

Assignment 1

1. Write a MongoDB query to display all the documents in the collection restaurants. _

```
> use dbda2022
```

```
switched to db dbda2022
```

```
> show collections
```

```
inventory
```

```
restaurant
```

```
student
```

```
> db.restaurants.find()
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7b"), "address" : { "building" : "1007", "coord" :  
[ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462" }, "borough" :  
"Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"),  
"grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A",  
"score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, {  
"date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" :  
ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake  
Shop", "restaurant_id" : "30075445" }
```

2. Write a MongoDB query to display the fields restaurant_id, name, borough and cuisine for all the documents in the collection restaurant. _

```
> db.restaurants.find({}, {"restaurant_id" : 1, "name":1, "borough":1, "cuisine" :1});
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7b"), "borough" : "Bronx", "cuisine" : "Bakery",  
"name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7c"), "borough" : "Brooklyn", "cuisine" :  
"Hamburgers", "name" : "Wendy'S", "restaurant_id" : "30112340" }
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7d"), "borough" : "Manhattan", "cuisine" :  
"Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7e"), "borough" : "Brooklyn", "cuisine" :  
"American ", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }
```

3.

```
> db.restaurants.find({}, {"restaurant_id" : 1, "name":1, "borough":1, "cuisine" :1, _id:0})
{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop",
  "restaurant_id" : "30075445" }
{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant_id" :
  "30112340" }
```

4.

```
> db.restaurants.find({}, {"restaurant_id" : 1, "name":1, "borough":1, "address.zipcode"
:1, "_id":0})
{ "address" : { "zipcode" : "10462" }, "borough" : "Bronx", "name" : "Morris Park Bake Shop",
  "restaurant_id" : "30075445" }
{ "address" : { "zipcode" : "11225" }, "borough" : "Brooklyn", "name" : "Wendy'S",
  "restaurant_id" : "30112340" }
```

5.

```
> db.restaurants.find({}, {"borough":"Bronx"})
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7b"), "borough" : "Bronx" }
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7c"), "borough" : "Bronx" }
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7d"), "borough" : "Bronx" }
```

6.

```
> db.restaurants.find({}, {"borough":"Bronx"}).limit(5)
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7b"), "borough" : "Bronx" }
{ "_id" : ObjectId("625f7eb861649a6d1bedaf7c"), "borough" : "Bronx" }
```

7.

```
> db.restaurants.find({}, {"borough": "Bronx"}).skip(5).limit(5)
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf80"), "borough" : "Bronx" }
```

```
{ "_id" : ObjectId("625f7eb861649a6d1bedaf81"), "borough" : "Bronx" }
```

8.

```
> db.restaurants.find({"grades.score": {$gt: 90}}).pretty()
```

```
{
```

```
  "_id" : ObjectId("625f7eb861649a6d1bedb0d9"),
```

```
  "address" : {
```

```
    "building" : "65",
```

```
    "coord" : [
```

```
      -73.9782725,
```

```
      40.7624022
```

```
    ],
```

```
    "street" : "West 54 Street",
```

```
    "zipcode" : "10019"
```

```
  },
```

```
  "borough" : "Manhattan",
```

```
  "cuisine" : "American ",
```

```
  "grades" : [
```

```
    {
```

```
      "date" : ISODate("2014-08-22T00:00:00Z"),
```

```
      "grade" : "A",
```

```

        "score" : 11
    },
    {
        "date" : ISODate("2014-03-28T00:00:00Z"),
        "grade" : "C",
        "score" : 131
    },
    {
        "date" : ISODate("2013-09-25T00:00:00Z"),

```

9.

```
> db.restaurants.find({"grades.score":{$gt:80,$lt:100}}).pretty()
```

```

{
  "_id" : ObjectId("625f7eb861649a6d1bedb0d9"),
  "address" : {
    "building" : "65",
    "coord" : [
      -73.9782725,
      40.7624022
    ],
    "street" : "West 54 Street",
    "zipcode" : "10019"
  },
  "borough" : "Manhattan",
  "cuisine" : "American ",
  "grades" : [
    {
      "date" : ISODate("2014-08-22T00:00:00Z"),

```

```

    "grade" : "A",
    "score" : 11
  },
  {
    "date" : ISODate("2014-03-28T00:00:00Z"),
    "grade" : "C",
    "score" : 131
  },
  {
    "date" : ISODate("2013-09-25T00:00:00Z"),
    "grade" : "A",
    "score" : 11
  },
  {

```

10.

db.restaurants.find({"address.coord":{"\$lt: -95.754168}}).pretty()

```

{
  "_id" : ObjectId("625f7eb861649a6d1bedb5c3"),
  "address" : {
    "building" : "3707",
    "coord" : [
      -101.8945214,
      33.5197474
    ],
    "street" : "82 Street",
    "zipcode" : "11372"
  },

```

11.

```
> db.restaurants.find( {"cuisine": {$ne : "American "}, "grades.score" : {$gt : 70}, "address.coord" : {$lt : -65.754168}}).pretty()
```

Or with and operator----

```
> db.restaurants.find({$and:[{"cuisine": {$ne : "American "}}, {"grades.score" : {$gt : 70}}, {"address.coord" : {$lt : -65.754168}}]}).pretty()
```

```
{
  "_id" : ObjectId("625f7eb861649a6d1bedb17a"),
  "address" : {
    "building" : "345",
    "coord" : [
      -73.9864626,
      40.7266739
    ],
    "street" : "East 6 Street",
    "zipcode" : "10003"
  },
  "borough" : "Manhattan",
  "cuisine" : "Indian",
}
```

12.

```
> db.restaurants.find({"cuisine":{$ne:"American"}, "grades.score":{$gt:70}, "address.coord":{$lt: -65.754168}}).pretty()
```

```
{
  "_id" : ObjectId("625f7eb861649a6d1bedb17a"),
  "address" : {
    "building" : "345",
  },
}
```

```

"coord" : [
  -73.9864626,
  40.7266739
],
"street" : "East 6 Street",

```

13.

```

> db.restaurants.find({"cuisine" : {$ne : "American "}, "grades.grade" : {$eq :
"A"}, "borough" : {$ne : "Beooklyn"}}).sort({"cuisine" : -1}).pretty()

```

```

{
  "_id" : ObjectId("625f7eb861649a6d1bedb687"),
  "address" : {
    "building" : "89",
    "coord" : [
      -73.9995899,
      40.7168015
    ],
    "street" : "Baxter Street",
    "zipcode" : "10013"
  }
}

```

14.

```

> db.restaurants.find({"name" : /^Wil/}, {"restaurant_id" :
1, "name" : 1, "borough" : 1, "cuisine" : 1})

```

```

{ "_id" : ObjectId("625f7eb861649a6d1bedaf82"), "borough" : "Brooklyn", "cuisine" :
"Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }

{ "_id" : ObjectId("625f7eb861649a6d1bedaf85"), "borough" : "Bronx", "cuisine" :
"American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }

```

15.

>

```
db.restaurants.find({"name":/ces$/},{ "restaurant_id":1,"name":1,"borough":1,"cuisine":1}).pretty()
```

```
{
```

```
  "_id" : ObjectId("625f7eb861649a6d1bedb40e"),
```

```
  "cuisine" : "American ",
```

```
  "name" : "Pieces",
```

```
  "restaurant_id" : "40399910"
```

```
}
```

16.