**MongoDB Assignment 4**

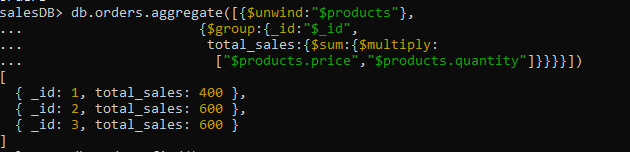
1. Calculate Total Sales for Each Order.

db.orders.aggregate([{$unwind:"$products"},

{$group:{\_id:"$\_id",

total\_sales:{$sum:{$multiply:

["$products.price","$products.quantity"]}}}}])



1. Calculate Average Order Value for Completed Orders.

db.orders.aggregate([{$match:{status:"completed"}},{$unwind:"$products"},

{$group:{\_id:"$\_id",

total\_sales:{$sum:{$multiply:

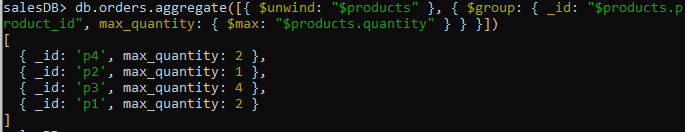
["$products.price","$products.quantity"]}}}},

{$group:{\_id:null,avg\_sale:{$avg:"$total\_sales"}}}])  


1. Find the Maximum Quantity Sold per Product.

db.orders.aggregate([{$unwind:"$products"},{$group:{\_id:"$products.product\_id",

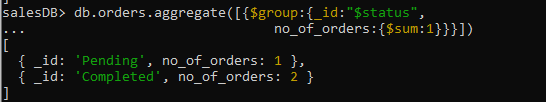
max\_quantity:{$max:"$products.quantity"}}}])



1. Find Total Number of Orders for Each Status.

db.orders.aggregate([{$group:{\_id:"$status",

no\_of\_orders:{$sum:1}}}])



1. Calculate Total Quantity of Products Sold Across All Orders.

db.orders.aggregate([{$unwind:"$products"},{$group:{\_id:null,

total\_quantity:{$sum:"$products.quantity"}}}])



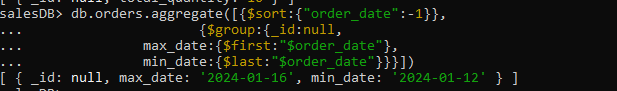
1. Get Minimum and Maximum Order Dates.

db.orders.aggregate([{$sort:{"order\_date":-1}},

{$group:{\_id:null,

max\_date:{$first:"$order\_date"},

min\_date:{$last:"$order\_date"}}}])

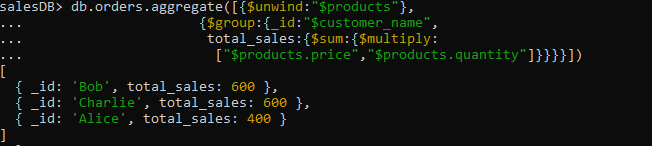


1. Find Total Sales for Each Customer.

db.orders.aggregate([{$unwind:"$products"},

{$group:{\_id:"$customer\_name",

total\_sales:{$sum:{$multiply:

["$products.price","$products.quantity"]}}}}])  


1. Calculate the Total Number of Distinct Products Sold.

db.orders.aggregate([{$unwind:"$products"},

{$group:{\_id:"$products.product\_id"}},

{$group:{\_id:null,distinct\_products\_sold:{$sum:1}}}])

