

### 1.1 How many invoices are there?

```
SELECT COUNT(*) FROM invoice;
```

```
count
-----
. . . . . 8
```

### 1.2 List the invoice numbers and the invoice dates

```
SELECT inv_number, inv_date FROM invoice
```

```
inv_number | . . inv_date
-----+-----
. . . . . 1001 | 2016-01-16
. . . . . 1002 | 2016-01-16
. . . . . 1003 | 2016-01-16
. . . . . 1004 | 2016-01-17
. . . . . 1005 | 2016-01-17
. . . . . 1006 | 2016-01-17
. . . . . 1007 | 2016-01-17
. . . . . 1008 | 2016-01-17
```

### 2.1 How many customers are there?

```
SELECT COUNT(*) FROM customer;
```

```
count
-----
. . . . 10
```

### 2.2 List the customer codes and customer names.

```
SELECT cus_code, CONCAT(cus_fname, ' ', cus_initial, '. ', cus_lname) as
cus_name FROM customer;
```

```
cus_code | . . . . . cus_name
-----+-----
. . . . 10010 | Alfred A. Ramas
. . . . 10011 | Leona K. Dunne
. . . . 10012 | Kathy W. Smith
. . . . 10013 | Paul F. Olowski
. . . . 10014 | Myron . Orlando
. . . . 10015 | Amy B. O'Brian
. . . . 10016 | James G. Brown
. . . . 10017 | George . Williams
. . . . 10018 | Anne G. Farriss
. . . . 10019 | Olette K. Smith
```

### 3.1 List vendor numbers and vendor names

```
SELECT v_code, v_name FROM vendor;
```

```
v_code | . . . . . v_name
-----+-----
. . 21225 | Bryson, Inc.
. . 21226 | Superloo, Inc.
. . 21231 | D&E Supply
```

. . 21344	Gomez Bros.
. . 22567	Dome Supply
. . 23119	Randsets Ltd.
. . 24004	Brackman Bros.
. . 24288	ORDVA, Inc.
. . 25443	B&K, Inc.
. . 25501	Damal Supplies
. . 25595	Rubicon Systems

### 3.2 Show the vendor count per state

```
SELECT v_state, COUNT(*) FROM vendor GROUP BY v_state;
```

v_state	count
TN	5
FL	3
KY	1
GA	2

#### 4.1 Based on price, what is the most expensive product?

```
SELECT p_code, p_descript FROM product ORDER BY p_price LIMIT 1;
```

```

· · p_code· · |· · · · · · · · p_descript
-----+-----
54778-2T | Rat-tail file, 1/8-in. fine

```

#### 4.2 How much quantity on hand is available for the most expensive product?

```
SELECT p_goh FROM product ORDER BY p_price LIMIT 1
```

p\_qoh  
-----  
. . . . 43

**5. Display the product description, quantity on hand, and price for all products that have a discount greater than 5%**

```
SELECT p_description, p_goh, p_price FROM product WHERE p_discount > 0.05;
```

. . . . . p_descript . . . . .		p_qoh		p_price
-----+-----+-----				
Claw hammer . . . . .		. . . . . 23		. . . . . 9.
Steel matting, 4'x8'x1/6", .5" mesh		. . . . . 18		. . . . . 119.95

**6. Generate a listing of products offered by each vendor. List vendor name, product code and product name. Sort by vendor name and product code**

```
SELECT v_name, p_code, p_descript FROM product JOIN vendor ON vendor.v_code =
product.v_code ORDER BY v_name, p_code;
```

v_name	p_code	p_descript
Bryson, Inc.	11QER/31	Power painter, 15 psi., 3-nozzle
Bryson, Inc.	13-Q2/P2	7.25-in. pwr. saw blade
Bryson, Inc.	23109-HB	Claw hammer
Bryson, Inc.	SM-18277	1.25-in. metal screw, 25
D&E Supply	SW-23116	2.5-in. wd. screw, 50

Gomez Bros.	14-Q1/L3	9.00-in. pwr. saw blade
Gomez Bros.	54778-2T	Rat-tail file, 1/8-in. fine
ORDVA, Inc.	2232/QTY	B&D jigsaw, 12-in. blade
ORDVA, Inc.	2232/QWE	B&D jigsaw, 8-in. blade
ORDVA, Inc.	89-WRE-Q	Hicut chain saw, 16 in.
Randsets Ltd.	1546-QQ2	Hrd. cloth, 1/4-in., 2x50
Randsets Ltd.	1558-QW1	Hrd. cloth, 1/2-in., 3x50
Rubicon Systems	2238/QPD	B&D cordless drill, 1/2-in.
Rubicon Systems	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh

## 7. What is the average discount (rounded to the nearest cent) given by each vendor?

```
SELECT v_name AS vendor_name, ROUND(AVG(p_discount), 2) AS average_discount
FROM product JOIN vendor ON vendor.v_code = product.v_code GROUP BY v_name;
```

vendor_name	average_discount
Bryson, Inc.	0.04
Gomez Bros.	0.00
Randsets Ltd.	0.00
D&E Supply	0.00
ORDVA, Inc.	0.05
Rubicon Systems	0.08

## 8.1 What is the vendor with most "products on hand" for a particular product?

```
SELECT v_name AS vendor, p_descript AS product, p_qoh AS products_on_hand
FROM product JOIN vendor ON product.v_code = vendor.v_code ORDER BY p_qoh
DESC LIMIT 1;
```

vendor	product	products_on_hand
D&E Supply	2.5-in. wd. screw, 50	237

## 8.2 What is the vendor with most "products on hand" for all its products combined? List both the vendor name and the number of products. Is it the same vendor in both cases?

```
SELECT v_name, SUM(p_qoh) AS total_qoh FROM product JOIN vendor ON
product.v_code = vendor.v_code GROUP BY v_name ORDER BY total_qoh DESC LIMIT
1;
```

v_name	total_qoh
D&E Supply	237

It is the same vendor.

## 9. Generate a listing of customer purchases, including the subtotals for each of the invoice line numbers; sort output by customer code, invoice number and the line\_number

```
SELECT customer.cus_code,
       line.inv_number,
       invoice.inv_date,
       line.line_number,
       line.p_code,
       line.line_units,
       line.line_price,
       CONCAT(customer.cus_fname, ' ', CASE WHEN
```

```
customer.cus_initial IS NOT NULL THEN CONCAT(customer.cus_initial,
'. ') ELSE '' END, customer.cus_lname) AS customer_name,
. . . . . ROUND((line_units * line_price), 2) AS Subtotal
FROM line
JOIN invoice ON line.inv_number = invoice.inv_number
JOIN customer ON invoice.cus_code = customer.cus_code
ORDER BY customer.cus_code, invoice.inv_number, line.line_number;
```

```
cus_code | inv_number | . inv_date . . | line_number | . . p_code . . |
line_units | line_price | . . customer_name . . | subtotal
```

```
-----+-----+-----+-----+-----+-----+-----+
. . . . 10011 | . . . . . . . 1002 | 2016-01-16 | . . . . . . . . . . 1 | 54778-2T | .
2.00 | . . . . . . . 4.99 | Leona K. Dunne . . | . . . . . . . 9.98
. . . . 10011 | . . . . . . . 1004 | 2016-01-17 | . . . . . . . . . . 1 | 54778-2T | .
3.00 | . . . . . . . 4.99 | Leona K. Dunne . . | . . . . . . . 14.97
. . . . 10011 | . . . . . . . 1004 | 2016-01-17 | . . . . . . . . . . 2 | 23109-HB | .
2.00 | . . . . . . . 9.95 | Leona K. Dunne . . | . . . . . . . 19.90
. . . . 10011 | . . . . . . . 1008 | 2016-01-17 | . . . . . . . . . . 1 | PVC23DRT | .
5.00 | . . . . . . . 5.87 | Leona K. Dunne . . | . . . . . . . 29.35
. . . . 10011 | . . . . . . . 1008 | 2016-01-17 | . . . . . . . . . . 2 | WR3/TT3 . .
3.00 | . . . . . 119.95 | Leona K. Dunne . . | . . . . . 359.85
. . . . 10011 | . . . . . . . 1008 | 2016-01-17 | . . . . . . . . . . 3 | 23109-HB | .
1.00 | . . . . . . . 9.95 | Leona K. Dunne . . | . . . . . . . 9.95
. . . . 10012 | . . . . . . . 1003 | 2016-01-16 | . . . . . . . . . . 1 | 2238/QPD | .
1.00 | . . . . . . . 38.95 | Kathy W. Smith . . | . . . . . . . 38.95
. . . . 10012 | . . . . . . . 1003 | 2016-01-16 | . . . . . . . . . . 2 | 1546-QQ2 | .
1.00 | . . . . . . . 39.95 | Kathy W. Smith . . | . . . . . . . 39.95
. . . . 10012 | . . . . . . . 1003 | 2016-01-16 | . . . . . . . . . . 3 | 13-Q2/P2 | .
5.00 | . . . . . . . 14.99 | Kathy W. Smith . . | . . . . . . . 74.95
. . . . 10014 | . . . . . . . 1001 | 2016-01-16 | . . . . . . . . . . 1 | 13-Q2/P2 | .
1.00 | . . . . . . . 14.99 | Myron Orlando . . | . . . . . . . 14.99
. . . . 10014 | . . . . . . . 1001 | 2016-01-16 | . . . . . . . . . . 2 | 23109-HB | .
1.00 | . . . . . . . 9.95 | Myron Orlando . . | . . . . . . . 9.95
. . . . 10014 | . . . . . . . 1006 | 2016-01-17 | . . . . . . . . . . 1 | SM-18277 | .
3.00 | . . . . . . . 6.99 | Myron Orlando . . | . . . . . . . 20.97
. . . . 10014 | . . . . . . . 1006 | 2016-01-17 | . . . . . . . . . . 2 | 2232/QTY | .
1.00 | . . . . . 109.92 | Myron Orlando . . | . . . . . 109.92
. . . . 10014 | . . . . . . . 1006 | 2016-01-17 | . . . . . . . . . . 3 | 23109-HB | .
1.00 | . . . . . . . 9.95 | Myron Orlando . . | . . . . . . . 9.95
. . . . 10014 | . . . . . . . 1006 | 2016-01-17 | . . . . . . . . . . 4 | 89-WRE-Q | .
1.00 | . . . . . 256.99 | Myron Orlando . . | . . . . . 256.99
. . . . 10015 | . . . . . . . 1007 | 2016-01-17 | . . . . . . . . . . 1 | 13-Q2/P2 | .
2.00 | . . . . . . . 14.99 | Amy B. O'Brian . . | . . . . . . . 29.98
. . . . 10015 | . . . . . . . 1007 | 2016-01-17 | . . . . . . . . . . 2 | 54778-2T | .
1.00 | . . . . . . . 4.99 | Amy B. O'Brian . . | . . . . . . . 4.99
. . . . 10018 | . . . . . . . 1005 | 2016-01-17 | . . . . . . . . . . 1 | PVC23DRT | .
12.00 | . . . . . . . 5.87 | Anne G. Farriss | . . . . . 70.44
```

**10. List the total amount spent by each customer who made purchases during the current invoice cycle—that is, for the customers who appear in the INVOICE table; sort by customer code**

```
SELECT CONCAT(customer.cus_fname, ' ', CASE WHEN
customer.cus_initial IS NOT NULL THEN CONCAT(customer.cus_initial,
```

```

'. ') ELSE '' END, customer.cus_lname) AS customer_name,
. . . . . ROUND(SUM(line.line_units * line.line_price), 2) AS
total_amount_spent
FROM invoice
JOIN line ON invoice.inv_number = line.inv_number
JOIN customer ON invoice.cus_code = customer.cus_code
GROUP BY customer.cus_code, customer_name
ORDER BY customer.cus_code;

```

```

. . customer_name. . | total_amount_spent
-----+-----
Leona K. Dunne. . | . . . . . 444.00
Kathy W. Smith. . | . . . . . 153.85
Myron Orlando. . . | . . . . . 422.77
Amy B. O'Brian. . | . . . . . 34.97
Anne G. Farriss | . . . . . 70.44

```

**11. Find a listing of customers who did not make purchases during the invoicing period; sort by customer code**

```

SELECT customer.cus_code,
. . . . . CONCAT(customer.cus_fname, ' ', CASE WHEN
customer.cus_initial IS NOT NULL THEN CONCAT(customer.cus_initial,
'. ') ELSE '' END, customer.cus_lname) AS customer_name
FROM customer
LEFT JOIN invoice ON invoice.cus_code = customer.cus_code
WHERE invoice.cus_code IS NULL
ORDER BY customer.cus_code;

```

```

cus_code |. . customer_name
-----+-----
. . . . 10010 | Alfred A. Ramas
. . . . 10013 | Paul F. Olowski
. . . . 10016 | James G. Brown
. . . . 10017 | George Williams
. . . . 10019 | Olette K. Smith

```

**12. Create a query to produce a summary of the value of products currently in inventory**

```

SELECT SUM(p_price * p_qoh) AS total_value FROM product;

total_value
-----
. . . . 15084.52

```