

Safety Escort Service Database Management System

Milestone – Implementation in NoSQL

Group 22

Veda Upasan Pedagadi

Satyajit Lanka

857-241-7760

857-395-1955

pedagadi.v@northeastern.edu

lanka.sat@northeastern.edu

Percentage of Effort Contributed by Veda: 50

Percentage of Effort Contributed by Satyajit: 50

Signature of Veda: VEDA

Signature of Satyajit: SATYAJIT

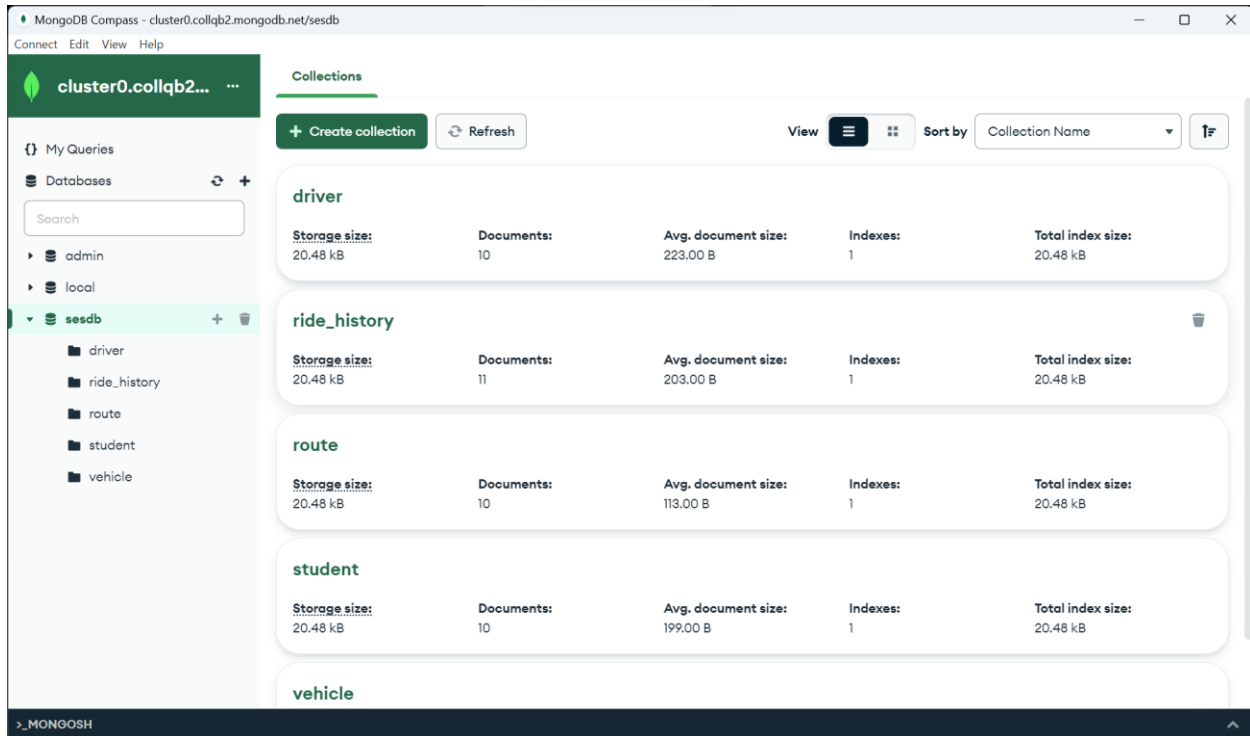
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Software used: MongoDB Compass

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.student

10 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT COLLECTION

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#	student	_id ObjectId	s_ID Int32	Sname String	Semail String	Spass String	Sphone Int32	Sadd String	
1		ObjectId('643b71d08ae1ef3e11c7..')	1	"Ferrand Pell"	"fpelle@sogou.com"	"H000G85v"	481239621	"9 Iowa Parkway"	
2		ObjectId('643b71d08ae1ef3e11c7..')	2	"Jeri Penchen"	"jpenchen@boston.com"	"rus00c86jz"	747577918	"487 Express Place"	
3		ObjectId('643b71d08ae1ef3e11c7..')	3	"Elne Balmadier"	"ebalmadier@homestead.com"	"cviad3sx"	799184385	"77 Straubel Point"	
4		ObjectId('643b71d08ae1ef3e11c7..')	4	"Estell Barlee"	"ebarlee@google.nl"	"ZkatryfCCEQu"	557488756	"1087 Carey Place"	
5		ObjectId('643b71d08ae1ef3e11c7..')	5	"Drusi Davidofski"	"ddavidofski4@amazon.co.uk"	"ZiTpTyn"	759389149	"4 Hesserschildt Alley"	
6		ObjectId('643b71d08ae1ef3e11c7..')	6	"Trula Antcliff"	"tantcliff@ycombinator.com"	"Fv1N8vSk5W"	646381138	"518 Northport Alley"	
7		ObjectId('643b71d08ae1ef3e11c7..')	7	"Angeline Gooday"	"agooday@businesswire.com"	"B5Y6ps"	386266901	"21972 Shelley Drive"	
8		ObjectId('643b71d08ae1ef3e11c7..')	8	"Charyl Brunottl"	"cbrunottl7@vk.com"	"nDyry3K68"	2883996489	"52968 Stoughton Road"	
9		ObjectId('643b71d08ae1ef3e11c7..')	9	"Tawsha Cuss"	"tcuss@mlb.com"	"eajK3e"	786453634	"8 Ilene Drive"	
10		ObjectId('643b71d08ae1ef3e11c7..')	10	"Carmita Backshaw"	"cbackshaw@photobucket.com"	"FAHBEAT"	224173129	"516 Macpherson Trail"	

Documents Aggregations Schema Explain Plan Indexes Validation

FilterType a query: { field: 'value' }ResetFindMore Options

ADD DATAEXPORT COLLECTION1 - 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('643b712ee1ef3e11c7..')	1	7	3	4	"2023-03-05 22:46:00"	"2023-03-05 20:06:00"	
2		ObjectId('643b712ee1ef3e11c7..')	2	5	10	10	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"	
3		ObjectId('643b712ee1ef3e11c7..')	3	3	10	6	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"	
4		ObjectId('643b712ee1ef3e11c7..')	4	7	6	7	"2023-01-25 12:32:00"	"2023-01-25 22:40:00"	
5		ObjectId('643b712ee1ef3e11c7..')	5	7	10	4	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"	
6		ObjectId('643b712ee1ef3e11c7..')	6	4	2	9	"2021-12-05 04:29:00"	"2021-12-04 12:53:00"	
7		ObjectId('643b712ee1ef3e11c7..')	7	10	1	10	"2020-01-01 06:52:00"	"2020-01-01 14:40:00"	
8		ObjectId('643b712ee1ef3e11c7..')	8	2	8	4	"2023-01-05 12:33:00"	"2023-01-05 17:23:00"	
9		ObjectId('643b712ee1ef3e11c7..')	9	6	10	6	"2023-01-05 23:40:00"	"2023-01-05 15:44:00"	
10		ObjectId('643b712ee1ef3e11c7..')	10	3	8	10	"2023-01-05 12:33:00"	"2023-01-05 17:23:00"	
11		ObjectId('643b712ee1ef3e11c7..')	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

FilterType a query: { field: 'value' }

ADD DATAEXPORT 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
}
```