

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

Part 1

Within your inventory collection, run queries to accomplish the following:

1. Update the item of journal to have a height of 16.

Queries:

```
db.inventory.updateOne({item: "journal"}, {$set: {'size.h': 16}})
```

```
db.inventory.find({item: "journal"}).pretty()
```

Results:

```
MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({item: "journal"}).pretty()
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ea"),
  "item" : "journal",
  "qty" : 25,
  "size" : {
    "h" : 16,
    "w" : 21,
    "uom" : "cm"
  },
  "status" : "A",
  "price" : 16.49,
  "sale" : true
}
```

2. Update all items with a status of D to have a quantity of 50.

Queries:

```
db.inventory.updateMany({status: "D"}, {$set: {qty: 50}}, {upsert: true})
```

```
db.inventory.find({status: "D"}).pretty()
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

Results:

```
MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({status: "D"}).pretty()
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ed"),
  "item" : "day planner",
  "qty" : 50,
  "size" : {
    "h" : 22.85,
    "w" : 30,
    "uom" : "cm"
  },
  "status" : "D",
  "price" : 25.29,
  "sale" : true
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ec"),
  "item" : "paper",
  "qty" : 50,
  "size" : {
    "h" : 8.5,
    "w" : 11,
    "uom" : "in"
  },
  "status" : "D",
  "price" : 6.99,
  "sale" : true
}
```

3. Update the item paper to include a field rating that has the value of 4 stars and change its status to A.

Queries:

```
db.inventory.updateOne({item: "paper"}, {$set: {rating: "4 stars", status: "A"}}, {upsert: true})
db.inventory.find({item: "paper"}).pretty()
```

Results:

```
MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({item: "paper"}).pretty()
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ec"),
  "item" : "paper",
  "qty" : 50,
  "size" : {
    "h" : 8.5,
    "w" : 11,
    "uom" : "in"
  },
  "status" : "A",
  "price" : 6.99,
  "sale" : true,
  "rating" : "4 stars"
}
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

4. Update all items to change the h and w fields to be height and width.

Queries:

```
db.inventory.updateMany({}, {$rename: {'size.h': 'height', 'size.w': 'width'}})
```

```
db.inventory.find({}).pretty()
```

SOLUTION:

```
db.inventory.updateMany({}, {$rename: {"size.h": "size.height", "size.w": "size.width"}})
```

Results:

```
MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({}).pretty()
```

```
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ed"),
  "item" : "day planner",
  "qty" : 50,
  "size" : {
    "uom" : "cm"
  },
  "status" : "D",
  "price" : 25.29,
  "sale" : true,
  "height" : 22.85,
  "width" : 30
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ee"),
  "item" : "calendar",
  "size" : {
    "uom" : "in"
  },
  "status" : "B",
  "price" : 5.99,
  "sale" : false,
  "height" : 21.75,
  "width" : 17
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ea"),
  "item" : "journal",
  "qty" : 25,
  "size" : {
    "uom" : "cm"
  },
  "status" : "A",
  "price" : 16.49,
  "sale" : true,

```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
"height" : 16,
"width" : 21
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ef"),
  "item" : "scissor",
  "qty" : 15,
  "size" : {
    "uom" : "in"
  },
  "status" : "B",
  "price" : 11.59,
  "sale" : true,
  "height" : 8,
  "width" : 4.25
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ec"),
  "item" : "paper",
  "qty" : 50,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 6.99,
  "sale" : true,
  "rating" : "4 stars",
  "height" : 8.5,
  "width" : 11
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94eb"),
  "item" : "spiral notebook",
  "qty" : 50,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 4.79,
  "sale" : false,
  "height" : 8.5,
  "width" : 11
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94f0"),
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
"item" : "tape dispenser",
"qty" : 5,
"size" : {
  "uom" : "in"
},
"status" : "A",
"price" : 3.09,
"sale" : true,
"height" : 3,
"width" : 7
}
```

5. Update the item spiral notebook so that the height and width is incremented by 2.

Queries:

```
db.inventory.updateOne({item: "spiral notebook"}, { $inc: { height: 2, width: 2 } })
db.inventory.find({item: "spiral notebook"}).pretty()
```

Results:

```
MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({item: "spiral notebook"}).pretty()
{
  "_id" : ObjectId("60ea48a9e476c52472cb94eb"),
  "item" : "spiral notebook",
  "qty" : 50,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 4.79,
  "sale" : false,
  "height" : 10.5,
  "width" : 13
}
```

6. Update the items paper and day planner to multiply the height by 3.

Queries:

```
db.inventory.updateOne({item: "paper"}, {$mul: {height: 3}})
db.inventory.updateOne({item: "day planner"}, {$mul: {height: 3}})
db.inventory.find({$or: [{item: "paper"}, {item: "day planner"}]}).pretty()
```

Results:

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({$or: [{item: "paper"}, {item: "day planner"}]}).pretty()
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ed"),
  "item" : "day planner",
  "qty" : 50,
  "size" : {
    "uom" : "cm"
  },
  "status" : "D",
  "price" : 25.29,
  "sale" : true,
  "height" : 68.55000000000001,
  "width" : 30
},
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ec"),
  "item" : "paper",
  "qty" : 50,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 6.99,
  "sale" : true,
  "rating" : "4 stars",
  "height" : 25.5,
  "width" : 11
}
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

Part 2

For the second part, you will be working through a word problem and you will need a bit more information. Please run the following query to add documents into your inventory collection then complete the below requirements:

```
db.inventory.insertMany([
  {
    item: 'sticky note pads',
    size: { height: 8.9, width: 9, uom: 'cm' },
    status: 'B',
    quantity: 5
  },
  {
    item: 'pens',
    size: { height: 12, width: 1.3, uom: 'cm' },
    status: 'A',
    quantity: 4
  },
  {
    item: 'pencils',
    size: { height: 13, width: 1.4, uom: 'cm' },
    status: 'D',
    quantity: 10
  },
  {
    item: 'clipboard',
    size: { height: 13, width: 7, uom: 'in' },
    status: 'B',
    quantity: 2
  },
  {
    item: 'printer ink',
    size: { height: 2, width: 3, uom: 'in' },
    status: 'C',
    quantity: 2
  }
]);
```

The company you are working for wants to update their inventory database. Currently, there are ten pieces of inventory in the database. They want to give each product a rating of 4 stars to start, as well as a field that shows if it has been rated yet using a boolean. They would like this to be reflected in the database as rating with two fields: numberOfStars, and hasBeenRated. Also, they want to double the quantity of every product since the company is rapidly growing. Lastly, they would like you to find all products that are sized using centimeters and give them a status of "B".

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

Queries:

```
db.inventory.updateMany({}, {$set: {rating: {numberOfStars: 4, hasBeenRated: true}}}, {upsert: true})
db.inventory.updateMany({}, {$mul: {qty: 2}})
db.inventory.updateMany({'size.uom': 'cm'}, {$set: {status: "B"}}, {upsert: true})
db.inventory.inventory.find({})
```

Results:

MongoDB Enterprise atlas-y1r8u5-shard-0:PRIMARY> db.inventory.find({}).pretty()

```
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ed"),
  "item" : "day planner",
  "qty" : 100,
  "size" : {
    "uom" : "cm"
  },
  "status" : "B",
  "price" : 25.29,
  "sale" : true,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  }
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ee"),
  "item" : "calendar",
  "size" : {
    "uom" : "in"
  },
  "status" : "B",
  "price" : 5.99,
  "sale" : false,
  "height" : 21.75,
  "width" : 17,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  },
  "qty" : 0
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ea"),
  "item" : "journal",
  "qty" : 50,
```


NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
"size" : {
  "uom" : "cm"
},
"status" : "B",
"price" : 16.49,
"sale" : true,
"height" : 16,
"width" : 21,
"rating" : {
  "numberOfStars" : 4,
  "hasBeenRated" : true
}
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ef"),
  "item" : "scissor",
  "qty" : 30,
  "size" : {
    "uom" : "in"
  },
  "status" : "B",
  "price" : 11.59,
  "sale" : true,
  "height" : 8,
  "width" : 4.25,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  }
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94ec"),
  "item" : "paper",
  "qty" : 100,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 6.99,
  "sale" : true,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  },
  "height" : 25.5,
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
"width" : 11
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94eb"),
  "item" : "spiral notebook",
  "qty" : 100,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 4.79,
  "sale" : false,
  "height" : 10.5,
  "width" : 13,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  }
}
{
  "_id" : ObjectId("60ea48a9e476c52472cb94f0"),
  "item" : "tape dispenser",
  "qty" : 10,
  "size" : {
    "uom" : "in"
  },
  "status" : "A",
  "price" : 3.09,
  "sale" : true,
  "height" : 3,
  "width" : 7,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  }
}
{
  "_id" : ObjectId("60ee398f8ba77380370c4484"),
  "item" : "sticky note pads",
  "size" : {
    "height" : 8.9,
    "width" : 9,
    "uom" : "cm"
  },
  "status" : "B",
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
"quantity" : 5,
"rating" : {
  "numberOfStars" : 4,
  "hasBeenRated" : true
},
"qty" : 0
}
{
  "_id" : ObjectId("60ee398f8ba77380370c4485"),
  "item" : "pens",
  "size" : {
    "height" : 12,
    "width" : 1.3,
    "uom" : "cm"
  },
  "status" : "B",
  "quantity" : 4,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  },
  "qty" : 0
}
{
  "_id" : ObjectId("60ee398f8ba77380370c4486"),
  "item" : "pencils",
  "size" : {
    "height" : 13,
    "width" : 1.4,
    "uom" : "cm"
  },
  "status" : "B",
  "quantity" : 10,
  "rating" : {
    "numberOfStars" : 4,
    "hasBeenRated" : true
  },
  "qty" : 0
}
{
  "_id" : ObjectId("60ee398f8ba77380370c4487"),
  "item" : "clipboard",
  "size" : {
    "height" : 13,
    "width" : 7,
```

NoSQL-HandsOn3

Alberta “Albi” Kovatcheva

```
        "uom" : "in"
    },
    "status" : "B",
    "quantity" : 2,
    "rating" : {
        "numberOfStars" : 4,
        "hasBeenRated" : true
    },
    "qty" : 0
}
{
    "_id" : ObjectId("60ee398f8ba77380370c4488"),
    "item" : "printer ink",
    "size" : {
        "height" : 2,
        "width" : 3,
        "uom" : "in"
    },
    "status" : "C",
    "quantity" : 2,
    "rating" : {
        "numberOfStars" : 4,
        "hasBeenRated" : true
    },
    "qty" : 0
}
```