EXERCISE 18

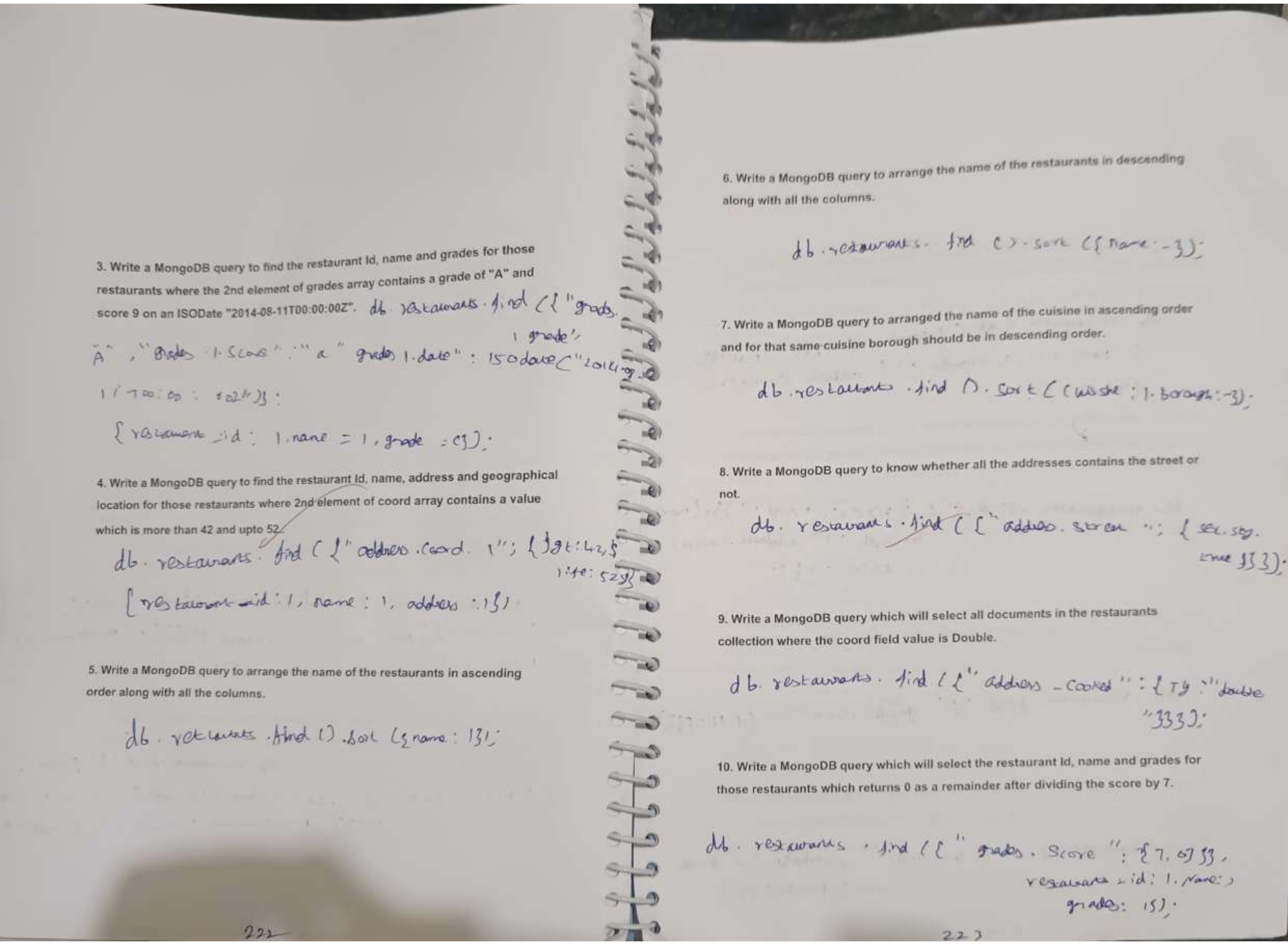
Structure of 'restaurants' collection:

```
{
 "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'.

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.. db. restaurants .find ({" grades".
{ $ match: grade: "A" , score: 11, date : Iso date (" 2014 -08-11T00
:- 00: 00z")}}}) {restaurant : 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". db. restaurants. find ({"grads. 1 grade": "A", "grades 1. Score": "a" grades 1. date": ISOdate ("2014-08-11T00: 00: 00Z")}:

{restaurant_id: 1. name = 1, grade = 0});

4. 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.

db. restaurants. find ({"address. coord. 1"; {$gt:42, $lte: 52}}

[restaurant_id: 1, name: 1, address: 1})

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

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

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

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.

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

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

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.

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.

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.

```
db restaurants find ({ name : ( rex </mon'}},
 { 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.

```
db. restaurants .find ({ { $ regex:' ^ mad ' :}}, { name:1
                     borough :1 " address .coord,
                        cuisine : 1 }}:
```

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

```
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.

```
db. restaurant .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.

```
db. restaurants .find ({ borough : { $ in : ["manhattan", "
Brooklyn"] } , cuisine :: ($ne". American " } "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.

```
db .restaurants . find ({ borough : {"$in["manhattan"
" Brooklyn" ]} , cuisine: {$ne: "American ": } " 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.

```
db. restaurants .find ({ borough: { $in :[" manhattan", "Brook
cuisine: {} ne: ! American", " Chinese"}]", grades . score ": {$lt:
                                                              }}
```

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.

```
db. restaurants. find ({" grades. 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.

```
db. restaurant .find ({ borough: "manhattan", "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.

```
db. restaurant . find ({ borough: $in [ "Manhattan",
" Brooklyn"] }, " grades.
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"}," grade.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",
   'George Barnes',
   'Justus D. Barnes'
  ],
 poster: 'https://m.media-
 amazon.com/images/M/MV5BMTU3NjE5NzYtYTYyNS00MDVmLWIwYjgtMmYwYWIxZDYyNzU2XkEyXkFqcG
```

```
deQXVyNzQzNzQxNzI@._V1_SY1000_SX677_AL_.jpg',
title: 'The Great Train Robbery',
fullplot: "Among the earliest existing films in American cinema - notable as the first film that presented a narrative story to tell - it depicts a group of cowboy outlaws who hold up a train and rob the passengers. They are then pursued by a Sheriff's posse. Several scenes have color included - all hand tinted.",
languages: [ 'English' ],
released: ISODate("1903-12-01T00:00:00.000Z"),
directors: [ 'Edwin S. Porter' ],
rated: 'TV-G',
awards: { wins: 1, nominations: 0, text: '1 win.' },
lastupdated: '2015-08-13 00:27:59.177000000',
year: 1903,
imdb: { rating: 7.4, votes: 9847, id: 439 },
countries: [ 'USA' ],
type: 'movie',
tomatoes: {
viewer: { rating: 3.7, numReviews: 2559, meter: 75 },
fresh: 6,
critic: { rating: 7.6, numReviews: 6, meter: 100 },
rotten: 0,
lastUpdated: ISODate("2015-08-08T19:16:10.000Z")
}
```

1. Find all movies with full information from the 'movies' collection that released in the year 1893.

db. movies . find ({ year : 1893}}

2. Find all movies with full information from the 'movies' collection that have a runtime greater than 120 minutes.

db.movies. find({runtime : { $gt : 120}})

3. Find all movies with full information from the 'movies' collection that have "Short" genre.

db movies . find({genres : "Short "})

4. Retrieve all movies from the 'movies' collection that were directed by "William K.L. Dickson" and include complete information for each movie.

db .movies.find ({directors:" William K-L- dickson "})

5. Retrieve all movies from the 'movies' collection that were released in the USA and include complete information for each movie.

db.movies find ({countries: "USA "})

6. Retrieve all movies from the 'movies' collection that have complete information and are rated as "UNRATED".

db. movies · find ({ rated : "UNRATED"},

7. Retrieve all movies from the 'movies' collection that have complete information and have received more than 1000 votes on IMDb.

db. moves. find ({" imbd. votes" : {$ gt : 1000}})

8. Retrieve all movies from the 'movies' collection that have complete information and have an IMDb rating higher than 7.

ab. movies. find ({"imbd. rating": {$gt : 7}})

9. Retrieve all movies from the 'movies' collection that have complete information and have a viewer rating higher than 4 on Tomatoes.

db. moves. find ({' Tomatoes.Viwes. rating": {$gt:
4 }})

10. Retrieve all movies from the 'movies' collection that have received an award.

db. movies find ({" awards .wins" : {$gt : 0}}

11. Find all movies with title, languages, released, directors, writers, awards, year, genres, runtime, cast, countries from the 'movies' collection in MongoDB that have at least one nomination.

db. movies . find ({" award · nomination" : {$gt:0}})

12. Find all movies with title, languages, released, directors, writers, awards, year, genres, runtime, cast, countries from the 'movies' collection in MongoDB with cast including "Charles Kayser".

db .movies find ({ cast : "Charles kayser"})

13. Retrieve all movies with title, languages, released, directors, writers, countries from the 'movies' collection in MongoDB that released on May 9, 1893.

db. moves .find{ dreald :ISODATE (" 1893-05-04
T00:00:000Z"}})

14. Retrieve all movies with title, languages, released, directors, writers, countries from the 'movies' collection in MongoDB that have a word "scene" in the title.

db. movies. find ({ tittle : /scence/i})