**MongoDB Tutorial**

**Step 1: Start MongoDB Compass**

* Open MongoDB Compass.
* Connect using the following:

localhost:27017

* Click "Connect".
* You will see default databases: admin, config, local.

**Step 2: Create a New Database**

* Click on **"Create Database"**.
* **Database name**: unidb
* **Collection name**: students
* Click **Create Database**.

**Open MongoDB Shell**

* Click on the **Shell icon** in the top right corner to open the **MongoDB Shell**.

**Basic Commands in Shell**

|  |  |
| --- | --- |
| Show databases | Show databases |
| Use unidb | Use unidb |
| show collections | show tables |
| Delete a Database | db.dropDatabase() |
| Clear the Shell | clear |
| Insert One Document | db.students.insertOne({“regno”:”2021ict20”}) |
| Insert Multiple Documents | db.students.insertMany({“regno”:”2021ict20”}) |
|  |  |
| Filter By Gender | db.students.findOne({"gender": "Female"})  { "gender": "Female" } |
| Filter by GPA > 3.0 | { "gpa": { "$gt": 3.0 } }  db.students.find({"gpa": { $gt: 3.0 }}) |
| Find documents where the **name is exactly "Sam"**. | { name : “Sam” } |
| Show **only the name and gender fields**, and **hide the \_id field** when displaying results. | { name : 1,gender: 1 ,\_id :0} |
| Sort documents by **gpa in descending order** (high → low). | {“gpa”: -1} |
| Sort documents by **gpa in ascending order** (low → high). | {“gpa”: 1} |
| Find documents where **gpa is less than 3.0**. | { “gpa” : { $lt :3.0 } } |
| Find documents where **gpa is exactly equal to 2.5**. | { gpa : { $eq :2.5 } } |
| Find students whose **skills array** includes a subject called **"JS"** | { “skills.subject” : { $in : [“JS”] } } |
| Find **all students**, and **sort them by gpa in ascending order** (small gpa first). | db.students.find().sort({gpa:1}) |
| Find students who have: **gpa = 2 , gender = "Female"** and **sort them by gpa ascending** (even though all will have gpa = 2, still sorted). | db.students.find({“gpa”:2,”gender”:”Female”}).sort({gpa:1}) |









 

     