Exercise 1:

jennamulvihill — mongosh mongodb+srv://cluster0.jashu.mongodb.net/ — cluster0.jashu.mongodb.net PAT...

```
}
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> show dbs;
sample_airbnb         55 MB
sample_analytics    9.58 MB
sample_geospatial   1.46 MB
sample_guides         41 kB
sample_mflix        51.3 MB
sample_restaurants  6.97 MB
sample_supplies     1.18 MB
sample_training     60.3 MB
sample_weatherdata  3.18 MB
things              73.7 kB
admin                385 kB
local                9.4 GB
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> use sample_weatherdata;
already on db sample_weatherdata
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> show collections;
data
Atlas atlas-nsiase-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 }
  },
  {
    _id: ObjectId("5553a998e4b02cf7151190b9"),
    st: 'x+45200-066500',
    ts: ISODate("1984-03-05T14:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -66.5, 45.2 ] },
    elevation: 9999,
    callLetters: 'VC81',
```

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```
Atlas atlas-nsiase-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 }
  },
  {
    _id: ObjectId("5553a998e4b02cf7151190b9"),
    st: 'x+45200-066500',
    ts: ISODate("1984-03-05T14:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -66.5, 45.2 ] },
    elevation: 9999,
    callLetters: 'VC81',
    qualityControlProcess: 'V020',
    dataSource: '4',
    type: 'FM-13',
    airTemperature: { value: -4.7, quality: '1' },
    dewPoint: { value: 999.9, quality: '9' },
    pressure: { value: 1025.9, 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'
```

```
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Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> db.data.find().count();
10002
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> db.data.find({"skyCondition.ceilingHeight.value":750})
.count();
673
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> db.data.find({"skyCondition.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' },
      lowCloudGenus: { value: '05', quality: '1' },
      lowestCloudBaseHeight: { value: 800, quality: '1' },
      midCloudGenus: { value: '00', quality: '1' },
      highCloudGenus: { value: '00', quality: '1' }
    },
    presentWeatherObservationManual: [ { condition: '02', quality: '1' } ]
  },
  {
    _id: ObjectId("5553a998e4b02cf7151190ed"),
    st: 'x+35900-048600',
    ts: ISODate("1984-03-05T18:00:00.000Z"),
```

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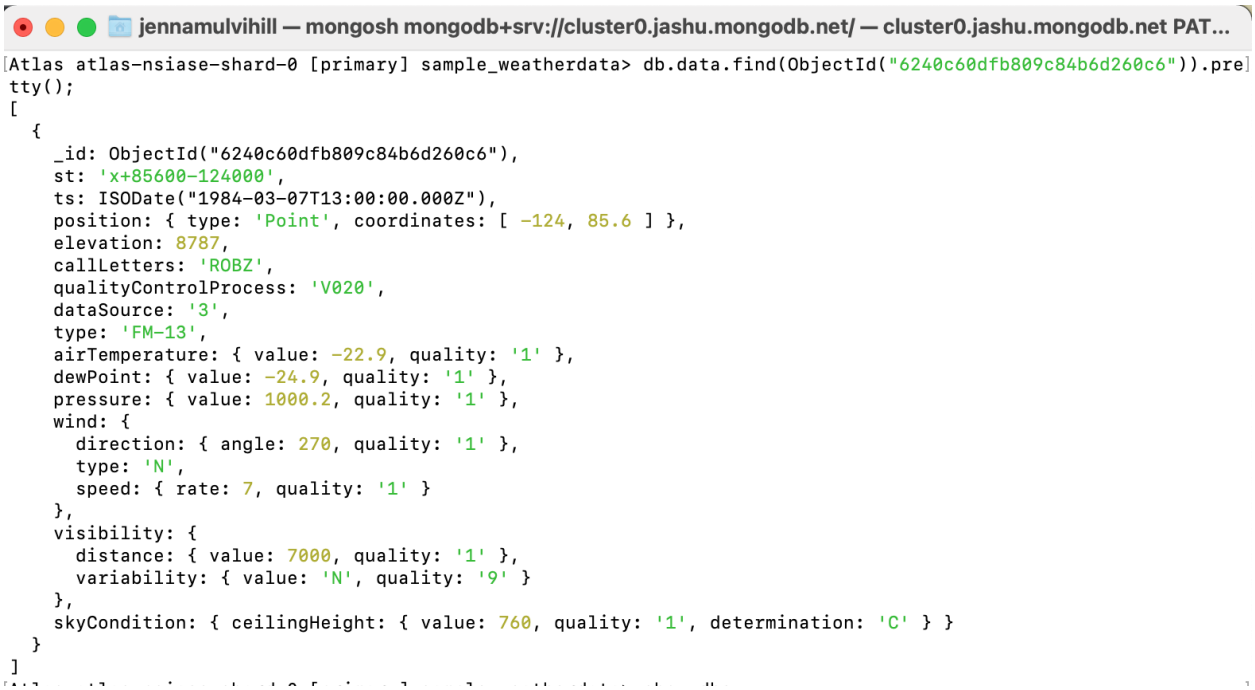
```
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> db.data.find(ObjectId("5553a998e4b02cf7151195d3")).pretty();
[
  {
    _id: ObjectId("5553a998e4b02cf7151195d3"),
    st: 'x+85600-124000',
    ts: ISODate("1984-03-05T15:00:00.000Z"),
    position: { type: 'Point', coordinates: [ -124, 85.6 ] },
    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' },
      lowCloudGenus: { value: '05', quality: '1' },
      lowestCloudBaseHeight: { value: 800, quality: '1' },
      midCloudGenus: { value: '99', quality: '9' },
      highCloudGenus: { value: '99', quality: '9' }
    },
    atmosphericPressureObservation: {
      altimeterSetting: { value: 9999.9, quality: '9' },
      stationPressure: { value: 1000.2, quality: '1' }
    },
    atmosphericPressureChange: {
      tendency: { code: '2', quality: '1' },
      quantity3Hours: { value: 0.7, quality: '1' },
      quantity24Hours: { value: 99.9, quality: '9' }
    },
    presentWeatherObservationManual: [ { condition: '71', quality: '1' } ]
  }
```

```
jennamulvihill — mongosh mongodb+srv://cluster0.jashu.mongodb.net/ — cluster0.jashu.mongodb.net PAT...
Atlas atlas-nsiase-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("6240c60dfb809c84b6d260c6")
}
```



```
jennamulvihill — mongosh mongodb+srv://cluster0.jashu.mongodb.net/ — cluster0.jashu.mongodb.net PAT...
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> db.data.find(ObjectId("6240c60dfb809c84b6d260c6")).pretty();
[
  {
    _id: ObjectId("6240c60dfb809c84b6d260c6"),
    st: 'x+85600-124000',
    ts: ISODate("1984-03-07T13:00:00.000Z"),
    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' } }
  }
]
```

Exercise 2 (It said we only needed to do one but I tried out exercise 2 as much as I could get to work:

```
jennamulvihill — mongosh mongodb+srv://cluster0.jashu.mongodb.net/ — cluster0.jashu.mongodb.net PAT...
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> show dbs
sample_airbnb         55 MB
sample_analytics    9.58 MB
sample_geospatial   1.46 MB
sample_guides         41 kB
sample_mflix        51.3 MB
sample_restaurants  6.97 MB
sample_supplies     1.18 MB
sample_training     60.3 MB
sample_weatherdata  3.21 MB
admin                385 kB
local                9.4 GB
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> db
sample_weatherdata
Atlas atlas-nsiase-shard-0 [primary] sample_weatherdata> use things
switched to db things
Atlas atlas-nsiase-shard-0 [primary] things> show dbs
sample_airbnb         55 MB
sample_analytics    9.58 MB
sample_geospatial   1.46 MB
sample_guides         41 kB
sample_mflix        51.3 MB
sample_restaurants  6.97 MB
sample_supplies     1.18 MB
sample_training     60.3 MB
sample_weatherdata  3.21 MB
admin                385 kB
local                9.4 GB
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.insert({name:"horseback riding"})
DeprecationWarning: Collection.insert() is deprecated. Use insertOne, insertMany, or bulkWrite.
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("6240c2f0fb809c84b6d260c0") }
}
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.find()
[
  {
    _id: ObjectId("6240c2f0fb809c84b6d260c0"),
    name: 'horseback riding'
  }
]
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.find().pretty()
[
  {
    _id: ObjectId("6240c2f0fb809c84b6d260c0"),
    name: 'horseback riding'
  }
]
```

```
jennamulvihill — mongosh mongodb+srv://cluster0.jashu.mongodb.net/ — cluster0.jashu.mongodb.net PAT...
]
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.insert({"name":"cycling","equipment":["bicycle","helmet
","air pump"]})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("6240c38afb809c84b6d260c2") }
}
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.insert({"name":"basketball","equipment":["ball","shoes"
,"court","rim","game"]})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("6240c38afb809c84b6d260c3") }
}
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.insert({"name":"archery","equipment":["bow","arrows"]})
{
  acknowledged: true,
  insertedIds: { '0': ObjectId("6240c38dfb809c84b6d260c4") }
}
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.find().pretty()
[
  {
    _id: ObjectId("6240c2f0fb809c84b6d260c0"),
    name: 'horseback riding'
  },
  {
    _id: ObjectId("6240c355fb809c84b6d260c1"),
    name: 'horseback riding'
  },
  {
    _id: ObjectId("6240c38afb809c84b6d260c2"),
    name: 'cycling',
    equipment: [ 'bicycle', 'helmet', 'air pump' ]
  },
  {
    _id: ObjectId("6240c38afb809c84b6d260c3"),
    name: 'basketball',
    equipment: [ 'ball', 'shoes', 'court', 'rim', 'game' ]
  },
  {
    _id: ObjectId("6240c38dfb809c84b6d260c4"),
    name: 'archery',
    equipment: [ 'bow', 'arrows' ]
  }
]
```

```
jennamulvihill — mongosh mongodb+srv://cluster0.jashu.mongodb.net/ — cluster0.jashu.mongodb.net PAT...
]
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.updateOne({name:"horseback riding"},{$set : {equipment:
["horse","saddle","helmet"]}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
Atlas atlas-nsiase-shard-0 [primary] things> db.hobbies.find({equipment:"helmet"})
[
  {
    _id: ObjectId("6240c2f0fb809c84b6d260c0"),
    name: 'horseback riding',
    equipment: [ 'horse', 'saddle', 'helmet' ]
  },
  {
    _id: ObjectId("6240c38afb809c84b6d260c2"),
    name: 'cycling',
    equipment: [ 'bicycle', 'helmet', 'air pump' ]
  }
]
```