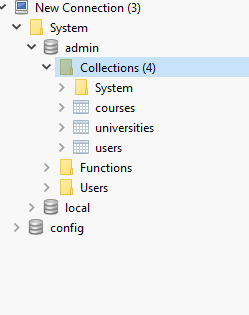
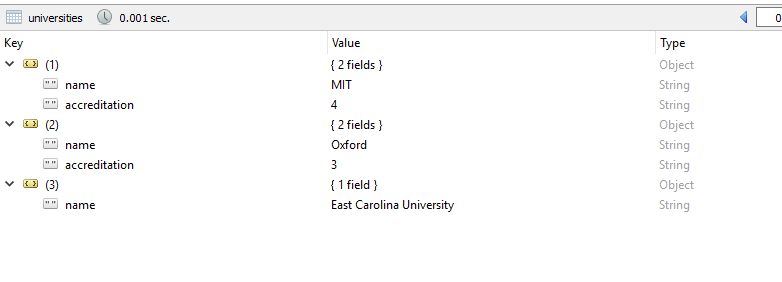
**Task**

1. Install MongoDB Server
2. Download MongoDB - <https://www.mongodb.com/download-center#community>
3. Install it
4. Create C:\data\db
5. Run mongod.exe via CMD or PowerShell (as administrator)
6. Download Robo 3T - <https://robomongo.org>
7. Connect to your local MongoDB
8. Install Robo 3T
9. Create three collections:
   1. “**universities**”;
   2. “**users**”;
   3. ” **courses**”



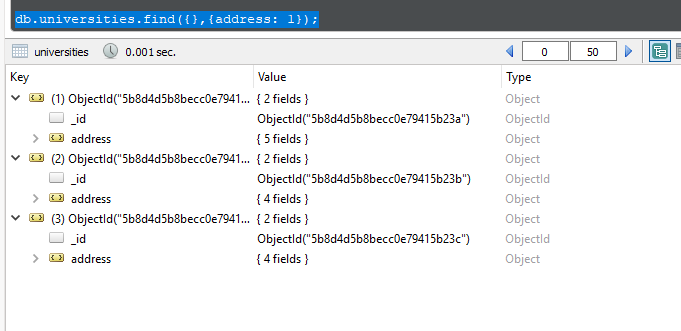
1. Insert data into the created collections (use scripts from InsertsToDB.docx)
2. Write next queries:
   1. Select all universities. Show name and accreditation

db.universities.find ({},{name:1, accreditation:1,\_id:0})



* 1. Select university without coordinates. Show only Address information.

db.universities.find({},{address: 1});

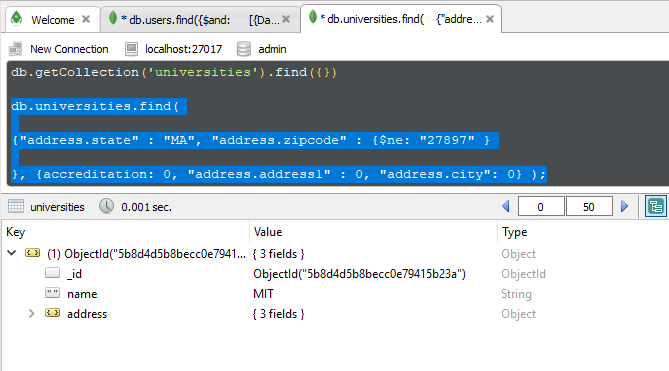


* 1. Select university with State = “MA” and zipcode **not** equal to “27897”. Show id, name, state, zipcode

db.universities.find(

{"address.state" : "MA", "address.zipcode" : {$ne: "27897" }

}, {accreditation: 0, "address.address1" : 0, "address.city": 0} );



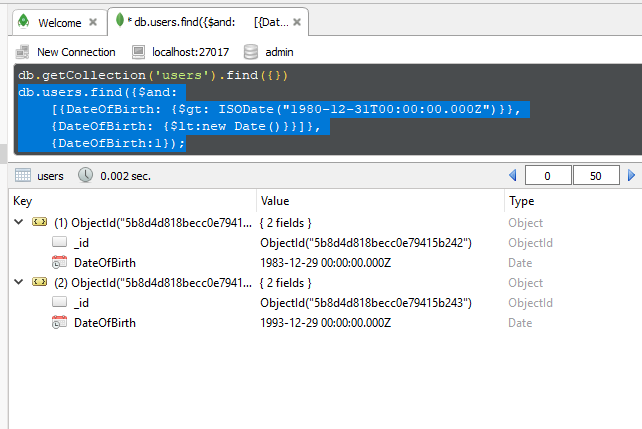
* 1. Select users with Date of Birth more than (>) 1980 year and less than current date. Show only Date of Birth

db.users.find({$and:

[{DateOfBirth: {$gt: ISODate("1980-12-31T00:00:00.000Z")}},

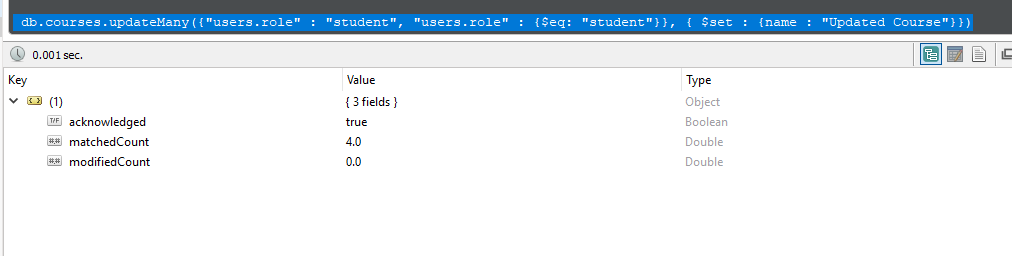
{DateOfBirth: {$lt:new Date()}}]},

{DateOfBirth:1});



* 1. Change course name and delete all other information (university\_id, users) for course, which contains only students.

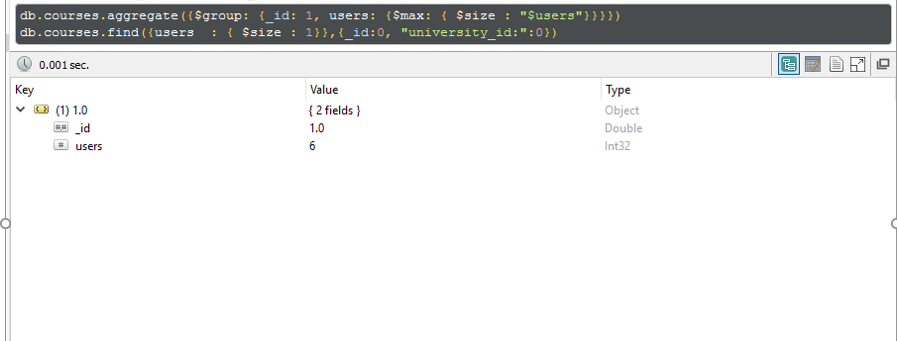
db.courses.updateMany({"users.role" : "student", "users.role" : {$eq: "student"}}, { $set : {name : "Updated Course"}})



* 1. Select courses with max number of users. Show course name, user roles, amount of users.

db.courses.aggregate({$group: {\_id: 1, users: {$max: {$size : "$users"}}}})

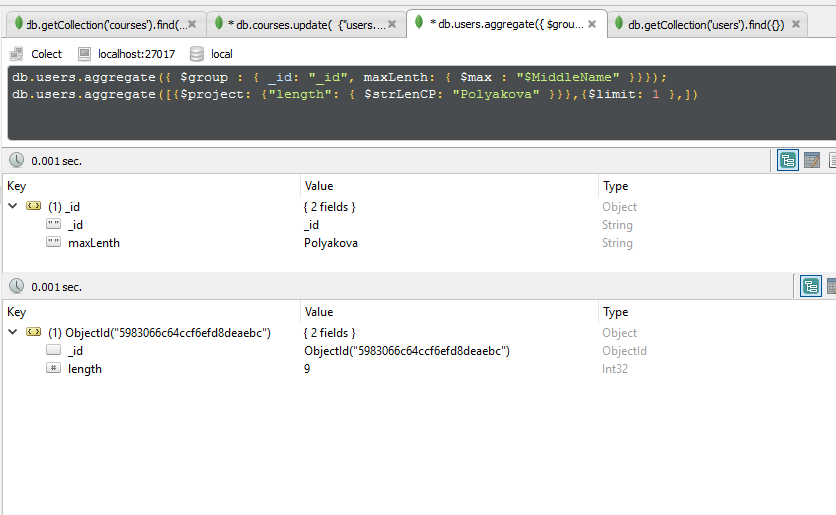
db.courses.find({users : {$size : 1}},{\_id:0, "university\_id:":0})



* 1. \*Select user with the longest MiddleName. Show \_id, MiddleName, length.

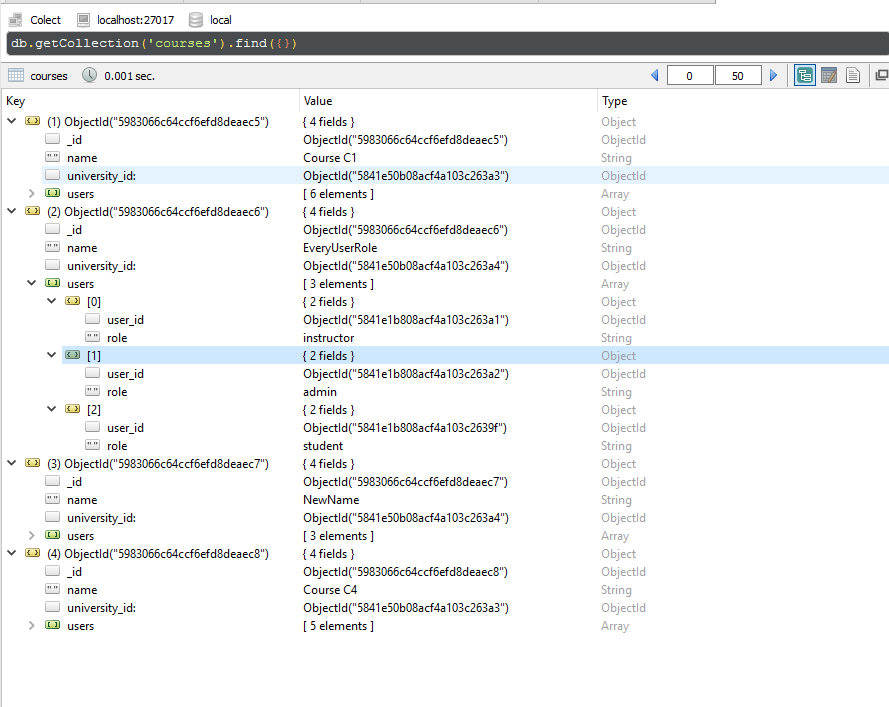
db.users.aggregate({ $group : { \_id: "\_id", maxLenth: { $max : "$MiddleName"}}});

db.users.aggregate([{$project: {"length": { $strLenCP: "Polyakova" }}},{$limit: 1 },])



* 1. Update ***only*** the course name, which contains every user role.

db.getCollection('courses').find({})



* 1. Replace User document with Name = “Pavel” (insert your values and pay attention for the new structure. Use .find() before replacement and compare values after)
  2. Delete user which has only LastName by 2 ways (use delete()and remove() commands)(i.e. MiddleName, Date of Birth, First Name are null).

