

NoSQL databases

Lab #2 - Part II

(1) Display the fields restaurant_id, name, borough and cuisine for all restaurants.

```
> db.restaurants.find({}, { _id: 1, name: 1, borough: 1, cuisine: 1 })
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55304"), "borough" : "Brooklyn", "cuisine" : "American ", "name" :
"Riviera Caterer" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55305"), "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55306"), "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55307"), "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55308"), "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55309"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5530a"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5530b"), "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5530c"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5530d"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5530e"), "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May Day Kitchen" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5530f"), "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Seuda Foods" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55310"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "D Reynolds Pub And Restaurant" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55311"), "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55312"), "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55313"), "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55314"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "The Movable Feast" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55315"), "borough" : "Queens", "cuisine" : "Delicatessen", "name" : "Sal'S Deli" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55316"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Nordic Delicacies" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f55317"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food" }
Type "it" for more
> 
```

(2) Same as one, exclude _id

```

{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59313"), "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Y
ogurt, Ices", "name" : "Taste The Tropics Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59314"), "borough" : "Brooklyn", "cuisine" : "American ", "name" :
"The Movable Feast" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59315"), "borough" : "Queens", "cuisine" : "Delicatessen", "name"
: "Sal'S Deli" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59316"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name"
: "Nordic Delicacies" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59317"), "borough" : "Manhattan", "cuisine" : "American ", "name"
: "Glorious Food" }
Type "it" for more
> db.restaurants.find({}, { _id: 0, name: 1, borough: 1, cuisine: 1 })
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer" }
{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop" }
{ "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen" }
{ "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard" }
{ "borough" : "Staten Island", "cuisine" : "Jewish/Kosher", "name" : "Kosher Island" }
{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Regina Caterers" }
{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "C & C Catering Service" }
{ "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia" }
{ "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May May Kitchen" }
{ "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Seuda Foods" }
{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant" }
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice
Cream" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "The Movable Feast" }
{ "borough" : "Queens", "cuisine" : "Delicatessen", "name" : "Sal'S Deli" }
{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Nordic Delicacies" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food" }
Type "it" for more
>

```

(3) All restaurants in **Manhattan**

```

{ "borough" : "Brooklyn", "cuisine" : "Chinese", "name" : "May May Kitchen" }
{ "borough" : "Brooklyn", "cuisine" : "Jewish/Kosher", "name" : "Seuda Foods" }
{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant" }
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice
Cream" }
{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "The Movable Feast" }
{ "borough" : "Queens", "cuisine" : "Delicatessen", "name" : "Sal'S Deli" }
{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Nordic Delicacies" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food" }
Type "it" for more
> db.restaurants.find({ borough: "Manhattan" }, { _id: 0, name: 1, borough: 1, cuisine: 1 })
{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen" }
{ "borough" : "Manhattan", "cuisine" : "Delicatessen", "name" : "Bully'S Deli" }
{ "borough" : "Manhattan", "cuisine" : "Chicken", "name" : "Harriet'S Kitchen" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "P & S Deli Grocery" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Angelika Film Center" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Downtown Deli" }
{ "borough" : "Manhattan", "cuisine" : "Bakery", "name" : "Olive'S" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Cafe Metro" }
{ "borough" : "Manhattan", "cuisine" : "Sandwiches/Salads/Mixed Buffet", "name" : "Lexler Deli" }
{ "borough" : "Manhattan", "cuisine" : "Continental", "name" : "Lorenzo & Maria'S" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Berkely" }
{ "borough" : "Manhattan", "cuisine" : "Turkish", "name" : "The Country Cafe" }
{ "borough" : "Manhattan", "cuisine" : "Pizza", "name" : "Domino'S Pizza" }
{ "borough" : "Manhattan", "cuisine" : "Pizza", "name" : "Domino'S Pizza" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Spoon Bread Catering" }
{ "borough" : "Manhattan", "cuisine" : "Chicken", "name" : "Texas Rotisserie" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Palm Restaurant" }
{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "21 Club" }
Type "it" for more
>

```

(4) First 5 results in **Bronx**

```

> db.restaurants.find({ borough: "Manhattan" }, { _id: 0, name: 1, borough: 1, cuisine: 1 })
{ "borough": "Manhattan", "cuisine": "Irish", "name": "Dj Reynolds Pub And Restaurant" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Glorious Food" }
{ "borough": "Manhattan", "cuisine": "American", "name": "1 East 66th Street Kitchen" }
{ "borough": "Manhattan", "cuisine": "Delicatessen", "name": "Bully'S Deli" }
{ "borough": "Manhattan", "cuisine": "Chicken", "name": "Harriet'S Kitchen" }
{ "borough": "Manhattan", "cuisine": "American", "name": "P & S Deli Grocery" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Angelika Film Center" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Downtown Deli" }
{ "borough": "Manhattan", "cuisine": "Bakery", "name": "Olive'S" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Cafe Metro" }
{ "borough": "Manhattan", "cuisine": "Sandwiches/Salads/Mixed Buffet", "name": "Lexler Deli" }
{ "borough": "Manhattan", "cuisine": "Continental", "name": "Lorenzo & Maria'S" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Berkely" }
{ "borough": "Manhattan", "cuisine": "Turkish", "name": "The Country Cafe" }
{ "borough": "Manhattan", "cuisine": "Pizza", "name": "Domino'S Pizza" }
{ "borough": "Manhattan", "cuisine": "Pizza", "name": "Domino'S Pizza" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Spoon Bread Catering" }
{ "borough": "Manhattan", "cuisine": "Chicken", "name": "Texas Rotisserie" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Palm Restaurant" }
{ "borough": "Manhattan", "cuisine": "American", "name": "21 Club" }
Type "it" for more
> db.restaurants.find({ borough: "Manhattan" }, { _id: 0, name: 1, borough: 1, cuisine: 1 }).limit(5)
{ "borough": "Manhattan", "cuisine": "Irish", "name": "Dj Reynolds Pub And Restaurant" }
{ "borough": "Manhattan", "cuisine": "American", "name": "Glorious Food" }
{ "borough": "Manhattan", "cuisine": "American", "name": "1 East 66th Street Kitchen" }
{ "borough": "Manhattan", "cuisine": "Delicatessen", "name": "Bully'S Deli" }
{ "borough": "Manhattan", "cuisine": "Chicken", "name": "Harriet'S Kitchen" }
> db.restaurants.find({ borough: "Bronx", { _id: 0, name: 1, borough: 1, cuisine: 1 }).limit(5)
{ "borough": "Bronx", "cuisine": "Bakery", "name": "Morris Park Bake Shop" }
{ "borough": "Bronx", "cuisine": "American", "name": "Wild Asia" }
{ "borough": "Bronx", "cuisine": "Ice Cream, Gelato, Yogurt, Ices", "name": "Carvel Ice Cream" }
{ "borough": "Bronx", "cuisine": "Chinese", "name": "Happy Garden" }
{ "borough": "Bronx", "cuisine": "Chinese", "name": "Happy Garden" }
>

```

(5) Find high-scoring restaurants

```

> db.restaurants.find(
... { grade.score: { $gt: 90 },
... { _id: 1, grades.score: 1 }
... }
... ^C

> db.restaurants.find(
... { grade.score: { $gt: 90 },
... { _id: 1, grades.score: 1 }
... }
2018-02-24T23:33:49.106+0000 E QUERY [thread1] SyntaxError: missing : after property id @(shell):2:7
> db.restaurants.find(
... { "grades.score": { $gt: 90 },
... { _id: 1, grades.score: 1 }
... }
2018-02-24T23:34:14.399+0000 E QUERY [thread1] SyntaxError: missing : after property id @(shell):3:15
> db.restaurants.find(
... { "grades.score": { $gt: 90 },
... { _id: 1, "grades.score": 1 }
... }
2018-02-24T23:34:22.495+0000 E QUERY [thread1] SyntaxError: missing : after property id @(shell):3:15
> db.restaurants.find(
... { "grades.score": { $gt: 90 },
... { _id: 1, "grades.score": 1 }
... }
{ "_id": ObjectId("5a8cb8b78cdfc1e8d4f59462"), "grades": [ { "score": 11 }, { "score": 131 }, { "score": 11 }, { "score": 25 }, { "score": 11 }, { "score": 13 } ] }
{ "_id": ObjectId("5a8cb8b78cdfc1e8d4f59501"), "grades": [ { "score": 5 }, { "score": 8 }, { "score": 12 }, { "score": 2 }, { "score": 9 }, { "score": 92 }, { "score": 41 } ] }
{ "_id": ObjectId("5a8cb8b78cdfc1e8d4f59665"), "grades": [ { "score": 31 }, { "score": 98 }, { "score": 32 }, { "score": 21 }, { "score": 11 } ] }
{ "_id": ObjectId("5a8cb8b88cdfc1e8d4f5c698"), "grades": [ { "score": 7 }, { "score": 12 }, { "score": 21 }, { "score": 18 }, { "score": 11 }, { "score": 98 } ] }
>

```

(6) Score between 80-100

```

, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99 ] }, { "score" : [ 80, 81, 82, 83, 84, 85, 86, 87, 8
8, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99 ] } ] }
Type "it" for more
> db.restaurants.find(
... { "grades.score": { $gte: 80, $lt: 100 } },
... { "_id": 1, "grades.score": 1, street: 1, cuisine: 1 }
... )
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59462"), "cuisine" : "American ", "grades" : [ { "score" : 11 }, {
"score" : 131 }, { "score" : 11 }, { "score" : 25 }, { "score" : 11 }, { "score" : 13 } ] }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59501"), "cuisine" : "Indian", "grades" : [ { "score" : 5 }, { "sc
ore" : 8 }, { "score" : 12 }, { "score" : 2 }, { "score" : 9 }, { "score" : 92 }, { "score" : 41 } ] }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59665"), "cuisine" : "Pizza/Italian", "grades" : [ { "score" : 31
}, { "score" : 98 }, { "score" : 32 }, { "score" : 21 }, { "score" : 11 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f59d60"), "cuisine" : "American ", "grades" : [ { "score" : 9 }, {
"score" : 11 }, { "score" : 5 }, { "score" : 19 }, { "score" : 26 }, { "score" : 49 }, { "score" : 80 } ]
}
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f59ed4"), "cuisine" : "American ", "grades" : [ { "score" : 89 }, {
"score" : 6 }, { "score" : 13 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a412"), "cuisine" : "Thai", "grades" : [ { "score" : 14 }, { "sc
ore" : 84 }, { "score" : 11 }, { "score" : 23 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a446"), "cuisine" : "American ", "grades" : [ { "score" : 84 }, {
"score" : 5 }, { "score" : 10 }, { "score" : 36 }, { "score" : 12 }, { "score" : 27 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5b5e0"), "cuisine" : "American ", "grades" : [ { "score" : 90 }, {
"score" : 27 }, { "score" : 12 }, { "score" : 10 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5b9d0"), "cuisine" : "Italian", "grades" : [ { "score" : 18 }, { "
score" : 12 }, { "score" : 24 }, { "score" : 18 }, { "score" : 81 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5c698"), "cuisine" : "Indian", "grades" : [ { "score" : 7 }, { "sc
ore" : 12 }, { "score" : 21 }, { "score" : 18 }, { "score" : 11 }, { "score" : 98 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5c729"), "cuisine" : "American ", "grades" : [ { "score" : 11 }, {
"score" : 11 }, { "score" : 82 }, { "score" : 11 }, { "score" : 19 }, { "score" : 29 } ] }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5dbd9"), "cuisine" : "Chinese", "grades" : [ { "score" : 86 }, { "
score" : 20 }, { "score" : 11 }, { "score" : 10 } ] }
{ "_id" : ObjectId("5a8cb8b98cdfc1e8d4f5ef04"), "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South
& Central American)", "grades" : [ { "score" : 10 }, { "score" : 82 } ] }
>

```

(7) based on coordinates

```

2018-02-25T00:07:50.794+0000 E QUERY [thread1] SyntaxError: missing : after property id @($shell):3:40
> db.restaurants.find(
... { "address.coord.0": { $lt: -95.754168 } },
... { "_id": 1, street: 1, cuisine: 1, "address.coord": 1 }
... )
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5994d"), "address" : { "coord" : [ -101.8945214, 33.5197474 ] }, "
cuisine" : "American " }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f59cb8"), "address" : { "coord" : [ -119.6368672, 36.2504996 ] }, "
cuisine" : "Italian" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a15f"), "address" : { "coord" : [ -111.9975205, 42.0970258 ] }, "
cuisine" : "Japanese" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a349"), "address" : { "coord" : [ -122.3870832, 37.7606086 ] }, "
cuisine" : "Pizza" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a3d5"), "address" : { "coord" : [ -115.2372343, 36.1836718 ] }, "
cuisine" : "Pizza/Italian" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5ab16"), "address" : { "coord" : [ -120.4599938, 36.8606752 ] }, "
cuisine" : "Japanese" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5acaa"), "address" : { "coord" : [ -95.9220496, 36.0912513 ] }, "c
uisine" : "Caribbean" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5b054"), "address" : { "coord" : [ -99.0640336, 40.7284015 ] }, "c
uisine" : "Italian" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5b0b7"), "address" : { "coord" : [ -119.565005, 36.3924905 ] }, "c
uisine" : "Middle Eastern" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5b24a"), "address" : { "coord" : [ -104.2001266, 39.6006401 ] }, "
cuisine" : "Café/Coffee/Tea" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5b3af"), "address" : { "coord" : [ -100.306687, 38.0090517 ] }, "c
uisine" : "Bakery" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5be66"), "address" : { "coord" : [ -105.7857603, 39.9472999 ] }, "
cuisine" : "Mexican" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5c1f5"), "address" : { "coord" : [ -104.8340205, 39.7691992 ] }, "
cuisine" : "Chinese/Japanese" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5c3b5"), "address" : { "coord" : [ -119.6684796, 36.3200002 ] }, "
cuisine" : "Ice Cream, Gelato, Yogurt, Ices" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5c602"), "address" : { "coord" : [ -114.6787351, 33.4631523 ] }, "
cuisine" : "Delicatessen" }

```


(8) non-American, score 70+

```

uisine" : "Italian" }
Type "it" for more
> db.restaurants.find( { $and: [ { "cuisine": { $ne: "American" } }, { "grades.score": { $gt: 70 } }, { "address.coord.0": { $lt: -65.754168 } } ], { _id: 1, street: 1, cuisine: 1, "address.coord": 1 } }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59501"), "address" : { "coord" : [ -73.9864626, 40.7266739 ] }, "cuisine" : "Indian" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59665"), "address" : { "coord" : [ -73.984758, 40.7457939 ] }, "cuisine" : "Pizza/Italian" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59671"), "address" : { "coord" : [ -73.9243861, 40.8276297 ] }, "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South & Central American)" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f597c2"), "address" : { "coord" : [ -73.94618279999999, 40.7137587 ] }, "cuisine" : "Bakery" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f59ded"), "address" : { "coord" : [ -73.9772294, 40.7527262 ] }, "cuisine" : "Italian" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a412"), "address" : { "coord" : [ -73.8878784, 40.7435875 ] }, "cuisine" : "Thai" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a64b"), "address" : { "coord" : [ -73.987977, 40.75519500000001 ] }, "cuisine" : "Chinese" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a976"), "address" : { "coord" : [ -73.97757399999999, 40.67127 ] }, "cuisine" : "Pizza" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5aee2"), "address" : { "coord" : [ -73.9651337, 40.6937213 ] }, "cuisine" : "Mexican" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5aeb8"), "address" : { "coord" : [ -73.981843, 40.741287 ] }, "cuisine" : "Japanese" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b141"), "address" : { "coord" : [ -73.861317, 40.7502198 ] }, "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South & Central American)" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b1ce"), "address" : { "coord" : [ -73.94352959999999, 40.8361392 ] }, "cuisine" : "Seafood" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b9d0"), "address" : { "coord" : [ -73.9579033, 40.7332745 ] }, "cuisine" : "Italian" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5c5ff"), "address" : { "coord" : [ -73.9087571, 40.8539355 ] }, "cuisine" : "Chinese" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5c698"), "address" : { "coord" : [ -73.94981, 40.780043 ] }, "cuisine" : "Indian" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5c91e"), "address" : { "coord" : [ -73.978671, 40.7515735 ] }, "cui

```

(9) non-American, grade A, non-Brooklyn

```

>
> db.restaurants.find(
... { $and: [
... { "cuisine": { $ne: "American" } },
... { "grades.grade": "A" },
... { "borough": { $ne: "Brooklyn" } }
... ],
... { _id: 1, street: 1, cuisine: 1, "address.coord": 1 }
... }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59305"), "address" : { "coord" : [ -73.856077, 40.848447 ] }, "cuisine" : "Bakery" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59306"), "address" : { "coord" : [ -73.8601152, 40.7311739 ] }, "cuisine" : "Jewish/Kosher" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59307"), "address" : { "coord" : [ -73.8803827, 40.7643124 ] }, "cuisine" : "American" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59308"), "address" : { "coord" : [ -74.1377286, 40.6119572 ] }, "cuisine" : "Jewish/Kosher" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5930d"), "address" : { "coord" : [ -73.8786113, 40.8502883 ] }, "cuisine" : "American" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59310"), "address" : { "coord" : [ -73.98513559999999, 40.7676919 ] }, "cuisine" : "Irish" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59312"), "address" : { "coord" : [ -73.7032601, 40.7386417 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59315"), "address" : { "coord" : [ -73.839297, 40.78147 ] }, "cuisine" : "Delicatessen" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59317"), "address" : { "coord" : [ -73.95171, 40.767461 ] }, "cuisine" : "American" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59318"), "address" : { "coord" : [ -73.96926909999999, 40.7685235 ] }, "cuisine" : "American" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59319"), "address" : { "coord" : [ -73.9925386, 40.7309346 ] }, "cuisine" : "Delicatessen" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5931a"), "address" : { "coord" : [ -73.94824739999999, 40.7623288 ] }, "cuisine" : "Delicatessen" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5931b"), "address" : { "coord" : [ -73.976112, 40.786714 ] }, "cuisine" : "Chicken" }

```

(10) starting with "Wil"

```

> db.restaurants.find(
... { "name": { $regex: /^Wil.*$/ } },
... { _id: 1, name: 1, borough: 1, cuisine: 1 }
... )
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f59399"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5939d"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a116"), "borough" : "Bronx", "cuisine" : "Pizza", "name" : "Wilbel Pizza" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a267"), "borough" : "Manhattan", "cuisine" : "Seafood", "name" : "Wild Edibles" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a264"), "borough" : "Brooklyn", "cuisine" : "Bagels/Pretzels", "name" : "Wild Bagels" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a283"), "borough" : "Bronx", "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South & Central American)", "name" : "Willie'S Steak House" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5af7a"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Willis North America" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5af7b"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Willburg Cafe" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b54c"), "borough" : "Manhattan", "cuisine" : "Café/Coffee/Tea", "name" : "William Greenberg Jr Desserts" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b63c"), "borough" : "Brooklyn", "cuisine" : "Vegetarian", "name" : "Wild Ginger Vegan Cafe" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b673"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Willie & Nell" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b687"), "borough" : "Manhattan", "cuisine" : "Vegetarian", "name" : "Wild Ginger Vegetarian Kitchen" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b673"), "borough" : "Manhattan", "cuisine" : "Pizza", "name" : "Wild" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5c8da"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "William Barnacle" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5c95b"), "borough" : "Queens", "cuisine" : "American ", "name" : "William Mallet" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5c97d"), "borough" : "Brooklyn", "cuisine" : "American ", "name" :

```

(11) ending in "ces"

```

2018-02-25T23:32:49.129+0000 E QUERY [thread1] SyntaxError: unterminated comment @(shell):2:20
> db.restaurants.find(
... { "name": { $regex: /.ces$/ } },
... { _id: 1, name: 1, street: 1, cuisine: 1, "address.coord": 1 }
... )
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f59796"), "address" : { "coord" : [ -74.000085, 40.733887 ] }, "cuisine" : "American ", "name" : "Pieces" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f59857"), "address" : { "coord" : [ -73.922226, 40.7276291 ] }, "cuisine" : "American ", "name" : "S.M.R. Restaurant Services" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5985d"), "address" : { "coord" : [ -73.9818631, 40.7337096 ] }, "cuisine" : "American ", "name" : "Good Shepherd Services" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f59d18"), "address" : { "coord" : [ -73.78820030000002, 40.7492044 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "The Ice Box-Ralph'S Famous Italian Ices" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f59f13"), "address" : { "coord" : [ -73.968812, 40.597293 ] }, "cuisine" : "Jewish/Kosher", "name" : "Alices" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a135"), "address" : { "coord" : [ -73.9833872, 40.7638411 ] }, "cuisine" : "American ", "name" : "Rei Sources" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a3bb"), "address" : { "coord" : [ -74.0841949, 40.598206 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Cange'S Italian Ices" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a474"), "address" : { "coord" : [ -73.9777852, 40.6864624 ] }, "cuisine" : "American ", "name" : "B.A.M. Cafe/Great Performances" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a684"), "address" : { "coord" : [ -73.988466, 40.669916 ] }, "cuisine" : "American ", "name" : "Barbara Blum Residence / Good Shepherd Services" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a6ef"), "address" : { "coord" : [ -73.9364486, 40.68986280000001 ] }, "cuisine" : "Soul Food", "name" : "Berts Restaurant & Catering Services" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5af6d"), "address" : { "coord" : [ -74.2149562, 40.5238761 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Ralph'S Famous Italian Ices" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b13a"), "address" : { "coord" : [ -73.81283599999999, 40.7898799 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Ralph'S Famous Italian Ices" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b4ea"), "address" : { "coord" : [ -74.19229229999999, 40.5325494 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Ralph'S Famous Italian Ices" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b64c"), "address" : { "coord" : [ -73.98944829999999, 40.7697436 ] }, "cuisine" : "American ", "name" : "International Flavors & Fragrances" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b9cd"), "address" : { "coord" : [ -74.1071634, 40.5736536 ] }, "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Ralph'S Ices" }

```

(12) Starting with "Reg"

```
Type "it" for more
> db.restaurants.find(
... { "name": { $regex: /^Reg.*$/ } },
... { "_id": 1, name: 1, street: 1, cuisine: 1, "address.coord": 1 }
... }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5938a"), "address": { "coord": [ -74.00528899999999, 40.628886 ] }, "cuisine": "American", "name": "Regina Caterers" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59519"), "address": { "coord": [ -73.9692185, 40.7645497 ] }, "cuisine": "American", "name": "Regency Hotel" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5983e"), "address": { "coord": [ -73.9681387, 40.7698148 ] }, "cuisine": "American", "name": "Regency Whist Club" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f59919"), "address": { "coord": [ -73.86273609999999, 40.7289483 ] }, "cuisine": "American", "name": "Rego Park Cafe" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f59f89"), "address": { "coord": [ -73.81514469999999, 40.739764 ] }, "cuisine": "Pizza", "name": "Regina Pizza" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5a19f"), "address": { "coord": [ -74.0158213, 40.7149813 ] }, "cuisine": "American", "name": "Regal Entertainment Group" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5a6bc"), "address": { "coord": [ -73.8578884, 40.7282638 ] }, "cuisine": "Middle Eastern", "name": "Rego Pita" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5a849"), "address": { "coord": [ -73.9789831, 40.7963676 ] }, "cuisine": "Italian", "name": "Regional" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5a8eb"), "address": { "coord": [ -73.8698515, 40.7894364 ] }, "cuisine": "American", "name": "Regal Cinema 8 (Atlas Park Stadium)" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5adcc"), "address": { "coord": [ -73.9890116, 40.7574173 ] }, "cuisine": "American", "name": "Regal Cinemas E-Walk Stadium13" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5b2f2"), "address": { "coord": [ -73.84863419999999, 40.7318497 ] }, "cuisine": "Jewish/Kosher", "name": "Regestan" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5b946"), "address": { "coord": [ -73.998495, 40.734279 ] }, "cuisine": "American", "name": "Regal Union Square Stadium 14" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5bb4e"), "address": { "coord": [ -73.8635939, 40.728174 ] }, "cuisine": "Chinese", "name": "Rego Garden Restaurant, Inc" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5c88e"), "address": { "coord": [ -73.7915163, 40.7261886 ] }, "cuisine": "Pizza/Italian", "name": "Regina's Cafe & Pizzeria" }
{ "_id": ObjectId("5a8cb8b88cdfcle8d4f5c587"), "address": { "coord": [ -73.8623325, 40.7295224 ] }, "cuisine": "American", "name": "Rego Bagel" }
```

(13) in Bronx, American or Chinese

```
2018-02-26T22:51:25.610+0000 E QUERY [thread1] SyntaxError: invalid property id @(shell):1:121
> db.restaurants.find(
... { $and: [
... { "cuisine": { $regex: /^[.*American.*$] | [.*Chinese.*$]/ } },
... { "borough": "Bronx" }
... ] },
... { "_id": 1, name: 1, street: 1, cuisine: 1 }
... }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5938d"), "cuisine": "American", "name": "Wild Asia" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59322"), "cuisine": "Ice Cream, Gelato, Yogurt, Ices", "name": "Carvel Ice Cream" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59348"), "cuisine": "American", "name": "Manhem Club" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59358"), "cuisine": "American", "name": "The New Starling Athletic Club Of The Bronx" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59379"), "cuisine": "American", "name": "Yankee Tavern" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5939b"), "cuisine": "American", "name": "The Punch Bowl" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f593a8"), "cuisine": "American", "name": "Munchtime" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f593b3"), "cuisine": "American", "name": "Marina Delray" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f593db"), "cuisine": "American", "name": "Cool Zone" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f593dc"), "cuisine": "American", "name": "Beaver Pond" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f593de"), "cuisine": "American", "name": "African Market (Baboon Cafe)" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f593fe"), "cuisine": "American", "name": "Blue Bay Restaurant" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59418"), "cuisine": "American", "name": "Bronx Grill" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59423"), "cuisine": "American", "name": "P & K'S Grill" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59434"), "cuisine": "American", "name": "John Mulligan's Fireside Pub" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59487"), "cuisine": "American", "name": "Quality Cafe & Restaurant" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f594f0"), "cuisine": "American", "name": "Riverdale Diner" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59515"), "cuisine": "American", "name": "Castlehill Diner" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59533"), "cuisine": "American", "name": "Short Stop Restaurant" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59548"), "cuisine": "American", "name": "Burger Barn Restaurant" }
```


(14) Restaurants in different boroughs

```

> db.restaurants.find(
... { $or: [
... { "borough": "Staten Island" },
... { "borough": "Queens" },
... { "borough": "Brooklyn" },
... { "borough": "Bronx" }
... ] },
... { _id: 1, name: 1, borough: 1, cuisine: 1 }
... )
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59304"), "borough": "Brooklyn", "cuisine": "American ", "name": "
Riviera Caterer" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59305"), "borough": "Bronx", "cuisine": "Bakery", "name": "Morr
is Park Bake Shop" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59306"), "borough": "Queens", "cuisine": "Jewish/Kosher", "name":
"Torv Kosher Kitchen" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59307"), "borough": "Queens", "cuisine": "American ", "name": "
Brunos On The Boulevard" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59308"), "borough": "Staten Island", "cuisine": "Jewish/Kosher",
"name": "Kosher Island" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59309"), "borough": "Brooklyn", "cuisine": "Delicatessen", "name":
"Wilken'S Pine Food" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930a"), "borough": "Brooklyn", "cuisine": "American ", "name": "
Regina Caterers" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930b"), "borough": "Brooklyn", "cuisine": "Hamburgers", "name":
"Wendy'S" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930c"), "borough": "Brooklyn", "cuisine": "American ", "name": "
C & C Catering Service" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930d"), "borough": "Bronx", "cuisine": "American ", "name": "W
ild Asia" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930e"), "borough": "Brooklyn", "cuisine": "Chinese", "name": "
May May Kitchen" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930f"), "borough": "Brooklyn", "cuisine": "Jewish/Kosher", "nam
e": "Seuda Foods" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59311"), "borough": "Brooklyn", "cuisine": "Ice Cream, Gelato, Y
ogurt, Ices", "name": "Carvel Ice Cream" }

```

(15) Score lower than 10

```

> db.restaurants.find(
... { "grades.score": { $lte: 10 } },
... { _id: 1, name: 1, borough: 1, cuisine: 1 }
... )
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59304"), "borough": "Brooklyn", "cuisine": "American ", "name": "
Riviera Caterer" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59305"), "borough": "Bronx", "cuisine": "Bakery", "name": "Morr
is Park Bake Shop" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59307"), "borough": "Queens", "cuisine": "American ", "name": "
Brunos On The Boulevard" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59308"), "borough": "Staten Island", "cuisine": "Jewish/Kosher",
"name": "Kosher Island" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59309"), "borough": "Brooklyn", "cuisine": "Delicatessen", "name":
"Wilken'S Pine Food" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930a"), "borough": "Brooklyn", "cuisine": "American ", "name": "
Regina Caterers" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930b"), "borough": "Brooklyn", "cuisine": "Hamburgers", "name":
"Wendy'S" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930c"), "borough": "Brooklyn", "cuisine": "American ", "name": "
C & C Catering Service" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930d"), "borough": "Bronx", "cuisine": "American ", "name": "W
ild Asia" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930e"), "borough": "Brooklyn", "cuisine": "Chinese", "name": "
May May Kitchen" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f5930f"), "borough": "Brooklyn", "cuisine": "Jewish/Kosher", "nam
e": "Seuda Foods" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59310"), "borough": "Manhattan", "cuisine": "Irish", "name": "D
Reynolds Pub And Restaurant" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59311"), "borough": "Brooklyn", "cuisine": "Ice Cream, Gelato, Y
ogurt, Ices", "name": "Carvel Ice Cream" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59312"), "borough": "Queens", "cuisine": "Ice Cream, Gelato, Yog
urt, Ices", "name": "Carvel Ice Cream" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59313"), "borough": "Brooklyn", "cuisine": "Ice Cream, Gelato, Y
ogurt, Ices", "name": "Taste The Tropics Ice Cream" }
{ "_id": ObjectId("5a8cb8b78cdfcle8d4f59314"), "borough": "Brooklyn", "cuisine": "American ", "name": "

```


(16) Starting with "Wil", non-American/Chinese

My regex expression doesn't ignore American for some reason - Chinese restaurants are filtered accordingly...

```
> db.restaurants.find(
... { $and: [
... { "name": { $regex: /^Wil.* / } },
... { $or: [
... { "cuisine": { $not: /^[American].*$/ } },
... { "cuisine": { $not: /^[Chinese]/ } }
... ] }
... ],
... { _id: 1, name: 1, borough: 1, cuisine: 1 }
... )
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f59389"), "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Wilken'S Fine Food" }
{ "_id" : ObjectId("5a8cb8b78cdfcle8d4f5938d"), "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a116"), "borough" : "Bronx", "cuisine" : "Pizza", "name" : "Wild Pizza" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5a267"), "borough" : "Manhattan", "cuisine" : "Seafood", "name" : "Wild Edibles" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5ade4"), "borough" : "Brooklyn", "cuisine" : "Bagels/Pretzels", "name" : "Wild Bagels" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5ae83"), "borough" : "Bronx", "cuisine" : "Latin (Cuban, Dominican, Puerto Rican, South & Central American)", "name" : "Willie'S Steak House" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5af7a"), "borough" : "Manhattan", "cuisine" : "American ", "name" : "Willis North America" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5af7b"), "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Willburg Cafe" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b54c"), "borough" : "Manhattan", "cuisine" : "Café/Coffee/Tea", "name" : "William Greenberg Jr Desserts" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b63c"), "borough" : "Brooklyn", "cuisine" : "Vegetarian", "name" : "Wild Ginger Vegan Cafe" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b673"), "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Willie & Nell" }
{ "_id" : ObjectId("5a8cb8b88cdfcle8d4f5b687"), "borough" : "Manhattan", "cuisine" : "Vegetarian", "name" : "Wild Ginger Vegetarian Kitchen" }
```

(17) Sorted by name

```
Type "it" for more
> db.restaurants.find({}).sort({ name: +1 })
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f42f"), "address" : { "building" : "154", "coord" : [ -73.9189064, 40.8654529 ], "street" : "Post Ave", "zipcode" : "10034" }, "borough" : "Manhattan", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017887" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f43f"), "address" : { "building" : "508", "coord" : [ -73.999813, 40.683876 ], "street" : "Henry St", "zipcode" : "11231" }, "borough" : "Brooklyn", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017918" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f440"), "address" : { "building" : "15", "coord" : [ -73.9966882, 40.7139264 ], "street" : "Division St", "zipcode" : "10002" }, "borough" : "Manhattan", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017912" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f447"), "address" : { "building" : "4704", "coord" : [ -74.013391, 40.64943 ], "street" : "3Rd Ave", "zipcode" : "11220" }, "borough" : "Brooklyn", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017825" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f44d"), "address" : { "building" : "567", "coord" : [ -73.9521663, 40.7172388 ], "street" : "Union Ave", "zipcode" : "11211" }, "borough" : "Brooklyn", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017938" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f44f"), "address" : { "building" : "2145", "coord" : [ -73.866886, 40.8547454 ], "street" : "Cruzer Ave", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017935" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f455"), "address" : { "building" : "947", "coord" : [ -74.0043549, 40.653897 ], "street" : "4Th Ave", "zipcode" : "11232" }, "borough" : "Brooklyn", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017967" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f45b"), "address" : { "building" : "288", "coord" : [ -73.9187426, 40.8299958 ], "street" : "E 165Th St", "zipcode" : "10456" }, "borough" : "Bronx", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017982" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f45c"), "address" : { "building" : "1501", "coord" : [ -73.815882, 40.787061 ], "street" : "149Th St", "zipcode" : "11357" }, "borough" : "Queens", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50017969" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f463"), "address" : { "building" : "2478", "coord" : [ -73.987641, 40.597901 ], "street" : "86Th St", "zipcode" : "11214" }, "borough" : "Brooklyn", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50018007" }
{ "_id" : ObjectId("5a8cb8b98cdfcle8d4f5f467"), "address" : { "building" : "61", "coord" : [ -73.9835112, 40.7408627 ], "street" : "Lexington Ave", "zipcode" : "10018" }, "borough" : "Manhattan", "cuisine" : "Other", "grades" : [ ], "name" : "", "restaurant_id" : "50018012" }
```

(18) Sorted by two fields

```

Type "it" for more
> db.restaurants.find({}).sort({ name: -1 }).sort({ borough: +1 })
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59395"), "address" : { "building" : "1007", "coord" : [ -73.856077
, 40.848447 ], "street" : "Morris Park Ave", "zipcode" : "10462" }, "borough" : "Bronx", "cuisine" : "Bak
ery", "grades" : [ { "date" : ISODate("2014-03-03T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : I
SODate("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("5a8cb8b78cdfc1e8d4f5939d"), "address" : { "building" : "2300", "coord" : [ -73.878611
, 40.850283 ], "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("5a8cb8b78cdfc1e8d4f59322"), "address" : { "building" : "1006", "coord" : [ -73.848568
, 40.898378 ], "street" : "East 233 Street", "zipcode" : "10466" }, "borough" : "Bronx", "cuisin
e" : "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("2012-07-03T00:00:0
0Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2011-07-11T00:00:00Z"), "grade" : "A", "score" :
5 } ], "name" : "Carvel Ice Cream", "restaurant_id" : "40363093" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59325"), "address" : { "building" : "1236", "coord" : [ -73.889365
, 40.813761 ], "street" : "238 Spofford Ave", "zipcode" : "10474" }, "borough" : "Bronx", "cuisi
ne" : "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("2012-06-12T
00:00:00Z"), "grade" : "B", "score" : 15 } ], "name" : "Happy Garden", "restaurant_id" : "40363289" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59336"), "address" : { "building" : "277", "coord" : [ -73.8941893
, 40.863468 ], "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", "sco
re" : 11 }, { "date" : ISODate("2011-08-17T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Happy
Garden", "restaurant_id" : "40364296" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59348"), "address" : { "building" : "638", "coord" : [ -73.8136399
, 40.829411 ], "street" : "Clarence Ave", "zipcode" : "10465" }, "borough" : "Bronx", "cui

```

(19) Check if the street name shows up

```

> db.restaurants.find(
... { "address.street": { $not: /^.*(IS|is)treets/ } },
... { "_id": 1, name: 1, "address.street": 1, cuisine: 1 }
... )
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59304"), "address" : { "street" : "Stillwell Avenue" }, "cuisine"
: "American ", "name" : "Riviera Caterer" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59305"), "address" : { "street" : "Morris Park Ave" }, "cuisine" :
"Bakery", "name" : "Morris Park Bake Shop" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59306"), "address" : { "street" : "63 Road" }, "cuisine" : "Jewish
/Kosher", "name" : "Tov Kosher Kitchen" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59307"), "address" : { "street" : "Astoria Boulevard" }, "cuisine"
: "American ", "name" : "Brunos On The Boulevard" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59308"), "address" : { "street" : "Victory Boulevard" }, "cuisine"
: "Jewish/Kosher", "name" : "Kosher Island" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59309"), "address" : { "street" : "Avenue U" }, "cuisine" : "Delic
atessen", "name" : "Wilken'S Fine Food" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930a"), "address" : { "street" : "11 Avenue" }, "cuisine" : "Amer
ican ", "name" : "Regina Caterers" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930b"), "address" : { "street" : "Flatbush Avenue" }, "cuisine" :
"Hamburgers", "name" : "Mendy'S" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930c"), "address" : { "street" : "18 Avenue" }, "cuisine" : "Amer
ican ", "name" : "C & C Catering Service" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930d"), "address" : { "street" : "Southern Boulevard" }, "cuisine"
: "American ", "name" : "Wild Asia" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930e"), "address" : { "street" : "Sutter Avenue" }, "cuisine" : "
Chinese", "name" : "May May Kitchen" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930f"), "address" : { "street" : "Kings Highway" }, "cuisine" : "
Jewish/Kosher", "name" : "Suda Foods" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59311"), "address" : { "street" : "Church Avenue" }, "cuisine" : "
Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59312"), "address" : { "street" : "Hillside Avenue" }, "cuisine" :
"Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59313"), "address" : { "street" : "Nostrand Avenue" }, "cuisine" :
"Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f59314"), "address" : { "street" : "Prospect Park West" }, "cuisine"

```

(20) Using an index for a query

```

Type "it" for more
> db.restaurants.createIndex({ "name": 1, "cuisine": 1 })
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "ok" : 1
}
> db.restaurants.find(
... { $and: [
... { "name": { $regex: /^Wil.* / } },
...
... { $or: [
... { "cuisine": { $not: /^[American].*$/ } },
... { "cuisine": { $not: /^[Chinese]$/ } }
... ] }
... ],
... { _id: 1, name: 1, borough: 1, cuisine: 1 }
... }
... }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a116"), "borough" : "Bronx", "cuisine" : "Pizza", "name" : "Wilber
l Pizza" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5bc73"), "borough" : "Manhattan", "cuisine" : "Pizza", "name" : "W
ild" }
{ "_id" : ObjectId("5a8cb8b78cdfc1e8d4f5930d"), "borough" : "Bronx", "cuisine" : "American ", "name" : "W
ild Asia" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5ada4"), "borough" : "Brooklyn", "cuisine" : "Bagels/Pretzels", "n
ame" : "Wild Bagels" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5d352"), "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yog
urt, Ices", "name" : "Wild Cherry" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5a267"), "borough" : "Manhattan", "cuisine" : "Seafood", "name" :
"Wild Edibles" }
{ "_id" : ObjectId("5a8cb8b88cdfc1e8d4f5c9ae"), "borough" : "Manhattan", "cuisine" : "Asian", "name" : "W
ild Ginger" }
{ "_id" : ObjectId("5a8cb8b98cdfc1e8d4f5ef4a"), "borough" : "Brooklyn", "cuisine" : "Vegetarian", "name"
: "Wild Ginger" }

```

Indexing allows to create a minimal representation of a whole dataset. This allows the database to get through much faster a set of information

Annotation:

I figured out that I wanted the `restaurant_id` key opposed to `_id`; my bad, I got that one wrong. Of course one could match/sort against the `restaurant_id` as well.