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Big Data Management: Homework 6

1. db.restaurants.find({},{"restaurant_id":1,"name":1,"cuisine":1,"_id":0}); The results of the query are shown in the following screenshot. It is possible you have to zoom a little bit to see the results well. I'm sorry for that.

```
me" : "Wendy'S", "restaurant_id'
e" : "Brunos On The Boulevard",
"name" : "Tov Kosher Kitchen", '
cuisine"
cuisine"
cuisine"
                                   " : "Morris Park Bake Shop", "restaur
: "Dj Reynolds Pub And Restaurant",
                                                                           "restaurant id'
cuisine"
                                                                                     "restaurant id" :
                                                                                                              "30191841" }
cuisine"
                                             "Riviera Caterer", "restaurant_id"
"Wild Asia", "restaurant_id" : "40
cuisine"
                                            "Wild Asia",
                                                                                       "40357217"
                                                                            Taste The Tropics Ice Cream", "restaurant_id" : "40356731" }
                                          Yogurt, Ices",
                                                                      "restaurant_id
                                             "Regina Caterers'
                                          "May May Kitchen",
                                         : "C & C Catering Service", "res
: "1 East 66Th Street Kitchen",
                                     me : I Last os ... s
"name" : "Wilken'S Fine Food", "restaurant_id"
to Yogurt. Ices", "name" : "Carvel Ice Cream"
              : "40356483" }
, "restaurant_id" : "40361322" }
cuisine"
cuisine"
                                                 "Nordic Delicacies",
                                                                                                      "40361390"
                                             "The Movable Feast",
                                                                    "restaurant id
```

2. db.restaurants.find({"grades.score":{\$gt: 85}}); The results of the query are shown in the following screenshot.

```
db.restaurants.find("grades.score";[str. 85])];
(".id" object[d("Sofe*P504676146950*Ced")], "dadress": { "building": "65", "coord": [ -73.9782725, 40.7624022 ], "street": "West 54 Street", "ipcode": "10019" }, "borough': "Wanhattan", "curisine": "American ", "grades": [ ( "date" : ISODate("2014-08-22760:06:002"), "grade": "A", "score": 11 }, ("date" : ISODate("2013-08-26760:062"), "grade": "A", "score": 11 }, "date": ISODate("2013-08-26760:062"), "grade": "A", "score": 11 }, "date": ISODate("2013-08-26760:06:062"), "grade": "B", "score": 25 }, ("date": ISODate("2013-08-26760:06:062"), "grade": "A", "score": 13 }], "mame": "Murals on 54,764ndolphs's", "restaurant_id": "40572666" }
(".id": ObjectId("550e*P5057607616950*O6676), "address": [ "date": ISODate("2013-08-26760), "grade": "A", "score": 5 }, ("date": ISODate("2013-08-36760), "grade": "A", "score": 5 }, ("date": ISODate("2013-08-36760:08:062"), "grade": "A", "score": 12 }, ("date": ISODate("2013-08-26760), "grade": "C", "score": 29 }, ("date": ISODate("2013-08-26760), "grade": "C", "score": 31 }, ("date": ISODate("2013-08-26760), "grade": "A", "score": 11 }, ("date": ISODate("2013-08-26760), "grade": "A", "score": 11 }, "date": "Hud
```

3. db.restaurants.find({\$and:[{"cuisine":{\$ne:"American"}},{"grades.grade":"A"},{"boroug h":{\$ne:"Brooklyn"}}]}).sort({"cuisine":-1}); The results of the query are shown in the following screenshot.

```
> db.restaurants.find((Sand:["Cuisine":(Sne:"American")), "grades.grade": A"), "borough":(Sne:"Brooklyn")], sort(("cuisine":1)" Baxter Street", "zipcode": "19013"), "borough": Manhattan", "cuisine": "Vistnamess/cambodian/Malaysia", "grades": [ { "date": ISODate("2014-08-21709:08:082"), "grade": "A", "score": 13 ), { "date": ISODate("2014-08-21709:08:082"), "grade": "A", "score": 13 ), { "date": ISODate("2014-08-15709:08-21709:08:082"), "grade": "A", "score": 13 ), { "date": ISODate("2012-08-15709:08-21709:08-21709:08:082"), "grade": "A", "score": 14 ), "date": ISODate("2012-08-15709:08-1082"), "grade": "A", "score": 15 ), "date": ISODate("2012-08-15709:08-1082"), "grade": "A", "score": 18 ), "date": ISODate("2012-08-15709:08-1082"), "grade": "A", "score": 18 ), ("date": ISODate("2012-08-15709:08-1082"), "grade": "A", "score": 18 ), ("date": ISODate("2012-08-15709:08-1082"), "grade": "A", "score": 18 ), ("date": ISODate("2012-08-08-1082"), "grade": "A", "score": 18 ), ("date": ISODate("2012-08-08-207"), "grade": "A", "score": 18 ), ("date": ISODate("2012-08-08-207"), "grade": "A", "score": 28 ), ("date": ISODate("2012-08-08-207"), "grade": "A", "score": 28 ), ("date": ISODate("2012-08-20709:08-207"), "grade": "A", "score": 29 ), ("date": ISODate("2012-08-20709), "grade": "A", "score": 29 ), ("date": ISODate("2012-08-2070
```

4. db.restaurants.find({\$and:[{"address.coord.1":{\$gt:40}},{"address.coord.1":{\$lt:50}}]],{ "restaurant_id":1,"name":1,"address":1,"_id":0}); The results of the query are shown in the following screenshot.

- 5. A
- 6. C and E
- 7. A
- 8. A and E
- 9. Not to be done
- 10. Not to be done

a. Yes, it is possible to do schema mediation in Global-as-View and the solution is provided below.

CREATE VIEW CUSTOMER AS SELECT ID, full_name AS name, region AS state_name FROM S1.Customer

UNION

SELECT ID, CONCAT(first_name, last_name) AS name, region_name AS state_name

FROM S2.Customer, S2.Region

WHERE S2.Customer.region_code = S2.Region.region_code

b. The requested query is provided below and can be answered with the previously created view.

SELECT name

FROM CUSTOMER

WHERE state_name = "Helsinki"