**MongoDB**

**MongoDB Installation Guide:**

Step-by-step instructions to install MongoDB on your laptop. Instructions for Windows

**1. Download MongoDB**

* Go to the official MongoDB Download Center.
* Select the latest **Community Server** version.
* Set **Operating System** to Windows and choose the **MSI** package.
* Click **Download** to get the installer.

**2. Run the Installer**

* Locate the downloaded **.msi** file and double-click to start.
* In the setup wizard:
  + Click **Next**.
  + Accept the License Agreement and click **Next**.
  + Choose **Complete** installation.
  + Select **Run service as Network Service user** when prompted.
* Click **Install** and wait for the process to finish.

**3. Set Up Environment Variables**

* Note the bin folder location (C:\Program Files\MongoDB\Server\8.0\bin).
* Open **System Properties** → **Advanced** → **Environment Variables**.
* Edit the **Path** in System Variables and add the full path to the bin directory.
* Click **OK** to save the changes.

**4. Verify Installation**

* Open a new **Command Prompt**(or PowerShell)
* Type

**mongod - - version**

* Press Enter
* If MongoDB is installed correctly, we will see the version information displayed.

**5. Start MongoDB Server**

* Open **Command Prompt** and run:

**mongod**

* Press Enter
* This command will start the MongoDB server.

**6. CRUD OPERATIONS**

* **db.createCollection(“Collection\_name)** 🡪Database Creation
* **show dbs** 🡪 Show all databases
* **show collections** 🡪 Show all collections
* insertOne(): Inserts a single document into a collection.
  + **db.collection.insertOne({ field1: "value1", field2: "value2" })**
* insertMany(): Inserts multiple documents into a collection.
  + **db.collection.insertMany([{ field1: "value1", field2: "value2"},{ field1: "value3", field2: "value4"}])**
* find(): Retrieves documents from a collection. It can be used with a query filter to retrieve specific documents.
  + **db.collection.find({ field1: "value1" })** // Finds documents where field1 equals "value1"
  + **db.collection.find()** // Retrieves all documents in the collection
* findOne(): Retrieves a single document that matches the specified filter.
  + **db.collection.findOne({ field1: "value1" })**
* updateOne(): Updates a single document that matches the specified filter.
  + **db.collection.updateOne({ field1: "value1" },{ $set: { field2: "new value" }})** // Updates field2 to "new value"
* updateMany(): Updates all documents that match the specified filter.
  + **db.collection.updateMany({ field1: "value1" },{ $set: { field2: "new value" } })**
* deleteOne(): Deletes a single document that matches the specified filter.
  + **db.collection.deleteOne({ field1: "value1" })**
* deleteMany(): Deletes all documents that match the specified filter.
  + **db.collection.deleteMany({ field1: "value1" })**
* **findOneAndDelete():** Finds a document and deletes it in a single operation**.**
* **db.collection.drop():** Drops a collection
* **db.dropDatabase():** Drops the database