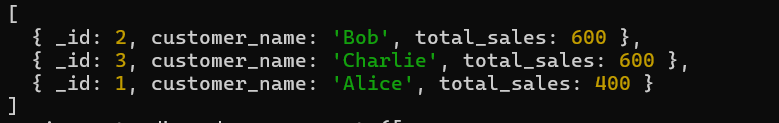
**Assignment 4**

**1 Calculate Total Sales for Each Order.**

db.orders.aggregate([{$unwind: "$products"},{$group: {\_id: "$\_id",customer\_name: { $first: "$customer\_name" },total\_sales: { $sum: { $multiply: ["$products.price", "$products.quantity"] } }}}])



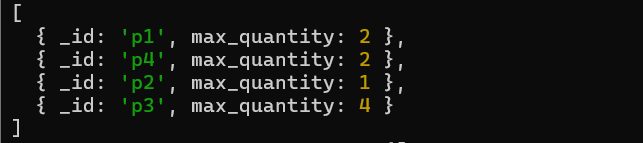
**2 Calculate Average Order Value for Completed Orders**.

db.orders.aggregate([{$match: { status: "Completed" }},{$unwind: "$products"}, {$group: {\_id: "$\_id", total\_order\_value: { $sum: { $multiply: ["$products.price", "$products.quantity"] } }}},{$group: {\_id: null, average\_order\_value: { $avg: "$total\_order\_value" }}}])



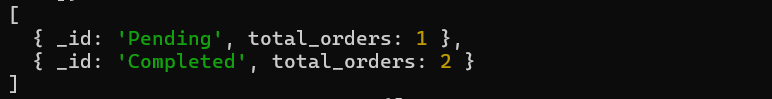
**3 Find the Maximum Quantity Sold per Product.**

db.orders.aggregate([{ $unwind: "$products" },{$group: {\_id: "$products.product\_id", max\_quantity: { $max: "$products.quantity" }}}])



**4 Find Total Number of Orders for Each Status.**

db.orders.aggregate([{$group: {\_id: "$status",total\_orders: { $sum: 1 }}}])



**5 Calculate Total Quantity of Products Sold Across All Orders.**

db.orders.aggregate([ { $unwind: "$products" }, {$group: {\_id: null, total\_quantity: { $sum:"$products.quantity" }}}])



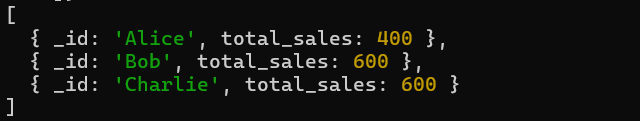
**6 Get Minimum and Maximum Order Dates.**

db.orders.aggregate([{$group: {\_id: null,min\_date: { $min: "$order\_date" },max\_date: { $max: "$order\_date" }}}])



**7 Find Total Sales for Each Customer.**

db.orders.aggregate([{$unwind: "$products"},{ $group: {\_id: "$customer\_name",total\_sales: { $sum: { $multiply: ["$products.price", "$products.quantity"] } } }}])



**8 Calculate the Total Number of Distinct Products Sold.**

db.orders.aggregate([{ $unwind: "$products" },{$group: {\_id: "$products.product\_id"}},{$group: {\_id: null,distinct\_products: { $sum: 1 }}}])

