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| **Ex.No.: 14** | | **MongoDB** |
| **Date:** | 29/10/24 |

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ROLL NO : 230701374

**Restaurant Collection**

# Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which prepared dishes except 'American' and 'Chinese' or restaurant's name begins with letter 'Wil'.

db.restaurants.find(

{

$or: [

{

'Chinese'

},

{

cuisine: { $nin: ['American', 'Chinese'] } // Cuisines other than 'American' and

name: { $regex: '^Wil', $options: 'i' } // Restaurant names that begin with 'Wil'

(case-insensitive)

}

]

},

{

\_id: 1, // Retrieve the restaurant ID name: 1, // Retrieve the restaurant name borough: 1, // Retrieve the borough cuisine: 1 // Retrieve the cuisine

}

)

# 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 "2014-08-11 T00:00:00Z" among many of survey dates.

db.restaurants.find(

{

"grades": {

$elemMatch: {

"grade": "A", // Grade must be "A"

"score": 11, // Score must be 11

"date": ISODate("2014-08-11T00:00:00Z") // Date must match the specified

ISODate

}

}

},

{

|  |  |  |
| --- | --- | --- |
|  | \_id: 1, | // Retrieve the restaurant ID |
| } | name: 1,  grades: 1 | // Retrieve the restaurant name  // Retrieve the grades |
| ) |  |  |

# 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": { // Accessing the 2nd element (index 1) of the grades array "grade": "A", // Grade must be "A"

"score": 9, // Score must be 9

"date": ISODate("2014-08-11T00:00:00Z") // Date must match the specified ISODate

}

},

{

|  |  |  |
| --- | --- | --- |
|  | \_id: 1, | // Retrieve the restaurant ID |
| } | name: 1,  grades: 1 | // Retrieve the restaurant name  // Retrieve the grades |
| ) |  |  |

# Write a MongoDB query to find the restaurant Id, name, address and geographical location for those restaurants where 2nd element of the coord array contains a value which is more than 42 and up to 52.

db.restaurants.find(

{

"coord.1": { $gt: 42, $lte: 52 } // Accessing the 2nd element (index 1) of the coord array

},

{

\_id: 1, // Retrieve the restaurant ID name: 1, // Retrieve the restaurant name address: 1, // Retrieve the address

coord: 1 // Retrieve the geographical location (coord)

}

)

# 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 })

# Write a mongoDB query to arrange the name of the restaurants in descending order along with all the columns.

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

# 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 })

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

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

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

db.restaurants.find({

"coord": { $type: "double" } // or you can use $type: 1

})

# Write a mongoDB query which will select the restaurant Id, name and grades for those restaurants which return 0 as a remainder after dividing the score by 7.

db.restaurants.find(

{

"grades": {

$elemMatch: {

$expr: {

$eq: [{ $mod: ["$score", 7] }, 0] // Check if score % 7 == 0

}

}

}

},

{

\_id: 1, // Retrieve the restaurant ID name: 1, // Retrieve the restaurant name grades: 1 // Retrieve the grades

}

)

# 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: { $regex: /mon/i } // Regex to find 'mon' anywhere in the name (case-insensitive)

},

{

name: 1, // Retrieve the restaurant name borough: 1, // Retrieve the borough

"coord.0": 1, // Retrieve longitude (assuming longitude is the first element in the coord array)

"coord.1": 1, // Retrieve latitude (assuming latitude is the second element in the coord array)

cuisine: 1, // Retrieve the cuisine

\_id: 0 // Exclude the restaurant ID from the results

}

)

# Write a mongodb query to find the restaurant name, borough, longitude and attitude and cuisine for those restaurants which contains 'Mad' as first three letters in its name.

db.restaurants.find(

{

name: { $regex: /^Mad/i } // Regex to find names starting with 'Mad' (case-insensitive)

},

{

name: 1, // Retrieve the restaurant name borough: 1, // Retrieve the borough

"coord.0": 1, // Retrieve longitude (assuming longitude is the first element in the coord array)

"coord.1": 1, // Retrieve latitude (assuming latitude is the second element in the coord array)

cuisine: 1, // Retrieve the cuisine

\_id: 0 // Exclude the restaurant ID from the results

}

)

# 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": {

$elemMatch: {

score: { $lt: 5 } // Score must be less than 5

}

}

}

)

# 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.restaurants.find(

{

borough: "Manhattan", // Condition to filter by borough "grades": {

$elemMatch: {

score: { $lt: 5 } // Condition to filter grades with score less than 5

}

}

}

)

# 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(

{

$or: [

{ borough: "Manhattan" }, // Condition to filter by borough Manhattan

{ borough: "Brooklyn" } // Condition to filter by borough Brooklyn

],

"grades": {

$elemMatch: {

score: { $lt: 5 } // Condition to filter grades with score less than 5

}

}

}

)

}

)

**Movies Collection**

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

db.movies.find(

{

releaseYear: 1893 // Assuming the field for the release year is named 'releaseYear'

}

)

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

db.movies.find(

{

runtime: { $gt: 120 } // Assuming the field for runtime is named 'runtime'

}

)

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

db.movies.find(

{

genres: "Short" // Assuming the field for genres is an array named 'genres'

}

)

# 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(

{

director: "William K. L. Dickson" // Assuming the field for the director is named 'director'

}

)

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

db.movies.find(

{

country: "USA" // Assuming the field for the release country is named 'country'

}

)

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

db.movies.find(

{

rating: "UNRATED" // Assuming the field for the rating is named 'rating'

}

)

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

db.movies.find(

{

votes: { $gt: 1000 } // Assuming the field for votes is named 'votes'

}

)

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

db.movies.find(

{

imdbRating: { $gt: 7 } // Assuming the field for IMDb rating is named 'imdbRating'

}

)

# 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: { $gt: 4 } } // Assuming the viewer rating is nested within a 'tomatoes' object

}

)