

Dear Lawrence,

Hope this mail finds you well. It is my pleasue to make contributions with our acquisition plan and I will obey the NDA rule not to talk this with anyone. Here are my answers with you questions:

1. *What is the average customer's credit limit?*

```
mysql> select avg(creditLimit) from customers;
+-----+
| avg(creditLimit) |
+-----+
|      67659.016393 |
+-----+
1 row in set (0.09 sec)
```

Table Documentation

customers

Field Name	Data Type	Values	Note
customerNumber	int	number of customer	primary key
customerName	varchar	name of customer	
contactLastName	varchar	last name of contact	
contactFirstName	varchar	first nme of contact	
phone	varchar	phone number of customer	
addressLine1	varchar	first line of address	
addressLine2	varchar	second line of address	
city	varchar	city of customer	
state	varchar	state where customer live	
postalCode	varchar	zipcode of customer address	
country	varchar	country of customer	
salesRepEmployeeNumber	int	number of employee sales representative	
creditLimit	decimal	credit limit of of customer	

2. *Please provide a list of each customer, their phone number and the payments they have made.*

There are 273 rows, so I screenshot part of it.

```
mysql> select C.customerName, C.phone, P.paymentDate, P.amount from customers C join payments P on C.customerNumber = P.customerNumber;
```

customerName	phone	paymentDate	amount
Atelier graphique	40.32.2555	2004-10-19	6066.78
Atelier graphique	40.32.2555	2003-06-05	14571.44
Atelier graphique	40.32.2555	2004-12-18	1676.14
Signal Gift Stores	7025551838	2004-12-17	14191.12
Signal Gift Stores	7025551838	2003-06-06	32641.98
Signal Gift Stores	7025551838	2004-08-20	33347.88
Australian Collectors, Co.	03 9520 4555	2003-05-20	45864.03
Australian Collectors, Co.	03 9520 4555	2004-12-15	82261.22
Australian Collectors, Co.	03 9520 4555	2003-05-31	7565.08
Australian Collectors, Co.	03 9520 4555	2004-03-10	44894.74

Table Documentation

Payments

Field Name	Data Type	Values	Note
customerNumber	int	number of customer	primary key
checkNumber	varchar	number of chcking account	
paymentDate	pate	date of payment	
ammount	decimal	amount of payment	

3. We have a customer that has a phone number of 2125558493. Please provide the total this customer has paid us. Write your query so that you don't have to do any math. (You will need to use joins and an aggregate function.)

The total amount is \$69214.33.

```
mysql> select sum(P.amount) as total from customers C
-> join payments P on C.customerNumber = P.customerNumber
-> where C.phone = '2125558493';
```

total
69214.33

1 row in set (0.04 sec)

4. Please provide the average payment for customers who are in the state of New York and customers who are NOT in the state of New York. You will need 2 queries to do this.

Average Payments in NY:

```
mysql> select avg(P.amount) as average from customers C join payments P on C.customerNumber = P.customerNumber where C.state = 'NY';
```

average
31466.379412

1 row in set (0.05 sec)

Average Payments **NOT** in NY:

```
mysql> select avg(P.amount) as average from customers C join payments P on C.customerNumber = P.customerNumber where C.state <> 'NY' and C.state is not NULL;
```

average
32337.312617

1 row in set (0.04 sec)

5. For orders that have shipped, what is the average spent per item.

Average Spent Per Item: \$91.03358.

```
mysql> select avg(OD.priceEach) as averagePerItem from orders O
-> join orderdetails OD on O.orderNumber = OD.orderNumber
-> where O.status = 'Shipped';
+-----+
| averagePerItem |
+-----+
|      91.03358 |
+-----+
1 row in set (0.05 sec)
```

Table Documentation

orders

Field Name	Data Type	Values	Note
orderNumber	int	number of order	primary key
orderDate	date	date of order	
requiredDate	date	date required for order	
shipped date	date	date when order shipped	
status	varchar	current status for the order	
comments	text	comments left for the order	
customerNumber	int	corresponding customer number	

orderdetails

Field Name	Data Type	Values	Note
orderNumber	int	number of order	primary key
productCode	varchar	code of product	
quantityOrdered	int	number of items ordered	
priceEach	decimal	price of each product	
orderLineNumber	int	number of order line	

6. Please provide a list of all employees and who they report to (I want names). I am told there are 23 people that work at this company.

```
mysql> select concat(E1.firstName, ' ', E1.lastName) as employee, concat(E2.firstName, ' ', E2.lastName) as manager from employees E1
-> left join employees E2 on E1.reportsTo = E2.employeeNumber;
```

employee	manager
Diane Murphy	NULL
Mary Patterson	Diane Murphy
Jeff Firrelli	Diane Murphy
William Patterson	Mary Patterson
Gerard Bondur	Mary Patterson
Anthony Bow	Mary Patterson
Leslie Jennings	Anthony Bow
Leslie Thompson	Anthony Bow
Julie Firrelli	Anthony Bow
Steve Patterson	Anthony Bow
Foon Yue Tseng	Anthony Bow
George Vanauf	Anthony Bow
Loui Bondur	Gerard Bondur
Gerard Hernandez	Gerard Bondur
Pamela Castillo	Gerard Bondur
Larry Bott	Gerard Bondur
Barry Jones	Gerard Bondur
Andy Fixter	William Patterson
Peter Marsh	William Patterson
Tom King	William Patterson
Mami Nishi	Mary Patterson
Yoshimi Kato	Mami Nishi
Martin Gerard	Gerard Bondur

23 rows in set (0.04 sec)

Table Documentation

employees

Field Name	Data Type	Values	Note
employeeNumber	int	number of employee	primary key
lastName	varchar	last name of employee	
firstName	varchar	first name of employee	
extension	varchar	extension of employee	
email	varcahr	email of employee	
officeCode	varchar	office code of employee	
reportsTo	int	if of person employee reports to	
jobTitle	varchar	jobtitle of employee	

7. MSRP is the manufacturer's suggested retail price. Buy price is the price the classic models is charged. Our markup on a product is the difference. Please create a query that shows the buyprice, the MSRP, the markup (labeled markup) and the first 5 characters of the product line textDescription. You should order this by the markup and limit it to 5, so that I can show our board the 5 most marked up products.

```
mysql> select P.buyPrice, P.MSRP, (P.MSRP-P.buyPrice) as markup, left(PL.textDescription, 5) as first5 from products P
-> join productlines PL on P.productLine = PL.productLine order by markup desc limit 5;
```

buyPrice	MSRP	markup	first5
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 (0.05 sec)

Table Documentation

Products

Field Name	Data Type	Values	Note
productCode	varchar	code of product	primary key
productName	varchar	name of product	
productScale	varchar	scale of product	
productVendor	varchar	vendor of product	
productDescription	text	product description	
quantityInStock	int	stock of product	
buyPrice	decimal	buy price of product	
MSRP	decimal	MSRP or product	

ProductLines

Field Name	Data Type	Values	Note
productLine	varchar	product line	primary key
textDescription	varchar	description of product line	
htmlDescription	text	html description of product line	
image	blob	img of product line	

8. Please provide a list of employees that had an order in 2005.

```
mysql> select distinct concat(E.firstName, ' ',E.lastName) as Name from employees E
-> join customers C on E.employeeNumber = C.salesRepEmployeeNumber
-> join orders O on C.customerNumber = O.customerNumber where year(O.orderDate) = 2005;
```

Name
Leslie Jennings
Leslie Thompson
Julie Firrelli
Steve Patterson
Foon Yue Tseng
George Vanauf
Loui Bondur
Gerard Hernandez
Pamela Castillo
Larry Bott
Barry Jones
Andy Fixter
Peter Marsh
Mami Nishi

```
14 rows in set (0.04 sec)
```

9. Please provide a total of all orders with customers who are in postalCodes of 97562, 80686 and 44000

```
mysql> select sum(OD.quantityOrdered * OD.priceEach) as total from customers C
-> join orders O on C.customerNumber = O.customerNumber
-> join orderdetails OD on O.orderNumber = OD.orderNumber
-> where C.postalCode in ('97562', '80686', '44000');
```

total
899449.54

```
1 row in set (0.04 sec)
```

Also, I have been trying to teach myself SQL. Can you help me with joins. If I want records from 2 tables where there is a match on the left table and the right table, what type of join do I want.

INNER JOIN

If I want records from 2 tables where I get ALL the records on the right table and only matching records from the left table, what type of join do I want?

RIGHT JOIN

Also I have attached my ERD for the classicmodels database at the end. Hopfully that will be helpful.

Regards,

Jun

ERD

