**MongoDB – Complex Queries**

**Mongo DB Exercises - With the Restaurants Data Set**

Run the following command to import the json file provided. It will load the json file into the mongodb with database name - restaurants, collections name - addresses

mongoimport --db restaurants --collection addresses --file C:/Rohit k/restaurants.json

show databases

Atlas atlas-2v2ryx-shard-0 [primary] population> show dbs

first-test 73.7 kB

mongodb\_practice 229 kB

population 1.05 MB

admin 377 kB

local 6.32 GB

use restaurants

Atlas atlas-2v2ryx-shard-0 [primary] population> use restaurants

switched to db restaurants

**Exercise Questions**

1. Write a MongoDB query to display all the documents in the collection restaurants.

db.addresses.find()

1. Write a MongoDB query to display the fields restaurant\_id, name, borough and cuisine for all the documents in the collection restaurant.

db.addresses.find({},{"restaurant\_id" : 1,"name":1,"borough":1,"cuisine" :1})

1. Write a MongoDB query to display the fields restaurant\_id, name, borough and cuisine, but exclude the field \_id for all the documents in the collection restaurant.

db.addresses.find({},{"restaurant\_id" : 1,"name":1,"borough":1,"cuisine" :1,"\_id":0})

1. Write a MongoDB query to display the fields restaurant\_id, name, borough and zip code, but exclude the field \_id for all the documents in the collection restaurant

db.addresses.find({},{"restaurant\_id" : 1,"name":1,"borough":1,"address.zipcode" :1,"\_id":0})

1. Write a MongoDB query to display the first 5 restaurant which is in the borough Bronx.

db.addresses.find({"borough": "Bronx"}).limit(5);

1. Write a MongoDB query to display the all restaurant which is in the borough Bronx

db.addresses.find({"borough": "Bronx"});

1. Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the borough Bronx.

db.addresses.find({"borough": "Bronx"}).skip(5).limit(5)

1. Write a MongoDB query to find the restaurants who achieved a score more than 90.

db.addresses.find({grades : { $elemMatch:{"score":{$gt : 90}}}})

1. Write a MongoDB query to find the restaurants that achieved a score, more than 80 but less than 100.

db.addresses.find({grades : { $elemMatch:{"score":{$gt : 80 , $lt :100}}}})

1. Write a MongoDB query to find the restaurants which locate in latitude value less than -95.754168

db.addresses.find({"address.coord" : {$lt : -95.754168}})

1. Write a MongoDB query to find the restaurants that do not prepare any cuisine of 'American' and their grade score more than 70 and latitude less than -65.754168.

db.addresses.find(

{$and:

[

{"cuisine" : {$ne :"American "}},

{"grades.score" : {$gt : 70}},

{"address.coord" : {$lt : -65.754168}}

]

}

)

1. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a score more than 70 and located in the longitude less than -65.754168.

db.addresses.find(

{

"cuisine" : {$ne : "American "},

"grades.score" :{$gt: 70},

"address.coord" : {$lt : -65.754168}

}

)

1. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American ' and achieved a grade point 'A' not belongs to theborough Brooklyn. The document must be displayed according to the cuisine in descending order.

db.addresses.find( {

"cuisine" : {$ne : "American "},

"grades.grade" :"A",

"borough": {$ne : "Brooklyn"}

}

).sort({"cuisine":-1})

1. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Wil' as first three letters for its name.

db.addresses.find(

{name: /^Wil/},

{

"restaurant\_id" : 1,

"name":1,"borough":1,

"cuisine" :1

}

)

1. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'ces' as last three letters for its name.

db.addresses.find(

{name: /ces$/},

{

"restaurant\_id" : 1,

"name":1,"borough":1,

"cuisine" :1

}

)

1. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Reg' as three letters somewhere in its name.

db.addresses.find(

{"name": /.\*Reg.\*/},

{

"restaurant\_id" : 1,

"name":1,"borough":1,

"cuisine" :1

}

)

1. Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish.

db.addresses.find(

{

"borough": "Bronx" ,

$or : [

{ "cuisine" : "American " },

{ "cuisine" : "Chinese" }

]

}

)

1. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which belong to the borough Staten Island or Queens or Bronxor Brooklyn.

db.addresses.find(

{"borough" :{$in :["Staten Island","Queens","Bronx","Brooklyn"]}},

{

"restaurant\_id" : 1,

"name":1,"borough":1,

"cuisine" :1

}

)

1. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which are not belonging to the borough Staten Island or Queens or Bronxor Brooklyn.

db.addresses.find(

{"borough" :{$nin :["Staten Island","Queens","Bronx","Brooklyn"]}},

{

"restaurant\_id" : 1,

"name":1,"borough":1,

"cuisine" :1

}

1. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which achieved a score which is not more than 10.

db.addresses.find(

{"grades.score" :

{ $not:

{$gt : 10}

}

},

{

"restaurant\_id" : 1,

"name":1,"borough":1,

"cuisine" :1

}

)

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.addresses.find(

{$or: [

{name: /^Wil/},

{"$and": [

{"cuisine" : {$ne :"American "}},

{"cuisine" : {$ne :"Chinees"}}

]}

]}

,{"restaurant\_id" : 1,"name":1,"borough":1,"cuisine" :1}

)

1. 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.addresses.find(

{

"grades.date": ISODate("2014-08-11T00:00:00Z"),

"grades.grade":"A" ,

"grades.score" : 11

},

{"restaurant\_id" : 1,"name":1,"grades":1}

)

1. 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.addresses.find(

{ "grades.1.date": ISODate("2014-08-11T00:00:00Z"),

"grades.1.grade":"A" ,

"grades.1.score" : 9

},

{"restaurant\_id" : 1,"name":1,"grades":1}

)

1. 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.addresses.find(

{

"address.coord.1": {$gt : 42, $lte : 52}

},

{"restaurant\_id" : 1,"name":1,"address":1,"coord":1}

)

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

db.addresses.find().sort({"name":1})

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

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

1. 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.addresses.find().sort({"cuisine":1,"borough" : -1,})

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

db.addresses.find({"address.street" : { $exists : true } })

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

db.addresses.find({"address.coord" : {$type : 1}})

1. 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.addresses.find(

{"grades.score" :

{$mod : [7,0]}

},

{"restaurant\_id" : 1,"name":1,"grades":1}

)

1. 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.addresses.find(

{ name :

{ $regex : "mon.\*", $options: "i" }

},

{

"name":1,

"borough":1,

"address.coord":1,

"cuisine" :1

}

)

1. 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.addresses.find(

{ name :

{ $regex : /^Mad/i, }

},

{

"name":1,

"borough":1,

"address.coord":1,

"cuisine" :1

}

)