

# MONGODB CASE STUDY – 1

## PRODUCT

### DATA INSERTION:

```
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": 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 product

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

```

> db.products.find().pretty()
< {
  _id: ObjectId('687f8011196600f475c50afb'),
  id: '1',
  product_name: 'Intelligent Fresh Chips',
  product_price: 655,
  product_material: 'Concrete',
  product_color: 'mint green'
}
{
  _id: ObjectId('687f8011196600f475c50afc'),
  id: '2',
  product_name: 'Practical Fresh Sausages',
  product_price: 911,
  product_material: 'Cotton',
  product_color: 'indigo'
}
{
  _id: ObjectId('687f8011196600f475c50afd'),
  id: '3',
  product_name: 'Refined Steel Car',
  product_price: 690,
  product_material: 'Rubber',
  product_color: 'gold'
}

```

```

{
  _id: ObjectId('687f8011196600f475c50afe'),
  id: '4',
  product_name: 'Gorgeous Plastic Pants',
  product_price: 492,
  product_material: 'Soft',
  product_color: 'plum'
}
{
  _id: ObjectId('687f8011196600f475c50aff'),
  id: '5',
  product_name: 'Sleek Cotton Chair',
  product_price: 33,
  product_material: 'Fresh',
  product_color: 'black'
}
{
  _id: ObjectId('687f8011196600f475c50b00'),
  id: '6',
  product_name: 'Awesome Wooden Towels',
  product_price: 474,
  product_material: 'Plastic',
  product_color: 'orange'
}
{
  _id: ObjectId('687f8011196600f475c50b01'),
  id: '7',
  product_name: 'Practical Soft Shoes',
  product_price: 500,
  product_material: 'Rubber',
  product_color: 'pink'
}

```

```
{
  _id: ObjectId('687f8011196600f475c50b02'),
  id: '8',
  product_name: 'Incredible Steel Hat',
  product_price: 78,
  product_material: 'Rubber',
  product_color: 'violet'
}
{
  _id: ObjectId('687f8011196600f475c50b03'),
  id: '9',
  product_name: 'Awesome Wooden Ball',
  product_price: 28,
  product_material: 'Soft',
  product_color: 'azure'
}
{
  _id: ObjectId('687f8011196600f475c50b04'),
  id: '10',
  product_name: 'Generic Wooden Pizza',
  product_price: 84,
  product_material: 'Frozen',
  product_color: 'indigo'
}
{
  _id: ObjectId('687f8011196600f475c50b05'),
  id: '11',
  product_name: 'Unbranded Wooden Cheese',
  product_price: 26,
  product_material: 'Soft',
  product_color: 'black'
```

```
{
  _id: ObjectId('687f8011196600f475c50b07'),
  id: '13',
  product_name: 'Gorgeous Cotton Keyboard',
  product_price: 37,
  product_material: 'Concrete',
  product_color: 'sky blue'
}
{
  _id: ObjectId('687f8011196600f475c50b08'),
  id: '14',
  product_name: 'Incredible Steel Shirt',
  product_price: 54,
  product_material: 'Metal',
  product_color: 'white'
}
{
  _id: ObjectId('687f8011196600f475c50b09'),
  id: '15',
  product_name: 'Ergonomic Cotton Hat',
  product_price: 43,
  product_material: 'Rubber',
  product_color: 'mint green'
}
{
  _id: ObjectId('687f8011196600f475c50b0a'),
  id: '16',
  product_name: 'Small Soft Chair',
  product_price: 47,
  product_material: 'Cotton',
  product_color: 'teal'
```

```
{
  _id: ObjectId('687f8011196600f475c50b0b'),
  id: '17',
  product_name: 'Incredible Metal Car',
  product_price: 36,
  product_material: 'Fresh',
  product_color: 'indigo'
}
{
  _id: ObjectId('687f8011196600f475c50b0c'),
  id: '18',
  product_name: 'Licensed Plastic Bacon',
  product_price: 88,
  product_material: 'Steel',
  product_color: 'yellow'
}
{
  _id: ObjectId('687f8011196600f475c50b0d'),
  id: '19',
  product_name: 'Intelligent Cotton Chips',
  product_price: 46,
  product_material: 'Soft',
  product_color: 'azure'
}
{
  _id: ObjectId('687f8011196600f475c50b0e'),
  id: '20',
  product_name: 'Handcrafted Wooden Bacon',
  product_price: 36,
  product_material: 'Concrete',
  product_color: 'lime'
}
```

## 2.Find products with price between 400 and 800

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

```
> db.users.find(
  { product_price: { $gte: 400, $lte: 800 } }
).pretty()
< [
  {
    _id: ObjectId('687f8011196600f475c50afb'),
    id: '1',
    product_name: 'Intelligent Fresh Chips',
    product_price: 655,
    product_material: 'Concrete',
    product_color: 'mint green'
  },
  {
    _id: ObjectId('687f8011196600f475c50afd'),
    id: '3',
    product_name: 'Refined Steel Car',
    product_price: 690,
    product_material: 'Rubber',
    product_color: 'gold'
  },
  {
    _id: ObjectId('687f8011196600f475c50afe'),
    id: '4',
    product_name: 'Gorgeous Plastic Pants',
    product_price: 402,
    product_material: 'Soft',
    product_color: 'plum'
  },
  {
    _id: ObjectId('687f8011196600f475c50b00'),
    id: '6',
    product_name: 'Awesome Wooden Towels',
```

```
    id: '0',
    product_name: 'Awesome Wooden Towels',
    product_price: 474,
    product_material: 'Plastic',
    product_color: 'orange'
  },
  {
    _id: ObjectId('687f8011196600f475c50b01'),
    id: '7',
    product_name: 'Practical Soft Shoes',
    product_price: 500,
    product_material: 'Rubber',
    product_color: 'pink'
  }
]
```

### 3. Find products with price NOT between 400 and 600

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

```
db.users.find(
  { _id: [ { product_price: { $lt: 400 } }, { product_price: { $gt: 600 } } ] },
  .pretty()
)
{
  "_id": ObjectId('687fb01196600f475c50afb'),
  "id": '1',
  "product_name": 'Intelligent Fresh Chips',
  "product_price": 655,
  "product_material": 'Concrete',
  "product_color": 'mint green'
}
{
  "_id": ObjectId('687fb01196600f475c50afc'),
  "id": '2',
  "product_name": 'Practical Fresh Sausages',
  "product_price": 911,
  "product_material": 'Cotton',
  "product_color": 'indigo'
}
{
  "_id": ObjectId('687fb01196600f475c50afd'),
  "id": '3',
  "product_name": 'Refined Steel Car',
  "product_price": 690,
  "product_material": 'Rubber',
  "product_color": 'gold'
}
{
  "_id": ObjectId('687fb01196600f475c50afe'),
  "id": '4',
  "product_name": 'Sleek Cotton Chair',
  "product_price": 400,
  "product_material": 'Concrete',
  "product_color": 'mint green'
}
```

```
{
  "product_name": "Sleek Cotton Chair",
  "product_price": 33,
  "product_material": "Fresh",
  "product_color": "black"
},
{
  "_id": "ObjectId('687f8011196600f475c50b02')",
  "id": '8',
  "product_name": "Incredible Steel Hat",
  "product_price": 70,
  "product_material": "Rubber",
  "product_color": 'violet'
},
{
  "_id": "ObjectId('687f8011196600f475c50b03')",
  "id": '9',
  "product_name": "Awesome Wooden Ball",
  "product_price": 28,
  "product_material": 'Soft',
  "product_color": 'azure'
},
{
  "_id": "ObjectId('687f8011196600f475c50b04')",
  "id": '10',
  "product_name": "Generic Wooden Pizza",
  "product_price": 84,
  "product_material": 'Frozen',
  "product_color": 'indigo'
},
{
}
```

```

    _id: ObjectId('687f8011196600f475c50b05'),
    id: '11',
    product_name: 'Unbranded Wooden Cheese',
    product_price: 26,
    product_material: 'Soft',
    product_color: 'black'
  }
  {
    _id: ObjectId('687f8011196600f475c50b06'),
    id: '12',
    product_name: 'Unbranded Plastic Salad',
    product_price: 89,
    product_material: 'Wooden',
    product_color: 'pink'
  }
  {
    _id: ObjectId('687f8011196600f475c50b07'),
    id: '13',
    product_name: 'Gorgeous Cotton Keyboard',
    product_price: 37,
    product_material: 'Concrete',
    product_color: 'sky blue'
  }
  {
    _id: ObjectId('687f8011196600f475c50b08'),
    id: '14',
    product_name: 'Incredible Steel Shirt',
    product_price: 54,
    product_material: 'Metal',
    product_color: 'white'
  }
}

```

```

        _id: ObjectId('687f8011196600f475c50b09'),
        id: '15',
        product_name: 'Ergonomic Cotton Hat',
        product_price: 43,
        product_material: 'Rubber',
        product_color: 'mint green'
    }
    {
        _id: ObjectId('687f8011196600f475c50b0a'),
        id: '16',
        product_name: 'Small Soft Chair',
        product_price: 47,
        product_material: 'Cotton',
        product_color: 'teal'
    }
    {
        _id: ObjectId('687f8011196600f475c50b0b'),
        id: '17',
        product_name: 'Incredible Metal Car',
        product_price: 36,
        product_material: 'Fresh',
        product_color: 'indigo'
    }
    {
        _id: ObjectId('687f8011196600f475c50b0c'),
        id: '18',
        product_name: 'Licensed Plastic Bacon',
        product_price: 88,
        product_material: 'Steel',
        product_color: 'yellow'
    }
}

```

```
{
  _id: ObjectId('687f8011196600f475c50bed'),
  id: '19',
  product_name: 'Intelligent Cotton Chips',
  product_price: 46,
  product_material: 'Soft',
  product_color: 'azure'
}
{
  _id: ObjectId('687f8011196600f475c50b0e'),
  id: '20',
  product_name: 'Handcrafted Wooden Bacon',
  product_price: 36,
  product_material: 'Concrete',
  product_color: 'lime'
}
{
  _id: ObjectId('687f8011196600f475c50b0f'),
  id: '21',
  product_name: 'Unbranded Granite Chicken',
  product_price: 90,
  product_material: 'Metal',
  product_color: 'gold'
}
{
  _id: ObjectId('687f8011196600f475c50b10'),
  id: '22',
  product_name: 'Ergonomic Soft Hat',
  product_price: 99,
  product_material: 'Rubber',
  product_color: 'black'
}
```

```
{
  _id: ObjectId('687f8011196600f475c50b11'),
  id: '23',
  product_name: 'Intelligent Steel Pizza',
  product_price: 95,
  product_material: 'Cotton',
  product_color: 'azure'
}
```

#### 4. List 4 products with price greater than 500

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

```
> db.products.find(  
  { product_price: { $gt: 500 } }  
)<limit(4).pretty()  
< {  
  _id: ObjectId('687f8011196600f475c50afb'),  
  id: '1',  
  product_name: 'Intelligent Fresh Chips',  
  product_price: 655,  
  product_material: 'Concrete',  
  product_color: 'mint green'  
}  
{  
  _id: ObjectId('687f8011196600f475c50afc'),  
  id: '2',  
  product_name: 'Practical Fresh Sausages',  
  product_price: 911,  
  product_material: 'Cotton',  
  product_color: 'indigo'  
}  
{  
  _id: ObjectId('687f8011196600f475c50afd'),  
  id: '3',  
  product_name: 'Refined Steel Car',  
  product_price: 690,  
  product_material: 'Rubber',  
  product_color: 'gold'  
}  
}
```

#### 5. Find product name and product material only

```
db.products.find({}, { _id: 0, product_name: 1, product_material: 1 }).pretty()
```

```
> db.products.find(  
  {},  
  { _id: 0, product_name: 1, product_material: 1 }  
)<pretty()  
< {  
  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: 'Awesome Wooden Ball',  
  product_material: 'Soft'  
}  
{  
  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'  
}  
}
```