

MongoDB Queries

Creation of database and collection:

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
Microsoft Windows [Version 10.0.22000.2538]
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C:\Users\krames>mongosh
Current Mongosh Log ID: 66b322d7a3ed66713228fb4
Connecting to:   mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.2.15
Using MongoDB:  7.0.12
Using Mongosh:  2.2.15

For mongosh info see: https://docs.mongodb.com/mongosh-shell/

-----
The server generated these startup warnings when booting
2024-08-07T10:38:54.908+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
-----

test> use product_db;
switched to db product_db
product_db> db.createCollection("products");
{ ok: 1 }
product_db> db.products.insertMany([
...   {
...     "id": "1",
...     "product_name": "Intelligent Fresh Chips",
...     "product_price": 655.00,
...     "product_material": "Concrete",
...     "product_color": "mint green"
...   },
...   {
...     "id": "2",
...     "product_name": "Practical Fresh Sausages",
...     "product_price": 911.0,
...     "product_material": "cotton",
...     "product_color": "indigo"
...   },
...   {
...     "id": "3",
...     "product_name": "Refined Steel Car",
...     "product_price": 690.00,
...     "product_material": "Rubber",
...     "product_color": "gold"
...   },
...   {
...     "id": "4",
...     "product_name": "Gorgeous Plastic Pants",
...     "product_price": 402.00,
...     "product_material": "soft",
...     "product_color": "pink"
...   },
... ]);
```

Insert documents:

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
...   "product_price": 95.00,
...   "product_material": "cotton",
...   "product_color": "azure"
... },
...   {
...     "id": "24",
...     "product_name": "Tasty Rubber Cheese",
...     "product_price": 147.00,
...     "product_material": "frozen",
...     "product_color": "orchid"
...   },
...   {
...     "id": "25",
...     "product_name": "Licensed Steel Car",
...     "product_price": 20.00,
...     "product_material": "cotton",
...     "product_color": "indigo"
...   }
... ]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('66b3229d7a3ed66713228fb5'),
    '1': ObjectId('66b3229d7a3ed66713228fb6'),
    '2': ObjectId('66b3229d7a3ed66713228fb7'),
    '3': ObjectId('66b3229d7a3ed66713228fb8'),
    '4': ObjectId('66b3229d7a3ed66713228fb9'),
    '5': ObjectId('66b3229d7a3ed66713228fba'),
    '6': ObjectId('66b3229d7a3ed66713228fbb'),
    '7': ObjectId('66b3229d7a3ed66713228fbc'),
    '8': ObjectId('66b3229d7a3ed66713228fbd'),
    '9': ObjectId('66b3229d7a3ed66713228fbe'),
    '10': ObjectId('66b3229d7a3ed66713228fbf'),
    '11': ObjectId('66b3229d7a3ed66713228fc0'),
    '12': ObjectId('66b3229d7a3ed66713228fc1'),
    '13': ObjectId('66b3229d7a3ed66713228fc2'),
    '14': ObjectId('66b3229d7a3ed66713228fc3'),
    '15': ObjectId('66b3229d7a3ed66713228fc4'),
    '16': ObjectId('66b3229d7a3ed66713228fc5'),
    '17': ObjectId('66b3229d7a3ed66713228fc6'),
    '18': ObjectId('66b3229d7a3ed66713228fc7'),
    '19': ObjectId('66b3229d7a3ed66713228fc8'),
    '20': ObjectId('66b3229d7a3ed66713228fc9'),
    '21': ObjectId('66b3229d7a3ed66713228fca'),
    '22': ObjectId('66b3229d7a3ed66713228fcb'),
    '23': ObjectId('66b3229d7a3ed66713228fcc'),
    '24': ObjectId('66b3229d7a3ed66713228fcd')
  }
}
```

1. Find all the information about each products

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> db.products.find();
[
  {
    _id: ObjectId('56b0e88b50707d6f6cdde29'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde29'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2a'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2b'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
    product_material: 'Soft',
    product_color: 'plum'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2c'),
    id: '5',
    product_name: 'Sleek Cotton Chair',
    product_price: 33,
    product_material: 'fresh',
    product_color: 'black'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2d'),
    id: '6',
    product_name: 'Awesome Wooden Towels',
    product_price: 474,
    product_material: 'Plastic',
    product_color: 'orange'
  }
]
```

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

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> db.products.find({product_price:{$gte:400,$lte:800}});
[
  {
    _id: ObjectId('56b0e88b50707d6f6cdde29'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2a'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2b'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
    product_material: 'Soft',
    product_color: 'plum'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2d'),
    id: '6',
    product_name: 'Awesome Wooden Towels',
    product_price: 474,
    product_material: 'Plastic',
    product_color: 'orange'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2e'),
    id: '7',
    product_name: 'Practical Soft Shoes',
    product_price: 500,
    product_material: 'Rubber',
    product_color: 'pink'
  },
  {
    _id: ObjectId('56b0e88b50707d6f6cdde2f'),
    id: '8',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  }
]
```

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

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> products.find({product_price:{$not:{$gte:400,$lte:600}}});
[
  {
    _id: ObjectId('66b0e88b50707d6f6cde28'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 555,
    product_material: 'Concrete',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde29'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde2a'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde2c'),
    id: '4',
    product_name: 'Sleek Cotton Chair',
    product_price: 33,
    product_material: 'Fresh',
    product_color: 'black'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde2f'),
    id: '8',
    product_name: 'Incredible Steel Hat',
    product_price: 78,
    product_material: 'Rubber',
    product_color: 'violet'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde31'),
    id: '10',
    product_name: 'Generic Wooden Pizza',
    product_price: 84,
    product_material: 'Frozen',
    product_color: 'indigo'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde32'),
    id: '11',
    product_name: 'Unbranded Wooden Cheese',
    product_price: 26,
    product_material: 'Soft',
    product_color: 'black'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde33'),
    id: '12',
    product_name: 'Unbranded Plastic Salad',
    product_price: 89,
    product_material: 'Wooden',
    product_color: 'pink'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde34'),
    id: '13',
    product_name: 'Gorgeous Cotton Keyboard',
    product_price: 37,
    product_material: 'Concrete',
    product_color: 'sky blue'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde35'),
    id: '14',
    product_name: 'Incredible Steel Shirt',
    product_price: 54,
    product_material: 'Metal',
    product_color: 'white'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde36'),
    id: '15',
    product_name: 'Ergonomic Cotton Hat',
    product_price: 43,
    product_material: 'Rubber',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cde37'),
    id: '16',
    product_name: 'Small Soft Chair',
    product_price: 47,
    product_material: 'Cotton',
    product_color: 'teal'
  },
]
```

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
{
  "_id": ObjectId("56b0e88b5070706f6cdde3a"),
  id: "1",
  product_name: 'Intelligent Cotton Chips',
  product_price: 46,
  product_material: 'Soft',
  product_color: 'azure'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde3b"),
  id: "20",
  product_name: 'Handcrafted Wooden Bacon',
  product_price: 36,
  product_material: 'Concrete',
  product_color: 'lime'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde3c"),
  id: "21",
  product_name: 'Unbranded Granite Chicken',
  product_price: 90,
  product_material: 'Metal',
  product_color: 'gold'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde3d"),
  id: "22",
  product_name: 'Ergonomic Soft Hat',
  product_price: 99,
  product_material: 'Rubber',
  product_color: 'black'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde3e"),
  id: "23",
  product_name: 'Intelligent Steel Pizza',
  product_price: 95,
  product_material: 'Cotton',
  product_color: 'azure'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde3f"),
  id: "24",
  product_name: 'Tasty Rubber Cheese',
  product_price: 47,
  product_material: 'Frozen',
  product_color: 'orchid'
}
}
```

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

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> db.products.find({product_price:{$gt:500}}).limit(4);
{
  "_id": ObjectId("56b0e88b5070706f6cdde28"),
  id: "1",
  product_name: 'Intelligent Fresh Chips',
  product_price: 655,
  product_material: 'Concrete',
  product_color: 'mint green'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde29"),
  id: "2",
  product_name: 'Practical Fresh Sausages',
  product_price: 911,
  product_material: 'Cotton',
  product_color: 'indigo'
},
{
  "_id": ObjectId("56b0e88b5070706f6cdde2a"),
  id: "3",
  product_name: 'Refined Steel Car',
  product_price: 690,
  product_material: 'Rubber',
  product_color: 'gold'
},
{
  "_id": ObjectId("56b0e58a6d9853b2228fb5"),
  id: "1",
  product_name: 'Intelligent Free Chips',
  product_price: 655,
  product_material: 'Concrete',
  product_color: 'mint green'
}
product_db>
```

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

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> db.products.find({}, {_id:0,product_name:1,product_material:1});

{
  product_name: 'Intelligent Fresh Chips',
  product_material: 'Concrete'
},
{
  product_name: 'Practical fresh Sausages',
  product_material: 'Cotton'
},
{
  product_name: 'Refined Steel Can', product_material: 'Rubber' },
{ product_name: 'Gorgeous Plastic Pants', product_material: 'Soft' },
{ product_name: 'Sleek Cotton Chair', product_material: 'Fresh' },
{
  product_name: 'Awesome Wooden Towels',
  product_material: 'Plastic'
},
{
  product_name: 'Practical Soft Shoes', product_material: 'Rubber' },
{ product_name: 'Incredible Steel Hat', product_material: 'Rubber' },
{ product_name: 'Generic Wooden Pizza', product_material: 'Frozen' },
{ product_name: 'Unbranded Wooden Cheese', product_material: 'Soft' },
{
  product_name: 'Unbranded Plastic Salad',
  product_material: 'Wooden'
},
{
  product_name: 'Gorgeous Cotton Keyboard',
  product_material: 'Concrete'
},
{
  product_name: 'Incredible Steel Shirt', product_material: 'Metal' },
{ product_name: 'Ergonomic Cotton Hat', product_material: 'Rubber' },
{ product_name: 'Small Soft Chair', product_material: 'Cotton' },
{ product_name: 'Incredible Metal Car', product_material: 'Fresh' },
{ product_name: 'Licensed Plastic Bacon', product_material: 'Steel' },
{
  product_name: 'Intelligent Cotton Chips',
  product_material: 'Soft'
},
{
  product_name: 'Handcrafted Wooden Bacon',
  product_material: 'Concrete'
},
{
  product_name: 'Unbranded Granite Chicken',
  product_material: 'Metal'
}
}

Type "it" for more
product_db>
```

6. Find the product with a row id of 10

```
Select mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000

product_db> db.products.find({}, {_id:0,product_name:1,product_material:1});

{
  product_name: 'Intelligent Fresh Chips',
  product_material: 'Concrete'
},
{
  product_name: 'Practical fresh Sausages',
  product_material: 'Cotton'
},
{
  product_name: 'Refined Steel Can', product_material: 'Rubber' },
{ product_name: 'Gorgeous Plastic Pants', product_material: 'Soft' },
{ product_name: 'Sleek Cotton Chair', product_material: 'Fresh' },
{
  product_name: 'Awesome Wooden Towels',
  product_material: 'Plastic'
},
{
  product_name: 'Practical Soft Shoes', product_material: 'Rubber' },
{ product_name: 'Incredible Steel Hat', product_material: 'Rubber' },
{ product_name: 'Generic Wooden Pizza', product_material: 'Frozen' },
{ product_name: 'Unbranded Wooden Cheese', product_material: 'Soft' },
{
  product_name: 'Unbranded Plastic Salad',
  product_material: 'Wooden'
},
{
  product_name: 'Gorgeous Cotton Keyboard',
  product_material: 'Concrete'
},
{
  product_name: 'Incredible Steel Shirt', product_material: 'Metal' },
{ product_name: 'Ergonomic Cotton Hat', product_material: 'Rubber' },
{ product_name: 'Small Soft Chair', product_material: 'Cotton' },
{ product_name: 'Incredible Metal Car', product_material: 'Fresh' },
{ product_name: 'Licensed Plastic Bacon', product_material: 'Steel' },
{
  product_name: 'Intelligent Cotton Chips',
  product_material: 'Soft'
},
{
  product_name: 'Handcrafted Wooden Bacon',
  product_material: 'Concrete'
},
{
  product_name: 'Unbranded Granite Chicken',
  product_material: 'Metal'
}
}
```

7. Find only the product name and product material

```
Select mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
>
product_db> db.products.find({}, {_id:0,product_name:1,product_material:1});
{
  product_name: 'Intelligent Fresh Chips',
  product_material: 'Concrete'
},
{
  product_name: 'Practical Fresh Sausages',
  product_material: 'Cotton'
},
{
  product_name: 'Refined Steel Car', product_material: 'Rubber' },
{
  product_name: 'Gorgeous Plastic Pants', product_material: 'Soft' },
{
  product_name: 'Sleek Cotton Chair', product_material: 'Fresh' },
{
  product_name: 'Awesome Wooden Towels',
  product_material: 'Plastic'
},
{
  product_name: 'Practical Soft Shoes', product_material: 'Rubber' },
{
  product_name: 'Incredible Steel Hat', product_material: 'Rubber' },
{
  product_name: 'Generic Wooden Pizza', product_material: 'Frozen' },
{
  product_name: 'Unbranded Wooden Cheese', product_material: 'Soft' },
{
  product_name: 'Unbranded Plastic Salad',
  product_material: 'Wooden'
},
{
  product_name: 'Gorgeous Cotton Keyboard',
  product_material: 'Concrete'
},
{
  product_name: 'Incredible Steel Shirt', product_material: 'Metal' },
{
  product_name: 'Ergonomic Cotton Hat', product_material: 'Rubber' },
{
  product_name: 'Small Soft Chair', product_material: 'Cotton' },
{
  product_name: 'Incredible Metal Car', product_material: 'Fresh' },
{
  product_name: 'Licensed Plastic Bacon', product_material: 'Steel' },
{
  product_name: 'Intelligent Cotton Chips',
  product_material: 'Soft'
},
{
  product_name: 'Handcrafted Wooden Bacon',
  product_material: 'Concrete'
},
{
  product_name: 'Unbranded Granite Chicken',
  product_material: 'Metal'
},
}
```

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

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
>
product_db> db.products.aggregate([{$match:{product_material:'Soft' }}]);
{
  _id: ObjectId('66b0e88b50707d6f6cdde2b'),
  id: '4',
  product_name: 'Gorgeous Plastic Pants',
  product_price: 492,
  product_material: 'Soft',
  product_color: 'plum'
},
{
  _id: ObjectId('66b0e88b50707d6f6cdde12'),
  id: '1',
  product_name: 'Unbranded Wooden Cheese',
  product_price: 26,
  product_material: 'Soft',
  product_color: 'black'
},
{
  _id: ObjectId('66b0e88b50707d6f6cdde3a'),
  id: '10',
  product_name: 'Intelligent Cotton Chips',
  product_price: 46,
  product_material: 'Soft',
  product_color: 'azure'
},
{
  _id: ObjectId('66b0e88a6d9853b2228f8a'),
  id: '4',
  product_name: 'Gorgeous Plastic Pants',
  product_price: 492,
  product_material: 'Soft',
  product_color: 'plum'
},
{
  _id: ObjectId('66b0e88a6d9853b2228f8f'),
  id: '1',
  product_name: 'Unbranded Wooden Cheese',
  product_price: 26,
  product_material: 'Soft',
  product_color: 'black'
},
{
  _id: ObjectId('66b0e88a6d9853b2228fc7'),
  id: '10',
  product_name: 'Intelligent Cotton Chips',
  product_price: 46,
  product_material: 'Soft',
  product_color: 'azure'
},
}
```

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

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> db.products.find({product_color:'indigo',product_price:492.00});
product_db>
```

10. Delete the products which product price value are 28

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
product_db> db.products.deleteMany({product_price:28});
{ acknowledged: true, deletedCount: 3 }
product_db> db.products.find();
[
  {
    _id: ObjectId('66b0e88b50707d6f6cdd28'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cdd29'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cdd2a'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cdd2b'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
    product_material: 'Soft',
    product_color: 'pink'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cdd2c'),
    id: '5',
    product_name: 'Sleek Cotton Chair',
    product_price: 33,
    product_material: 'Fresh',
    product_color: 'black'
  },
  {
    _id: ObjectId('66b0e88b50707d6f6cdd2d'),
    id: '6',
    product_name: 'Awesome Wooden Towels',
    product_price: 28,
    product_material: 'Cotton',
    product_color: 'indigo'
  }
]
```