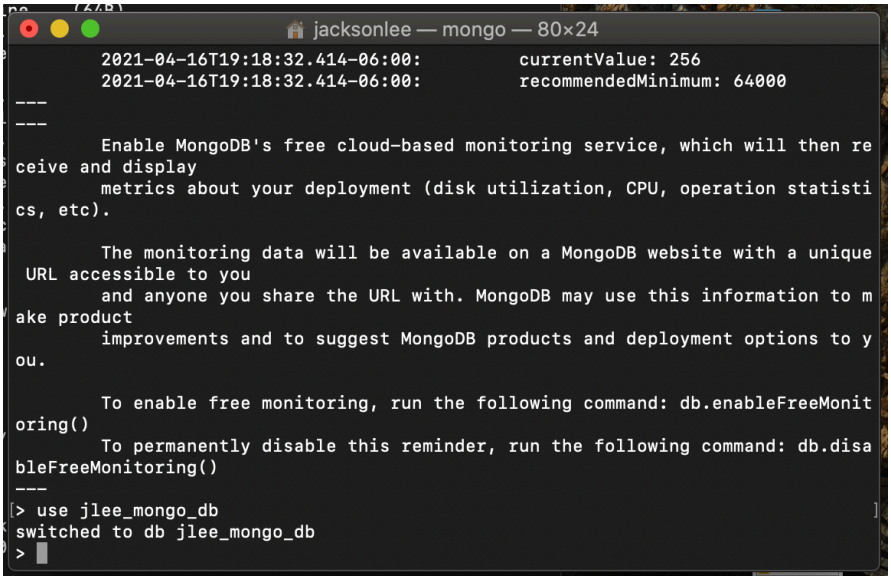
Jackson Lee
Homework 6

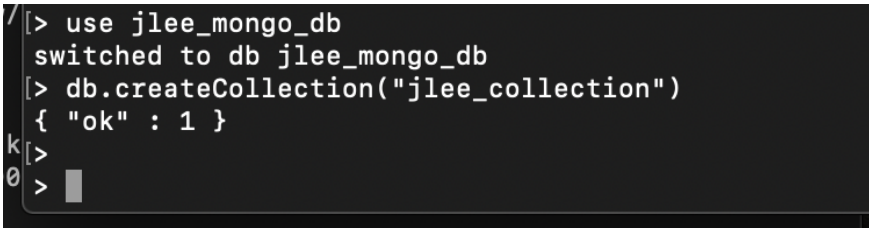
Section 1)

1)



2)

3)



4)

5)

```
> db.jlee_collection.insert({
... title: "Mongo Inset Practice",
... description: "first time inserting a document"})
WriteResult({ "nInserted" : 1 })
>
```

6)

```
> db.jlee_collection.find().pretty()
{
        "_id" : ObjectId("607a3a5141d204f977ae350e"),
        "title" : "Mongo Inset Practice",
        "description" : "first time inserting a document"
}
>
```

7)

```
>
> db.jlee_collection.update({'title':'Mongo Inset Practice'},
... {$set:{ 'title':'Mongo Update Practice'}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
>
>
```

8)

```
> db.jlee_collection.remove({title: "Mongo Update Practice"})
WriteResult({ "nRemoved" : 1 })
>
>
```

Section 2)

(1) How many restaurants are there in this collection?

```
>
> db.restaurants.count()
25359
>
>
```

(2) List in alphabetical order each different (distinct) cuisine represented in this collection.

```
> db.restaurants.distinct('cuisine')
[
        "Afghan",
        "African",
        "American",
        "Armenian",
        "Asian",
        "Australian",
        "Bagels/Pretzels",
        "Bakery",
        "Bangladeshi",
        "Barbecue",
        "Bottled beverages, including water, sodas, juices, etc.",
        "Brazilian",
        "CafÃ©/Coffee/Tea",
        "Café/Coffee/Tea",
        "Cajun",
        "Californian",
        "Caribbean",
        "Chicken",
        "Chilean",
        "Chinese",
        "Chinese/Cuban",
        "Chinese/Japanese",
        "Continental",
        "Creole",
        "Creole/Cajun",
        "Czech",
        "Delicatessen",
        "Donuts",
        "Eastern European",
        "Egyptian",
        "English",
        "Ethiopian",
        "Filipino",
        "French",
        "Fruits/Vegetables",
        "German",
        "Greek",
        "Hamburgers",
        "Hawaiian",
        "Hotdogs",
        "Hotdogs/Pretzels",
        "Ice Cream, Gelato, Yogurt, Ices",
        "Indian",
        "Indonesian",
        "Iranian",
        "Irish",
        "Italian",
        "Japanese",
        "Jewish/Kosher",
        "Juice, Smoothies, Fruit Salads",
        "Korean",
        "Latin (Cuban, Dominican, Puerto Rican, South & Central American)",
        "Mediterranean",
```

(3) Return the name of all restaurants within the zipcode 10023 which serve Italian cuisine. Return only the names of the restaurants.

(**NOTE:** confident that my query should of displayed only the names without the id but I couldn't get it to work properly. Don't really know what's going on with the result. Even with or without the project the result would only be the id and the zip code)

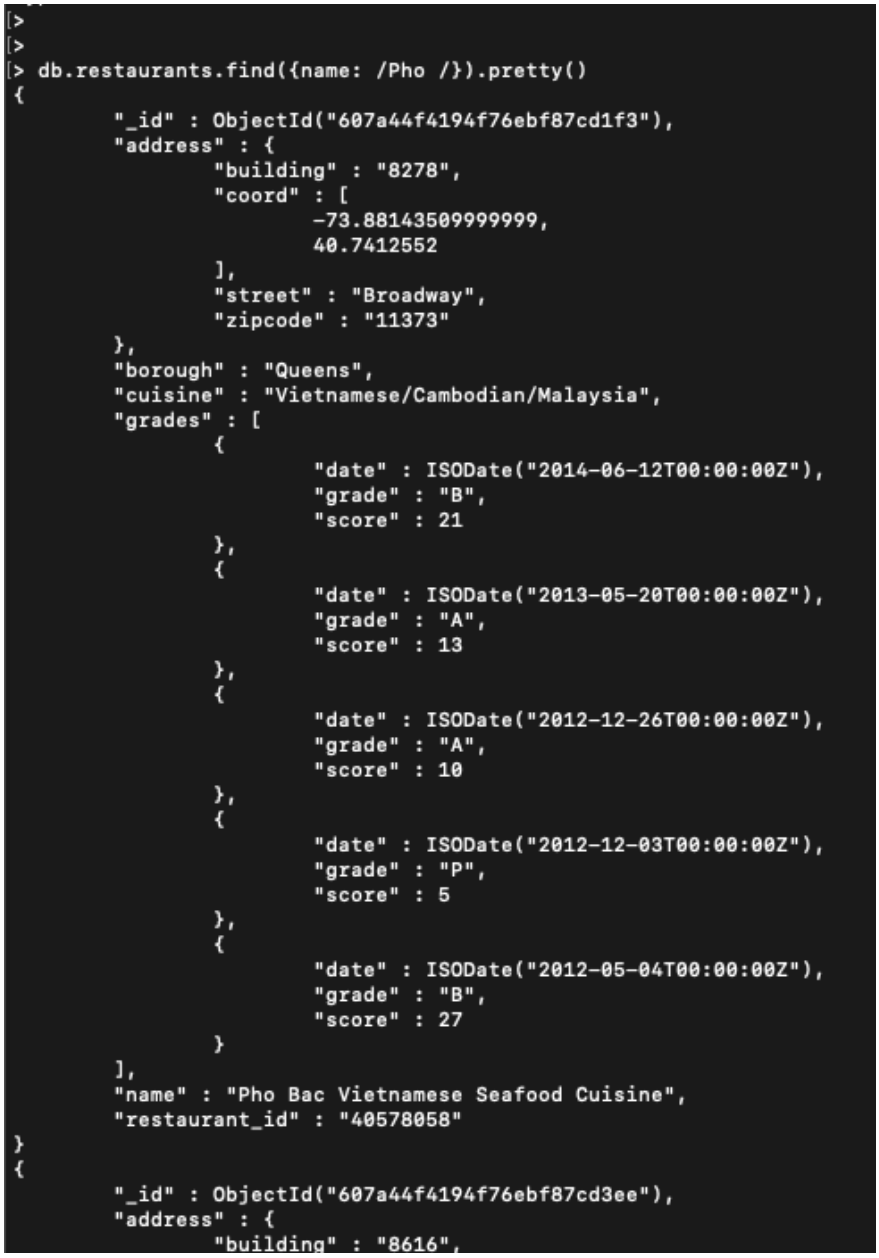
```
> db.restaurants.find({cuisine: "Italian"}, {zipcode: "10023"}, {"name":1, _id:0}).pretty()
{ "_id" : ObjectId("607a44f4194f76ebf87cca67"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca6b"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca79"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca87"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca8b"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca90"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca94"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87cca9b"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaa6"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaa8"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaa9"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaaa"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaab"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaad"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccabc"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccabd"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccac0"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccad6"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaf4"), "zipcode" : "10023" }
{ "_id" : ObjectId("607a44f4194f76ebf87ccaf5"), "zipcode" : "10023" }
Type "it" for more
>
```

(4) Which Borough has the most Greek restaurants? How many are there?

Queens has the most with 58 Greek Restaurants.

```
>
> db.restaurants.aggregate( [ {$match:{"cuisine":"Greek"} }, {$group: {_id: "$borough", count: {$sum:1} } }, {$sort: {count:-1} } ] )
{ "_id" : "Queens", "count" : 58 }
{ "_id" : "Manhattan", "count" : 35 }
{ "_id" : "Brooklyn", "count" : 14 }
{ "_id" : "Bronx", "count" : 4 }
>
```

(5) Return a list of restaurants (names) which have the string “Pho ” in their name. (“Pho” is a wonderful and delicious Vietnamese noodle soup.)



```
[>
[>
[> db.restaurants.find({name: /Pho /}).pretty()
{
        "_id" : ObjectId("607a44f4194f76ebf87cd1f3"),
        "address" : {
                "building" : "8278",
                "coord" : [
                        -73.88143509999999,
                        40.7412552
                ],
                "street" : "Broadway",
                "zipcode" : "11373"
        },
        "borough" : "Queens",
        "cuisine" : "Vietnamese/Cambodian/Malaysia",
        "grades" : [
                {
                        "date" : ISODate("2014-06-12T00:00:00Z"),
                        "grade" : "B",
                        "score" : 21
                },
                {
                        "date" : ISODate("2013-05-20T00:00:00Z"),
                        "grade" : "A",
                        "score" : 13
                },
                {
                        "date" : ISODate("2012-12-26T00:00:00Z"),
                        "grade" : "A",
                        "score" : 10
                },
                {
                        "date" : ISODate("2012-12-03T00:00:00Z"),
                        "grade" : "P",
                        "score" : 5
                },
                {
                        "date" : ISODate("2012-05-04T00:00:00Z"),
                        "grade" : "B",
                        "score" : 27
                }
        ],
        "name" : "Pho Bac Vietnamese Seafood Cuisine",
        "restaurant_id" : "40578058"
}
{
        "_id" : ObjectId("607a44f4194f76ebf87cd3ee"),
        "address" : {
                "building" : "8616",
```

(6) Return a list of boroughs ranked by the number of Mexican restaurants in the borough. That is, for each borough, find how many restaurants serve Mexican cuisine and print the borough and the number of such restaurants sorted descending by this number. (HINT: use the aggregate method, and use a $group and a $sum.)

```
@(shell):1:127
> db.restaurants.aggregate( [ {$match: {"cuisine":"Mexican" } }, {$group: { _id: "$borough", count: { $sum:1 } } }, { $sort: {count:-1 } } ] )
{ "_id" : "Manhattan", "count" : 273 }
{ "_id" : "Brooklyn", "count" : 212 }
{ "_id" : "Queens", "count" : 146 }
{ "_id" : "Bronx", "count" : 89 }
{ "_id" : "Staten Island", "count" : 33 }
{ "_id" : "Missing", "count" : 1 }
[>
[>
>
```

(7) Find the top 5 Italian restaurants in Brooklyn that have the highest total score. Return for each restaurant the restaurant's name and the total score. (HINT: use the aggregate method with $unwind to parse out the scores array, followed by a $group and a $sum.)

```
> db.restaurants.aggregate( [ {$match: {"cuisine": "Italian", "borough": "Brooklyn"} },
{$unwind: "$grades"}, {$group: {_id: "$name", count: {$sum: "$grades.score"} } }, {$sort
: {count: -1}}, {$limit:5} ] )
{ "_id" : "Joe'S Pizza", "count" : 173 }
{ "_id" : "Anella", "count" : 153 }
{ "_id" : "Tutta Pasta", "count" : 124 }
{ "_id" : "Peppino'S", "count" : 104 }
{ "_id" : "Doc Wine Bar", "count" : 103 }
>
```