db.products.insertOne({

"\_id": ObjectId("123456789012345678901234"),

"product\_name": "Smartphone",

"brand": "BrandX",

"price": 599.99,

"stock\_quantity": 100,

"category": ["Electronics", "Mobile"],

"attributes": {

"color": "Black",

"storage": "128GB",

"RAM": "8GB"

},

"reviews": [

{

"user\_id": ObjectId("987654321098765432109876"),

"rating": 4,

"comment": "Great phone!"

},

{

"user\_id": ObjectId("567890123456789012345678"),

"rating": 5,

"comment": "Best phone I've ever used!"

}

]

});

1. Find all products:

mydatabase> db.products.find({});

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Finding Products by Brand.

db.products.find({ brand: "BrandX" });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Find products within a price range:

db.products.find({ price: { $gte: 100, $lte: 1000 } });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

4.**Find products with a specific attribute (e.g., color):**

db.products.find({ "attributes.color": "Black" });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

5.Find products with a specific category:

db.products.find({ category: "Electronics" });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Find products with a specific stock quantity:

db.products.find({ stock\_quantity: { $gt: 50 } });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Find products with reviews having a rating of 5:

db.products.find({ "reviews.rating": 5 });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Find products with a specific review comment

db.products.find({ "reviews.comment": "Great phone!" });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Find products with a specific storage size

db.products.find({ "attributes.storage": "128GB" });

[

{

\_id: ObjectId('123456789012345678901234'),

product\_name: 'Smartphone',

brand: 'BrandX',

price: 599.99,

stock\_quantity: 100,

category: [ 'Electronics', 'Mobile' ],

attributes: { color: 'Black', storage: '128GB', RAM: '8GB' },

reviews: [

{

user\_id: ObjectId('987654321098765432109876'),

rating: 4,

comment: 'Great phone!'

},

{

user\_id: ObjectId('567890123456789012345678'),

rating: 5,

comment: "Best phone I've ever used!"

}

]

}

]

1. Count the number of products in a specific category

db.products.countDocuments({ category: "Mobile" });

1