db.products.drop()

true

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")}

]);

{

acknowledged: true,

insertedIds: {

**'0'**: 1,

**'1'**: 2,

**'2'**: 3,

**'3'**: 4,

**'4'**: 5,

**'5'**: 6,

**'6'**: 7,

**'7'**: 8,

**'8'**: 9,

**'9'**: 10

}

}

db.sales.aggregate([])

{

\_id: 1,

item: **'Americanos'**,

price: 5,

size: **'Short'**,

quantity: 22,

date: 2022-01-15T08:00:00.000Z

}

{

\_id: 2,

item: **'Cappuccino'**,

price: 6,

size: **'Short'**,

quantity: 12,

date: 2022-01-16T09:00:00.000Z

}

{

\_id: 3,

item: **'Lattes'**,

price: 15,

size: **'Grande'**,

quantity: 25,

date: 2022-01-16T09:05:00.000Z

}

{

\_id: 4,

item: **'Mochas'**,

price: 25,

size: **'Tall'**,

quantity: 11,

date: 2022-02-17T08:00:00.000Z

}

{

\_id: 5,

item: **'Americanos'**,

price: 10,

size: **'Grande'**,

quantity: 12,

date: 2022-02-18T21:06:00.000Z

}

{

\_id: 6,

item: **'Cappuccino'**,

price: 7,

size: **'Tall'**,

quantity: 20,

date: 2022-02-20T10:07:00.000Z

}

{

\_id: 7,

item: **'Lattes'**,

price: 25,

size: **'Tall'**,

quantity: 30,

date: 2022-02-21T10:08:00.000Z

}

{

\_id: 8,

item: **'Americanos'**,

price: 10,

size: **'Grande'**,

quantity: 21,

date: 2022-02-22T14:09:00.000Z

}

{

\_id: 9,

item: **'Cappuccino'**,

price: 10,

size: **'Grande'**,

quantity: 17,

date: 2022-02-23T14:09:00.000Z

}

{

\_id: 10,

item: **'Americanos'**,

price: 8,

size: **'Tall'**,

quantity: 15,

date: 2022-02-25T14:09:00.000Z

}

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db.sales.aggregate([{$match: { item: "Americanos"} }, { $group: { \_id: "$size", totalQty: {$sum: "$quantity"}}}, { $sort: { totalQty : -1}}]);

{

\_id: **'Grande'**,

totalQty: 33

}

{

\_id: **'Short'**,

totalQty: 22

}

{

\_id: **'Tall'**,

totalQty: 15

}

db.sales.aggregate([])

{

\_id: 1,

item: **'Americanos'**,

price: 5,

size: **'Short'**,

quantity: 22,

date: 2022-01-15T08:00:00.000Z

}

{

\_id: 2,

item: **'Cappuccino'**,

price: 6,

size: **'Short'**,

quantity: 12,

date: 2022-01-16T09:00:00.000Z

}

{

\_id: 3,

item: **'Lattes'**,

price: 15,

size: **'Grande'**,

quantity: 25,

date: 2022-01-16T09:05:00.000Z

}

{

\_id: 4,

item: **'Mochas'**,

price: 25,

size: **'Tall'**,

quantity: 11,

date: 2022-02-17T08:00:00.000Z

}

{

\_id: 5,

item: **'Americanos'**,

price: 10,

size: **'Grande'**,

quantity: 12,

date: 2022-02-18T21:06:00.000Z

}

{

\_id: 6,

item: **'Cappuccino'**,

price: 7,

size: **'Tall'**,

quantity: 20,

date: 2022-02-20T10:07:00.000Z

}

{

\_id: 7,

item: **'Lattes'**,

price: 25,

size: **'Tall'**,

quantity: 30,

date: 2022-02-21T10:08:00.000Z

}

{

\_id: 8,

item: **'Americanos'**,

price: 10,

size: **'Grande'**,

quantity: 21,

date: 2022-02-22T14:09:00.000Z

}

{

\_id: 9,

item: **'Cappuccino'**,

price: 10,

size: **'Grande'**,

quantity: 17,

date: 2022-02-23T14:09:00.000Z

}

{

\_id: 10,

item: **'Americanos'**,

price: 8,

size: **'Tall'**,

quantity: 15,

date: 2022-02-25T14:09:00.000Z

}

db.sales.aggregate([{ $group: { \_id: '$item', averageQty: { $avg: '$quantity'}, }, }, ]);

{

\_id: **'Cappuccino'**,

averageQty: 16.333333333333332

}

{

\_id: **'Lattes'**,

averageQty: 27.5

}

{

\_id: **'Mochas'**,

averageQty: 11

}

{

\_id: **'Americanos'**,

averageQty: 17.5

}

db.sales.aggregate([ { $group: { \_id: '$item', itemCount: { $count: {} }, }, }, ]);

{

\_id: **'Cappuccino'**,

itemCount: 3

}

{

\_id: **'Lattes'**,

itemCount: 2

}

{

\_id: **'Mochas'**,

itemCount: 1

}

{

\_id: **'Americanos'**,

itemCount: 4

}

db.sales.aggregate([ { $group: { \_id: '$item', itemCount: { $count: {} }, }, }, { $match: { itemCount: { $gt: 2}}, }, ]);

{

\_id: **'Americanos'**,

itemCount: 4

}

{

\_id: **'Cappuccino'**,

itemCount: 3

}

db.sales.aggregate([ { $group: { \_id: null , maxQty: { $min: '$quantity' }, }, }, { $project: { \_id: 0 , }, }, ]);

{

maxQty: 11

}

db.sales.aggregate([ { $group: { \_id: null, maxQty: { $max: '$quantity' }, }, }, { $project: { \_id: 0,} , }, ]);

{

maxQty: 30

}

db.sales.aggregate([ { $group: { \_id: '$item', maxQty: { $min: { $multiply: [ '$quantity', '$price'] } }, }, }, ]);

{

\_id: **'Mochas'**,

maxQty: 275

}

{

\_id: **'Lattes'**,

maxQty: 375

}

{

\_id: **'Americanos'**,

maxQty: 110

}

{

\_id: **'Cappuccino'**,

maxQty: 72

}

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