Day 4 - 24/05/2025

Q1. Aggregation queries used -

Ans. 1.

db.orders.aggregate([ {

$match:

{

"date": { $gte: new ISODate( "2020-01-30" ), $lt: new ISODate( "2022-01-30" ) }

}

},

{

$group:

{

\_id: { $dateToString: { format: "%Y-%m-%d", date: "$date" } },

totalOrderValue: { $sum: { $multiply: [ "$price", "$quantity" ] } },

averageOrderQuantity: { $avg: "$quantity" }

}

},

{

$sort: { totalOrderValue: -1 }

}

] );

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2.

db.orders.aggregate( [{

$match: { size: "medium" }

},

{ $group: { \_id: "$name", totalQuantity: { $sum: "$quantity" } }}]);

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3.

db.orders.insertMany( [

{ \_id: 0, name: "Pepperoni", size: "small", price: 19,

quantity: 10, date: ISODate( "2021-03-13T08:14:30Z" ) },

{ \_id: 1, name: "Pepperoni", size: "medium", price: 20,

quantity: 20, date : ISODate( "2021-03-13T09:13:24Z" ) },

{ \_id: 2, name: "Pepperoni", size: "large", price: 21,

quantity: 30, date : ISODate( "2021-03-17T09:22:12Z" ) },

{ \_id: 3, name: "Cheese", size: "small", price: 12,

quantity: 15, date : ISODate( "2021-03-13T11:21:39.736Z" ) },

{ \_id: 4, name: "Cheese", size: "medium", price: 13,

quantity:50, date : ISODate( "2022-01-12T21:23:13.331Z" ) },

{ \_id: 5, name: "Cheese", size: "large", price: 14,

quantity: 10, date : ISODate( "2022-01-12T05:08:13Z" ) },

{ \_id: 6, name: "Vegan", size: "small", price: 17,

quantity: 10, date : ISODate( "2021-01-13T05:08:13Z" ) },

{ \_id: 7, name: "Vegan", size: "medium", price: 18,

quantity: 10, date : ISODate( "2021-01-13T05:10:13Z" ) }

] );

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4.

db.aggregateproduct.aggregate([{ $sort: {quantity: 1}}]);

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5.

db.aggregateproduct.aggregate([{ $limit:2}]);

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6.

db.aggregateproduct.aggregate([

{ $project : { product : 1,quantity : 1 } } , //optional line

{ $group: { \_id: "$product", total: { $sum: "$quantity" } } },

{$sort : { total : 1 }

}

])

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7.

db.aggregateproduct.aggregate([

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

{ $addFields: {

maxQ: { $max: "$quantity" },

minSizeHeight: { $min: "$size.height" }

} }

])

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8.

db.aggregateproduct.aggregate([

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

{ $addFields: {

maxWeight: { $max: "$size.weight" },

minSizeHeight: { $min: "$size.height" }

} }

])

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9.

db.aggregateproduct.aggregate([

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

{ $addFields: {

maxWeight: { $max: "$size.weight" },

minSizeHeight: { $min: "$size.height" }

} }

])

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10.

db.aggregateproduct.aggregate([

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

{ $group: { \_id: "$product", total: { $sum: "$quantity" } } }

])

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11.

db.aggregateproduct.aggregate([

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

{ $group: { \_id: "$product", total: { $sum: "$quantity" } } }

])

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12.

db.studentsMarkList.createIndexes({sname: 1});

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13.

db.studentsMarkList.getIndexes();

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14.

db.studentsMarkList.find({name: {$regex: "^c"}});

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15.

db.studentsMarkList.find({sname: {$regex: ".a"}});

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