//Q1

//1

db.orders.aggregate([

{$group:{\_id:"$productName",sumQuantity:{$sum:"$quantity"}}}

])

1 stage

//2

db.orders.aggregate([

{$match: {status: "urgent"}},

{$group: {\_id: "$productName", SumQuantity: {$sum: "$quantity"}}}

])

2 stage

//3

db.orders.aggregate([

{$group:{\_id:["$productName","$status"],SumQuantity:{$sum:"$quantity"}}}

])

1 stage

//4

db.orders.aggregate(

[

{

$group :

{

\_id : ["$productName","$status"],

SumQuantity:{$sum:"$quantity"}

}

}

,

{

$match: { "SumQuantity": { $gte: 10.001 } }

}

]

)

2 stage

db.orders.aggregate([

{$group: {\_id: ["$productName", "$status"], SumQuantity: {$sum: "$quantity"}}},

{$match : {SumQuantity: {$gt: 10}}}

])

// Question 2.a

db.grades.distinct("class\_id").length

answer: 501

// Question 2.b

db.grades.distinct("student\_id").length

answer: 10000

// Question 2.c

db.grades.aggregate([

{$match: {class\_id: 212}},

{$unwind: "$scores"},

{$group: {\_id: "$scores.type", avg: {$avg: "$scores.score"}}}

])

answer: 49.32031796981391

// Question 2. d

db.grades.aggregate([

{$match: {class\_id: 212}},

{$unwind: "$scores"},

{$group: {\_id: "$scores.type", StdDev: {$stdDevSamp: "$scores.score"}}}

])

std dev of exam scores is 29.345839403132832