Safety Escort Service Database Management System

Milestone – Implementation in NoSQL

Group 22

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Percentage of Effort Contributed by Veda: 50

Percentage of Effort Contributed by Satyajit: 50

Signature of Veda: VEDA

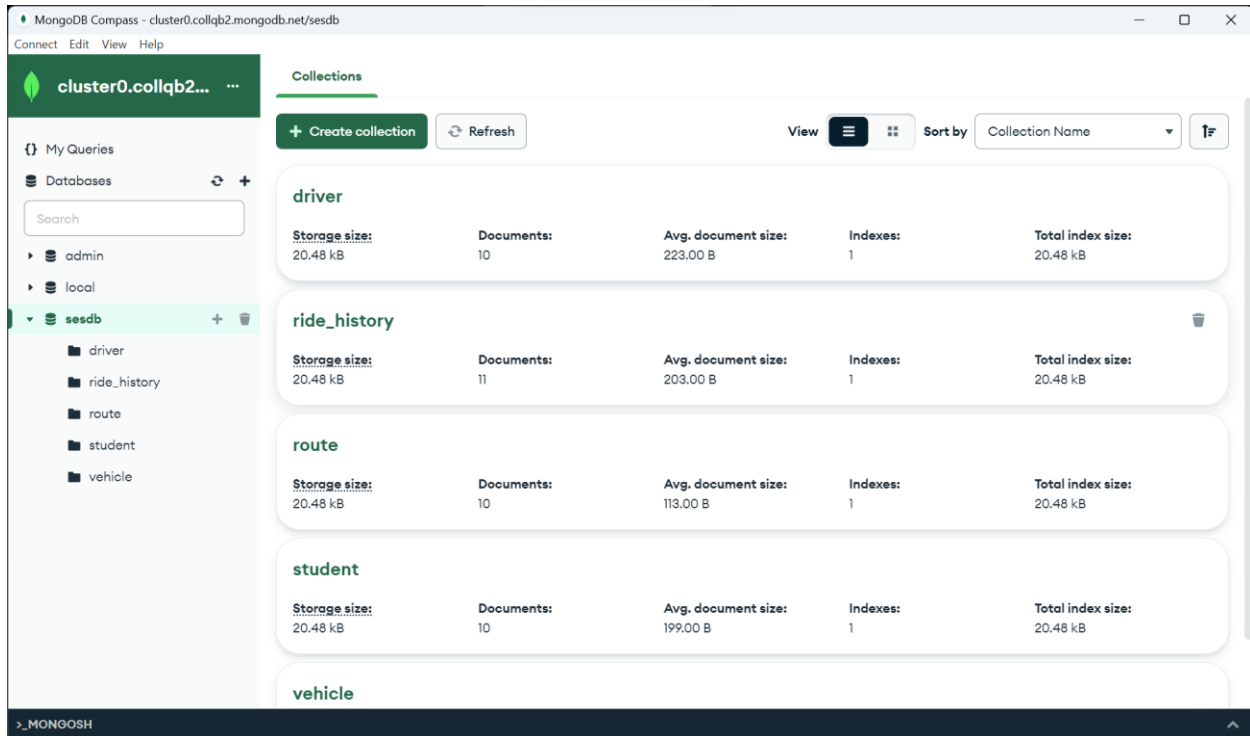Signature of Satyajit: SATYAJIT

Submission Date: 04/16/2023

Software used: MongoDB Compass

Json data files for tables – student, driver, ride_history, route, vehicle, notifications were downloaded from MySQL Workbench and imported into MongoDB Compass.

Database Name: sesdb

Data Import:

sesdb.ride_history

Documents   Aggregations   Schema   Explain Plan   Indexes   Validation

Filter ⬈ 🕐 ▾   Type a query: { field: 'value' }   Reset   Find   </>   More Options ▸

⬇ ADD DATA ▾   ⬈ EXPORT COLLECTION   1 - 11 of 11

🏠 ride_history

	_id ObjectId	S_ID Int32	D_ID Int32	R_ID Int32	V_ID Int32	RH_etime String	RH_stime String
1	ObjectId('643b712eae1ef3e11c7...	1	7	3	4	"2023-03-05 22:46:00"	"2023-03-05 20:06:00"
2	ObjectId('643b712eae1ef3e11c7...	2	5	10	10	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"
3	ObjectId('643b712eae1ef3e11c7...	3	3	10	6	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"
4	ObjectId('643b712eae1ef3e11c7...	4	7	6	7	"2023-01-25 12:32:00"	"2023-01-25 22:40:00"
5	ObjectId('643b712eae1ef3e11c7...	5	7	10	4	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"
6	ObjectId('643b712eae1ef3e11c7...	6	4	2	9	"2021-12-05 04:29:00"	"2021-12-04 12:53:00"
7	ObjectId('643b712eae1ef3e11c7...	7	10	1	10	"2020-01-01 06:52:00"	"2020-01-01 14:40:00"
8	ObjectId('643b712eae1ef3e11c7...	8	2	8	4	"2023-01-05 12:33:00"	"2023-01-05 17:23:00"
9	ObjectId('643b712eae1ef3e11c7...	9	6	10	6	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"
10	ObjectId('643b712eae1ef3e11c7...	10	3	8	10	"2023-01-05 12:33:00"	"2023-01-05 17:23:00"
11	ObjectId('643b712eae1ef3e11c7...	5	7	10	4	"2021-12-02 23:40:00"	"2021-12-03 15:44:00"

sesdb.driver

Documents   Aggregations   Schema   Explain Plan   Indexes   Validation

Filter ⬈ 🕐 ▾   Type a query: { field: 'value' }

⬇ ADD DATA ▾   ⬈ EXPORT COLLECTION

```
_id: ObjectId('643b7618ae1ef3e11c75f6d7')
D_ID: 1
Dname: "Gerard Trusdale"
Dstatus: "Waiting"
Dphone: 985503510
Demail: "gtrusdale0@wunderground.com"
Dpass: "zbXWbi"
Dadd: "84 Forest Run Plaza"
buildnum: 3965
street: "Namekagon"
zipcode: 13577
```

```
_id: ObjectId('643b7618ae1ef3e11c75f6d8')
D_ID: 2
Dname: "Hort Pollock"
Dstatus: "Busy"
Dphone: 786661168
```

Get the names and contact information of all drivers who are currently available to drive:

```
db.driver.find({Dstatus: "Available"}, {Dname: 1, Dphone: 1, _id: 1})
```

```
> db.driver.find({Dstatus: "Available"}, {Dname: 1, Dphone: 1, _id: 1})
<    {
        _id: ObjectId("643b7618ae1ef3e11c75f6d9"),
        Dname: 'Shalne Sherlock',
        Dphone: 347618126
    }
    {
        _id: ObjectId("643b7618ae1ef3e11c75f6e0"),
        Dname: 'Armand Puller',
        Dphone: 249164859
    }
```

Finding which route had max number of stops and displaying its details

```
db.route.aggregate([

 { $group: { _id: "$Ro_ID", max_stops: { $max: "$Ro_istops" }, route: { $first: "$$ROOT" } } },

 { $sort: { max_stops: -1 } },

 { $limit: 1 }

])
```

```
> db.route.aggregate([
    { $group: { _id: "$Ro_ID", max_stops: { $max: "$Ro_istops" }, route: { $first: "$$ROOT" } } },
    { $sort: { max_stops: -1 } },
    { $limit: 1 }
  ])
<    {
        _id: 2,
        max_stops: 9,
        route: {
          _id: ObjectId("643b7f52ae1ef3e11c75f6f1"),
          Ro_ID: 2,
          Ro_origin: '34 Old Gate Drive',
          Ro_dest: '71 Loftsgordon Pass',
          Ro_istops: 9
        }
    }
```

Display all rides of a particular vehicle with vehicle id = 10

db.ride_history.find({V_ID: 10})

```
> db.ride_history.find({V_ID: 10})
<   {
      _id: ObjectId("643b712eae1ef3e11c75f6af"),
      S_ID: 2,
      D_ID: 5,
      R_ID: 10,
      V_ID: 10,
      RH_etime: '2023-01-05 23:40:00',
      RH_stime: '2023-01-05 15:44:00',
      RH_origin: '045 North Center',
      RH_dest: '823 Sage Way',
      Rating: 4
    }
    {
      _id: ObjectId("643b712eae1ef3e11c75f6b4"),
      S_ID: 7,
      D_ID: 10,
      R_ID: 1,
      V_ID: 10,
      RH_etime: '2020-01-01 06:52:00',
      RH_stime: '2020-01-01 14:40:00',
      RH_origin: '48 Miller Avenue',
      RH_dest: '21972 Shelley Drive',
      Rating: 3
    }
    {
      _id: ObjectId("643b712eae1ef3e11c75f6b7"),
      S_ID: 10,
      D_ID: 3,
      R_ID: 8,
      V_ID: 10,
      RH_etime: '2023-01-05 12:33:00',
      RH_stime: '2023-01-05 17:23:00',
      RH_origin: '843 Grasskamp Circle',
      RH_dest: '1087 Carey Place',
      Rating: 2
    }
```