

1.

- `select city
from offices
order by city ASC`

a.

#	city
1	Boston
2	London
3	NYC
4	Paris
5	San Francisco
6	Sydney
7	Tokyo

b.

2.

- `select employeeNumber, lastName, firstName
from employees
where officeCode = 4`

a.

#	employeeNumber	lastName	firstName
1	1102	Bondur	Gerard
2	1337	Bondur	Loui
3	1370	Hernandez	Gerard
4	1401	Castillo	Pamela
5	1702	Gerard	Martin
*	NULL	NULL	NULL

b.

3.

- `select ProductCode, ProductName, ProductVendor, QuantityInStock, ProductLine
from products
where quantityInStock between 100 AND 1000`

a.

#	ProductCode	ProductName	ProductVendor	QuantityInStock	ProductLine
1	S18_2248	1911 Ford Town Car	Motor City Art Classics	540	Vintage Cars
2	S18_2581	P-51-D Mustang	Gearbox Collectibles	992	Planes
3	S18_2795	1928 Mercedes-Benz SSK	Gearbox Collectibles	548	Vintage Cars
4	S32_1374	1997 BMW F650 ST	Exoto Designs	178	Motorcycles
5	S32_3522	1996 Peterbilt 379 Stake Bed with ...	Red Start Diecast	814	Trucks and Buses
6	S32_4289	1928 Ford Phaeton Deluxe	Highway 66 Mini Classics	136	Vintage Cars
7	S50_4713	2002 Yamaha YZR M1	Autoart Studio Design	600	Motorcycles
8	S700_1938	The Mayflower	Studio M Art Models	737	Ships
9	S700_3167	F/A 18 Hornet 1/72	Motor City Art Classics	551	Planes
10	S72_3212	Pont Yacht	Unimax Art Galleries	414	Ships

b.

4.

```

• select ProductCode, ProductName, ProductVendor, BuyPrice, MSRP
  from products
 where MSRP in (select MIN(MSRP) from products)

```

a.

#	ProductCode	ProductName	ProductVendor	BuyPrice	MSRP
1	S24_1937	1939 Chevrolet Deluxe Coupe	Motor City Art Classics	22.57	33.19

b.

5.

```

20 • select productName, MSRP-BuyPrice as PROFIT
21   from products
22   order by PROFIT desc limit 1;

```

a.

#	productName	PROFIT
1	1952 Alpine Renault 1300	115.72

b.

6.

```

24 • select country, count(country) as Customers
25   from customers
26  group by country
27  having count(country)>10
28  order by Customers desc

```

a.

#	country	Customers	
1	USA	36	
2	Germany	13	
3	France	12	

b.

7.

```

31 • select p.productCode, p.productName, count(o.orderNumber) as OrderCount
32   from products p join orderdetails o
33   on p.productCode = o.productCode
34   group by productCode, productName
35   order by OrderCount desc limit 1

```

a.

#	productCode	productName	OrderCount	
1	S18_3232	1992 Ferrari 360 Spider red	53	

b.

8.

```

37 • select EmployeeNumber, CONCAT(firstName, ' ', lastName) as 'name'
38   from employees
39   where reportsTo = (select employeeNumber from employees
40                      where (firstName = 'Diane' and lastName = 'Murphy'))
41   or reportsTo = (select employeeNumber from employees
42                   where (firstName = 'William' and lastName = 'Patterson'))

```

a.

#	EmployeeNumber	name	
1	1056	Mary Patterson	
2	1076	Jeff Firrelli	
3	1611	Andy Fixter	
4	1612	Peter Marsh	
5	1619	Tom King	

b.

9.

```

45 • select EmployeeNumber, lastName, firstName, reportsTo
46   from employees
47   where ISNULL(reportsTo)

```

a.

#	EmployeeNumber	lastName	firstName	reportsTo
1	1002	Murphy	Diane	NULL

b.

10.

```

49 • select productName
50   from products
51   where productName like '%197%'
a. 52   and productLine = 'Classic Cars'

```

#	productName
1	1972 Alfa Romeo GTA
2	1970 Plymouth Hemi Cuda
3	1976 Ford Gran Torino
4	1970 Triumph Spitfire
5	1970 Chevy Chevelle SS 454
6	1970 Dodge Coronet
7	1971 Alpine Renault 1600s

b.

11.

```

1 • select count(orderNumber), monthname(orderdate) as orderMonth
2   from orders
3   where orderDate like '2005%'
4   group by orderMonth
5   order by 1 desc limit 1

```

a.

#	count(orderNumber)	orderMonth
1	15	May

b.

12.

```

7 • select firstName, lastName
8   from employees
9   where employeeNumber not in (select salesRepEmployeeNumber
10  from customers
11  join employees
12  on employees.employeeNumber = customers.salesRepEmployeeNumber)
13  and employees.jobTitle = "Sales Rep"
14

```

a.

#	firstName	lastName
1	Tom	King
2	Yoshimi	Kato

b.

13.

```

16 • select customerName
17   from customers c left join orders o
18   on c.customerNumber = o.customerNumber
19   where o.customerNumber is null
20   and c.country = 'Germany'

```

a.

#	customerName
1	Natürlich Autos
2	Messner Shopping Network
3	Franken Gifts, Co
4	Der Hund Imports
5	Cramer Spezialitäten, Ltd
6	Kommission Auto
7	Stuttgart Collectable Exchange
8	Feuer Online Stores, Inc
9	Warburg Exchange
10	Mit Vergnügen & Co.

b.

14.

```

30 • select customername, sum(quantityordered) as totalq
31   from customers c
32   join orders o
33   on c.customerNumber = o.customerNumber
34   join orderdetails d
35   on o.orderNumber = d.orderNumber
36   group by customername
37   having totalq > 1700

```

a.

#	customername	totalq
1	Australian Collectors, Co.	1926
2	AV Stores, Co.	1778
3	Euro+ Shopping Channel	9327
4	La Rochelle Gifts	1832
5	Mini Gifts Distributors Ltd.	6366
6	Muscle Machine Inc	1775

b.

15.

```
39 • create table if not exists TopCustomers(  
40     CustomerNumber integer not null,  
41     ContactDate date not null,  
42     OrderTotal decimal(9,2) not null default 0,  
43     constraint TopCustomer_PK primary key (CustomerNumber));
```

a.

16.

```
45 • insert into TopCustomers  
46     select c.customerNumber, CURRENT_date, SUM(priceEach * Quantityordered)  
47     from customers c, orders o, orderdetails d  
48     where c.customerNumber = o.customerNumber  
49     and o.orderNumber = d.orderNumber  
50     group by c.customerNumber  
51     having SUM(priceEach*quantityOrdered) > 140000
```

a.

17.

```
54 • select * from TopCustomers  
55     order by OrderTotal desc
```

a.

#	CustomerNumber	ContactDate	OrderTotal
1	141	2019-10-11	820689.54
2	124	2019-10-11	591827.34
3	114	2019-10-11	180585.07
4	151	2019-10-11	177913.95
5	119	2019-10-11	158573.12
6	148	2019-10-11	156251.03
7	323	2019-10-11	154622.08
8	131	2019-10-11	149085.15
9	187	2019-10-11	148410.09
10	450	2019-10-11	143536.27

b.

18.

```
1 • alter table TopCustomers  
2     add column OrderCount integer
```

a.

19.

```
1 • update TopCustomers
2   set OrderCount = floor((rand()*18))
```

a.

20.

```
1 • select * from TopCustomers
2   order by 4 desc
```

a.

#	CustomerNumber	ContactDate	OrderTotal	OrderCount	
1	114	2019-10-11	180585.07	17	
2	119	2019-10-11	158573.12	17	
3	141	2019-10-11	820689.54	14	
4	450	2019-10-11	143536.27	13	
5	187	2019-10-11	148410.09	10	
6	151	2019-10-11	177913.95	9	
7	148	2019-10-11	156251.03	6	
8	323	2019-10-11	154622.08	5	
9	131	2019-10-11	149085.15	3	
10	124	2019-10-11	591827.34	0	
*	NULL	NULL	NULL	NULL	

b.

```
1 drop table TopCustomers
```

21.