# Summer 2022 Data Science Intern Challenge

**Question 1:**

1. Think about what could be going wrong with our calculation. Think about a better way to evaluate this data.

Some extreme high or low value orders may mislead the AOV. We can separate and compare orders between high value customers and Average value customers instead.

1. What metric would you report for this dataset?

High value customers (orders over $2000)

Average value customers (orders under $2000)

By identifying which shops have more high-value customers, we may acquire customers there through marketing strategies like promotions that attract more high-value customers.

1. What is its value?

Average value customers AOV is : $ 302.5805145 per order

High value customers AOV is : $ 225901.5873 per order

There are relatively more high value customers at shop no.42 and shop no.78 than at other shops.

**Question 2:**

1. How many orders were shipped by Speedy Express in total?

SELECT \* FROM Orders WHERE ShipperID = 1;

54 orders were shipped by Speedy Express in total.

1. What is the last name of the employee with the most orders?

SELECT t1.LastName, sum(t2.Quantity) as Quantity, t3.OrderID from Employees as t1 LEFT JOIN Orders as t3 on t1.EmployeeID = t3.EmployeeID LEFT JOIN OrderDetails as t2 on t3.OrderID = t2.OrderID GROUP BY t1.LastName ORDER BY Quantity DESC;

The last name of the employee with the most orders is Peacock.

1. What product was ordered the most by customers in Germany?

SELECT t1.ProductID,sum(t1.Quantity) as Quantity,t2.ProductName FROM

(SELECT \* FROM OrderDetails where OrderID in (Select OrderID from (SELECT OrderID,CustomerID FROM Orders Where CustomerID in (SELECT CustomerID FROM [Customers] Where Country = 'Germany'))))as t1 left join Products as t2 on t1.ProductID = t2.ProductID GROUP BY ProductName ORDER BY Quantity DESC;

Boston Crab Meat was ordered the most by customers in Germany.

Thank you for your attention to my work, Have a nice day!