**\_\_\_\_\_ ASSIGMENT 04 \_\_\_\_\_**

**Database & Collections:**

* **Database**: salesDB
* **Collection**: orders



**ques1- 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"]}}}}])**



**ques2-Calculate Average Order Value for Completed Orders.**

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



**ques3- Find the Maximum Quantity Sold per Product.**

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



**ques4-Find Total Number of Orders for Each Status.**

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



**ques5-Calculate Total Quantity of Products Sold Across All Orders.**

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



**ques6-Get Minimum and Maximum Order Dates.**

* **db.sales.aggregate([{$unwind:"$products"},{$group:{\_id:"$products.product\_id"}},{$group:{\_id:"products",Distinct\_products:{$sum:1}}}])**



**ques7-Find Total Sales for Each Customer.**

* **db.orders.aggregate([ { $unwind: "$products" }, { $group: { \_id: "$customerId", totalSales: { $sum: { $multiply: ["$products.price", "$products.quantity"] } } } }, { $sort: { totalSales: -1 } }] )**



**ques8-Calculate the Total Number of Distinct Products Sold.**

* **db.orders.aggregate([{$unwind: "$products"},{$group: {\_id: null,distinctProducts: { $addToSet: "$products.productId" }}},{$project: {totalDistinctProducts: { $size: "$distinctProducts" }}}])**

