

0. Crear una base de datos llamada ecommerce que contenga dos colecciones: mensajes y productos.

```
> use ecommerce
switched to db ecommerce
> db
ecommerce
> db.createCollection('products')
{ "ok" : 1 }
> db.createCollection('messages')
{ "ok" : 1 }
> show collections
messages
products
```

1. Agregar 10 documentos con valores distintos a las colecciones mensajes y productos. El formato de los documentos debe estar en correspondencia con el que venimos utilizando en el entregable con base de datos MariaDB. (punto 2 incluido)

```
> db.products.insertMany([
...   {name : 'Anteojos', price : 4992, thumbnail : 'url1'},
...   {name : 'Botella', price : 105, thumbnail : 'url2'},
...   {name : 'Zapatillas', price : 3002, thumbnail : 'url3'},
...   {name : 'Billetera', price : 1231, thumbnail : 'url4'},
...   {name : 'Platos', price : 2379, thumbnail : 'url5'},
...   {name : 'Vaso', price : 790, thumbnail : 'url6'},
...   {name : 'Lampara', price : 3080, thumbnail : 'url7'},
...   {name : 'Espejo', price : 3465, thumbnail : 'url8'},
...   {name : 'Ventilador', price : 4850, thumbnail : 'url9'},
...   {name : 'Milanesa', price : 770, thumbnail : 'url10'}
... ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6399f0a37b0dd0e60456ad00"),
    ObjectId("6399f0a37b0dd0e60456ad01"),
    ObjectId("6399f0a37b0dd0e60456ad02"),
    ObjectId("6399f0a37b0dd0e60456ad03"),
    ObjectId("6399f0a37b0dd0e60456ad04"),
    ObjectId("6399f0a37b0dd0e60456ad05"),
    ObjectId("6399f0a37b0dd0e60456ad06"),
    ObjectId("6399f0a37b0dd0e60456ad07"),
    ObjectId("6399f0a37b0dd0e60456ad08"),
    ObjectId("6399f0a37b0dd0e60456ad09")
  ]
}
> db.messages.insertMany([
...   { author: 'Bauti', message: 'Buenas', date: '03/12/22 22:22:22'},
...   { author: 'Lucas', message: 'Hola', date: '03/12/22 22:22:41'},
...   { author: 'Lucas', message: 'Como va?', date: '03/12/22 22:23:51'},
...   { author: 'Camila', message: 'Hello', date: '03/12/22 22:24:02'},
...   { author: 'Camila', message: 'Todo bien, ustedes?', date: '03/12/22 22:24:27'},
...   { author: 'Bauti', message: 'Todo tranquilo', date: '03/12/22 22:25:02'},
...   { author: 'Lucas', message: 'Todo bien por suerte', date: '03/12/22 22:27:49'},
...   { author: 'Mariano', message: 'Hay alguien?', date: '04/12/22 07:42:51'},
...   { author: 'Valeria', message: 'Hola', date: '05/12/22 21:03:51'},
...   { author: 'Simon', message: 'Que onda?', date: '05/12/22 21:05:11'},
... ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6399f0b97b0dd0e60456ad0a"),
    ObjectId("6399f0b97b0dd0e60456ad0b"),
    ObjectId("6399f0b97b0dd0e60456ad0c"),
    ObjectId("6399f0b97b0dd0e60456ad0d"),
    ObjectId("6399f0b97b0dd0e60456ad0e"),
    ObjectId("6399f0b97b0dd0e60456ad0f"),
    ObjectId("6399f0b97b0dd0e60456ad10"),
    ObjectId("6399f0b97b0dd0e60456ad11"),
    ObjectId("6399f0b97b0dd0e60456ad12"),
    ObjectId("6399f0b97b0dd0e60456ad13")
  ]
}
```

### 3. Listar todos los documentos en cada colección.

```
> db.products.find()
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad00"), "name" : "Anteojos", "price" : 4992, "thumbnail" : "url11" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad01"), "name" : "Botella", "price" : 105, "thumbnail" : "url12" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad02"), "name" : "Zapatillas", "price" : 3002, "thumbnail" : "url13" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad03"), "name" : "Billetera", "price" : 1231, "thumbnail" : "url14" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad04"), "name" : "Platos", "price" : 2379, "thumbnail" : "url15" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad05"), "name" : "Vaso", "price" : 790, "thumbnail" : "url16" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad06"), "name" : "Lampara", "price" : 3080, "thumbnail" : "url17" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad07"), "name" : "Espejo", "price" : 3465, "thumbnail" : "url18" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad08"), "name" : "Ventilador", "price" : 4850, "thumbnail" : "url19" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad09"), "name" : "Milanesa", "price" : 770, "thumbnail" : "url10" }
> db.messages.find()
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad0a"), "author" : "Bauti", "message" : "Buenas", "date" : "03/12/22 22:22:22" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad0b"), "author" : "Lucas", "message" : "Hola", "date" : "03/12/22 22:22:41" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad0c"), "author" : "Lucas", "message" : "Como va?", "date" : "03/12/22 22:23:51" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad0d"), "author" : "Camila", "message" : "Hello", "date" : "03/12/22 22:24:02" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad0e"), "author" : "Camila", "message" : "Todo bien, ustedes?", "date" : "03/12/22 22:24:27" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad0f"), "author" : "Bauti", "message" : "Todo tranquilo", "date" : "03/12/22 22:25:02" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad10"), "author" : "Lucas", "message" : "Todo bien por suerte", "date" : "03/12/22 22:27:49" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad11"), "author" : "Mariano", "message" : "Hay alguien?", "date" : "04/12/22 07:42:51" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad12"), "author" : "Valeria", "message" : "Hola", "date" : "05/12/22 21:03:51" }
{ "_id" : ObjectId("6399f0b97b0dd0e60456ad13"), "author" : "Simon", "message" : "Que onda?", "date" : "05/12/22 21:05:11" }
```

### 4. Mostrar la cantidad de documentos almacenados en cada una de ellas.

```
> db.products.estimatedDocumentCount()
10
> db.messages.estimatedDocumentCount()
10
```

### 5. Realizar un CRUD sobre la colección de productos:

#### a) Agregar un producto más en la colección de productos

```
> db.products.insertOne({name: 'Silla', price: '4999', thumbnail: 'url11'})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("6399f3803e8eba197c3ffc69")
}
```

#### b) Realizar una consulta por nombre de producto específico:

##### 1) Listar los productos con precio menor a 1000 pesos

```
> db.products.find({ price: { $lt: 1000 }})
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad01"), "name" : "Botella", "price" : 105, "thumbnail" : "url12" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad05"), "name" : "Vaso", "price" : 790, "thumbnail" : "url16" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad09"), "name" : "Milanesa", "price" : 770, "thumbnail" : "url10" }
```

##### 2) Listar los productos con precio entre los 1000 a 3000 pesos.

```
> db.products.find({$and: [{price: {$gte: 1000}}, {price: {$lte: 3000}}]})
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad03"), "name" : "Billetera", "price" : 1231, "thumbnail" : "url14" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad04"), "name" : "Platos", "price" : 2379, "thumbnail" : "url15" }
```

##### 3) Listar los productos con precio mayor a 3000 pesos

```
> db.products.find({ price: { $gt: 3000 }})
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad00"), "name" : "Anteojos", "price" : 4992, "thumbnail" : "url11" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad02"), "name" : "Zapatillas", "price" : 3002, "thumbnail" : "url13" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad06"), "name" : "Lampara", "price" : 3080, "thumbnail" : "url17" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad07"), "name" : "Espejo", "price" : 3465, "thumbnail" : "url18" }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad08"), "name" : "Ventilador", "price" : 4850, "thumbnail" : "url19" }
```

##### 4) Realizar una consulta que traiga sólo el nombre del tercer producto más barato.

```
> db.products.find().skip(2).limit(1).sort({price: 1})
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad05"), "name" : "Vaso", "price" : 790, "thumbnail" : "url16" }
>
```

c) Hacer una actualización sobre todos los productos, agregando el campo stock a todos ellos con un valor de 100.

```
> db.products.updateMany({}, {$set: {stock: 100}})
{ "acknowledged" : true, "matchedCount" : 11, "modifiedCount" : 11 }
> db.products.find()
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad00"), "name" : "Anteojos", "price" : 4992, "thumbnail" : "url1", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad01"), "name" : "Botella", "price" : 105, "thumbnail" : "url2", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad02"), "name" : "Zapatillas", "price" : 3002, "thumbnail" : "url3", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad03"), "name" : "Billetera", "price" : 1231, "thumbnail" : "url4", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad04"), "name" : "Platos", "price" : 2379, "thumbnail" : "url5", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad05"), "name" : "Vaso", "price" : 790, "thumbnail" : "url6", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad06"), "name" : "Lampara", "price" : 3080, "thumbnail" : "url7", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad07"), "name" : "Espejo", "price" : 3465, "thumbnail" : "url8", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad08"), "name" : "Ventilador", "price" : 4850, "thumbnail" : "url9", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad09"), "name" : "Milanesa", "price" : 770, "thumbnail" : "url10", "stock" : 100 }
{ "_id" : ObjectId("6399f3803e8eba197c3ffc69"), "name" : "Silla", "price" : "4999", "thumbnail" : "url11", "stock" : 100 }
```

d) Cambiar el stock a cero de los productos con precios mayores a 4000 pesos.

```
> db.products.updateMany({price: {$gt: 4000}}, {$set: {stock: 0}})
{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }
> db.products.find()
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad00"), "name" : "Anteojos", "price" : 4992, "thumbnail" : "url1", "stock" : 0 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad01"), "name" : "Botella", "price" : 105, "thumbnail" : "url2", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad02"), "name" : "Zapatillas", "price" : 3002, "thumbnail" : "url3", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad03"), "name" : "Billetera", "price" : 1231, "thumbnail" : "url4", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad04"), "name" : "Platos", "price" : 2379, "thumbnail" : "url5", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad05"), "name" : "Vaso", "price" : 790, "thumbnail" : "url6", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad06"), "name" : "Lampara", "price" : 3080, "thumbnail" : "url7", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad07"), "name" : "Espejo", "price" : 3465, "thumbnail" : "url8", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad08"), "name" : "Ventilador", "price" : 4850, "thumbnail" : "url9", "stock" : 0 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad09"), "name" : "Milanesa", "price" : 770, "thumbnail" : "url10", "stock" : 100 }
{ "_id" : ObjectId("6399f3803e8eba197c3ffc69"), "name" : "Silla", "price" : "4999", "thumbnail" : "url11", "stock" : 100 }
```

(No se porque el del precio 4999 no cambio el stock)

e) Borrar los productos con precio menor a 1000 pesos

```
> db.products.deleteMany({price: {$lt: 1000}})
{ "acknowledged" : true, "deletedCount" : 3 }
> db.products.find()
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad00"), "name" : "Anteojos", "price" : 4992, "thumbnail" : "url1", "stock" : 0 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad02"), "name" : "Zapatillas", "price" : 3002, "thumbnail" : "url3", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad03"), "name" : "Billetera", "price" : 1231, "thumbnail" : "url4", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad04"), "name" : "Platos", "price" : 2379, "thumbnail" : "url5", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad06"), "name" : "Lampara", "price" : 3080, "thumbnail" : "url7", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad07"), "name" : "Espejo", "price" : 3465, "thumbnail" : "url8", "stock" : 100 }
{ "_id" : ObjectId("6399f0a37b0dd0e60456ad08"), "name" : "Ventilador", "price" : 4850, "thumbnail" : "url9", "stock" : 0 }
{ "_id" : ObjectId("6399f3803e8eba197c3ffc69"), "name" : "Silla", "price" : "4999", "thumbnail" : "url11", "stock" : 100 }
```

6) Crear un usuario 'pepe' clave: 'asd456' que sólo pueda leer la base de datos ecommerce.

Verificar que pepe no pueda cambiar la información. (opcional)

```
> db.createUser({ user: 'pepe', pwd: 'asd456', roles: [{ role: 'read', db: 'ecommerce' }] })
Successfully added user: {
  "user" : "pepe",
  "roles" : [
    {
      "role" : "read",
      "db" : "ecommerce"
    }
  ]
}
```