

Exercise (1)

- ▶ Start the MongoDB shell
- ▶ Add a few products to a collection named products in a database named productsdb
- ▶ Each product should have a name, price, and weight attributes
- ▶ Update the price of one of the products
- ▶ Delete another product
- ▶ Show all the products

Exercise (2)

- ▶ Add a blog post document to a blog posts collection
- ▶ The document should contain the following fields:
 - ▶ content – the textual content of the blog
 - ▶ publishedDate – the date the blog was published
 - ▶ comments – an array of comments
 - ▶ Each comment contains an author, date of comment, and the text of the comment
 - ▶ The author should be an embedded document which contains the first and last name of the author

Exercise (3)

- ▶ Create a collection named deliveries with the following documents:

```
{ "_id": 1, "city": "Berkeley", "state": "CA", "qty": 648 }  
{ "_id": 2, "city": "Bend", "state": "OR", "qty": 491 }  
{ "_id": 3, "city": "Kensington", "state": "CA", "qty": 233 }  
{ "_id": 4, "city": "Eugene", "state": "OR", "qty": 842 }  
{ "_id": 5, "city": "Reno", "state": "NV", "qty": 655 }  
{ "_id": 6, "city": "Portland", "state": "OR", "qty": 408 }  
{ "_id": 7, "city": "Sacramento", "state": "CA", "qty": 574 }
```

- ▶ Delete all the deliveries from state CA

Exercise (4)

- ▶ Create a collection named cars with the following documents:

```
{ _id:1, name:"Audi", color:"Red", cno:"H101", mfdcountry:"Germany", speed:75},  
{ _id:2, name:"Swift", color:"Black", cno:"H102", mfdcountry:"Italy", speed:60},  
{ _id:3, name:"Maruthi800", color:"Blue", cno:"H103", mfdcountry:"India", speed:70},  
{ _id:4, name:"Polo", color:"White", cno:"H104", mfdcountry:"Japan", speed:65},  
{ _id:5, name:"Volkswagen", color:"JetBlue", cno:"H105", mfdcountry:"Germany", speed:80}
```

- ▶ Decrease the speed of car no.3 by 10
- ▶ Change the color of the "Polo" car to "Cyan"
- ▶ Update the speed of all the cars manufactured in Germany to 50
- ▶ Add to car no.4 the names of allowed drivers in the car: David, Martha, and James
- ▶ Replace Martha with Lisa in the allowed drivers list of car no. 4

Exercise

- ▶ Download the stocks.json file from here:
<http://nicholasjohnson.com/mongo/datasets/stocks.json>
- ▶ Import the JSON file from the command line using the mongoimport shell command
- ▶ Find all the stocks where the profit is over 0.5
- ▶ Find all the stocks with negative growth

Exercise

- ▶ The following query selects all documents in the collection where the status equals "A" **and** *either* qty is less than (\$lt) 30 *or* item starts with the character p:

```
db.inventory.find( {  
  status: "A",  
  $or: [ { qty: { $lt: 30 } }, { item: /^p/ } ] }  
)
```

Exercise

- ▶ A collection named deliveries contains the following documents:

```
{ "_id" : 1, "city" : "Berkeley, CA", "qty" : 648 }  
{ "_id" : 2, "city" : "Bend, OR", "qty" : 491 }  
{ "_id" : 3, "city" : "Kensington, CA", "qty" : 233 }  
{ "_id" : 4, "city" : "Eugene, OR", "qty" : 842 }  
{ "_id" : 5, "city" : "Reno, NV", "qty" : 655 }  
{ "_id" : 6, "city" : "Portland, OR", "qty" : 408 }  
{ "_id" : 7, "city" : "Sacramento, CA", "qty" : 574 }
```

- ▶ Find the total quantity of deliveries for each state and sort the list in descending order
- ▶ The result should look like this:

```
{ "_id" : { "state" : "OR" }, "total_qty" : 1741 }  
{ "_id" : { "state" : "CA" }, "total_qty" : 1455 }  
{ "_id" : { "state" : "NV" }, "total_qty" : 655 }
```

Exercise

- ▶ Write the following queries in the Mongo shell:
 - ▶ Select all books
 - ▶ Select all books whose pageCount is between 800 and 1,000
 - ▶ Select all books that have more than one author
 - ▶ Select all books that were published after 1/1/2000
 - ▶ Select all books that belong to the category “Internet” or “Web Development”
 - ▶ Select all books whose title contains more than 20 characters
 - ▶ Select all books whose title contains the word “Action”
 - ▶ Select all books whose title contains at least 5 words
- ▶ Add a new book to the collection
- ▶ Delete the book