**Assignment 3**

1. > db.addresses.find()

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a15"), "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" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a16"), "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" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Riviera Caterer", "restaurant\_id" : "40356018" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a17"), "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 }, { "date" : ISODate("2013-07-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-31T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-12-29T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Dj Reynolds Pub And Restaurant", "restaurant\_id" : "30191841" }

1. > db.addresses.aggregate([ {$project:{restaurant\_id:1, name:1 , borough:1, cuisine:1}} ]).pretty()

{

"\_id" : ObjectId("6108fdb184e8da2e58c73a15"),

"borough" : "Brooklyn",

"cuisine" : "Hamburgers",

"name" : "Wendy'S",

"restaurant\_id" : "30112340"

}

{

"\_id" : ObjectId("6108fdb184e8da2e58c73a16"),

"borough" : "Brooklyn",

"cuisine" : "American ",

"name" : "Riviera Caterer",

"restaurant\_id" : "40356018"

}

{

"\_id" : ObjectId("6108fdb184e8da2e58c73a17"),

"borough" : "Manhattan",

"cuisine" : "Irish",

"name" : "Dj Reynolds Pub And Restaurant",

"restaurant\_id" : "30191841"

}

1. > db.addresses.aggregate([ {$project:{\_id:0, restaurant\_id:1, name:1 , borough:1, cuisine:1}} ]).pretty()

{

"borough" : "Brooklyn",

"cuisine" : "Hamburgers",

"name" : "Wendy'S",

"restaurant\_id" : "30112340"

}

{

"borough" : "Brooklyn",

"cuisine" : "American ",

"name" : "Riviera Caterer",

"restaurant\_id" : "40356018"

}

{

"borough" : "Manhattan",

"cuisine" : "Irish",

"name" : "Dj Reynolds Pub And Restaurant",

"restaurant\_id" : "30191841"

}

1. > db.addresses.aggregate([ {$project:{\_id:0, restaurant\_id:1, name:1 , borough:1, "address.zipcode":1}} ]).pretty()

{

"address" : {

"zipcode" : "11225"

},

"borough" : "Brooklyn",

"name" : "Wendy'S",

"restaurant\_id" : "30112340"

}

{

"address" : {

"zipcode" : "11224"

},

"borough" : "Brooklyn",

"name" : "Riviera Caterer",

"restaurant\_id" : "40356018"

}

{

"address" : {

"zipcode" : "10019"

},

"borough" : "Manhattan",

"name" : "Dj Reynolds Pub And Restaurant",

"restaurant\_id" : "30191841"

}

1. > db.addresses.aggregate([ {$match:{borough:"Bronx"}}, {$limit:5} ])

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a18"), "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("6108fdb184e8da2e58c73a1e"), "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("6108fdb184e8da2e58c73a34"), "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("6108fdb184e8da2e58c73a37"), "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("6108fdb184e8da2e58c73a49"), "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" }

1. > db.addresses.aggregate([ {$match:{borough:"Bronx"}}])

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a18"), "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("6108fdb184e8da2e58c73a1e"), "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("6108fdb184e8da2e58c73a34"), "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("6108fdb184e8da2e58c73a37"), "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("6108fdb184e8da2e58c73a49"), "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" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a59"), "address" : { "building" : "658", "coord" : [ -73.81363999999999, 40.82941100000001 ], "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("6108fdb184e8da2e58c73a6a"), "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 }, { "date" : ISODate("2014-05-01T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-09-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-02-08T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "The New Starling Athletic Club Of The Bronx", "restaurant\_id" : "40364956" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a82"), "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" : ISODate("2013-11-14T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2013-07-29T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-12-31T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date" : ISODate("2012-05-30T00:00:00Z"), "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("6108fdb184e8da2e58c73a95"), "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" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-12-18T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2011-10-20T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Mcdwyers Pub", "restaurant\_id" : "40365893" }

1. > db.addresses.aggregate([ {$match:{borough:"Bronx"}}, {$skip:5}, {$limit:5} ])

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a59"), "address" : { "building" : "658", "coord" : [ -73.81363999999999, 40.82941100000001 ], "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("6108fdb184e8da2e58c73a6a"), "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 }, { "date" : ISODate("2014-05-01T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-09-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-02-08T00:00:00Z"), "grade" : "B", "score" : 19 } ], "name" : "The New Starling Athletic Club Of The Bronx", "restaurant\_id" : "40364956" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a82"), "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" : ISODate("2013-11-14T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2013-07-29T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-12-31T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date" : ISODate("2012-05-30T00:00:00Z"), "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("6108fdb184e8da2e58c73a95"), "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" : ISODate("2013-09-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-12-18T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2011-10-20T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Mcdwyers Pub", "restaurant\_id" : "40365893" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73aae"), "address" : { "building" : "5820", "coord" : [ -73.9002615, 40.885186 ], "street" : "Broadway", "zipcode" : "10463" }, "borough" : "Bronx", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-02-26T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-10-09T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-05-15T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-11-20T00:00:00Z"), "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" }

1. > db.addresses.aggregate([ {$unwind:"$grades"}, {$group:{\_id:"$name", score:{$sum:"$grades.score"}}}, {$match:{score:{$gt:90}}}]).pretty()

{ "\_id" : "Last Stop Restaurant", "score" : 113 }

{ "\_id" : "Ali'S Roti Shop", "score" : 148 }

{ "\_id" : "Iron Chef House", "score" : 102 }

{ "\_id" : "Trinidad Golden Place", "score" : 154 }

{ "\_id" : "West 79Th Street Boat Basin Cafe", "score" : 108 }

{ "\_id" : "Greenwich Village Bistro", "score" : 155 }

{ "\_id" : "Pronto Pizza", "score" : 102 }

{ "\_id" : "Han Bat Restaurant", "score" : 99 }

{ "\_id" : "Piccola Venezia", "score" : 98 }

{ "\_id" : "Agra Restaurant", "score" : 95 }

{ "\_id" : "Four Seasons Hotel", "score" : 103 }

{ "\_id" : "Ray'S Pizza", "score" : 100 }

{ "\_id" : "Wendy'S", "score" : 446 }

{ "\_id" : "Patsy'S Pizzeria", "score" : 115 }

{ "\_id" : "La Piazza Pizzeria & Restaurant", "score" : 104 }

{ "\_id" : "China Chalet", "score" : 100 }

{ "\_id" : "Ihop", "score" : 426 }

{ "\_id" : "Fiorentino Ristorante", "score" : 92 }

{ "\_id" : "Pomodoro Ristorante", "score" : 109 }

{ "\_id" : "Arturo'S", "score" : 136 }

Type "it" for more

1. > db.addresses.aggregate([ {$unwind:"$grades"}, {$group:{\_id:"$name", score:{$sum:"$grades.score"}}}, {$match:{$and:[{score:{$gt:80}},{score:{$lt:100}}]}}])

{ "\_id" : "Il Riccio Restaurant", "score" : 85 }

{ "\_id" : "Happy Garden", "score" : 87 }

{ "\_id" : "Water Front Ale House", "score" : 82 }

{ "\_id" : "Sanfords Restaurant", "score" : 83 }

{ "\_id" : "Fei Teng Bakery", "score" : 87 }

{ "\_id" : "Auction House", "score" : 94 }

{ "\_id" : "Gnocco", "score" : 89 }

{ "\_id" : "Enzo Cafe", "score" : 91 }

{ "\_id" : "Curves Gentleman'S Club", "score" : 81 }

{ "\_id" : "Brooklyn Pizza", "score" : 96 }

{ "\_id" : "Caffe Dante", "score" : 81 }

{ "\_id" : "Windfall", "score" : 82 }

{ "\_id" : "City College Cafeteria", "score" : 92 }

{ "\_id" : "Carom Cafe Billiards", "score" : 96 }

{ "\_id" : "Mamoun Falafel", "score" : 97 }

{ "\_id" : "Egyptian Coffee Shop", "score" : 82 }

1. > db.addresses.aggregate([{$match:{"address.coord.0":{$lt:-95.754168}}}])

{ "\_id" : ObjectId("6108fdb184e8da2e58c7405c"), "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("6108fdb284e8da2e58c743c8"), "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("6108fdb284e8da2e58c74870"), "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" }

1. > db.addresses.aggregate([ {$match:{$and:[{cuisine:{$not:{$regex:"American"}}},{"address.coord.0":{$lt:-65.754168}}]}}, {$unwind:"$grades"}, {$group:{\_id:{name:"$name",address:"$address"}, score:{$sum:"$grades.score"}}}, {$match:{score:{$gt:70}}}])

{ "\_id" : { "name" : "Arturo'S", "address" : { "building" : "1617", "coord" : [ -73.947847, 40.775478 ], "street" : "York Avenue", "zipcode" : "10028" } }, "score" : 80 }

{ "\_id" : { "name" : "Cascarino'S", "address" : { "building" : "15259", "coord" : [ -119.6368672, 36.2504996 ], "street" : "10 Avenue", "zipcode" : "11357" } }, "score" : 80 }

{ "\_id" : { "name" : "Kosher Hut Of Brooklyn", "address" : { "building" : "709", "coord" : [ -73.965305, 40.6064189 ], "street" : "Kings Highway", "zipcode" : "11223" } }, "score" : 90 }

{ "\_id" : { "name" : "D & P Restaurant & Cocktail", "address" : { "building" : "3405", "coord" : [ -73.94546489999999, 40.6512331 ], "street" : "Church Avenue", "zipcode" : "11203" } }, "score" : 79 }

{ "\_id" : { "name" : "Panda Kitchen", "address" : { "building" : "943", "coord" : [ -73.8881505, 40.6554256 ], "street" : "Pennsylvania Avenue", "zipcode" : "11207" } }, "score" : 79 }

{ "\_id" : { "name" : "Bello Giardino", "address" : { "building" : "71", "coord" : [ -73.9787535, 40.7767208 ], "street" : "West 71 Street", "zipcode" : "10023" } }, "score" : 99 }

{ "\_id" : { "name" : "O.B'S Bakery", "address" : { "building" : "165-76", "coord" : [ -73.7774489, 40.6795188 ], "street" : "Baisley Boulevard", "zipcode" : "11434" } }, "score" : 74 }

{ "\_id" : { "name" : "Capri Ii Pizza", "address" : { "building" : "149", "coord" : [ -73.8280734, 40.8775869 ], "street" : "Dreiser Loop", "zipcode" : "10475" } }, "score" : 126 }

{ "\_id" : { "name" : "Restivo Ristorante", "address" : { "building" : "209", "coord" : [ -73.99582199999999, 40.743407 ], "street" : "7 Avenue", "zipcode" : "10011" } }, "score" : 109 }

{ "\_id" : { "name" : "Dagan Pizza & Dairy Restaurant", "address" : { "building" : "4820", "coord" : [ -73.985534, 40.63131 ], "street" : "16 Avenue", "zipcode" : "11204" } }, "score" : 108 }

1. > db.addresses.aggregate([ {$match:{$and:[{cuisine:{$not:{$regex:"American"}}},{"address.coord.1":{$lt:-65.754168}}]}}, {$unwind:"$grades"}, {$group:{\_id:{name:"$name",address:"$address"}, score:{$sum:"$grades.score"}}}, {$match:{score:{$gt:70}}}])

NO RECORDS

1. > db.addresses.aggregate([ {$unwind:"$grades"}, {$match:{$and:[{cuisine:{$not:{$regex:"American"}}},{"grades.grade":"A"},{borough:{$not:{$regex:"Brooklyn"}}}]}}, {$sort:{cuisine:-1}}])

{ "\_id" : ObjectId("6108fdb184e8da2e58c74122"), "address" : { "building" : "89", "coord" : [ -73.9995899, 40.7168015 ], "street" : "Baxter Street", "zipcode" : "10013" }, "borough" : "Manhattan", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : { "date" : ISODate("2014-08-21T00:00:00Z"), "grade" : "A", "score" : 13 }, "name" : "Thai Son", "restaurant\_id" : "40559606" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c74122"), "address" : { "building" : "89", "coord" : [ -73.9995899, 40.7168015 ], "street" : "Baxter Street", "zipcode" : "10013" }, "borough" : "Manhattan", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : { "date" : ISODate("2013-08-31T00:00:00Z"), "grade" : "A", "score" : 13 }, "name" : "Thai Son", "restaurant\_id" : "40559606" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c74122"), "address" : { "building" : "89", "coord" : [ -73.9995899, 40.7168015 ], "street" : "Baxter Street", "zipcode" : "10013" }, "borough" : "Manhattan", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : { "date" : ISODate("2012-10-17T00:00:00Z"), "grade" : "A", "score" : 4 }, "name" : "Thai Son", "restaurant\_id" : "40559606" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c74122"), "address" : { "building" : "89", "coord" : [ -73.9995899, 40.7168015 ], "street" : "Baxter Street", "zipcode" : "10013" }, "borough" : "Manhattan", "cuisine" : "Vietnamese/Cambodian/Malaysia", "grades" : { "date" : ISODate("2012-05-15T00:00:00Z"), "grade" : "A", "score" : 10 }, "name" : "Thai Son", "restaurant\_id" : "40559606" }

1. > db.addresses.aggregate([ {$project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}, {$match:{name:/^Wil/}}]).pretty()

{

"borough" : "Brooklyn",

"cuisine" : "Delicatessen",

"name" : "Wilken'S Fine Food",

"restaurant\_id" : "40356483"

}

{

"borough" : "Bronx",

"cuisine" : "American ",

"name" : "Wild Asia",

"restaurant\_id" : "40357217"

}

{

"borough" : "Bronx",

"cuisine" : "Pizza",

"name" : "Wilbel Pizza",

"restaurant\_id" : "40871979"

}

1. > db.addresses.aggregate([ {$project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}, {$match:{name:{$regex:"ces$"}}}]).pretty()

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Pieces",

"restaurant\_id" : "40399910"

}

{

"borough" : "Queens",

"cuisine" : "American ",

"name" : "S.M.R Restaurant Services",

"restaurant\_id" : "40403857"

}

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Good Shepherd Services",

"restaurant\_id" : "40403989"

}

{

"borough" : "Queens",

"cuisine" : "Ice Cream, Gelato, Yogurt, Ices",

"name" : "The Ice Box-Ralph'S Famous Italian Ices",

"restaurant\_id" : "40690899"

}

1. > db.addresses.aggregate([ {$project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}, {$match:{name:/Reg/}}]).pretty()

{

"borough" : "Brooklyn",

"cuisine" : "American ",

"name" : "Regina Caterers",

"restaurant\_id" : "40356649"

}

{

"borough" : "Manhattan",

"cuisine" : "Café/Coffee/Tea",

"name" : "Caffe Reggio",

"restaurant\_id" : "40369418"

}

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Regency Hotel",

"restaurant\_id" : "40382679"

}

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Regency Whist Club",

"restaurant\_id" : "40402377"

}

1. > db.addresses.find({$and:[{borough:"Bronx"},{$or:[{cuisine:"American"},{cuisine:"Chinese"}]}]})

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a37"), "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("6108fdb184e8da2e58c73a49"), "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" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73fc7"), "address" : { "building" : "2459", "coord" : [ -73.8929629, 40.8601605 ], "street" : "Webster Avenue", "zipcode" : "10458" }, "borough" : "Bronx", "cuisine" : "Chinese", "grades" : [ { "date" : ISODate("2014-12-23T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-01-07T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2012-12-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-18T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "China Wok Ii", "restaurant\_id" : "40510328" }

1. > db.addresses.aggregate([ { $project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}, {$match:{$or:[{borough:"Staten Island"},{borough:"Queens"},{borough:"Bornx"},{borough:"Brooklyn"}]}}]).pretty()

"borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant\_id" : "30112340" }

{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant\_id" : "40356018" }

{ "borough" : "Queens", "cuisine" : "American ", "name" : "Brunos On The Boulevard", "restaurant\_id" : "40356151" }

{ "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant\_id" : "40356068" }

{ "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" }

1. > db.addresses.aggregate([ { $project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}, {$match:{$and:[{borough:{$not:{$regex:"Staten Island"}}},{borough:{$not:{$regex:"Queens"}}},{borough:{$not:{$regex:"Bornx"}}},{borough:{$not:{$regex:"Brooklyn"}}}]}}])

{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant\_id" : "30191841" }

{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant\_id" : "30075445" }

{ "borough" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant\_id" : "40357217" }

{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "1 East 66Th Street Kitchen", "restaurant\_id" : "40359480" }

{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "Glorious Food", "restaurant\_id" : "40361521" }

{ "borough" : "Manhattan", "cuisine" : "Delicatessen", "name" : "Bully'S Deli", "restaurant\_id" : "40361708" }

{ "borough" : "Manhattan", "cuisine" : "Chicken", "name" : "Harriet'S Kitchen", "restaurant\_id" : "40362098" }

{ "borough" : "Manhattan", "cuisine" : "American ", "name" : "P & S Deli Grocery", "restaurant\_id" : "40362264" }

1. > db.addresses.aggregate([{$match:{"grades.score":{$lte:10}}}, { $project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}])

{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant\_id" : "30112340" }

{ "borough" : "Brooklyn", "cuisine" : "American ", "name" : "Riviera Caterer", "restaurant\_id" : "40356018" }

{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant\_id" : "30191841" }

{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant\_id" : "30075445" }

{ "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" }

1. > db.addresses.aggregate([ {$match:{$or:[{$and:[{cuisine:{$not:{$regex:"American"}}},{cuisine:{$not:{$regex:"Chinese"}}}]},{name:/^Wil/}]}}, { $project:{\_id:0, restaurant\_id:1, name:1, borough:1, cuisine:1}}])

{ "borough" : "Brooklyn", "cuisine" : "Hamburgers", "name" : "Wendy'S", "restaurant\_id" : "30112340" }

{ "borough" : "Manhattan", "cuisine" : "Irish", "name" : "Dj Reynolds Pub And Restaurant", "restaurant\_id" : "30191841" }

{ "borough" : "Bronx", "cuisine" : "Bakery", "name" : "Morris Park Bake Shop", "restaurant\_id" : "30075445" }

{ "borough" : "Queens", "cuisine" : "Jewish/Kosher", "name" : "Tov Kosher Kitchen", "restaurant\_id" : "40356068" }

{ "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" : "Bronx", "cuisine" : "American ", "name" : "Wild Asia", "restaurant\_id" : "40357217" }

{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Taste The Tropics Ice Cream", "restaurant\_id" : "40356731" }

{ "borough" : "Brooklyn", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream", "restaurant\_id" : "40360076" }

{ "borough" : "Queens", "cuisine" : "Ice Cream, Gelato, Yogurt, Ices", "name" : "Carvel Ice Cream", "restaurant\_id" : "40361322" }

{ "borough" : "Brooklyn", "cuisine" : "Delicatessen", "name" : "Nordic Delicacies", "restaurant\_id" : "40361390" }

1. > db.addresses.aggregate([ {$match:{$and:[{"grades.grade":"A"},{"grades.score":11},{"grades.date":ISODate("2014-08-11T00:00:00Z")}]}}, {$project:{\_id:0, restaurant\_id:1, name:1, grades:1}}])

{ "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-07-22T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-03-14T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-07-02T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-02-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-08-24T00:00:00Z"), "grade" : "A", "score" : 11 } ], "name" : "Neary'S Pub", "restaurant\_id" : "40365871" }

{ "grades" : [ { "date" : ISODate("2014-08-11T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-12-10T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-06-10T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-06-08T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-01-25T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2011-09-13T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Don Filippo Restaurant", "restaurant\_id" : "40372417" }

1. > db.addresses.aggregate([ {$match:{$and:[{"grades.1.grade":"A"},{"grades.1.score":9},{"grades.1.date":ISODate("2014-08-11T00:00:00Z")}]}}, {$project:{\_id:0, restaurant\_id:1, name:1, grades:1}}]).pretty()

{

"grades" : [

{

"date" : ISODate("2015-01-12T00:00:00Z"),

"grade" : "A",

"score" : 10

},

{

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

"grade" : "A",

"score" : 9

},

{

"date" : ISODate("2014-01-14T00:00:00Z"),

"grade" : "A",

"score" : 13

},

{

"date" : ISODate("2013-02-07T00:00:00Z"),

"grade" : "A",

"score" : 10

},

{

"date" : ISODate("2012-04-30T00:00:00Z"),

"grade" : "A",

"score" : 11

}

],

"name" : "Club Macanudo (Cigar Bar)",

"restaurant\_id" : "40526406"

}

1. > db.addresses.aggregate([ {$match:{$and:[{"address.coord.1":{$gt:42}},{"address.coord.1":{$lte:52}}]}}, {$project:{\_id:0, restaurant\_id:1, name:1, address:1}} ])

{ "address" : { "building" : "47", "coord" : [ -78.877224, 42.89546199999999 ], "street" : "Broadway @ Trinity Pl", "zipcode" : "10006" }, "name" : "T.G.I. Friday'S", "restaurant\_id" : "40387990" }

{ "address" : { "building" : "1", "coord" : [ -0.7119979, 51.6514664 ], "street" : "Pennplaza E, Penn Sta", "zipcode" : "10001" }, "name" : "T.G.I. Fridays", "restaurant\_id" : "40388936" }

{ "address" : { "building" : "3000", "coord" : [ -87.86567699999999, 42.61150920000001 ], "street" : "47 Avenue", "zipcode" : "11101" }, "name" : "Di Luvio'S Deli", "restaurant\_id" : "40402284" }

{ "address" : { "building" : "21972199", "coord" : [ -78.589606, 42.8912372 ], "street" : "Broadway", "zipcode" : "10024" }, "name" : "La Caridad 78", "restaurant\_id" : "40568285" }

{ "address" : { "building" : "7981", "coord" : [ -84.9751215, 45.4713351 ], "street" : "Hoyt Street", "zipcode" : "11201" }, "name" : "Bijan'S", "restaurant\_id" : "40876618" }

{ "address" : { "building" : "0", "coord" : [ -88.0778799, 42.4154769 ], "street" : "& Grand Central", "zipcode" : "10017" }, "name" : "Hyatt, Ny Central/Room Service", "restaurant\_id" : "40879243" }

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

{ "\_id" : ObjectId("6108fdb284e8da2e58c746a3"), "address" : { "building" : "129", "coord" : [ -73.962943, 40.685007 ], "street" : "Gates Avenue", "zipcode" : "11238" }, "borough" : "Brooklyn", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-03-06T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-08-29T00:00:00Z"), "grade" : "A", "score" : 2 }, { "date" : ISODate("2013-03-08T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-06-27T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2011-11-17T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "(Lewis Drug Store) Locanda Vini E Olii", "restaurant\_id" : "40804423" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a21"), "address" : { "building" : "1", "coord" : [ -73.96926909999999, 40.7685235 ], "street" : "East 66 Street", "zipcode" : "10065" }, "borough" : "Manhattan", "cuisine" : "American ", "grades" : [ { "date" : ISODate("2014-05-07T00:00:00Z"), "grade" : "A", "score" : 3 }, { "date" : ISODate("2013-05-03T00:00:00Z"), "grade" : "A", "score" : 4 }, { "date" : ISODate("2012-04-30T00:00:00Z"), "grade" : "A", "score" : 6 }, { "date" : ISODate("2011-12-27T00:00:00Z"), "grade" : "A", "score" : 0 } ], "name" : "1 East 66Th Street Kitchen", "restaurant\_id" : "40359480" }

{ "\_id" : ObjectId("6108fdb284e8da2e58c74234"), "address" : { "building" : "10016", "coord" : [ -73.8216636, 40.5838155 ], "street" : "Rockaway Beach Boulevard", "zipcode" : "11694" }, "borough" : "Queens", "cuisine" : "Delicatessen", "grades" : [ { "date" : ISODate("2014-01-28T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2013-08-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-03-06T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-03-01T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "101 Deli", "restaurant\_id" : "40591271" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c74128"), "address" : { "building" : "10018", "coord" : [ -74.0343092, 40.6125569 ], "street" : "4 Avenue", "zipcode" : "11209" }, "borough" : "Brooklyn", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-12-01T00:00:00Z"), "grade" : "A", "score" : 5 }, { "date" : ISODate("2013-11-29T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-06-03T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-06-05T00:00:00Z"), "grade" : "B", "score" : 15 }, { "date" : ISODate("2012-01-10T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "101 Restaurant And Bar", "restaurant\_id" : "40560108" }

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

{ "\_id" : ObjectId("6108fdb184e8da2e58c73ad4"), "address" : { "building" : "6946", "coord" : [ -73.8811834, 40.7017759 ], "street" : "Myrtle Avenue", "zipcode" : "11385" }, "borough" : "Queens", "cuisine" : "German", "grades" : [ { "date" : ISODate("2014-09-24T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-04-17T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-03-12T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-10-02T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2012-05-09T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2011-12-28T00:00:00Z"), "grade" : "B", "score" : 24 } ], "name" : "Zum Stammtisch", "restaurant\_id" : "40367377" }

{ "\_id" : ObjectId("6108fdb284e8da2e58c7460f"), "address" : { "building" : "107109", "coord" : [ -73.9744668, 40.731155 ], "street" : "Avenue C", "zipcode" : "10009" }, "borough" : "Manhattan", "cuisine" : "German", "grades" : [ { "date" : ISODate("2014-03-04T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-08-21T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-02-27T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-06-05T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-12-20T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2011-07-15T00:00:00Z"), "grade" : "A", "score" : 6 } ], "name" : "Zum Schneider", "restaurant\_id" : "40763382" }

{ "\_id" : ObjectId("6108fdb284e8da2e58c74847"), "address" : { "building" : "2905", "coord" : [ -73.91337299999999, 40.775064 ], "street" : "23 Avenue", "zipcode" : "11105" }, "borough" : "Queens", "cuisine" : "Greek", "grades" : [ { "date" : ISODate("2014-09-29T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2014-04-18T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2013-03-19T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2012-10-03T00:00:00Z"), "grade" : "B", "score" : 20 }, { "date" : ISODate("2012-05-07T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Zorba'S", "restaurant\_id" : "40877247" }

{ "\_id" : ObjectId("6108fdb284e8da2e58c7468f"), "address" : { "building" : "305", "coord" : [ -73.94830499999999, 40.781662 ], "street" : "East 92 Street", "zipcode" : "10128" }, "borough" : "Manhattan", "cuisine" : "Brazilian", "grades" : [ { "date" : ISODate("2015-01-09T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2014-07-16T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-04-26T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2012-04-21T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Zebu Grill", "restaurant\_id" : "40800325" }

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

{ "\_id" : ObjectId("6108fdb184e8da2e58c74103"), "address" : { "building" : "1345", "coord" : [ -73.959249, 40.768076 ], "street" : "2 Avenue", "zipcode" : "10021" }, "borough" : "Manhattan", "cuisine" : "Afghan", "grades" : [ { "date" : ISODate("2014-10-07T00:00:00Z"), "grade" : "A", "score" : 9 }, { "date" : ISODate("2013-10-23T00:00:00Z"), "grade" : "A", "score" : 8 }, { "date" : ISODate("2012-10-26T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-04-26T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-01-12T00:00:00Z"), "grade" : "P", "score" : 10 } ], "name" : "Afghan Kebab House", "restaurant\_id" : "40552806" }

{ "\_id" : ObjectId("6108fdb284e8da2e58c7422b"), "address" : { "building" : "34", "coord" : [ -73.9883612, 40.7286391 ], "street" : "St Marks Place", "zipcode" : "10003" }, "borough" : "Manhattan", "cuisine" : "Afghan", "grades" : [ { "date" : ISODate("2014-02-20T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-08-06T00:00:00Z"), "grade" : "B", "score" : 17 }, { "date" : ISODate("2013-01-31T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-05-24T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-12-13T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2011-08-25T00:00:00Z"), "grade" : "A", "score" : 10 } ], "name" : "Khyber Pass", "restaurant\_id" : "40589545" }

{ "\_id" : ObjectId("6108fdb284e8da2e58c742e6"), "address" : { "building" : "764", "coord" : [ -73.9880435, 40.7641423 ], "street" : "9 Avenue", "zipcode" : "10019" }, "borough" : "Manhattan", "cuisine" : "Afghan", "grades" : [ { "date" : ISODate("2014-12-30T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2013-10-10T00:00:00Z"), "grade" : "B", "score" : 19 }, { "date" : ISODate("2013-02-25T00:00:00Z"), "grade" : "A", "score" : 13 }, { "date" : ISODate("2012-08-09T00:00:00Z"), "grade" : "C", "score" : 2 }, { "date" : ISODate("2012-02-16T00:00:00Z"), "grade" : "A", "score" : 9 } ], "name" : "Afghan Kebab House #1", "restaurant\_id" : "40616799" }

1. > db.addresses.find({"address.street":{$exists:false}})

NO RECORDS: so all addresses contain street

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

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a15"), "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" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a16"), "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" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Riviera Caterer", "restaurant\_id" : "40356018" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a17"), "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 }, { "date" : ISODate("2013-07-22T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2012-07-31T00:00:00Z"), "grade" : "A", "score" : 12 }, { "date" : ISODate("2011-12-29T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Dj Reynolds Pub And Restaurant", "restaurant\_id" : "30191841" }

{ "\_id" : ObjectId("6108fdb184e8da2e58c73a18"), "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" }

1. > db.addresses.aggregate([ {$match:{"grades.score":{$mod:[7,0]}}}, {$project:{\_id:0, restaurant\_id:1, name:1, grades:1}} ])

{ "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" : "A", "score" : 12 }, { "date" : ISODate("2011-10-12T00:00:00Z"), "grade" : "A", "score" : 12 } ], "name" : "Riviera Caterer", "restaurant\_id" : "40356018" }

{ "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" }

{ "grades" : [ { "date" : ISODate("2014-11-15T00:00:00Z"), "grade" : "Z", "score" : 38 }, { "date" : ISODate("2014-05-02T00:00:00Z"), "grade" : "A", "score" : 10 }, { "date" : ISODate("2013-03-02T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2012-02-10T00:00:00Z"), "grade" : "A", "score" : 13 } ], "name" : "Brunos On The Boulevard", "restaurant\_id" : "40356151" }

{ "grades" : [ { "date" : ISODate("2014-09-16T00:00:00Z"), "grade" : "B", "score" : 21 }, { "date" : ISODate("2013-08-28T00:00:00Z"), "grade" : "A", "score" : 7 }, { "date" : ISODate("2013-04-02T00:00:00Z"), "grade" : "C", "score" : 56 }, { "date" : ISODate("2012-08-15T00:00:00Z"), "grade" : "B", "score" : 27 }, { "date" : ISODate("2012-03-28T00:00:00Z"), "grade" : "B", "score" : 27 } ], "name" : "May May Kitchen", "restaurant\_id" : "40358429" }

1. > db.addresses.aggregate([ {$match:{name:/mon/}}, {$project:{\_id:0, name:1, borough:1, longitute:{$arrayElemAt:["$address.coord",1]}, lattitude:{$arrayElemAt:["$address.coord",0]}, cuisine:1}}]).pretty()

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Desmond'S Tavern",

"longitute" : 40.7441419,

"lattitude" : -73.98306099999999

}

{

"borough" : "Queens",

"cuisine" : "Jewish/Kosher",

"name" : "Shimons Kosher Pizza",

"longitute" : 40.7272376,

"lattitude" : -73.8221418

}

{

"borough" : "Staten Island",

"cuisine" : "American ",

"name" : "Richmond County Country Club",

"longitute" : 40.58834,

"lattitude" : -74.10465599999999

}

{

"borough" : "Brooklyn",

"cuisine" : "Pizza/Italian",

"name" : "Lb Spumoni Gardens",

"longitute" : 40.5947365,

"lattitude" : -73.9812843

}

1. > db.addresses.aggregate([ {$match:{name:/^Mad/}}, {$project:{\_id:0, name:1, borough:1, longitute:{$arrayElemAt:["$address.coord",1]}, lattitude:{$arrayElemAt:["$address.coord",0]}, cuisine:1}}]).pretty()

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Madison Square",

"longitute" : 40.7431194,

"lattitude" : -73.9860597

}

{

"borough" : "Manhattan",

"cuisine" : "Indian",

"name" : "Madras Mahal",

"longitute" : 40.742313,

"lattitude" : -73.98302199999999

}

{

"borough" : "Manhattan",

"cuisine" : "American ",

"name" : "Madame X",

"longitute" : 40.72735,

"lattitude" : -74.000002

}

{

"borough" : "Manhattan",

"cuisine" : "French",

"name" : "Madison Bistro",

"longitute" : 40.7499406,

"lattitude" : -73.98171959999999

}

{

"borough" : "Brooklyn",

"cuisine" : "African",

"name" : "Madiba",

"longitute" : 40.6897199,

"lattitude" : -73.9717845

}

{

"borough" : "Bronx",

"cuisine" : "Italian",

"name" : "Madison'S",

"longitute" : 40.9069011,

"lattitude" : -73.9040753

}

{

"borough" : "Manhattan",

"cuisine" : "Hotdogs",

"name" : "Madame Tussaud'S",

"longitute" : 40.7565811,

"lattitude" : -73.9886598

}