Question 1:

![Graphical user interface, application, table, Excel

Description automatically generated]()

1. Mean values are highly biased against outliers, in this case there are 18 orders that bought 2000 items at a time (Figure 1), which is abnormal considering the other orders had at most 8 items per order, and majority of the orders bought between 1-3 pairs. An alternative way to view this dataset is to segregates the orders into their own tiers based on the items bought per order (i.e: Tier 1: >= 10 items/order, Tier 2: 4-10/order, Tier 3: 1-3 items/order). Then the average order value for each tier would be:
   * Tier 1: $704\_000.
   * Tier 2: $1\_313.
   * Tier 3: $708.

b+c. Besides Shop ID 42 being a bulk sale shop and therefore will not be included, the metric I would report will be:

* + Shop IDs with highest amount of order amount to understand which products they have in-stock that are in so high demand.
  + User IDs that contribute to the highest order amount, and the Shop IDs that they order in to understand the selling point to high spenders.
  + The highest intersection between Shop ID and User ID to see what attract recurring customers.
  + The specific date time when the orders are created can be used to find the most profitable period (daytime) for shops to concentrate on, as well as behaviours of high spenders.
  + Target customers who pay with Debit Card with good value deals, can potentially be highly value-conscious customer.

Question 2:

1. Run the below SQL will return 54,

SELECT COUNT(OrderID), ShipperName

FROM Orders JOIN Shippers

ON Orders.ShipperId = Shippers.ShipperId

GROUP BY Shippers.ShipperId

1. Run the below SQL will show employee with last name Peacock handle the most orders, 40 orders to be specific:

SELECT COUNT(OrderID) as ORDER\_COUNT, LastName

FROM Employees JOIN Orders

ON Employees.EmployeeID = Orders.EmployeeID

GROUP BY LastName

ORDER BY ORDER\_COUNT DESC

1. Run the below SQL will return Gorgonzola Telino as the most ordered product from Germany with the count of 5.

SELECT ProductName, COUNT(Customers.CustomerID) as prod\_count

FROM Products

JOIN OrderDetails

ON Products.ProductID = OrderDetails.ProductID

JOIN Orders

ON OrderDetails.OrderID = Orders.OrderID

JOIN Customers

ON Orders.CustomerID = Customers.CustomerID

WHERE Customers.COUNTRY = 'Germany'

GROUP BY ProductName

ORDER BY prod\_count DESC