

1. **(2 pts)** How many invoices are there? **(3 pts)** List the invoice numbers and the invoice dates.

```
sqlite> Select Count(Distinct Inv_Number) From INVOICE;
Count(Distinct Inv_Number)
-----
8
sqlite> Select Distinct Inv_Number, Inv_Date From Invoice;
INV_NUMBER  INV_DATE
-----
1001        16-JAN-2016
1002        16-JAN-2016
1003        16-JAN-2016
1004        17-JAN-2016
1005        17-JAN-2016
1006        17-JAN-2016
1007        17-JAN-2016
1008        17-JAN-2016
```

2. **(2 pts)** How many customers are there? **(3 pts)** List the customer codes and customer names.

```
sqlite> Select Count(Distinct Cus_Code) From Customer;
Count(Distinct Cus_Code)
-----
10
sqlite> Select Cus_Code, Cus_Fname, Cus_Lname From Customer;
CUS_CODE    CUS_FNAME  CUS_LNAME
-----
10016       James      Brown
10011       Leona      Dunne
10018       Anne       Farriss
10015       Amy        O'Brian
10013       Paul       Olowski
10014       Myron      Orlando
10010       Alfred     Ramas
10012       Kathy      Smith
10019       Olette     Smith
10017       George     Williams
sqlite>
```

3. **(2 pts)** List vendor numbers and vendor names. **(3 pts)** Show the vendor count per state.

```

sqlite> Select V_Code, V_Name From Vendor;
V_CODE      V_NAME
-----
21225       Bryson, Inc.
21226       SuperLoo, In
21231       D&E Supply
21344       Gomez Bros.
22567       Dome Supply
23119       Randsets Ltd
24004       Brackman Bro
24288       ORDVA, Inc.
25443       B&K, Inc.
25501       Damal Suppli
25595       Rubicon Syst
sqlite> Select V_State, Count(Distinct V_Code) From Vendor Group By V_State;
V_STATE      Count(Distinct V_Code)
-----
FL           3
GA           2
KY           1
TN           5
sqlite>

```

4. **(2 pts)** Based on price, what is the most expensive product? **(3 pts)** How much quantity on hand is available for the most expensive product?

```

sqlite> Select P_Code, P_Descript, Max(P_Price), P_QOH From Product;
P_CODE      P_DESCRIPT      Max(P_Price)  P_QOH
-----
89-WRE-Q    Hicut chain saw, 16 in.  256.99        11
sqlite>

```

5. **(2 pts)** Write a query to count the number of customers with a customer balance over \$500. **(3 pts)** List the customer code, customer name and balance amount of these customers.

```

sqlite> Select Cus_Code, Cus_Fname, Cus_Lname, Cus_Balance From Customer Where Cus_Balance > 500;
CUS_CODE    CUS_FNAME    CUS_LNAME    CUS_BALANCE
-----
10013       Paul         Olowski       536.75
10017       George       Williams      768.93
sqlite>

```

6. **(7 pts)** Generate a listing of products offered by each Vendor. List vendor name, product code and product name. Sort by vendor name and product code.

You don't specify if you want products without listed vendors or not so I did it both ways. First is a left join second is an inner.

```

sqlite> .mode column
sqlite> Select b.V_Name, a.P_Code, a.P_Descript
...> From Product a
...> Left Join Vendor b
...> On a.V_Code = b.V_code
...> Order By b.V_Name, a.P_Code;

```

V_NAME	P_CODE	P_DESCRIPT
	23114-AA	Sledge hammer, 12 lb.
	PVC23DRT	PVC pipe, 3.5-in., 8-
Bryson, In	23109-HB	Claw hammer
Bryson, In	SM-18277	1.25-in. metal screw,
D&E Supply	SW-23116	2.5-in. wd. screw, 50
Gomez Bros	13-Q2/P2	7.25-in. pwr. saw bla
Gomez Bros	14-Q1/L3	9.00-in. pwr. saw bla
Gomez Bros	54778-2T	Rat-tail file, 1/8-in
ORDVA, Inc	2232/PTY	B&D jigsaw, 12-in. bl
ORDVA, Inc	2232/QWE	B&D jigsaw, 8-in. bla
ORDVA, Inc	89-WRE-Q	Hicut chain saw, 16 i
Randssets L	1546-QQ2	Hrd. cloth, 1/4-in.,
Randssets L	1558-QW1	Hrd. cloth, 1/2-in.,
Rubicon Sy	11QER/31	Power painter, 15 psi
Rubicon Sy	2238/QPD	B&D cordless drill, 1
Rubicon Sy	WR3/TT3	Steel matting, 4'x8'x

```

sqlite> Select b.V_Name, a.P_Code, a.P_Descript
...> From Product a
...> Inner Join Vendor b
...> On a.V_Code = b.V_code
...> Order By b.V_Name, a.P_Code;

```

V_NAME	P_CODE	P_DESCRIPT
	23109-HB	Claw hammer
Bryson, Inc.	SM-18277	1.25-in. me
D&E Supply	SW-23116	2.5-in. wd.
Gomez Bros.	13-Q2/P2	7.25-in. pw
Gomez Bros.	14-Q1/L3	9.00-in. pw
Gomez Bros.	54778-2T	Rat-tail fi
ORDVA, Inc.	2232/PTY	B&D jigsaw,
ORDVA, Inc.	2232/QWE	B&D jigsaw,
ORDVA, Inc.	89-WRE-Q	Hicut chain
Randssets Ltd	1546-QQ2	Hrd. cloth,
Randssets Ltd	1558-QW1	Hrd. cloth,
Rubicon Syst	11QER/31	Power paint
Rubicon Syst	2238/QPD	B&D cordles
Rubicon Syst	WR3/TT3	Steel matti

```

sqlite>

```

7. (7 pts) 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.

```
sqlite> Select c.Cus_Code, c.Cus_Fname, c.Cus_Lname, b.Inv_Number, b.Inv_Date, a.Line_Number, a.Line_Price, a.Line_Units, Sum(a.Line_Price * a.Line_Units) as Customer_Purchases
...> From Line a
...> Inner Join Invoice b
...> On a.Inv_Number = b.Inv_Number
...> Inner Join (Select Cus_Code, Cus_Fname, Cus_Lname From Customer) c
...> On b.Cus_Code = c.Cus_Code
...> Group By b.Inv_Number, a.Line_Number
...> Order By c.Cus_Code, b.Inv_Number, a.Line_Number;
```

Cus_Code	Cus_Fname	Cus_Lname	INV_NUMBER	INV_DATE	LINE_NUMBER	LINE_PRICE	LINE_UNITS	Customer_Purchases
10011	Leona	Dunne	1002	16-JAN-2016	1	4.99	2	9.98
10011	Leona	Dunne	1004	17-JAN-2016	1	4.99	3	14.97
10011	Leona	Dunne	1004	17-JAN-2016	2	9.95	2	19.9
10011	Leona	Dunne	1008	17-JAN-2016	1	5.87	5	29.35
10011	Leona	Dunne	1008	17-JAN-2016	2	119.95	3	359.85
10011	Leona	Dunne	1008	17-JAN-2016	3	9.95	1	9.95
10012	Kathy	Smith	1003	16-JAN-2016	1	38.95	1	38.95
10012	Kathy	Smith	1003	16-JAN-2016	2	39.95	1	39.95
10012	Kathy	Smith	1003	16-JAN-2016	3	14.99	5	74.95
10014	Myron	Orlando	1001	16-JAN-2016	1	14.99	1	14.99
10014	Myron	Orlando	1001	16-JAN-2016	2	9.95	1	9.95
10014	Myron	Orlando	1006	17-JAN-2016	1	6.99	3	20.97
10014	Myron	Orlando	1006	17-JAN-2016	2	109.92	1	109.92
10014	Myron	Orlando	1006	17-JAN-2016	3	9.95	1	9.95
10014	Myron	Orlando	1006	17-JAN-2016	4	256.99	1	256.99
10015	Amy	O'Brian	1007	17-JAN-2016	1	14.99	2	29.98
10015	Amy	O'Brian	1007	17-JAN-2016	2	4.99	1	4.99
10018	Anne	Farriss	1005	17-JAN-2016	1	5.87	12	70.44

```
sqlite>
```

8. (7 pts) List the balance characteristics of the customers who have made purchases during the current invoice cycle—that is, for the customers who appear in the INVOICE table; sort by customer code.

```
sqlite> Select a.Cus_Code, b.Cus_Fname, b.Cus_Lname, b.Cus_Balance
...> From (Select Distinct Cus_Code From Invoice) a
...> Inner Join (Select Cus_Code, Cus_Fname, Cus_Lname, Cus_Balance From Customer) b
...> On a.Cus_Code = b.Cus_Code
...> Order By a.Cus_Code;
```

Cus_Code	Cus_Fname	Cus_Lname	Cus_Balance
10011	Leona	Dunne	0
10012	Kathy	Smith	345.86
10014	Myron	Orlando	0
10015	Amy	O'Brian	0
10018	Anne	Farriss	216.55

```
sqlite>
```

9. (7 pts) Find a listing of customers who did not make purchases during the invoicing period; sort by customer code.

```

sqlite> Select b.Cus_Code, b.Cus_Fname, b.Cus_Lname, b.Cus_Balance
...> From Customer b
...> Left Join Invoice a
...> On a.Cus_Code = b.Cus_Code
...> Where a.Cus_Code Is NULL
...> Order By b.Cus_Code;

```

CUS_CODE	CUS_FNAME	CUS_LNAME	CUS_BALANCE
10010	Alfred	Ramas	0
10013	Paul	Olowski	536.75
10016	James	Brown	221.19
10017	George	Williams	768.93
10019	Olette	Smith	0

```

sqlite>

```

10. (7 pts) Create a query to produce a summary of the value of products currently in inventory.

```

sqlite> Select P_Code, P_Descript, P_QOH, P_Price, Sum(P_Price * P_QOH) As Inventory_Value
...> From Product
...> Group By P_Code;

```

P_CODE	P_DESCRIPT	P_QOH	P_PRICE	Inventory_Value
11QER/31	Power painter, 15 psi., 3-nozzle	8	109.99	879.92
13-Q2/P2	7.25-in. pwr. saw blade	32	14.99	479.68
14-Q1/L3	9.00-in. pwr. saw blade	18	17.49	314.82
1546-QQ2	Hrd. cloth, 1/4-in., 2x50	15	39.95	599.25
1558-QW1	Hrd. cloth, 1/2-in., 3x50	23	43.99	1011.77
2232/QTY	B&D jigsaw, 12-in. blade	8	109.92	879.36
2232/QWE	B&D jigsaw, 8-in. blade	6	99.87	599.22
2238/QPD	B&D cordless drill, 1/2-in.	12	38.95	467.4
23109-HB	Claw hammer	23	9.95	228.85
23114-AA	Sledge hammer, 12 lb.	8	14.4	115.2
54778-2T	Rat-tail file, 1/8-in. fine	43	4.99	214.57
89-WRE-Q	Hicut chain saw, 16 in.	11	256.99	2826.89
PVC23DRT	PVC pipe, 3.5-in., 8-ft	188	5.87	1103.56
SM-18277	1.25-in. metal screw, 25	172	6.99	1202.28
SW-23116	2.5-in. wd. screw, 50	237	8.45	2002.65
WR3/TT3	Steel matting, 4'x8'x1/6", .5" m	18	119.95	2159.1

```

sqlite> Select Sum(P_Price * P_QOH) As Total_Inventory_Value
...> From Product;
Total_Inventory_Value
-----
15084.52
sqlite>

```