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Practical - 01



Aim: - Lab Exercise: Setting up and Exploring MongoDB

- Install MongoDB on your local machine or lab server.
- Create a new MongoDB database and collection.
- Insert sample data into the collection.
- Retrieve and display data from the collection using MongoDB queries.

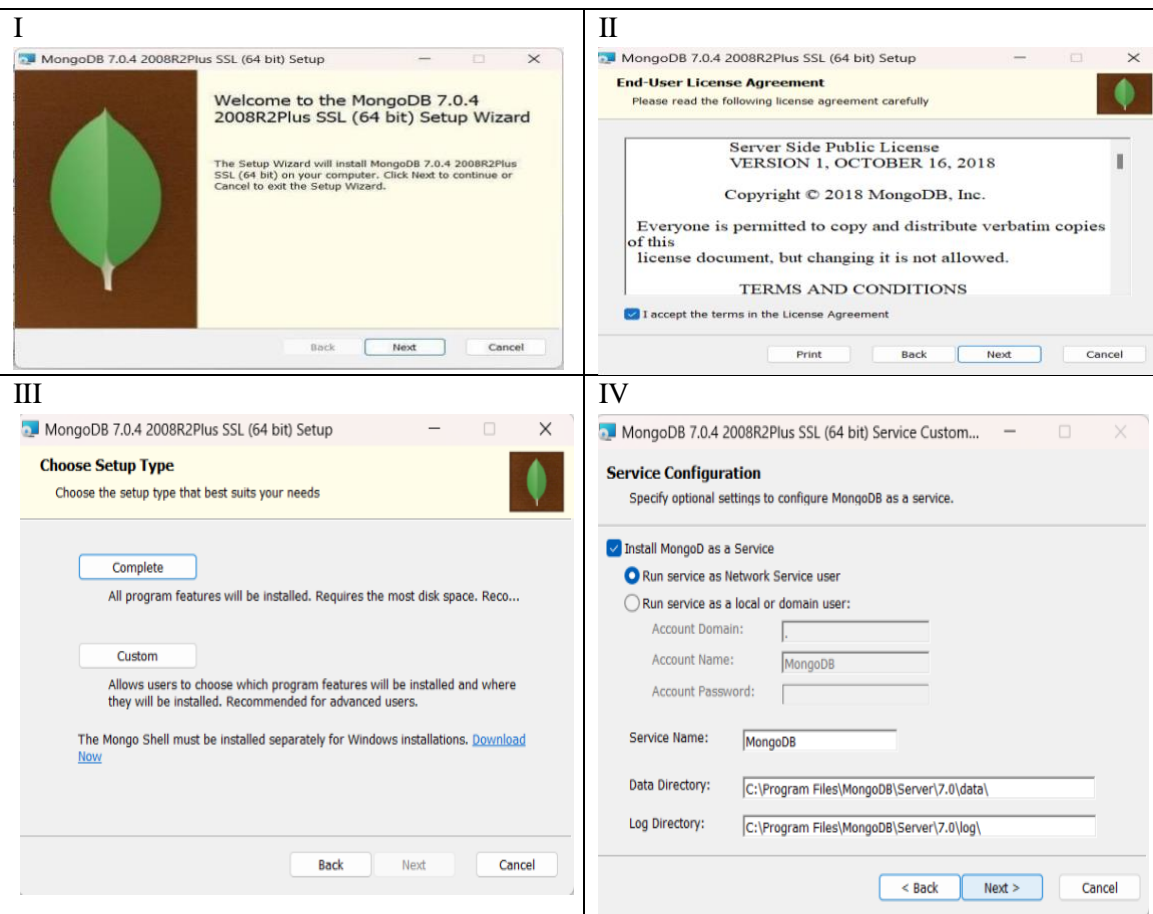
Description: - MongoDB is a source-available, cross-platform, document-oriented database program. MongoDB is a NoSQL database product and uses JSON-like documents with optional schemas. It is non-relational and suitable for hierarchical data storage. It has a dynamic schema. In terms of performance, it is much faster than RDBMS.

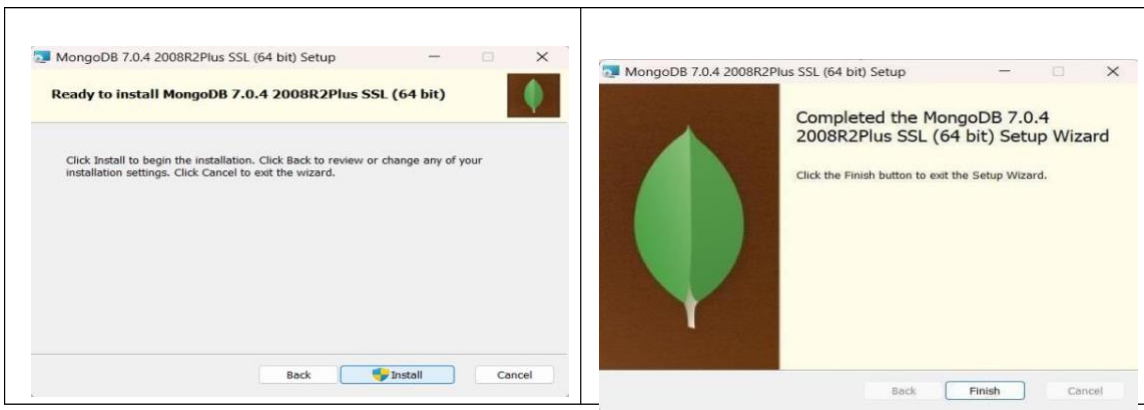
- Install MongoDB on your local machine or lab server.

Step 1: - Download a MongoDB community server & MongoDB shell in your system.

 mongodb-windows-x86_64-7.0.4-signed	25-12-2023 23:59	Windows Installer ...	5,85,144 KB
 mongosh-2.1.1-win32-x64	25-12-2023 23:49	Compressed (zipp...	37,254 KB

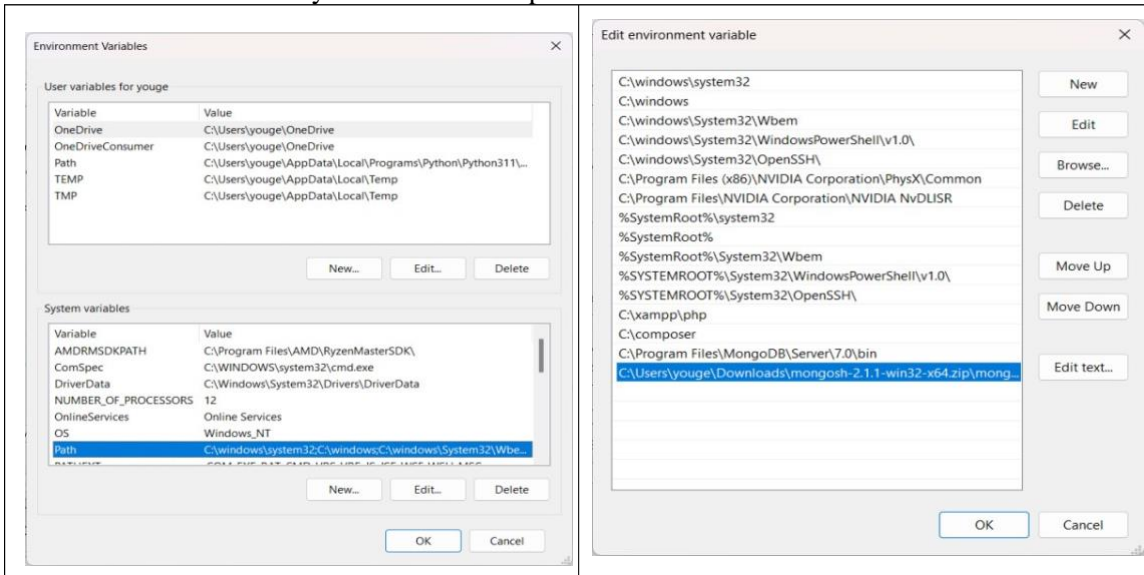
Step 2: - Set the MongoDB environment in your pc





Step 3: -setting the path for the MongoDB

Step 4: - Copy the path of the MongoDB shell path and MongoDB server path and paste them into the environment variable>>system variables>>path>>edit>>new.



b) Create a new MongoDB database and collection.

```

mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.1
C:\Users\youge>mongosh
Current Mongosh Log ID: 658c652f1f4725aa708a8527
Connecting to:  mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.1.1
Using MongoDB: 7.0.4
Using Mongosh: 2.1.1

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

The server generated these startup warnings when booting
2023-12-27T05:36:03.649+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted

test> show dbs
admin 40.00 KiB
config 108.00 KiB
local 72.00 KiB
test> use Company
switched to db Company
Company> db.createCollection("Employee")
{ ok: 1 }
Company> db.createCollection("Department")
{ ok: 1 }
Company> show collections
Department
Employee
Company>

```

C) Insert sample data into the collection.

```
Company> db.Department.insertMany([ { dept_id: 1, department: "IT", location: "Bangalore" },
... { dept_id: 2, department: "HR", location: "New York" },
... { dept_id: 3, department: "management", location: "Delhi" },
... { dept_id: 4, department: "Finance", location: "Mumbai" },
... { dept_id: 5, department: "sales", location: "Surat" } ] );
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('658c714a1f4725aa708a8528'),
    '1': ObjectId('658c714a1f4725aa708a8529'),
    '2': ObjectId('658c714a1f4725aa708a852a'),
    '3': ObjectId('658c714a1f4725aa708a852b'),
    '4': ObjectId('658c714a1f4725aa708a852c')
  }
}
Company> |
```

D) Retrieve and display data from the collection using MongoDB queries.

```
Company> db.Department.find()
```

```
[
  {
    _id: ObjectId('658c714a1f4725aa708a8528'),
    dept_id: 1,
    department: 'IT',
    location: 'Bangalore'
  },
  {
    _id: ObjectId('658c714a1f4725aa708a8529'),
    dept_id: 2,
    department: 'HR',
    location: 'New York'
  },
  {
    _id: ObjectId('658c714a1f4725aa708a852a'),
    dept_id: 3,
    department: 'management',
    location: 'Delhi'
  },
  {
    _id: ObjectId('658c714a1f4725aa708a852b'),
    dept_id: 4,
    department: 'Finance',
    location: 'Mumbai'
  },
  {
    _id: ObjectId('658c714a1f4725aa708a852c'),
    dept_id: 5,
    department: 'sales',
    location: 'Surat'
  }
]
Company> |
```