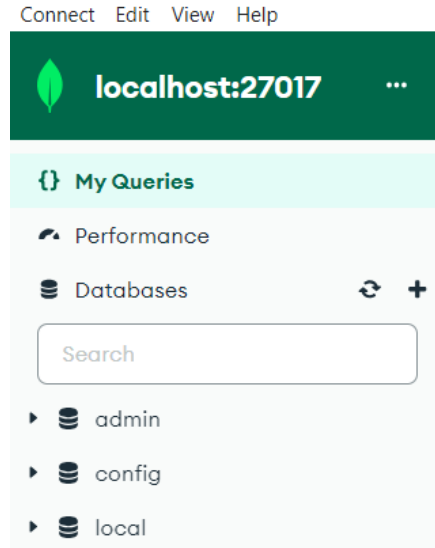# LAB – 12

LAB EXERCISE:

1. TO VIEW ALL DATABASES IN MONGODB COMPASS

2. TO CREATE NEW DATABASE

3. TO DELETE A DATABASE

⚠ Drop Database

Are you sure you want to drop database "school"?

Type "school" to confirm your action

school

Cancel   **Drop Database**

4. TO INSERT DATA IN MONGODB COMPASS

A prompt appears upon clicking on insert document;

Insert Document

To collection school.student

VIEW {} ≡

```
1  /**
2   * Paste one or more documents here
3   */
4  ▾ {
5  ▾    "_id": {
6          "$oid": "668a4c20fef1eab46860f815"
7       }
8    }
```

Cancel   **Insert**

5. TO INSERT ONE DATA AT A TIME

Insert Document

To collection school.student

VIEW {} ≡

```
1  {"name":"Mariam","age":20,"gpa":3.7}
```

One record has been inserted;

```
  ADD DATA  ▾      EXPORT DATA  ▾       UPDATE       DELETE

        _id: ObjectId('668a4ce6fef1eab46860f816')
        name : "Mariam"
        age : 20
        gpa : 3.7
```

6. TO INSERT MORE THAN ONE DOCUMENTS

```
1 ▾ [
2       {"name":"Ayesha","age":50,"gpa":3.5},
3       {"name":"Arshad","age":57,"gpa":3.9},
4       {"name":"Maham","age":22,"gpa":3.8}
5   ]
```

7. TO NEST MULTIPLE DOCUMENTS

```
1 ▾ [
2 ▾   {
3         "name": "Tooba",
4         "age": 32,
5         "gpa": 2.8,
6         "fullTime": false,
7         "graduationdate": null,
8 ▾      "courses": [
9           "datastructures",
10          "oop",
11          "calculus"
12        ],
13 ▾     "address": {
14          "street": "123 ned university",
15          "city": "karachi",
16          "zip": 23456
17        }
18    }
19  ]
```

8. FINDING A RECORD/DOCUMENT

```
🕐 ▾   {name:"Mariam"}                    💡 Generate query ✦   Explain   Reset   Find
```

```
  ADD DATA  ▾    EXPORT DATA  ▾    UPDATE    DELETE                    1-1of1  ↻  ‹  ›

  _id: ObjectId('668a4ce6fef1eab46860f816')
  name : "Mariam"
  age : 20
  gpa : 3.7
```

9. FOR SORTING DATA IN ASCENDING ORDER

🕐 ▼   Type a query: { field: 'value' } or **Generate query** ✦

Project   { field: 0 }

Sort   {name:1}

Collation   { locale: 'simple' }

Index Hint   { field: -1 }

[⊕ ADD DATA ▼] [↗ EXPORT DATA ▼] [✎ UPDATE] [🗑 DELETE]

_id: ObjectId('668a4dd5fef1eab46860f819')
name : "Arshad"
age : 57
gpa : 3.9

_id: ObjectId('668a4dd5fef1eab46860f818')
name : "Ayesha"
age : 50
gpa : 3.5

_id: ObjectId('668a4dd5fef1eab46860f81a')
name : "Maham"
age : 22
gpa : 3.8

_id: ObjectId('668a4ce6fef1eab46860f816')
name : "Mariam"
age : 20
gpa : 3.7

_id: ObjectId('668a4e4ffef1eab46860f81c')
name : "Tooba"
age : 32
gpa : 2.8
fullTime : false
graduationdate : null
courses : Array (3)
address : Object

10. FOR SORTING DATA IN DESCENDING ORDER

🕐 ▼   Type a query: { field: 'value' } or **Generate query** ✦

Project   { field: 0 }

Sort   {name:-1}

Collation   { locale: 'simple' }

Index Hint { field: -1 }

⊕ **ADD DATA** ▼   ▣ **EXPORT DATA** ▼   ✎ **UPDATE**   🗑 **DELETE**

```
_id: ObjectId('668a4e4ffef1eab46860f81c')
name : "Tooba"
age : 32
gpa : 2.8
fullTime : false
graduationdate : null
▶ courses : Array (3)
▶ address : Object
```

```
_id: ObjectId('668a4ce6fef1eab46860f816')
name : "Mariam"
age : 20
gpa : 3.7
```

```
_id: ObjectId('668a4dd5fef1eab46860f81a')
name : "Maham"
age : 22
gpa : 3.8
```

```
_id: ObjectId('668a4dd5fef1eab46860f818')
name : "Ayesha"
age : 50
gpa : 3.5
```

```
_id: ObjectId('668a4dd5fef1eab46860f819')
name : "Arshad"
age : 57
gpa : 3.9
```

11. LIMIT THE RECORD

_id: ObjectId('668a4e4ffef1eab46860f81c')
name : "Tooba"
age : 32
gpa : 2.8
fullTime : false
graduationdate : null
▸ courses : Array (3)
▸ address : Object

12. OPTIMIZING THE QUERY

_id: ObjectId('668a4ce6fef1eab46860f816')
name : "Mariam"

If we do not want to see the Object ID, then we can further optimize the query;

name : "Mariam"

name : "Ayesha"

name : "Arshad"

name : "Maham"

name : "Tooba"

13. UPDATING A DOCUMENT

Upon clicking on pencil in order to update document;

```
1   _id: ObjectId('668a4ce6fef1eab46860f816')        ObjectId
2   name : "Mariam"                                    String
3   age : 20                                           Int32
4   gpa : 3.7                                          Double
```

CANCEL   UPDATE

To delete click on trash option and then click on update option;

```
1     _id: ObjectId('668a4ce6fef1eab46860f816')
2     name : "Mariam"
3     age : 20
4     gpa : 3.7
```

Document modified.

To add a new field, we click on + icon besides trash icon and then click on update;

```
_id: ObjectId('668a4ce6fef1eab46860f816')
name : "Mariam"
age : 20
gpa : "3.7"
fullTime : "true"
```