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MongoDB Basics

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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.

Ans :

```
db.restaurants.find( {}, {  
  
... "restaurant_id" : 1,  
  
... "name" : 1,  
  
... "borough" : 1,  
  
... "cuisine" : 1,  
  
... "_id" : 0  
  
... });
```

Output :

```
rails@rails-pc: ~  
> db.restaurants.find( {}, {  
... "restaurant_id":1,  
... "name":1,  
... "borough":1,  
... "cuisine":1,  
... "_id":0  
... });  
{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }  
{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant_id" : "30112340" }  
{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant_id" : "30191841" }  
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant_id" : "40356018" }  
{ "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant_id" : "40356068" }  
{ "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard", "restaurant_id" : "40356151" }  
{ "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island", "restaurant_id" : "40356442" }  
{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food", "restaurant_id" : "40356483" }  
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers", "restaurant_id" : "40356649" }  
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }  
{ "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant_id" : "40357217" }  
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service", "restaurant_id" : "40357437" }  
{ "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May May Kitchen", "restaurant_id" : "40358429" }  
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street
```

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

Ans :

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

Output :

```
rails@rails-pc: ~  
> db.restaurants.find( {  
... "borough" : "Bronx"  
... });  
{ "_id" : ObjectId("5947bc1fb60c37c179375c3f"), "address" : { "building" : "1007", "coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c49"), "address" : { "building" : "2300", "coord" : [ -73.8786113, 40.8502883 ], "street" : "Southern Boulevard", "zipcode" : "10460" }, "borough" : "Bronx", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-05-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-06-19T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-06-15T00:00:00Z"), "grade" : "A", "score" : 3 } ], "name" : "Wild Asia", "restaurant_id" : "40357217" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c5e"), "address" : { "building" : "1006", "coord" : [ -73.84856870000002, 40.8903781 ], "street" : "East 233 Street", "zipcode" : "10466" }, "borough" : "Bronx", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "grades" : [ { "date" : ISODate("2014-04-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-05T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-02-21T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-07-03T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-07-11T00:00:00Z"), "grade" : "A", "score" : 5 } ], "name" : "Carvel Ice Cream", "restaurant_id" : "40363093" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c62"), "address" : { "building" : "1236", "coord" : [ -73.8893654, 40.81376179999999 ], "street" : "238 Spofford Ave", "zipcode" : "10474" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2013-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-01-08T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-12T00:00:00Z"), "grade" : "B", "score" : 15 } ], "name" : "Happy Garden", "restaurant_id" : "40363289" }
```

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

Ans :

```
db.restaurants.find( {  
  
... "grades.score" : { $gt : 90 }  
  
... });
```


Output :

```
rails@rails-pc: ~
switched to db restaurants
> db.restaurants.find( {
... "grades.score" : { $gt : 90 }
... });
{ "_id" : ObjectId("5947bc1fb60c37c179375d9d"), "address" : { "building" : "65",
"coord" : [ -73.9782725, 40.7624022 ], "street" : "West 54 Street", "zipcode"
: "10019" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "
date" : ISODate("2014-08-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date"
: ISODate("2014-03-28T00:00:00Z"), "grade" : "C", "score" : 131 }, { "date" : I
SODate("2013-09-25T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODat
e("2013-04-08T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("20
12-10-15T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-10
-19T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Murals On 54/Randolp
hs's", "restaurant_id" : "40372466" }
{ "_id" : ObjectId("5947bc1fb60c37c179375e3e"), "address" : { "building" : "345"
, "coord" : [ -73.9864626, 40.7266739 ], "street" : "East 6 Street", "zipcode" :
"10003" }, "borough" : "Manhattan", "cuisine" : "Indian", "grades" : [ { "date"
: ISODate("2014-09-15T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISO
Date("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("
2013-05-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-
04-24T00:00:00Z"), "grade" : "P", "score" : 2 }, { "date" : ISODate("2012-10-01T
00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-04-06T00:00:
00Z"), "grade" : "C", "score" : 92 }, { "date" : ISODate("2011-11-03T00:00:00Z")
, "grade" : "C", "score" : 41 } ], "name" : "Gandhi", "restaurant_id" : "4038129
5" }
{ "_id" : ObjectId("5947bc1fb60c37c179375fa1"), "address" : { "building" : "130"
, "coord" : [ -73.984758, 40.7457939 ], "street" : "Madison Avenue", "zipcode" :
"10016" }, "borough" : "Manhattan", "cuisine" : "Pizza/Italian", "grades" : [ {
"date" : ISODate("2014-12-24T00:00:00Z"), "grade" : "Z", "score" : 31 }, { "dat
e" : ISODate("2014-06-17T00:00:00Z"), "grade" : "C", "score" : 98 }, { "date" :
ISODate("2013-12-12T00:00:00Z"), "grade" : "C", "score" : 32 }, { "date" : ISODa
te("2013-05-22T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2
012-05-02T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Bella Napoli",
"restaurant_id" : "40393488" }
>
```

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

Ans:

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


Output:

```
rails@rails-pc: ~  
"restaurant_id" : "40364296"  
5Z:  
}  
S> cls  
  
> db.restaurants.find( {  
... "borough" : "Bronx"  
... }).limit(5);  
{ "_id" : ObjectId("5947bc1fb60c37c179375c3f"), "address" : { "building" : "1007",  
"coord" : [ -73.856077, 40.848447 ], "street" : "Morris Park Ave", "zipcode"  
: "10462" }, "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [ { "date" :  
ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-01-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-03-10T00:00:00Z"), "grade" : "B", "score" : 14 } ], "name" : "Morris Park Bake Shop", "restaurant_id" : "30075445" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c49"), "address" : { "building" : "2300",  
"coord" : [ -73.8786113, 40.8502883 ], "street" : "Southern Boulevard", "zipcode" : "10460" }, "borough" : "Bronx", "cuisine" : "American", "grades" : [ { "date" : ISODate("2014-05-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-06-19T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-06-15T00:00:00Z"), "grade" : "A", "score" : 3 } ], "name" : "Wild Asia", "restaurant_id" : "40357217" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c5e"), "address" : { "building" : "1006",  
"coord" : [ -73.84856870000002, 40.8903781 ], "street" : "East 233 Street", "zipcode" : "10466" }, "borough" : "Bronx", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "grades" : [ { "date" : ISODate("2014-04-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-05T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-02-21T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-07-03T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-07-11T00:00:00Z"), "grade" : "A", "score" : 5 } ], "name" : "Carvel Ice Cream", "restaurant_id" : "40363093" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c62"), "address" : { "building" : "1236",  
"coord" : [ -73.8893654, 40.81376179999999 ], "street" : "238 Spofford Ave", "zipcode" : "10474" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2013-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-01-08T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-12T00:00:00Z"), "grade" : "B", "score" : 15 } ], "name" : "Happy Garden", "restaurant_id" : "40363289" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c74"), "address" : { "building" : "277",  
"coord" : [ -73.8941893, 40.8634684 ], "street" : "East Kingsbridge Road", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-09-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-08-29T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-08-17T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Happy Garden", "restaurant_id" : "40364296" }  
>
```

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

Ans :

```
db.restaurants.find( {  
... "borough" : "Bronx"  
... })  
  
.skip(5)  
  
.limit(5);
```


Output:

```
rails@rails-pc: ~  
> db.restaurants.find( {  
... "borough" : "Bronx"  
... }).skip(5).limit(5);  
{ "_id" : ObjectId("5947bc1fb60c37c179375c7c"), "address" : { "building" : "658"  
, "coord" : [ -73.81363999999999, 40.829411000000001 ], "street" : "Clarence Ave"  
, "zipcode" : "10465" }, "borough" : "Bronx", "cuisine" : "American ", "grades"  
: [ { "date" : ISODate("2014-06-21T00:00:00Z"), "grade" : "A", "score" : 5 }, {  
"date" : ISODate("2012-07-11T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name"  
: "Manhem Club", "restaurant_id" : "40364363" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375c94"), "address" : { "building" : "2222"  
, "coord" : [ -73.84971759999999, 40.8304811 ], "street" : "Haviland Avenue", "  
zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [  
{ "date" : ISODate("2014-12-18T00:00:00Z"), "grade" : "A", "score" : 7 }, { "da  
te" : ISODate("2014-05-01T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" :  
ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISOD  
ate("2012-09-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2  
012-02-08T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "The New Starli  
ng Athletic Club Of The Bronx", "restaurant_id" : "40364956" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375cac"), "address" : { "building" : "72",  
, "coord" : [ -73.92506, 40.8275556 ], "street" : "East 161 Street", "zipcode" :  
"10451" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date"  
: ISODate("2014-04-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISOD  
ate("2013-11-14T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2  
013-07-29T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-1  
2-31T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date" : ISODate("2012-05-30T  
00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-01-09T00:00  
:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-08-15T00:00:00Z"  
), "grade" : "C", "score" : 37 } ], "name" : "Yankee Tavern", "restaurant_id" :  
"40365499" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375cbf"), "address" : { "building" : "331"  
, "coord" : [ -73.87786539999999, 40.8724377 ], "street" : "East 204 Street", "  
zipcode" : "10467" }, "borough" : "Bronx", "cuisine" : "Irish", "grades" : [ { "  
date" : ISODate("2014-08-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date"  
: ISODate("2014-03-26T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : IS  
ODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate  
("2012-12-18T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("201  
1-10-20T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Mcdwyers Pub", "  
restaurant_id" : "40365893" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375cd8"), "address" : { "building" : "5820"  
, "coord" : [ -73.9002615, 40.885186 ], "street" : "Broadway", "zipcode" : "104  
63" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISO  
Date("2014-02-26T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2  
013-10-09T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-  
05-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-11-20T  
00:00:00Z"), "grade" : "B", "score" : 18 }, { "date" : ISODate("2011-10-17T00:00  
:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-06-22T00:00:00Z"  
), "grade" : "C", "score" : 35 } ], "name" : "The Punch Bowl", "restaurant_id" :  
"40366497" }  
>
```

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

Ans :

```
db.restaurants.find( {  
... "grades.score" : { $gt : 80, $lt : 100 }  
... } );
```


Output:

```
rails@rails-pc: ~
> db.restaurants.find( {
... "grades.score" : { $gt : 80, $lt : 100 }
... });
{ "_id" : ObjectId("5947bc1fb60c37c179375d9d"), "address" : { "building" : "65",
"coord" : [ -73.9782725, 40.7624022 ], "street" : "West 54 Street", "zipcode"
: "10019" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "
date" : ISODate("2014-08-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date"
: ISODate("2014-03-28T00:00:00Z"), "grade" : "C", "score" : 131 }, { "date" : I
SODate("2013-09-25T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODat
e("2013-04-08T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("20
12-10-15T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-10
-19T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Murals On 54/Randolph
hs'S", "restaurant_id" : "40372466" }
{ "_id" : ObjectId("5947bc1fb60c37c179375e3e"), "address" : { "building" : "345"
, "coord" : [ -73.9864626, 40.7266739 ], "street" : "East 6 Street", "zipcode" :
"10003" }, "borough" : "Manhattan", "cuisine" : "Indian", "grades" : [ { "date"
: ISODate("2014-09-15T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISO
Date("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("
2013-05-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-
04-24T00:00:00Z"), "grade" : "P", "score" : 2 }, { "date" : ISODate("2012-10-01T
00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-04-06T00:00:
00Z"), "grade" : "C", "score" : 92 }, { "date" : ISODate("2011-11-03T00:00:00Z")
, "grade" : "C", "score" : 41 } ], "name" : "Gandhi", "restaurant_id" : "4038129
5" }
{ "_id" : ObjectId("5947bc1fb60c37c179375fa1"), "address" : { "building" : "130"
, "coord" : [ -73.984758, 40.7457939 ], "street" : "Madison Avenue", "zipcode" :
"10016" }, "borough" : "Manhattan", "cuisine" : "Pizza/Italian", "grades" : [ {
"date" : ISODate("2014-12-24T00:00:00Z"), "grade" : "Z", "score" : 31 }, { "dat
e" : ISODate("2014-06-17T00:00:00Z"), "grade" : "C", "score" : 98 }, { "date" :
ISODate("2013-12-12T00:00:00Z"), "grade" : "C", "score" : 32 }, { "date" : ISODa
te("2013-05-22T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2
012-05-02T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Bella Napoli",
"restaurant_id" : "40393488" }
{ "_id" : ObjectId("5947bc1fb60c37c179376810"), "address" : { "building" : "", "
coord" : [ -74.0163793, 40.7167671 ], "street" : "Hudson River", "zipcode" : "10
282" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date"
: ISODate("2014-06-27T00:00:00Z"), "grade" : "C", "score" : 89 }, { "date" : ISO
Date("2013-06-06T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("
2012-06-19T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "West 79Th Str
eet Boat Basin Cafe", "restaurant_id" : "40756344" }
>
```

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

Ans:

```
db.restaurants.find( {
... "address.coord" : { $lt : -95.754168 }
... });
```

Output:

```
rails@rails-pc: ~  
> db.restaurants.find( {  
... "address.coord" : { $lt : -95.754168 }  
... });  
{ "_id" : ObjectId("5947bc1fb60c37c179376288"), "address" : { "building" : "3707",  
"coord" : [ -101.8945214, 33.5197474 ], "street" : "82 Street", "zipcode" : "11372" }, "borough" : "Queens", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-06-04T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-11-07T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-05-17T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-08-29T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-04-03T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-11-16T00:00:00Z"), "grade" : "A", "score" : 7 } ], "name" : "Burger King", "restaurant_id" : "40534067" }  
{ "_id" : ObjectId("5947bc1fb60c37c1793765f4"), "address" : { "building" : "15259",  
"coord" : [ -119.6368672, 36.2504996 ], "street" : "10 Avenue", "zipcode" : "11357" }, "borough" : "Queens", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-09-04T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-03-26T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-03-04T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-09-27T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-04-20T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2011-11-23T00:00:00Z"), "grade" : "C", "score" : 34 } ], "name" : "Cascarino'S", "restaurant_id" : "40668681" }  
{ "_id" : ObjectId("5947bc1fb60c37c179376a9b"), "address" : { "building" : "60",  
"coord" : [ -111.9975205, 42.0970258 ], "street" : "West Side Highway", "zipcode" : "10006" }, "borough" : "Manhattan", "cuisine" : "Japanese", "grades" : [ { "date" : ISODate("2014-03-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-06-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-05T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2011-07-27T00:00:00Z"), "grade" : "A", "score" : 2 } ], "name" : "Sports Center At Chelsea Piers (Sushi Bar)", "restaurant_id" : "40882356" }  
>
```

8. 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.

Ans:

```
db.restaurants.find( {  
  ... $and : [  
    ... { "grades.score" : { $gt : 70 } },  
    ... { "address.coord" : { $lt : -65.754168 } },  
    ... { "cuisine" : { $ne : "American " } }  
  ... ] } );
```

Output:

```
rails@rails-pc: ~  
> db.restaurants.find( {  
... $and : [  
... { "grades.score" : { $gt : 70 } },  
... { "address.coord" : { $lt : -65.754168 } },  
... { "cuisine" : { $ne : "American" } }  
... ] } );  
{ "_id" : ObjectId("5947bc1fb60c37c179375e3e"), "address" : { "building" : "345"  
, "coord" : [ -73.9864626, 40.7266739 ], "street" : "East 6 Street", "zipcode" :  
"10003" }, "borough" : "Manhattan", "cuisine" : "Indian", "grades" : [ { "date"  
: ISODate("2014-09-15T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISO  
Date("2014-01-14T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2013-05-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-04-24T00:00:00Z"), "grade" : "P", "score" : 2 }, { "date" : ISODate("2012-10-01T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-04-06T00:00:00Z"), "grade" : "C", "score" : 92 }, { "date" : ISODate("2011-11-03T00:00:00Z"), "grade" : "C", "score" : 41 } ], "name" : "Gandhi", "restaurant_id" : "40381295" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375fa1"), "address" : { "building" : "130"  
, "coord" : [ -73.984758, 40.7457939 ], "street" : "Madison Avenue", "zipcode" :  
"10016" }, "borough" : "Manhattan", "cuisine" : "Pizza/Italian", "grades" : [ {  
"date" : ISODate("2014-12-24T00:00:00Z"), "grade" : "Z", "score" : 31 }, { "date"  
: ISODate("2014-06-17T00:00:00Z"), "grade" : "C", "score" : 98 }, { "date" : ISODate("2013-12-12T00:00:00Z"), "grade" : "C", "score" : 32 }, { "date" : ISODate("2013-05-22T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2012-05-02T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Bella Napoli", "restaurant_id" : "40393488" }  
{ "_id" : ObjectId("5947bc1fb60c37c179375fac"), "address" : { "building" : "101"  
, "coord" : [ -73.9243061, 40.8276297 ], "street" : "East 161 Street", "zipcode"  
: "10451" }, "borough" : "Bronx", "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South & Central American)", "grades" : [ { "date" : ISODate("2014-04-10T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-10-01T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2013-04-11T00:00:00Z"), "grade" : "B", "score" : 25 }, { "date" : ISODate("2012-10-25T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-10-10T00:00:00Z"), "grade" : "P", "score" : 12 }, { "date" : ISODate("2012-05-25T00:00:00Z"), "grade" : "B", "score" : 14 }, { "date" : ISODate("2011-09-14T00:00:00Z"), "grade" : "B", "score" : 26 }, { "date" : ISODate("2011-04-25T00:00:00Z"), "grade" : "C", "score" : 76 } ], "name" : "El Molino Rojo Restaurant", "restaurant_id" : "40393688" }  
{ "_id" : ObjectId("5947bc1fb60c37c1793760fd"), "address" : { "building" : "289"  
, "coord" : [ -73.94610279999999, 40.7137587 ], "street" : "Manhattan Avenue", "zipcode" : "11211" }, "borough" : "Brooklyn", "cuisine" : "Bakery", "grades" : [ { "date" : ISODate("2014-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-10-10T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-05-07T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISO
```

9. Write a MongoDB query to update the restaurant's grade to 'B' whose score is more than or equal to 10(update only first grade in the grades array).

Ans :

```
db.restaurants.update(  
  { "grades.score" : { $gte : 10 } },  
  { $set : { "grades.$grade" : "B" } },  
  { multi : "true" } );
```

Output :

```
})  
> db.restaurants.update( { "grades.score" : { $gte : 10 } }, { $set : { "grades.  
$.grade" : "B" } }, { multi : "true" });  
WriteResult({ "nMatched" : 3600, "nUpserted" : 0, "nModified" : 3147 })  
> █
```

10. Write a MongoDB query to delete the restaurants in borough Bronx.

Ans :

```
db.restaurants.remove( {  
  ... "borough" : "Bronx"  
  ... } );
```

Output:

```
rails@rails-pc: ~  
> db.restaurants.remove( {  
... "borough" : "Bronx"  
... } );  
WriteResult({ "nRemoved" : 309 })  
> db.restaurants.find().pretty();  
{  
  "_id" : ObjectId("5947bc1fb60c37c179375c40"),  
  "address" : {  
    "building" : "469",  
    "coord" : [  
      -73.961704,  
      40.662942  
    ],  
    "street" : "Flatbush Avenue",  
    "zipcode" : "11225"  
  },  
  "borough" : "Brooklyn",  
  "cuisine" : "Hamburgers",  
  "grades" : [  
    {  
      "date" : ISODate("2014-12-30T00:00:00Z"),  
      "grade" : "A",  
      "score" : 8  
    },  
    {  
      "date" : ISODate("2014-07-01T00:00:00Z"),  
      "grade" : "B",  
      "score" : 23  
    },  
    {  
      "date" : ISODate("2013-04-30T00:00:00Z"),  
      "grade" : "A",  
      "score" : 12  
    },  
    {  
      "date" : ISODate("2012-05-08T00:00:00Z"),  
      "grade" : "A",  
      "score" : 12  
    }  
  ],  
  "name" : "Wendy'S",  
  "restaurant_id" : "30112340"  
}
```


After the removal of all restaurants from Bronx :

```
rails@rails-pc: ~  
}   
Type "it" for more   
> db.restaurants.find();   
{ "_id" : ObjectId("5947bc1fb60c37c179375c40"), "address" : { "building" : "469"   
, "coord" : [ -73.961704, 40.662942 ], "street" : "Flatbush Avenue", "zipcode" :   
"11225" }, "borough" : "Brooklyn", "cuisine" : "Hamburgers", "grades" : [ { "da   
te" : ISODate("2014-12-30T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" :   
ISODate("2014-07-01T00:00:00Z"), "grade" : "B", "score" : 23 }, { "date" : ISODa   
te("2013-04-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2   
012-05-08T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Wendy'S", "res   
taurant_id" : "30112340" }   
{ "_id" : ObjectId("5947bc1fb60c37c179375c41"), "address" : { "building" : "351"   
, "coord" : [ -73.98513559999999, 40.7676919 ], "street" : "West 57 Street", "   
zipcode" : "10019" }, "borough" : "Manhattan", "cuisine" : "Irish", "grades" : [   
{ "date" : ISODate("2014-09-06T00:00:00Z"), "grade" : "A", "score" : 2 }, { "da   
te" : ISODate("2013-07-22T00:00:00Z"), "grade" : "B", "score" : 11 }, { "date" :   
ISODate("2012-07-31T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISOD   
ate("2011-12-29T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Dj Reyno   
lds Pub And Restaurant", "restaurant_id" : "30191841" }   
{ "_id" : ObjectId("5947bc1fb60c37c179375c42"), "address" : { "building" : "2780   
, "coord" : [ -73.98241999999999, 40.579505 ], "street" : "Stillwell Avenue", "   
zipcode" : "11224" }, "borough" : "Brooklyn", "cuisine" : "American ", "grades"   
: [ { "date" : ISODate("2014-06-10T00:00:00Z"), "grade" : "A", "score" : 5 }, {   
"date" : ISODate("2013-06-05T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date"   
: ISODate("2012-04-13T00:00:00Z"), "grade" : "B", "score" : 12 }, { "date" : IS   
ODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Rivier   
a Caterer", "restaurant_id" : "40356018" }   
{ "_id" : ObjectId("5947bc1fb60c37c179375c43"), "address" : { "building" : "97-2   
2", "coord" : [ -73.8601152, 40.7311739 ], "street" : "63 Road", "zipcode" : "11   
374" }, "borough" : "Queens", "cuisine" : "Jewish/Kosher", "grades" : [ { "date"   
: ISODate("2014-11-24T00:00:00Z"), "grade" : "B", "score" : 20 }, { "date" : IS   
ODate("2013-01-17T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate   
("2012-08-02T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("201   
1-12-15T00:00:00Z"), "grade" : "B", "score" : 25 } ], "name" : "Tov Kosher Kitch   
en", "restaurant_id" : "40356068" }   
{ "_id" : ObjectId("5947bc1fb60c37c179375c44"), "address" : { "building" : "8825   
, "coord" : [ -73.8803827, 40.7643124 ], "street" : "Astoria Boulevard", "zipco   
de" : "11369" }, "borough" : "Queens", "cuisine" : "American ", "grades" : [ { "   
date" : ISODate("2014-11-15T00:00:00Z"), "grade" : "B", "score" : 38 }, { "date"   
: ISODate("2014-05-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : IS   
ODate("2013-03-02T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate(   
"2012-02-10T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Brunos On Th   
e Boulevard", "restaurant_id" : "40356151" }   
{ "_id" : ObjectId("5947bc1fb60c37c179375c45"), "address" : { "building" : "2206   
, "coord" : [ -74.1377286, 40.6119572 ], "street" : "Victory Boulevard", "zipco
```