

SQL Lab

1. Display the structure of the Employees table.

Ans:

> desc employees;

```
mysql> use classicmodels
Database changed
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

Ans:

> select * from employees;

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

employeeNumber	lastName	firstName	extension	email	officeCode	reportsTo	jobTitle
1002	Murphy	Diane	x5800	dmurphy@classicmodelcars.com	1	NULL	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	Sales 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)

```
mysql>
```

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

Ans:

>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

Ans:

>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

Ans:

> select contactlastname, contactfirstname from customers order by contactlastname;

```
mysql> select contactlastname, contactfirstname from customers order by contactlastname;
```

contactlastname	contactfirstname
Accorti	Paolo
Altagar,G M	Raanan
Andersen	Mel
Anton	Carmen
Ashworth	Rachel
Barajas	Miguel
Benitez	Violeta
Bennett	Helen
Berglund	Christina
Bergulfsen	Jonas
Bertrand	Marie
Brown	Julie
Brown	Ann
Brown	William
Calaghan	Ben
Camino	Alejandra
Cartrain	Pascale
Cassidy	Dean
Cervantes	Francisca
Chandler	Brian
Choi	Yu
Citeaux	Frédérique
Clenahan	Sean
Cramer	Philip
Cruz	Arnold
Da Silva	Daniel
de Castro	Isabel
Devon	Elizabeth
Dewey	Catherine
Donnermeyer	Michael
Ferguson	Peter
Fernandez	Jesus
Feuer	Alexander
Franco	Keith
Franco	Valarie

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

Ans:

> select contactlastname, contactfirstname from customers order by contactlastname desc;

```
mysql> select contactlastname, contactfirstname from customers order by contactlastname desc;
```

contactlastname	contactfirstname
Young	Jeff
Young	Julie
Young	Mary
Young	Dorothy
Yoshido	Juri
Walker	Brydey
Victorino	Wendy
Urs	Braun
Tseng	Jerry
Tonini	Daniel
Thompson	Valarie
Thompson	Steve
Taylor	Leslie
Taylor	Sue
Tamuri	Yoshi
Suominen	Kalle
Sommer	Martín
Snowden	Tony
Smith	Thomas
Shimamura	Akiko
Semenov	Alexander
Schuyler	Bradley
Schmitt	Carine
Saveley	Mary
Salazar	Rosa
Saavedra	Eduardo
Rovelli	Giovanni
Roulet	Annette
Roel	José Pedro
Rodriguez	Lino
Ricotti	Franco

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

Ans:

```
> select contactlastname, contactfirstname from customers order by contactlastname desc,contactfirstname asc;
```

```
mysql> select contactlastname, contactfirstname from customers order by contactlastname desc,contactfirstname asc;
```

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
Suominen	Kalle
Sommer	Martin
Snowden	Tony
Smith	Thomas
Shimamura	Akiko
Semenov	Alexander
Schuyler	Bradley
Schmitt	Carine
Saveley	Mary
Salazar	Rosa
Saavedra	Eduardo
Rovelli	Giovanni
Roulet	Annette
Roel	José Pedro

8. Display the structure of the Orderdetails table

Ans:

>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)

mysql>
```

9. Display the ordernumber and total price of the products from the orderdetails table

sorted in the ascending order of totalprice

Ans:

>select ordernumber, sum(priceeach) totalprice from orderdetails group by ordernumber order by sum(priceeach);

```
mysql> select ordernumber, sum(priceeach) totalprice from orderdetails group by ordernumber order by sum(priceeach);
```

ordernumber	totalprice
10242	36.52
10364	38.22
10345	38.98
10408	41.03
10286	51.60
10144	56.41
10116	60.28
10158	67.79
10317	69.55
10387	79.91
10132	80.00
10118	86.15
10303	92.61
10277	93.28
10294	98.32
10376	98.65
10156	121.28
10409	132.13
10216	133.94
10154	134.50
10189	138.57
10102	138.68
10422	138.88
10385	140.83
10243	142.74
10256	146.32
10269	152.90
10335	159.71
10290	164.12

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

Sales Rep

Ans:

>select lastname, firstname , jobtitle from employees where jobtitle = "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

Ans:

> 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

Ans:

>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

Ans:

> 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

Ans:

> 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 | sale |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 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 | 4155551450 | 5677 Strong St. | NULL | San Rafael | CA | 97562 | USA | |
| 1165 | 105000.00 | | | | | | | | | | | |
| 131 | Land of Toys Inc. | Lee | Kwai | 2125557818 | 897 Long Airport Avenue | NULL | NYC | NY | 10022 | USA | |
| 1323 | 114900.00 | | | | | | | | | | | |
| 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. | Leong | Kelvin | 2155551555 | 7586 Pompton St. | NULL | Allentown | PA | 70267 | USA | |
| 1216 | 100000.00 | | | | | | | | | | | |
| 239 | Collectable Mini Designs Co. | Thompson | Valarie | 7605558146 | 361 Furth Circle | NULL | San Diego | CA | 91217 | 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 | 6505551386 | 7734 Strong St. | NULL | San Francisco | CA | 94217 | USA | |
| 1165 | 105000.00 | | | | | | | | | | | |
| 363 | Online Diecast Creations Co. | Young | Dorothy | 6035558047 | 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 office code is from 1 to 3

Ans:

> 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

Ans:

```
>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

Ans:

```
>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

Ans:

```
> 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';

Ans:

```
> select * from employees
where lastname like "%son";
```

```
mysql> select * from employees where lastname like "%son";
+-----+-----+-----+-----+-----+-----+-----+-----+
| 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) |
| 1166 | Thompson | Leslie | x4065 | lthompson@classicmodelcars.com | 1 | 1143 | Sales Rep |
| 1216 | Patterson | Steve | x4334 | spatterson@classicmodelcars.com | 2 | 1143 | Sales Rep |
+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

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

Ans:

```
> select * from employees
where lastname like "a%";
```

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

mysql>
```

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

Ans:

```
>select * from employees
where lastname like "%on%";
```

```
mysql> select * from employees
-> where lastname like "%on%";
+-----+-----+-----+-----+-----+-----+-----+-----+
| 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 | Sales 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

Ans:

>select * from employees

Where firstname like 't%'

and firstname like '_%m';

```
mysql> select * from employees
-> Where firstname like 't%'
-> and firstname like '_%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

Ans:

>select customername, creditlimit from customers

order by creditlimit desc limit 5;

```
mysql> select customername, creditlimit from customers
-> order by creditlimit desc limit 5;
+-----+-----+
| customername | creditlimit |
+-----+-----+
| Euro+ Shopping Channel | 227600.00 |
| Mini Gifts Distributors Ltd. | 210500.00 |
| Vida Sport, Ltd | 141300.00 |
| Muscle Machine Inc | 138500.00 |
| AV Stores, Co. | 136800.00 |
+-----+-----+
5 rows in set (0.00 sec)
```

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

Ans:

> select customername, creditlimit from customers

order by creditlimit desc limit 1,1;

```
mysql> select customername, creditlimit from customers
-> order by creditlimit desc limit 1,1;
+-----+-----+
| customername | creditlimit |
+-----+-----+
| Mini Gifts Distributors Ltd. | 210500.00 |
+-----+-----+
1 row in set (0.00 sec)
```

25. Display customers who do not have a sales representative

Ans:

```
> select customername, salesrepemployeenumber from customers  
where salesrepemployeenumber is NULL;
```

```
mysql> select customername, salesrepemployeenumber from customers  
-> where salesrepemployeenumber is NULL;  
+-----+-----+  
| customername | salesrepemployeenumber |  
+-----+-----+  
| Havel & Zbyszek Co | NULL |  
| Porto Imports Co. | NULL |  
| Asian Shopping Network, Co | NULL |  
| Natürlich Autos | NULL |  
| ANG Resellers | NULL |  
| Messner Shopping Network | NULL |  
| Franken Gifts, Co | NULL |  
| BG&E Collectables | NULL |  
| Schuyler Imports | NULL |  
| Der Hund Imports | NULL |  
| Cramer Spezialitäten, Ltd | NULL |  
| Asian Treasures, Inc. | NULL |  
| SAR Distributors, Co | NULL |  
| Kommission Auto | NULL |  
| Lisboa Souvenirs, Inc | NULL |  
| Stuttgart Collectable Exchange | NULL |  
| Feuer Online Stores, Inc | NULL |  
| Warburg Exchange | NULL |  
| Anton Designs, Ltd. | NULL |  
| Mit Vergnügen & Co. | NULL |  
| Kremlin Collectables, Co. | NULL |  
| Raanan Stores, Inc | NULL |  
+-----+-----+  
22 rows in set (0.00 sec)  
  
mysql>
```

26. Display customers who do have a sales representative

Ans:

```
> select customername, salesrepemployeenumber from customers  
where salesrepemployeenumber is not NULL;
```

```
mysql> select customername, salesrepemployeenumber from customers
-> where salesrepemployeenumber is not NULL;
```

customername	salesrepemployeenumber
Atelier graphique	1370
Signal Gift Stores	1166
Australian Collectors, Co.	1611
La Rochelle Gifts	1370
Baane Mini Imports	1504
Mini Gifts Distributors Ltd.	1165
Blauer See Auto, Co.	1504
Mini Wheels Co.	1165
Land of Toys Inc.	1323
Euro+ Shopping Channel	1370
Volvo Model Replicas, Co	1504
Danish Wholesale Imports	1401
Saveley & Henriot, Co.	1337
Dragon Souvenirs, Ltd.	1621
Muscle Machine Inc	1286
Diecast Classics Inc.	1216
Technics Stores Inc.	1165
Handji Gifts& Co	1612
Herkku Gifts	1504
American Souvenirs Inc	1286

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

Ans:

```
>select productline, count(*) as productcount
```

```
from products
```

```
group by productline;
```

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

productline	productcount
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

Ans:

```
>select productvendor , count(productCode) as product_count  
from products  
group by productvendor  
having count(productCode) >= 9;
```

```
mysql> select productvendor , count(productCode) as product_count  
-> from products  
-> group by productvendor  
-> having count(productCode) >= 9;
```

productvendor	product_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

Ans:

```
> select avg(buyprice) as avgbuyprice from products;
```

```
mysql> select avg(buyprice) as avgbuyprice from products;
```

avgbuyprice
54.395182

```
1 row in set (0.00 sec)
```

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

Ans:

```
select productline, avg(buyprice) as avgbuyprice from products  
where productline= "classic cars"  
group by productline;
```

```
mysql> select productline, avg(buyprice) as avgbuyprice from products
      -> where productline= "classic cars"
      -> group by productline;
+-----+-----+
| productline | avgbuyprice |
+-----+-----+
| Classic Cars | 64.446316 |
+-----+-----+
1 row in set (0.00 sec)
```

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

Ans:

```
>Select distinct(productname), avg(distinct buyprice) as averagebuyprice
from products
group by productname;
```

```
mysql> Select distinct(productname), avg(distinct buyprice) as averagebuyprice
-> from products
-> group by productname;
```

productname	averagebuyprice
18th century schooner	82.340000
18th Century Vintage Horse Carriage	60.740000
1900s Vintage Bi-Plane	34.250000
1900s Vintage Tri-Plane	36.230000
1903 Ford Model A	68.300000
1904 Buick Runabout	52.660000
1911 Ford Town Car	33.300000
1912 Ford Model T Delivery Wagon	46.910000
1913 Ford Model T Speedster	60.780000
1917 Grand Touring Sedan	86.700000
1917 Maxwell Touring Car	57.540000
1926 Ford Fire Engine	24.920000
1928 British Royal Navy Airplane	66.740000
1928 Ford Phaeton Deluxe	33.020000
1928 Mercedes-Benz SSK	72.560000
1930 Buick Marquette Phaeton	27.060000
1932 Alfa Romeo 8C2300 Spider Sport	43.260000
1932 Model A Ford J-Coupe	58.480000
1934 Ford V8 Coupe	34.350000
1936 Chrysler Airflow	57.460000
1936 Harley Davidson El Knucklehead	24.230000
1936 Mercedes Benz 500k Roadster	21.750000
1936 Mercedes-Benz 500K Special Roadster	24.260000
1937 Horch 930V Limousine	26.300000
1937 Lincoln Berline	60.620000
1938 Cadillac V-16 Presidential Limousine	20.610000
1939 Cadillac Limousine	23.140000
1939 Chevrolet Deluxe Coupe	22.570000

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

Ans:

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



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

productline	avgbuyprice
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

Ans:

>select count(ordernumber) as item_count from orderdetails;

```
mysql> select count(ordernumber) as item_count from orderdetails;
```

item_count
2996

```
1 row in set (0.00 sec)
```

34. Display the totalprice for the order number 10110

> select ordernumber, sum(priceeach) from orderdetails

Group by ordernumber

Having ordernumber = 10110;

```
mysql> select ordernumber, sum(priceeach) from orderdetails
-> Group by ordernumber
-> Having ordernumber = 10110;
```

ordernumber	sum(priceeach)
10110	1338.47

```
1 row in set (0.00 sec)
```

35. Find the totalprice for each order number and display those orders having total greater than 10000

Ans:

```
> select ordernumber, sum(quantityordered * priceeach) as totalprice
from orderdetails
group by ordernumber
having totalprice > 60000;
```

```
mysql> select ordernumber, sum(quantityordered * priceeach) as totalprice
-> from orderdetails
-> group by ordernumber
-> having totalprice > 60000;
+-----+-----+
| ordernumber | totalprice |
+-----+-----+
|      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

Ans:

```
> 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

Ans:

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

```
mysql> select max(amount) from payments
       -> where year(paymentdate) = 2004;
+-----+
| max(amount) |
+-----+
| 116208.40 |
+-----+
1 row in set (0.00 sec)
```

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

Ans:

>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 |
| 141 | 120166.58 |
| 144 | 36005.71 |
| 145 | 53959.21 |
| 146 | 49614.72 |
| 148 | 105743.00 |
| 151 | 58841.35 |
| 157 | 63357.13 |
| 161 | 50743.65 |
| 166 | 44160.92 |
| 167 | 85024.46 |
| 171 | 42783.81 |
| 172 | 51209.58 |
| 173 | 20355.24 |
| 175 | 42044.77 |
| 177 | 47177.59 |
+-----+-----+
```

39. Find the lowest buyprice from the products table

Ans:

>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.

Ans:

> select productline, min(buyprice) as lowestbuyprice from products

Group by productline

Having lowestbuyprice < 21 ;

```
mysql> select productline, min(buyprice) as lowestbuyprice from products
-> Group by productline
-> Having lowestbuyprice < 21 ;
+-----+-----+
| productline | lowestbuyprice |
+-----+-----+
| 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

Ans:

>select concat(contactfirstname," ",contactlastname) from customers;

```
mysql> select concat(contactfirstname," ",contactlastname) from customers;
```

concat(contactfirstname," ",contactlastname)
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
Mary Saveley
Eric Natividad
Jeff Young
Kelvin Leong
Juri Hashimoto