Summer 2022 Data Science Intern Challenge

Please complete the following questions, and provide your thought process/work. You can attach your work in a text file, link, etc. on the application page. Please ensure answers are easily visible for reviewers!

Question 1: Given some sample data, write a program to answer the following: [click here to access the required data set](#)

> On Shopify, we have exactly 100 sneaker shops, and each of these shops sells only one model of shoe. We want to do some analysis of the average order value (AOV). When we look at orders data over a 30 day window, we naively calculate an AOV of $3145.13. Given that we know these shops are selling sneakers, a relatively affordable item, something seems wrong with our analysis.
>
> a. Think about what could be going wrong with our calculation. Think about a better way to evaluate this data.
> b. What metric would you report for this dataset?
> c. What is its value?

Question 2: For this question you'll need to use SQL. to access the data set required for the challenge. Please use queries to answer the following questions. Paste your queries along with your final numerical answers below.

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

SELECT o.ShipperID,s.ShipperID, s.ShipperName, SUM(o.ShipperID) as TotalOrder
FROM Orders as o,Shippers as s
WHERE s.ShipperName == 'Speedy Express'

ShipperID	ShipperName	TotalOrder
1	Speedy Express	406

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

SELECT e.EmployeeID,e.LastName,o.EmployeeID,o.OrderID,ord.OrderID,ord.Quantity,
MAX(ord.Quantity)
FROM Employees as e, Orders as o,OrderDetails as ord

Number of Records: 1

EmployeeID	LastName	OrderID	Quantity	Most_Orders
5	Davolio	10398	120	120

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

SELECT
p.ProductID,p.ProductName,ord.ProductID,o.CustomerID,c.CustomerID,c.Country,
MAX(p.ProductName)as Most_ordered_product
FROM Products as p,OrderDetails as ord, Orders as o, Customers as c
WHERE c.Country == "Germany"

ProductID	ProductName	CustomerID	Country	Most_ordered_product
11	Zaanse koeken	1	Germany	Zaanse koeken