MongoDB Lab2

1- run following queries:

   a- Display all documents in instructors collection

   b- Display all instructors with salaries greater than 4000 (only show firstName and salary)

   c- Display all instructors with ages less than or equal 25.

   d- Display all instructors with city mansoura and sreet number 10 or 14 only display (firstname,address,salary).

   e- Display all instructors that have js and jquery in their courses (both of them not one of them).

   f- Display number of courses for each instructor and display first name with number of courses.

```
mona 4
mazen 3
badr 4
ebtesam 6
noha 4
mona 4
mazen 3
ebtesam 5
```

   g- Write mongodb query to get all instructors that have firstName and lastName properties , sort them by firstName ascending then by lastName descending and finally display their data FullName and age

```
FullName : badr ahmed , Age: 22
FullName : ebtesam hesham , Age: 21
FullName : ebtesam ahmed , Age: 28
FullName : mazen mohammed , Age: 21
FullName : mazen ali , Age: 30
FullName : mona mohammed , Age: 21
FullName : mona ahmed , Age: 21
FullName : noha hesham , Age: 21
```

   Note: use mongoDB sort function

   h- Delete instructor with first name "ebtesam" and has only 5 courses in courses array

   i- Add active property to all instructors and set its value to true.

   j- Change "EF" course to "jquery" for "mazen mohammed" instructor (without knowing EF Index in courses array)

   k- Add jquery course for "noha hesham".

   l- Remove courses property for "ahmed mohammed " instructor

m- Decrease salary by 500 for all instructors that has only 3 courses in their list ($inc)

n- Rename address field for all instructors to fullAddress.

o- Change street number for noha hesham to 20

2- Create workers collection with the following Schema validation (JsonSchema Validation)

Required Fields: fullName ,salary and age

Optional Fields: locations

No additional properties allowed

a- fullName should be string

b- Age should be number between 25 and 45 ,

c- Salary is required and should be greater than 2000

d- Locations is optional and should be array of string , array length can't be zero (worker has at least one location to work), locations should be unique in array

Check your Schema