Exp14   # MONGO DB

// =============================

// 🍽 RESTAURANTS COLLECTION QUERIES

// =============================

// 1 Restaurants except 'American' & 'Chinese' OR name begins with 'Wil'

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


// 2 Grade "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 2nd element of grades array with grade "A" and score 9 on 2014-08-11

```
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 2nd coord element between 42 and 52
db.restaurants.find(
  {
    "address.coord.1": { $gt: 42, $lte: 52 }
  },
  { restaurant_id: 1, name: 1, address: 1, "address.coord": 1 }
);


// 5 Sort restaurant names ascending
db.restaurants.find().sort({ name: 1 });


// 6 Sort restaurant names descending
db.restaurants.find().sort({ name: -1 });


// 7 Sort cuisine ascending and borough descending
db.restaurants.find().sort({ cuisine: 1, borough: -1 });


// 8 Check whether all addresses have a street field
db.restaurants.find({ "address.street": { $exists: true } });


// 9 coord field value is Double
db.restaurants.find({ "address.coord": { $type: "double" } });


// 10 Restaurants with remainder 0 when score divided by 7
```

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


// 11 Name contains 'mon'
db.restaurants.find(
  { name: /mon/i },
  { name: 1, borough: 1, "address.coord": 1, cuisine: 1 }
);


// 12 Name starts with 'Mad'
db.restaurants.find(
  { name: /^Mad/i },
  { name: 1, borough: 1, "address.coord": 1, cuisine: 1 }
);


// 13 At least one grade < 5
db.restaurants.find({ "grades.score": { $lt: 5 } });


// 14 Grade < 5 and borough = Manhattan
db.restaurants.find({ "grades.score": { $lt: 5 }, borough: "Manhattan" });


// 15 Grade < 5 and borough = Manhattan or Brooklyn
db.restaurants.find({
  "grades.score": { $lt: 5 },
  borough: { $in: ["Manhattan", "Brooklyn"] }
});


// 16 Same as above but cuisine not American
db.restaurants.find({
  "grades.score": { $lt: 5 },
```

```
  borough: { $in: ["Manhattan", "Brooklyn"] },
  cuisine: { $ne: "American" }
});


// 17 Same as above but cuisine not American or Chinese
db.restaurants.find({
  "grades.score": { $lt: 5 },
  borough: { $in: ["Manhattan", "Brooklyn"] },
  cuisine: { $nin: ["American", "Chinese"] }
});


// 18 Has both score 2 and 6
db.restaurants.find({
  "grades.score": { $all: [2, 6] }
});


// 19 Has scores 2 & 6 and borough Manhattan
db.restaurants.find({
  "grades.score": { $all: [2, 6] },
  borough: "Manhattan"
});


// 20 Has scores 2 & 6 and borough Manhattan or Brooklyn
db.restaurants.find({
  "grades.score": { $all: [2, 6] },
  borough: { $in: ["Manhattan", "Brooklyn"] }
});


// 21 Same as above but cuisine not American
db.restaurants.find({
  "grades.score": { $all: [2, 6] },
  borough: { $in: ["Manhattan", "Brooklyn"] },
```

```
  cuisine: { $ne: "American" }
});


// 22 Same as above but cuisine not American or Chinese
db.restaurants.find({
  "grades.score": { $all: [2, 6] },
  borough: { $in: ["Manhattan", "Brooklyn"] },
  cuisine: { $nin: ["American", "Chinese"] }
});


// 23 Has grade score 2 or 6
db.restaurants.find({
  $or: [
    { "grades.score": 2 },
    { "grades.score": 6 }
  ]
});




// =============================
// 🎬 MOVIES COLLECTION QUERIES
// =============================


// 1 Movies released in 1893
db.movies.find({ year: 1893 });


// 2 Movies with runtime > 120
db.movies.find({ runtime: { $gt: 120 } });


// 3 Movies with genre "Short"
db.movies.find({ genres: "Short" });
```

```javascript
// 4 Movies directed by "William K.L. Dickson"
db.movies.find({ directors: "William K.L. Dickson" });


// 6 Movies released in USA
db.movies.find({ countries: "USA" });


// 7 Movies rated "UNRATED"
db.movies.find({ rated: "UNRATED" });


// 8 IMDb votes > 1000
db.movies.find({ "imdb.votes": { $gt: 1000 } });


// 9 IMDb rating > 7
db.movies.find({ "imdb.rating": { $gt: 7 } });


// 10 Tomatoes viewer rating > 4
db.movies.find({ "tomatoes.viewer.rating": { $gt: 4 } });


// 11 Movies that received an award
db.movies.find({ "awards.wins": { $gt: 0 } });


// 12 Movies with at least one nomination
db.movies.find(
  { "awards.nominations": { $gte: 1 } },
  { title: 1, languages: 1, released: 1, directors: 1, writers: 1, awards: 1, year: 1, genres: 1, runtime: 1, cast: 1, countries: 1 }
);


// 13 Movies where cast includes "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 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 Movies having "scene" in the title
db.movies.find(

  { title: /scene/i },

  { title: 1, languages: 1, released: 1, directors: 1, writers: 1, countries: 1 }

);
```