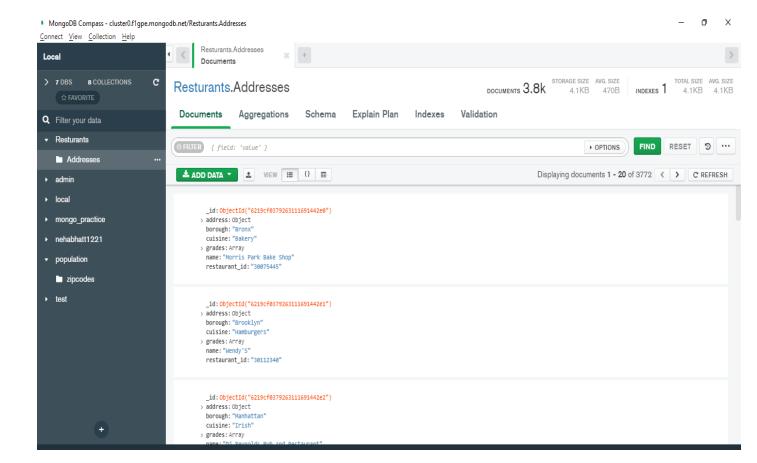
MongoDB – Complex Queries

Mongo DB Exercises - With the Restaurants Data Set

- 1. Download the restaurants.zip file
- 2. Unzip the file, you will see restaurants.json file
- 3. Run the mongod server
- 4. Run the following command to import the json file provided. It will load the json file into the mongodb with database name restaurants, collections name addresses
- 5. Run mongo shell command
- 6. show databases 7. use restaurants
- 8. db.addresses.find() should print entire json data
- 9. Then start working on the following exercises and submit your queries as the answers to the question



Exercise Questions

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

```
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### Crosoft tindnes (Version 10-0.2006/403)
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```

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

```
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```

3. Write a MongoDB query to display the fields restaurant_id, name, borough and cuisine, but exclude the field _id for all the documents in the collection restaurant.

4. Write a MongoDB query to display the fields restaurant_id, name, borough and zip code, but exclude the field _id for all the documents in the collection restaurant.

```
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```

5. Write a MongoDB query to display the first 5 restaurant which is in the borough Bronx.

6. Write a MongoDB query to display all the restaurant which is in the borough Bronx.

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
                                                                                                                                                                                                                   atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({"borough":"Bronx"})
     _id: ObjectId("6219cf0379263111691442e0"),
   _id: Objects,
address:
building: '1007',
coord: [ -73.856077, 40.848447 ],
street: 'Morris Park Ave',
zipcode: '10462'
    borough: 'Bronx',
cuisine: 'Bakery',
    cuisine: '
grades: [
       {
    date: ISODate("2014-03-03T00:00:00.000Z"),
          date: ISODate("2013-09-11T00:00:00.000Z"),
          grade: '/
score: 6
          date: ISODate("2013-01-24T00:00:00.000Z"),
         grade: 'A',
score: 10
          date: ISODate("2011-11-23T00:00:00.000Z"),
         grade: '/
score: 9
          date: ISODate("2011-03-10T00:00:00.000Z"),
          grade: 'B',
score: 14
```

7. Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the borough Bronx.

8. Write a MongoDB query to find the restaurants who achieved a score more than 90.

9. Write a MongoDB query to find the restaurants that achieved a score, more than 80 but less than 100.

10. Write a MongoDB query to find the restaurants which locate in latitude value less than -95.754168.

```
∂
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({"address.coord":{$1t:-95.754168}})
     _id: ObjectId("6219cf047926311169144928"),
    address: {
  building:
      building: '3707',
coord: [ -101.8945214, 33.5197474 ],
street: '82 Street',
zipcode: '11372'
    borough: 'Queens',
cuisine: 'American
grades: [
         date: ISODate("2014-06-04T00:00:00.000Z"),
         grade: 'A',
score: 12
         date: ISODate("2013-11-07T00:00:00.000Z"),
         grade: 'B', score: 19
         date: ISODate("2013-05-17T00:00:00.000Z"),
         grade: 'A', score: 11
         date: ISODate("2012-08-29T00:00:00.000Z"),
         grade:
         score: 11
         date: ISODate("2012-04-03T00:00:00.000Z"),
         grade: 'A',
score: 12
         date: ISODate("2011-11-16T00:00:00.000Z"),
```

11. Write a MongoDB query to find the restaurants that do not prepare any cuisine of 'American' and their grade score more than 70 and latitude less than -65.754168.

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
                                                                                                                                                                                                           Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({$and:[{"cuisine":{$ne:"american"}},{"grades.sco
                                                                                                                                                     ":{$gt:70}},{"addre
      id: ObjectId("6219cf03792631116914443e"),
   id: Ubject: address: {
  building: '65',
  coord: [ -73.9782725, 40.7624022 ],
  street: 'West 54 Street',
  zipcode: '10019'
    },
borough: 'Manhattan',
cuisine: 'American',
       { date: ISODate("2014-08-22T00:00:00.000Z"),
         grade: 'A',
score: 11
         date: ISODate("2014-03-28T00:00:00.000Z"),
         grade: 'C',
score: 131
         date: ISODate("2013-09-25T00:00:00.000Z"),
         grade: 'A',
score: 11
         date: ISODate("2013-04-08T00:00:00.000Z"),
         date: ISODate("2012-10-15T00:00:00.000Z"),
         date: ISODate("2011-10-19T00:00:00.000Z"),
```

12. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a score more than 70 and located in the longitude less than -65.754168.

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
                                                                                                                                                                                                            Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({$and:[{"cuisine":{$ne:"american"},"grades.score":{$gt:70},"address.coord":{$lt:-65.754168}}]})
     _id: ObjectId("6219cf03792631116914443e"),
      ddress: {
    building: '65',
    coord: [ -73.9782725, 40.7624022 ],
    street: 'West 54 Street',
    zipcode: '10019'
    borough: 'Manhattan',
cuisine: 'American',
grades: [
         date: ISODate("2014-08-22T00:00:00.000Z"),
         grade: 'A',
score: 11
         date: ISODate("2014-03-28T00:00:00.000Z"),
         grade: 'C',
score: 131
         date: ISODate("2013-09-25T00:00:00.000Z"),
         grade: 'A',
score: 11
         date: ISODate("2013-04-08T00:00:00.000Z"),
         date: ISODate("2012-10-15T00:00:00.000Z"),
         grade: 'A',
score: 11
          date: ISODate("2011-10-19T00:00:00.000Z"),
```

13. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a grade point 'A' not belongs to the borough Brooklyn. The document must be displayed according to the cuisine in descending order.

14. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Wil' as first three letters for its name.

15. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'ces' as last three letters for its name.

```
Atlas atlas-bjyw9t-shand-0 [primary] Resturants> db.Addresses.find({name:/ces$/},{"resturant_id":1,"name":1,"borough":1,"cuisisne":1})

{
    id: objecttd("6219cf647926311169144773"),
    borough: 'Manhattan',
    name: 'Pieces'
},
    id: objecttd("6219cf647926311169144832"),
    borough: 'Queens',
    name: 'S.H.R. Restaurant Services'
},
    id: objecttd("6219cf647926311169144838"),
    borough: 'Manhattan',
    name: 'Good Shepherd Services'
},
    id: objecttd("6219cf657926311169144ceb"),
    borough: 'The Ce Box-Ralph's Famous Italian Ices"
},
    id: objectid("6219cf657926311169144eed"),
    borough: 'Brooklyn',
    name: 'Alices'
},
    id: objectid("6219cf657926311169144eed"),
    borough: 'Brooklyn',
    name: 'Alices'
},
    id: objectid("6219cf657926311169145109"),
    borough: 'Manhattan',
    name: 'Re: Sources'
}

Atlas atlas-bjyw9t-shard-0 [primary] Resturants>
```

16. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Reg' as three letters somewhere in its name.

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({name:/.*Reg*./},{"resturant_id":1,"name":1,"borough":1,"cuisisne":1})
     _id: ObjectId("6219cf0379263111691442e2"),
    borough: 'Manhattan',
name: 'Dj Reynolds Pub And Restaurant'
     _id: ObjectId("6219cf0379263111691442e8"),
    borough: 'Brooklyn',
name: 'Regina Caterers
     _id: ObjectId("6219cf0379263111691442fb"),
    borough: 'Queens',
name: 'Ho Mei Restaurant'
     _id: ObjectId("6219cf0379263111691442fd"),
    borough: 'Brooklyn',
name: "Shashemene Int'L Restaura"
     _id: ObjectId("6219cf03792631116914431b"),
    borough: 'Manhattan',
name: 'Palm Restaurant'
     _id: ObjectId("6219cf03792631116914431e"),
    borough: 'Manhattan',
name: 'Isle Of Capri Resturant'
     _id: ObjectId("6219cf03792631116914431f"),
    borough: 'Manhattan',
name: 'Old Town Bar & Restaurant'
     _id: ObjectId("6219cf037926311169144321"),
    borough: 'Manhattan',
name: 'Seville Restaurant
```

17. Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish.

18. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which belong to the borough Staten Island or Queens or Bronxor Brooklyn.

```
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```

19. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which are not belonging to the borough Staten Island or Queens or Bronxor Brooklyn.

20. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which achieved a score which is not more than 10.

```
∂
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({"grades.score":{$not:{$gt:10}}},{"resturant_id":1,"name":1,"cuisine":1})
     _id: ObjectId("6219cf0379263111691442eb"),
    cuisine: 'American ',
name: 'C & C Catering Service'
     _id: ObjectId("6219cf0379263111691442ed"),
    cuisine: 'American ',
name: '1 East 66Th Street Kitchen'
     _id: ObjectId("6219cf0379263111691442f1"),
    cuisine: 'Delicatessen', name: 'Nordic Delicacies
     _id: ObjectId("6219cf0379263111691442fa"),
    cuisine: 'Hamburgers',
name: 'White Castle'
     _id: ObjectId("6219cf03792631116914430d"),
     _id: ObjectId("6219cf03792631116914431d"),
    cuisine: 'American ',
name: 'Manhem Club'
     _id: ObjectId("6219cf03792631116914432b"),
    cuisine: 'American ',
name: 'Great Kills Yacht Club'
     _id: ObjectId("6219cf037926311169144332"),
```

21. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which prepared dish except 'American' and 'Chinees' or restaurant's name begins with letter 'Wil'.

```
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```

22. Write a MongoDB query to find the restaurant Id, name, and grades for those restaurants which achieved a grade of "A" and scored 11 on an ISODate "2014-08-11T00:00:00Z" among many of survey dates..

23. Write a MongoDB query to find the restaurant Id, name and grades for those restaurants where the 2nd element of grades array contains a grade of "A" and score 9 on an ISODate "2014-08-11T00:00:00Z"

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
tlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find({"grades.date":ISODate("2014-08-11700:00:002"),"grades.grade":"A","grades.score":9},{"resturant_id":1
    _id: ObjectId("6219cf037926311169144332"),
   grades: [
        date: ISODate("2014-08-11T00:00:00.000Z"),
        grade: 'A', score: 10
        date: ISODate("2014-03-14T00:00:00.000Z"),
        date: ISODate("2013-01-16T00:00:00.000Z"),
        grade: 'A', score: 10
        date: ISODate("2012-07-12T00:00:00.000Z"),
        grade: 'A',
score: 9
      me: 'Serendipity 3'
    _id: ObjectId("6219cf03792631116914435e"),
   grades: [
        date: ISODate("2014-08-11T00:00:00.000Z"),
        grade: 'A',
score: 13
        date: ISODate("2013-07-22T00:00:00.000Z"),
```

24. Write a MongoDB query to find the restaurant Id, name, address and geographical location for those restaurants where 2nd element of coord array contains a value which is more than 42 and upto 52..

25. Write a MongoDB query to arrange the name of the restaurants in ascending order along with all the columns.

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
                                                                                                                                                                                                                    .
Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find().sort({"name":1})
      _id: ObjectId("6219cf057926311169144f70"),
     address: {
    building: '129',
    coond: [ -73.962943, 40.685007 ],
    street: 'Gates Avenue',
    zipcode: '11238'
    },
borough: 'Brooklyn',
cuisine: 'Italian',
grades: [
          date: ISODate("2014-03-06T00:00:00.000Z"),
          grade: 'A',
score: 5
          date: ISODate("2013-08-29T00:00:00.000Z"),
          score: 2
          date: ISODate("2013-03-08T00:00:00.000Z"),
          grade: 'A',
score: 7
          date: ISODate("2012-06-27T00:00:00.000Z"),
          grade: 'A',
score: 7
          date: ISODate("2011-11-17T00:00:00.000Z"),
          grade: 'A', score: 12
```

26. Write a MongoDB query to arrange the name of the restaurants in descending along with all the columns.

```
mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221
                                                                                                                                                                                                                     ₽
J
Type "it" for more
Atlas atlas-bjyw9t-shard-0 [primary] Resturants> db.Addresses.find().sort({"name":-1})
     _id: ObjectId("6219cf03792631116914439f"),
      uuress (
building: '6946',
coond: [ -73.8811834, 40.7017759 ],
street: 'Myrtle Avenue',
zipcode: '11385'
    },
borough: 'Queens',
cuisine: 'German',
grades: [
         date: ISODate("2014-09-24T00:00:00.000Z"),
         grade: 'A',
score: 11
          date: ISODate("2014-04-17T00:00:00.000Z"),
         grade: 'A',
score: 7
         date: ISODate("2013-03-12T00:00:00.000Z"),
         grade: 'A',
score: 13
          date: ISODate("2012-10-02T00:00:00.000Z"),
          grade: 'A',
score: 9
          date: ISODate("2012-05-09T00:00:00.000Z"),
          grade: 'A',
score: 13
          date: ISODate("2011-12-28T00:00:00.000Z");
```

27. Write a MongoDB query to arranged the name of the cuisine in ascending order and for that same cuisine borough should be in descending order.

28. Write a MongoDB query to know whether all the addresses contains the street or not.

Select mongosh mongodb+srv://cluster0.f1gpe.mongodb.net/nehabhatt1221

date: ISODate("2011-11-23T00:00:00.000Z"),

date: ISODate("2011-03-10T00:00:00.000Z"),

grade: 'A', score: 9

grade: 'B', score: 14

name: 'Morris Park Bake Shop', restaurant_id: '30075445' _ 0

29. Write a MongoDB query which will select all documents in the restaurants collection where the coord field value is Double.

```
manageth manageth manageth exp.//dutanofligpe manageth extractabilities
if manageth manageth manageth exp.//dutanofligpe manageth extractabilities
if manageth manageth extractabilities
if manageth manageth extractabilities
if manageth extractabilities
if manageth manageth ext
```

30. Write a MongoDB query which will select the restaurant Id, name and grades for those restaurants which returns 0 as a remainder after dividing the score by 7.

31. Write a MongoDB query to find the restaurant name, borough, longitude and attitude and cuisine for those restaurants which contains 'mon' as three letters somewhere in its name.

```
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```

32. Write a MongoDB query to find the restaurant name, borough, longitude and latitude and cuisine for those restaurants which contain 'Mad' as first three letters of its name

```
Atlas atlas-bjyw0t-shard-0 [primary] Resturants> db.Addresses.find({name:{$regex:/~Mad/1}},{"name":1,"borough":1,"address.coord":1,"cutsine":1})

{
    id: objectId("6219cf04792631116914481c"),
    address: (coord: [ -73,9860597, 40.7431194 ] },
    borough: Manhattan',
    cutsine: 'Nadison Square'

}

id: objectId("6219cf0479263111691448ea"),
    address: (coord: [ -73,9830219999999, 40.742313 ] },
    borough: Nanhattan',
    cutsine: 'Indian',
    name: 'Madras Mahal'

}

{
    id: objectId("6219cf057926311169144b98"),
    address: (coord: [ -74,080602, 40.72735 ] },
    borough: Manhattan',
    cutsine: 'American',
    name: 'Madras Mahal'

}

id: objectId("6219cf05792631116914448"),
    address: (coord: [ -73,9817195999999, 40.7499406 ] },
    borough: Manhattan',
    cutsine: 'American',
    name: 'Madison Bistro'

}

id: objectId("6219cf057926311169144cdi"),
    address: (coord: [ -73,9717845, 40.6897199 ] ),
    borough: Brooklyn',
    cutsine: 'American',
    name: 'Madison Bistro'

}

id: objectId("6219cf057926311169144cdi"),
    address: (coord: [ -73,9717845, 40.6897199 ] ),
    borough: Brooklyn',
    cutsine: 'American',
    name: 'Madison'
    id: objectId("6219cf057926311169144fd6"),
    address: (coord: [ -73,9040753, 40.9069011 ] ),
    borough: Brooklyn',
    cutsine: 'American',
    name: 'Madison'
    id: objectId("6219cf057926311169144fd6"),
    address: (coord: [ -73,9040753, 40.9069011 ] ),
    borough: Brooklyn',
    cutsine: 'Madison',
    id: objectId("6219cf057926311169144fd6"),
    address: (coord: [ -73,9040753, 40.9069011 ] ),
    borough: Brooklyn',
    cutsine: 'Madison',
    id: objectId("6219cf057926311169144fd6"),
    address: (coord: [ -73,9040753, 40.9069011 ] ),
    borough: Brooklyn',
    cutsine: 'Madison',
    id: objectId("6219cf057926311169144fd6"),
    address: (coord: [ -73,9040753, 40.9069011 ] ),
    borough: Brooklyn',
    cutsine: 'Madison',
    id: objectId("6219cf057926311169144fd6"),
    id: objectId("6219cf057926311169144fd6"),
    id: objectId("6219cf05792
```