fpd4fv
3/27/2022

Exercise 1

Question 2
show dbs;
use sample_weatherdata;
show collections;

```
[Atlas atlas-pfxro1-shard-0 [primary] myFirstDatabase> show dbs;
sample_airbnb         55 MB
sample_analytics     9.6 MB
sample_geospatial   1.43 MB
sample_guides         41 kB
sample_mflix          49 MB
sample_restaurants  6.93 MB
sample_supplies     1.18 MB
sample_training     55.7 MB
sample_weatherdata   2.9 MB
admin                344 kB
local                558 MB
[Atlas atlas-pfxro1-shard-0 [primary] myFirstDatabase> use sample_weatherdata;
switched to db sample_weatherdata
[Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> show collections;
data
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata>
```

Question 3
db.data.find();

```
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find();
[
  {
    _id: ObjectId("5553a998e4b02cf7151190b8"),
    st: 'x+47600-047900',
    ts: ISODate("1984-03-05T13:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -47.9, 47.6 ] },
    elevation: 9999,
    callLetters: 'VCSZ',
    qualityControlProcess: 'V020',
    dataSource: '4',
    type: 'FM-13',
    airTemperature: { value: -3.1, quality: '1' },
    dewPoint: { value: 999.9, quality: '9' },
    pressure: { value: 1015.3, quality: '1' },
    wind: {
      direction: { angle: 999, quality: '9' },
      type: '9',
      speed: { rate: 999.9, quality: '9' }
    },
    visibility: {
      distance: { value: 999999, quality: '9' },
      variability: { value: 'N', quality: '9' }
    },
    skyCondition: {
      ceilingHeight: { value: 99999, quality: '9', determination: '9' },
      cavok: 'N'
    },
    sections: [ 'AG1' ],
    precipitationEstimatedObservation: { discrepancy: '2', estimatedWaterDepth:
999 }
  },
  {
```

db.data.find().pretty();

```
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find().pretty()
;
[
  {
    _id: ObjectId("5553a998e4b02cf7151190b8"),
    st: 'x+47600-047900',
    ts: ISODate("1984-03-05T13:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -47.9, 47.6 ] },
    elevation: 9999,
    callLetters: 'VCSZ',
    qualityControlProcess: 'V020',
    dataSource: '4',
    type: 'FM-13',
    airTemperature: { value: -3.1, quality: '1' },
    dewPoint: { value: 999.9, quality: '9' },
    pressure: { value: 1015.3, quality: '1' },
    wind: {
      direction: { angle: 999, quality: '9' },
      type: '9',
      speed: { rate: 999.9, quality: '9' }
    },
    visibility: {
      distance: { value: 999999, quality: '9' },
      variability: { value: 'N', quality: '9' }
    },
    skyCondition: {
      ceilingHeight: { value: 99999, quality: '9', determination: '9' },
      cavok: 'N'
    },
    sections: [ 'AG1' ],
    precipitationEstimatedObservation: { discrepancy: '2', estimatedWaterDepth:
999 }
  },
```

db.data.find().count();

```
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find().count();

(node:45276) [MONGODB DRIVER] Warning: cursor.count is deprecated and will be re
moved in the next major version, please use `collection.estimatedDocumentCount`
or `collection.countDocuments` instead
(Use `node --trace-warnings ...` to show where the warning was created)
10000
```

Question 4

db.data.find({“skyCondition.ceilingHeight.value”:750}).count();

db.data.find({“skyCondition.ceilingHeight.value”:750}).pretty();

```
[Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find({"skyCondi]
tion.ceilingHeight.value":750}).count();
673
[Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find({"skyCondi]
tion.ceilingHeight.value":750}).pretty();
[
  {
    _id: ObjectId("5553a998e4b02cf7151190bd"),
    st: 'x+59800-029700',
    ts: ISODate("1984-03-05T15:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -29.7, 59.8 ] },
    elevation: 9999,
    callLetters: 'TFWB',
    qualityControlProcess: 'V020',
    dataSource: '4',
    type: 'FM-13',
    airTemperature: { value: 3.1, quality: '1' },
    dewPoint: { value: 999.9, quality: '9' },
    pressure: { value: 1019, quality: '1' },
    wind: {
      direction: { angle: 250, quality: '1' },
      type: 'N',
      speed: { rate: 15.4, quality: '1' }
    },
    visibility: {
      distance: { value: 10000, quality: '1' },
      variability: { value: 'N', quality: '9' }
    },
    skyCondition: {
      ceilingHeight: { value: 750, quality: '1', determination: 'C' },
      cavok: 'N'
    },
    sections: [ 'AG1', 'AY1', 'GF1', 'MW1' ],
    precipitationEstimatedObservation: { discrepancy: '1', estimatedWaterDepth:
0 },
    pastWeatherObservationManual: [
      {
        atmosphericCondition: { value: '0', quality: '1' },
        period: { value: 3, quality: '1' }
      }
    ],
    skyConditionObservation: {
      totalCoverage: { value: '07', opaque: '99', quality: '1' },
      lowestCloudCoverage: { value: '07', quality: '1' },
```

```
db.data.find(ObjectId("5553a998e4b02cf7151195d3")).pretty();
```

Question 5

db.data.find(ObjectId("5553a998e4b02cf7151195d3")).pretty();

```
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find(ObjectId("
5553a998e4b02cf7151195d3")).pretty();
[
  {
    _id: ObjectId("5553a998e4b02cf7151195d3"),
    st: 'x+85600-124000',
    ts: ISODate("1984-03-05T15:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -124, 85.6 ] },
    elevation: 9999,
    callLetters: 'ROBB',
    qualityControlProcess: 'V020',
    dataSource: '4',
    type: 'FM-13',
    airTemperature: { value: -22.9, quality: '1' },
    dewPoint: { value: -24.9, quality: '1' },
    pressure: { value: 1000.2, quality: '1' },
    wind: {
      direction: { angle: 270, quality: '1' },
      type: 'N',
      speed: { rate: 7, quality: '1' }
    },
    visibility: {
      distance: { value: 7000, quality: '1' },
      variability: { value: 'N', quality: '9' }
    },
    skyCondition: {
      ceilingHeight: { value: 750, quality: '1', determination: 'C' },
      cavok: 'N'
    },
    sections: [ 'AG1', 'AY1', 'GF1', 'MA1', 'MD1', 'MW1' ],
    precipitationEstimatedObservation: { discrepancy: '2', estimatedWaterDepth:
1 },
    pastWeatherObservationManual: [
      {
        atmosphericCondition: { value: '7', quality: '1' },
        period: { value: 3, quality: '1' }
      }
    ],
    skyConditionObservation: {
      totalCoverage: { value: '08', opaque: '99', quality: '1' },
      lowestCloudCoverage: { value: '08', quality: '1' },
```

Question 6

db.data.insertOne({ … });

```
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.insertOne({
...         "st" : "x+85600-124000",
...         "ts" : ISODate("1984-03-07T13:00:00Z"),
...         "position" : {
.....                 "type" : "Point",
.....                 "coordinates" : [
.....                         -124,
.....                         85.6
.....                 ]
.....         },
...         "elevation" : 8787,
...         "callLetters" : "ROBZ",
...         "qualityControlProcess" : "V020",
...         "dataSource" : "3",
...         "type" : "FM-13",
...         "airTemperature" : {
.....                 "value" : -22.9,
.....                 "quality" : "1"
.....         },
...         "dewPoint" : {
.....                 "value" : -24.9,
.....                 "quality" : "1"
.....         },
...         "pressure" : {
.....                 "value" : 1000.2,
.....                 "quality" : "1"
.....         },
...         "wind" : {
.....                 "direction" : {
.......                         "angle" : 270,
.......                         "quality" : "1"
.......                 },
.....                 "type" : "N",
.....                 "speed" : {
.......                         "rate" : 7,
.......                         "quality" : "1"
.......                 }
.....         },
...         "visibility" : {
.....                 "distance" : {
.......                         "value" : 7000,
.......                         "quality" : "1"
.......                 },
.....                 "variability" : {
.......                         "value" : "N",
.......                         "quality" : "9"
.......                 }
.....         },
...         "skyCondition" : {
.....                 "ceilingHeight" : {
.......                         "value" : 760,
.......                         "quality" : "1",
.......                         "determination" : "C"
.......                 }
.....         }
... });
{
  acknowledged: true,
  insertedId: ObjectId("6240ec402ad732b9a974a490")
}
Atlas atlas-pfxro1-shard-0 [primary] sample_weatherdata> db.data.find(ObjectId("6240ec402ad732b9a974a490")).pretty();
[
  {
    _id: ObjectId("6240ec402ad732b9a974a490"),
```