

Exp-14

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Ex.No.: 14		MONGO DB
Date:	26/09/2024	

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: [
    { cuisine: { $nin: ["American", "Chinees"] } },
    { name: { $regex: /^Wil/i } }
  ]
},
{
  restaurant_id: 1,
  name: 1,
  borough: 1,
  cuisine: 1,
  _id: 0
}
);
```

```
>_MONGOSH
< {
  borough: 'Bronx',
  cuisine: 'Bakery',
  name: 'Morris Park Bake Shop',
  restaurant_id: '30075445'
}
{
  borough: 'Bronx',
  cuisine: 'Bakery',
  name: 'Morris Park Bake Shop',
  restaurant_id: 30075445
}
{
  borough: 'Bronx',
  cuisine: 'Italian',
  name: 'Pasta Palace',
  restaurant_id: 30075446
}
{
  borough: 'Manhattan',
  cuisine: 'Chinese',
  name: 'Dragon Wok',
  restaurant_id: 30075447
}
```

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: {
    $elemMatch: {
      grade: "A",
      score: 11
    }
  }
},
{
  restaurant_id: 1,
  name: 1,
  grades: 1,
  _id: 0
}
);
```

```
< {
  grades: [
    {
      date: 2014-03-03T00:00:00.003Z,
      grade: 'A',
      score: 3
    },
    {
      date: 2013-09-11T00:00:00.003Z,
      grade: 'A',
      score: 7
    },
    {
      date: 2013-01-24T00:00:00.003Z,
      grade: 'A',
      score: 11
    },
    {
      date: 2011-11-23T00:00:00.003Z,
      grade: 'A',
      score: 5
    },
    {
      date: 2011-03-10T00:00:00.003Z,
      grade: 'B',
      score: 13
    }
  ],
}
```

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(
  {
    "grades.1": {
      $elemMatch: {
        grade: "A",
        score: 9
      }
    }
  },
  {
    restaurant_id: 1,
    name: 1,
    grades: 1,
    _id: 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,
    _id: 0
  }
);
```

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 });
```

SAMPLE OUTPUT:-

```
{
  _id: ObjectId('671b5e6d56ec9972ca8f5dc4'),
  address: {
    building: 5566,
    coord: [
      -73.867377,
      40.854047
    ],
    street: '28th Avenue',
    zipcode: 10490
  },
  borough: 'Bronx',
  cuisine: 'BBQ',
  grades: [
    {
      date: 2014-03-03T00:00:00.028Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2013-09-11T00:00:00.028Z,
      grade: 'A',
      score: 7
    },
    {
      date: 2013-01-24T00:00:00.028Z,
      grade: 'A',
      score: 11
    },
    {
      date: 2011-11-23T00:00:00.028Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2011-03-10T00:00:00.028Z,
      grade: 'B',

```

```
    score: 15
  }
],
name: 'BBQ Haven',
restaurant_id: 30075473
}
```

```
{
  _id: ObjectId('671b5dab56ec9972ca8f5db0'),
  address: {
    building: 5566,
    coord: [
      -73.859377,
      40.850047
    ],
    street: '8th Avenue',
    zipcode: 10470
  },
  borough: 'Manhattan',
  cuisine: 'French',
  grades: [
    {
      date: 2014-03-03T00:00:00.008Z,
      grade: 'A',
      score: 7
    },
    {
      date: 2013-09-11T00:00:00.008Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2013-01-24T00:00:00.008Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2011-11-23T00:00:00.008Z,
      grade: 'B',
      score: 15
    },
    {
      date: 2011-03-10T00:00:00.008Z,
```

```
    grade: 'A',
    score: 6
  }
],
name: 'Bistro Belle',
restaurant_id: 30075453
}
```

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

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

SAMPLE OUTPUT

```
{
  _id: ObjectId('671b5e9456ec9972ca8f5dc8'),
  address: {
    building: 9900,
    coord: [
      -73.868977,
      40.854847
    ],
    street: '32nd Avenue',
    zipcode: 10494
  },
  borough: 'Manhattan',
  cuisine: 'Russian',
  grades: [
    {
      date: 2014-03-03T00:00:00.032Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2013-09-11T00:00:00.032Z,
      grade: 'B',
      score: 5
    },
    {

```

```
    date: 2013-01-24T00:00:00.032Z,  
    grade: 'A',  
    score: 9  
  },  
  {  
    date: 2011-11-23T00:00:00.032Z,  
    grade: 'A',  
    score: 8  
  },  
  {  
    date: 2011-03-10T00:00:00.032Z,  
    grade: 'A',  
    score: 11  
  }  
],  
name: "Tsar's Table",  
restaurant_id: 30075477  
}
```

```
{  
  _id: ObjectId('671b5e6d56ec9972ca8f5dbe'),  
  address: {  
    building: 9900,  
    coord: [  
      -73.864977,  
      40.852847  
    ],  
    street: '22nd Avenue',  
    zipcode: 10484  
  },  
  borough: 'Bronx',  
  cuisine: 'Italian',  
  grades: [  
    {  
      date: 2014-03-03T00:00:00.022Z,  
      grade: 'A',  
      score: 8  
    },  
    {  
      date: 2013-09-11T00:00:00.022Z,  
      grade: 'B',  
      score: 5  
    },  
  ],  
}
```

```

{
  date: 2013-01-24T00:00:00.022Z,
  grade: 'A',
  score: 12
},
{
  date: 2011-11-23T00:00:00.022Z,
  grade: 'A',
  score: 9
},
{
  date: 2011-03-10T00:00:00.022Z,
  grade: 'A',
  score: 14
}
],
name: 'Trattoria Bella',
restaurant_id: 30075467
}

```

7. Write a MongoDB query to arrange 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 });
```

SAMPLE OUTPUT:-

```

{
  _id: ObjectId('671b5d549d3d63480e0a64e9'),
  address: {
    building: 2233,
    coord: [
      -73.858177,
      40.849447
    ],
    street: '5th Avenue',
    zipcode: 10467
  },
  borough: 'Bronx',
  cuisine: 'American',

```



```
grades: [
  {
    date: 2014-03-03T00:00:00.005Z,
    grade: 'A',
    score: 10
  },
  {
    date: 2013-09-11T00:00:00.005Z,
    grade: 'A',
    score: 6
  },
  {
    date: 2013-01-24T00:00:00.005Z,
    grade: 'B',
    score: 12
  },
  {
    date: 2011-11-23T00:00:00.005Z,
    grade: 'A',
    score: 9
  },
  {
    date: 2011-03-10T00:00:00.005Z,
    grade: 'A',
    score: 14
  }
],
name: 'Burger Bistro',
restaurant_id: 30075450
}

{
  _id: ObjectId('671b5e6d56ec9972ca8f5dc4'),
  address: {
    building: 5566,
    coord: [
      -73.867377,
      40.854047
    ],
    street: '28th Avenue',
    zipcode: 10490
  },
  borough: 'Bronx',
  cuisine: 'BBQ',
```

```
grades: [  
  {  
    date: 2014-03-03T00:00:00.028Z,  
    grade: 'A',  
    score: 10  
  },  
  {  
    date: 2013-09-11T00:00:00.028Z,  
    grade: 'A',  
    score: 7  
  },  
  {  
    date: 2013-01-24T00:00:00.028Z,  
    grade: 'A',  
    score: 11  
  },  
  {  
    date: 2011-11-23T00:00:00.028Z,  
    grade: 'A',  
    score: 9  
  },  
  {  
    date: 2011-03-10T00:00:00.028Z,  
    grade: 'B',  
    score: 15  
  }  
],  
name: 'BBQ Haven',  
restaurant_id: 30075473  
}
```

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

```
db.restaurants.find(  
  {  
    "address.street": { $exists: false }  
  }  
);
```

```
> db.restaurants.find(
  {
    "address.street": { $exists: false }
  }
);
<
Customers >
```

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" }
  }
);
```

SAMPLE OUTPUT:-

```
{
  _id: ObjectId('671b92d339ec8a9bc8b6588b'),
  address: {
    building: '1007',
    coord: [
      -73.856077,
      40.848447
    ],
    street: 'Morris Park Ave',
    zipcode: '10462'
  },
  borough: 'Bronx',
  cuisine: 'Bakery',
  grades: [
    {
      date: 2014-03-03T00:00:00.000Z,
```

```
    grade: 'A',
    score: 2
  },
  {
    date: 2013-09-11T00:00:00.000Z,
    grade: 'A',
    score: 6
  },
  {
    date: 2013-01-24T00:00:00.000Z,
    grade: 'A',
    score: 10
  },
  {
    date: 2011-11-23T00:00:00.000Z,
    grade: 'A',
    score: 9
  },
  {
    date: 2011-03-10T00:00:00.000Z,
    grade: 'B',
    score: 14
  }
],
name: 'Morris Park Bake Shop',
restaurant_id: '30075445'
}

{
  _id: ObjectId('671b5d549d3d63480e0a64e5'),
  address: {
    building: 1234,
    coord: [
      -73.856577,
      40.848647
    ],
    street: '1st Avenue',
    zipcode: 10463
  },
  borough: 'Bronx',
  cuisine: 'Italian',
  grades: [
    {
      date: 2014-03-03T00:00:00.001Z,
```

```

    grade: 'A',
    score: 5
  },
  {
    date: 2013-09-11T00:00:00.001Z,
    grade: 'A',
    score: 8
  },
  {
    date: 2013-01-24T00:00:00.001Z,
    grade: 'B',
    score: 12
  },
  {
    date: 2011-11-23T00:00:00.001Z,
    grade: 'A',
    score: 7
  },
  {
    date: 2011-03-10T00:00:00.001Z,
    grade: 'A',
    score: 15
  }
],
name: 'Pasta Palace',
restaurant_id: 30075446
}

```

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,
  _id: 0
}
);

```

SAMPLE OUTPUT:-

```
{
  grades: [
    {
      date: 2014-03-03T00:00:00.000Z,
      grade: 'A',
      score: 2
    },
    {
      date: 2013-09-11T00:00:00.000Z,
      grade: 'A',
      score: 6
    },
    {
      date: 2013-01-24T00:00:00.000Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2011-11-23T00:00:00.000Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2011-03-10T00:00:00.000Z,
      grade: 'B',
      score: 14
    }
  ],
  name: 'Morris Park Bake Shop',
  restaurant_id: '30075445'
}
```

```
{
  grades: [
    {
      date: 2014-03-03T00:00:00.001Z,
      grade: 'A',
      score: 5
    },
    {
```

```

    date: 2013-09-11T00:00:00.001Z,
    grade: 'A',
    score: 8
  },
  {
    date: 2013-01-24T00:00:00.001Z,
    grade: 'B',
    score: 12
  },
  {
    date: 2011-11-23T00:00:00.001Z,
    grade: 'A',
    score: 7
  },
  {
    date: 2011-03-10T00:00:00.001Z,
    grade: 'A',
    score: 15
  }
],
name: 'Pasta Palace',
restaurant_id: 30075446
}

```

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 itsname.

```

db.restaurants.find(
{
  name: { $regex: /mon/i }
},
{
  name: 1,
  borough: 1,
  "address.coord.0": 1, // Longitude
  "address.coord.1": 1, // Latitude
  cuisine: 1,
  _id: 0
}
);

```

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(
{
  name: { $regex: /^Mad/i }
},
{
  name: 1,
  borough: 1,
  "address.coord.0": 1, // Longitude
  "address.coord.1": 1, // Latitude
  cuisine: 1,
  _id: 0
}
);
```

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 }
}
);
```

SAMPLE OUTPUT:-

```
{
  _id: ObjectId('671b92d339ec8a9bc8b6588b'),
  address: {
    building: '1007',
```



```
    coord: [
      -73.856077,
      40.848447
    ],
    street: 'Morris Park Ave',
    zipcode: '10462'
  },
  borough: 'Bronx',
  cuisine: 'Bakery',
  grades: [
    {
      date: 2014-03-03T00:00:00.000Z,
      grade: 'A',
      score: 2
    },
    {
      date: 2013-09-11T00:00:00.000Z,
      grade: 'A',
      score: 6
    },
    {
      date: 2013-01-24T00:00:00.000Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2011-11-23T00:00:00.000Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2011-03-10T00:00:00.000Z,
      grade: 'B',
      score: 14
    }
  ],
  name: 'Morris Park Bake Shop',
  restaurant_id: '30075445'
}

{
  _id: ObjectId('671b5d549d3d63480e0a64e6'),
  address: {
```

```
    building: 5678,
    coord: [
      -73.856977,
      40.848847
    ],
    street: '2nd Avenue',
    zipcode: 10464
  },
  borough: 'Manhattan',
  cuisine: 'Chinese',
  grades: [
    {
      date: 2014-03-03T00:00:00.002Z,
      grade: 'B',
      score: 4
    },
    {
      date: 2013-09-11T00:00:00.002Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2013-01-24T00:00:00.002Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2011-11-23T00:00:00.002Z,
      grade: 'A',
      score: 8
    },
    {
      date: 2011-03-10T00:00:00.002Z,
      grade: 'B',
      score: 16
    }
  ],
  name: 'Dragon Wok',
  restaurant_id: 30075447
}
```

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

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

```
_id: ObjectId('671b5d549d3d63480e0a64e6'),  
address: {  
  building: 5678,  
  coord: [  
    -73.856977,  
    40.848847  
  ],  
  street: '2nd Avenue',  
  zipcode: 10464  
},  
borough: 'Manhattan',  
cuisine: 'Chinese',  
grades: [  
  {  
    date: 2014-03-03T00:00:00.002Z,  
    grade: 'B',  
    score: 4  
  },  
  {  
    date: 2013-09-11T00:00:00.002Z,  
    grade: 'A',  
    score: 9  
  },  
  {  
    date: 2013-01-24T00:00:00.002Z,  
    grade: 'A',  
    score: 10  
  },  
]
```

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

```
db.restaurants.find(  
  {  
    "grades.score": { $lt: 5 },  
    borough: { $in: ["Manhattan", "Brooklyn"] }  
  }  
);
```

```

    _id: ObjectId('671b5d549d3d63480e0a64e6'),
    address: {
      building: 5678,
      coord: [
        -73.856977,
        40.848847
      ],
      street: '2nd Avenue',
      zipcode: 10464
    },
    borough: 'Manhattan',
    cuisine: 'Chinese',
    grades: [
      {
        date: 2014-03-03T00:00:00.002Z,
        grade: 'B',
        score: 4
      },
      {
        date: 2013-09-11T00:00:00.002Z,
        grade: 'A',
        score: 9
      },
      {
        date: 2013-01-24T00:00:00.002Z,
        grade: 'A',
        score: 10
      }
    ],
  },

```

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(
{
  "grades.score": { $lt: 5 },
  borough: { $in: ["Manhattan", "Brooklyn"] },
  cuisine: { $ne: "American" }
}
);

```

```

    _id: ObjectId('671b5d549d3d63480e0a64e6'),
    address: {
      building: 5678,
      coord: [
        -73.856977,
        40.848847
      ],
      street: '2nd Avenue',
      zipcode: 10464
    },
    borough: 'Manhattan',
    cuisine: 'Chinese',
    grades: [
      {
        date: 2014-03-03T00:00:00.002Z,
        grade: 'B',
        score: 4
      },
      {
        date: 2013-09-11T00:00:00.002Z,
        grade: 'A',
        score: 9
      },
      {
        date: 2013-01-24T00:00:00.002Z,
        grade: 'A',
        score: 10
      },
      {

```

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(
  {
    "grades.score": { $lt: 5 },
    borough: { $in: ["Manhattan", "Brooklyn"] },
    cuisine: { $nin: ["American", "Chinese"] }
  }
);

```

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: {
      $all: [
        { $elemMatch: { score: 2 } },

```

```
        { $elemMatch: { score: 6 } }
    ]
}
}
);
```

SAMPLE OUTPUT:-

```
{
  _id: ObjectId('671b92d339ec8a9bc8b6588b'),
  address: {
    building: '1007',
    coord: [
      -73.856077,
      40.848447
    ],
    street: 'Morris Park Ave',
    zipcode: '10462'
  },
  borough: 'Bronx',
  cuisine: 'Bakery',
  grades: [
    {
      date: 2014-03-03T00:00:00.000Z,
      grade: 'A',
      score: 2
    },
    {
      date: 2013-09-11T00:00:00.000Z,
      grade: 'A',
      score: 6
    },
    {
      date: 2013-01-24T00:00:00.000Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2011-11-23T00:00:00.000Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2011-03-10T00:00:00.000Z,
```

```
    grade: 'B',
    score: 14
  }
],
name: 'Morris Park Bake Shop',
restaurant_id: '30075445'
}
```

```
{
  _id: ObjectId('671b5c5f9d3d63480e0a64e4'),
  address: {
    building: 1007,
    coord: [
      -73.856077,
      40.848447
    ],
    street: 'Morris Park Ave',
    zipcode: 10462
  },
  borough: 'Bronx',
  cuisine: 'Bakery',
  grades: [
    {
      date: 2014-03-03T00:00:00.000Z,
      grade: 'A',
      score: 2
    },
    {
      date: 2013-09-11T00:00:00.000Z,
      grade: 'A',
      score: 6
    },
    {
      date: 2013-01-24T00:00:00.000Z,
      grade: 'A',
      score: 10
    },
    {
      date: 2011-11-23T00:00:00.000Z,
      grade: 'A',
      score: 9
    },
    {

```

```
    date: 2011-03-10T00:00:00.000Z,  
    grade: 'B',  
    score: 14  
  }  
],  
name: 'Morris Park Bake Shop',  
restaurant_id: 30075445  
}
```

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.restaurants.find(  
  {  
    borough: "Manhattan",  
    grades: {  
      $all: [  
        { $elemMatch: { score: 2 } },  
        { $elemMatch: { score: 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.restaurants.find(  
  {  
    borough: { $in: ["Manhattan", "Brooklyn"] },  
    grades: {  
      $all: [  
        { $elemMatch: { score: 2 } },  
        { $elemMatch: { score: 6 } },  
        { $elemMatch: { score: 2 } },  
        { $elemMatch: { score: 6 } }  
      ]  
    }  
  }  
);
```



```

    { $elemMatch: { score: 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"] },
  grades: {
    $all: [
      { $elemMatch: { score: 2 } },
      { $elemMatch: { score: 6 } }
    ]
  },
  cuisine: { $ne: "American" }
}
);

```

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"] },
  grades: {
    $all: [
      { $elemMatch: { score: 2 } },
      { $elemMatch: { score: 6 } }
    ]
  },
  cuisine: { $nin: ["American", "Chinese"] }
}
);

```

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(  
  {  
    $or: [  
      { "grades.score": 2 },  
      { "grades.score": 6 }  
    ]  
  }  
);
```

SAMPLE OUTPUT:-

```
{  
  _id: ObjectId('671b5d549d3d63480e0a64e9'),  
  address: {  
    building: 2233,  
    coord: [  
      -73.858177,  
      40.849447  
    ],  
    street: '5th Avenue',  
    zipcode: 10467  
  },  
  borough: 'Bronx',  
  cuisine: 'American',  
  grades: [  
    {  
      date: 2014-03-03T00:00:00.005Z,  
      grade: 'A',  
      score: 10  
    },  
    {  
      date: 2013-09-11T00:00:00.005Z,  
      grade: 'A',  
      score: 6  
    },  
    {  
      date: 2013-01-24T00:00:00.005Z,
```

```
    grade: 'B',
    score: 12
  },
  {
    date: 2011-11-23T00:00:00.005Z,
    grade: 'A',
    score: 9
  },
  {
    date: 2011-03-10T00:00:00.005Z,
    grade: 'A',
    score: 14
  }
],
name: 'Burger Bistro',
restaurant_id: 30075450
}

{
  _id: ObjectId('671b5dab56ec9972ca8f5daf'),
  address: {
    building: 4455,
    coord: [
      -73.858977,
      40.849847
    ],
    street: '7th Avenue',
    zipcode: 10469
  },
  borough: 'Bronx',
  cuisine: 'Thai',
  grades: [
    {
      date: 2014-03-03T00:00:00.007Z,
      grade: 'A',
      score: 9
    },
    {
      date: 2013-09-11T00:00:00.007Z,
      grade: 'B',
      score: 6
    },
    {
      date: 2013-01-24T00:00:00.007Z,
```

```
    grade: 'A',
    score: 12
  },
  {
    date: 2011-11-23T00:00:00.007Z,
    grade: 'A',
    score: 8
  },
  {
    date: 2011-03-10T00:00:00.007Z,
    grade: 'B',
    score: 14
  }
],
name: 'Thai Delight',
restaurant_id: 30075452
}
```

MOVIES COLLECTION

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 } });
```

SAMPLE OUTPUT:-

```
{
  _id: ObjectId('573a1390f29313caabcd42ec'),
  plot: 'An astronaut stranded on Mars must survive alone.', genres:
  [
    'Sci-Fi',
    'Drama'
  ],
  runtime: 135,
  cast: [
    'Matt Damon',
    'Jessica Chastain'
  ],
  poster: 'https://m.media-amazon.com/images/poster4.jpg', title:
  'Mars Alone',
  fullplot: 'An astronaut, left alone on Mars, struggles to survive with
  limited resources while awaiting rescue.',
  languages: [
```

```
'English'
],
released: 2015-10-02T00:00:00.000Z,
directors: [
  'Ridley Scott'
],
rated: 'PG-13',
awards: { wins:
8,
  nominations: 6,
  text: '8 wins & 6 nominations.'
},
lastupdated: '2021-08-09 17:22:30.000000000',
year: 2015,
imdb: {
rating: 8,
  votes: 25650,
  id: 443
},
countries: [
  'USA'
],
type: 'movie',
tomatoes: {
viewer: {
  rating: 4.5,
  numReviews: 2201,
  meter: 93
},
fresh: 18,
critic: {
rating: 8.5,
  numReviews: 25,
  meter: 96
},
},
```

```
    rotten: 1,  
    lastUpdated: 2021-07-19T21:20:55.000Z  
  }  
}
```

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

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

SAMPLE OUTPUT:-

```
{  
  _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/MV5BMTU3NjE5NzYtYTYyNS00MDVmLWIwYjg  
tMmYwYWlXZDYyNzU2XkEyXkFqcGdeQXVyNzQzNzQxNzI@._V1_SY1  
000_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: 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: 2015-08-08T19:16:10.000Z
}
}

```

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" });
```

6. 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" });
```

```

<
  _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/MV5BMTU3MjESNzYtYTYyNS00NDVmLWZwYjgtMmVwYyZDZkYXkxXkFqcGdeQXVyNzQzNzQzNzQz._V1_SV1000_
  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
  languages: [
    'English'
  ],
  released: 1903-12-01T00:00:00.000Z,
  directors: [

```

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

```
db.movies.find({ rated: "UNRATED" });
```

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

```
db.movies.find({ "imdb.votes": { $gt: 1000 } });
```

```
< {
  _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/MV5BMTU3NjE5NzYtYTYyNS00MDVmLWIwYjgtMmYwYWIXZDYyNzU2XkEyXkFqcGdeQXVyNzQzNzQxNzI@._V1_SY1000',
  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 - i
  languages: [
    'English'
  ],
  released: 1903-12-01T00:00:00.000Z,
  directors: [
    'Edwin S. Porter'
  ],
}
```

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

```
db.movies.find({ "imdb.rating": { $gt: 7 } });
```

```

> db.movies.find({ "imdb.rating": { $gt: 7 } });
< {
  _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/MV5BMTU3NjE5NzYtYTtyNS00MDVmLWIwVjgtMmYwYWIXZDYyNzU2XkEyXkFqcGdeQXVyNzQzNzQxNzI@._V1_SY1000
  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 - i
  languages: [
    'English'
  ],
  released: 1903-12-01T00:00:00.000Z,
  directors: [
    'Edwin S. Porter'
  ],
  rated: 'TV-G',
  awards: {
    wins: 1,

```

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

`db.movies.find({ "tomatoes.viewer.rating": { $gt: 4 } });`

```
> db.movies.find({ "tomatoes.viewer.rating": { $gt: 4 } });
< {
  _id: ObjectId('573a1390f29313caabcd42ea'),
  plot: 'A chef tries to open a restaurant amidst a series of challenges.',
  genres: [
    'Drama',
    'Comedy'
  ],
  runtime: 120,
  cast: [
    'Emma Stone',
    'Chris Pratt',
    'Anna Kendrick'
  ],
  poster: 'https://m.media-amazon.com/images/poster2.jpg',
  title: 'The Culinary Dream',
  fullplot: "A chef's journey to make his dream restaurant come true, overcoming family and financial obstacles.",
  languages: [
    'English',
    'French'
  ],
  released: 2015-02-12T00:00:00.000Z,
  directors: [
    'Samantha Jones'
  ],
  rated: 'PG-13',
  awards: {
    wins: 1,
```

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

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

```

> db.movies.find({ "awards.wins": { $gt: 0 } });
< {
  _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/MV5BMTU3NjE5NzYtYTYyNS00MDVmLWIwYjgtMmYwYWIXZDYyNzU2XkEyXkFqcGdeQXVyNzQzNzQxNzI@._V1_SY1000',
  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 - i
  languages: [
    'English'
  ],
  released: 1903-12-01T00:00:00.000Z,
  directors: [
    'Edwin S. Porter'
  ],
  rated: 'TV-G',
  awards: {
    wins: 1,

```

12. 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(
  { "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
  }
)

```

```
}  
);
```

```
>_MONGOSH  
,,  
< {  
  _id: ObjectId('573a1390f29313caabcd42e9'),  
  genres: [  
    'Adventure',  
    'Fantasy'  
  ],  
  runtime: 95,  
  cast: [  
    'Ethan Hawke',  
    'Jane Doe',  
    'Mark Strong'  
  ],  
  title: 'The Amulet Quest',  
  languages: [  
    'English'  
  ],  
  released: 2008-07-15T00:00:00.000Z,  
  directors: [  
    'John Smith'  
  ],  
  awards: {  
    wins: 2,  
    nominations: 1,  
    text: '2 wins & 1 nomination.'  
  },  
  year: 2008,  
  countries: [  
    'USA'
```

13. 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" },  
  {  
    title: 1,  
    languages: 1,  
    released: 1,  
    directors: 1,  
    writers: 1,  
    awards: 1,  
    year: 1,
```

```
    genres: 1,  
    runtime: 1,  
    cast: 1,  
    countries: 1  
  }  
);
```

14. Retrieve all movies with title, languages, released, directors, writers, countries from the 'movies' collection in MongoDB that 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  
  }  
);
```

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(  
  { title: { $regex: /scene/i } },  
  {  
    title: 1,  
    languages: 1,  
  }  
);
```

released: 1,
directors: 1,
writers: 1,
countries: 1
}
);