

MongoDB HW – Warren Payne

Task 1

1. create db

```
> use warren_db
switched to db warren_db
```

2. drop db

```
db.dropDatabase()
{"ok" : 1 }
```

3. create collection

```
> db.createCollection("test_collection", {autoIndexId: true})
{
  "note" : "the autoIndexId option is deprecated and will be removed in a future release",
  "ok" : 1
}
```

4. drop collection

```
> db.test_collection.drop()
true
```

5. insert document into collection

```
> db.createCollection("another_collection")
{ "ok" : 1 }
> db.another_collection.insert({title: "Mongo Db practice", description: "this is my first MongoDB document"})
WriteResult({ "nInserted" : 1 })
```

6. query the document

```
> db.another_collection.find().pretty()
{
  "_id" : ObjectId("5df2d8df6c10e2794150365f"),
  "title" : "Mongo Db practice",
  "description" : "this is my first MongoDB document"
}
```

7. update a document

```
> db.another_collection.update({'title':'Mongo Db practice'}, {$set:{'title':'New MongoDB practice'}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

8. delete a document

```
> db.another_collection.remove({status: "P"},1)
WriteResult({ "nRemoved" : 0 })
> db.another_collection.remove({status: "P"})
WriteResult({ "nRemoved" : 0 })
> db.another_collection.remove({})
WriteResult({ "nRemoved" : 1 })
```

Task 2

1. count on "Sandwich" in the name

```
> db.restaurants.find({"name" : /*Sandwich.*/}).count()
76
>
```

a.

2. list French cuisine in Queens by name only

```
> db.restaurants.find($and : [{cuisine : "French"}, {borough : "Queens"}], {name:1, _id:0})
{ "name" : "La Baraka Restaurant" }
{ "name" : "Air France Lounge" }
{ "name" : "Tournesol" }
{ "name" : "Winegasm" }
{ "name" : "Cafe Henri" }
{ "name" : "Bistro 33" }
{ "name" : "Domaine Wine Bar" }
{ "name" : "Cafe Triskell" }
{ "name" : "Cannelle Patisserie" }
{ "name" : "La Vie" }
{ "name" : "Dirty Pierres Bistro" }
{ "name" : "Fresca La Crepe" }
{ "name" : "Bliss 46 Bistro" }
{ "name" : "Bear" }
{ "name" : "Cuisine By Claudette" }
{ "name" : "Paris Baguette" }
{ "name" : "The Baroness Bar" }
{ "name" : "Francis Cafe" }
{ "name" : "Madame Sou Sou" }
{ "name" : "Crepe 'N' Tearia" }
Type "it" for more
>
```

a.

3. Descending count of Italian eateries by borough

```
> db.restaurants.aggregate([{"$match": {"cuisine": "Italian"}}, {"$group": { "_id": {"borough": "$borough", "cuisine": "$cuisine"}, "count": {"$sum": 1 } }}, {"$sort": {"count": -1}}])
{ "_id" : { "borough" : "Manhattan", "cuisine" : "Italian" }, "count" : 621 }
{ "_id" : { "borough" : "Brooklyn", "cuisine" : "Italian" }, "count" : 192 }
{ "_id" : { "borough" : "Queens", "cuisine" : "Italian" }, "count" : 131 }
{ "_id" : { "borough" : "Staten Island", "cuisine" : "Italian" }, "count" : 73 }
{ "_id" : { "borough" : "Bronx", "cuisine" : "Italian" }, "count" : 52 }
>
```

a.

4. List top 5 German restaurants in Manhattan by their sum of scores in descending order

```
db.restaurants.aggregate([{"$match": {"cuisine": "German", "borough": "Manhattan"}}, {"$unwind": "$grades"}, {"$group": {"_id": "$name", "sumOfScores": {"$sum": "$grades.score"} }}, {"$sort": {"sumOfScores": -1}}, {"$limit": 5}])
{ "_id" : "Edi & The Wolf", "sumOfScores" : 105 }
{ "_id" : "Blaue Gans", "sumOfScores" : 103 }
{ "_id" : "Sigmund Pretzel Shop", "sumOfScores" : 71 }
{ "_id" : "Hallo Berlin", "sumOfScores" : 67 }
{ "_id" : "Loreley Restaurant", "sumOfScores" : 58 }
```

a.

5. Find the restaurants within the coordinates that have a score greater than 75

```
> db.restaurants.find($and:[{$grades: {$elemMatch:{score:{$gt : 75}}}}, {"address.coord" : {$geoWithin : {$box: [[-74,40.7],[-73.5,40.5]]}}}], {_id:0, "name":1})
{ "name" : "Pino'S La Forchetta" }
{ "name" : "Georges Restaurant" }
{ "name" : "Cheikh Umar Futiyu Restaurant" }
>
```

a.