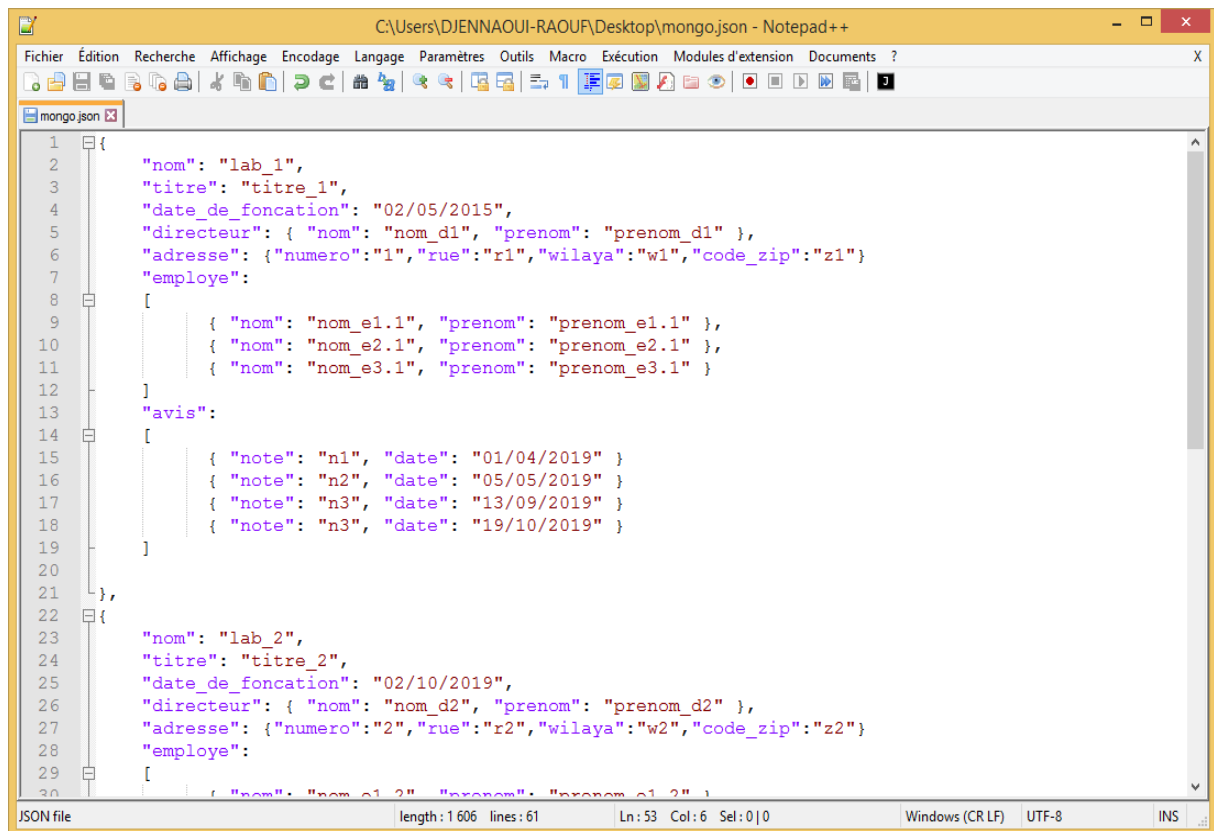


TP 4 MONGODB

DJENNAOUI RAOUF 201400002338

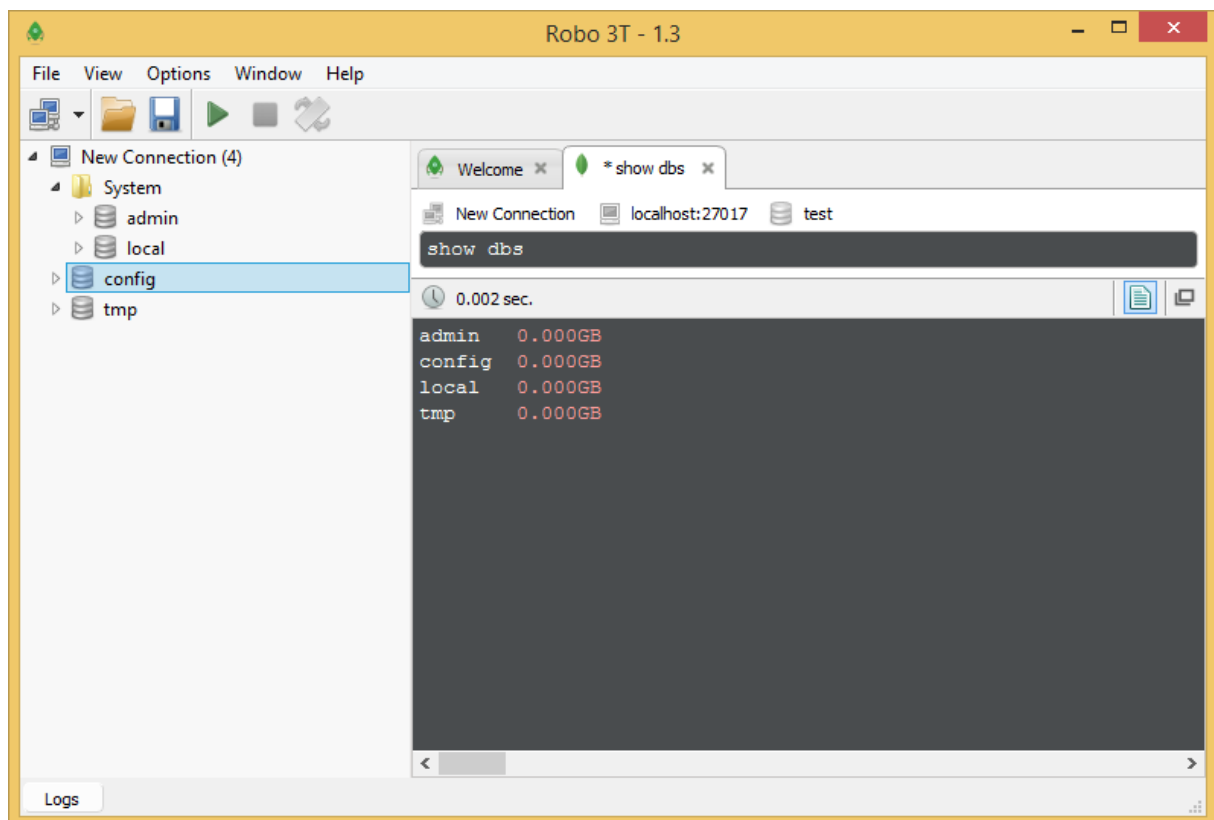
1)



```
1 {
2   "nom": "lab_1",
3   "titre": "titre_1",
4   "date_de_fonction": "02/05/2015",
5   "directeur": { "nom": "nom_d1", "prenom": "prenom_d1" },
6   "adresse": { "numero": "1", "rue": "r1", "wilaya": "w1", "code_zip": "z1" }
7   "employe":
8     [
9       { "nom": "nom_e1.1", "prenom": "prenom_e1.1" },
10      { "nom": "nom_e2.1", "prenom": "prenom_e2.1" },
11      { "nom": "nom_e3.1", "prenom": "prenom_e3.1" }
12    ]
13   "avis":
14     [
15       { "note": "n1", "date": "01/04/2019" },
16       { "note": "n2", "date": "05/05/2019" },
17       { "note": "n3", "date": "13/09/2019" },
18       { "note": "n3", "date": "19/10/2019" }
19     ]
20 }
21 },
22 {
23   "nom": "lab_2",
24   "titre": "titre_2",
25   "date_de_fonction": "02/10/2019",
26   "directeur": { "nom": "nom_d2", "prenom": "prenom_d2" },
27   "adresse": { "numero": "2", "rue": "r2", "wilaya": "w2", "code_zip": "z2" }
28   "employe":
29     [
30       { "nom": "nom_e1.2", "prenom": "prenom_e1.2" }
```

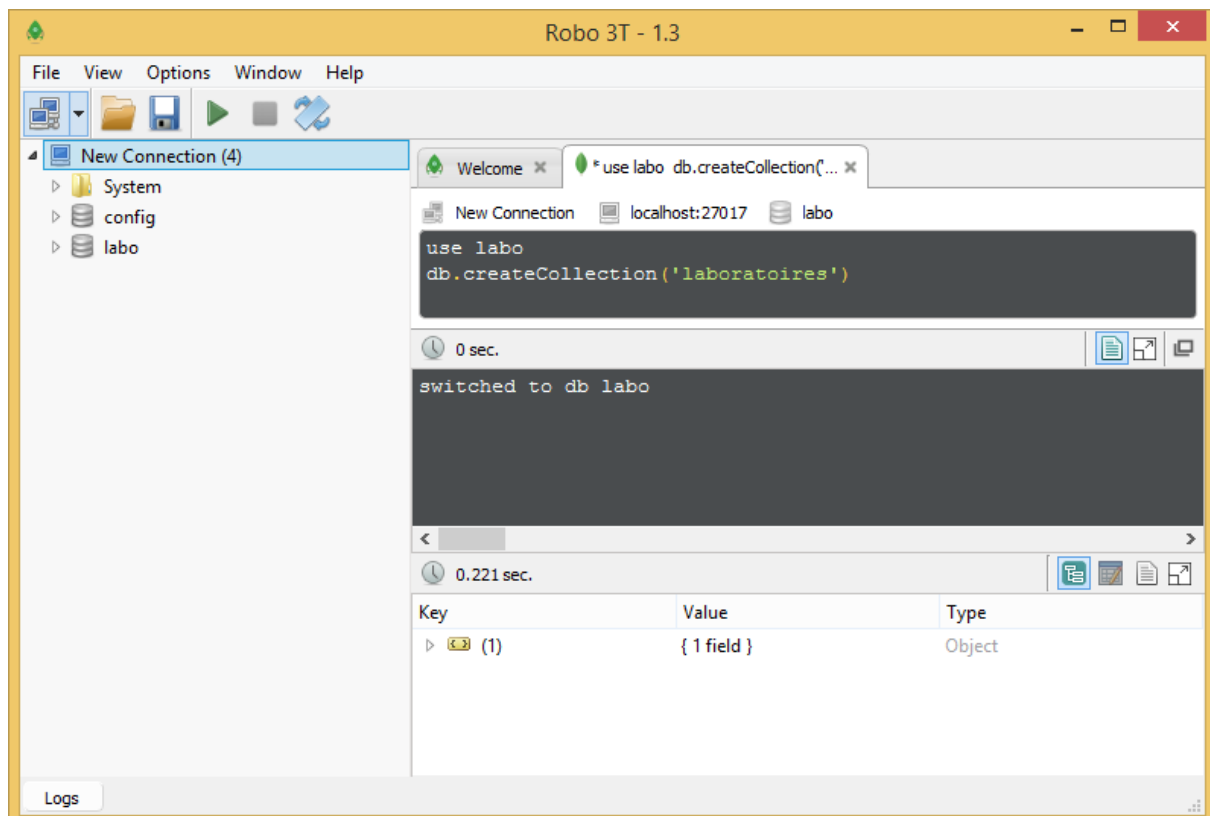
JSON file length: 1 606 lines: 61 Ln: 53 Col: 6 Sel: 0|0 Windows (CR LF) UTF-8 INS

2) show dbs



3) use labo

db.createCollection('laboratoires')

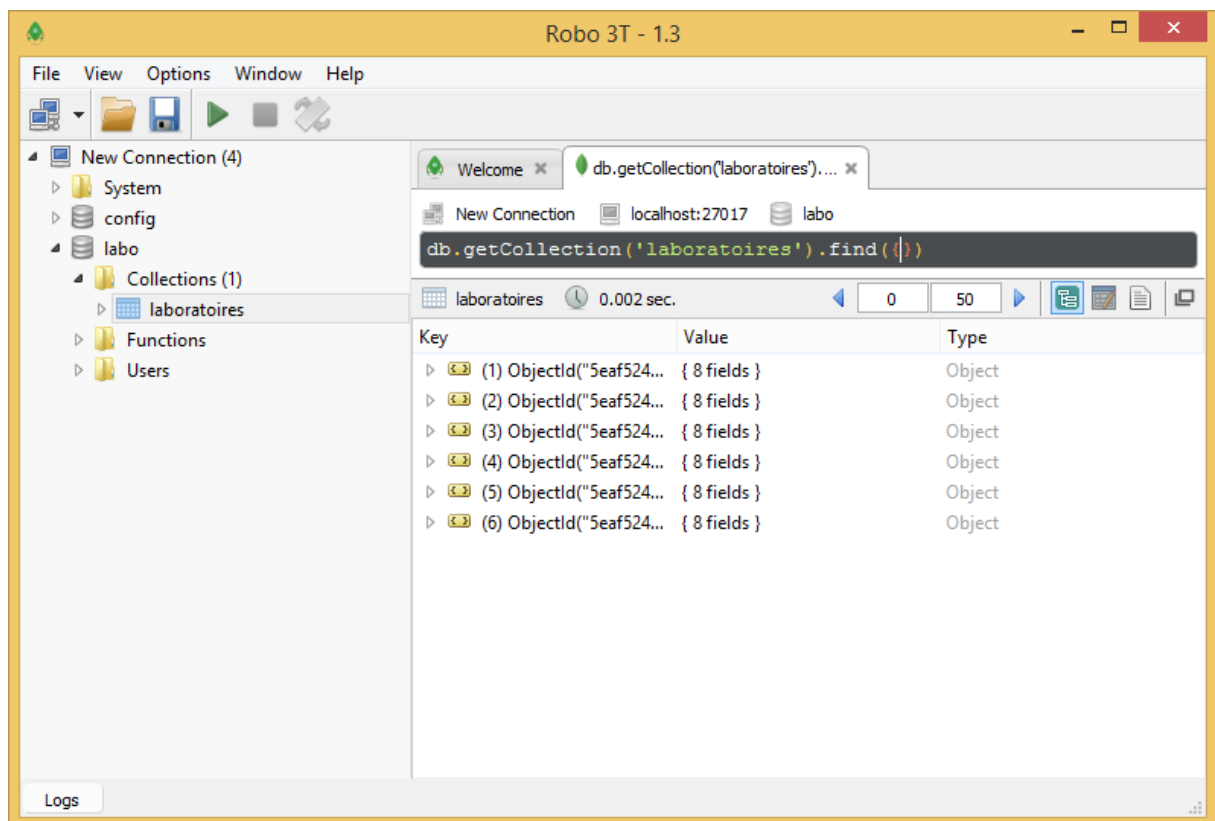


mongoimport --db labo --collection laboratoires --file mongo.json --
jsonArray

```
Invite de commandes

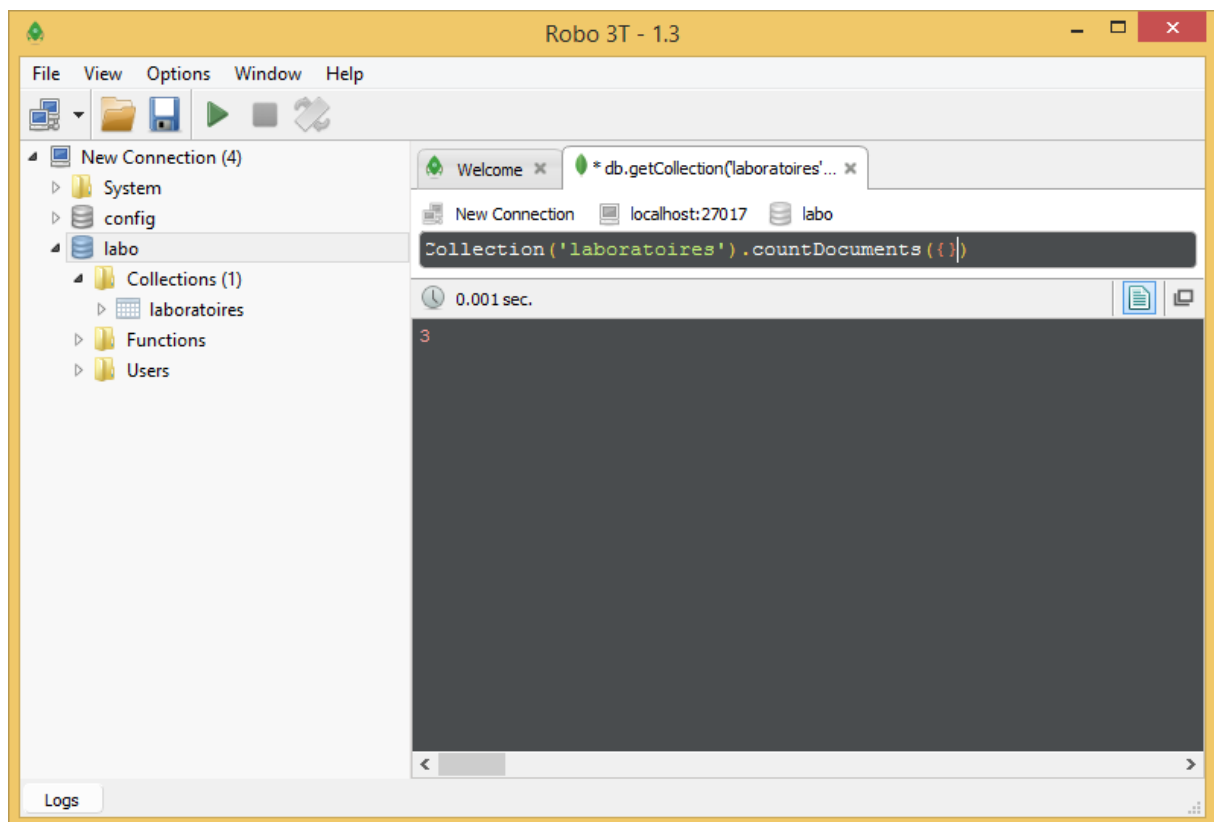
C:\Users\DJENNAOUI-RAOUF\Desktop>mongoimport --db labo --collection laboratoires
--file mongo.json --jsonArray
2020-05-04T01:22:47.297+0200    connected to: mongodb://localhost/
2020-05-04T01:22:47.339+0200    3 document(s) imported successfully. 0 document(s)
failed to import.

C:\Users\DJENNAOUI-RAOUF\Desktop>
```



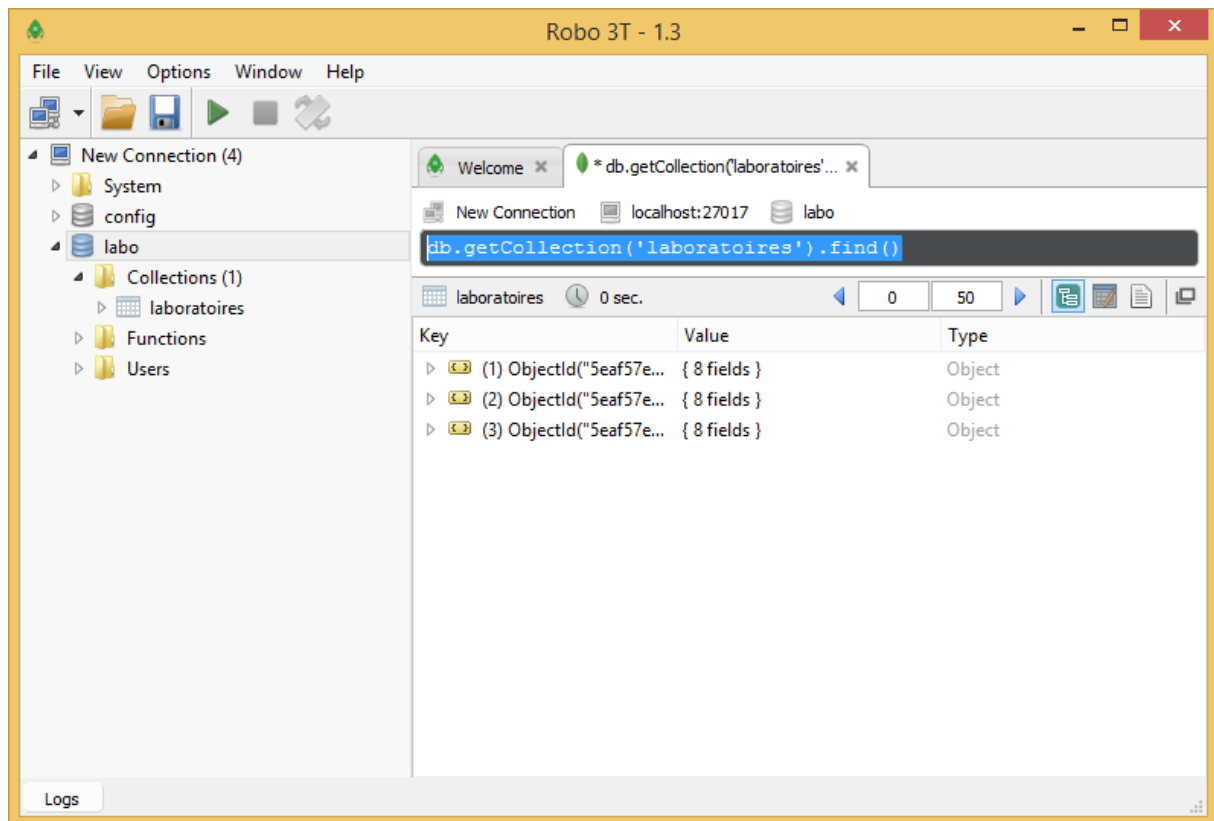
3.1)

```
db.getCollection('laboratoires').countDocuments({})
```



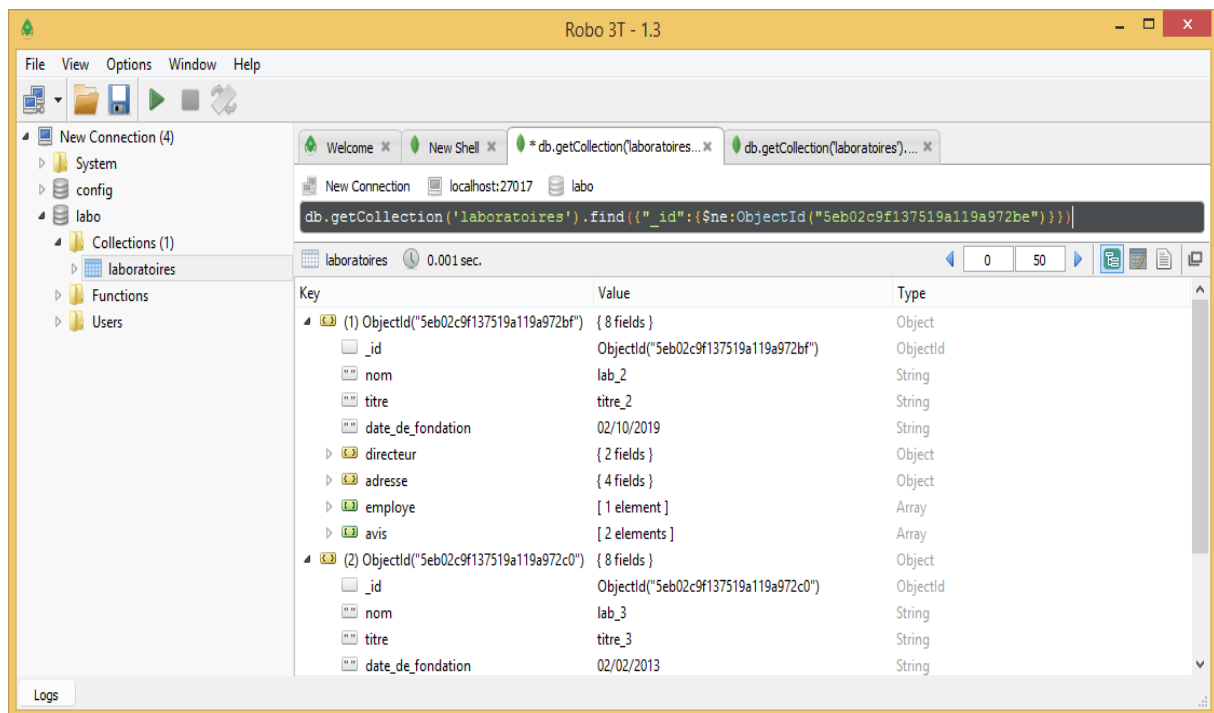
le resultat = 3

4) `db.getCollection('laboratoires').find()`

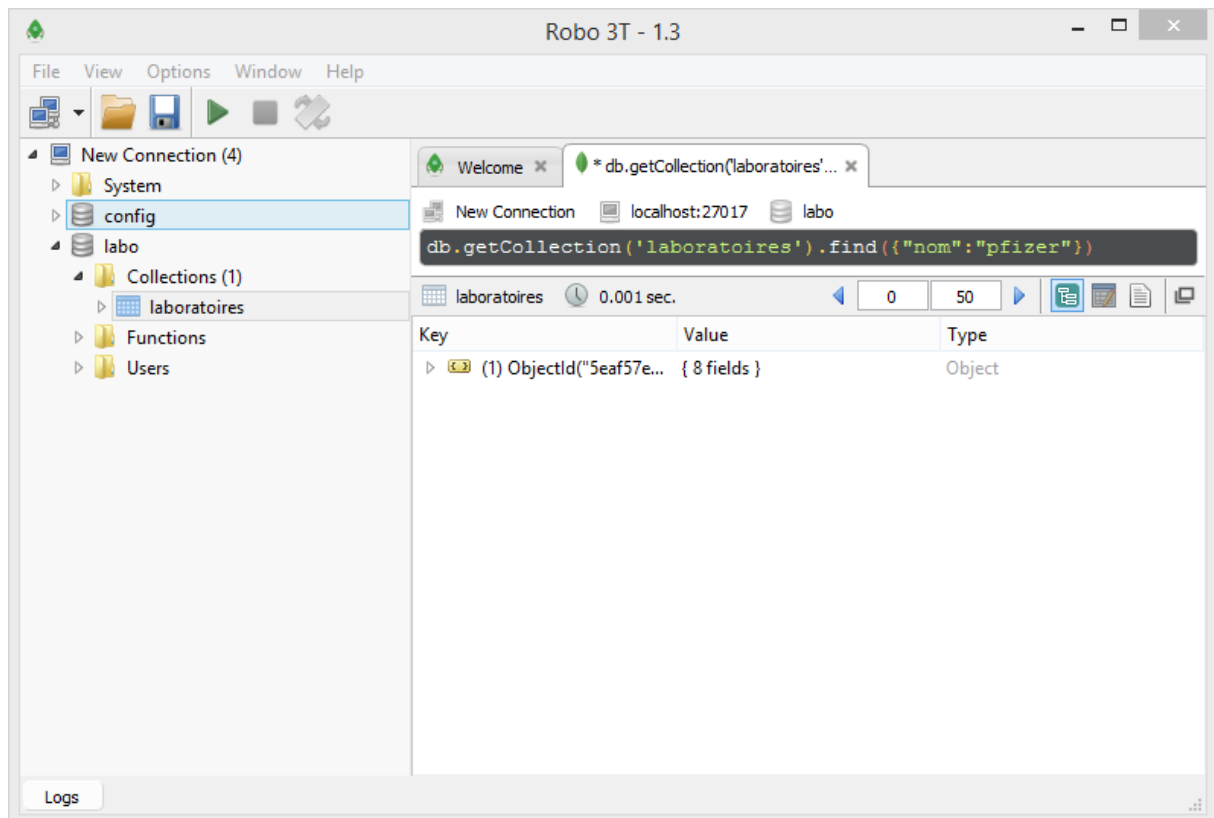


4.1)

`db.getCollection('laboratoires').find({"_id":{"$ne:ObjectId("5eb02c9f137519a119a972be")}})`

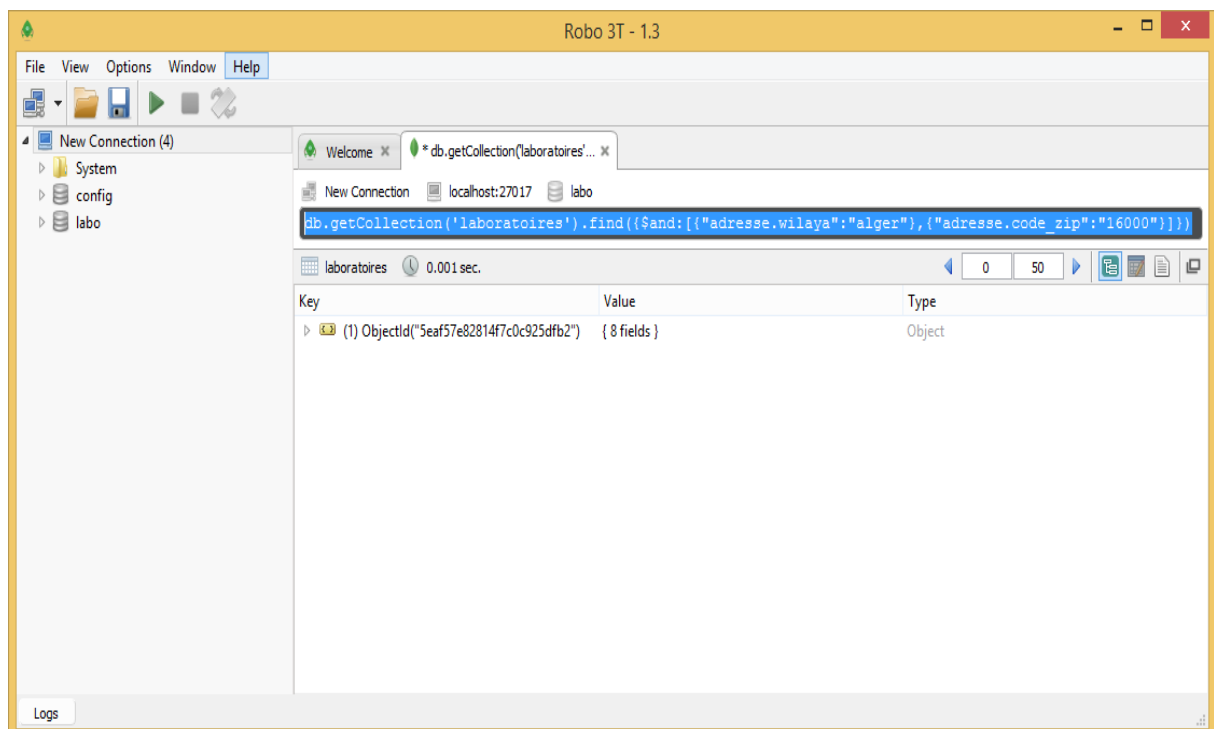


5) `db.getCollection('laboratoires').find({"nom":"pfizer"})`



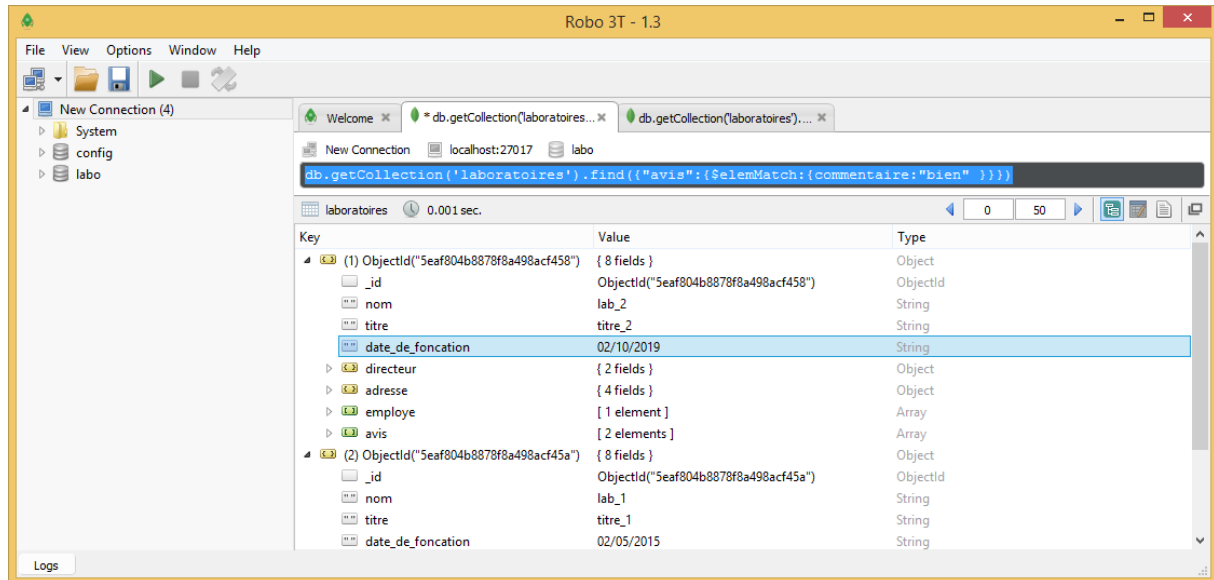
6)

`db.getCollection('laboratoires').find({$and:[{"adresse.wilaya":"alger"}, {"adresse.code_zip":"16000"}]})`



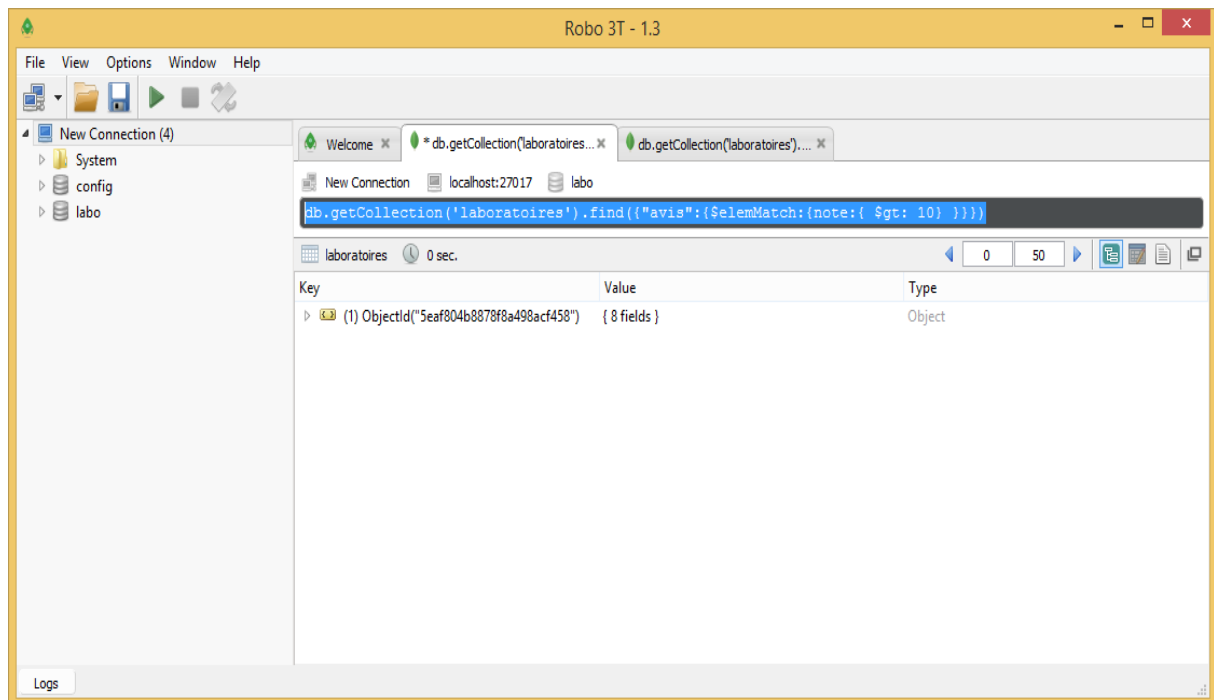
7)

```
db.getCollection('laboratoires').find({"avis":{"$elemMatch:{commentaire:"bien" }}})
```



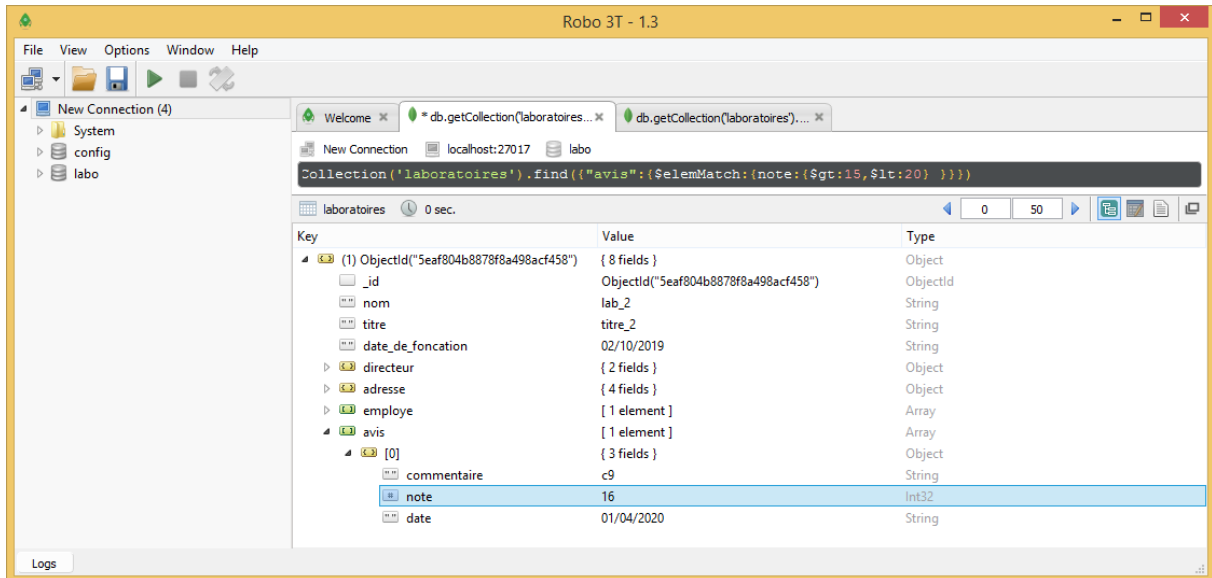
8)

```
db.getCollection('laboratoires').find({"avis":{"$elemMatch:{note:{$gt: 10} }}})
```



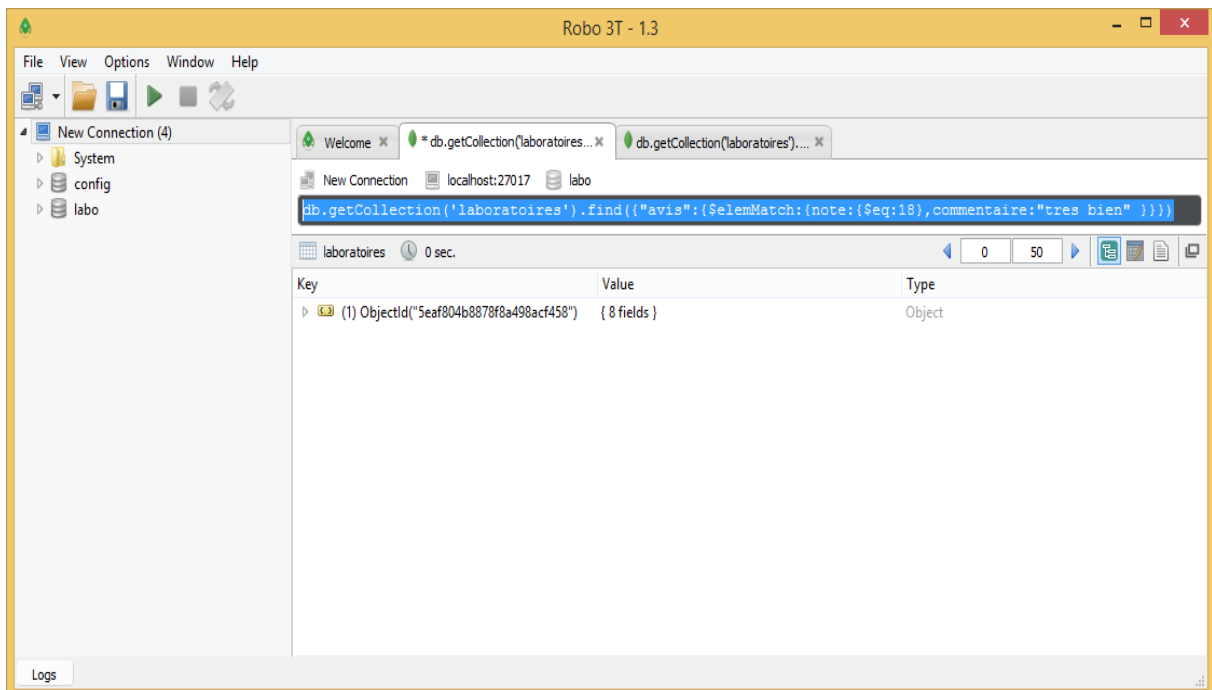
9)

```
db.getCollection('laboratoires').find({"avis":{"$elemMatch:{note:{$gt:15,$lt:20} }}})
```



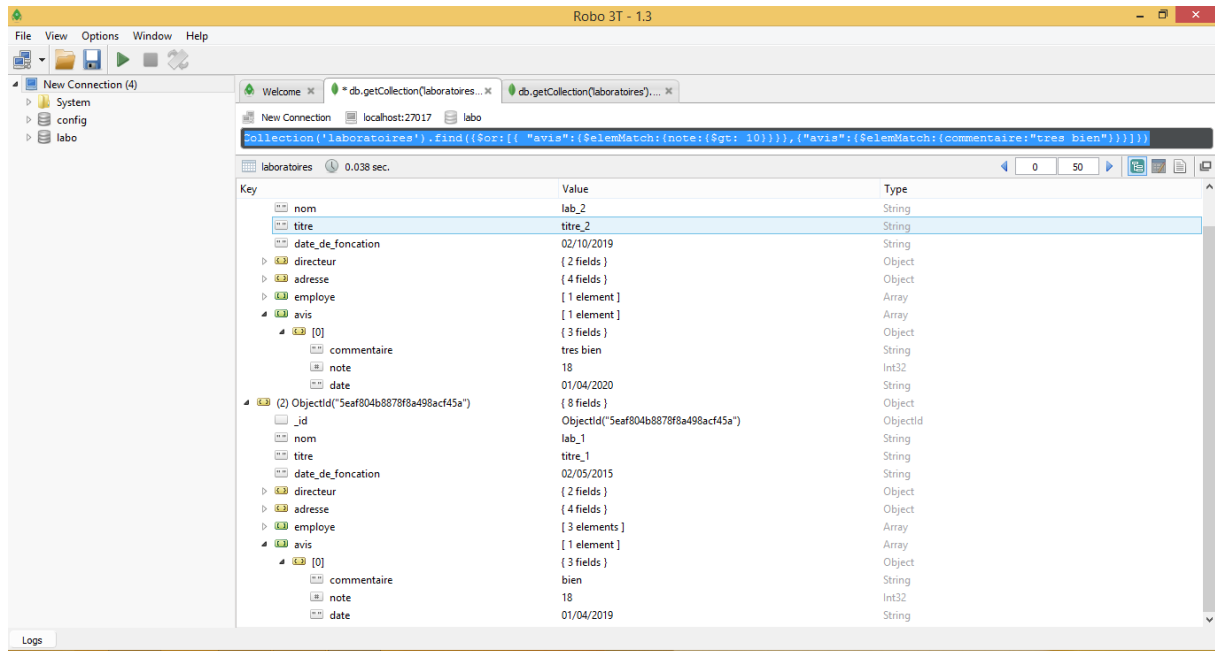
10)

```
db.getCollection('laboratoires').find({"avis":{"$elemMatch:{note:{$eq:18},commentaire:"tres bien" }}})
```



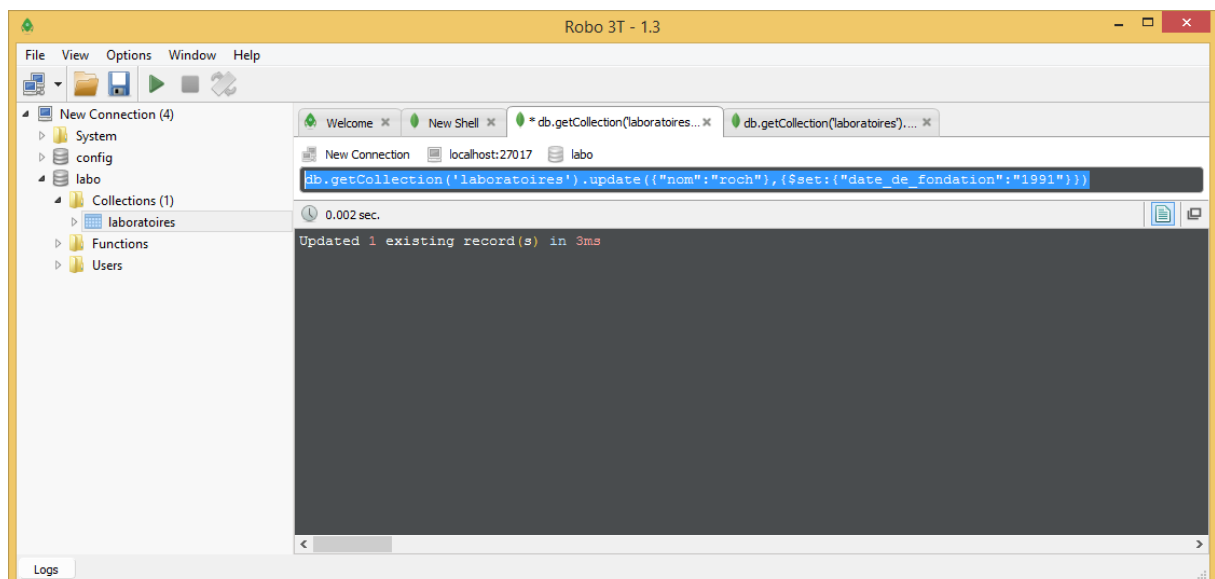
11)

```
db.getCollection('laboratoires').find({$or:[{
"avis":{$elemMatch:{note:{$gt:10}}}},{"avis":{$elemMatch:{commentaire:
"tres bien"}}}}})
```



12)

```
db.getCollection('laboratoires').update({"nom":"roch"},{$set:{"date_de_fo
ndation":"1991"}})
```



13)

```
db.getCollection('laboratoires').createIndex({date_de_fondation:1})
```

14)

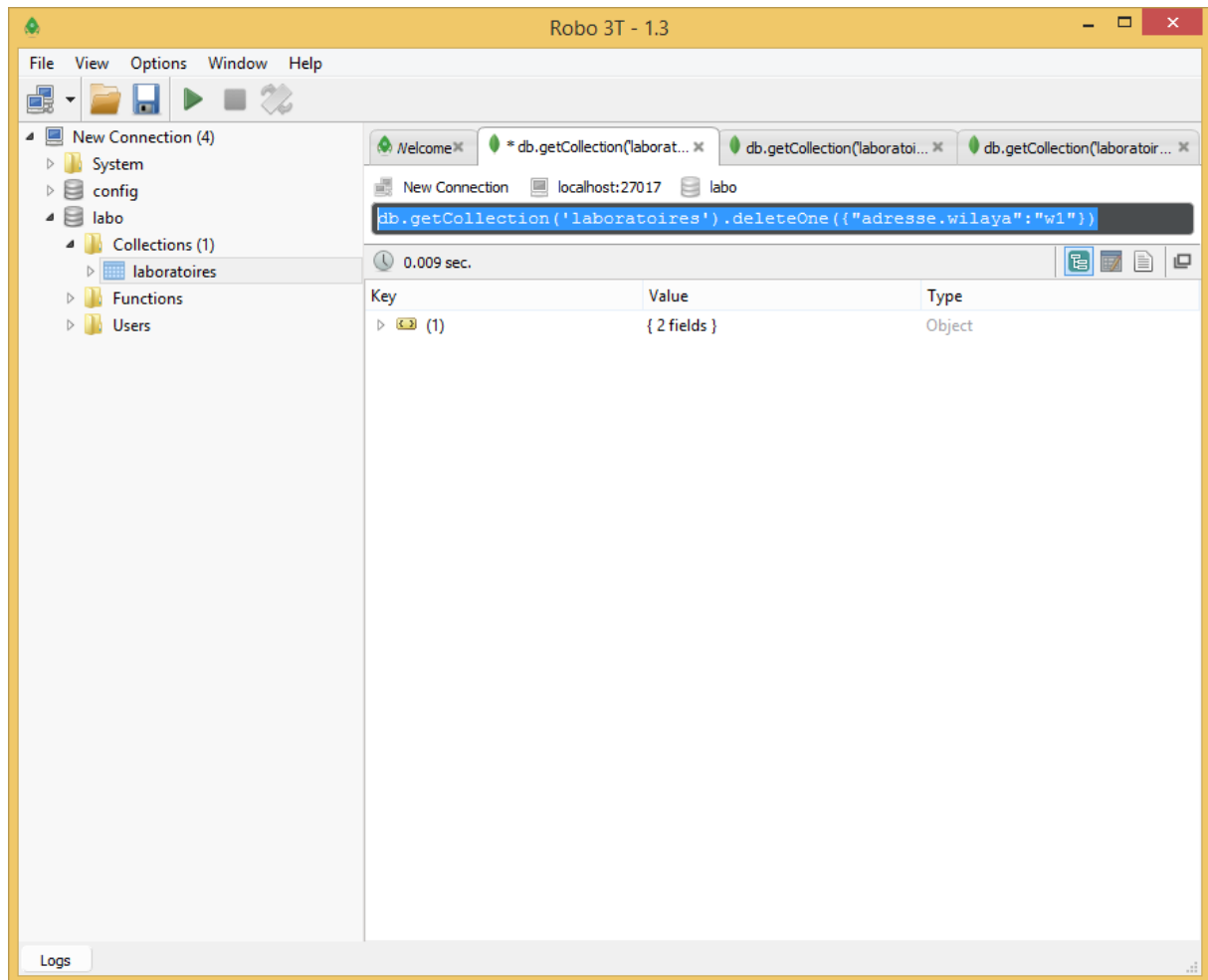
```
db.getCollection('laboratoires').getIndexes()
```

The screenshot shows the Robo 3T - 1.3 interface. On the left, the 'New Connection (4)' tree is expanded, showing 'System', 'config', 'labo', 'Collections (1)', 'laboratoires', 'Functions', and 'Users'. The 'laboratoires' collection is selected. The main window displays the command `db.getCollection('laboratoires').getIndexes()` in the command bar. Below the command bar, the execution time is shown as 0.001 sec. The results are displayed in a table with three columns: Key, Value, and Type.

Key	Value	Type
(1)	[3 elements]	Array
[0]	{ 4 fields }	Object
v	2	Int32
key	{ 1 field }	Object
_id	1	Int32
name	_id_	String
ns	labo.laboratoires	String
[1]	{ 4 fields }	Object
v	2	Int32
key	{ 1 field }	Object
date_de_fondation	1.0	Double
name	date_de_fondation_1	String
ns	labo.laboratoires	String
[2]	{ 4 fields }	Object
v	2	Int32
key	{ 1 field }	Object
nom	1.0	Double
name	nom_1	String
ns	labo.laboratoires	String

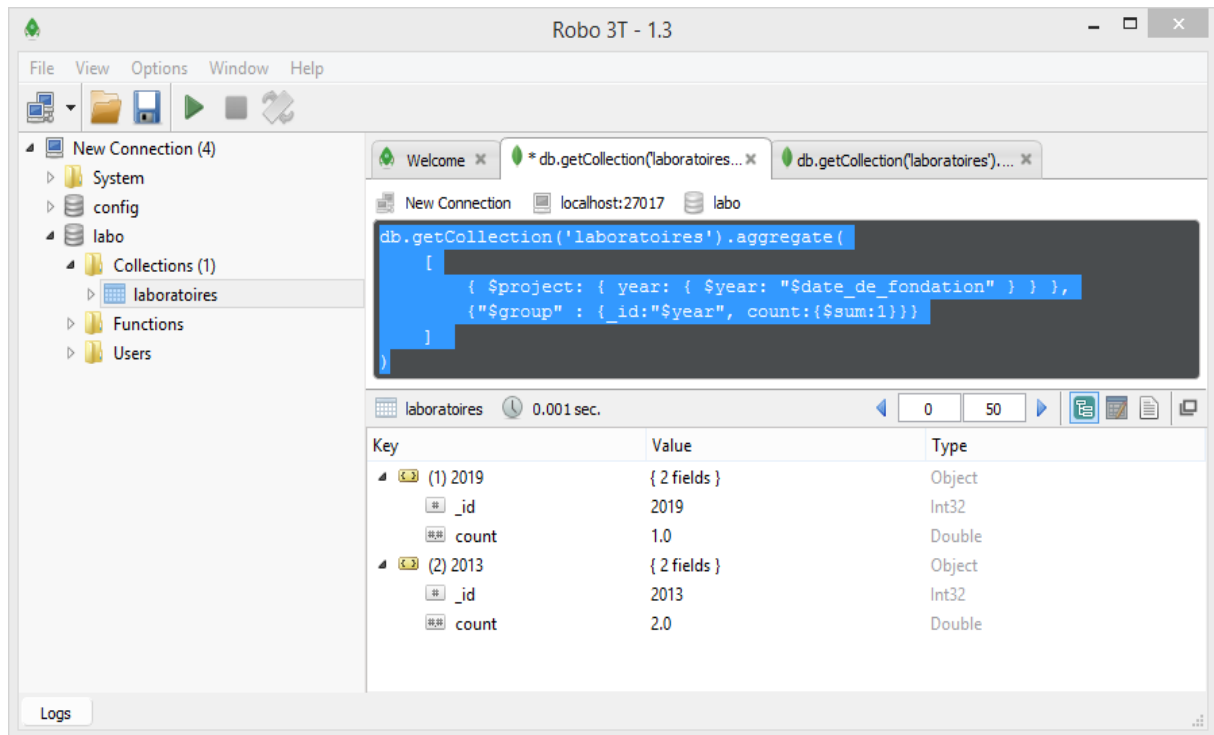
15)

```
db.getCollection('laboratoires').deleteOne({"adresse.wilaya":"alger"})
```



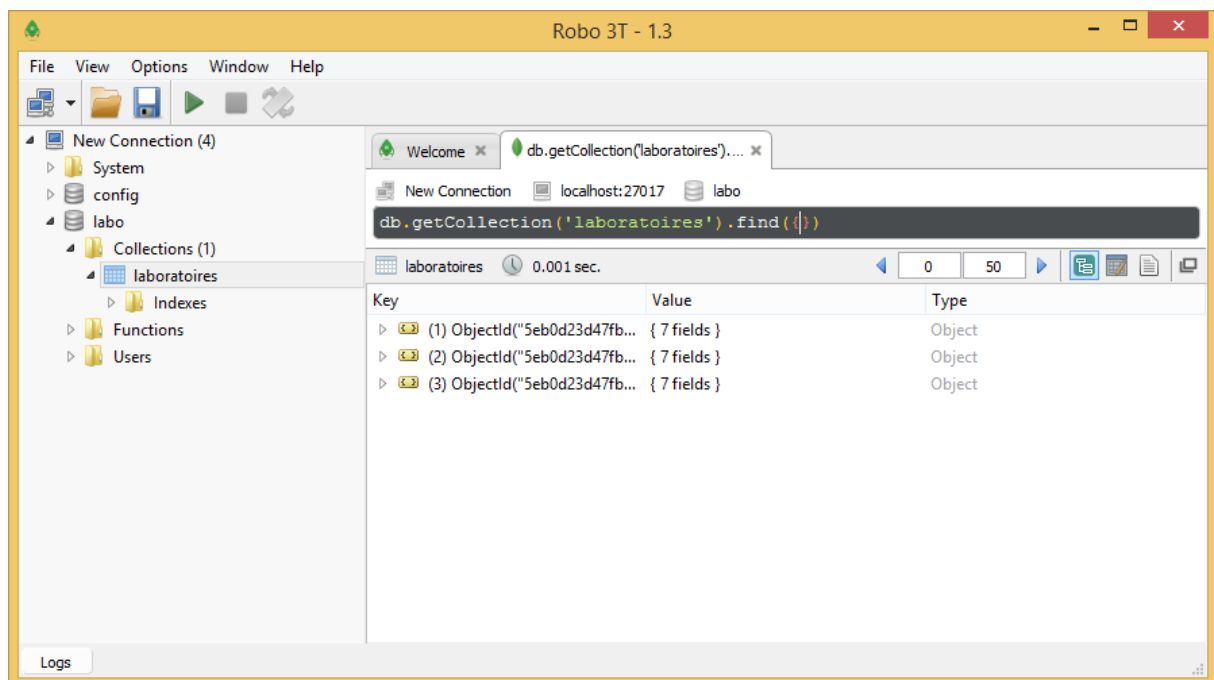
16)

```
db.getCollection('laboratoires').aggregate(  
  [  
    { $project: { year: { $year: "$date_de_fondation" } } },  
    {"$group" : { _id:"$year", count:{$sum:1}}} ]  
)
```



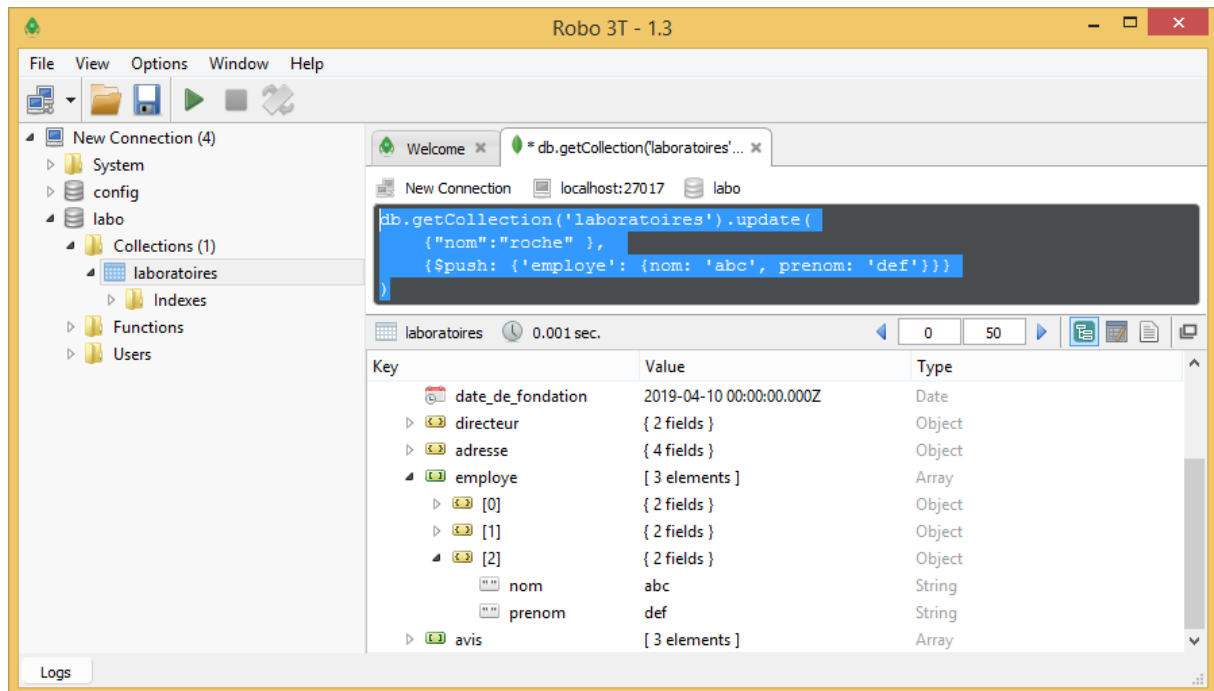
17)

`db.getCollection('laboratoires').update({},{$unset: {titre:1}},{multi: true});`



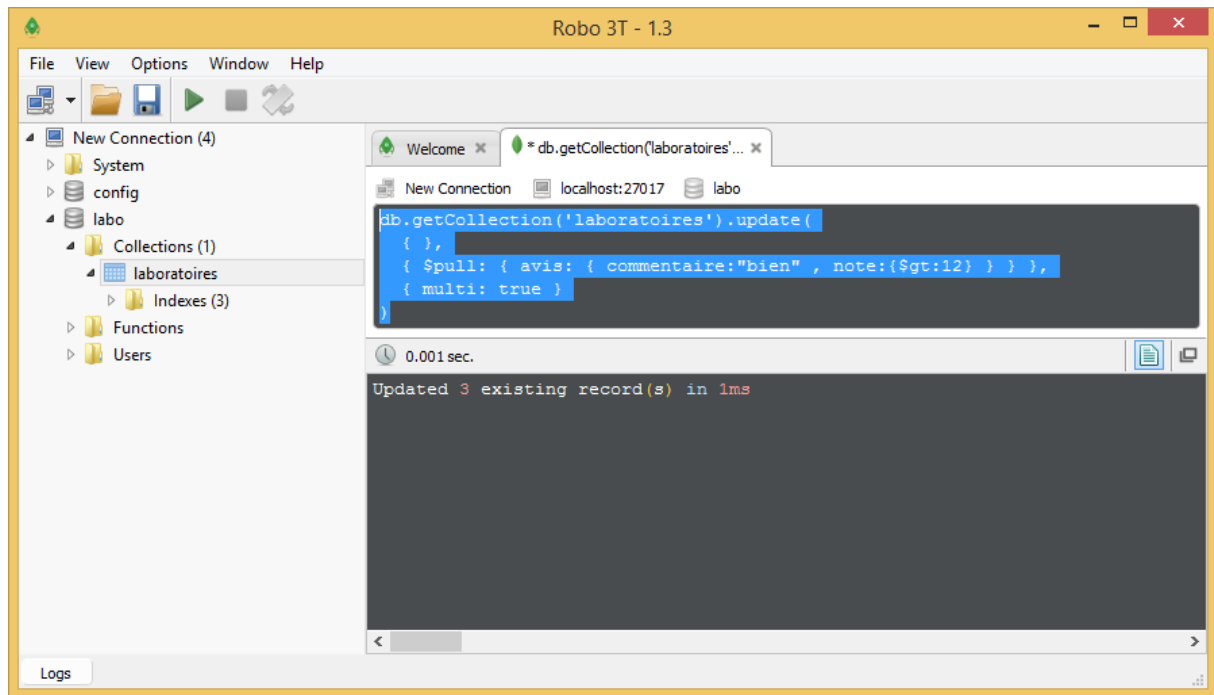
18)

```
db.getCollection('laboratoires').update(  
    {"nom":"roche" },  
    {$push: {'employe': {nom: 'abc', prenom: 'def'}}}  
)
```



19)

```
db.getCollection('laboratoires').update(  
    {},  
    { $pull: { avis: { commentaire:"bien" , note:{ $gt:12 } } } },  
    { multi: true }  
)
```



20)

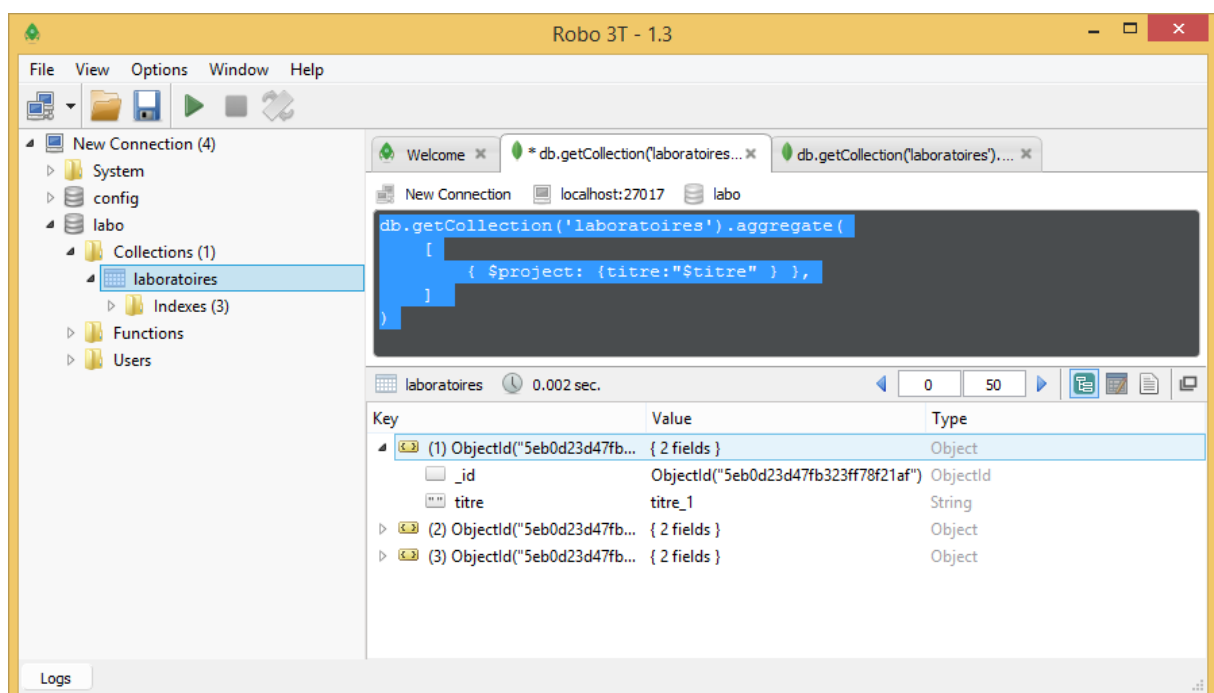
db.getCollection('laboratoires').aggregate(

[

{ \$project: {titre:"\$titre" } },

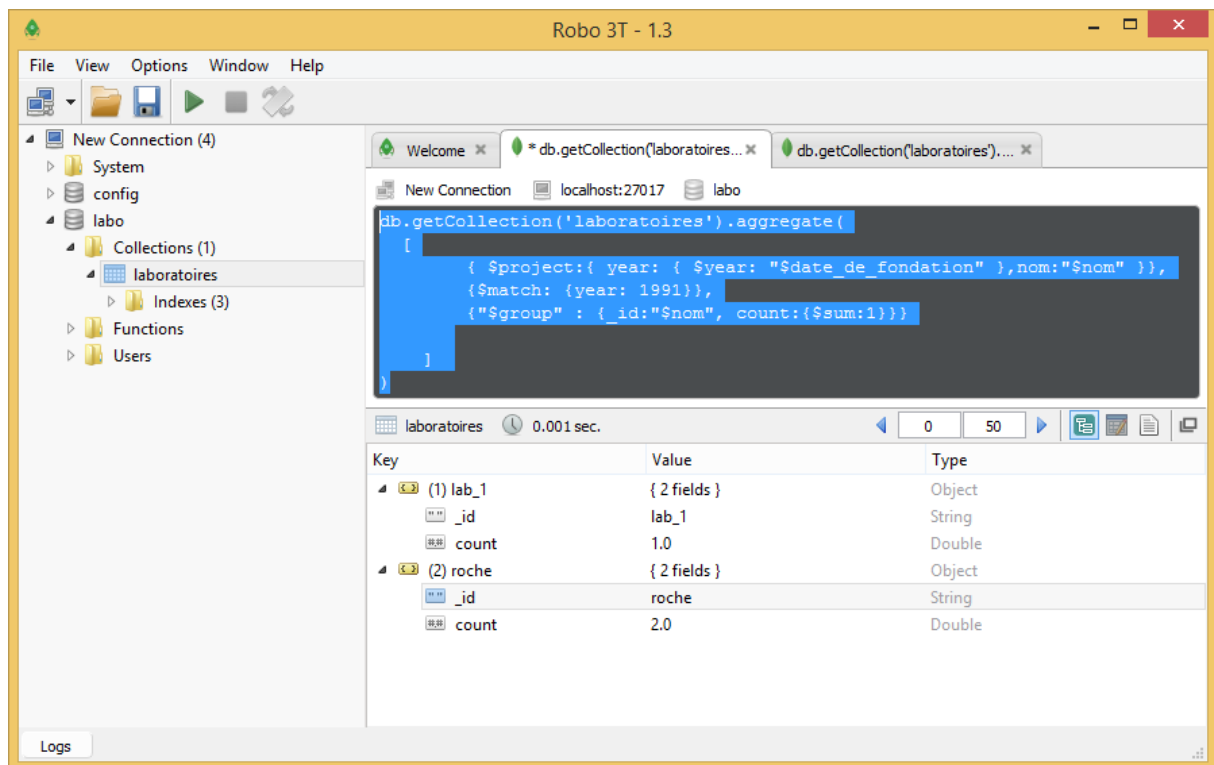
]

)



21)

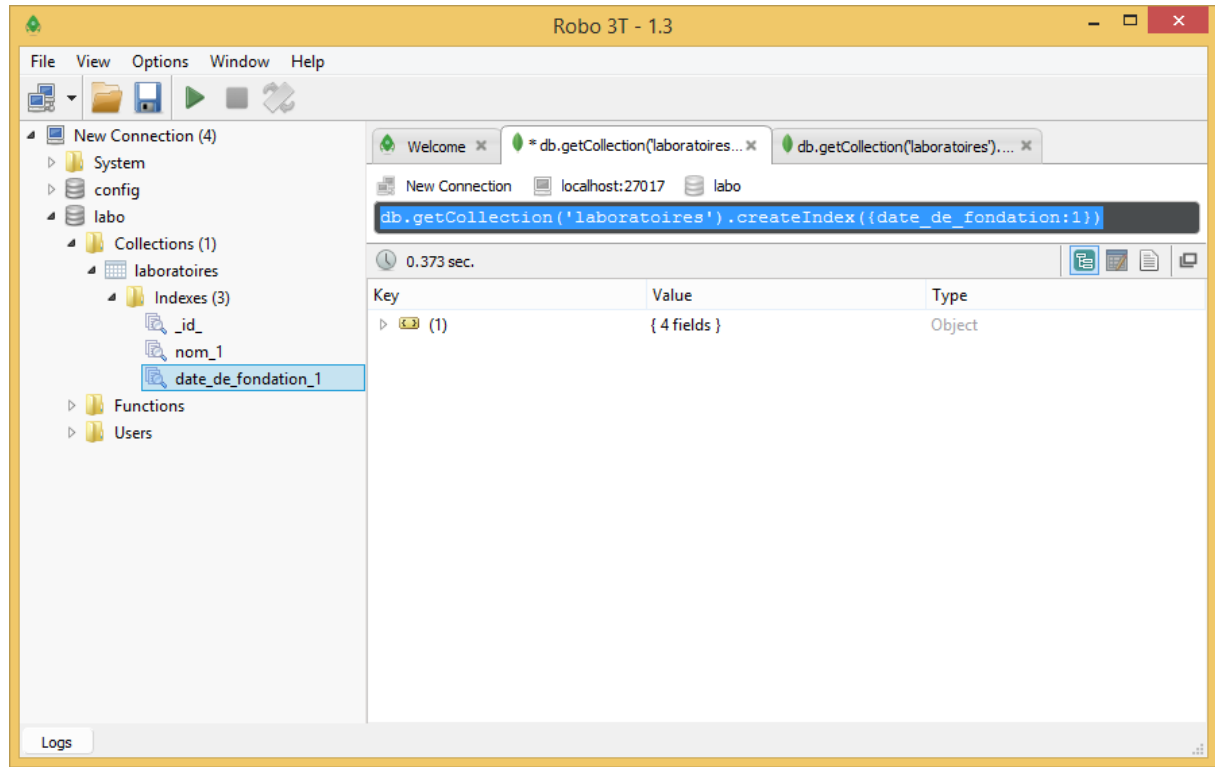
```
db.getCollection('laboratoires').aggregate(  
[  
  { $project: { year: { $year: "$date_de_fondation" }, nom: "$nom" } },  
  { $match: { year: 1991 } },  
  { "$group" : { _id: "$nom", count: { $sum: 1 } } }  
]  
)
```



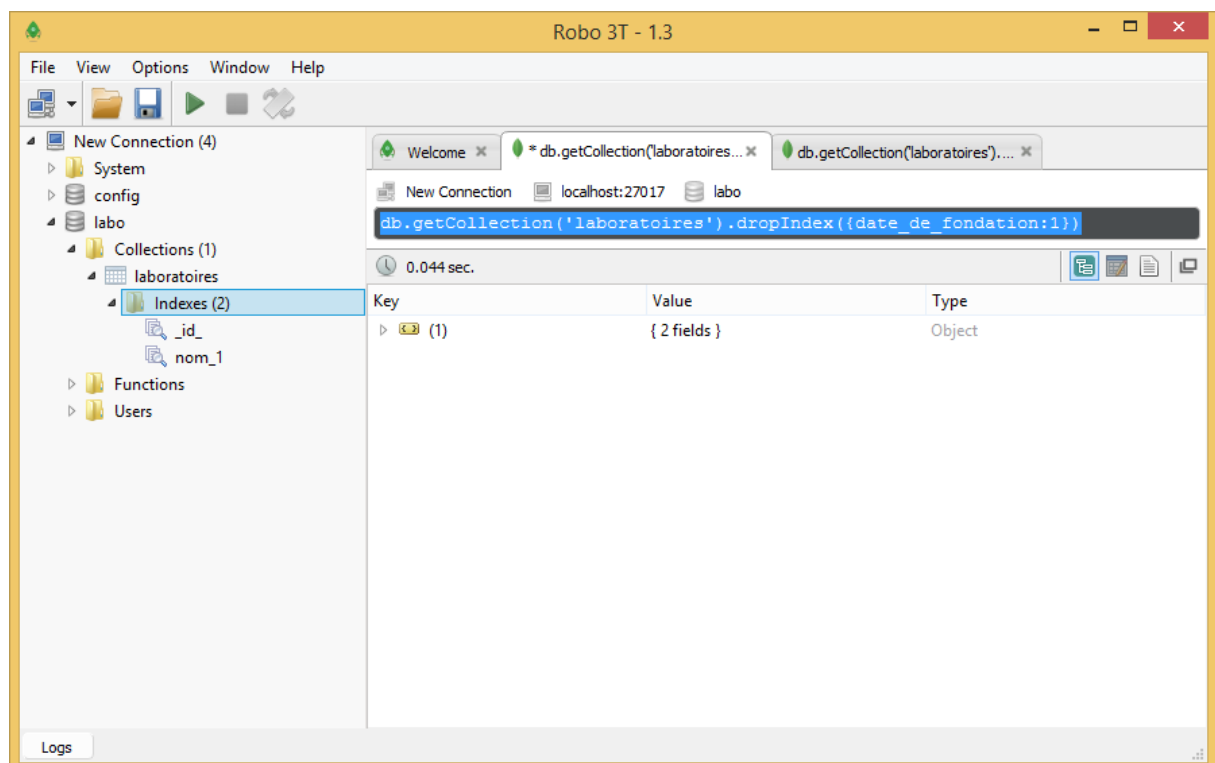
22)

`db.getCollection('laboratoires').dropIndex({date_de_fondation:1})`

avant :

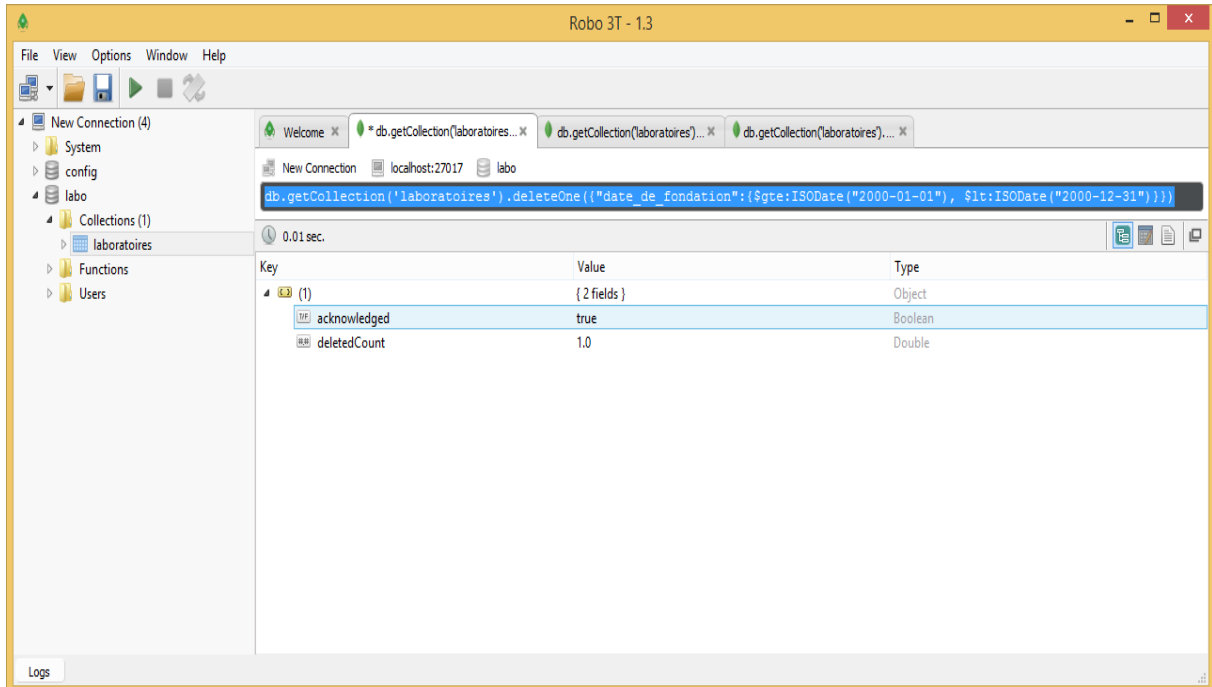


apres:



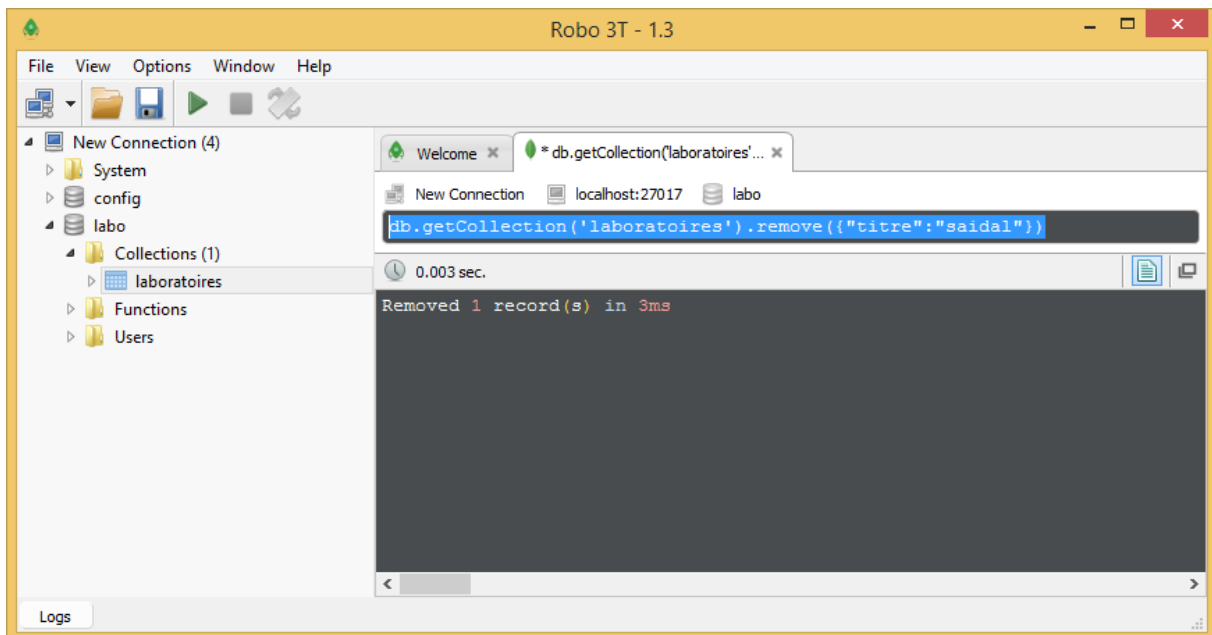
23)

```
db.getCollection('laboratoires').deleteOne({"date_de_fondation":{"$gte:ISODate("2000-01-01"), $lt:ISODate("2000-12-31")}})
```



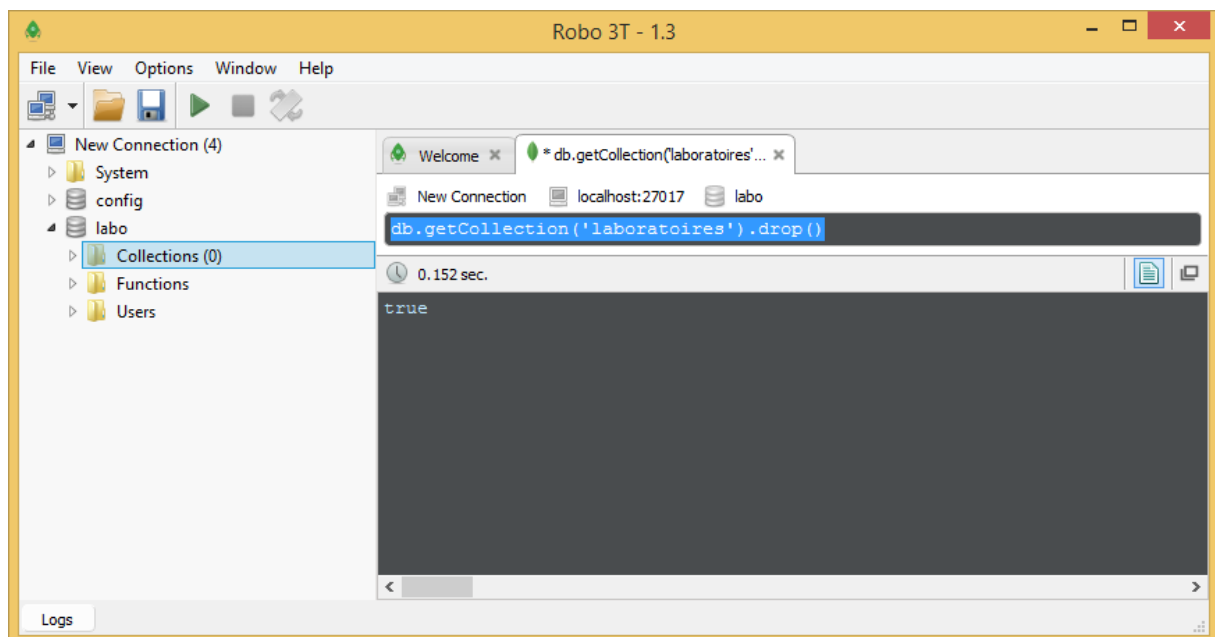
24)

```
db.getCollection('laboratoires').remove({"titre":"saidal"})
```



25)

`db.getCollection('laboratoires').drop()`



26)

`db.dropDatabase()`

