

MongoDB

Case Study – 1(Products)

Code:

```
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": 911.00,
    "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": 492.00,  
"product_material": "Soft",  
"product_color": "plum"  
},  
{  
  "id": "5",  
  "product_name": "Sleek Cotton Chair",  
  "product_price": 33.00,  
  "product_material": "Fresh",  
  "product_color": "black"  
},  
{  
  "id": "6",  
  "product_name": "Awesome Wooden Towels",  
  "product_price": 474.00,  
  "product_material": "Plastic",  
  "product_color": "orange"  
},  
{  
  "id": "7",  
  "product_name": "Practical Soft Shoes",  
  "product_price": 500.00,  
  "product_material": "Rubber",  
  "product_color": "pink"  
},  
{
```

```
"id": "8",  
"product_name": "Incredible Steel Hat",  
"product_price": 78.00,  
"product_material": "Rubber",  
"product_color": "violet"  
},  
{  
  "id": "9",  
  "product_name": "Awesome Wooden Ball",  
  "product_price": 28.00,  
  "product_material": "Soft",  
  "product_color": "azure"  
},  
{  
  "id": "10",  
  "product_name": "Generic Wooden Pizza",  
  "product_price": 84.00,  
  "product_material": "Frozen",  
  "product_color": "indigo"  
},  
{  
  "id": "11",  
  "product_name": "Unbranded Wooden Cheese",  
  "product_price": 26.00,  
  "product_material": "Soft",  
  "product_color": "black"  
},  
{
```

```
"id": "12",  
"product_name": "Unbranded Plastic Salad",  
"product_price": 89.00,  
"product_material": "Wooden",  
"product_color": "pink"  
,  
{  
  "id": "13",  
  "product_name": "Gorgeous Cotton Keyboard",  
  "product_price": 37.00,  
  "product_material": "Concrete",  
  "product_color": "sky blue"  
,  
{  
  "id": "14",  
  "product_name": "Incredible Steel Shirt",  
  "product_price": 54.00,  
  "product_material": "Metal",  
  "product_color": "white"  
,  
{  
  "id": "15",  
  "product_name": "Ergonomic Cotton Hat",  
  "product_price": 43.00,  
  "product_material": "Rubber",  
  "product_color": "mint green"  
,  
{
```

```
"id": "16",  
"product_name": "Small Soft Chair",  
"product_price": 47.00,  
"product_material": "Cotton",  
"product_color": "teal"  
},  
{  
  "id": "17",  
  "product_name": "Incredible Metal Car",  
  "product_price": 36.00,  
  "product_material": "Fresh",  
  "product_color": "indigo"  
},  
{  
  "id": "18",  
  "product_name": "Licensed Plastic Bacon",  
  "product_price": 88.00,  
  "product_material": "Steel",  
  "product_color": "yellow"  
},  
{  
  "id": "19",  
  "product_name": "Intelligent Cotton Chips",  
  "product_price": 46.00,  
  "product_material": "Soft",  
  "product_color": "azure"  
},  
{
```

```
"id": "20",  
"product_name": "Handcrafted Wooden Bacon",  
"product_price": 36.00,  
"product_material": "Concrete",  
"product_color": "lime"  
},  
{  
  "id": "21",  
  "product_name": "Unbranded Granite Chicken",  
  "product_price": 90.00,  
  "product_material": "Metal",  
  "product_color": "gold"  
},  
{  
  "id": "22",  
  "product_name": "Ergonomic Soft Hat",  
  "product_price": 99.00,  
  "product_material": "Rubber",  
  "product_color": "black"  
},  
{  
  "id": "23",  
  "product_name": "Intelligent Steel Pizza",  
  "product_price": 95.00,  
  "product_material": "Cotton",  
  "product_color": "azure"  
},  
{
```

```
"id": "24",
"product_name": "Tasty Rubber Cheese",
"product_price": 47.00,
"product_material": "Frozen",
"product_color": "orchid"
},
{
  "id": "25",
  "product_name": "Licensed Steel Car",
  "product_price": 20.00,
  "product_material": "Cotton",
  "product_color": "indigo"
}
])
```

Questions:

1. Find all the information about each products

```
db.products.find().pretty()
```

```
test> db.products.find().pretty()
[
  {
    _id: ObjectId('688108df61c0fff2f9eec4c2'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('688108df61c0fff2f9eec4c3'),
    id: '2',
    product_name: 'Practical Fresh Sausages',
    product_price: 911,
    product_material: 'Cotton',
    product_color: 'indigo'
  },
  {
    _id: ObjectId('688108df61c0fff2f9eec4c4'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  },
  {
    _id: ObjectId('688108df61c0fff2f9eec4c5'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 492,
    product_material: 'Soft',
    product_color: 'plum'
  },
  {
    _id: ObjectId('688108df61c0fff2f9eec4c6'),
    id: '5',
    product_name: 'Sleek Cotton Chair',
    product_price: 33,
    product_material: 'Fresh',
    product_color: 'black'
  },
  {
    _id: ObjectId('688108df61c0fff2f9eec4c7'),
    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

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

```
test> db.products.find(  
...   product_price: { $gte: 400, $lte: 800 }  
... }).pretty()  
...  
[  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c2'),  
    id: '1',  
    product_name: 'Intelligent Fresh Chips',  
    product_price: 655,  
    product_material: 'Concrete',  
    product_color: 'mint green'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c4'),  
    id: '3',  
    product_name: 'Refined Steel Car',  
    product_price: 690,  
    product_material: 'Rubber',  
    product_color: 'gold'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c5'),  
    id: '4',  
    product_name: 'Gorgeous Plastic Pants',  
    product_price: 492,  
    product_material: 'Soft',  
    product_color: 'plum'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c7'),  
    id: '6',  
    product_name: 'Awesome Wooden Towels',  
    product_price: 474,  
    product_material: 'Plastic',  
    product_color: 'orange'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c8'),  
    id: '7',  
    product_name: 'Practical Soft Shoes',  
    product_price: 500,  
    product_material: 'Rubber',  
    product_color: 'pink'  
  }  
]
```

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

```
db.products.find({
```

```
$or: [  
  { product_price: { $lt: 400 } },  
  { product_price: { $gt: 600 } }  
]  
}).pretty()
```

```
test> db.products.find({  
...   $or: [  
...     { product_price: { $lt: 400 } },  
...     { product_price: { $gt: 600 } }  
...   ]  
... }).pretty()  
...  
[  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c2'),  
    id: '1',  
    product_name: 'Intelligent Fresh Chips',  
    product_price: 655,  
    product_material: 'Concrete',  
    product_color: 'mint green'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c3'),  
    id: '2',  
    product_name: 'Practical Fresh Sausages',  
    product_price: 911,  
    product_material: 'Cotton',  
    product_color: 'indigo'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c4'),  
    id: '3',  
    product_name: 'Refined Steel Car',  
    product_price: 690,  
    product_material: 'Rubber',  
    product_color: 'gold'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c6'),  
    id: '5',  
    product_name: 'Sleek Cotton Chair',  
    product_price: 33,  
    product_material: 'Fresh',  
    product_color: 'black'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c9'),  
    id: '8',  
    product_name: 'Incredible Steel Hat',  
    product_price: 78,  
    product_material: 'Rubber',  
    product_color: 'violet'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4ca'),  
    id: '9',  
    product_name: 'Awesome Wooden Ball',  
    product_price: 28,  
    product_material: 'Soft',  
    product_color: 'azure'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4cb'),  
    id: '10',  
    product_name: 'Generic Wooden Pizza',  
    product_price: 84,  
    product_material: 'Frozen',  
    product_color: 'indigo'  
  },  
]
```

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

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

```
test> db.products.find({  
...   product_price: { $gt: 500 }  
... }).limit(4).pretty()  
...  
[  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c2'),  
    id: '1',  
    product_name: 'Intelligent Fresh Chips',  
    product_price: 655,  
    product_material: 'Concrete',  
    product_color: 'mint green'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c3'),  
    id: '2',  
    product_name: 'Practical Fresh Sausages',  
    product_price: 911,  
    product_material: 'Cotton',  
    product_color: 'indigo'  
  },  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4c4'),  
    id: '3',  
    product_name: 'Refined Steel Car',  
    product_price: 690,  
    product_material: 'Rubber',  
    product_color: 'gold'  
  }  
]
```

5. Find the product with a row id of 10

```
db.products.find({ id: "10" }).pretty()
```

```
test> db.products.find({ id: "10" }).pretty()  
[  
  {  
    _id: ObjectId('688108df61c0fff2f9eec4cb'),  
    id: '10',  
    product_name: 'Generic Wooden Pizza',  
    product_price: 84,  
    product_material: 'Frozen',  
    product_color: 'indigo'  
  }  
]
```