MongoDB Day 1

Product JSON: https://github.com/rvsp/database/blob/master/mongodb/product.json

Inserting the JSON into MongoDB compass

- In the left sidebar of MongoDB Compass,click on the database - import the data or create a new database.
- Download the JSON from the Github
- In the "Add Data" menu - Choose "Import File." and Refresh the database
- Created a Database called products and collection as list

MongoDB queries

1. Find all the information about each products

```
use products
db.list.find({})
```

```
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< 
> db.list.find({})
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50a'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50b'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50c'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
```

2. Find the product price which are between 400 to 800

```
db.list.find({product_price:{$gte:400,$lte:800}})
```

```
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< 
> db.list.find({product_price:{$gte:400,$lte:800}})
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50b'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50c'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
    product_material: 'Soft',
    product_color: 'plum'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50e'),
    id: '6',
    product_name: 'Awesome Wooden Towels',
    product_price: 474
```

3. Find the product price which are not between 400 to 600

db.list.find({product_price:{$not:{$gte:400,$lte:600}}})

```
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  }
> db.list.find({product_price:{$not:{$gte:400,$lte:600}}})
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50a'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50b'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50d'),
    id: '5',
    product_name: 'Sleek Cotton Chair',
```

4. List the four product which are greater than 500 in price

```
db.list.find({product_price:{$gt:500}}).limit(4)
```

```
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    product_material: 'Cotton',
    product_color: 'azure'
 }
 Type "it" for more
> db.list.find({product_price:{$gt:500}}).limit(4)
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
 }
 {
    _id: ObjectId('65aa0180d86aa9b9efe7c50a'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
 }
 {
    _id: ObjectId('65aa0180d86aa9b9efe7c50b'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
 }
products >
```

5. Find the product name and product material of each products

db.list.find({}, { product_name: 1,product_material: 1 })

```
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  }
> db.list.find({}, { product_name: 1,product_material: 1 })
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    product_name: 'Intelligent Fresh Chips',
    product_material: 'Concrete'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50a'),
    product_name: 'Practical Fresh Sausages',
    product_material: 'Cotton'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50b'),
    product_name: 'Refined Steel Car',
    product_material: 'Rubber'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50c'),
    product_name: 'Gorgeous Plastic Pants',
    product_material: 'Soft'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50d'),
    product_name: 'Sleek Cotton Chair',
    product_material: 'Fresh'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50e'),
    product_name: 'Awesome Wooden Towels',
```

6. Find the product with a row id of 10

db.list.findOne({ id: "10" })

```
> db.list.findOne({id:10})
< null
> db.list.findOne({ id: "10" })
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c512'),
    id: '10',
    product_name: 'Generic Wooden Pizza',
    product_price: 84,
    product_material: 'Frozen',
    product_color: 'indigo'
  }
products >
```

7. Find only the product name and product material

```
db.getCollection('list').find({}, { product_name: 1, product_material: 1 });
```

```
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<
> db.getCollection('list').find({}, { product_name: 1, product_material: 1 });
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    product_name: 'Intelligent Fresh Chips',
    product_material: 'Concrete'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50a'),
    product_name: 'Practical Fresh Sausages',
    product_material: 'Cotton'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50b'),
    product_name: 'Refined Steel Car',
    product_material: 'Rubber'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50c'),
    product_name: 'Gorgeous Plastic Pants',
    product_material: 'Soft'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50d'),
    product_name: 'Sleek Cotton Chair',
    product_material: 'Fresh'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50e'),
    product_name: 'Awesome Wooden Towels',
    product_material: 'Plastic'
```

8. Find all products which contain the value of soft in product material

db.getCollection('list').find({product_material: 'Soft'});

```
>_MONGOSH
> db.getCollection('list').find({product_material: 'Soft'});
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c50c'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
    product_material: 'Soft',
    product_color: 'plum'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c511'),
    id: '9',
    product_name: 'Awesome Wooden Ball',
    product_price: 28,
    product_material: 'Soft',
    product_color: 'azure'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c513'),
    id: '11',
    product_name: 'Unbranded Wooden Cheese',
    product_price: 26,
    product_material: 'Soft',
    product_color: 'black'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c51b'),
    id: '19',
    product_name: 'Intelligent Cotton Chips',
    product_price: 46,
```

9. Find products which contain product color indigo and product price 492.00

db.getCollection('list').find({$and:[{product_price: 492},{product_color: 'indigo'}]})

```
> db.getCollection('list').find({$and:[{product_price: 492},{product_color: 'indigo'}]})
<
products >
```

10. Delete the products which product price value are same

```
db.getCollection('list').aggregate([
{
$group: {
_id: '$product_price',
count: { $sum: 1 }
}
},
{
$match: {
count: { $gt: 1 }
}
}
]).forEach((e) => {
db.getCollection('list').deleteMany({ product_price: e._id });
});
db.getCollection('list').find({})
```

```
>_MONGOSH
> db.getCollection('list').aggregate([
  {
  $group: {
  _id: '$product_price',
  count: { $sum: 1 }
  }
  },
  {
  $match: {
  count: { $gt: 1 }
  }
  }
]).forEach((e) => {
  db.getCollection('list').deleteMany({ product_price: e._id });
});
> db.getCollection('list').find({})
< {
    _id: ObjectId('65aa0180d86aa9b9efe7c509'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  }
  {
    _id: ObjectId('65aa0180d86aa9b9efe7c50a'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
```