db.sales.insertMany([

{ "\_id" : 1, "item" : "Americanos", "price" : 5, "size": "Short", "quantity" : 22, "date" : ISODate("2022-01-15T08:00:00Z") },

{ "\_id" : 2, "item" : "Cappuccino", "price" : 6, "size": "Short","quantity" : 12, "date" : ISODate("2022-01-16T09:00:00Z") },

{ "\_id" : 3, "item" : "Lattes", "price" : 15, "size": "Grande","quantity" : 25, "date" : ISODate("2022-01-16T09:05:00Z") },

{ "\_id" : 4, "item" : "Mochas", "price" : 25,"size": "Tall", "quantity" : 11, "date" : ISODate("2022-02-17T08:00:00Z") },

{ "\_id" : 5, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 12, "date" : ISODate("2022-02-18T21:06:00Z") },

{ "\_id" : 6, "item" : "Cappuccino", "price" : 7, "size": "Tall","quantity" : 20, "date" : ISODate("2022-02-20T10:07:00Z") },

{ "\_id" : 7, "item" : "Lattes", "price" : 25,"size": "Tall", "quantity" : 30, "date" : ISODate("2022-02-21T10:08:00Z") },

{ "\_id" : 8, "item" : "Americanos", "price" : 10, "size": "Grande","quantity" : 21, "date" : ISODate("2022-02-22T14:09:00Z") },

{ "\_id" : 9, "item" : "Cappuccino", "price" : 10, "size": "Grande","quantity" : 17, "date" : ISODate("2022-02-23T14:09:00Z") },

{ "\_id" : 10, "item" : "Americanos", "price" : 8, "size": "Tall","quantity" : 15, "date" : ISODate("2022-02-25T14:09:00Z")}

]);

1.

db.sales.find({ item: "Mochas" })

2.

db.sales.find({ price: { $lt: 15 } })

3.

db.sales.find({

$or: [

{ price: { $lt: 10 } },

{ price: { $gt: 20 } }

]

})

4.

db.sales.find({ quantity: { $exists: true } })

12.

db.sales.find({}, { \_id: 0, size: 1 })

13.

db.sales.aggregate([

{ $match: { size: "Tall" } }, // Filter only Tall size items

{ $group: { \_id: "$item", totalQuantity: { $sum: "$quantity" } } } // Group by item and sum quantity

])

15.

db.sales.aggregate([

{

$group: {

\_id: "$item", // Group by item name

totalQuantity: { $sum: "$quantity" }, // Calculate total quantity

avgPrice: { $avg: "$price" } // Calculate average price

}

}

])

db.products.insertMany([

{ "\_id" : 1, "name" : "xPhone", "price" : 799, "releaseDate": ISODate("2011-05-14"), "spec" : { "ram" : 4, "screen" : 6.5, "cpu" : 2.66 },"color":["white","black"],"storage":[64,128,256]},

{ "\_id" : 2, "name" : "xTablet", "price" : 899, "releaseDate": ISODate("2011-09-01") , "spec" : { "ram" : 16, "screen" : 9.5, "cpu" : 3.66 },"color":["white","black","purple"],"storage":[128,256,512]},

{ "\_id" : 3, "name" : "SmartTablet", "price" : 899, "releaseDate": ISODate("2015-01-14"), "spec" : { "ram" : 12, "screen" : 9.7, "cpu" : 3.66 },"color":["blue"],"storage":[16,64,128]},

{ "\_id" : 4, "name" : "SmartPad", "price" : 699, "releaseDate": ISODate("2020-05-14"),"spec" : { "ram" : 8, "screen" : 9.7, "cpu" : 1.66 },"color":["white","orange","gold","gray"],"storage":[128,256,1024]},

{ "\_id" : 5, "name" : "SmartPhone", "price" : 599,"releaseDate": ISODate("2022-09-14"), "spec" : { "ram" : 4, "screen" : 9.7, "cpu" : 1.66 },"color":["white","orange","gold","gray"],"storage":[128,256]}

])

5.

db.products.find({ color: "white" })

6.

db.products.updateOne(

{ name: "xTablet" },

{ $set: { "spec.ram": 24 } }

)

7.

db.products.find({}, { \_id: 0, spec: 1 })

8.

db.products.find().sort({ price: -1 })

9.

db.products.find().skip(1).limit(2)

10.

db.products.find({

name: { $regex: /^S/, $options: "i" },

price: { $gt: 700 }

})

11.

db.products.aggregate([

{ $group: { \_id: null, totalPrice: { $sum: "$price" } } }

])

14.

db.sales.aggregate([

{ $match: { size: "Tall" } }, // Filter only Tall size items

{ $group: { \_id: "$item", totalQuantity: { $sum: "$quantity" } } } // Group by item and sum quantity

])