Daniel Kim

Homework 3

1.

```
SELECT city, country
      FROM customers
      WHERE country = 'Australia'
      ORDER BY city ASC;
```

city	country
▶ Chatswood	Australia
Glen Waverly	Australia
Melbourne	Australia
North Sydney	Australia
South Brisbane	Australia

2.

```
SELECT employeeNumber, lastname, firstName, extension
      FROM employees C, offices O
      WHERE city = "Sydney" AND C.officeCode = O.officeCode;
```

employeeNumber	lastname	firstName	extension
▶ 1088	Patterson	William	x4871
1611	Fixter	Andy	x101
1612	Marsh	Peter	x102
1619	King	Tom	x103

3.

```
SELECT productCode, productName, productVendor, quantityInStock, productLine
      FROM products
      WHERE quantityInStock BETWEEN 4000 AND 5000;
```

	productCode	productName	productVendor	quantityInStock	productLine
▶	S18_2238	1998 Chrysler Plymouth Prowler	Gearbox Collectibles	4724	Classic Cars
	S18_2625	1936 Harley Davidson El Knucklehead	Welly Diecast Productions	4357	Motorcycles
	S18_2949	1913 Ford Model T Speedster	Carousel DieCast Legends	4189	Vintage Cars
	S18_3029	1999 Yamaha Speed Boat	Min Lin Diecast	4259	Ships
	S24_1444	1970 Dodge Coronet	Highway 66 Mini Classics	4074	Classic Cars
	S24_3191	1969 Chevrolet Camaro Z28	Exoto Designs	4695	Classic Cars
	S24_4258	1936 Chrysler Airflow	Second Gear Diecast	4710	Vintage Cars
	S72_1253	Boeing X-32A JSF	Motor City Art Classics	4857	Planes
*	NULL	NULL	NULL	NULL	NULL

4.

```
SELECT ProductCode, ProductName, ProductVendor, BuyPrice, MSRP
       FROM products
       WHERE MSRP = (SELECT MAX(MSRP) FROM products);
```

	ProductCode	ProductName	ProductVendor	BuyPrice	MSRP
▶	S10_1949	1952 Alpine Renault 1300	Classic Metal Creations	98.58	214.30

5.

```
SELECT productName, MSRP, buyPrice, (MSRP - buyPrice) AS margin
       FROM products
       WHERE (MSRP - buyPrice) = (SELECT MIN((MSRP - buyPrice)) FROM products);
```

	productName	MSRP	buyPrice	margin
▶	1939 Chevrolet Deluxe Coupe	33.19	22.57	10.62

6.

```
SELECT country, Count(customerNumber) AS 'Customers'
       FROM customers
       GROUP BY country
       HAVING COUNT(customerNumber) > 5
       ORDER BY COUNT(customerNumber) DESC;
```

	country	Customers
▶	USA	36
	Germany	13
	France	12
	Spain	7

7.

```
SELECT C.productCode, C.productName, O.quantityOrdered AS OrderCount

        FROM products C, orderDetails O

        WHERE C.productCode = O.productCode

        ORDER BY OrderCount DESC LIMIT 1;
```

productCode	productName	OrderCount
▶ S12_4675	1969 Dodge Charger	97

8.

```
SELECT CONCAT(m.firstname, ' ', m.lastName) as Manager, CONCAT(e.firstname, ' ', e.lastName)
as Employee

        FROM employees m, employees e

        WHERE m.employeeNumber = e.reportsTo

        ORDER BY m.firstname ASC;
```

Manager	Employee
Anthony Bow	Leslie Jennings
Anthony Bow	Leslie Thompson
Anthony Bow	Julie Firrelli
Anthony Bow	Steve Patterson
Anthony Bow	Foon Yue Tseng
Anthony Bow	George Vanauf
Diane Murphy	Mary Patterson
Diane Murphy	Jeff Firrelli
Gerard Bondur	Loui Bondur
Gerard Bondur	Gerard Hernandez

9.

```
SELECT CONCAT(m.firstname, ' ', m.lastName) as Manager, CONCAT(e.firstname, ' ', e.lastName)
as Employee

        FROM employees e

        LEFT OUTER JOIN employees m ON e.reportsTo = m.employeeNumber

        ORDER BY m.firstName ASC LIMIT 1;
```

Manager	Employee
▶ NULL	Diane Murphy

10.

```sql
SELECT productName
    FROM products P
    WHERE productLine = "Classic Cars"
    AND substring_index(productName," ",1) BETWEEN 1960 AND 1969;
```

productName
▶ 1962 LanciaA Delta 16V
1968 Ford Mustang
1969 Corvair Monza
1968 Dodge Charger
1969 Ford Falcon
1969 Dodge Charger
1965 Aston Martin DB5
1969 Dodge Super Bee
1966 Shelby Cobra 427 S/C
1969 Chevrolet Camaro Z28
1961 Chevrolet Impala

11.

```sql
SELECT MONTH(orderDate) AS Months, YEAR(orderDate) AS Years, COUNT(orderNumber) as Total
    FROM orders
    GROUP BY Months
    ORDER BY Total DESC LIMIT 2;
```

	Months	Years	Total
▶	11	2003	63
	10	2003	31

12.

```sql
SELECT employees.firstName, employees.lastName
    FROM employees LEFT JOIN customers
    ON employees.employeeNumber = customers.salesRepEmployeeNumber
    WHERE jobTitle = "Sales Rep"
    AND customers.salesRepEmployeeNumber IS NULL;
```

	firstName	lastName
▶	Tom	King
	Yoshimi	Kato

13.

```
SELECT customers.customerName

    FROM customers LEFT JOIN orders ON customers.customerNumber = orders.customerNumber

    WHERE country = "Switzerland"

    AND orders.customerNumber IS NULL;
```

	customerName
▶	BG&E Collectables
	Precious Collectables

14.

```
SELECT customerName, SUM(quantityOrdered) as Total

    FROM customers C, orders O, orderdetails OD

    WHERE (C.customerNumber = O.customerNumber AND O.orderNumber = OD.orderNumber)

    GROUP BY customerName

    HAVING (Total < 500);
```

	customerName	Total
▶	Atelier graphique	270
	Cambridge Collectables Co.	357
	Clover Collections, Co.	490
	Auto-Moto Classics Inc.	287
	Boards & Toys Co.	102
	CAF Imports	468
	Royale Belge	278
	Bavarian Collectables Imports, Co.	401
	Microscale Inc.	381
	Frau da Collezione	272
	Double Decker Gift Stores, Ltd	357

15.

```
CREATE TABLE LowCustomers

    (CustomerNumber int NOT NULL, ContactDate DATE NOT NULL,

    OrderTotal decimal(9,2) NOT NULL,

    OrderTotal decimal(9,2) NOT NULL,

    CONSTRAINT LowCustomer_PK primary key(CustomerNumber));
```

16.

```
INSERT INTO LowCustomers(CustomerNumber,ContactDate,OrderTotal)

        SELECT c.CustomerNumber, curdate(), SUM(priceEach*quantityOrdered) AS Total

        FROM customers C, orders O, orderdetails OD

        WHERE (C.customerNumber = O.customerNumber AND O.orderNumber = OD.orderNumber)

        GROUP BY customerNumber

        HAVING Total < 50000;
```

17.

```
SELECT *

        FROM LowCustomers

        ORDER BY orderTotal DESC;
```

CustomerNumber	ContactDate	OrderTotal
447	2020-02-21	49967.78
189	2020-02-21	49898.27
344	2020-02-21	46751.14
211	2020-02-21	45480.79
475	2020-02-21	43748.72
487	2020-02-21	42570.37
347	2020-02-21	41506.19
173	2020-02-21	32198.69
415	2020-02-21	31310.09
489	2020-02-21	29586.15
456	2020-02-21	29230.43
381	2020-02-21	29217.18
473	2020-02-21	25358.32
103	2020-02-21	22314.36
198	2020-02-21	21554.26
219	2020-02-21	7918.60

18.

```
ALTER TABLE LowCustomers

        ADD OrderCount INT NOT NULL;
```

19.

```
UPDATE LowCustomers

        SET OrderCount = FLOOR(RAND()*(18-0)+0);
```

20.

```
SELECT *

        FROM LowCustomers

        ORDER BY orderCount DESC;
```

CustomerNumber	ContactDate	OrderTotal	OrderCount
219	2020-02-21	7918.60	17
415	2020-02-21	31310.09	15
447	2020-02-21	49967.78	14
475	2020-02-21	43748.72	14
103	2020-02-21	22314.36	13
347	2020-02-21	41506.19	12
473	2020-02-21	25358.32	10
198	2020-02-21	21554.26	7
456	2020-02-21	29230.43	7
489	2020-02-21	29586.15	7
173	2020-02-21	32198.69	5
189	2020-02-21	49898.27	4
211	2020-02-21	45480.79	4
381	2020-02-21	29217.18	3
344	2020-02-21	46751.14	2
487	2020-02-21	42570.37	2
NULL	NULL	NULL	NULL

21.

```
DROP TABLE LowCustomers;
```