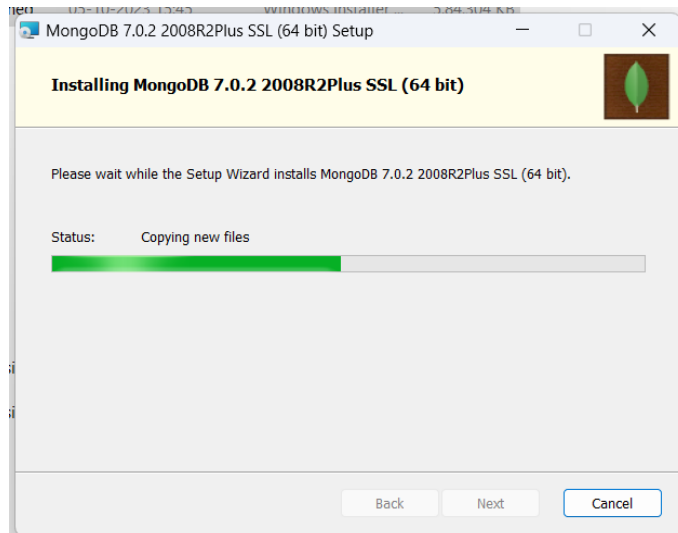
- Select the Complete setup.
- Select “Run service as Network Service user” and make a note of the data directory, we’ll need this later.



- **Select MongoDB Compass, and click Next**
- **Click Install to begin installation.**



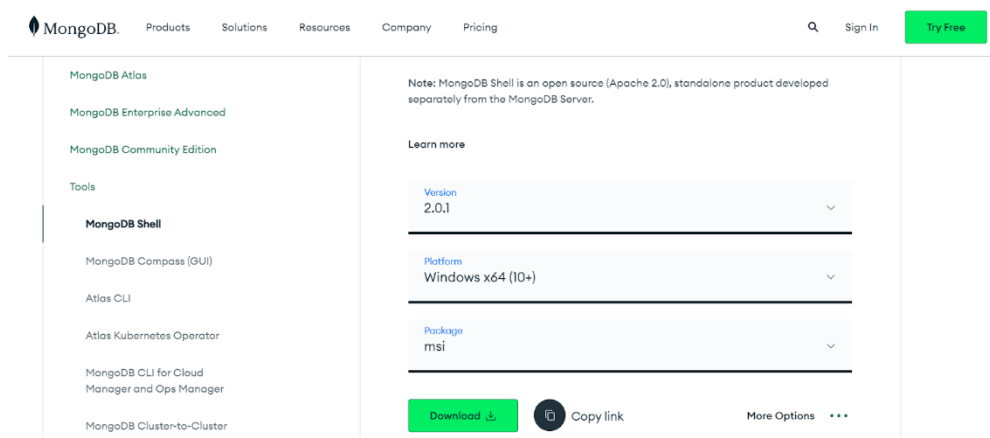
- **Once, the Install complete, Hit Finish to complete installation.**



MONGO SHELL

Step-1: Click on the link:

<https://www.mongodb.com/try/download/shell>



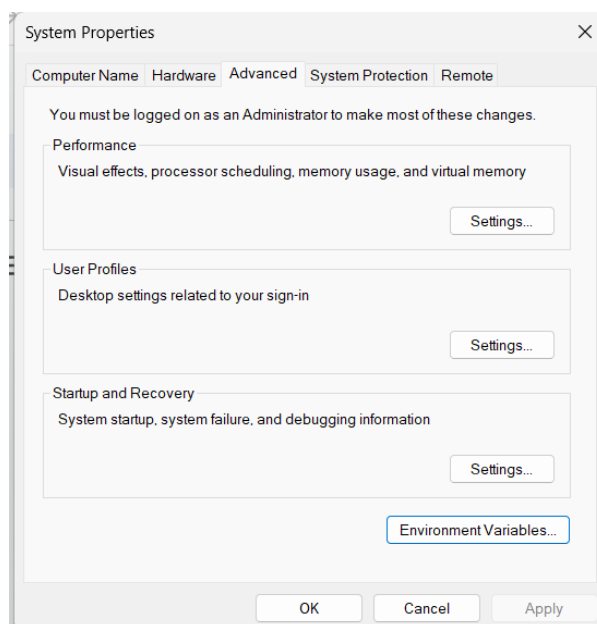
Step-2: Download the “msi” package.

Step-3: After downloading, open the command prompt to check the current version of your mongo database by the command “**mongod --version**”.

```
C:\Users\aryan>mongod --version
db version v7.0.2
Build Info: {
  "version": "7.0.2",
  "gitVersion": "02b3c655e1302209ef046da6ba3ef6749dd0b62a",
  "modules": [],
  "allocator": "tcmalloc",
  "environment": {
    "distmod": "windows",
    "distarch": "x86_64",
    "target_arch": "x86_64"
  }
}
```

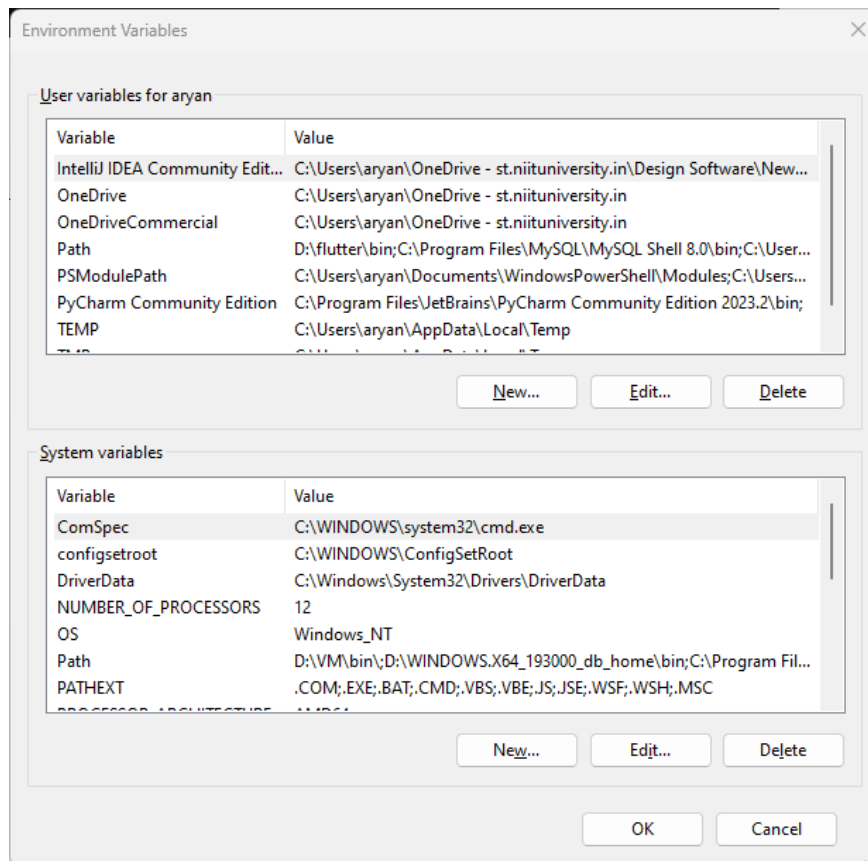
Configuration

Step 1: Search for "Edit the system environment variables"

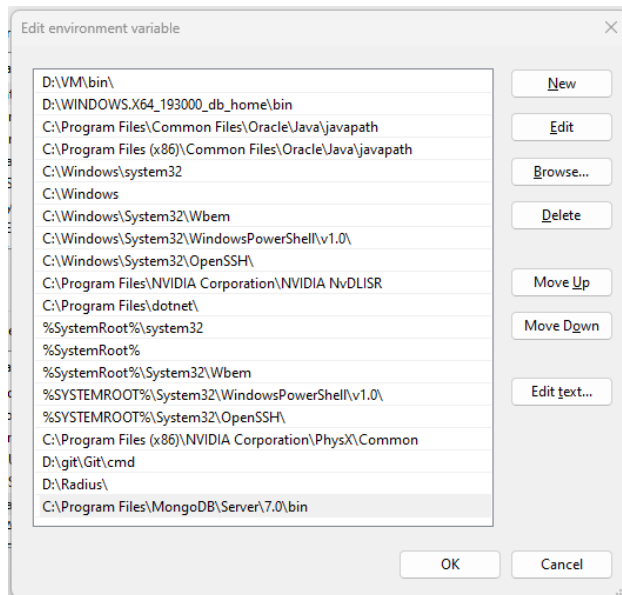


Step 2: Click on “Environment variables”.

Step-3: In the “system variables” double click on the “path” option.



Step 4: Paste the link of the mongo database server and mongo shell where it has been stored in your device.



Step 5: Click Ok

Basic Operations on the mongodb shell:

```
C:\Users\aryan>mongosh
Current Mongosh Log ID: 652434da2e02fef84c393b42
Connecting to:      mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongo
sh+2.0.1
Using MongoDB:      7.0.2
Using Mongosh:       2.0.1

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

-----
  The server generated these startup warnings when booting
  2023-10-05T16:02:42.207+05:30: Access control is not enabled for the database. Read and write access to data and
  configuration is unrestricted
  -----

test>
```

```
test> show dbs
admin    40.00 KiB
config   84.00 KiB
local    40.00 KiB
test> use Zilean
switched to db Zilean
Zilean> show dbs
admin    40.00 KiB
config   72.00 KiB
local    40.00 KiB
Zilean>
```

It displays a list of all the databases along with their sizes in KiB (Kibibyte)

```
Zilean> db.createCollection("Students")
{ ok: 1 }
Zilean> show collections
Students
```

Entering the entries into the collections.

```
Students
Zilean> db.Students.insertOne({"RollNO":1, "Name":"Aryan Sharma"})
{
  acknowledged: true,
  insertedId: ObjectId("6524376f2e02fef84c393b43")
}
```

```
Zilean> show dbs
Zilean    40.00 KiB
admin     40.00 KiB
config    108.00 KiB
local     40.00 KiB
```

Insert (): inserting one more Entry into the collection

```
Zilean> db.Students.insertOne({"RollNO":2, "Name":"Raja Pandey"})
{
  acknowledged: true,
  insertedId: ObjectId("6524eb8b5479c5bb4e61de26")
}
```

Find (): shows the entries of the collection in key : value pair.

```
Zilean> db.Students.find()
[
  {
    _id: ObjectId("6524376f2e02fef84c393b43"),
    RollNO: 1,
    Name: 'Aryan Sharma'
  },
  {
    _id: ObjectId("6524eb8b5479c5bb4e61de26"),
    RollNO: 2,
    Name: 'Raja Pandey'
  }
]
```

***Pretty ():** shows the output in the well-ordered manner.*

```
Zilean> db.Students.find().pretty()
[
  {
    _id: ObjectId("6524376f2e02fef84c393b43"),
    RollNO: 1,
    Name: 'Aryan Sharma'
  },
  {
    _id: ObjectId("6524eb8b5479c5bb4e61de26"),
    RollNO: 2,
    Name: 'Raja Pandey'
  }
]
```

***Update ():** update the existing value*

```
Zilean> db.Students.updateOne({RollNO:1}, {$set:{Name:"Ranjeev Singh"}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

Updated Value:

```
Zilean> db.Students.find().pretty()
[
  {
    _id: ObjectId("6524376f2e02fef84c393b43"),
    RollNO: 1,
    Name: 'Ranjeev Singh'
  },
  {
    _id: ObjectId("6524ecee5479c5bb4e61de27"),
    RollNO: 2,
    Name: 'Raja Pandey'
  }
]
```

***Delete ():** deletes a single document / Value*

```
Zilean> db.Students.deleteOne({"RollNO":2, "Name":"Raja Pandey"})
{ acknowledged: true, deletedCount: 1 }
```

```
Zilean> db.Students.find().pretty()
[
  {
    _id: ObjectId("6524376f2e02fef84c393b43"),
    RollNO: 1,
    Name: 'Ranjeev Singh'
  }
]
```

***Drop ():** delete the whole collection*

```
Zilean> db.Students.drop()
true
Zilean> show collections

Zilean>
```