

Homework 5

FROM: Jonas Zhonghan Xie

TO: Lawrence Summerset

SUBJECT: RE: Our new acquisition

Hi Lawrence,

Thanks for reaching out. I am happy to help you with the questions about the data of classic model store.

1. The average customer's credit limit is about \$67,659.

```
mysql> SELECT AVG(creditLimit) as avg_credit FROM customers;
+-----+
| avg_credit |
+-----+
| 67659.016393 |
+-----+
1 row in set (0.07 sec)
```

2. I listed some of the customers with their phone numbers and the payments they made.

```
mysql> SELECT c.customerName, c.phone, p.checkNumber, p.amount
-> FROM customers c
-> JOIN payments p ON c.customerNumber=p.customerNumber
-> LIMIT 20;
```

customerName	phone	checkNumber	amount
Atelier graphique	40.32.2555	HQ336336	6066.78
Atelier graphique	40.32.2555	JM555205	14571.44
Atelier graphique	40.32.2555	OM314933	1676.14
Signal Gift Stores	7025551838	B0864823	14191.12
Signal Gift Stores	7025551838	HQ55022	32641.98
Signal Gift Stores	7025551838	ND748579	33347.88
Australian Collectors, Co.	03 9520 4555	GG31455	45864.03
Australian Collectors, Co.	03 9520 4555	MA765515	82261.22
Australian Collectors, Co.	03 9520 4555	NP603840	7565.08
Australian Collectors, Co.	03 9520 4555	NR27552	44894.74
La Rochelle Gifts	40.67.8555	DB933704	19501.82
La Rochelle Gifts	40.67.8555	LN373447	47924.19
La Rochelle Gifts	40.67.8555	NG94694	49523.67
Baane Mini Imports	07-98 9555	DB889831	50218.95
Baane Mini Imports	07-98 9555	FD317790	1491.38
Baane Mini Imports	07-98 9555	KI831359	17876.32
Baane Mini Imports	07-98 9555	MA302151	34638.14
Mini Gifts Distributors Ltd.	4155551450	AE215433	101244.59
Mini Gifts Distributors Ltd.	4155551450	BG255406	85410.87
Mini Gifts Distributors Ltd.	4155551450	CQ287967	11044.30

```
20 rows in set (0.05 sec)
```

3. The total payment amount that the customer paid us is about \$69,214.

```
mysql> SELECT SUM(p.amount) AS total_amount
-> FROM customers c
-> JOIN payments p ON c.customerNumber=p.customerNumber
-> WHERE c.phone='2125558493';
+-----+
| total_amount |
+-----+
|      69214.33 |
+-----+
1 row in set (0.04 sec)
```

4. The average payment that customers in New York State made is about \$89,154. The average payment that customers not in New York State made is about \$86,502.

```
mysql> SELECT SUM(p.amount)/COUNT(DISTINCT c.customerNumber) AS avg_total_ny
-> FROM payments p
-> JOIN customers c ON c.customerNumber=p.customerNumber
-> WHERE c.state = 'NY'
-> ;
+-----+
| avg_total_ny |
+-----+
| 89154.741667 |
+-----+
1 row in set (0.06 sec)

mysql> SELECT SUM(p.amount)/COUNT(DISTINCT c.customerNumber) AS avg_total_non_ny
-> FROM payments p
-> JOIN customers c ON c.customerNumber=p.customerNumber
-> WHERE c.state != 'NY';
+-----+
| avg_total_non_ny |
+-----+
|      86502.311250 |
+-----+
1 row in set (0.05 sec)
```

5. The average price of the items that were shipped is about \$91.

```
mysql> SELECT SUM(od.priceEach * od.quantityOrdered)/SUM(od.quantityOrdered) AS spent_per_item
-> FROM orderdetails od
-> JOIN orders o
-> WHERE o.status='Shipped';
+-----+
| spent_per_item |
+-----+
|      91.021178 |
+-----+
1 row in set (0.43 sec)
```

6. The employees and the name of employees they reported to is listed below.

```
mysql> SELECT DISTINCT e1.employeeNumber, e2.firstName AS report_fname, e2.lastName AS report_lname FROM employees e1
-> LEFT JOIN employees e2 ON e1.reportsTo=e2.employeeNumber;
```

employeeNumber	report_fname	report_lname
1002	NULL	NULL
1056	Diane	Murphy
1076	Diane	Murphy
1088	Mary	Patterson
1102	Mary	Patterson
1143	Mary	Patterson
1621	Mary	Patterson
1611	William	Patterson
1612	William	Patterson
1619	William	Patterson
1337	Gerard	Bondur
1370	Gerard	Bondur
1401	Gerard	Bondur
1501	Gerard	Bondur
1504	Gerard	Bondur
1702	Gerard	Bondur
1165	Anthony	Bow
1166	Anthony	Bow
1188	Anthony	Bow
1216	Anthony	Bow
1286	Anthony	Bow
1323	Anthony	Bow
1625	Mami	Nishi

23 rows in set (0.05 sec)

7. The MSRP, sticker price, markup and the first 5 letter in the text description of the items are listed below. For extracting the first 5 letters, I use `LEFT()` function in SQL. I learned this from a tutorial [here](#).

```
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 (0.11 sec)

8. There 14 employees who had an order in 2005.

```
mysql> SELECT DISTINCT e.employeeNumber, e.firstName, e.lastName
-> FROM employees e
-> JOIN customers c
-> ON e.employeeNumber=c.salesRepEmployeeNumber
-> JOIN orders o ON c.customerNumber=o.customerNumber
-> WHERE YEAR(o.orderDate)=2005;
```

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

14 rows in set (0.05 sec)

```
mysql> SELECT COUNT(DISTINCT e.employeeNumber) AS row_count
-> FROM employees e
-> JOIN customers c ON e.employeeNumber=c.salesRepEmployeeNumber
-> JOIN orders o ON c.customerNumber=o.customerNumber
-> WHERE YEAR(o.orderDate)=2005;
```

ERROR 2013 (HY000): Lost connection to MySQL server during query

No connection. Trying to reconnect...

Connection id: 614

Current database: classicmodels

row_count
14

1 row in set (0.24 sec)

9. For "total of orders", are you referring the total number of orders or the total amount of orders? The total number of orders is 19. The sum of the amount is \$850,187.

```
mysql> SELECT COUNT(1) AS count_orders FROM payments p
-> JOIN customers c ON p.customerNumber=c.customerNumber
-> WHERE c.postalCode IN ('97562', '80686', '44000');
+-----+
| count_orders |
+-----+
|          19 |
+-----+
1 row in set (0.04 sec)

mysql> SELECT SUM(p.amount) AS total_amount FROM payments p
-> JOIN customers c ON c.customerNumber=p.customerNumber
-> WHERE c.postalCode IN ('97562', '80686', '44000');
+-----+
| total_amount |
+-----+
|    850187.00 |
+-----+
1 row in set (0.05 sec)
```

10. If you want **only** the records matched in both table, you may want to use **INNER JOIN** or **JOIN**.

11. If you want **all** the records from the right table and the matched records from the left table, you may want to use **RIGHT JOIN** or **RIGHT JOIN**.

The relationship diagram is also attached to this email. Please let me know if you need any further information.

Best,
Jonas