//Create a database called 'my\_first\_db'.

use my\_first\_db

switched to db my\_first\_db

//Create students collection.

db.createCollection("students")

//Each document you insert into this collection should have the following format: ({name: STRING, home\_state: STRING, lucky\_number: NUMBER, birthday: {month: NUMBER, day: NUMBER, year: NUMBER}})

db.students.insert({name:"Emma",home\_state:"California",lucky\_number:5,birthday:{month:12,day:19,year:2003}})

db.students.insert({name:"Alex",home\_state:"California",lucky\_number:7,birthday:{month:11,day:26,year:2000}})

db.students.insert({name:"Sam",home\_state:"Washington",lucky\_number:13,birthday:{month:2,day:13,year:2000}})

db.students.insert({name:"Cole",home\_state:"California",lucky\_number:14,birthday:{month:5,day:5,year:2001}})

db.students.insert({name:"Sierra",home\_state:"Washington",lucky\_number:11,birthday:{month:8,day:15,year:2002}})

//Get all students

db.students.find()

{ "\_id" : ObjectId("65022a6d31181d875edbed56"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 }

{ "\_id" : ObjectId("65022ae331181d875edbed57"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 }

{ "\_id" : ObjectId("65022c1d31181d875edbed58"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }

{ "\_id" : ObjectId("65022c9e31181d875edbed59"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }

{ "\_id" : ObjectId("65022d1231181d875edbed5a"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

//Retrieve all students who are from California (San Jose Dojo) or Washington (Seattle Dojo).

db.students.find({home\_state:"California"})

{ "\_id" : ObjectId("65022a6d31181d875edbed56"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 }

{ "\_id" : ObjectId("65022ae331181d875edbed57"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 }

{ "\_id" : ObjectId("65022c9e31181d875edbed59"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }

db.students.find({home\_state:"Washington"})

{ "\_id" : ObjectId("65022c1d31181d875edbed58"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }

{ "\_id" : ObjectId("65022d1231181d875edbed5a"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

//Get all students whose lucky number is greater than 3

db.students.find({lucky\_number:{$gt:3}})

{ "\_id" : ObjectId("65022a6d31181d875edbed56"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 }

{ "\_id" : ObjectId("65022ae331181d875edbed57"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 }

{ "\_id" : ObjectId("65022c1d31181d875edbed58"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }

{ "\_id" : ObjectId("65022c9e31181d875edbed59"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }

{ "\_id" : ObjectId("65022d1231181d875edbed5a"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

//Get all students whose lucky number is less than or equal to 10

db.students.find({lucky\_number:{$lte:10}})

{ "\_id" : ObjectId("65022c1d31181d875edbed58"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }

{ "\_id" : ObjectId("65022c9e31181d875edbed59"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }

{ "\_id" : ObjectId("65022d1231181d875edbed5a"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

//Get all students whose lucky number is between 1 and 9 (inclusive)

db.students.find({lucky\_number:{$gte: 1 , $lte: 9}})

{ "\_id" : ObjectId("65022a6d31181d875edbed56"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 }

{ "\_id" : ObjectId("65022ae331181d875edbed57"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 }

//Add a field named 'interests' to all student documents in the collection. The field should be an array and contain the following entries: 'coding', 'brunch', MongoDB'. Add this field to all documents using a single command.

db.students.updateMany({},{$set:{interests:['coding','brunch','MongoDB']}})

{ "acknowledged" : true, "matchedCount" : 5, "modifiedCount" : 5 }

{ "\_id" : ObjectId("65023ee44bb3e0ff7ee80075"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 },

"interests" : [ "coding", "brunch", "MongoDB" ] }

{ "\_id" : ObjectId("65023ef74bb3e0ff7ee80076"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 },

"interests" : [ "coding", "brunch", "MongoDB" ] }

{ "\_id" : ObjectId("65023f0a4bb3e0ff7ee80077"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

interests" : [ "coding", "brunch", "MongoDB" ] }

{ "\_id" : ObjectId("65023f194bb3e0ff7ee80078"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }, "

interests" : [ "coding", "brunch", "MongoDB" ] }

{ "\_id" : ObjectId("65023f284bb3e0ff7ee80079"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB" ] }

// Add some unique interests for each particular student into each of their interest arrays.

db.students.update({\_id: ObjectId("65023ee44bb3e0ff7ee80075")}, {$push: {interests: 'cooking'}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.students.update({\_id: ObjectId("65023ef74bb3e0ff7ee80076")}, {$push: {interests: 'snowboarding'}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

db.students.update({\_id: ObjectId("65023f0a4bb3e0ff7ee80077")}, {$push: {interests: 'surfing'}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.students.update({\_id: ObjectId("65023f194bb3e0ff7ee80078")}, {$push: {interests: 'football'}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

db.students.update({\_id: ObjectId("65023f284bb3e0ff7ee80079")}, {$push: {interests: 'painting'}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

{ "\_id" : ObjectId("65023ee44bb3e0ff7ee80075"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 },

"interests" : [ "coding", "brunch", "MongoDB", "cooking" ] }

{ "\_id" : ObjectId("65023ef74bb3e0ff7ee80076"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 },

"interests" : [ "coding", "brunch", "MongoDB", "snowboarding" ] }

{ "\_id" : ObjectId("65023f0a4bb3e0ff7ee80077"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

interests" : [ "coding", "brunch", "MongoDB", "surfing" ] }

{ "\_id" : ObjectId("65023f194bb3e0ff7ee80078"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }, "

interests" : [ "coding", "brunch", "MongoDB", "football" ] }

{ "\_id" : ObjectId("65023f284bb3e0ff7ee80079"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ] }

//Add the interest 'taxes' into someone's interest array.

db.students.update({\_id: ObjectId("65023f0a4bb3e0ff7ee80077")}, {$push: {interests: 'taxes'}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

db.students.find({\_id: ObjectId("65023f0a4bb3e0ff7ee80077")})

{ "\_id" : ObjectId("65023f0a4bb3e0ff7ee80077"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

interests" : [ "coding", "brunch", "MongoDB", "surfing", "taxes" ] }

//Remove the 'taxes' interest you just added.

db.students.update( { \_id: ObjectId("65023f0a4bb3e0ff7ee80077")}, { $pop: { interests: 1 } } )

db.students.find({\_id: ObjectId("65023f0a4bb3e0ff7ee80077")})

{ "\_id" : ObjectId("65023f0a4bb3e0ff7ee80077"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

interests" : [ "coding", "brunch", "MongoDB", "surfing" ] }

// Remove a student by name.

db.students.remove({name: "Sam"})

WriteResult({ "nRemoved" : 1 })

db.students.find()

{ "\_id" : ObjectId("65023ee44bb3e0ff7ee80075"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 },

"interests" : [ "coding", "brunch", "MongoDB", "cooking" ] }

{ "\_id" : ObjectId("65023ef74bb3e0ff7ee80076"), "name" : "Alex", "home\_state" : "California", "lucky\_number" : 7, "birthday" : { "month" : 11, "day" : 26, "year" : 2000 },

"interests" : [ "coding", "brunch", "MongoDB", "snowboarding" ] }

{ "\_id" : ObjectId("65023f194bb3e0ff7ee80078"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }, "

interests" : [ "coding", "brunch", "MongoDB", "football" ] }

{ "\_id" : ObjectId("65023f284bb3e0ff7ee80079"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ] }

// Remove a student whose lucky number is greater than 5 (JUST ONE)

db.students.remove({lucky\_number: {$gt:5}}, true)

WriteResult({ "nRemoved" : 1 })

db.students.find()

{ "\_id" : ObjectId("65023ee44bb3e0ff7ee80075"), "name" : "Emma", "home\_state" : "California", "lucky\_number" : 5, "birthday" : { "month" : 12, "day" : 19, "year" : 2003 },

"interests" : [ "coding", "brunch", "MongoDB", "cooking" ] }

{ "\_id" : ObjectId("65024bc08a064e129b6e378c"), "name" : "Cole", "home\_state" : "California", "lucky\_number" : 14, "birthday" : { "month" : 5, "day" : 5, "year" : 2001 }, "

interests" : [ "coding", "brunch", "MongoDB", "football" ] }

{ "\_id" : ObjectId("65024bd48a064e129b6e378d"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ] }

// Remove all students who are from California

db.students.remove({home\_state:"California"})

WriteResult({ "nRemoved" : 2 })

db.students.find()

{ "\_id" : ObjectId("65024bd48a064e129b6e378d"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ] }

// Add a field to each student document called 'number\_of\_belts' and set it to 0.

db.students.updateMany({},{$set:{number\_of\_belts: 0}})

{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }

db.students.find()

{ "\_id" : ObjectId("65024bd48a064e129b6e378d"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ], "number\_of\_belts" : 0 }

{ "\_id" : ObjectId("65024fae8a064e129b6e378e"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

number\_of\_belts" : 0 }

// Increment this field by 1 for all students in Washington (Seattle Dojo)

db.students.updateMany({home\_state: "Washington"}, {$set: {number\_of\_belts: 1}})

{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }

db.students.find()

{ "\_id" : ObjectId("65024bd48a064e129b6e378d"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ], "number\_of\_belts" : 1 }

{ "\_id" : ObjectId("65024fae8a064e129b6e378e"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

number\_of\_belts" : 1 }

//Rename the 'number\_of\_belts' field to 'belts\_earned'

db.students.updateMany({},{$rename :{‘number\_of\_belts’ :’belts\_earned’}}

{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }

db.students.find()

{ "\_id" : ObjectId("65024bd48a064e129b6e378d"), "name" : "Sierra", "home\_state" : "Washington", "lucky\_number" : 11, "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }

, "interests" : [ "coding", "brunch", "MongoDB", "painting" ], "number\_of\_belts" :1}

{ "\_id" : ObjectId("65024fae8a064e129b6e378e"), "name" : "Sam", "home\_state" : "Washington", "lucky\_number" : 13, "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "

number\_of\_belts" : 1 }

// Remove the 'lucky\_number' field.

db.students.updateMany({}, {$unset: {'lucky\_number': ''}})

{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }

db.students.find()

{ "\_id" : ObjectId("65024bd48a064e129b6e378d"), "name" : "Sierra", "home\_state" : "Washington", "birthday" : { "month" : 8, "day" : 15, "year" : 2002 }, "interests" : [ "co

ding", "brunch", "MongoDB", "painting" ], "number\_of\_belts" : 1}

{ "\_id" : ObjectId("65024fae8a064e129b6e378e"), "name" : "Sam", "home\_state" : "Washington", "birthday" : { "month" : 2, "day" : 13, "year" : 2000 }, "number\_of\_belts" : 1,}