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1. Crear una base de Datos llamada Biblioteca.

use biblioteca

2. Mostrar la base de datos creada

show dbs

biblioteca

3. Mostrar en qué base de datos se encuentra conectado

db

biblioteca

4. Crear una colección libro

db.createCollection('libro')

{ "ok" : 1 }

5. Inserta un registro

```
db.libro.insert({  
  nombre: 'Aprenda Python',  
  autor: 'Mario Molina',  
  editoriales: ['Planeta']  
})
```

WriteResult({ "nInserted" : 1 })

6. Mostrar la base de datos creada

db

biblioteca

7. insertar los siguientes registros en la colección libros

```
db.libro.insertMany([  
  {  
    "nombre": "Aprenda PHP",  
    "autor": "Mario Molina",  
    "editoriales": ["Planeta"]  
  },  
  {  
    "nombre": "Java en 10 minutos",  
    "autor": "Barros Sergio",  
    "editoriales": ["Planeta", "Siglo XXI"]  
  },  
  {  
    "nombre": "Dummies Android",
```

```

        "autor": "Julián Lujan",
        "editoriales": ["Planeta", "Siglo XXI"]
    },
    {
        "nombre": "Uml",
        "autor": "Gosh",
        "editoriales": ["Planeta"]
    },
    {
        "nombre": "Java",
        "autor": "Gosh",
        "editoriales": ["Planeta"]
    },
    {
        "nombre": "Satanas",
        "autor": "Mendoza",
        "editoriales": ["Planeta"]
    }
])

{
    "acknowledged" : true,
    "insertedIds" : [
        ObjectId("64ed0b0ff8f2ba81fd176fea"),
        ObjectId("64ed0b0ff8f2ba81fd176feb"),
        ObjectId("64ed0b0ff8f2ba81fd176fec"),
        ObjectId("64ed0b0ff8f2ba81fd176fed"),
        ObjectId("64ed0b0ff8f2ba81fd176fee"),
        ObjectId("64ed0b0ff8f2ba81fd176fef")
    ]
}

```

8. Agregar a la colección 3 libros más de su preferencia;

```

db.libro.insertMany([
    {
        "nombre": "Peaky binders",
        "autor": "Tomas",
        "editoriales": ["Movie"]
    }
])

```

```

    },
    {
        "nombre": "Principito",
        "autor": "Antonie",
        "editoriales": ["Siglo XX"]
    },
    {
        "nombre": "Diomedes Dias",
        "autor": "Diomedes",
        "editoriales": ["Sin medir distancia"]
    }
])

"acknowledged" : true,
    "insertedIds" : [
        ObjectId("64ed191bf8f2ba81fd176ff0"),
        ObjectId("64ed191bf8f2ba81fd176ff1"),
        ObjectId("64ed191bf8f2ba81fd176ff2")
    ]
}

```

9. Listar todos los libros

db.libro.find();

```

{ "_id" : ObjectId("64ed039cf8f2ba81fd176fe9"), "nombre" : "Aprenda Python", "autor" :
"Mario Molina", "editoriales" : [ "Planeta" ] }
{ "_id" : ObjectId("64ed0b0ff8f2ba81fd176fea"), "nombre" : "Aprenda PHP", "autor" : "Mario
Molina", "editoriales" : [ "Planeta" ] }
{ "_id" : ObjectId("64ed0b0ff8f2ba81fd176feb"), "nombre" : "Java en 10 minutos", "autor" :
"Barros Sergio", "editoriales" : [ "Planeta", "Siglo XXI" ] }
{ "_id" : ObjectId("64ed0b0ff8f2ba81fd176fec"), "nombre" : "Dummies Android", "autor" :
"Julián Lujan", "editoriales" : [ "Planeta", "Siglo XXI" ] }
{ "_id" : ObjectId("64ed0b0ff8f2ba81fd176fed"), "nombre" : "Uml", "autor" : "Gosh",
"editoriales" : [ "Planeta" ] }
{ "_id" : ObjectId("64ed0b0ff8f2ba81fd176fee"), "nombre" : "Java", "autor" : "Gosh",
"editoriales" : [ "Planeta" ] }
{ "_id" : ObjectId("64ed0b0ff8f2ba81fd176fef"), "nombre" : "Satanas", "autor" : "Mendoza",
"editoriales" : [ "Planeta" ] }
{ "_id" : ObjectId("64ed191bf8f2ba81fd176ff0"), "nombre" : "Peakky binders", "autor" :
"Tomas", "editoriales" : [ "Movie" ] }
{ "_id" : ObjectId("64ed191bf8f2ba81fd176ff1"), "nombre" : "Principito", "autor" : "Antonie",
"editoriales" : [ "Siglo XX" ] }
{ "_id" : ObjectId("64ed191bf8f2ba81fd176ff2"), "nombre" : "Diomedes Dias", "autor" :
"Diomedes", "editoriales" : [ "Sin medir distancia" ] }

```

>

10. Mostrar todos los libros en formato Json

```
db.libro.find().pretty();
{
  "_id" : ObjectId("64ed039cf8f2ba81fd176fe9"),
  "nombre" : "Aprenda Python",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fea"),
  "nombre" : "Aprenda PHP",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176feb"),
  "nombre" : "Java en 10 minutos",
  "autor" : "Barros Sergio",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fec"),
  "nombre" : "Dummies Android",
  "autor" : "Julián Lujan",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fed"),
  "nombre" : "Uml",
  "autor" : "Gosh",
  "editoriales" : [
    "Planeta"
  ]
}
```

```

    ]
  }
  {
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fee"),
    "nombre" : "Java",
    "autor" : "Gosh",
    "editoriales" : [
      "Planeta"
    ]
  }
  {
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fef"),
    "nombre" : "Satanas",
    "autor" : "Mendoza",
    "editoriales" : [
      "Planeta"
    ]
  }
  {
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff0"),
    "nombre" : "Peaky binders",
    "autor" : "Tomas",
    "editoriales" : [
      "Movie"
    ]
  }
  {
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff1"),
    "nombre" : "Principito",
    "autor" : "Antonie",
    "editoriales" : [
      "Siglo XX"
    ]
  }
  {
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff2"),
    "nombre" : "Diomedes Dias",
    "autor" : "Diomedes",
    "editoriales" : [
      "Sin medir distancia"
    ]
  }
}

```

11. Eliminar el libro que tenga por nombre Satanás

```

db.libro.deleteOne({"nombre": "satanas"})
{ "acknowledged" : true, "deletedCount" : 0 }

```

>

12. Listar los libros.

db.libro.find().pretty()

```
{
  "_id" : ObjectId("64ed039cf8f2ba81fd176fe9"),
  "nombre" : "Aprenda Python",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fea"),
  "nombre" : "Aprenda PHP",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176feb"),
  "nombre" : "Java en 10 minutos",
  "autor" : "Barros Sergio",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fec"),
  "nombre" : "Dummies Android",
  "autor" : "Julián Lujan",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fed"),
  "nombre" : "Uml",
  "autor" : "Gosh",
  "editoriales" : [
    "Planeta"
  ]
}
```

```
]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fee"),
  "nombre" : "Java",
  "autor" : "Gosh",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fef"),
  "nombre" : "Satanas",
  "autor" : "Mendoza",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed191bf8f2ba81fd176ff0"),
  "nombre" : "Peaky binders",
  "autor" : "Tomas",
  "editoriales" : [
    "Movie"
  ]
}
{
  "_id" : ObjectId("64ed191bf8f2ba81fd176ff1"),
  "nombre" : "Principito",
  "autor" : "Antonie",
  "editoriales" : [
    "Siglo XX"
  ]
}
{
  "_id" : ObjectId("64ed191bf8f2ba81fd176ff2"),
  "nombre" : "Diomedes Dias",
  "autor" : "Diomedes",
  "editoriales" : [
    "Sin medir distancia"
  ]
}
```

13. Listar solo 3 libros

```
db.libro.find().limit(3).pretty()
{
  "_id" : ObjectId("64ed039cf8f2ba81fd176fe9"),
  "nombre" : "Aprenda Python",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fea"),
  "nombre" : "Aprenda PHP",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176feb"),
  "nombre" : "Java en 10 minutos",
  "autor" : "Barros Sergio",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
>
```

14. Listar los libros en forma ascendente por nombre

```
db.libro.find().sort({"nombre": 1}).pretty()
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fea"),
  "nombre" : "Aprenda PHP",
  "autor" : "Mario Molina",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed039cf8f2ba81fd176fe9"),
  "nombre" : "Aprenda Python",
  "autor" : "Mario Molina",
  "editoriales" : [
```



```

        "Planeta"
    ]
}
{
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff2"),
    "nombre" : "Diomedes Dias",
    "autor" : "Diomedes",
    "editoriales" : [
        "Sin medir distancia"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fec"),
    "nombre" : "Dummies Android",
    "autor" : "Julián Lujan",
    "editoriales" : [
        "Planeta",
        "Siglo XXI"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fee"),
    "nombre" : "Java",
    "autor" : "Gosh",
    "editoriales" : [
        "Planeta"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176feb"),
    "nombre" : "Java en 10 minutos",
    "autor" : "Barros Sergio",
    "editoriales" : [
        "Planeta",
        "Siglo XXI"
    ]
}
{
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff0"),
    "nombre" : "Peaky binders",
    "autor" : "Tomas",
    "editoriales" : [
        "Movie"
    ]
}
{
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff1"),
    "nombre" : "Principito",

```

```

    "autor" : "Antonie",
    "editoriales" : [
        "Siglo XX"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fef"),
    "nombre" : "Satanas",
    "autor" : "Mendoza",
    "editoriales" : [
        "Planeta"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fed"),
    "nombre" : "Uml",
    "autor" : "Gosh",
    "editoriales" : [
        "Planeta"
    ]
}
>

```

15. Listar los libros en forma descendente por editorial
 db.libro.find().sort({"editorial": -1}).pretty()

```

{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fed"),
    "nombre" : "Uml",
    "autor" : "Gosh",
    "editoriales" : [
        "Planeta"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fef"),
    "nombre" : "Satanas",
    "autor" : "Mendoza",
    "editoriales" : [
        "Planeta"
    ]
}
{
    "_id" : ObjectId("64ed191bf8f2ba81fd176ff1"),
    "nombre" : "Principito",
    "autor" : "Antonie",
    "editoriales" : [
        "Siglo XX"
    ]
}

```

```

}
{
  "_id" : ObjectId("64ed191bf8f2ba81fd176ff0"),
  "nombre" : "Peaky binders",
  "autor" : "Tomas",
  "editoriales" : [
    "Movie"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176feb"),
  "nombre" : "Java en 10 minutos",
  "autor" : "Barros Sergio",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fee"),
  "nombre" : "Java",
  "autor" : "Gosh",
  "editoriales" : [
    "Planeta"
  ]
}
{
  "_id" : ObjectId("64ed0b0ff8f2ba81fd176fec"),
  "nombre" : "Dummies Android",
  "autor" : "Julián Lujan",
  "editoriales" : [
    "Planeta",
    "Siglo XXI"
  ]
}
{
  "_id" : ObjectId("64ed191bf8f2ba81fd176ff2"),
  "nombre" : "Diomedes Dias",
  "autor" : "Diomedes",
  "editoriales" : [
    "Sin medir distancia"
  ]
}
{
  "_id" : ObjectId("64ed039cf8f2ba81fd176fe9"),
  "nombre" : "Aprenda Python",
  "autor" : "Mario Molina",
  "editoriales" : [

```

```

        "Planeta"
    ]
}
{
    "_id" : ObjectId("64ed0b0ff8f2ba81fd176fea"),
    "nombre" : "Aprenda PHP",
    "autor" : "Mario Molina",
    "editoriales" : [
        "Planeta"
    ]
}
>

```

16. Crear una nueva colección llamada ciudades

```
db.createCollection("ciudades")
```

```
{ "ok" : 1 }
```

```
>
```

17. insertar 3 registro con el nombre de la ciudad y su código

```

db.ciudades.insert([
    {
        "nombre": "Bogotá",
        "codigo": "a1"
    },
    {
        "nombre": "Popayán",
        "codigo": "a2"
    },
    {
        "nombre": "Pasto",
        "codigo": "a3"
    }
])
"acknowledged" : true,
  "insertedIds" : [
    ObjectId("64ed191bf8f2ba81fd176ff0"),
    ObjectId("64ed191bf8f2ba81fd176ff1"),
    ObjectId("64ed191bf8f2ba81fd176ff2")
  ]
}

```

18. Eliminar la colección
db.ciudades.drop()
true