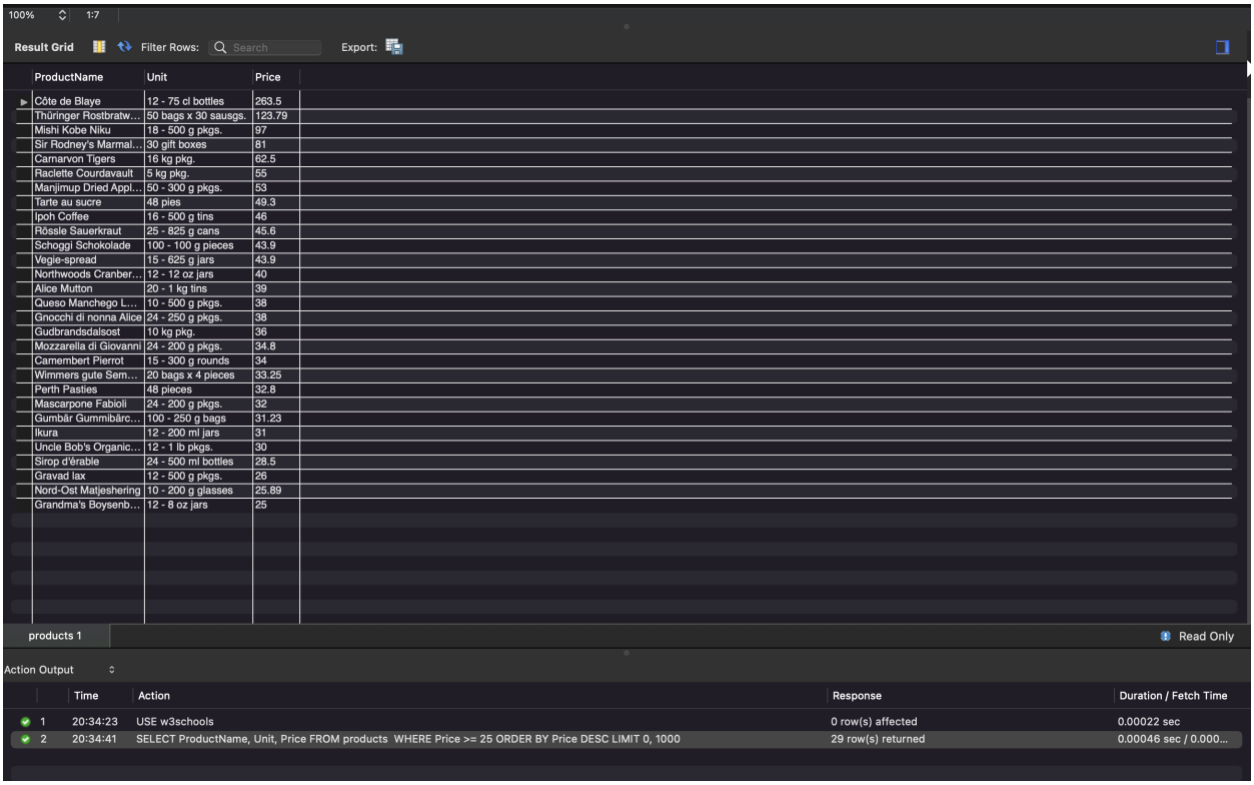
Raghav Arora
GSB 520

Individual Assignment 3 SQL

USE w3schools;

Question 1 (10 points). Select and show the product name, unit, and price of any product which has a price greater than or equal to 25. Order your result by product price, in descending order.

SELECT ProductName, Unit, Price
FROM products
WHERE Price >= 25
ORDER BY Price DESC;



Result Grid — Filter Rows: Search — Export:

ProductName	Unit	Price
Côte de Blaye	12 - 75 cl bottles	263.5
Thüringer Rostbratw...	50 bags x 30 sausgs.	123.79
Mishi Kobe Niku	18 - 500 g pkgs.	97
Sir Rodney's Marmal...	30 gift boxes	81
Carnarvon Tigers	16 kg pkg.	62.5
Raclette Courdavault	5 kg pkg.	55
Manjimup Dried Appl...	50 - 300 g pkgs.	53
Tarte au sucre	48 pies	49.3
Ipoh Coffee	16 - 500 g tins	46
Rössle Sauerkraut	25 - 825 g cans	45.6
Schoggi Schokolade	100 - 100 g pieces	43.9
Vegie-spread	15 - 625 g jars	43.9
Northwoods Cranber...	12 - 12 oz jars	40
Alice Mutton	20 - 1 kg tins	39
Queso Manchego L...	10 - 500 g pkgs.	38
Gnocchi di nonna Alice	24 - 250 g pkgs.	38
Gudbrandsdalsost	10 kg pkg.	36
Mozzarella di Giovanni	24 - 200 g pkgs.	34.8
Camembert Pierrot	15 - 300 g rounds	34
Wimmers gute Sem...	20 bags x 4 pieces	33.25
Perth Pasties	48 pieces	32.8
Mascarpone Fabioli	24 - 200 g pkgs.	32
Gumbär Gummibärc...	100 - 250 g bags	31.23
Ikura	12 - 200 ml jars	31
Uncle Bob's Organic...	12 - 1 lb pkgs.	30
Sirop d'érable	24 - 500 ml bottles	28.5
Gravad lax	12 - 500 g pkgs.	26
Nord-Ost Matjeshering	10 - 200 g glasses	25.89
Grandma's Boysenb...	12 - 8 oz jars	25

products 1 — Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
1	20:34:23	USE w3schools	0 row(s) affected	0.00022 sec
2	20:34:41	SELECT ProductName, Unit, Price FROM products WHERE Price >= 25 ORDER BY Price DESC LIMIT 0, 1000	29 row(s) returned	0.00046 sec / 0.000...

Question 2 (10 points). Display the order ID, customer name, shipper name, and employee's first and last name of all the orders. Make sure that
a. The columns to display employee's first and last names are EmployeeFirstName and EmployeeLastName.
b. Order the results by order ID, in ascending order.

SELECT o.OrderID, c.CustomerName, s.ShipperName, e.FirstName as EmployeeFirstName, e.LastName as EmployeeLastName
FROM orders o JOIN customers c JOIN shippers s JOIN employees e
ON o.CustomerID = c.CustomerID

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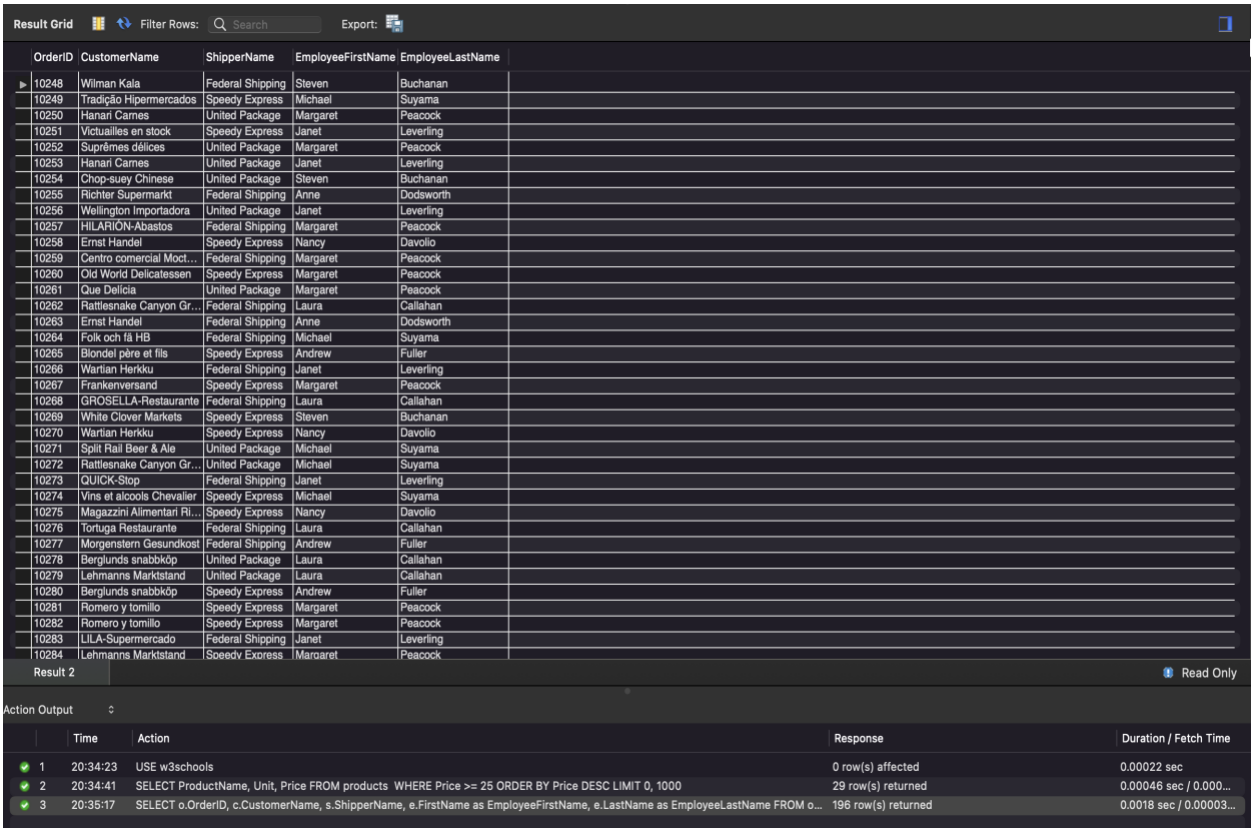
AND o.ShipperID = s.ShipperID
AND o.EmployeeID = e.EmployeeID
ORDER BY o.OrderID ASC;



Result Grid Filter Rows: Search Export:

OrderID	CustomerName	ShipperName	EmployeeFirstName	EmployeeLastName
10248	Wilman Kala	Federal Shipping	Steven	Buchanan
10249	Tradição Hipermercados	Speedy Express	Michael	Suyama
10250	Hanari Carnes	United Package	Margaret	Peacock
10251	Victuailles en stock	Speedy Express	Janet	Leverling
10252	Suprêmes délices	United Package	Margaret	Peacock
10253	Hanari Carnes	United Package	Janet	Leverling
10254	Chop-suey Chinese	United Package	Steven	Buchanan
10255	Richter Supermarkt	Federal Shipping	Anne	Dodsworth
10256	Wellington Importadora	United Package	Janet	Leverling
10257	HILARIÓN-Abastos	Federal Shipping	Margaret	Peacock
10258	Ernst Handel	Speedy Express	Nancy	Davolio
10259	Centro comercial Moct...	Federal Shipping	Margaret	Peacock
10260	Old World Delicatessen	Speedy Express	Margaret	Peacock
10261	Que Delícia	United Package	Margaret	Peacock
10262	Rattlesnake Canyon Gr...	Federal Shipping	Laura	Callahan
10263	Ernst Handel	Federal Shipping	Anne	Dodsworth
10264	Folk och fä HB	Federal Shipping	Michael	Suyama
10265	Blondel père et fils	Speedy Express	Andrew	Fuller
10266	Wartian Herkku	Federal Shipping	Janet	Leverling
10267	Frankenversand	Speedy Express	Margaret	Peacock
10268	GROSELLA-Restaurante	Federal Shipping	Laura	Callahan
10269	White Clover Markets	Speedy Express	Steven	Buchanan
10270	Wartian Herkku	Speedy Express	Nancy	Davolio
10271	Split Rail Beer & Ale	United Package	Michael	Suyama
10272	Rattlesnake Canyon Gr...	United Package	Michael	Suyama
10273	QUICK-Stop	Federal Shipping	Janet	Leverling
10274	Vins et alcools Chevalier	Speedy Express	Michael	Suyama
10275	Magazzini Alimentari Ri...	Speedy Express	Nancy	Davolio
10276	Tortuga Restaurante	Federal Shipping	Laura	Callahan
10277	Morgenstern Gesundkost	Federal Shipping	Andrew	Fuller
10278	Berglunds snabbköp	United Package	Laura	Callahan
10279	Lehmanns Marktstand	United Package	Laura	Callahan
10280	Berglunds snabbköp	Speedy Express	Andrew	Fuller
10281	Romero y tomillo	Speedy Express	Margaret	Peacock
10282	Romero y tomillo	Speedy Express	Margaret	Peacock
10283	LILA-Supermercado	Federal Shipping	Janet	Leverling
10284	Lehmanns Marktstand	Speedy Express	Margaret	Peacock

Result 2 Read Only

Action Output

	Time	Action	Response	Duration / Fetch Time
1	20:34:23	USE w3schools	0 row(s) affected	0.00022 sec
2	20:34:41	SELECT ProductName, Unit, Price FROM products WHERE Price >= 25 ORDER BY Price DESC LIMIT 0, 1000	29 row(s) returned	0.00046 sec / 0.000...
3	20:35:17	SELECT o.OrderID, c.CustomerName, s.ShipperName, e.FirstName as EmployeeFirstName, e.LastName as EmployeeLastName FROM o...	196 row(s) returned	0.0018 sec / 0.00003...

Question 3 (10 points). Following the previous question, display the order ID, customer name, shipper name, and employee's first and last name of orders which are placed by the U.S. customers (the value of the country column is "USA") and the corresponding shipper is "Speedy Express."

SELECT o.OrderID, c.CustomerName, s.ShipperName, e.FirstName as EmployeeFirstName,
e.LastName as EmployeeLastName
FROM orders o JOIN customers c JOIN shippers s JOIN employees e
ON o.CustomerID = c.CustomerID
AND o.ShipperID = s.ShipperID
AND o.EmployeeID = e.EmployeeID
WHERE c.Country = 'USA'
AND s.ShipperName = 'Speedy Express'
ORDER BY o.OrderID ASC;

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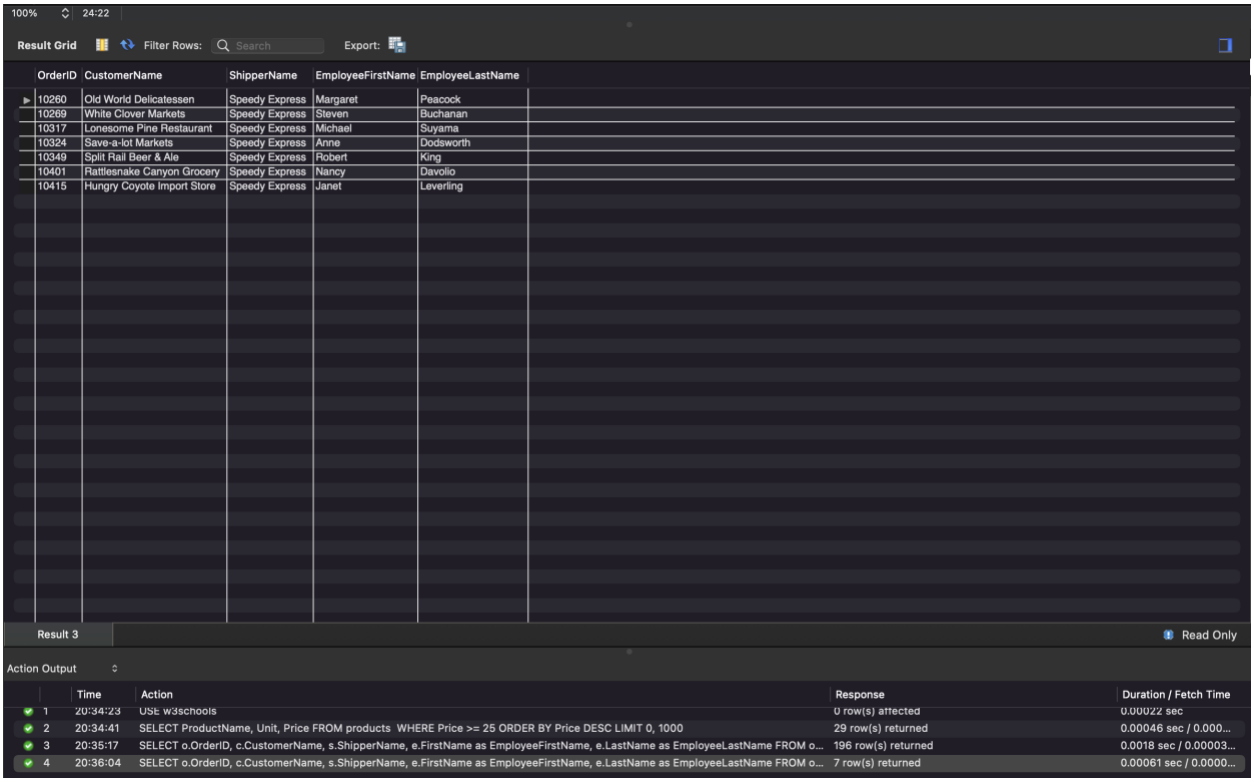

Question 4 (10 points). Display the category name, the count number and the average price of products in each category. Sort the result in descending order by the count, and then in ascending order by the average price.

SELECT c.CategoryName, COUNT(p.Price), AVG(p.Price)
FROM products p JOIN categories c
ON p.CategoryID = c.CategoryID
GROUP BY c.CategoryName
ORDER BY COUNT(p.Price) DESC, AVG(p.Price) ASC;

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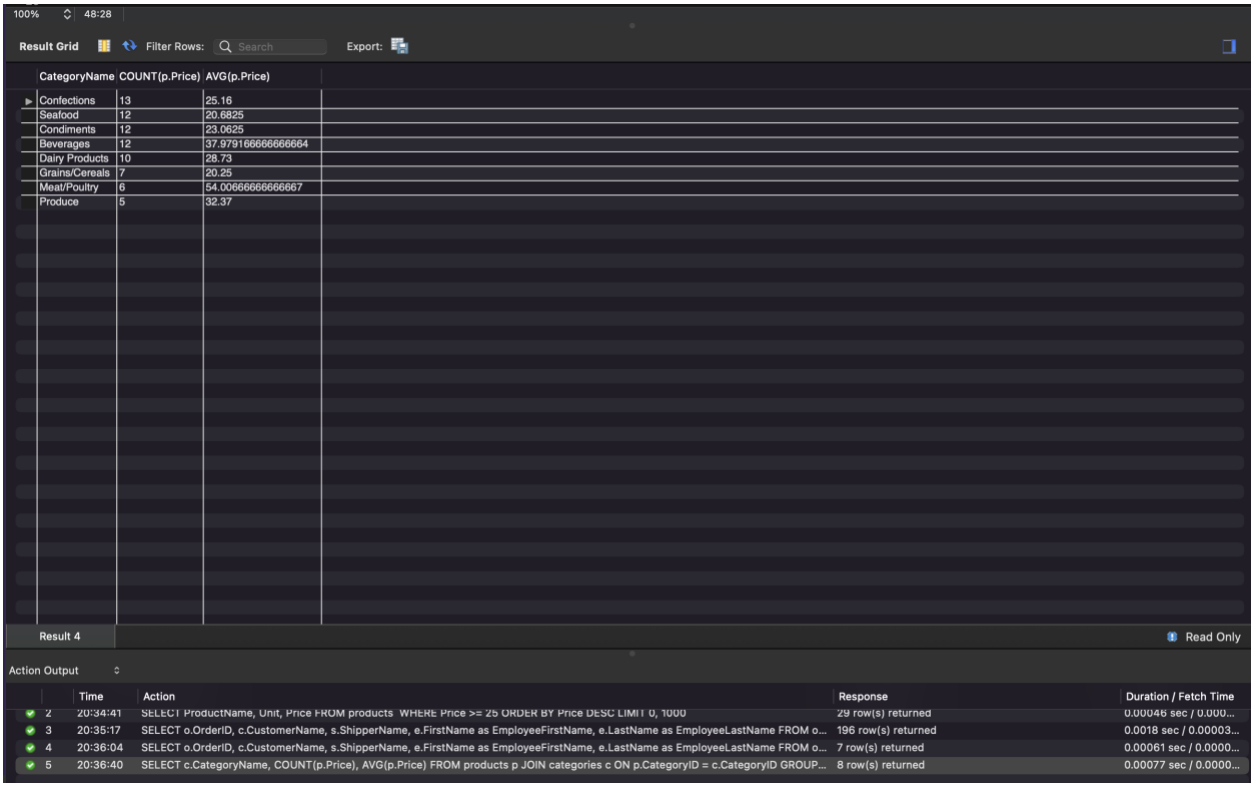

Question 5 (10 points). Display the information of customers who have never placed an order.

*SELECT **
FROM customers c LEFT JOIN orders o
ON c.CustomerID = o.CustomerID
WHERE o.OrderID IS NULL;

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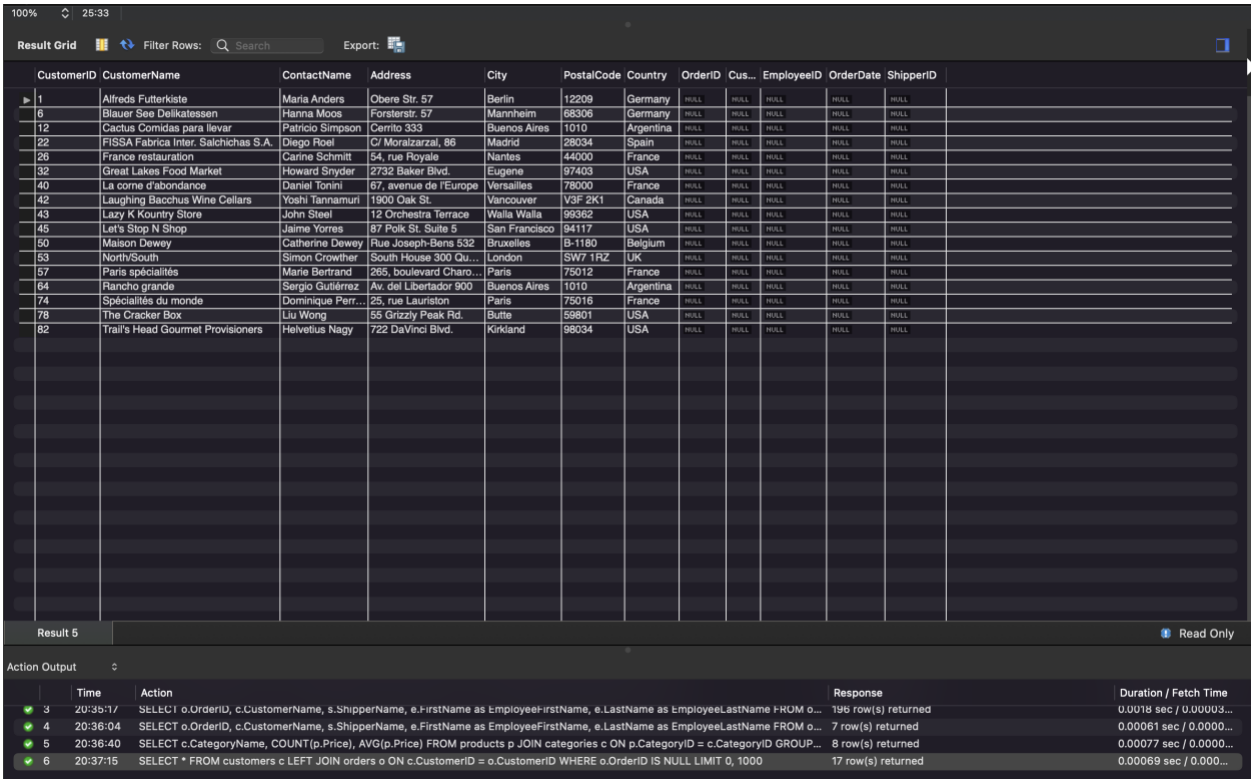

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country	OrderID	Cus...	EmployeeID	OrderDate	ShipperID
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany	NULL	NULL	NULL	NULL	NULL
6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany	NULL	NULL	NULL	NULL	NULL
12	Cactus Comidas para llevar	Patricio Simpson	Cerrito 333	Buenos Aires	1010	Argentina	NULL	NULL	NULL	NULL	NULL
22	FISSA Fabrica Inter. Salchichas S.A.	Diego Roel	C/ Moralzarzal, 86	Madrid	28034	Spain	NULL	NULL	NULL	NULL	NULL
26	France restauration	Carine Schmitt	54, rue Royale	Nantes	44000	France	NULL	NULL	NULL	NULL	NULL
32	Great Lakes Food Market	Howard Snyder	2732 Baker Blvd.	Eugene	97403	USA	NULL	NULL	NULL	NULL	NULL
40	La corne d'abondance	Daniel Tonini	67, avenue de l'Europe	Versailles	78000	France	NULL	NULL	NULL	NULL	NULL
42	Laughing Bacchus Wine Cellars	Yoshi Tannamuri	1900 Oak St.	Vancouver	V3F 2K1	Canada	NULL	NULL	NULL	NULL	NULL
43	Lazy K Kountry Store	John Steel	12 Orchestra Terrace	Walla Walla	99362	USA	NULL	NULL	NULL	NULL	NULL
45	Let's Stop N Shop	Jaime Yorres	87 Polk St. Suite 5	San Francisco	94117	USA	NULL	NULL	NULL	NULL	NULL
50	Maison Dewey	Catherine Dewey	Rue Joseph-Bens 532	Bruxelles	B-1180	Belgium	NULL	NULL	NULL	NULL	NULL
53	North/South	Simon Crowther	South House 300 Qu...	London	SW7 1RZ	UK	NULL	NULL	NULL	NULL	NULL
57	Paris spécialités	Marie Bertrand	265, boulevard Charo...	Paris	75012	France	NULL	NULL	NULL	NULL	NULL
64	Rancho grande	Sergio Gutiérrez	Av. del Libertador 900	Buenos Aires	1010	Argentina	NULL	NULL	NULL	NULL	NULL
74	Spécialités du monde	Dominique Perr...	25, rue Lauriston	Paris	75016	France	NULL	NULL	NULL	NULL	NULL
78	The Cracker Box	Liu Wong	55 Grizzly Peak Rd.	Butte	59801	USA	NULL	NULL	NULL	NULL	NULL
82	Trail's Head Gourmet Provisioners	Helvetius Nagy	722 DaVinci Blvd.	Kirkland	98034	USA	NULL	NULL	NULL	NULL	NULL

	Time	Action	Response	Duration / Fetch Time
3	20:35:17	SELECT o.OrderID, c.CustomerName, s.ShipperName, e.FirstName as EmployeeFirstName, e.LastName as EmployeeLastName FROM o...	196 row(s) returned	0.0018 sec / 0.00003...
4	20:36:04	SELECT o.OrderID, c.CustomerName, s.ShipperName, e.FirstName as EmployeeFirstName, e.LastName as EmployeeLastName FROM o...	7 row(s) returned	0.00061 sec / 0.0000...
5	20:36:40	SELECT c.CategoryName, COUNT(p.Price), AVG(p.Price) FROM products p JOIN categories c ON p.CategoryID = c.CategoryID GROUP...	8 row(s) returned	0.00077 sec / 0.0000...
6	20:37:15	SELECT * FROM customers c LEFT JOIN orders o ON c.CustomerID = o.CustomerID WHERE o.OrderID IS NULL LIMIT 0, 1000	17 row(s) returned	0.00069 sec / 0.000...

Question 6 (10 points). Show the customer name and the total spend of customers who have at least ordered once. Sort your result by the amount of the total spend, in descending order.

*SELECT c.CustomerName, SUM(p.Price*od.Quantity) as TotalSpend*
FROM customers c JOIN products p JOIN order_details od JOIN orders o
ON c.CustomerID = o.CustomerID
AND o.OrderID = od.OrderId
AND od.ProductID = p.ProductID
GROUP BY c.CustomerNAme
ORDER BY TotalSpend DESC;

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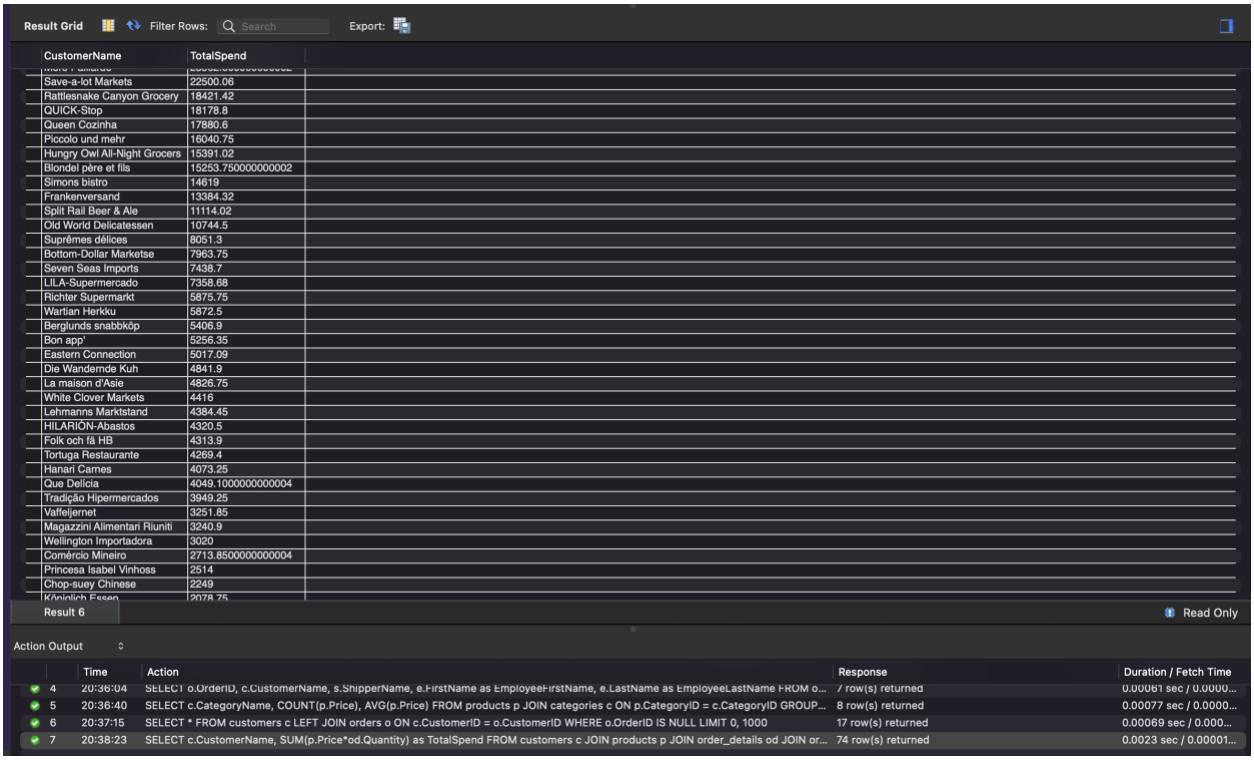

Question 7 (20 points). Which products are delivered by the most commonly used shipping service? Display the product names. Only show the unique names.

```
SELECT DISTINCT ProductName
FROM products p JOIN order_details od JOIN orders o JOIN shippers s
ON p.ProductID = od.ProductID
AND od.OrderID = o.OrderID
AND o.ShipperID= s.ShipperID
WHERE s.ShipperName IN
(
SELECT MAX(ShipperName)
FROM shippers
);
```

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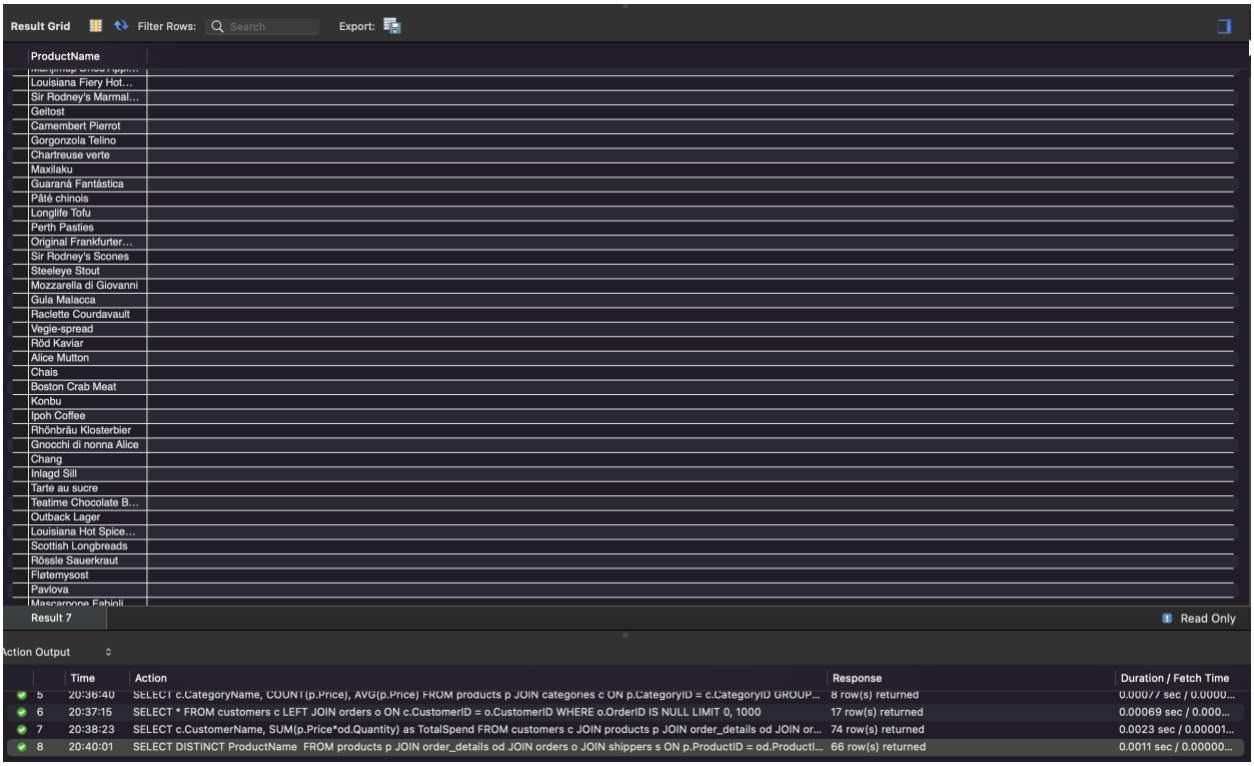

Question 8 (20 points). Write a query to find all the orders whose total value is greater than the average of the overall order total values. Display the order ID and total value.

```
with tot as
(
select od.OrderID, sum(od.Quantity*p.Price) as total_value
from products p
join order_details od on od.ProductID = p.ProductID group by od.OrderID
)
select
OrderID, Total_Value
from tot
where total_value >
(
select avg(total_value)
from tot
);
```

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