

-- Probelem1

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

	country
▶	Australia
	France
	Japan
	UK
	USA

-- Probelem2

```
SELECT employees.employeeNumber, employees.lastName, employees.firstName
FROM employees
WHERE employees.officeCode IN
      (SELECT      officeCode
        FROM offices
        WHERE country = 'USA');
```

	employeeNumber	lastName	firstName
▶	1002	Murphy	Diane
	1056	Patterson	Mary
	1076	Firrelli	Jeff
	1143	Bow	Anthony
	1165	Jennings	Leslie
	1166	Thompson	Leslie
	1188	Firrelli	Julie
	1216	Patterson	Steve
	1286	Tseng	Foon Yue
	1323	Vanauf	George

-- Probelem3

```
SELECT productCode, productName, productScale, productVendor, buyPrice
FROM products
WHERE productLine = 'Classic Cars'
      AND quantityInStock >= 1000
      AND quantityInStock <= 2000;
```

	productCode	productName	productScale	productVendor	buyPrice
▶	S12_3891	1969 Ford Falcon	1:12	Second Gear Diecast	83.05
	S18_3278	1969 Dodge Super Bee	1:18	Min Lin Diecast	49.05
	S18_4721	1957 Corvette Convertible	1:18	Classic Metal Creations	69.93
	S24_1046	1970 Chevy Chevelle SS 454	1:24	Unimax Art Galleries	49.24
	S24_2887	1952 Citroen-15CV	1:24	Exoto Designs	72.82
*	NULL	NULL	NULL	NULL	NULL

-- Probelem4

```
SELECT productCode, productName, productVendor, buyPrice, MSRP
```

FROM products
WHERE productVendor = 'Gearbox Collectibles'
AND MSRP > (SELECT AVG(MSRP)
FROM products);

	productCode	productName	productVendor	buyPrice	MSRP
▶	S18_2238	1998 Chrysler Plymouth Prowler	Gearbox Collectibles	101.51	163.73
	S18_2795	1928 Mercedes-Benz SSK	Gearbox Collectibles	72.56	168.75
	S18_3482	1976 Ford Gran Torino	Gearbox Collectibles	73.49	146.99
	S18_3685	1948 Porsche Type 356 Roadster	Gearbox Collectibles	62.16	141.28
	S24_3432	2002 Chevy Corvette	Gearbox Collectibles	62.11	107.08
*	NULL	NULL	NULL	NULL	NULL

-- Probelem5

SELECT productName,
productScale,
buyPrice,
quantityInStock,
buyPrice*quantityInStock AS TotalValue
FROM products
WHERE productScale = '1:12'
LIMIT 5;

	productName	productScale	buyPrice	quantityInStock	TotalValue
▶	1968 Ford Mustang	1:12	95.34	68	6483.12
	2001 Ferrari Enzo	1:12	95.59	3619	345940.21
	1958 Setra Bu	1958 Setra Bus	77.90	1579	123004.10
	2002 Suzuki XREO	1:12	66.27	9997	662501.19
	1968 Dodge Charger	1:12	75.16	9123	685684.68

-- Probelem6

SELECT state, COUNT(customerNumber) AS Customers
FROM customers
WHERE state IS NOT NULL
GROUP BY state
HAVING Customers > 2
ORDER BY state ASC;

	state	Customers
▶	CA	11
	CT	4
	MA	9
	NY	6
	PA	3

-- Probelem7

SELECT orderdetails.productCode ,
products.productName,

```

COUNT(orderdetails.orderNumber) AS OrderCount
FROM orderdetails, products
WHERE orderdetails.productCode = products.productCode
GROUP BY orderdetails.productCode
HAVING OrderCount > 50;

```

	productCode	productName	OrderCount
▶	S18_3232	1992 Ferrari 360 Spider red	53

-- Probelem8

```

SELECT customers.customerNumber,
       customers.customerName,
       SUM(payments.amount) AS TotalPayments,
       customers.creditLimit
FROM customers, payments
WHERE customers.customerNumber = payments.customerNumber
GROUP BY customerNumber
HAVING SUM(payments.amount) > creditLimit
ORDER BY customerNumber;

```

	customerNumber	customerName	TotalPayments	creditLimit
▶	103	Atelier graphique	22314.36	21000.00
	112	Signal Gift Stores	80180.98	71800.00
	114	Australian Collectors, Co.	180585.07	117300.00
	121	Baane Mini Imports	104224.79	81700.00
	124	Mini Gifts Distributors Ltd.	584188.24	210500.00
	128	Blauer See Auto, Co.	75937.76	59700.00
	129	Mini Wheels Co.	66710.56	64600.00
	141	Euro+ Shopping Channel	715738.98	227600.00
	145	Danish Wholesale Imports	107446.50	83400.00
	146	Saveley & Henriot, Co.	130305.35	123900.00
	148	Dragon Souvenirs, Ltd.	156251.03	103800.00
	151	Muscle Machine Inc	177913.95	138500.00
	161	Technics Stores Inc.	104545.22	84600.00
	166	Handji Gifts& Co	105420.57	97900.00
	167	Herkku Gifts	97562.47	96800.00
	172	La Corne D'abondance, Co.	86553.52	84300.00
	175	Gift Depot Inc.	95424.63	84300.00
	187	AV Stores, Co.	148410.09	136800.00
	205	Toys4GrownUps.com	93803.30	90700.00
	209	Mini Caravy	75859.32	53800.00
	216	Enaco Distributors	68520.47	60300.00
	233	Québec Home Shopping ...	68977.67	48700.00
	276	Anna's Decorations, Ltd	137034.22	107800.00
	278	Rovelli Gifts	127529.69	119600.00
	311	Oulu Toy Supplies, Inc.	95706.15	90500.00
	320	Mini Creations Ltd.	101872.52	94500.00
	321	Corporate Gift Ideas Co.	132340.78	105000.00
	323	Down Under Souvenirs,...	154622.08	88000.00
	324	Stylish Desk Decors, Co.	80556.73	77000.00
	333	Australian Gift Network, Co	55190.16	51600.00
	334	Suominen Souvenirs	103896.74	98800.00
	350	Marseille Mini Autos	71547.53	65000.00
	353	Reims Collectables	126983.19	81100.00
	363	Online Diecast Creations ...	116449.29	114200.00
	379	Collectables For Less Inc.	73533.65	70700.00
	381	iyale Belge	29217.18	23500.00
	382	Salzburg Collectables	85060.00	71700.00
	385	Cruz & Sons Co.	87468.30	81500.00
	398	Tokyo Collectables, Ltd	105548.73	94400.00
	424	Classic Legends Inc.	69214.33	67500.00
	447	Gift Ideas Corp.	49967.78	49700.00
	452	Mini Auto Werke	51059.99	45300.00
	458	Corrida Auto Replicas, Ltd	112440.09	104600.00
	462	FunGiftIdeas.com	88627.49	85800.00
	486	Motor Mint Distributors Inc.	77726.59	72600.00
	496	Kelly's Gift Shop	114497.19	110000.00

-- Problem9

```

SELECT employeeNumber,
       CONCAT(firstName,' ',lastname) AS Name
FROM employees
WHERE reportsTo in (SELECT employeeNumber
                    FROM employees
                    WHERE CONCAT(firstName,' ',lastname) = 'William Patterson'
                    OR CONCAT(firstName,' ',lastname) = 'Mary Patterson');

```

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

-- Probelem10

```

SELECT productName,
       MSRP, buyPrice,
       MSRP-buyPrice AS Profit
FROM Products
WHERE productName LIKE '%Ferrari%';

```

	productName	MSRP	buyPrice	Profit
▶	2001 Ferrari Enzo	207.80	95.59	112.21
	1992 Ferrari 360 Spider red	169.34	77.90	91.44

-- Probelem11

```

SELECT orderNumber,
       requiredDate,
       shippedDate,
       requiredDate-shippedDate AS DateDifference,
       MONTH(shippedDate) AS ShippedMonth
FROM orders
WHERE requiredDate-shippedDate < 10
      AND MONTH(shippedDate) = 10
      AND YEAR(shippedDate) = 2003;

```

	orderNumber	requiredDate	shippedDate	DateDifference	ShippedMonth
▶	10152	2003-10-03	2003-10-01	2	10
	10153	2003-10-05	2003-10-03	2	10
	10154	2003-10-12	2003-10-08	4	10
	10155	2003-10-13	2003-10-07	6	10
	10156	2003-10-17	2003-10-11	6	10
	10157	2003-10-15	2003-10-14	1	10
	10158	2003-10-18	2003-10-15	3	10
	10159	2003-10-19	2003-10-16	3	10
	10160	2003-10-17	2003-10-17	0	10
	10161	2003-10-25	2003-10-20	5	10
	10162	2003-10-26	2003-10-19	7	10
	10163	2003-10-27	2003-10-24	3	10
	10164	2003-10-30	2003-10-23	7	10
	10166	2003-10-30	2003-10-27	3	10
	10300	2003-10-13	2003-10-09	4	10
	10301	2003-10-15	2003-10-08	7	10
	10302	2003-10-16	2003-10-07	9	10

-- Probelem12

```

SELECT firstName, lastName
  FROM employees
 WHERE jobTitle IN ('VP Sales','VP Marketing')
    AND employeeNumber NOT IN (SELECT salesRepEmployeeNumber
                                FROM customers
                                WHERE salesRepEmployeeNumber IS NOT NULL);

```

	firstName	lastName
▶	Mary	Patterson
	Jeff	Firrelli

-- Probelem13

```

SELECT customers.customerName,
       customers.customerNumber
  FROM customers
 WHERE customers.customerNumber
        NOT IN (SELECT customerNumber
                 FROM orders
                 WHERE YEAR(orderDate) > 2004)
 AND customers.country = 'Germany';

```

	customerName	customerNumber
►	Blauer See Auto, Co.	128
	Natürlich Autos	223
	Messner Shopping Network	247
	Toms Spezialitäten, Ltd	259
	Franken Gifts, Co	273
	Der Hund Imports	307
	Cramer Spezialitäten, Ltd	335
	Kommission Auto	361
	Stuttgart Collectable Exchange	409
	Bavarian Collectables Imports, Co.	415
	Feuer Online Stores, Inc	443
	Warburg Exchange	459
	Mit Vergnügen & Co.	477

-- Probelem14

```

SELECT products.productName,
       orderdetails.productCode,
       orderdetails.quantityOrdered,
       orders.status
FROM orderdetails
INNER JOIN products
      ON products.productCode = orderdetails.productCode
INNER JOIN orders
      ON orders.orderNumber = orderdetails.orderNumber
WHERE orderdetails.orderNumber IN (SELECT orderNumber
                                   FROM orders
                                   WHERE orders.status = 'In Process')
AND orderdetails.quantityOrdered > 40;

```

	productName	productCode	quantityOrdered	status
►	1932 Model A Ford J-Coupe	S18_2325	45	In Process
	1932 Alfa Romeo 8C2300 Spider Sport	S18_4409	66	In Process
	1970 Chevy Chevelle SS 454	S24_1046	60	In Process
	1939 Chevrolet Deluxe Coupe	S24_1937	45	In Process
	1952 Citroen-15CV	1939 Chevrolet Deluxe Coupe		In Process
	1937 Lincoln Berline	S18_1342	51	In Process
	1952 Alpine Renault 1300	S10_1949	50	In Process
	1958 Setra Bus	S12_1666	49	In Process
	1940 Ford Pickup Truck	S18_1097	54	In Process
	1996 Peterbilt 379 Stake Bed with Outrigger	S32_3522	44	In Process
	1982 Camaro Z28	S700_2824	46	In Process
	1970 Dodge Coronet	S24_1444	55	In Process
	1962 Volkswagen Microbus	S24_2300	49	In Process
	1980's GM Manhattan Express	S32_1268	41	In Process

-- Probelem15

```

USE `classicmodels`;

```

```

DROP TABLE IF EXISTS `TopCustomers`;
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)
);

```

87 21:47:23 CREATE TABLE `TopCustomers` (`CustomerNumber` INT NOT NULL, `ContactDate` DATE NOT NULL, 0 row(s) affected)

0.016 sec

-- Probelem16

```

INSERT INTO `TopCustomers`(`CustomerNumber`,
  `ContactDate`,
  `OrderCount`,
  `OrderTotal`)

SELECT customers.customerNumber,
  DATE(NOW()),
  SUM(orderdetails.quantityOrdered),
  SUM(orderdetails.quantityOrdered*orderdetails.priceEach)
FROM customers
INNER JOIN orders
  ON customers.customerNumber = orders.customerNumber
INNER JOIN orderdetails
  ON orders.orderNumber = orderdetails.orderNumber
GROUP BY customers.customerNumber
HAVING SUM(orderdetails.quantityOrdered*orderdetails.priceEach) > 140000;

```

	CustomerNumber	ContactDate	OrderCount	OrderTotal
▶	114	2023-02-23	1926	180585.07
	119	2023-02-23	1832	158573.12
	124	2023-02-23	6366	591827.34
	131	2023-02-23	1631	149085.15
	141	2023-02-23	9327	820689.54
	148	2023-02-23	1524	156251.03
	151	2023-02-23	1775	177913.95
	187	2023-02-23	1778	148410.09
	323	2023-02-23	1691	154622.08
	450	2023-02-23	1656	143536.27
	NULL	NULL	NULL	NULL

-- Probelem17

```

SELECT customerNumber, contactDate, OrderCount, orderTotal
  FROM TopCustomers
ORDER BY orderTotal DESC
LIMIT 5;

```


	customerNumber	contactDate	OrderCount	orderTotal
▶	141	2023-02-23	9327	820689.54
	124	2023-02-23	6366	591827.34
	114	2023-02-23	1926	180585.07
	151	2023-02-23	1775	177913.95
	119	2023-02-23	1832	158573.12

-- Probelem18

ALTER TABLE TopCustomers

ADD COLUMN CustomerRatings INT DEFAULT 0;

	CustomerNumber	ContactDate	OrderCount	OrderTotal	CustomerRatings
▶	114	2023-02-23	1926	180585.07	0
	119	2023-02-23	1832	158573.12	0
	124	2023-02-23	6366	591827.34	0
	131	2023-02-23	1631	149085.15	0
	141	2023-02-23	9327	820689.54	0
	148	2023-02-23	1524	156251.03	0
	151	2023-02-23	1775	177913.95	0
	187	2023-02-23	1778	148410.09	0
	323	2023-02-23	1691	154622.08	0
	450	2023-02-23	1656	143536.27	0
*	NULL	NULL	NULL	NULL	NULL

-- Probelem19

UPDATE TopCustomers

SET CustomerRatings = FLOOR(RAND()*11);

✓ 96 21:51:12 UPDATE TopCustomers SET CustomerRatings = FLOOR(RAND()*11) 10 row(s) affected Rows matched: 10 Changed: 10 Warnings: 0

	CustomerNumber	ContactDate	OrderCount	OrderTotal	CustomerRatings
▶	114	2023-02-23	1926	180585.07	2
	119	2023-02-23	1832	158573.12	7
	124	2023-02-23	6366	591827.34	8
	131	2023-02-23	1631	149085.15	7
	141	2023-02-23	9327	820689.54	3
	148	2023-02-23	1524	156251.03	4
	151	2023-02-23	1775	177913.95	10
	187	2023-02-23	1778	148410.09	8
	323	2023-02-23	1691	154622.08	0
	450	2023-02-23	1656	143536.27	7
*	NULL	NULL	NULL	NULL	NULL

-- Probelem20

SELECT*

FROM TopCustomers

ORDER BY CustomerRatings DESC;

	CustomerNumber	ContactDate	OrderCount	OrderTotal	CustomerRatings
▶	151	2023-02-23	1775	177913.95	10
	124	2023-02-23	6366	591827.34	8
	187	2023-02-23	1778	148410.09	8
	119	2023-02-23	1832	158573.12	7
	131	2023-02-23	1631	149085.15	7
	450	2023-02-23	1656	143536.27	7
	148	2023-02-23	1524	156251.03	4
	141	2023-02-23	9327	820689.54	3
	114	2023-02-23	1926	180585.07	2
	323	2023-02-23	1691	154622.08	0
*	NULL	NULL	NULL	NULL	NULL

-- Probelem21

DROP TABLE IF EXISTS `TopCustomers`;

✓ 104 21:53:15 DROP TABLE IF EXISTS 'TopCustomers' 0 row(s) affected