

SQL Assignment 1

1. Display the structure of the Employees table.

```
mysql> desc employees;
```

```
mysql> desc employees;
```

Field	Type	Null	Key	Default	Extra
employeeNumber	int	NO	PRI	NULL	
lastName	varchar(50)	NO		NULL	
firstName	varchar(50)	NO		NULL	
extension	varchar(10)	NO		NULL	
email	varchar(100)	NO		NULL	
officeCode	varchar(10)	NO	MUL	NULL	
reportsTo	int	YES	MUL	NULL	
jobTitle	varchar(50)	NO		NULL	

8 rows in set (0.01 sec)

2. Display all the details of the Employees table

```
mysql> select * from employees;
```

```
mysql> select * from employees;
```

employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com	1		President
1056	Patterson	Mary	x4611	mpatterson@classicmodelcars.com	1	1002	VP Sales
1076	Firrelli	Jeff	x9273	jfirrelli@classicmodelcars.com	1	1002	VP Marketing
1088	Patterson	William	x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)
1102	Bondur	Gerard	x5408	gbondur@classicmodelcars.com	4	1056	Sale Manager (EMEA)
1143	Bow	Anthony	x5428	abow@classicmodelcars.com	1	1056	Sales Manager (NA)
1165	Jennings	Leslie	x3291	ljennings@classicmodelcars.com	1	1143	Sales Rep
1166	Thompson	Leslie	x4065	lthompson@classicmodelcars.com	1	1143	Sales Rep
1188	Firrelli	Julie	x2173	jfirrelli@classicmodelcars.com	2	1143	Sales Rep
1216	Patterson	Steve	x4334	spatterson@classicmodelcars.com	2	1143	Sales Rep
1286	Tseng	Foon Yue	x2248	ftseng@classicmodelcars.com	3	1143	Sales Rep
1323	Vanauf	George	x4102	gvanauf@classicmodelcars.com	3	1143	Sales Rep
1337	Bondur	Loui	x6493	lbondur@classicmodelcars.com	4	1102	Sales Rep
1370	Hernandez	Gerard	x2028	ghernande@classicmodelcars.com	4	1102	Sales Rep
1401	Castillo	Pamela	x2759	pcastillo@classicmodelcars.com	4	1102	Sales Rep
1501	Bott	Larry	x2311	lbott@classicmodelcars.com	7	1102	Sales Rep
1504	Jones	Barry	x102	bjones@classicmodelcars.com	7	1102	Sales Rep
1611	Fixter	Andy	x101	afixter@classicmodelcars.com	6	1088	Sales Rep
1612	Marsh	Peter	x102	pmarsh@classicmodelcars.com	6	1088	Sales Rep
1619	King	Tom	x103	tking@classicmodelcars.com	6	1088	Sales Rep
1621	Nishi	Mami	x101	mnishi@classicmodelcars.com	5	1056	Sales Rep
1625	Kato	Yoshimi	x102	ykato@classicmodelcars.com	5	1621	Sales Rep
1702	Gerard	Martin	x2312	mgerard@classicmodelcars.com	4	1102	Sales Rep

23 rows in set (0.00 sec)

3. Display the lastname, firstname and jobtitle from the Employees table.

```
mysql> select lastname,firstname,jobtitle from employees;
```

```
mysql> select lastname,firstname,jobtitle from employees;
+-----+-----+-----+
| lastname | firstname | jobtitle |
+-----+-----+-----+
| Murphy   | Diane    | President |
| Patterson | Mary     | VP Sales  |
| Firrelli | Jeff     | VP Marketing |
| Patterson | William  | Sales Manager (APAC) |
| Bondur   | Gerard   | Sale Manager (EMEA) |
| Bow      | Anthony  | Sales Manager (NA) |
| Jennings | Leslie   | Sales Rep |
| Thompson | Leslie   | Sales Rep |
| Firrelli | Julie    | Sales Rep |
| Patterson | Steve    | Sales Rep |
| Tseng    | Foon Yue | Sales Rep |
| Vanauf   | George   | Sales Rep |
| Bondur   | Loui     | Sales Rep |
| Hernandez | Gerard   | Sales Rep |
| Castillo | Pamela   | Sales Rep |
| Bott     | Larry    | Sales Rep |
| Jones    | Barry    | Sales Rep |
| Fixter   | Andy     | Sales Rep |
| Marsh    | Peter    | Sales Rep |
| King     | Tom      | Sales Rep |
| Nishi    | Mami     | Sales Rep |
| Kato     | Yoshimi  | Sales Rep |
| Gerard   | Martin   | Sales Rep |
+-----+-----+-----+
23 rows in set (0.00 sec)
```

4. Display the structure of the Customers table

```
mysql> desc customers;
```

```
mysql> desc customers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerNumber | int | NO | PRI | NULL |  |
| customerName | varchar(50) | NO |  | NULL |  |
| contactLastName | varchar(50) | NO |  | NULL |  |
| contactFirstName | varchar(50) | NO |  | NULL |  |
| phone | varchar(50) | NO |  | NULL |  |
| addressLine1 | varchar(50) | NO |  | NULL |  |
| addressLine2 | varchar(50) | YES |  | NULL |  |
| city | varchar(50) | NO |  | NULL |  |
| state | varchar(50) | YES |  | NULL |  |
| postalCode | varchar(15) | YES |  | NULL |  |
| country | varchar(50) | NO |  | NULL |  |
| salesRepEmployeeNumber | int | YES | MUL | NULL |  |
| creditLimit | decimal(10,2) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+-----+
13 rows in set (0.00 sec)
```

5. Display the lastname, firstname from the customers table sorted in the alphabetical order of lastname

```
mysql> select contactlastname, contactfirstname from customers ORDER BY contactlastname;
122 rows in set (0.00 sec)
```

6. Display the lastname, firstname from the customers table sorted in the reverse alphabetical order of lastname

```
mysql> select contactlastname, contactfirstname from customers ORDER BY contactlastname desc;
122 rows in set (0.00 sec)
```

7. Display the lastname and firstname from the customers table sorted in the reverse alphabetical order of lastname and alphabetical order of firstname.

```
mysql> select contactlastname, contactfirstname from customers ORDER BY contactlastname desc, contactfirstname ;
```

```
mysql> select contactlastname, contactfirstname from customers
-> ORDER BY contactlastname desc, contactfirstname ;
```

contactlastname	contactfirstname
Young	Dorothy
Young	Jeff
Young	Julie
Young	Mary
Yoshido	Juri
Walker	Brydey
Victorino	Wendy
Urs	Braun
Tseng	Jerry
Tonini	Daniel
Thompson	Steve
Thompson	Valarie
Taylor	Leslie
Taylor	Sue
Tamuri	Yoshi

```
122 rows in set (0.00 sec)
```

8. Display the structure of the Orderdetails table

```
mysql> desc orderdetails;
```

```
mysql> desc orderdetails
-> ;
```

Field	Type	Null	Key	Default	Extra
orderNumber	int	NO	PRI	NULL	
productCode	varchar(15)	NO	PRI	NULL	
quantityOrdered	int	NO		NULL	
priceEach	decimal(10,2)	NO		NULL	
orderLineNumber	smallint	NO		NULL	

```
5 rows in set (0.00 sec)
```

9. Display the ordernumber and total price of the products from the orderdetails table sorted in the ascending order of totalprice.

```
mysql> select ordernumber, priceeach, quantityordered,
priceeach*quantityordered AS 'total_price' from orderdetails order by
'total_price';
```

```
mysql> select ordernumber, priceeach, quantityordered, priceeach*quantityordered AS 'total_price' from orderdetails
-> order by 'total_price';
```

ordernumber	priceeach	quantityordered	total_price
10100	136.00	30	4080.00
10100	55.09	50	2754.50
10100	75.46	22	1660.12
10100	35.29	49	1729.21
10101	108.06	25	2701.50
10101	167.06	26	4343.56
10101	32.53	45	1463.85
10101	44.35	46	2040.10

2996 rows in set (0.00 sec)

10. Display the lastname, firstname and jobtitle from the employees table who works as Sales Rep

```
mysql> select lastname,firstname,jobtitle from employees where jobtitle='Sales
Rep';
```

lastname	firstname	jobtitle
Jennings	Leslie	Sales Rep
Thompson	Leslie	Sales Rep
Firrelli	Julie	Sales Rep
Patterson	Steve	Sales Rep
Tseng	Foon Yue	Sales Rep
Vanauf	George	Sales Rep
Bondur	Loui	Sales Rep
Hernandez	Gerard	Sales Rep
Castillo	Pamela	Sales Rep
Bott	Larry	Sales Rep
Jones	Barry	Sales Rep
Fixter	Andy	Sales Rep
Marsh	Peter	Sales Rep
King	Tom	Sales Rep
Nishi	Mami	Sales Rep
Kato	Yoshimi	Sales Rep
Gerard	Martin	Sales Rep

17 rows in set (0.00 sec)

11. Display the lastname, firstname, jobtitle, officecode from the employees table who works as Sales Rep and whose officecode is 1.

mysql> select lastname,firstname,jobtitle, officecode from employees where jobtitle='Sales Rep' AND officecode=1;

```
mysql> select lastname,firstname,jobtitle, officecode from employees
-> where jobtitle='Sales Rep' AND officecode=1;
+-----+-----+-----+-----+
| lastname | firstname | jobtitle | officecode |
+-----+-----+-----+-----+
| Jennings | Leslie   | Sales Rep | 1          |
| Thompson  | Leslie   | Sales Rep | 1          |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

12. Display the name, country and state of the customers who live in CA ,USA and have a credit limit greater than 100k.

mysql> select customername, country, state from customers where country='USA' AND state='CA' AND creditlimit >100000;

```
mysql> select customername, country, state from customers
-> where country='USA' AND state='CA' AND creditlimit >100000;
+-----+-----+-----+
| customername | country | state |
+-----+-----+-----+
| Mini Gifts Distributors Ltd. | USA     | CA    |
| Collectable Mini Designs Co. | USA     | CA    |
| Corporate Gift Ideas Co.     | USA     | CA    |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

13. Display the lastname, firstname, jobtitle, officecode from the employees table who works as Sales Rep or whose officecode is 1 in the sorted order of officecode and jobtitle

mysql> select lastname,firstname,jobtitle, officecode from employees where jobtitle='Sales Rep' AND officecode=1 ORDER BY officecode,jobtitle;

```
mysql> select lastname,firstname,jobtitle, officecode from employees
-> where jobtitle='Sales Rep' AND officecode=1
-> ORDER BY officecode,jobtitle;
+-----+-----+-----+-----+
| lastname | firstname | jobtitle | officecode |
+-----+-----+-----+-----+
| Jennings | Leslie   | Sales Rep | 1          |
| Thompson  | Leslie   | Sales Rep | 1          |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

14. Display the details of all customers located in USA or France and have a credit limit greater than 100k

mysql> select * from customers where country IN ('USA','France') AND creditlimit >100000;

```
mysql> select * from customers
-> where country IN ('USA','France') AND creditlimit >100000;
```

customerNumber	customerName	contactLastName	contactFirstName	phone	addressLine1	addressLine2	city	state	postalCode	country	salesRepEmployeeNumber	creditLimit
119	La Rochelle Gifts	Labruno	Janine	40.67.8555	67, rue des Cinquante Otages	NULL	Nantes	NULL	44000	France	1370	118200.00
124	Mini Gifts Distributors Ltd.	Nelson	Susan	4155551408	8677 Strong St.	NULL	San Rafael	CA	97862	USA	1185	218500.00
131	Land of Toys Inc.	Lee	Wael	2125557019	897 Long Airport Avenue	NULL	NVC	NY	10022	USA	1323	114990.00
146	Saveley & Henriot, Co.	Saveley	Mary	78.32.5555	2, rue du Commerce	NULL	Lyon	NULL	69004	France	1337	123900.00
151	Muscle Machine Inc.	Young	Jeff	2125557413	4092 Furth Circle	Suite 400	NYC	NY	10022	USA	1286	138500.00
157	Diecast Classics Inc.	Leung	Melvin	2155551555	7586 Pompton St.	NULL	Allentown	PA	78267	USA	1216	186000.00
239	Collectable Mini Designs Co.	Thompson	Valarie	7605558146	351 Furth Circle	NULL	San Diego	CA	92127	USA	1166	105000.00
286	Marta's Replicas Co.	Hernandez	Marta	6175558555	39323 Spinnaker Dr.	NULL	Cambridge	MA	51247	USA	1216	123700.00
319	Mini Classics	Frick	Steve	9145554562	3758 North Pendale Street	NULL	White Plains	NY	24067	USA	1323	102700.00
321	Corporate Gift Ideas Co.	Brown	Julie	6085551386	7734 Strong St.	NULL	San Francisco	CA	94217	USA	1185	185000.00
363	OnLine Diecast Creations Co.	Young	Dorothy	6035558647	2304 Long Airport Avenue	NULL	Nashua	NH	62005	USA	1216	114200.00

11 rows in set (0.00 sec)

15. Display the lastname, firstname and officecode from the employees table whose officecode is from 1 to 3.

mysql> select lastname, firstname, officecode from employees where officecode BETWEEN 1 AND 3;

```
mysql> select lastname,firstname,officecode from employees
-> where officecode BETWEEN 1 AND 3;
```

lastname	firstname	officecode
Murphy	Diane	1
Patterson	Mary	1
Firrelli	Jeff	1
Bow	Anthony	1
Jennings	Leslie	1
Thompson	Leslie	1
Firrelli	Julie	2
Patterson	Steve	2
Tseng	Foon Yue	3
Vanauf	George	3

10 rows in set (0.00 sec)

16. Use the IN operator to find the offices located in the USA and France from offices table.

mysql> select * from offices where country IN ('USA','France');

```
mysql> select * from offices
-> where country IN ('USA','France');
```

officeCode	city	phone	addressLine1	addressLine2	state	country	postalCode	territory
1	San Francisco	+1 650 219 4782	100 Market Street	Suite 300	CA	USA	94080	NA
2	Boston	+1 215 837 0825	1550 Court Place	Suite 102	MA	USA	02107	NA
3	NYC	+1 212 555 3000	523 East 53rd Street	apt. 5A	NY	USA	10022	NA
4	Paris	+33 14 723 4404	43 Rue Jouffroy D'abbans	NULL	NULL	France	75017	EMEA

4 rows in set (0.00 sec)

17.Display offices not located in USA and France from offices table.

```
mysql> select * from offices where country NOT IN ('USA','France');
```

```
mysql> select * from offices
-> where country NOT IN ('USA','France');
```

officeCode	city	phone	addressLine1	addressLine2	state	country	postalCode	territory
5	Tokyo	+81 33 224 5000	4-1 Kioicho	NULL	Chiyoda-Ku	Japan	102-8578	Japan
6	Sydney	+61 2 9264 2451	5-11 Wentworth Avenue	Floor #2	NULL	Australia	NSW 2010	APAC
7	London	+44 20 7877 2041	25 Old Broad Street	Level 7	NULL	UK	EC2N 1HN	EMEA

```
3 rows in set (0.00 sec)
```

18.Display the distinct lastname from the employees table.

```
mysql> SELECT distinct(lastname) from employees;
```

```
mysql> SELECT distinct(lastname) from employees;
```

lastname
Murphy
Patterson
Firrelli
Bondur
Bow
Jennings
Thompson
Tseng
Vanauf
Hernandez
Castillo
Bott
Jones
Fixter
Marsh
King
Nishi
Kato
Gerard

```
19 rows in set (0.00 sec)
```

19.Display the employees whose last names end with the string 'son'

```
mysql> select lastname from employees where lastname like '%son';
```

```
mysql> select lastname from employees
-> where lastname like '%son';
```

lastname
Patterson
Patterson
Thompson
Patterson

```
4 rows in set (0.00 sec)
```

20. Display employees whose last names start with the letter a.

```
mysql> select lastname from employees where lastname like 'a%';
```

```
mysql> select lastname from employees
-> where lastname like 'a%';
Empty set (0.00 sec)
```

21. Display employees whose lastnames contains the string 'on'.

```
mysql> select * from employees where instr(lastname,'on')>0;
```

```
mysql> select * from employees
-> where instr(lastname,'on')>0;
```

employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
1056	Patterson	Mary	x4611	mpatterson@classicmodelcars.com	1	1002	VP Sales
1088	Patterson	William	x4871	wpatterson@classicmodelcars.com	6	1056	Sales Manager (APAC)
1102	Bondur	Gerard	x5408	gbondur@classicmodelcars.com	4	1056	Sale Manager (EMEA)
1166	Thompson	Leslie	x4065	lthompson@classicmodelcars.com	1	1143	Sales Rep
1216	Patterson	Steve	x4334	spatterson@classicmodelcars.com	2	1143	Sales Rep
1337	Bondur	Loui	x6493	lbondur@classicmodelcars.com	4	1102	Sales Rep
1504	Jones	Barry	x102	bjones@classicmodelcars.com	7	1102	Sales Rep

7 rows in set (0.00 sec)

22. Display employees whose first names start with the letter T , end with the letter m, and contain any single character between.

```
mysql> select * from employees where firstname like 't%m';
```

```
mysql> select * from employees
-> where firstname like 't%m';
```

employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
1619	King	Tom	x103	tking@classicmodelcars.com	6	1088	Sales Rep

1 row in set (0.00 sec)

23. Display the top five customers who have the highest credit.

```
mysql> select customernumber,customername,creditlimit from customers
order by creditlimit desc limit 5;
```

```
mysql> select customernumber,customername,creditlimit from customers
-> order by creditlimit desc
-> limit 5;
```

customernumber	customername	creditlimit
141	Euro+ Shopping Channel	227600.00
124	Mini Gifts Distributors Ltd.	210500.00
298	Vida Sport, Ltd	141300.00
151	Muscle Machine Inc	138500.00
187	AV Stores, Co.	136800.00

5 rows in set (0.00 sec)

24. Display the customer who has the second-highest credit:

mysql> select customernumber, customername, creditlimit from customers
order by creditlimit desc limit 1,1;

```
mysql> select customernumber,customername,creditlimit from customers
-> order by creditlimit desc
-> limit 1,1;
```

customernumber	customername	creditlimit
124	Mini Gifts Distributors Ltd.	210500.00

1 row in set (0.00 sec)

25. Display customers who do not have a sales representative

mysql> select customernumber, customername, salesrepemployeenumber
from customers where salesrepemployeenumber IS NULL;

```
mysql> select customernumber, customername, salesrepemployeenumber from customers
-> where salesrepemployeenumber IS NULL;
```

customernumber	customername	salesrepemployeenumber
125	Havel & Zbyszek Co	NULL
169	Porto Imports Co.	NULL
206	Asian Shopping Network, Co	NULL
223	Natürlich Autos	NULL
237	ANG Resellers	NULL
247	Messner Shopping Network	NULL
273	Franken Gifts, Co	NULL
293	BG&E Collectables	NULL
303	Schuyler Imports	NULL
307	Der Hund Imports	NULL
335	Cramer Spezialitäten, Ltd	NULL
348	Asian Treasures, Inc.	NULL
356	SAR Distributors, Co	NULL
361	Kommission Auto	NULL
369	Lisboa Souvenirs, Inc	NULL
409	Stuttgart Collectable Exchange	NULL
443	Feuer Online Stores, Inc	NULL
459	Warburg Exchange	NULL
465	Anton Designs, Ltd.	NULL
477	Mit Vergnügen & Co.	NULL
480	Kremlin Collectables, Co.	NULL
481	Raanan Stores, Inc	NULL

22 rows in set (0.00 sec)

26. Display customers who do have a sales representative

mysql> select customernumber, customername, salesrepemployeenumber
from customers where salesrepemployeenumber IS NOT NULL;

27. Display the number of products in each productline from the products table.

mysql> select productline , count(*) from products group by productline;

```
mysql> select productline , count(*) from products
-> group by productline;
```

productline	count(*)
Classic Cars	38
Motorcycles	13
Planes	12
Ships	9
Trains	3
Trucks and Buses	11
Vintage Cars	24

7 rows in set (0.00 sec)

28. Display the vendors who supply at least 9 products.

```
mysql> select productvendor, count(*) from products group by
productvendor having count(*) >= 9;
```

```
mysql> select productvendor, count(*) from products
-> group by productvendor
-> having count(*) >= 9;
+-----+-----+
| productvendor | count(*) |
+-----+-----+
| Classic Metal Creations | 10 |
| Highway 66 Mini Classics | 9 |
| Motor City Art Classics | 9 |
| Exoto Designs | 9 |
| Gearbox Collectibles | 9 |
| Carousel DieCast Legends | 9 |
+-----+-----+
6 rows in set (0.00 sec)
```

29. Display the average buy price of all products from the products table.

```
mysql> select productname, avg(buyprice) from products group by
productname;
```

```
mysql> select productname, avg(buyprice) from products
-> group by productname;
+-----+-----+
| productname | avg(buyprice) |
+-----+-----+
| 1969 Harley Davidson Ultimate Chopper | 48.810000 |
| 1952 Alpine Renault 1300 | 98.580000 |
| 1996 Moto Guzzi 1100i | 68.990000 |
| 2003 Harley-Davidson Eagle Drag Bike | 91.020000 |
| 1972 Alfa Romeo GTA | 85.680000 |
| 1962 LanciaA Delta 16V | 103.420000 |
| 1968 Ford Mustang | 95.340000 |
| 2001 Ferrari Enzo | 95.590000 |
+-----+-----+
```

30. Display the average buy price of the productline "Classic Cars" from the products table

```
mysql> select productline, avg(buyprice) from products
-> group by productline
-> having productline='Classic Cars';
+-----+-----+
| productline | avg(buyprice) |
+-----+-----+
| Classic Cars | 64.446316 |
+-----+-----+
1 row in set (0.01 sec)
```

31. Display the average of distinct buy price of products from the products table.

```
mysql> SELECT AVG(DISTINCT buyprice) FROM products;
```

```
mysql> SELECT AVG(DISTINCT buyprice) FROM products;
+-----+
| AVG(DISTINCT buyprice) |
+-----+
|          54.372870 |
+-----+
1 row in set (0.00 sec)
```

32. Find the average of buyprice in each productline and display only those productlines having average buyprice greater than 50.

```
mysql> select productline, avg(buyprice) from products group by productline
having avg(buyprice)>50;
```

```
mysql> select productline, avg(buyprice) from products
-> group by productline
-> having avg(buyprice)>50;
+-----+-----+
| productline | avg(buyprice) |
+-----+-----+
| Classic Cars |      64.446316 |
| Motorcycles |      50.685385 |
| Trucks and Buses |      56.329091 |
+-----+-----+
3 rows in set (0.00 sec)
```

33. Display the total number of items of the order details table.

```
mysql> select count(distinct(productCode)) from orderdetails;
```

```
mysql> select count(distinct(productCode)) from orderdetails;
+-----+
| count(distinct(productCode)) |
+-----+
|          109 |
+-----+
1 row in set (0.00 sec)
```

34. Display the totalprice for the order number 10110

mysql> select ordernumber, sum(quantityordered*priceeach) As 'total price' from orderdetails group by ordernumber having ordernumber=10110;

```
mysql> select ordernumber, sum(quantityordered*priceeach) As 'total price'
-> from orderdetails
-> group by ordernumber
-> having ordernumber=10110;
+-----+-----+
| ordernumber | total price |
+-----+-----+
|          10110 |      48425.69 |
+-----+-----+
1 row in set (0.00 sec)
```

35. Find the totalprice for each order number and display those orders having total greater than 60000

mysql> SELECT ordernumber, sum(quantityordered * priceeach) AS 'total price' FROM orderdetails GROUP BY ordernumber HAVING sum(quantityordered*priceeach) >60000;

```
mysql> SELECT ordernumber, sum(quantityordered * priceeach) AS 'total price' FROM orderdetails GROUP BY ordernumber
HAVING sum(quantityordered*priceeach) >60000;
+-----+-----+
| ordernumber | total price |
+-----+-----+
|          10165 |      67392.85 |
|          10287 |      61402.00 |
|          10310 |      61234.67 |
+-----+-----+
3 rows in set (0.00 sec)
```

36. Find the maximum amount from the payments table.

mysql> SELECT MAX(amount) FROM payments;

```
mysql> select max(amount) from payments;
+-----+
| max(amount) |
+-----+
|      120166.58 |
+-----+
1 row in set (0.00 sec)
```

37. Find the maximum amount from the payments table in the year 2004

mysql> select max(amount) from payments where year(paymentdate)=2004;

```
mysql> select max(amount) from payments
-> where year(paymentdate)=2004;
+-----+
| max(amount) |
+-----+
|    116208.40 |
+-----+
```

38. Find the maximum payment for each customer from the payments table

mysql> select customernumber, max(amount) from payments group by customernumber;

```
mysql> select customernumber,max(amount) from payments
-> group by customernumber;
+-----+-----+
| customernumber | max(amount) |
+-----+-----+
|          103 |    14571.44 |
|          112 |    33347.88 |
|          114 |    82261.22 |
|          119 |    49523.67 |
|          121 |    50218.95 |
|          124 |   111654.40 |
|          128 |    33820.62 |
|          129 |    26248.78 |
|          131 |    50025.35 |
+-----+-----+
```

39. Find the lowest buyprice from the products table

mysql> select min(buyprice) from products;

```
mysql> select min(buyprice) from products;
+-----+
| min(buyprice) |
+-----+
|          15.91 |
+-----+
1 row in set (0.00 sec)
```

40. Find the lowest buyprice for each productline from the products table and display only those productlines whose lowest buyprice is less than 21.

mysql> select productline, min(buyprice) from products group by productline having min(buyprice) < 21;

```
mysql> select productline, min(buyprice) from products
       -> group by productline
       -> having min(buyprice) < 21;
+-----+-----+
| productline | min(buyprice) |
+-----+-----+
| Classic Cars |          15.91 |
| Vintage Cars |          20.61 |
+-----+-----+
2 rows in set (0.00 sec)
```

41. Display the fullname of the customers by concatenating firstname and lastname and give a column alias

mysql> select concat(contactfirstname, ' ', contactlastname) AS 'Full Name' from customers;

```
mysql> select concat(contactfirstname, ' ', contactlastname) AS 'Full Name' from customers;
+-----+
| Full Name |
+-----+
| Carine Schmitt |
| Jean King |
| Peter Ferguson |
| Janine Labrune |
| Jonas Bergulfsen |
| Susan Nelson |
| Zbyszek Piestrzeniewicz |
| Roland Keitel |
| Julie Murphy |
| Kwai Lee |
| Diego Freyre |
| Christina Berglund |
| Jytte Petersen |
+-----+
```