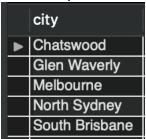Homework 3 SQL
Brandon Glandt
CSCI3287 Database Systems
2/23/29

Question 1:

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

city
▶ Chatswood
Glen Waverly
Melbourne
North Sydney
South Brisbane

Question 2:

SELECT EmployeeNumber, LastName, FirstName, Extension FROM employees WHERE officeCode = '6';

EmployeeNumber	LastName	FirstName	Extension
▶ 1088	Patterson	William	x4871
1611	Fixter	Andy	x101
1612	Marsh	Peter	x102
1619	King	Tom	x103

Question 3:

SELECT ProductCode, ProductName, ProductVendor, QuantityInStock, ProductLine FROM products WHERE QuantityInStock BETWEEN 4000 AND 5000;

ProductCode	ProductName	ProductVendor	QuantityInSto...	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

Question 4:

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

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

Question 5:

SELECT ProductName, MSRP, BuyPrice, (MSRP - BuyPrice) AS Margin FROM products WHERE (MSRP - BuyPrice) = ALL (SELECT MIN(MSRP - BuyPrice) FROM products);

ProductName	MSRP	BuyPrice	Margin
1939 Chevrolet Deluxe Coupe	33.19	22.57	10.62

Question 6:

SELECT country, COUNT(Country) AS Customers FROM Customers GROUP BY Country HAVING COUNT(Country) > 5 ORDER BY COUNT(Country) DESC;

country	Customers
USA	36
Germany	13
France	12
Spain	7

Question 7:

SELECT ProductCode, ProductName, MAX(OrderCount) as OrderCount FROM (SELECT products.ProductCode as ProductCode, products.ProductName as ProductName, COUNT(orderDetails.QuantityOrdered) as OrderCount FROM products, orderDetails GROUP BY QuantityOrdered) AS t;

ProductCode	ProductName	OrderCount
S10_1678	1969 Harley Davidson Ultimate Chopper	13310

Question 8:
SELECT CONCAT(m.lastName, ', ', m.firstName) AS Manager, CONCAT(e.lastName, ', ', e.firstName) AS 'Direct Report' FROM employees e INNER JOIN employees m ON m.employeeNumber = e.reportsTo ORDER BY Manager;

Manager	Direct Report
Bondur, Gerard	Bondur, Loui
Bondur, Gerard	Hernandez, Gerard
Bondur, Gerard	Castillo, Pamela
Bondur, Gerard	Bott, Larry
▶ Bondur, Gerard	Jones, Barry
Bondur, Gerard	Gerard, Martin
Bow, Anthony	Jennings, Leslie
Bow, Anthony	Thompson, Leslie
Bow, Anthony	Firrelli, Julie
Bow, Anthony	Patterson, Steve
Bow, Anthony	Tseng, Foon Yue
Bow, Anthony	Vanauf, George
Murphy, Diane	Patterson, Mary
Murphy, Diane	Firrelli, Jeff
Nishi, Mami	Kato, Yoshimi
Patterson, Mary	Patterson, William
Patterson, Mary	Bondur, Gerard
Patterson, Mary	Bow, Anthony
Patterson, Mary	Nishi, Mami
Patterson, Wil…	Fixter, Andy
Patterson, Wil…	Marsh, Peter
Patterson, Wil…	King, Tom

Question 9:

SELECT EmployeeNumber, LastName, FirstName FROM employees WHERE reportsTo IS NULL;

EmployeeNumber	LastName	FirstName
▶ 1002	Murphy	Diane

Question 10:

SELECT ProductName FROM products WHERE productLine = 'Classic Cars' AND productName LIKE '%196%';

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

Question 11:

SELECT EXTRACT(MONTH FROM orderDate) AS Month, EXTRACT(YEAR FROM orderDate)AS Year, COUNT(orderNumber) AS OrderCount FROM orders GROUP BY Month ORDER BY OrderCount DESC LIMIT 2;

Month	Year	OrderCount
▶ 11	2003	63
10	2003	31

Question 12:

SELECT DISTINCT employees.firstName, employees.lastName FROM employees, customers WHERE jobTitle = 'Sales Rep' AND salesRepEmployeeNumber IS NULL LIMIT 2;

firstName	lastName
Leslie	Jennings
Leslie	Thompson

Question 13:

SELECT DISTINCT customerName FROM orderDetails, customers WHERE country = "Switzerland" LIMIT 2;

customerName
BG&E Collectables
Vida Sport, Ltd

Question 14:

SELECT DISTINCT customers.customerName, COUNT(OrderDetails.quantityOrdered) AS Total Ordered FROM customers, OrderDetails WHERE Total Ordered < 500 GROUP BY customers.customerName;

customerName	COUNT(OrderDetails.quantityOrder...
Atelier graphique	2996
► Signal Gift Stores	2996
Australian Collectors, Co.	2996
La Rochelle Gifts	2996
Baane Mini Imports	2996
Mini Gifts Distributors Ltd.	2996
Havel & Zbyszek Co	2996
Blauer See Auto, Co.	2996
Mini Wheels Co.	2996
Land of Toys Inc.	2996
Euro+ Shopping Channel	2996
Volvo Model Replicas, Co	2996
Danish Wholesale Imports	2996

Question 15:

CREATE TABLE LowCustomers (CustomerNumber INT NOT NULL PRIMARY KEY, ContactDate DATE NOT NULL, OrderTotal DECIMAL(9,2)NOT NULL);

Question 16:

INSERT INTO LowCustomers (CustomerNumber, ContactDate, OrderTotal) VALUES (1, 02-20-20, 10), (2, 02-19-20, 20), (3, 02-18-20, 65), (4, 02-17-20,32), (5, 02-16-20, 59), (6, 02-22-2019, 23), (7, 08-07-2019, 22), (8, 10-10-2010, 34), (9, 09-08-2019, 34), (10, 10-10-2018, 20), (11, 11-11-2011, 11), (12, 12-01-2019, 27), (13, 06-30-2008, 98), (14, 14-14-2014, 14), (15, 12-11-2016, 27), (16, 06-31-2018, 99);
Question 17:

SELECT * FROM LowCustomers ORDER BY OrderTotal DESC;

CustomerNumb...	ContactDate	OrderTotal
16	2006-01-18	99.00
13	2006-03-08	98.00
3	2002-12-20	65.00
5	2002-06-20	59.00
8	2010-10-10	34.00
9	2009-08-19	34.00
4	2002-07-20	32.00
12	2012-01-19	27.00
15	2012-11-16	27.00
6	2002-12-19	23.00
7	2008-07-19	22.00
2	2002-09-20	20.00
10	2010-10-18	20.00
14	2014-12-14	14.00
11	2011-11-11	11.00
1	2020-20-02	10.00
NULL	NULL	NULL

Question 18:

ALTER TABLE LowCustomers ADD OrderCount INT;

Question 19:

SELECT * FROM LowCustomers ORDER BY OrderTotal DESC;

CustomerNumb...	ContactDate	OrderTotal	OrderCount
1	0000-00-00	10.00	0.7017872461134449
2	0000-00-00	20.00	0.947646791997968
3	0000-00-00	65.00	0.6328722523831504
4	0000-00-00	32.00	0.3214209166554929
5	0000-00-00	59.00	0.7084878568616583
6	0000-00-00	23.00	0.5781765650754577
7	0000-00-00	22.00	0.7654192855259583
8	0000-00-00	34.00	0.09256676313706372
▶ 9	0000-00-00	34.00	0.16657598984108865
10	0000-00-00	20.00	0.5551796905278971
11	0000-00-00	11.00	0.27617051384986424
12	0000-00-00	27.00	0.7153135283992752
13	0000-00-00	98.00	0.7480561311804281
14	0000-00-00	14.00	0.5943401014379599
15	0000-00-00	27.00	0.7275321443821603
16	0000-00-00	99.00	0.8546404483305667

Question 20:

SELECT CustomerNumber, ContactDate, OrderTotal, RAND() AS OrderCount FROM LowCustomers ORDER BY OrderCount DESC;

CustomerNumb...	ContactDate	OrderTotal	OrderCount
8	0000-00-00	34.00	0.9288893751137791
9	0000-00-00	34.00	0.861522474197226
5	0000-00-00	59.00	0.7885554673043597
15	0000-00-00	27.00	0.7738669363538426
13	0000-00-00	98.00	0.6292238194767608
4	0000-00-00	32.00	0.605816376959734
12	0000-00-00	27.00	0.5379371517691176
14	0000-00-00	14.00	0.5323076728100959
10	0000-00-00	20.00	0.5209442763784381
1	0000-00-00	10.00	0.4149754423787589
16	0000-00-00	99.00	0.2724116940725704
2	0000-00-00	20.00	0.2650203558290567
7	0000-00-00	22.00	0.2609748107017715
6	0000-00-00	23.00	0.125328236376241...
3	0000-00-00	65.00	0.080175482742651...
11	0000-00-00	11.00	0.020153990034157...

Question 21:
DROP TABLE LowCustomers;