Q1.

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

Ans:

* From the given dataset we can see that there is a shopID 42 with 17 orders whose total\_items are 2000, which is very high than any other order. Which indicated such high orders could be resellers orders and remaining are normal customer orders.
* There is another shopID 78 with 46 orders whose order\_value is very high than remaining shops and order\_value
* These indicates why the AOV is high even though its relatively affordable item
* The metrics used to calculate AOV of $3145.13 would be misleading as resellers, luxury and normal shops orders are mixed, which would scew the distribution of the order\_amount and hence affect the average amount value.
* We should calculate reseller, luxury and normal shops AOV separately as three different category

1. What metric would you report for this dataset?

Ans:

* We should calculate reseller, luxury and normal shops AOV separately, which would not inflate the AOV for normal customers sales record
* This would give business people better understanding of how are the sales for normal and reseller and luxury customers and ultimately make action plan for respective group of customers

1. What is its value?

Ans:

* Reseller Shops Customers AOV: $ **704000**
* Luxury Shops Customers AOV: $ **49213**
* Affordable Shops Customers AOV: $ **302.58**

Q2.

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

Ans:

select count(orderID) as Total\_Orders

from orders

where shipperId = (select shipperId

from Shippers

where shippername='Speedy Express'

);

Output:

|  |
| --- |
| **Total\_Orders** |
| 54 |

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

Ans:

select LastName, counts

from employees e, (select employeeId, count(orderID) as counts from orders group by employeeId order by count(orderID) desc limit 1) p

where e.employeeId = p.employeeId

;

Ouput:

|  |  |
| --- | --- |
| **LastName** | **counts** |
| Peacock | 40 |

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

Ans:

select ProductID, ProductName, Unit, Price

from products

where ProductID = (select ProductID

from orderdetails

where orderID in (select orderID

from orders

where CustomerID in (select customerID

from customers

where Country= 'Germany')

)

group by orderID, ProductID

order by Quantity desc limit 1

)

;

Output:

|  |  |  |  |
| --- | --- | --- | --- |
| **ProductID** | **ProductName** | **Unit** | **Price** |
| 35 | Steeleye Stout | 24 - 12 oz bottles | 18 |