NAME: AKSHAY VENKAT KRISHNA REG NO: 230701022

EX N0:14

MongoDB Queries for Restaurants and Movies

Collections

Restaurants Collection Queries

```
1. Find restaurants that don't serve 'American' or 'Chinese' or whose names start with
   'Wil': db.restaurants.find({
   $or: [
    { cuisine: { $nin: ["American", "Chinese"] } },
    { name: { $regex: /^Wil/, $options: 'i' } }
  ]
 }, { restaurant_id: 1, name: 1, borough: 1, cuisine: 1 });
2. Find restaurants with a grade of 'A' and score 11 on '2014-08-11':
 db.restaurants.find({
   "grades": { $elemMatch: { "grade": "A", "score": 11, "date": ISODate("2014-08-11T00:00:00Z") } }
}, { restaurant_id: 1, name: 1, grades: 1 });
3. Find restaurants where the 2nd element of grades contains a grade 'A' and score 9 on
   '2014-0811':
 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. Find restaurants where the 2nd element of `coord` array contains a value more than 42 and
   up to 52:
 db.restaurants.find({
   "address.coord.1": { $gt: 42, $lte: 52 }
```

}, { restaurant_id: 1, name: 1, address: 1, "address.coord": 1 });

```
5. Arrange restaurant names in ascending order with all
 columns: db.restaurants.find().sort({ name: 1 });
6. Arrange restaurant names in descending order with all
 columns: db.restaurants.find().sort({ name: -1 });
7. Arrange cuisine in ascending order and borough in descending
 order: db.restaurants.find().sort({ cuisine: 1, borough: -1 });
8. Check if all addresses contain the street field:
 db.restaurants.find({ "address.street": { $exists: true } });
9. Select all documents where the 'coord' field value is of type
 Double: db.restaurants.find({ "address.coord": { $type: "double" } });
10. Find restaurants where score is divisible by 7:
                                                     db.restaurants.find(
   { "grades": { $elemMatch: { "score": { $mod: [7, 0] } } }
  }, { restaurant_id: 1, name: 1, grades: 1 });
11. Find restaurants where name contains
  'mon': db.restaurants.find({      name: {
$regex: "mon", $options: "i" }
  }, { name: 1, borough: 1, "address.coord": 1, cuisine: 1 });
12. Find restaurants where name starts with
  'Mad': db.restaurants.find({ name: { $regex:
"^Mad", $options: "i" }
  }, { name: 1, borough: 1, "address.coord": 1, cuisine: 1 });
```

13. Find restaurants with at least one grade with a score less than 5:

```
db.restaurants.find({
   "grades": { $elemMatch: { "score": { $lt: 5 } } }
  });
14. Find restaurants with at least one grade with a score less than 5 and located in
  Manhattan: db.restaurants.find({
   "grades": { $elemMatch: { "score": { $lt: 5 } } },
borough: "Manhattan"
 });
15. Find restaurants with at least one grade with a score less than 5 in Manhattan or
  Brooklyn: db.restaurants.find({
   "grades": { $elemMatch: { "score": { $lt: 5 } } },
borough: { $in: ["Manhattan", "Brooklyn"] }
 });
16. Find restaurants with at least one grade with a score less than 5 in Manhattan or Brooklyn
   and not American cuisine: db.restaurants.find({
   "grades": { $elemMatch: { "score": { $lt: 5 } } },
borough: { $in: ["Manhattan", "Brooklyn"] }, cuisine: {
$ne: "American" }
  });
17. Find restaurants with at least one grade with a score less than 5 in Manhattan or Brooklyn
   and not American or Chinese cuisine:
  db.restaurants.find({
   "grades": { $elemMatch: { "score": { $lt: 5 } } },
borough: { $in: ["Manhattan", "Brooklyn"] }, cuisine: {
$nin: ["American", "Chinese"] }
 });
18. Find restaurants with grades having a score of 2 and a score of 6:
```

```
db.restaurants.find({
   grades: { $all: [{ $elemMatch: { score: 2 } }, { $elemMatch: { score: 6 } }] }
  });
19. Find restaurants with grades having a score of 2 and a score of 6 in
  Manhattan: db.restaurants.find({ grades: { $all: [{ $elemMatch: { score: 2 } },
  {
$elemMatch: { score: 6 } }] }, borough: "Manhattan"
  });
20. Find restaurants with grades having a score of 2 and a score of 6 in Manhattan or
  Brooklyn: db.restaurants.find({
                                       grades: { $all: [{ $elemMatch: { score: 2 } }, {
$elemMatch: { score: 6 } }] }, borough: { $in: ["Manhattan", "Brooklyn"] }
  });
21. Find restaurants with grades having a score of 2 and a score of 6 in Manhattan or Brooklyn
   and not American cuisine:
                                                     db.restaurants.find({
                                                                                grades: { $all: [{
   $elemMatch: { score: 2 } }, {
   $elemMatch: { score: 6 } }] },
                                    borough: { $in: ["Manhattan", "Brooklyn"] },
                                                                                   cuisine: { $ne:
   "American" }
  });
22. Find restaurants with grades having a score of 2 and a score of 6 in Manhattan or Brooklyn
   and not American or Chinese cuisine:
  db.restaurants.find({      grades: { $all: [{ $elemMatch: { score: 2 } }, {
$elemMatch: { score: 6 } }] }, borough: { $in: ["Manhattan", "Brooklyn"]
   cuisine: { $nin: ["American", "Chinese"] }
  });
23. Find restaurants with a grade of 2 or a grade of
  6: db.restaurants.find({
   $or: [{ "grades.score": 2 }, { "grades.score": 6 }]
  });
```

Movies Collection Queries

```
1. Find movies released in 1893:
 db.movies.find({
year: 1893
 });
2. Find movies with runtime greater than 120 minutes:
 db.movies.find({
runtime: { $gt: 120 }
 });
3. Find movies with genre 'Short':
 db.movies.find({
genres: "Short"
 });
4. Find movies directed by 'William K.L. Dickson': db.movies.find({ directors: "William
  K.L. Dickson"
 });
 5) Find movies released in the USA:
db.movies.find({
countries: "USA"
});
6. Find movies released in the USA:
 db.movies.find({
   countries: "USA"
 });
```

7. Find movies rated as 'UNRATED':

```
db.movies.find({
rated:
"UNRATED"
 });
8. Find movies with more than 1000 votes on IMDb:
 db.movies.find({
   "imdb.votes": { $gt: 1000 }
 });
9. Find movies with IMDb rating higher than 7: db.movies.find({
   "imdb.rating": { $gt: 7 }
 });
10. Find movies with viewer rating higher than 4 on Tomatoes:
  db.movies.find({
   "tomatoes.viewer.rating": { $gt: 4 }
 });
11. Find movies that have received an award:
  db.movies.find({
   "awards.wins": { $gt: 0 }
 });
12. Find movies with at least one nomination:
  db.movies.find({
   "awards.nominations": { $gt: 0 }
  }, { title: 1, languages: 1, released: 1, directors: 1, writers: 1, awards: 1, year: 1, genres: 1, runtime:
1, cast: 1, countries: 1 });
13. Find movies with cast including 'Charles Kayser': db.movies.find({ cast: "Charles Kayser"
```

```
}, { title: 1, languages: 1, released: 1, directors: 1, writers: 1, awards: 1, year: 1, genres: 1, runtime:
1, cast: 1, countries: 1 });

14. Find movies released on May 9, 1893:
    db.movies.find({      released:
ISODate("1893-05-09T00:00:00Z")
    }, { title: 1, languages: 1, released: 1, directors: 1, writers: 1, countries: 1 });

15. Find movies with 'scene' in the title:    db.movies.find({          title: { $regex: "scene", $options: "i"          }
          }, { title: 1, languages: 1, released: 1, directors: 1, writers: 1, countries: 1 });
```