1)

> db.createCollection('restaurants')

{ "ok" : 1 }

2)

> db.restaurants.insert({ "borough": "Bronx", "cuisine": "Bakery", "grades": [{ "date": "06/09/2021" , "grade": "A", "score": 2 }, { "date": "16/10/2021", "grade": "A", "score": 6 }], "name": "Morris Park Bake Shop" })

WriteResult({ "nInserted" : 1 })

3)
> db.restaurants.find().pretty()

```
{
     "_id" : ObjectId("6241a34759c1a55ad08328c4"),
     "borough" : "Bronx",
     "cuisine" : "Bakery",
     "grades" : [
          {
               "date" : "06/09/2021",
               "grade" : "A",
               "score" : 2
          },
          {
               "date" : "16/10/2021",
               "grade" : "A",
               "score" : 6
          }
     ],
     "name" : "Morris Park Bake Shop"
}
```

4)
> db.restaurants.update({"_id" : ObjectId("6241a34759c1a55ad08328c4")}, {$set : {address: [{ "building" : "1007"},{"coord" : [-73.856077,40.848447]}, {"street" : "Moris Park Ave"},{"zipcode":"10462"}]}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

> db.restaurants.find().pretty()

```
{
      "_id" : ObjectId("6241a34759c1a55ad08328c4"),
      "borough" : "Bronx",
      "cuisine" : "Bakery",
      "grades" : [
            {
                  "date" : "06/09/2021",
                  "grade" : "A",
                  "score" : 2
            },
            {
                  "date" : "16/10/2021",
                  "grade" : "A",
                  "score" : 6
            }
      ],
      "name" : "Morris Park Bake Shop",
      "address" : [
            {
                  "building" : "1007"
            },
            {
                  "coord" : [
                        -73.856077,
                        40.848447
                  ]
            },
            {
                  "street" : "Moris Park Ave"
            },
            {
                  "zipcode" : "10462"
            }
      ]
}
4)
> db.restaurants.update({"_id" : ObjectId("6241a34759c1a55ad08328c4")},
{$set : {grades: [{"date" : "25/10/2021" },{"grade" : "A"},{"score" : 10},{"date" :
"01/12/2021" },{"grade" : "A"},{"score" : 9},{"date" : "26/01/2022" },{"grade" :
"B"},{"score" : 14}]}})

WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })


5)
 db.restaurants.find({"address" : {"zipcode" : "10462"}})
```

{ "_id" : ObjectId("6241a34759c1a55ad08328c4"), "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [[{ "date" : "25/10/2021" }, { "grade" : "A" }, { "score" : 10 }], [{ "date" : "01/12/2021" }, { "grade" : "A" }, { "score" : 9 }], [{ "date" : "26/01/2022" }, { "grade" : "B" }, { "score" : 14 }]], "name" : "Morris Park Bake Shop", "address" : [{ "building" : "1007" }, { "coord" : [-73.856077, 40.848447] }, { "street" : "Moris Park Ave" }, { "zipcode" : "10462" }] }

6)
> db.restaurants.find({"grades.date" : /2022$/})
{ "_id" : ObjectId("6241a34759c1a55ad08328c4"), "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [{ "date" : "25/10/2021" }, { "grade" : "A" }, { "score" : 10 }, { "date" : "01/12/2021" }, { "grade" : "A" }, { "score" : 9 }, { "date" : "26/01/2022" }, { "grade" : "B" }, { "score" : 14 }], "name" : "Morris Park Bake Shop", "address" : [{ "building" : "1007" }, { "coord" : [-73.856077, 40.848447] }, { "street" : "Moris Park Ave" }, { "zipcode" : "10462" }] }

7)
>db.restaurants.insert({"address": {"building": "469", "coord": [-73.961704, 40.662942], "street": "Flatbush Avenue", "zipcode": "11225"}, "borough": "Brooklyn", "cuisine": "Hamburgers", "grades": [{"date": {"$date": 1419897600000}, "grade": "A", "score": 8}, {"date": {"$date": 1404172800000}, "grade": "B", "score": 23}, {"date": {"$date": 1367280000000}, "grade": "A", "score": 12}, {"date": {"$date": 1336435200000}, "grade": "A", "score": 12}], "name": "Wendy'S", "restaurant_id": "30112340"})

>WriteResult({ "nInserted" : 1 })

>db.restaurants.insert({"address": {"building": "351", "coord": [-73.98513559999999, 40.7676919], "street": "West 57 Street", "zipcode": "10019"}, "borough": "Manhattan", "cuisine": "Irish", "grades": [{"date": {"$date": 1409961600000}, "grade": "A", "score": 2}, {"date": {"$date": 1374451200000}, "grade": "A", "score": 11}, {"date": {"$date": 1343692800000}, "grade": "A", "score": 12}, {"date": {"$date": 1325116800000}, "grade": "A", "score": 12}], "name": "Dj Reynolds Pub And Restaurant", "restaurant_id": "30191841"})

>WriteResult({ "nInserted" : 1 })

8)
> db.restaurants.find({"name" : /^M/})

{ "_id" : ObjectId("6241a34759c1a55ad08328c4"), "borough" : "Bronx", "cuisine" : "Bakery", "grades" : [{ "date" : "25/10/2021" }, { "grade" : "A" }, { "score" : 10 }, { "date" : "01/12/2021" }, { "grade" : "A" }, { "score" : 9 }, { "date" : "26/01/2022" }, { "grade" : "B" }, { "score" : 14 }], "name" : "Morris

Park Bake Shop", "address" : [{ "building" : "1007" }, { "coord" : [-73.856077, 40.848447] }, { "street" : "Moris Park Ave" }, { "zipcode" : "10462" }] }

9)
> db.restaurants.find().count()
4

10)
> db.restaurants.find({},{"name": 1,"cuisine": "Irish"})
{ "_id" : ObjectId("6241a34759c1a55ad08328c4"), "name" : "Morris Park Bake Shop", "cuisine" : "Irish" }
{ "_id" : ObjectId("6241b59659c1a55ad08328c5"), "name" : "Wendy'S", "cuisine" : "Irish" }
{ "_id" : ObjectId("6241b5a559c1a55ad08328c6"), "name" : "Wendy'S", "cuisine" : "Irish" }
{ "_id" : ObjectId("6241b69459c1a55ad08328c7"), "name" : "Dj Reynolds Pub And Restaurant", "cuisine" : "Irish" }

11)
> db.restaurants.find().sort({"name":1}).pretty()
{
        "_id" : ObjectId("6241b69459c1a55ad08328c7"),
        "address" : {
                "building" : "351",
                "coord" : [
                        -73.98513559999999,
                        40.7676919
                ],
                "street" : "West 57 Street",
                "zipcode" : "10019"
        },
        "borough" : "Manhattan",
        "cuisine" : "Irish",
        "grades" : [
                {
                        "date" : {
                                "$date" : 1409961600000
                        },
                        "grade" : "A",
                        "score" : 2
                },
                {
                        "date" : {
                                "$date" : 1374451200000
                        },
                        "grade" : "A",

```
                    "score" : 11
            },
            {
                    "date" : {
                        "$date" : 1343692800000
                    },
                    "grade" : "A",
                    "score" : 12
            },
            {
                    "date" : {
                        "$date" : 1325116800000
                    },
                    "grade" : "A",
                    "score" : 12
            }
    ],
    "name" : "Dj Reynolds Pub And Restaurant",
    "restaurant_id" : "30191841"
}
{
    "_id" : ObjectId("6241a34759c1a55ad08328c4"),
    "borough" : "Bronx",
    "cuisine" : "Bakery",
    "grades" : [
            {
                    "date" : "25/10/2021"
            },
            {
                    "grade" : "A"
            },
            {
                    "score" : 10
            },
            {
                    "date" : "01/12/2021"
            },
            {
                    "grade" : "A"
            },
            {
                    "score" : 9
            },
            {
                    "date" : "26/01/2022"
            },
            {
```

```
                    "grade" : "B"
            },
            {
                    "score" : 14
            }
        ],
        "name" : "Morris Park Bake Shop",
        "address" : [
            {
                    "building" : "1007"
            },
            {
                    "coord" : [
                        -73.856077,
                        40.848447
                    ]
            },
            {
                    "street" : "Moris Park Ave"
            },
            {
                    "zipcode" : "10462"
            }
        ]
}
{
    "_id" : ObjectId("6241b59659c1a55ad08328c5"),
    "address" : {
        "building" : "469",
        "coord" : [
            -73.961704,
            40.662942
        ],
        "street" : "Flatbush Avenue",
        "zipcode" : "11225"
    },
    "borough" : "Brooklyn",
    "cuisine" : "Hamburgers",
    "grades" : [
        {
            "date" : {
                "$date" : 1419897600000
            },
            "grade" : "A",
            "score" : 8
        },
        {
```

```
                    "date" : {
                            "$date" : 1404172800000
                    },
                    "grade" : "B",
                    "score" : 23
            },
            {
                    "date" : {
                            "$date" : 1367280000000
                    },
                    "grade" : "A",
                    "score" : 12
            },
            {
                    "date" : {
                            "$date" : 1336435200000
                    },
                    "grade" : "A",
                    "score" : 12
            }
    ],
    "name" : "Wendy'S",
    "restaurant_id" : "30112340"
}
{
    "_id" : ObjectId("6241b5a559c1a55ad08328c6"),
    "address" : {
            "building" : "469",
            "coord" : [
                    -73.961704,
                    40.662942
            ],
            "street" : "Flatbush Avenue",
            "zipcode" : "11225"
    },
    "borough" : "Brooklyn",
    "cuisine" : "Hamburgers",
    "grades" : [
            {
                    "date" : {
                            "$date" : 1419897600000
                    },
                    "grade" : "A",
                    "score" : 8
            },
            {
                    "date" : {
```

```
                    "$date" : 1404172800000
                },
                "grade" : "B",
                "score" : 23
            },
            {
                "date" : {
                    "$date" : 1367280000000
                },
                "grade" : "A",
                "score" : 12
            },
            {
                "date" : {
                    "$date" : 1336435200000
                },
                "grade" : "A",
                "score" : 12
            }
        ],
        "name" : "Wendy'S",
        "restaurant_id" : "30112340"
}
```