

Zormene Kinanee
 Project 1- SQL
 CSCI 3287 Database Systems

1. List all the information in the Offices table. (7)

```
SELECT table_schema, table_name, table_rows
FROM information_schema.tables
WHERE TABLE_SCHEMA LIKE 'classic%';
```

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
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
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

2. List the EmployeeNumber, LastName, FirstName, Extension for all employees working out of the Paris, France office. (5)

```
SELECT employeeNumber, lastName, firstName, extension
FROM employees
INNER JOIN offices ON employees.OfficeCode=Offices.OfficeCode
WHERE offices.city="Paris";
```

employeeNumber	lastName	firstName	extension
1102	Bondur	Gerard	x5408
1337	Bondur	Loui	x6493
1370	Hernandez	Gerard	x2028
1401	Castillo	Pamela	x2759
1702	Gerard	Martin	x2312

3. List the ProductCode, ProductName, ProductVendor, QuantityInStock for all products in the “Classic Cars” product line with a QuantityInStock between 5000 and 7000. (7)

```
SELECT productCode, productName, productVendor, quantityInStock
FROM Products
inner join ProductLines on Products.productLine=ProductLines.productLine
WHERE ProductLines.productLine="Classic Cars" AND quantityInStock BETWEEN 5000 and 7000;
```

productCode	productName	productVendor	quantityInStock
▶ S10_4962	1962 LanciaA Delta 16V	Second Gear Diecast	6791
S12_3148	1969 Corvair Monza	Welly Diecast Productions	6906
S12_3990	1970 Plymouth Hemi Cuda	Studio M Art Models	5663
S18_4027	1970 Triumph Spitfire	Min Lin Diecast	5545
S24_3856	1956 Porsche 356A Coupe	Classic Metal Creations	6600
S24_4048	1992 Porsche Cayenne Turbo Silver	Exoto Designs	6582
S700_2824	1982 Camaro Z28	Carousel DieCast Legends	6934

4. List the ProductCode, ProductName, ProductVendor, BuyPrice and MSRP for the least expensive (lowest MSRP) product sold by ClassicModels. (“MSRP” is the Manufacturer’s Suggested Retail Price.) (1)

```
SELECT productCode, productName, productVendor, buyPrice, MSRP
FROM Products
WHERE MSRP=(SELECT MIN(MSRP) FROM Products);
```

productCode	productName	productVendor	buyPrice	MSRP
▶ S24_1937	1939 Chevrolet Deluxe Coupe	Motor City Art Classics	22.57	33.19

5. What is the ProductName and Profit of the product that has the highest profit (profit = MSRP minus BuyPrice). (1)

```
SELECT productName, MSRP-buyPrice as Profit
FROM Products
ORDER BY Profit DESC
LIMIT 1;
```

productName	Profit
▶ 1952 Alpine Renault 1300	115.72

6. List the country and the number of customers from that country for all countries having five or more customers. List the countries sorted in descending order from highest to lowest number of customers. (6)

```
SELECT country, COUNT(customerName) AS numberOfCustomers
FROM Customers
GROUP BY country
having numberOfCustomers > 4
ORDER BY numberOfCustomers DESC;
```

country	numberOfCustomers
USA	36
Germany	13
France	12
Spain	7
Australia	5
UK	5

7 List the ProductCode, ProductName, and number of orders for the product with the most orders. (1)

```
SELECT products.productCode, productName, count(orderNumber) as "count"
FROM orderdetails
JOIN products ON orderdetails.productCode=products.productCode
GROUP BY products.productCode, productName
ORDER BY count DESC
LIMIT 1;
```

productCode	productName	count
S18_3232	1992 Ferrari 360 Spider red	53

8 List the EmployeeNumber, Firstname + Lastname (concatenated into one column in the answer set, separated by a blank) for all the employees reporting to Anthony Bow. (6)

```
SELECT T1.employeeNumber, CONCAT( T1. firstName, ' ', T1.lastName) AS "firstName" ,
T1.reportsTo AS "report to Anthony Bow"
FROM employees T1
JOIN employees T2 ON T1.reportsTo=T2.employeeNumber
WHERE CONCAT(T2.firstName,' ', T2.lastName)="Anthony,Bow";
```

employeeNumber	firstName	report to Anthony Bow
▶ 1165	Leslie,Jennings	1143
1166	Leslie,Thompson	1143
1188	Julie,Firrelli	1143
1216	Steve,Patterson	1143
1286	Foon Yue,Tseng	1143
1323	George,Vanauf	1143

9 List the EmployeeNumber, LastName, FirstName of the president of the company (the one employee with no boss.) (1)

```
SELECT employeeNumber, lastName, firstName,
reportsTo
FROM employees
WHERE reportsTo is NULL;
```

employeeNumber	lastName	firstName	reportsTo
▶ 1002	Murphy	Diane	NULL
NULL	NULL	NULL	NULL

10. List the ProductName for all products in the “Classic Cars” product line from the 1950’s. (6)

```
SELECT productName
FROM products
WHERE productLine="Classic Cars" AND productName LIKE "%195%"
ORDER BY productName ASC;
```

productName
▶ 1952 Alpine Renault 1300
1952 Citroen-15CV
1956 Porsche 356A Coupe
1957 Corvette Convertible
1957 Ford Thunderbird
1958 Chevy Corvette Limited Edition

11. List the month name and the total number of orders for the month in 2003 in which ClassicModels customers placed the most orders. (1)

```
SELECT MONTHNAME(orderDate) AS M, count(orderNumber) AS Total
FROM orders
```

```

where extract(year from orderdate)="2003"
GROUP BY M
ORDER BY Total DESC
LIMIT 1 ;

```

M	Total
▶ November	30

12. List the firstname, lastname of employees who are Sales Reps who have no assigned customers. (2)

```

SELECT firstName, lastName
FROM employees
LEFT JOIN customers on employees.employeeNumber=customers.salesRepEmployeeNumber
WHERE salesRepEmployeeNumber is NULL and jobTitle= "Sales Rep" ;

```

firstName	lastName
▶ Tom	King
Yoshimi	Kato

13. List the customername of customers from Spain with no orders. (2)

```

SELECT customerName
FROM customers
LEFT JOIN orders on customers.customerNumber=orders.customerNumber
WHERE customers.country="Spain" and orders.orderNumber is NULL;

```

customerName
▶ ANG Resellers
Anton Designs, Ltd.

14. List the customername and total quantity of products ordered for customers who have ordered more than 2000 products across all their orders. (2)

```

SELECT customerName, sum(quantityordered) as totalQuantity
FROM customers c, orderdetails d, orders o
WHERE c.customerNumber = o.customerNumber
and o.orderNumber = d.orderNumber
group by customerName
ORDER BY totalQuantity DESC

```

LIMIT 2;

customerName	totalQuantity
▶ Euro+ Shopping Channel	9327
Mini Gifts Distributors Ltd.	6366

15. Create a NEW table named “TopCustomers” with three columns: CustomerNumber (integer), ContactDate (DATE) and OrderTotal (a decimal number with 9 digits in total having two decimal places). None of these columns can be NULL. Include a PRIMARY KEY constraint named “TopCustomer_PK” on CustomerNumber. (no answer set)

```
CREATE TABLE IF NOT EXISTS TopCustomers
(
    customerNumber INT NOT NULL,
    contactDate DATE NOT NULL,
    orderTotal DECIMAL(9,2) NOT NULL,
    CONSTRAINT topCustomer_PK PRIMARY KEY (customerNumber)
);
```

16. Populate the new table “TopCustomers” with the CustomerNumber, today’s date, and the total value of all their orders (PriceEach * quantityOrdered) for those customers whose order total value is greater than \$150,000. (inserted 7 rows, no answer set)

```
INSERT INTO TopCustomers
select c.customerNumber, CURDATE(), SUM(priceEach * quantityOrdered)
from customers c, orderdetails , orders
where c.customerNumber=orders.customerNumber
and orders.orderNumber=orderdetails.orderNumber
group by c.customerNumber
having sum(priceEach * quantityOrdered) > 150000;
```

17. List the contents of the TopCustomers table in descending OrderTotal sequence. (7)

```
SELECT *
FROM TopCustomers
ORDER BY orderTotal DESC;
```

	customerNumber	contactDate	orderTotal	orderCount
▶	141	2018-10-28	820689.54	7
	124	2018-10-28	591827.34	4
	114	2018-10-28	180585.07	1
	151	2018-10-28	177913.95	2
	119	2018-10-28	158573.12	5
	148	2018-10-28	156251.03	0
	323	2018-10-28	154622.08	9
	NULL	NULL	NULL	NULL

18. Add a new column to the TopCustomers table called OrderCount (integer). (No answer set)

```
ALTER TABLE TopCustomers
ADD orderCount INT;
```

19. Update the Top Customers table, setting the OrderCount column to a random number (from 0 to 20).

```
UPDATE TopCustomers
SET orderCount= FLOOR ((RAND()*20));
```

20. List the contents of the TopCustomers table in descending OrderCount sequence. (7)

```
SELECT * FROM TopCustomers
ORDER BY orderCount DESC;
```

	customerNumber	contactDate	orderTotal	orderCount
▶	124	2018-10-28	591827.34	19
	323	2018-10-28	154622.08	18
	148	2018-10-28	156251.03	15
	141	2018-10-28	820689.54	10
	119	2018-10-28	158573.12	8
	151	2018-10-28	177913.95	5
	114	2018-10-28	180585.07	1
	NULL	NULL	NULL	NULL

21. Drop the TopCustomers table. (no answer set)

```
DROP TABLE TopCustomers;
```

