

Hello Lawrence:

Thanks for reaching out. I am always here to help you understand the classic model store. The answer for each question is attached below. Please note that, there are two places that have ambiguity, I will mention them in the text. Please do not hesitate to reach out to me if you have any question, concern, or comment.

1) The average customer's credit limit is 67659.02.

```
mysql> select avg(creditLimit) from customers;
+-----+
| avg(creditLimit) |
+-----+
| 67659.016393 |
+-----+
1 row in set (0.05 sec)
```

2) Here is a list of each customer with their phone number the and payments they have made

```
mysql> select c.customerName, c.phone, p.amount from customers c join payments p on c.customerNumber = p.customerNumber;
+-----+-----+-----+
| customerName | phone | amount |
+-----+-----+-----+
| Atelier graphique | 40.32.2555 | 6066.78 |
| Atelier graphique | 40.32.2555 | 14571.44 |
| Atelier graphique | 40.32.2555 | 1676.14 |
| Signal Gift Stores | 7025551838 | 14191.12 |
| Signal Gift Stores | 7025551838 | 32641.98 |
| Signal Gift Stores | 7025551838 | 33347.88 |
| Australian Collectors, Co. | 03 9520 4555 | 45864.03 |
| Australian Collectors, Co. | 03 9520 4555 | 82261.22 |
| Australian Collectors, Co. | 03 9520 4555 | 7565.08 |
| Australian Collectors, Co. | 03 9520 4555 | 44894.74 |
| La Rochelle Gifts | 40.67.8555 | 19501.82 |
| La Rochelle Gifts | 40.67.8555 | 47924.19 |
| La Rochelle Gifts | 40.67.8555 | 49523.67 |
| Baane Mini Imports | 07-98 9555 | 50218.95 |
| Baane Mini Imports | 07-98 9555 | 1491.38 |
| Baane Mini Imports | 07-98 9555 | 17876.32 |
| Baane Mini Imports | 07-98 9555 | 34638.14 |
| Mini Gifts Distributors Ltd. | 4155551450 | 101244.59 |
| Mini Gifts Distributors Ltd. | 4155551450 | 85410.87 |
| Mini Gifts Distributors Ltd. | 4155551450 | 11044.30 |
| Mini Gifts Distributors Ltd. | 4155551450 | 83598.04 |
| Mini Gifts Distributors Ltd. | 4155551450 | 47142.70 |
| Mini Gifts Distributors Ltd. | 4155551450 | 55639.66 |
| Mini Gifts Distributors Ltd. | 4155551450 | 111654.40 |
| Mini Gifts Distributors Ltd. | 4155551450 | 43369.30 |
| Mini Gifts Distributors Ltd. | 4155551450 | 45084.38 |
| Blauer See Auto, Co. | +49 69 66 90 2555 | 10549.01 |
| Blauer See Auto, Co. | +49 69 66 90 2555 | 24101.81 |
| Blauer See Auto, Co. | +49 69 66 90 2555 | 33820.62 |
| Blauer See Auto, Co. | +49 69 66 90 2555 | 7466.32 |
| Mini Wheels Co. | 6505555787 | 26248.78 |
| Mini Wheels Co. | 6505555787 | 23923.93 |
| Mini Wheels Co. | 6505555787 | 16537.85 |
| Land of Toys Inc. | 2125557818 | 22292.62 |
| Land of Toys Inc. | 2125557818 | 50025.35 |
| Land of Toys Inc. | 2125557818 | 35321.97 |
| Australian Collectables, Ltd | 61-9-3844-6555 | 9415.13 |
| Australian Collectables, Ltd | 61-9-3844-6555 | 35505.63 |
| Frau da Collezione | +39 022515555 | 7612.06 |
| Frau da Collezione | +39 022515555 | 17746.26 |
| West Coast Collectables Co. | 3105553722 | 7678.25 |
| West Coast Collectables Co. | 3105553722 | 36070.47 |
| Iberia Gift Imports, Corp. | (95) 555 82 82 | 3474.66 |
| Iberia Gift Imports, Corp. | (95) 555 82 82 | 47513.19 |
| Motor Mint Distributors Inc. | 2155559857 | 5899.38 |
| Motor Mint Distributors Inc. | 2155559857 | 45994.07 |
| Motor Mint Distributors Inc. | 2155559857 | 25833.14 |
| Signal Collectibles Ltd. | 4155554312 | 29997.09 |
| Signal Collectibles Ltd. | 4155554312 | 12573.28 |
| Double Decker Gift Stores, Ltd | (171) 555-7555 | 22275.73 |
| Double Decker Gift Stores, Ltd | (171) 555-7555 | 7310.42 |
| Diecast Collectables | 6175552555 | 59265.14 |
| Diecast Collectables | 6175552555 | 6276.60 |
| Kelly's Gift Shop | +64 9 5555500 | 30253.75 |
| Kelly's Gift Shop | +64 9 5555500 | 32077.44 |
| Kelly's Gift Shop | +64 9 5555500 | 52166.00 |
+-----+-----+-----+
273 rows in set (0.05 sec)
```

3) This customer paid \$69214.33 in total which is a lot.

```
mysql> select sum(p.amount) from customers c
-> join payments p on c.customerNumber = p.customerNumber
-> where c.phone = '2125558493';
```

sum(p.amount)
69214.33

1 row in set (0.04 sec)

4) The average payment for customer who are in the New York is \$31466.38. The average payment for customer who are not in the New York is \$32337.31 (there is an ambiguity that whether we should consider state value of NULL as not in the New York; I assume that we should not consider them as not in the New York)

```
mysql> select avg(p.amount) as averagePayment from payments p join customers c on p.customerNumber = c.customerNumber
-> where c.state = 'NY';
```

averagePayment
31466.379412

1 row in set (0.04 sec)

```
mysql> select avg(p.amount) as averagePayment from payments p join customers c on p.customerNumber = c.customerNumber where c.state != 'NY';
```

averagePayment
32337.312617

1 row in set (0.05 sec)

5) For orders that have shipped, the average spent per item is \$91.03

```
mysql> select avg(od.priceEach) from orderdetails od
-> join orders o on o.orderNumber = od.orderNumber
-> where o.status = 'Shipped';
```

avg(od.priceEach)
91.033558

1 row in set (0.05 sec)

6) Here is a list of all employees and their managers. There are 23 people work at the company, you are right! Someone may not have manager because she is on the highest place.

```
mysql> select e1.employeeNumber, e1.firstName AS employeeFirstName, e1.lastName AS employeeLastName, e2.firstName AS managerFirstName, e2.lastName AS managerLastName
from employees e1
-> left join employees e2 ON e1.reportsTo = e2.employeeNumber;;
```

employeeNumber	employeeFirstName	employeeLastName	managerFirstName	managerLastName
1002	Diane	Murphy	NULL	NULL
1056	Mary	Patterson	Diane	Murphy
1076	Jeff	Firrelli	Diane	Murphy
1088	William	Patterson	Mary	Patterson
1102	Gerard	Bondur	Mary	Patterson
1143	Anthony	Bow	Mary	Patterson
1165	Leslie	Jennings	Anthony	Bow
1166	Leslie	Thompson	Anthony	Bow
1188	Julie	Firrelli	Anthony	Bow
1216	Steve	Patterson	Anthony	Bow
1286	Foon Yue	Tseng	Anthony	Bow
1323	George	Vanauf	Anthony	Bow
1337	Loui	Bondur	Gerard	Bondur
1370	Gerard	Hernandez	Gerard	Bondur
1401	Pamela	Castillo	Gerard	Bondur
1501	Larry	Bott	Gerard	Bondur
1504	Barry	Jones	Gerard	Bondur
1611	Andy	Fixter	William	Patterson
1612	Peter	Marsh	William	Patterson
1619	Tom	King	William	Patterson
1621	Mami	Nishi	Mary	Patterson
1625	Yoshimi	Kato	Mami	Nishi
1702	Martin	Gerard	Gerard	Bondur

23 rows in set (0.04 sec)

7) Here is the list of five most marked up products:

```
mysql> select p.buyPrice, p.MSRP, p.MSRP-p.buyPrice as markup, left(pl.textDescription,5) from products p join productlines pl on p.productLine = pl.productLine order by markup desc limit 5;
```

buyPrice	MSRP	markup	left(pl.textDescription,5)
98.58	214.30	115.72	Atten
95.59	207.80	112.21	Atten
91.02	193.66	102.64	Our m
95.34	194.57	99.23	Atten
72.56	168.75	96.19	Our V

5 rows in set (0.04 sec)

8) Here is the list of employees that had an order in 2005.

```
mysql> select distinct e.employeeNumber, e.lastName, e.firstName from employees e join customers c on c.salesRepEmployeeNumber = e.employeeNumber join orders o on c.customerNumber = o.customerNumber where year(o.orderDate) = 2005;
```

employeeNumber	lastName	firstName
1165	Jennings	Leslie
1166	Thompson	Leslie
1188	Firrelli	Julie
1216	Patterson	Steve
1286	Tseng	Foon Yue
1323	Vanauf	George
1337	Bondur	Loui
1370	Hernandez	Gerard
1401	Castillo	Pamela
1501	Bott	Larry
1504	Jones	Barry
1611	Fixter	Andy
1612	Marsh	Peter
1621	Nishi	Mami

14 rows in set (0.05 sec)

9) There might be a typo. I assume you meant the total number of all orders with... The total number of all orders in the specific postal codes is 28.

```
mysql> select count(1) from orders o join customers c on o.customerNumber = c.customerNumber where c.postalCode in ('97562','80686','44000');
```

count(1)
28

1 row in set (0.04 sec)

For the first join question, I think we should use inner join because we want to match the condition between both two tables, and inner join can help us to show the matched part.

For the second join question, I think we should use right join because you mentioned that you want all records on the right table and matching records from the left table. Right join can help us include all rows from the right table with matching rows from the left table.

Hope that clarified! The attached screenshots are my documentation. Again, please let me know if you have any question.

Best,
Jae

databases	classicmodels		Field Name	Data Type	Value	notes
table	customers		customerNumber	int	customer number xxx	primary
			customerName	varchar	specific company name	
			contactLastName	varchar	person's last name	
			contactFirstName	varchar	person's first name	
			phone	varchar	different format (eg: 40.32.2555, (91) 555 94 44	
			addressLine1	varchar	address line 1	
			addressLine2	varchar	address line 2	
			city	varchar	City name	
			state	varchar	not uniform: NULL, Victoria, or Abbreviation(MI)	
			postalCode	varchar	not uniform: H1J 1C3, 70267, 069045...	
			country	varchar	some abbreviation, some full name	
			salesRepEmployeeNumber	int	4-digits, some are NULL	multiple
			creditLimit	decimal	number with 2 decimals	
databases	classicmodels		Field Name	Data Type	Value	notes
table	employees		employeeNumber	int	four digit id number	primary
			lastName	varchar	employee's last name	
			firstName	varchar	employee's first name	
			extension	varchar	starts with x (x5800)	
			email	varchar	xxx@classicmodelcars.com	
			officeCode	varchar	1 to 7	multiple
			reportsTo	int	four digit id number	multiple
			jobTitle	varchar	specific job title	
databases	classicmodels		Field Name	Data Type	Value	notes
table	offices		officeCode	varchar	1 to 7, unique	primary
			city	varchar	specific city name(eg: NY)	
			phone	varchar	with extension +1 xxx, +81 xxx	
			addressLine1	varchar	address line 1	
			addressLine2	varchar	address line 2	
			state	varchar	not uniform: NULL, Victoria, or Abbreviation(MI)	
			country	varchar	some abbreviation, some full name	
			postalCode	varchar	not uniform: H1J 1C3, 70267, 069045...	
			territory	varchar	greater: some NA, EMEA, Japan, APAC...	
databases	classicmodels		Field Name	Data Type	Value	notes
table	orderdetails		orderNumber	int	5-digit code number, repetitive	primary
			productCode	varchar	starts with S(S24_3191)	primary
			quantityOrdered	int	specific quantity number	
			priceEach	decimal	two decimal price number	
			orderLineNumber	int	line number	
databases	classicmodels		Field Name	Data Type	Value	notes
table	orders		orderNumber	int	5-digit code number, repetitive	primary
			orderDate	date	xxxx-xx-xx	
			requiredDate	date	xxxx-xx-xx	
			shippedDate	date	xxxx-xx-xx, some are NULL	
			status	varchar	Shipped, On Hold, In Process, Resolved..	
			comments	text	comment sentence, some are NULL	
			customerNumber	int	customer number xxx	multiple
databases	classicmodels		Field Name	Data Type	Value	notes
table	payments		customerNumber	int	customer number xxx	primary
			checkNumber	varchar	starts with letter: EF485824	primary
			paymentDate	date	xxxx-xx-xx	
			amount	decimal	two decimal numbers	
databases	classicmodels		Field Name	Data Type	Value	notes
table	productlines		productLine	varchar	big names: Classic Cars, Planes, Trains, Trucks and	primary
			textDescription	varchar	description	
			htmlDescription	mediumtext	all are NULL	
			image	mediumblob	all are 0x	
databases	classicmodels		Field Name	Data Type	Value	notes
table	products		productCode	varchar	starts with S(S24_3191)	primary
			productName	varchar	product name: Pont Yacht, Boeing...	
			productLine	varchar	big names: Classic Cars, Planes, Trains, Trucks and	multiple
			productScale	varchar	比例 eg: 1:70	
			productVendor	varchar	Vendor's name: eg: second gear diecast	
			productDescription	text	specific product description	
			quantityInStock	int	quantity number	
			buyPrice	decimal	buy cost	
			MSRP	decimal	sell price	