Data Management for Analytics

(IE6700)

Milestone Report #4:

"Vehicle Insurance Policy Data Management System"

Group 14:

Yashasvi Sharma (sharma.yasha@northeastern.edu)

Sunkari Vikas Goud (sunkari.v@northeastern.edu)

List each query, describe their analytic purpose:

show collections

1. Find Claims id which have no settlement.

db.claim.find({settlement_id : 0})

2. Details of settlement greater than 5000 USD.

```
db.settlement.aggregate([
  {
    $match: {
     final_amount: {
       $gte: 5000,
      },
     },
   },
   {
    $project: {
     _id: 0,
     },
   }, {$limit : 10}
]
)
```

```
< { settlement_ID: 2,
    DATE: '2021-07-24',
    final_amount: 7266,
    account_no: '1515357112' }
  { settlement_ID: 4,
    DATE: '2021-03-22',
    final_amount: 7377,
    account_no: '9006394858' }
  { settlement_ID: 6,
    DATE: '2022-04-08',
    final_amount: 8409,
    account_no: '9742519536' }
  { settlement_ID: 8,
    DATE: '2021-10-03',
    final_amount: 9639,
    account_no: '1028165013' }
  { settlement_ID: 9,
    DATE: '2021-03-10',
    final_amount: 8127,
    account_no: '7893880414' }
```

3. Details of people from vehicle registration no 10036.

```
db.vehicle.aggregate([{
    $match: {
       registration_no: "10036",
      },
   },
   {
     $lookup: {
       from: "person",
       localField: "person_id",
```

```
        foreignField: "person_ID",
        as: "Person_Name",
    },
  },
  {
    $project: {
      _id: 0,
      registration_no: 1,
      Person_Name: 1,
      state: 1,
      brand: 1,
      model: 1,
    },
  },
]
)
```

```
< { registration_no: '10036',
    state: 'Nevada',
    brand: 'Volkswagen',
    model: 'Golf',
    Person_Name:
     [ { _id: ObjectId("638e2ac9ca79fd9101392317"),
         person_ID: 4,
         first_name: 'Liesa',
         last_name: 'Boodle',
         gender: 'Female',
         dob: '2000-11-04',
         email: 'lboodle3@amazon.de',
         phone: '(699) 5883968',
```

4. Find no of vehicles registered in each state.

```
db.vehicle.aggregate([
 {
  $group: {
   _id: "$state",
   Total_Vehicles: {
    $count: {},
   },
```

```
      },
    },
  ]
)
```

```
< { _id: 'Kansas', Total_Vehicles: 1 }
  { _id: 'Louisiana', Total_Vehicles: 1 }
  { _id: 'Illinois', Total_Vehicles: 4 }
  { _id: 'Iowa', Total_Vehicles: 1 }
  { _id: 'West Virginia', Total_Vehicles: 1 }
  { _id: 'Texas', Total_Vehicles: 2 }
  { _id: 'New York', Total_Vehicles: 4 }
  { _id: 'Washington', Total_Vehicles: 1 }
  { _id: 'Missouri', Total_Vehicles: 2 }
  { _id: 'Wyoming', Total_Vehicles: 1 }
```

5. Find number of accidents that happened in Florida.

```
db.accident.aggregate([
  {
    $match: {
      STATE: { $eq: "Florida" },
    },
  },
  {
    $group: {
      _id: "$STATE",
      No_Of_Accidents: {
        $count: {},
      },
    },
  },
]
)
```

```
< { _id: 'Florida', No_Of_Accidents: 10 }
```