

### PROB 1

```
SELECT DISTINCT country
FROM offices
ORDER BY country ASC
;
```

country
Australia
France
Japan
UK
USA

### PROB 2

```
SELECT employeeNumber, lastName, firstName, extension
FROM employees
WHERE officeCode = 1
;
```

```
SELECT officeCode, city
FROM offices;
```

	employeeNumb...	lastName	firstName	extension
▶	1002	Murphy	Diane	x5800
	1056	Patterson	Mary	x4611
	1076	Firrelli	Jeff	x9273
	1143	Bow	Anthony	x5428
	1165	Jennings	Leslie	x3291
	1166	Thompson	Leslie	x4065
	NULL	NULL	NULL	NULL

### Prob 3

```
SELECT productCode, productName, productVendor, quantityInStock, productLine
FROM products
```

```

WHERE productLine = 'Vintage Cars'
and buyPrice <= 60
and buyPrice >= 50
;

```

	productCo...	productName	productVendor	quantityInSto...	productLine
▶	S18_2325	1932 Model A Ford J-Coupe	Autoart Studio Design	9354	Vintage Cars
	S18_3320	1917 Maxwell Touring Car	Exoto Designs	7913	Vintage Cars
	S18_4522	1904 Buick Runabout	Exoto Designs	8290	Vintage Cars
	S24_4258	1936 Chrysler Airflow	Second Gear Diecast	4710	Vintage Cars
	NULL	NULL	NULL	NULL	NULL

#### Prob 4

```

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

```

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

#### PROB 5

```

SELECT productName, (MSRP - buyPrice)
FROM products
WHERE (MSRP - buyPrice) = (
SELECT MAX(MSRP - buyPrice)
FROM products
)
;

```

productName	(MSRP - buyPrice)
1952 Alpine Renault 1300	115.72

#### Prob 6

```

SELECT country, COUNT(*)
FROM customers
GROUP BY
country

```

HAVING COUNT(\*) >= 6

;

country	COUNT(*)
France	12
USA	36
Germany	13
Spain	7

### Prob 7

```
SELECT productCode, productName, COUNT(*)"Order Count"
FROM products
WHERE productVendor = 'Welly Diecast Productions'
GROUP BY
productCode,
productName
;
```

productCode	productName	Order Count
S12_1666	1958 Setra Bus	1
S12_3148	1969 Corvair Monza	1
S12_3380	1968 Dodge Charger	1
S12_4675	1969 Dodge Charger	1
S18_1749	1917 Grand Touring Sedan	1
S18_2625	1936 Harley Davidson El Knucklehead	1
S24_3371	1971 Alpine Renault 1600s	1
S700_3962	The Queen Mary	1

### Prob 8

```
SELECT employeeNumber, concat(firstName,' ', lastName) AS Name
FROM employees
WHERE reportsTo = '1088'
or reportsTo = '1056'
;
```

employeeNumber	Name
1088	William Patterson
1102	Gerard Bondur
1143	Anthony Bow
1621	Mami Nishi
1611	Andy Fixter
1612	Peter Marsh
1619	Tom King

### Prob 9

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

employeeNumber	lastName	firstName
1002	Murphy	Diane
NULL	NULL	NULL

### Prob 10

```
SELECT productName
FROM products
WHERE productLine = 'Motorcycles'
and productName LIKE '%199%'
;
```

productName
1996 Moto Guzzi 1100i
1997 BMW R 1100 S
1997 BMW F650 ST

### Prob 11

### Prob 12

```
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

### Prob 13

```

SELECT customers.customerName
FROM customers
LEFT JOIN orders ON customers.customerNumber = orders.customerNumber
WHERE country = 'Switzerland'
AND orders.orderNumber is null
;

```

customerName
BG&E Collectables
Precious Collectables

### Prob 14

```

SELECT customers.customerName, SUM(orderdetails.quantityOrdered)
FROM customers
INNER JOIN orders ON customers.customerNumber = orders.customerNumber
INNER JOIN orderdetails ON orders.orderNumber = orderdetails.orderNumber
GROUP BY customers.customerName
HAVING SUM(orderdetails.quantityOrdered) > 1700
;

```

customerName	SUM(orderdetails.quantityOrder...
Australian Collectors, Co.	1926
La Rochelle Gifts	1832
Mini Gifts Distributors Ltd.	6366
Euro+ Shopping Channel	9327
Muscle Machine Inc	1775
AV Stores, Co.	1778

#### Prob 15

```
CREATE TABLE TopCustomers(
CustomerNumber int NOT NULL,
ContactDate date NOT NULL,
OrderCount int NOT NULL,
OrderTotal decimal(9,2) NOT NULL,
CONSTRAINT TopCustomer_PK PRIMARY KEY (CustomerNumber)
);
```

#### Prob 16

```
INSERT INTO TopCustomers (CustomerNumber, ContactDate, OrderCount, OrderTotal)
SELECT customers.customerNumber, CURDATE(),
SUM(orderdetails.quantityOrdered),SUM(orderdetails.priceEach * orderdetails.quantityOrdered)
AS total
FROM customers
INNER JOIN orders ON customers.customerNumber = orders.customerNumber
INNER JOIN orderdetails ON orders.orderNumber = orderdetails.orderNumber
GROUP BY customers.customerNumber
HAVING total > 150000
;
```

#### Prob 17

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

	CustomerNumb...	ContactDate	OrderCount	OrderTotal
▶	141	2022-10-09	9327	820689.54
	124	2022-10-09	6366	591827.34
	114	2022-10-09	1926	180585.07
	151	2022-10-09	1775	177913.95
	119	2022-10-09	1832	158573.12
	148	2022-10-09	1524	156251.03
	323	2022-10-09	1691	154622.08
	NULL	NULL	NULL	NULL

#### Prob 18

```
ALTER TABLE TopCustomers
ADD CreditRating int;
```

#### Prob 19

```
UPDATE TopCustomers
SET CreditRating = FLOOR(RAND()*(9-0)+0)
WHERE CreditRating is null;
```

#### Prob 20

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

	CustomerNumb...	ContactDate	OrderCount	OrderTotal	CreditRating
▶	148	2022-10-09	1524	156251.03	8
	141	2022-10-09	9327	820689.54	7
	151	2022-10-09	1775	177913.95	7
	323	2022-10-09	1691	154622.08	5
	119	2022-10-09	1832	158573.12	4
	124	2022-10-09	6366	591827.34	4
	114	2022-10-09	1926	180585.07	0
	NULL	NULL	NULL	NULL	NULL

#### Prob 21

```
DROP TABLE TopCustomers;
```