EXERCISE 18

Structure of 'restaurants' collection:


```
{
"address": {
  "building": "1007",
  "coord": [ -73.856077, 40.848447 ],
  "street": "Morris Park Ave",
  "zipcode": "10462"
},
"borough": "Bronx",
"cuisine": "Bakery",
"grades": [
  { "date": { "$date": 1393804800000 }, "grade": "A", "score": 2 },
  { "date": { "$date": 1378857600000 }, "grade": "A", "score": 6 },
  { "date": { "$date": 1358985600000 }, "grade": "A", "score": 10 },
  { "date": { "$date": 1322006400000 }, "grade": "A", "score": 9 },
  { "date": { "$date": 1299715200000 }, "grade": "B", "score": 14 }
],
"name": "Morris Park Bake Shop",
"restaurant_id": "30075445"
}
```


1. 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'.

Ans db.restaurants.find({$or:[{name:{$regex:/^wil/i}},{cuisine:{$nin:["American","Chinese"]}}]},{restaurant_id:1,name:1,borough:1,cuisine:1});

2. 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..

Ans db.restaurants.find({"grades":{$elemMatch:{grade:"A",score:11,date:ISODate("2014-08-11T00:00:00Z")}}},{restaurant_id:1,name:1,grades:1});

3. 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".

Ans db.restaurants.find({"grades.1":{grade:"A","grades.1.score":9,"grades.1.date":ISODate("2014-08-11T00:00:00Z")}},{restaurant_id:1,name:1,grades:1});

4. Write a MongoDB query to find the restaurant Id, name, address and geographic location for those restaurants where 2nd element of coord array contains a value

Ans db.restaurants.find({"address.coord.1":{$gte:42,$lte:52}},{restaurant_id:1,name:1,address:1});

which is more than 42 and upto 52..

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

An db.restaurant.find().sort({name:1})

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

An db.restaurants.find().sort({name:1});

7. 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.

An db.restaurants.find().sort({cuisine:1,borough:-1})

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

An db.restaurants.find({"address.street":{$exists:true}});

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

An db.restaurants.find({"address.coord":{$type:"double"}});

10. 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.

An db.restaurants.find({"grades.score":{$mod:[7,0]}});
{restaurant_id:1,name:1,grades:1});

11. 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.

An db.restaurants.find({name:{$regex:/mon/i}},
{name:1,borough:1,"address.coord":1,cuisine:1});

12. 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.

An db.restaurants.find({name:{$regex:/^mad/i
{name:1,borough:1,address.coord:1,cuis

13. Write a MongoDB query to find the restaurants that have at least one grade with a score of less than 5.

Ans db.restaurants.find({"grades.score":{$lt:5}});

14. Write a MongoDB query to find the restaurants that have at least one grade with a score of less than 5 and that are located in the borough of Manhattan.

Ans db.restaurants.find({borough:"manhattan","grades.score":{$lt:5}});

15. Write a MongoDB query to find the restaurants that have at least one grade with a score of less than 5 and that are located in the borough of Manhattan or Brooklyn.

Ans db.restaurants.find({borough:{$in:["manhatta","Brooklyn"]},"grade.score":{$lt:5}});

16. Write a MongoDB query to find the restaurants that have at least one grade with a score of less than 5 and that are located in the borough of Manhattan or Brooklyn, and their cuisine is not American.

Ans db.restaurants.find({borough:{$in:["manhatta","Brooklyn"]},cuisine:{$ne:"America"},"grades.score":{$lt:5}});

17. Write a MongoDB query to find the restaurants that have at least one grade with a score of less than 5 and that are located in the borough of Manhattan or Brooklyn, and their cuisine is not American or Chinese.

Ans db.restaurant.find({borough:{$in:["manhatta","Brooklyn"]},cuisine:{$nin:["america","chinese"]},"grade.score":{$lt:5}});

18. Write a MongoDB query to find the restaurants that have a grade with a score of 2 and a grade with a score of 6.

Ans db.restaurants.find({"grade.score":{$all:[2,6]}});

19. Write a MongoDB query to find the restaurants that have a grade with a score of 2 and a grade with a score of 6 and are located in the borough of Manhattan.

Ans db.restaurants.find({borough:"manhatta","grade.score":{$all:[2,6]}});

20. Write a MongoDB query to find the restaurants that have a grade with a score of 2 and a grade with a score of 6 and are located in the borough of Manhattan or Brooklyn.

Ans db.restaurant.find({borough:{$in:["manhattan","Brooklyn"]},"grade.score":{$all:[2,6]}});

21. Write a MongoDB query to find the restaurants that have a grade with a score of 2 and a grade with a score of 6 and are located in the borough of Manhattan or Brooklyn, and their cuisine is not American.

```
db.restaurants.find({ borough: {$in:
["manhattan","brooklyn"]}, cuisine:
{$ne:"American"}, "grades.score": {$all:[2,6]}});
```

22. Write a MongoDB query to find the restaurants that have a grade with a score of 2 and a grade with a score of 6 and are located in the borough of Manhattan or Brooklyn, and their cuisine is not American or Chinese.

```
db.restaurants.find({ borough: {$in:
["manhattan","Brooklyn"]}, cuisine: {$nin:
["American","Chinese"]}, grades.score: {$all: [2,6]}});
```

23. Write a MongoDB query to find the restaurants that have a grade with a score of 2 or a grade with a score of 6.

```
db.restaurants.find({"grades.score":{$in:[2,6]}})
```

Sample document of 'movies' collection

```
{
  _id: ObjectId("573a1390f29313caabcd42e8"),
plot: 'A group of bandits stage a brazen train hold-up, only to find a determined posse hot on their heels.',
genres: [ 'Short', 'Western' ],
runtime: 11,
cast: [
  'A.C. Abadie',
  "Gilbert M. 'Broncho Billy' Anderson",
```

Evaluation Procedure	Marks awarded
PL/SQL Procedure(5)	5
Program/Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	

20 6