Assignment4

CSC 4710 Database System

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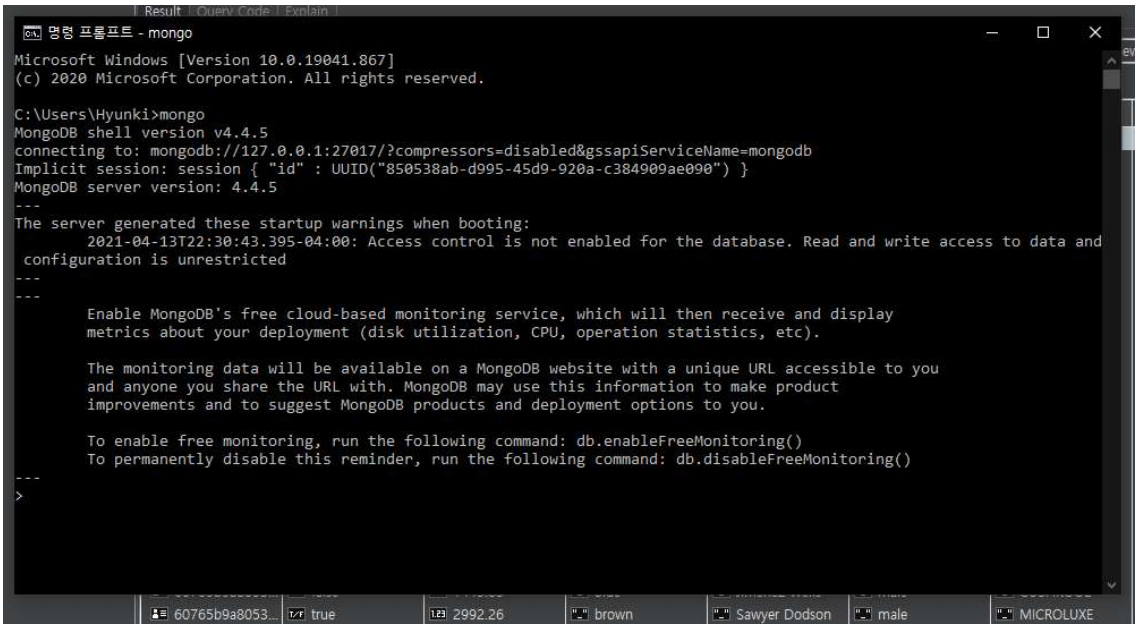
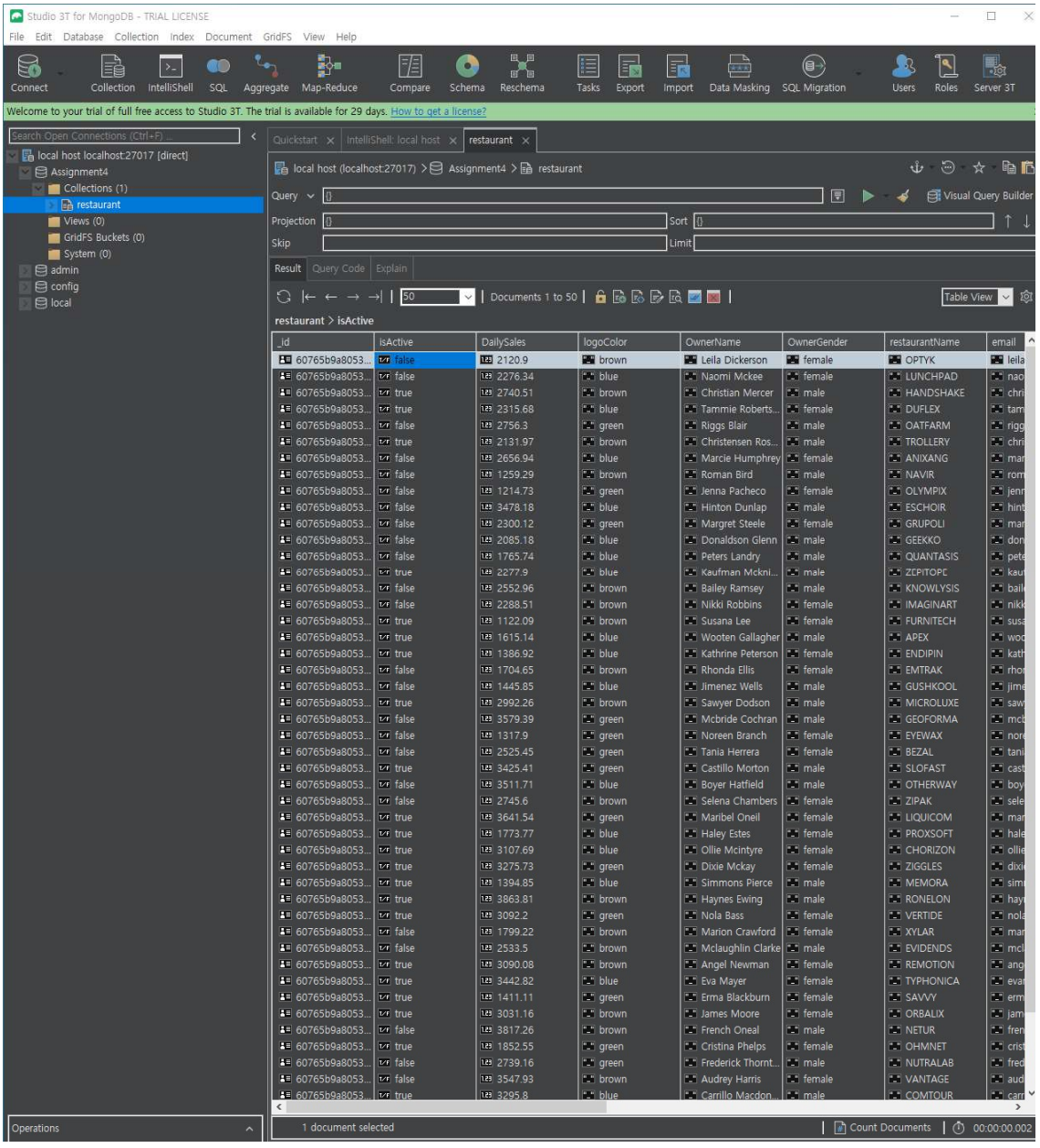
Panther#: 002-34-4677

Part1

I am using Window. Thus, I took a picture that I operate mongo in the CMD. Also, I added a picture that I imported restaurant.json in the Studio 3T.



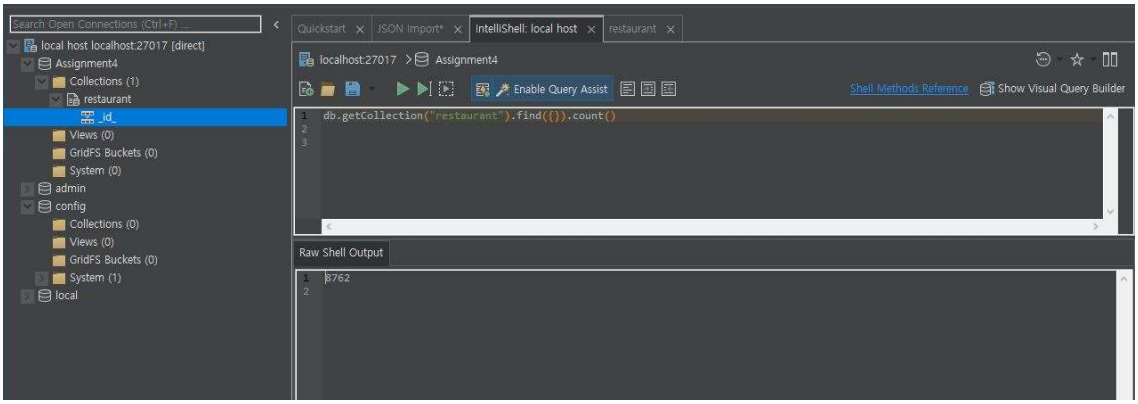

Studio 3T for MongoDB - TRIAL LICENSE
File Edit Database Collection Index Document GridFS View Help
Connect Collection IntelliShell SQL Aggregate Map-Reduce Compare Schema Reschema Tasks Export Import Data Masking SQL Migration Users Roles Server 3T
Welcome to your trial of full free access to Studio 3T. The trial is available for 29 days. How to get a license?
Search Open Connections (Ctrl+F) ...
local host localhost:27017 [direct]
Assignment4
Collections (1)
restaurant
Views (0)
GridFS Buckets (0)
System (0)
admin
config
local
Operations
Quickstart
intelliShell: local host
restaurant
local host (localhost:27017) > Assignment4 > restaurant
Query {}
Visual Query Builder
Projection {}
Sort {}
Skip
Limit
Result Query Code Explain
50
Documents 1 to 50
Table View
restaurant > isActive
_id isActive DailySales logoColor OwnerName OwnerGender restaurantName email
60765b9a8053... false 2120.9 brown Leila Dickerson female OPTYK leila
60765b9a8053... false 2276.34 blue Naomi Mckee female LUNCHPAD nao
60765b9a8053... true 2740.51 brown Christian Mercer male HANDSHAKE chri
60765b9a8053... true 2315.68 blue Tammie Roberts... female DUFLEX tam
60765b9a8053... false 2756.3 green Riggs Blair male OATFARM rigg
60765b9a8053... true 2131.97 brown Christensen Ros... male TROLLERY chri
60765b9a8053... false 2656.94 blue Marcie Humphrey female ANIXANG mar
60765b9a8053... false 1259.29 brown Roman Bird male NAVIR rom
60765b9a8053... false 1214.73 green Jenna Pacheco female OLYMPIX jenn
60765b9a8053... false 3478.18 blue Hinton Dunlap male ESCHOIR hint
60765b9a8053... false 2300.12 green Margret Steele female GRUPOLI mar
60765b9a8053... false 2085.18 blue Donaldson Glenn male GEEKKO don
60765b9a8053... false 1765.74 blue Peters Landry male QUANTASIS pet
60765b9a8053... true 2277.9 blue Kaufman Mckni... male ZEPITOPE kau
60765b9a8053... false 2552.96 brown Bailey Ramsey male KNOWLYSIS bail
60765b9a8053... false 2288.51 brown Nikki Robbins female IMAGINART nik
60765b9a8053... true 1122.09 brown Susana Lee female FURNITECH sus
60765b9a8053... true 1615.14 blue Wooten Gallagher male APEX woo
60765b9a8053... true 1386.92 blue Kathrine Peterson female ENDIPIN kat
60765b9a8053... false 1704.65 brown Rhonda Ellis female EMTRAK rho
60765b9a8053... false 1445.85 blue Jimenez Wells male GUSHKOOL jim
60765b9a8053... true 2992.26 brown Sawyer Dodson male MICROLUXE saw
60765b9a8053... false 3579.39 green Mcbride Cochran male GEOFORMA mcb
60765b9a8053... false 1317.9 green Noreen Branch female EYEWAX nor
60765b9a8053... false 2525.45 green Tania Herrera female BEZAL tan
60765b9a8053... true 3425.41 green Castillo Morton male SLOFAST cas
60765b9a8053... false 3511.71 blue Boyer Hatfield male OTHERWAY boy
60765b9a8053... false 2745.6 brown Selena Chambers female ZIPAK sel
60765b9a8053... true 3641.54 green Maribel Oneil female LIQUICOM mar
60765b9a8053... true 1773.77 blue Haley Estes female PROXSOFT hal
60765b9a8053... true 3107.69 blue Ollie Mcintyre female CHORIZON oll
60765b9a8053... true 3275.73 green Dixie Mckay female ZIGGLES dix
60765b9a8053... true 1394.85 blue Simmons Pierce male MEMORA sim
60765b9a8053... true 3863.81 brown Haynes Ewing male RONELON hay
60765b9a8053... true 3092.2 green Nola Bass female VERTIDE nol
60765b9a8053... false 1799.22 brown Marion Crawford female XYLAR mar
60765b9a8053... false 2533.5 brown Mclaughlin Clarke male EVIDENDS mcl
60765b9a8053... true 3090.08 brown Angel Newman female REMOTION ang
60765b9a8053... true 3442.82 blue Eva Mayer female TYPHONICA eva
60765b9a8053... true 1411.11 green Erma Blackburn female SAVVY erm
60765b9a8053... true 3031.16 brown James Moore female ORBALIX jam
60765b9a8053... false 3817.26 brown French Oneal male NETUR fre
60765b9a8053... true 1852.55 green Cristina Phelps female OHMNET cri
60765b9a8053... false 2739.16 green Frederick Thornt... male NUTRALAB fre
60765b9a8053... false 3547.93 brown Audrey Harris female VANTAGE aud
60765b9a8053... true 3295.8 blue Carrillo Macdon... male COMTOUR car
1 document selected
Count Documents
00:00:00.002

Part2

1.

8762

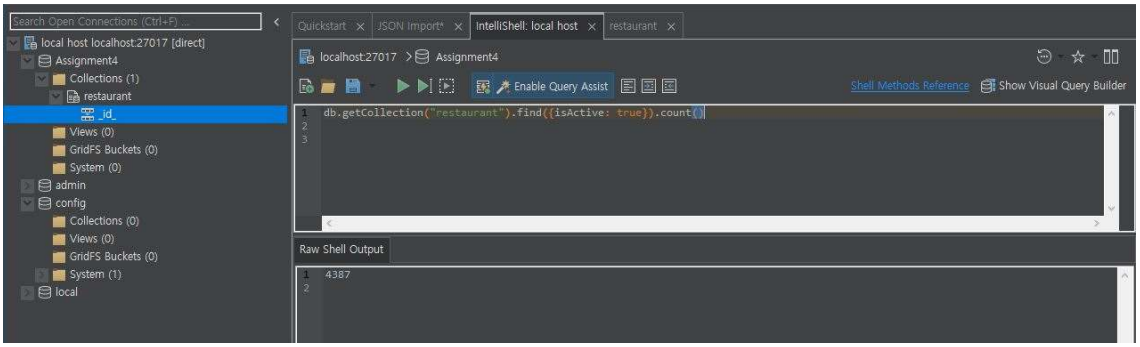
```
db.getCollection("restaurant").find({}).count()
```



2.

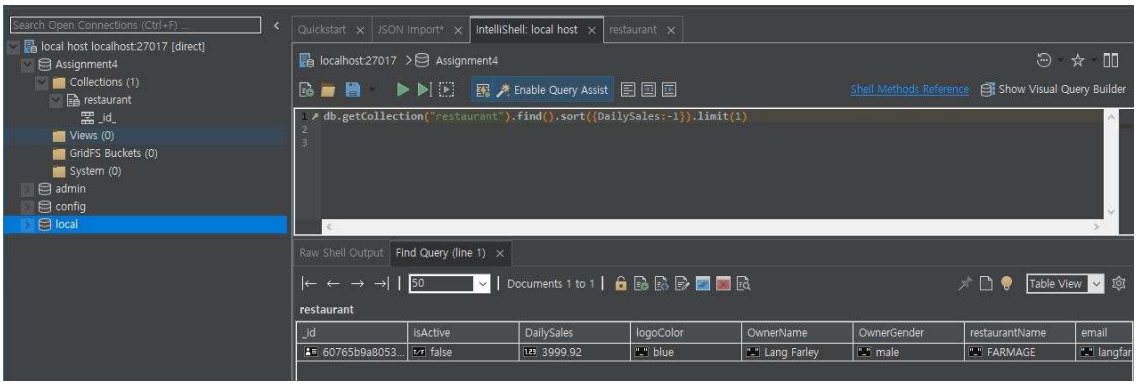
4387

```
db.getCollection("restaurant").find({isActive: true}).count()
```



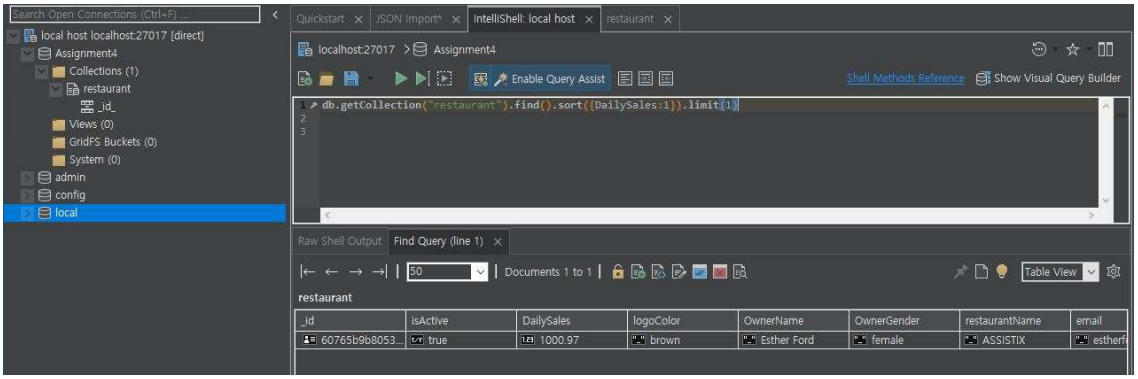
3.

```
db.getCollection("restaurant").find().sort({DailySales:-1}).limit(1)
```



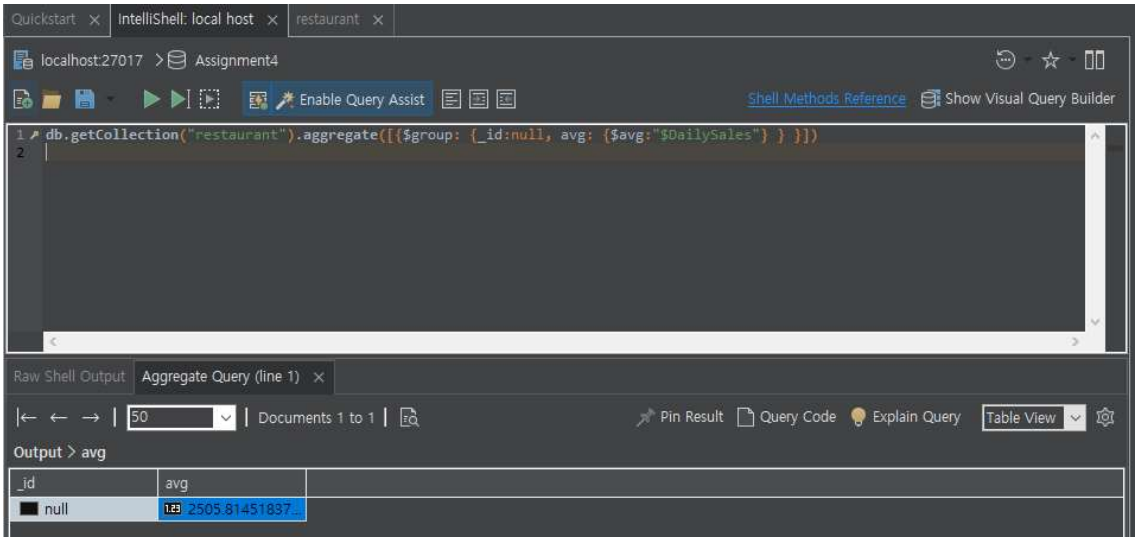
4.

```
db.getCollection("restaurant").find().sort({DailySales:1}).limit(1)
```



5.

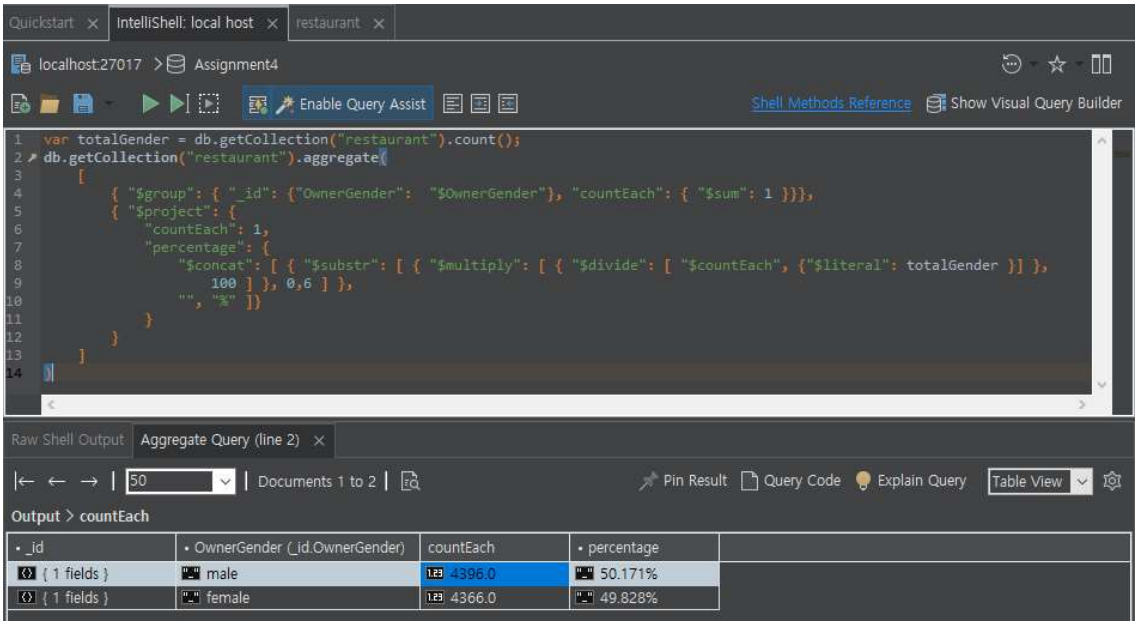
```
db.getCollection("restaurant").aggregate([{$group:{_id:null,avg:{$avg:"$DailySales
"} } }])
```



6.

49.828…%

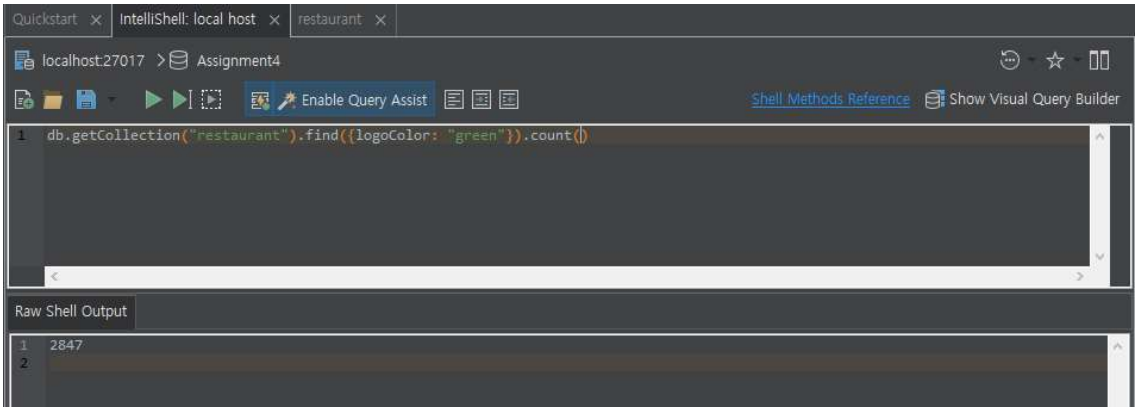
```
var totalGender = db.getCollection("restaurant").count();
db.getCollection("restaurant").aggregate(
    [
        { "$group": { "_id": {"OwnerGender":  "$OwnerGender"}, "countEach":
{ "$sum": 1 }}},
        { "$project": {
            "countEach": 1,
            "percentage": {
                "$concat": [ { "$substr": [ { "$multiply": [ { "$divide":
[ "$countEach", {"$literal": totalGender }] },
                    100 ] }, 0,6 ] },
                "", "%" ]}
            }
        }
    ]
)
```



7.

2847

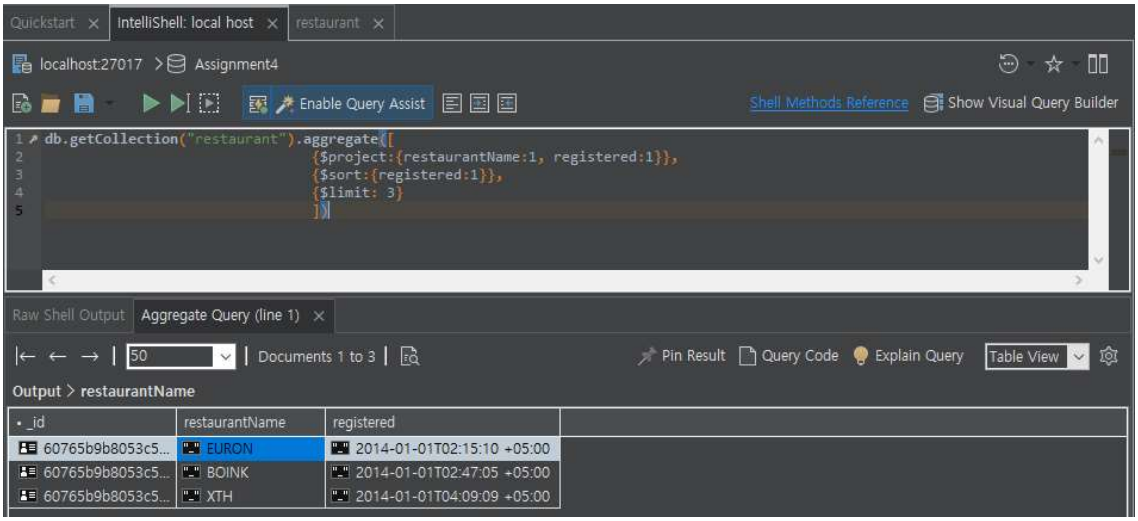
```
db.getCollection("restaurant").find({logoColor: "green"}).count()
```



8.

EURON

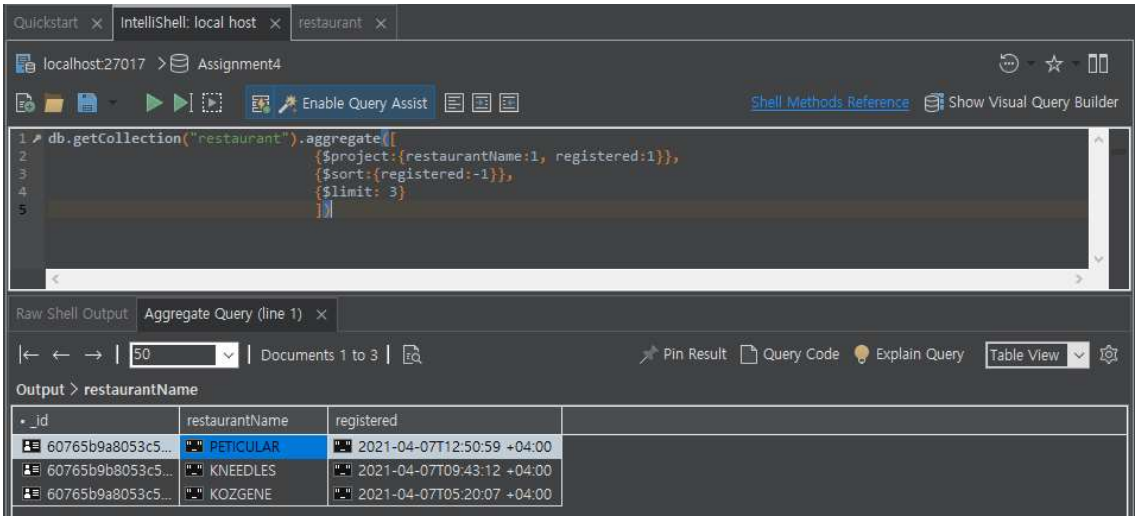
```
db.getCollection("restaurant").aggregate([
                              {$project:{restaurantName:1, registered:1}},
                              {$sort:{registered:1}},
                              {$limit: 3}
                              ])
```



9.

PETICULAR

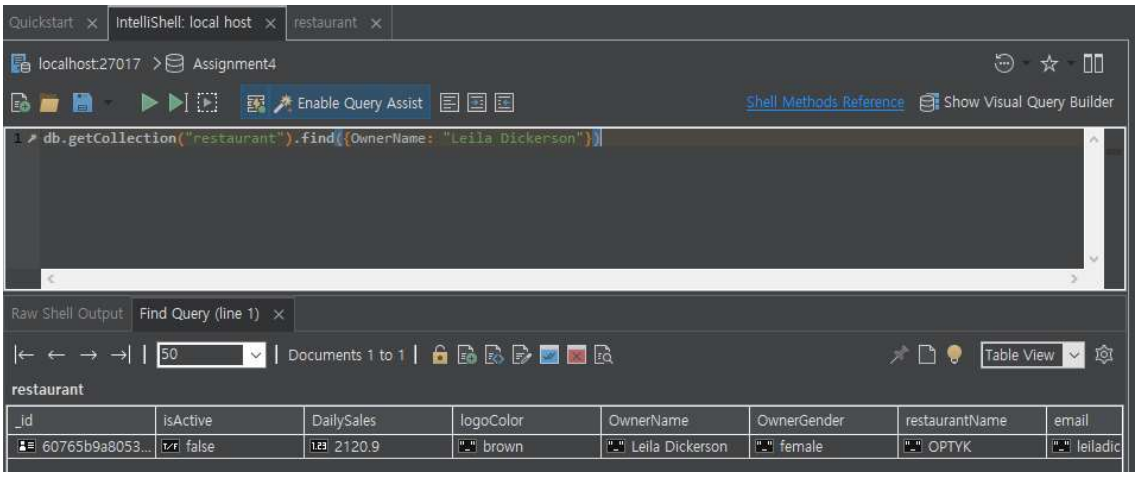
```
db.getCollection("restaurant").aggregate([
                                {$project:{restaurantName:1, registered:1}},
                                {$sort:{registered:-1}},
                                {$limit: 3}
                                ])
```



10.

Yes

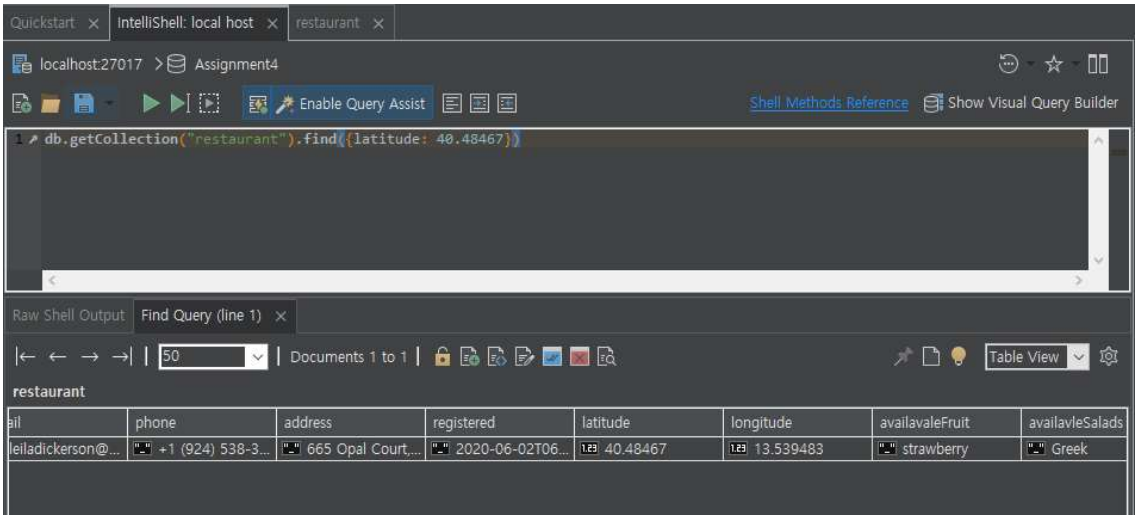
```
db.getCollection("restaurant").find({OwnerName: "Leila Dickerson"})
```



11.

Yes. Only one restaurant

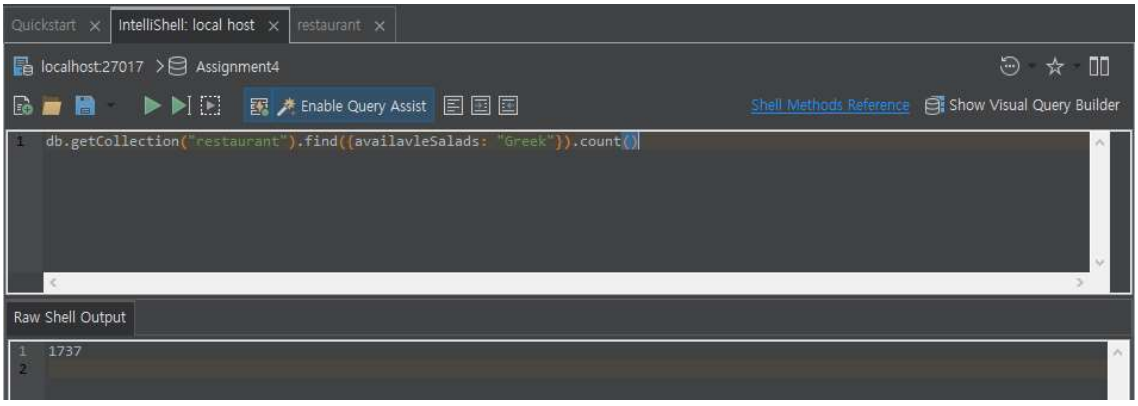
```
db.getCollection("restaurant").find({latitude: 40.48467})
```



12.

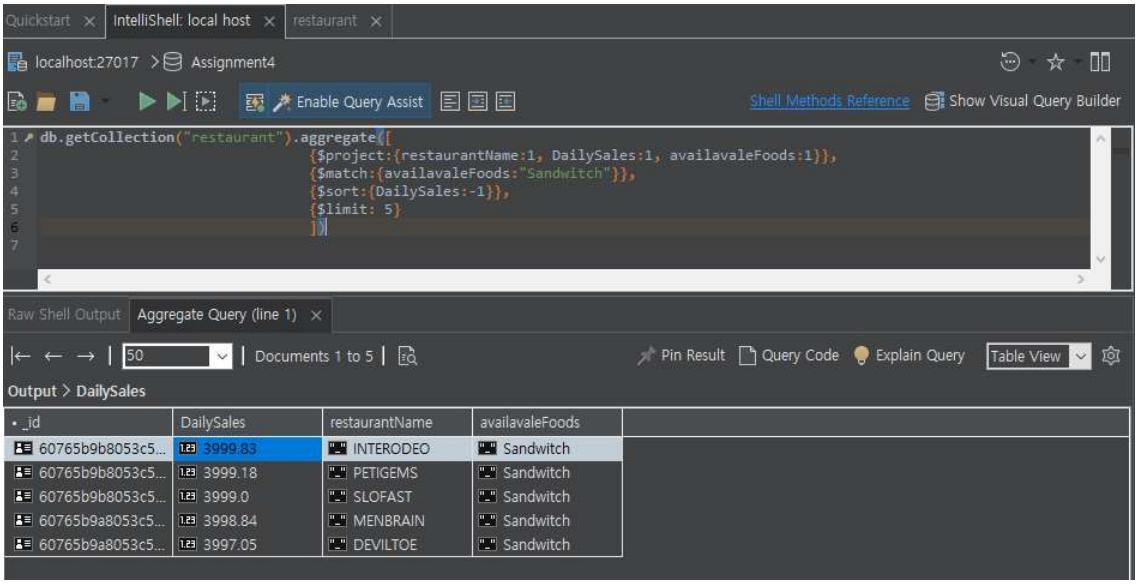
1737

```
db.getCollection("restaurant").find({availavleSalads: "Greek"}).count()
```



13.

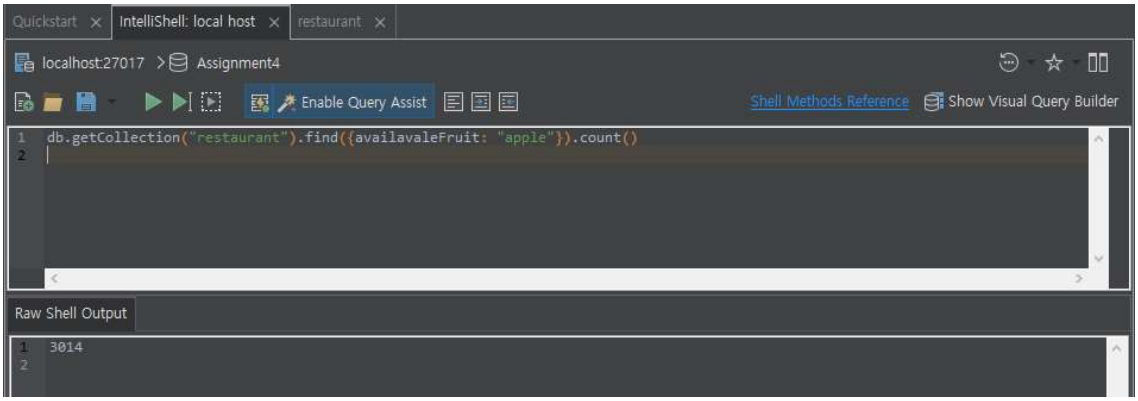
```
db.getCollection("restaurant").aggregate([
                                {$project:{restaurantName:1, DailySales:1,
availavaleFoods:1}},
                                {$match:{availavaleFoods:"Sandwitch"}},
                                {$sort:{DailySales:-1}},
                                {$limit: 5}
                                ])
```



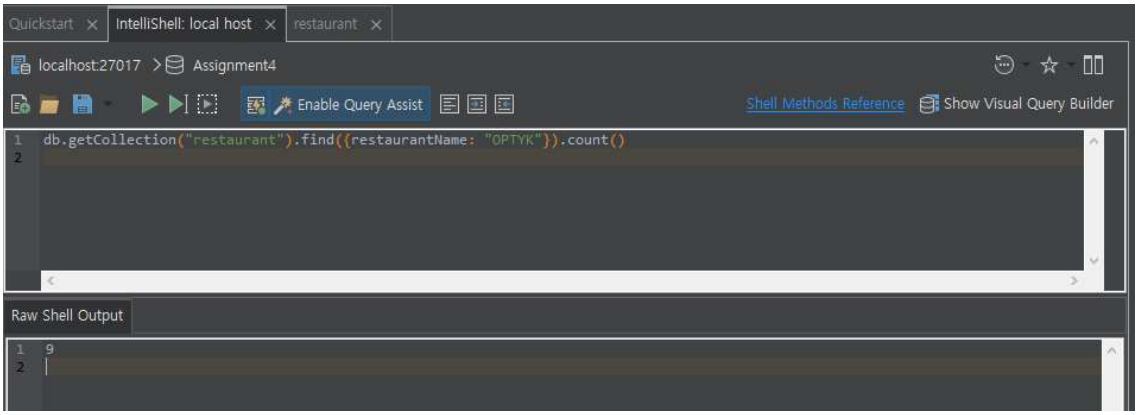
14.

3014

```
db.getCollection("restaurant").find({availavaleFruit: "apple"}).count()
```



15.

Yes, there are 9 restaurants that are named "OPTYK"

```
db.getCollection("restaurant").find({restaurantName: "OPTYK"}).count()
```