INSTALLATION OF MONGODB

To install MongoDB, you can follow these steps:

1. *Download MongoDB*: Visit the official MongoDB website and navigate to the "Downloads" section. Choose the version of MongoDB that is compatible with your operating system.

2. *Install MongoDB on Windows*:

   - Once the download is complete, run the MongoDB installer.

   - Follow the installation wizard instructions. You can choose the "Complete" setup type for a standard installation.

   - MongoDB will be installed on your system.

3. *Install MongoDB on Mac*:

   - After downloading the MongoDB package for Mac, open the downloaded file.

   - Drag the MongoDB application to your Applications folder.

   - MongoDB is now installed on your Mac.

4. *Set Up MongoDB*:

   - Create a data directory where MongoDB will store its data.

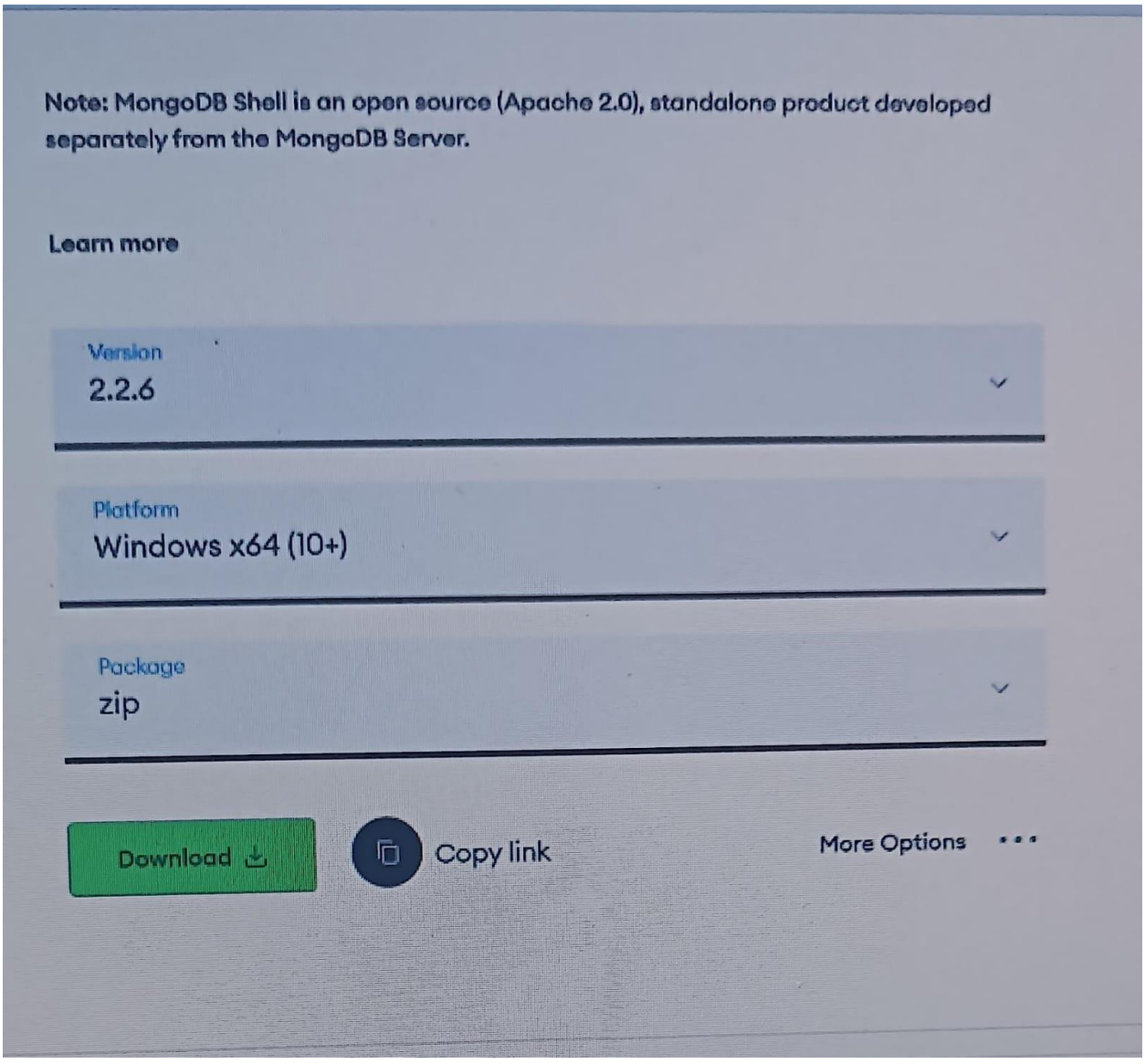
   - Start the MongoDB server by running the mongod command in the command line.

   - You can then connect to the MongoDB server using the mongo command.

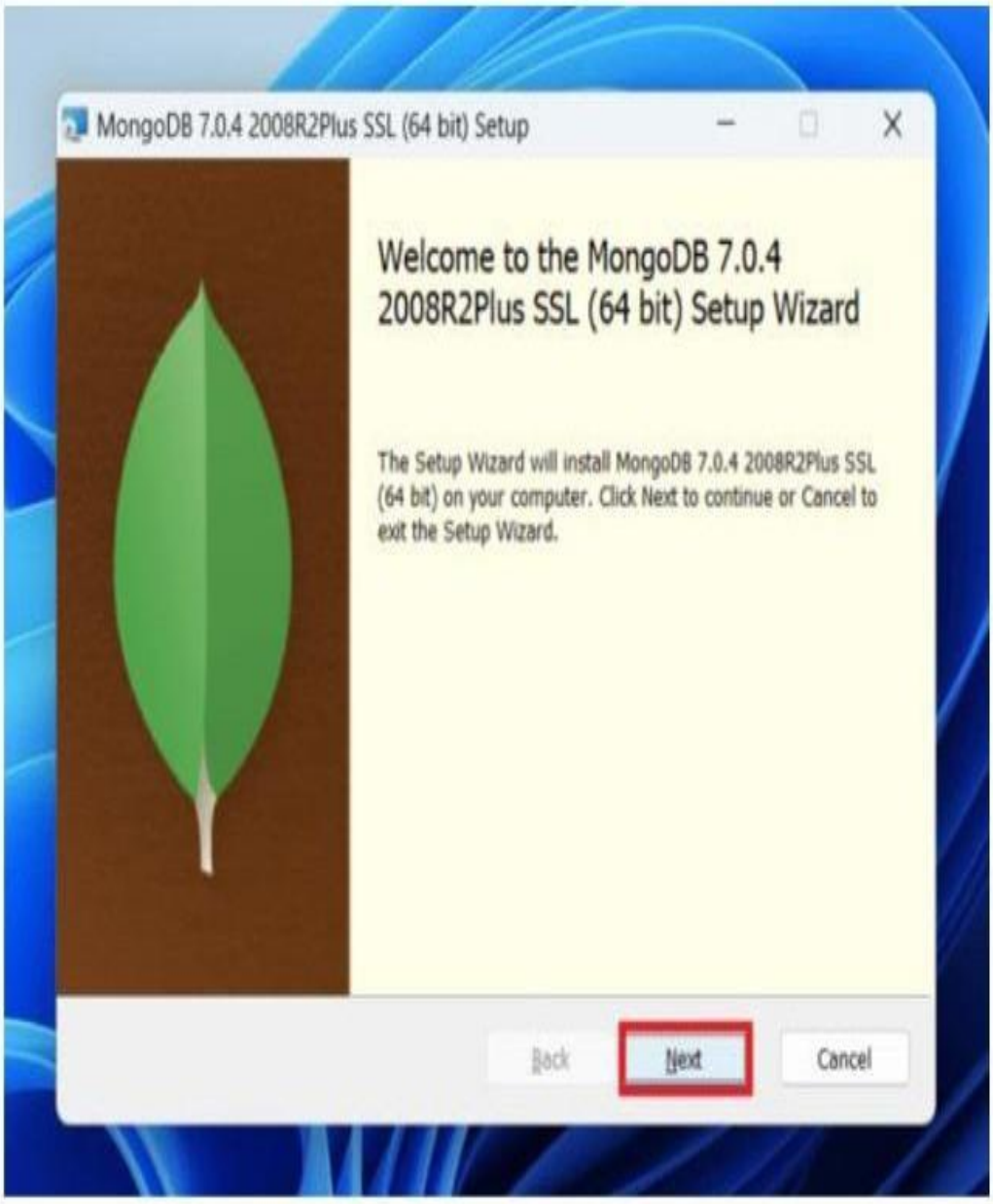
5. *Verify Installation*:

- To verify that MongoDB is installed correctly, you can run the mongo command in your terminal or command **prompt**. This should open the MongoDB shell.

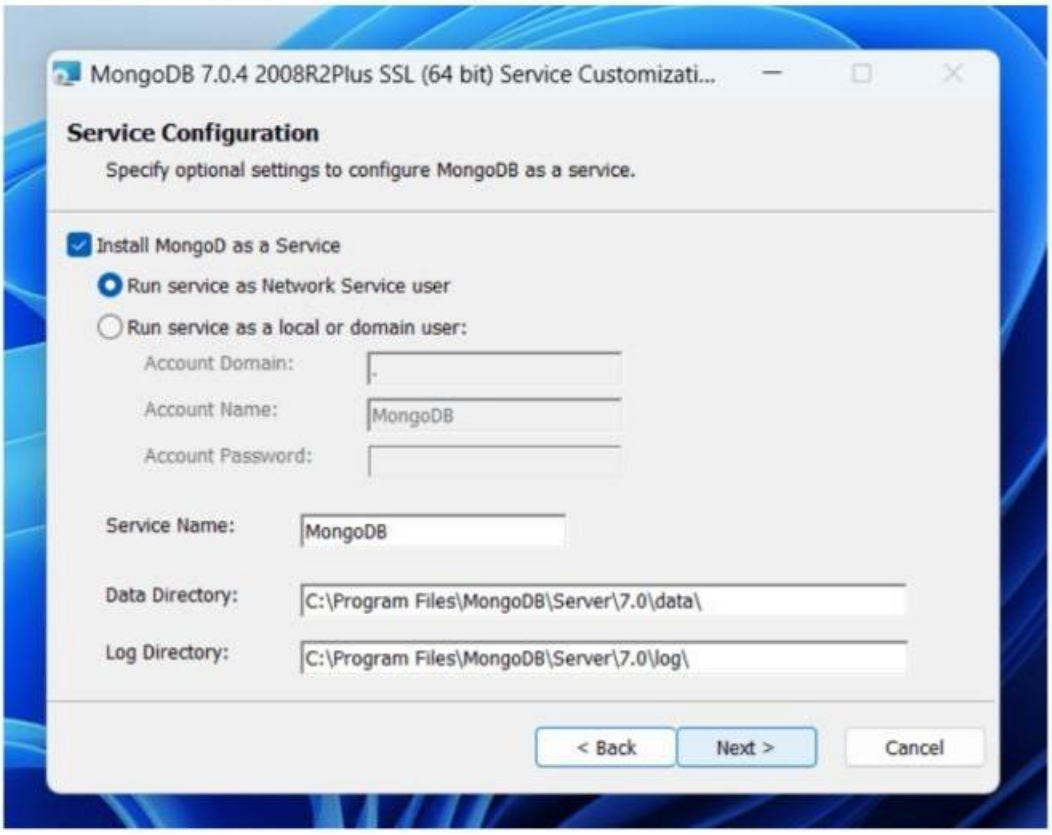
STEP 1:



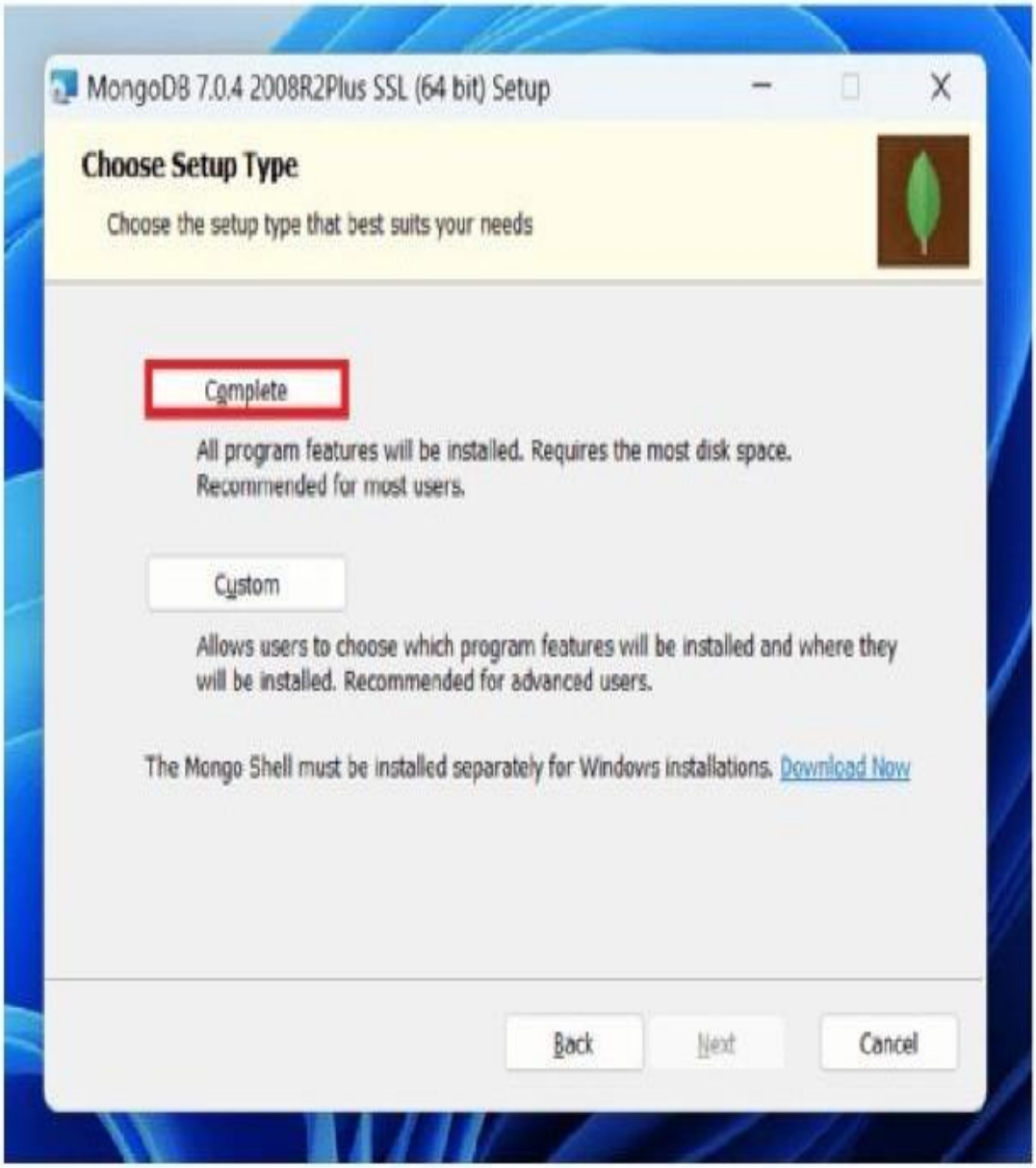
step 2:


MongoDB 7.0.4 2008R2Plus SSL (64 bit) Setup
Welcome to the MongoDB 7.0.4 2008R2Plus SSL (64 bit) Setup Wizard
The Setup Wizard will install MongoDB 7.0.4 2008R2Plus SSL (64 bit) on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Back
Next
Cancel

Step 3:

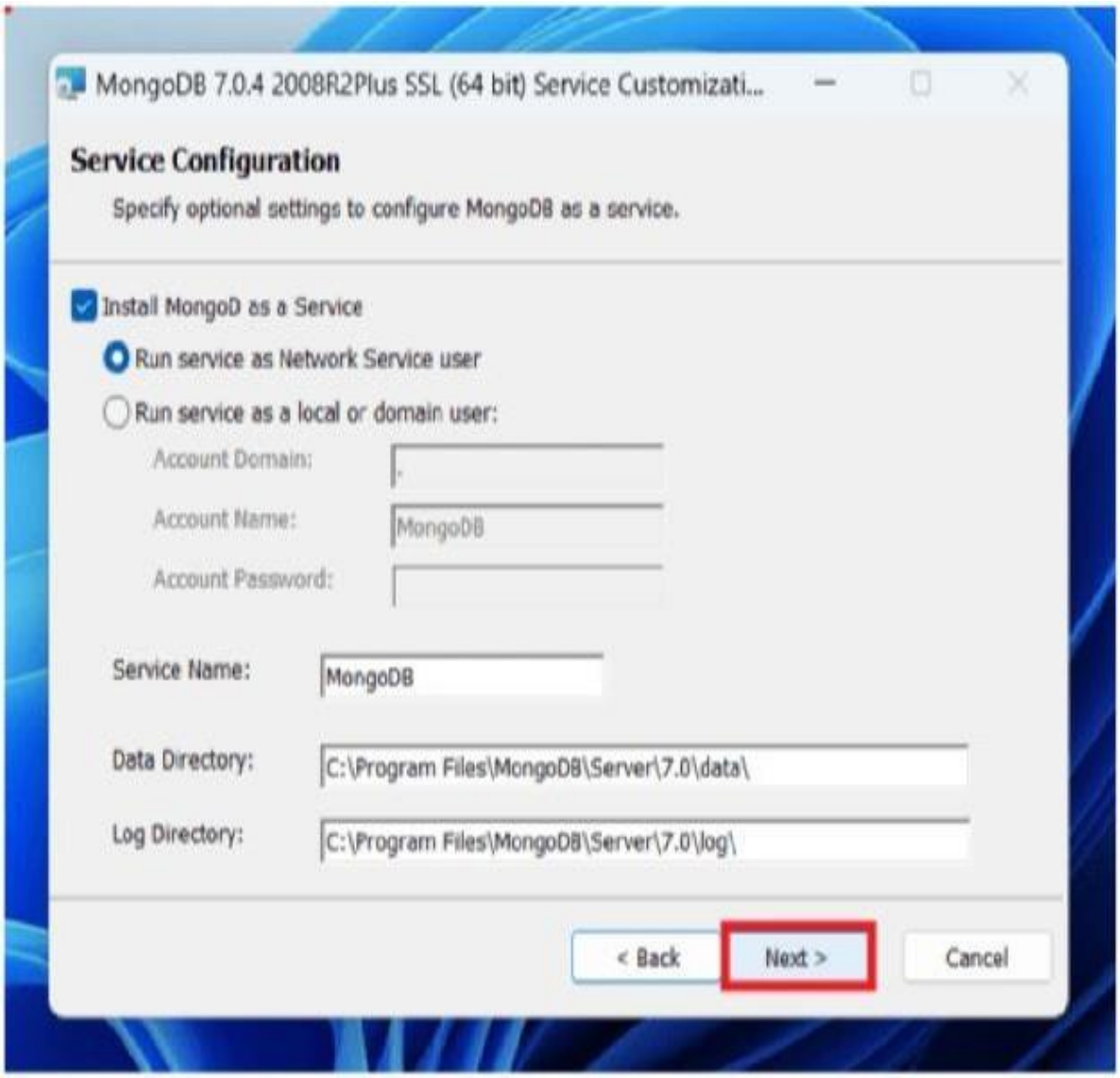

MongoDB 7.0.4 2008R2Plus SSL (64 bit) Service Customizati...
Service Configuration
Specify optional settings to configure MongoDB as a service.
Install MongoD as a Service
Run service as Network Service user
Run service as a local or domain user:
Account Domain:
.
Account Name:
MongoDB
Account Password:
Service Name:
MongoDB
Data Directory:
C:\Program Files\MongoDB\Server\7.0\data\
Log Directory:
C:\Program Files\MongoDB\Server\7.0\log\
< Back
Next >
Cancel

Step 4


MongoDB 7.0.4 2008R2Plus SSL (64 bit) Setup
Choose Setup Type
Choose the setup type that best suits your needs
Complete
All program features will be installed. Requires the most disk space.
Recommended for most users.
Custom
Allows users to choose which program features will be installed and where they will be installed. Recommended for advanced users.
The Mongo Shell must be installed separately for Windows installations. Download Now
Back
Next
Cancel

:

Step 5:


MongoDB 7.0.4 2008R2Plus SSL (64 bit) Service Customizati...
Service Configuration
Specify optional settings to configure MongoDB as a service.
Install MongoD as a Service
Run service as Network Service user
Run service as a local or domain user:
Account Domain:
.
Account Name:
MongoDB
Account Password:
Service Name:
MongoDB
Data Directory:
C:\Program Files\MongoDB\Server\7.0\data\
Log Directory:
C:\Program Files\MongoDB\Server\7.0\log\
< Back
Next >
Cancel

Step 6:


MongoDB 7.0.4 2008R2Plus SSL (64 bit) Setup
Ready to install MongoDB 7.0.4 2008R2Plus SSL (64 bit)
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

Final step:


MongoDB 7.0.4 2008R2Plus SSL (64 bit) Setup
Installing MongoDB 7.0.4 2008R2Plus SSL (64 bit)
Please wait while the Setup Wizard installs MongoDB 7.0.4 2008R2Plus SSL (64 bit).
Status:
Updating component registration
Back
Next
Cancel

ADD,UPDATE &DELETE

In MongoDB, commands are instructions or operations that you can use to interact with the database. These commands allow you to perform various tasks such as querying data, inserting or updating documents, creating indexes, managing collections, and more. MongoDB provides a rich set of commands that enable you to work with your data effectively and efficiently.

Load the document:

 Download the student csv from this link

 Import the data to the collection created link

 You should be able to see the uploaded data in mongo compass.

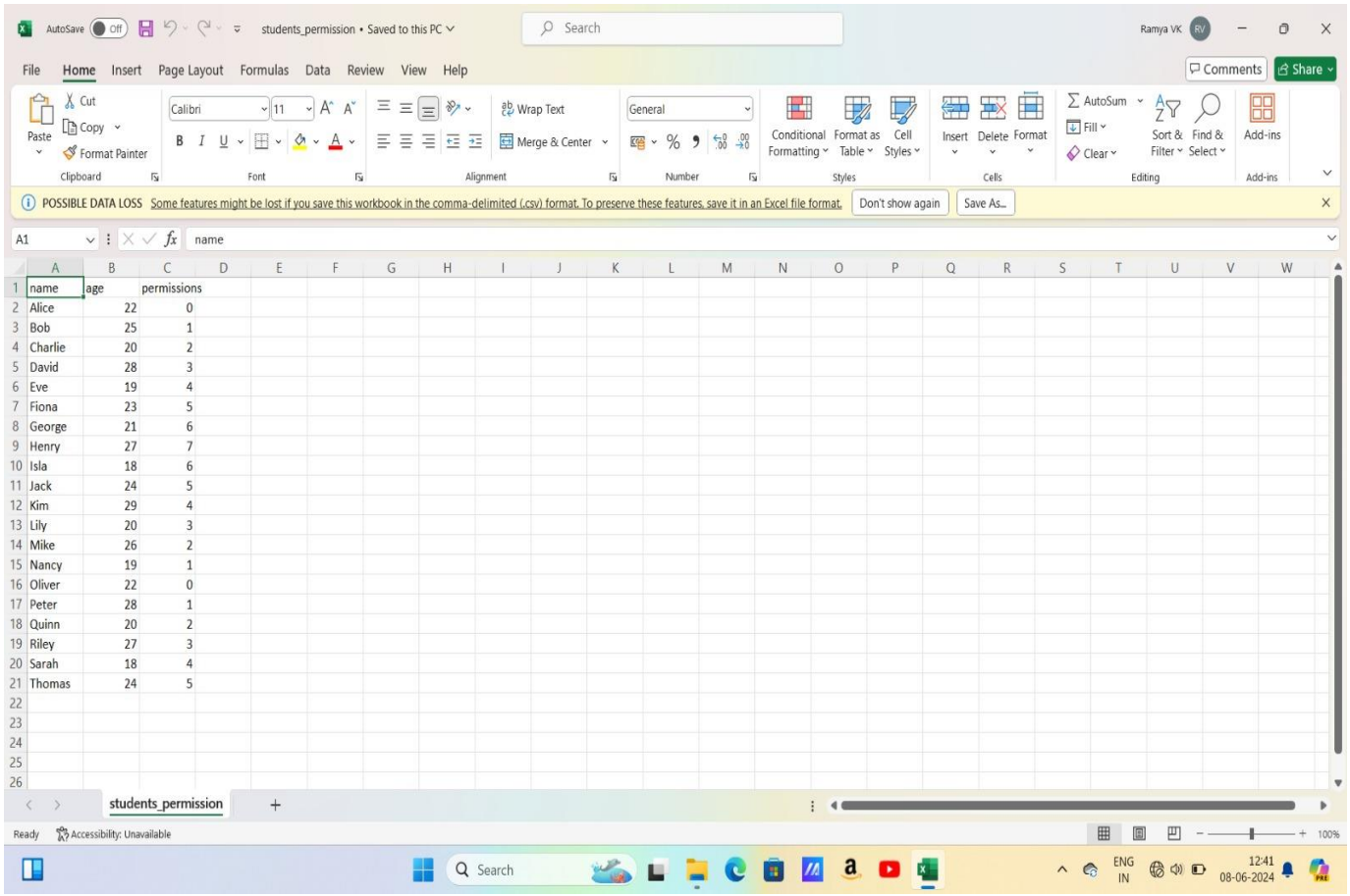
FEW COMMANDS TO TEST AFTER CONNECTIONS:

Command	Expected Output	Notes
show dbs	admin 40.00 KiB config 72.00 KiB db 128.00 KiB local 40.00 KiB	All Databases are shown
use db	switched to db db	Connect and use db
show collections	Students	Show all tables
db.foo.insert({"bar" : "baz"})		Insert a record to collection. Create Collection if not exists

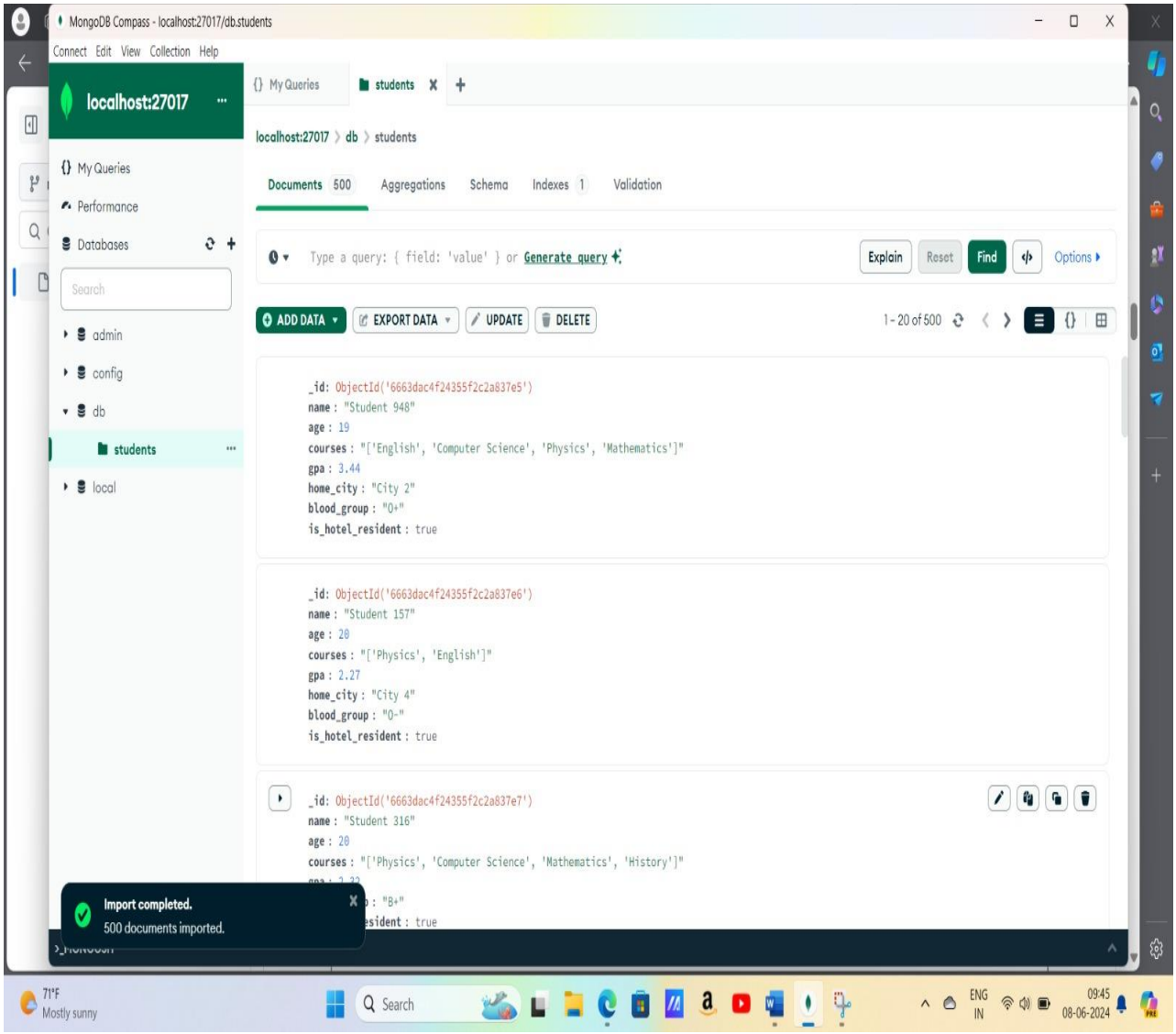
Command	Notes
db.foo.batchInsert([{"_id" : 0}, {"_id" : 1}, {"_id" : 2}])	Insert more than one document
db.foo.find()	Print all rows
db.foo.remove()	Remove foo table

DOCUMENTS

In MongoDB, a document is a basic unit of data storage, similar to a row in a relational database. It is a JSON-like data structure composed of field and value pairs. Documents are stored in collections, which are analogous to tables in a relational database. Each document in a collection can have a different structure, allowing for flexible and schema-less data modeling.



name	age	permissions
Alice	22	0
Bob	25	1
Charlie	20	2
David	28	3
Eve	19	4
Fiona	23	5
George	21	6
Henry	27	7
Isla	18	6
Jack	24	5
Kim	29	4
Lily	20	3
Mike	26	2
Nancy	19	1
Oliver	22	0
Peter	28	1
Quinn	20	2
Riley	27	3
Sarah	18	4
Thomas	24	5



COLLECTIONS

Collections A collection is a group of documents.
If a document is the MongoDB analog of a row in a relational database, then a
collection can be thought of as the analog to a table.

```
db> db.students.find({});
[
  {
    _id: ObjectId('6663dac4f24355f2c2a837e5'),
    name: 'Student 948',
    age: 19,
    courses: "['English', 'Computer Science', 'Physics', 'Mathematics']",
    gpa: 3.44,
    home_city: 'City 2',
    blood_group: 'O+',
    is_hotel_resident: true
  },
  {
    _id: ObjectId('6663dac4f24355f2c2a837e6'),
    name: 'Student 157',
    age: 20,
    courses: "['Physics', 'English']",
    gpa: 2.27,
    home_city: 'City 4',
    blood_group: 'O-',
    is_hotel_resident: true
  },
  {
    _id: ObjectId('6663dac4f24355f2c2a837e7'),
    name: 'Student 316',
    age: 20,
    courses: "['Physics', 'Computer Science', 'Mathematics', 'History']",
    gpa: 2.32,
    blood_group: 'B+',
    is_hotel_resident: true
  },
  {
    _id: ObjectId('6663dac4f24355f2c2a837e8'),
    name: 'Student 346',
    age: 25,
    courses: "['Mathematics', 'History', 'English']",
    gpa: 3.31,
    home_city: 'City 8',
    blood_group: 'O-',
    is_hotel_resident: true
  },
```

DATABASE

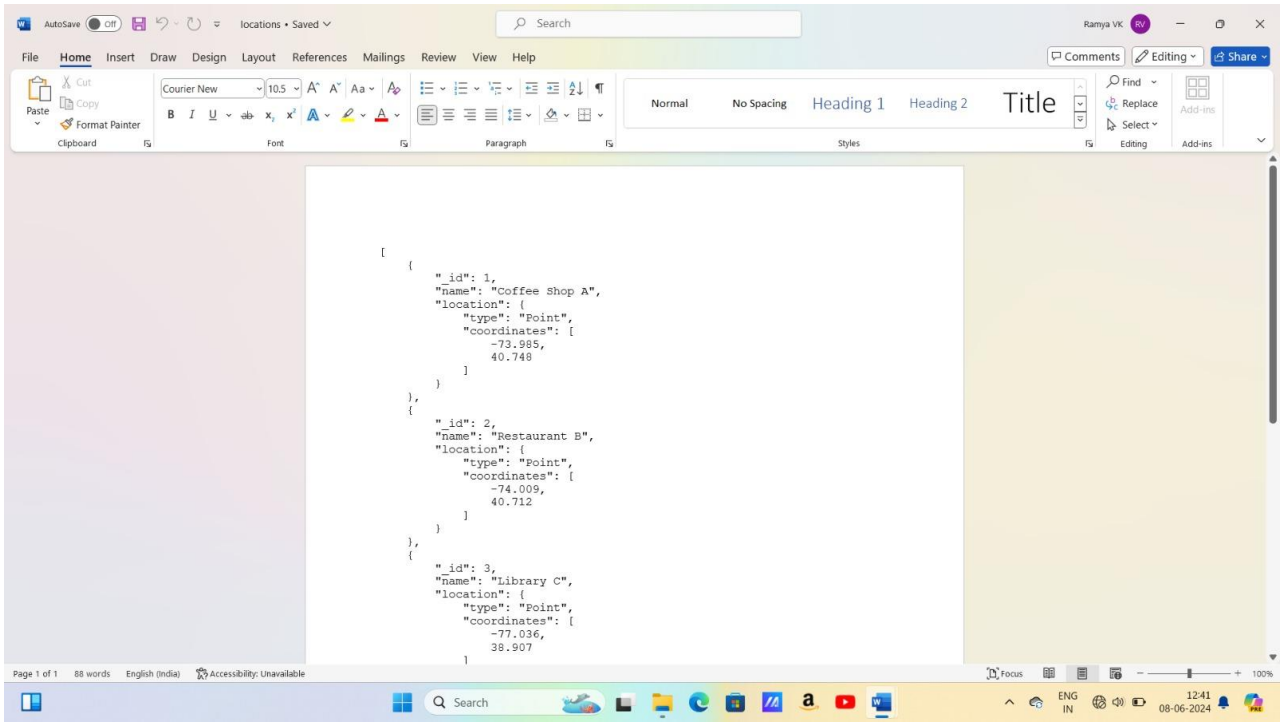
Collections A collection is a group of documents.

If a document is the MongoDB analog of a row in a relational database, then a
collection can be thought of as the analog to a table.

DATA TYPES

In MongoDB, there are several data types that you can use to store different kinds of information in your documents. Some common data types in MongoDB include:

1. *String*: Used to store textual data.
2. *Integer*: Used to store whole numbers.
3. *Double*: Used to store floating-point numbers.
4. *Boolean*: Used to store true or false values.
5. *Date*: Used to store dates and timestamps.
6. *Array*: Used to store lists or arrays of values.
7. *Object*: Used to store embedded documents.
8. *ObjectId*: A unique identifier for each document in a collection.
9. *Null*: Used to store null values.
10. *Binary Data*: Used to store binary data like images or files.


AutoSave Off
locations • Saved
Search
Ramya VK
File Home Insert Draw Design Layout References Mailings Review View Help
Comments Editing Share
Paste Cut Copy Format Painter
Courier New 10.5
Normal No Spacing Heading 1 Heading 2 Title
Find Replace Select
Clipboard Font Paragraph Styles Editing Add-ins
[
{
"_id": 1,
"name": "Coffee Shop A",
"location": {
"type": "Point",
"coordinates": [
-73.985,
40.748
]
}
},
{
"_id": 2,
"name": "Restaurant B",
"location": {
"type": "Point",
"coordinates": [
-74.009,
40.712
]
}
},
{
"_id": 3,
"name": "Library C",
"location": {
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Page 1 of 1 88 words English (India) Accessibility: Unavailable
Focus 100%
Search
ENG IN
12:41
08-06-2024