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CST 363 – Homework 2
1/21/19

Chapter 6 Problem 1

```
1 • SELECT
2     v.vendor_id, SUM(i.invoice_total) AS invoice_total
3 FROM
4     invoices AS i
5     JOIN
6     vendors AS v ON i.vendor_id = v.vendor_id
7 GROUP BY vendor_id
8 ORDER BY invoice_total;
```

Result Grid   Filter Rows: Export:  Wrap Cell Content: 





#	vendor_id	invoice_total
14	100	500.20
15	37	564.00
16	82	600.00
17	96	662.00
18	48	856.92
19	81	936.93
20	34	1200.12
21	103	1367.50
22	107	1600.00
23	113	1750.00
24	83	2154.42
25	100	2184.50
26	86	2433.00
27	123	4378.02
28	119	4901.26
29	121	6940.25
30	99	6940.25
31	104	7125.34
32	72	21927.31
33	122	23177.96
34	110	119892.41

Chapter 6 Problem 2

```

1 • SELECT
2     v.vendor_name, SUM(i.payment_total) AS payment_total
3 FROM
4     invoices AS i
5     JOIN
6     vendors AS v ON i.vendor_id = v.vendor_id
7 GROUP BY vendor_name
8 ORDER BY payment_total DESC;

```

Result Grid  Filter Rows: 			
Export:  Wrap Cell Content: 			
#	vendor_name	payment_total	
15	IBM	1200.12	
16	Wang Laboratories, Inc.	936.93	
17	Fresno County Tax Collector	856.92	
18	Wells Fargo Bank	662.00	
19	Reiter's Scientific & Pro Books	600.00	
20	Gostanian General Building	450.00	
21	Wakefield Co	356.48	
22	Blue Cross	340.00	
23	Postmaster	290.00	
24	Dristas Groom & McCormick	220.00	
25	Edward Data Services	207.78	
26	Cardinal Business Media, Inc.	175.00	
27	Pacific Bell	171.01	
28	Evans Executone Inc	95.00	
29	Roadway Package System, Inc	43.67	
30	Coffee Break Service	41.80	
31	Compuserve	19.90	
32	Abbey Office Furnishings	17.50	
33	Suburban Propane	16.62	
34	Ford Motor Credit Company	0.00	

Chapter 6 Problem 3

```

1 • SELECT
2     v.vendor_name,
3     COUNT(*) AS number_of_invoices,
4     SUM(i.invoice_total) AS invoice_total
5 FROM
6     invoices AS i
7     JOIN
8     vendors AS v ON i.vendor_id = v.vendor_id
9 GROUP BY vendor_name
10 ORDER BY COUNT(*) DESC;

```

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 





#	vendor_name	number_of_invoices	invoice_total	
1	Federal Express Corporation	47	4378.02	
2	United Parcel Service	9	23177.96	
3	Zylka Design	8	6940.25	
4	Pacific Bell	6	171.01	
5	Malloy Lithographing Inc	5	119892.41	
6	Roadway Package System, Inc	4	43.67	
7	Blue Cross	3	564.00	
8	Ingram	2	2154.42	
9	Compuserve	2	19.90	
10	Data Reproductions Corp	2	21927.31	
11	IBM	2	1200.12	
12	Cardinal Business Media, Inc.	2	265.36	
13	Fresno County Tax Collector	1	856.92	
14	Bertelsmann Industry Svcs. Inc	1	6940.25	
15	Wells Fargo Bank	1	662.00	
16	Ford Motor Credit Company	1	503.20	
17	Digital Dreamworks	1	7125.34	
18	Suburban Propane	1	16.62	
19	Pollstar	1	1750.00	

Chapter 6 Problem 4

```

1 • SELECT
2     la.account_description AS 'Account Description',
3     COUNT(*) AS 'Number of Line Items',
4     SUM(li.line_item_amount) AS 'Line Item Total'
5 FROM
6     invoice_line_items AS li
7     JOIN
8     general_ledger_accounts AS la ON li.account_number = la.account_number
9 GROUP BY li.account_number
10 HAVING COUNT(*) > 1;

```





Result Grid  Filter Rows:  Export:  Wrap Cell Content: 				
#	Account Description	Number of Line Items	Line Item Total	
1	Computer Equipment	3	2137.05	
2	Book Printing Costs	8	148759.97	
3	Book Production Costs	8	6175.12	
4	Group Insurance	3	564.00	
5	Telephone	7	266.01	
6	Direct Mail Advertising	6	3900.77	
7	Freight	60	27599.65	
8	Office Supplies	3	175.80	
9	Books, Dues, and Subscriptions	6	5207.32	
10	Outside Services	3	13394.10	

Chapter 6 Problem 5

```

1 • SELECT
2     la.account_description AS 'Account Description',
3     COUNT(*) AS 'Number of Line Items',
4     SUM(li.line_item_amount) AS 'Line Item Total'
5 FROM
6     invoice_line_items li
7     JOIN
8     general_ledger_accounts la ON li.account_number = la.account_number
9     JOIN
10    invoices i ON li.invoice_id = i.invoice_id
11 WHERE
12     i.invoice_date BETWEEN '2014-04-01' AND '2014-06-30'
13 GROUP BY li.account_number
14 HAVING COUNT(*) > 1;

```

Result Grid  Filter Rows: 				
Export:  Wrap Cell Content: 				
#	Account Description	Number of Line Items	Line Item Total	
1	Computer Equipment	3	2137.05	
2	Book Printing Costs	3	66748.44	
3	Book Production Costs	7	5174.66	
4	Group Insurance	2	340.00	
5	Telephone	5	193.54	
6	Direct Mail Advertising	5	3810.41	
7	Freight	41	17624.19	
8	Office Supplies	3	175.80	
9	Books, Dues, and Subscriptions	4	4027.90	
10	Outside Services	3	13394.10	

Chapter 6 Problem 6

```

1 • SELECT
2 ✖    li.account_number AS 'Account Number',
3      SUM(li.line_item_amount) AS 'Line Item Amount'
4 FROM
5     general_ledger_accounts la
6     JOIN
7     invoice_line_items li ON la.account_number = li.account_number
8 GROUP BY li.account_number WITH ROLLUP

```

Result Grid   Filter Rows: Export:  Wrap Cell Content: 

#	Account Number	Line Item Amount	
10	522	266.01	
11	523	450.00	
12	540	3900.77	
13	552	290.00	
14	553	27599.65	
15	570	175.80	
16	572	5207.32	
17	574	856.92	
18	580	50.00	
19	582	503.20	
20	589	13394.10	
21	591	220.00	
22	NULL	214290.51	

Chapter 6 Problem 7

```
1 • SELECT
2     v.vendor_name AS 'Vendor Name',
3     COUNT(DISTINCT li.account_number) AS 'Distinct Accounts'
4 FROM
5     vendors v
6     JOIN
7     invoices i ON v.vendor_id = i.vendor_id
8     JOIN
9     invoice_line_items li ON i.invoice_id = li.invoice_id
10 GROUP BY vendor_name
11 HAVING COUNT(DISTINCT li.account_number) > 1
12 ORDER BY v.vendor_name
```

Result Grid			
Filter Rows: <input type="text"/>			
Export: <input type="button" value=""/>			
Wrap Cell Content: <input type="button" value=""/>			
#	Vendor Name	Distinct Accounts	
1	Wells Fargo Bank	3	
2	Zylka Design	2	

Chapter 7 Problem 1

```

1 • SELECT DISTINCT
2     vendor_name
3 FROM
4     vendors
5 WHERE
6     vendor_name IN (SELECT
7                     vendor_name
8                     FROM
9                     invoices
10                    WHERE
11                    invoices.vendor_id = vendors.vendor_id)
12 ORDER BY vendor_name

```

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

#	vendor_name	
18	Fresno County Tax Collector	
19	Gostanian General Building	
20	IBM	
21	Ingram	
22	Malloy Lithographing Inc	
23	Pacific Bell	
24	Pollstar	
25	Postmaster	
26	Reiter's Scientific & Pro Books	
27	Roadway Package System, Inc	
28	Suburban Propane	
29	United Parcel Service	
30	Wakefield Co	
31	Wang Laboratories, Inc.	
32	Wells Fargo Bank	
33	Yesmed, Inc	
34	Zylka Design	

Chapter 7 Problem 2

```

1 • SELECT
2     invoice_number AS 'Invoice #',
3     invoice_total AS 'Invoice Total'
4 FROM
5     invoices
6 WHERE
7     payment_total > (SELECT
8                     AVG(payment_total)
9                     FROM
10                    invoices
11                    WHERE
12                    payment_total > 0)
13 ORDER BY invoice_total DESC

```

#	Invoice #	Invoice Total
4	40318	21842.00
5	P02-3772	7125.34
6	509786	6940.25
7	10843	4901.26
8	989319-457	3813.33
9	989319-447	3689.99
10	989319-437	2765.36
11	367447	2433.00
12	989319-467	2318.03
13	989319-497	2312.20
14	587056	2184.50
15	989319-477	2184.11
16	989319-427	2115.81
17	989319-417	2051.59
18	97/522	1962.13
19	989319-487	1927.54
20	77290	1750.00

Chapter 7 Problem 3

```

1 • SELECT
2     account_number AS 'Account Number',
3     account_description AS 'Account Description'
4 FROM
5     general_ledger_accounts la
6 WHERE
7     NOT EXISTS( SELECT
8                 account_number
9                 FROM
10                    invoice_line_items
11                 WHERE
12                    account_number = la.account_number)
13 ORDER BY account_number

```

#	Account Number	Account Description
38	548	Web Site Production and F...
39	550	Packaging Materials
40	551	Business Forms
41	555	Collection Agency Fees
42	556	Credit Card Handling
43	565	Bank Fees
44	568	Auto License Fee
45	569	Auto Expense
46	576	PC Software
47	590	Business Insurance
48	610	Charitable Contributions
49	611	Profit Sharing Contributions
50	620	Interest Paid to Banks
51	621	Other Interest
52	630	Federal Corporation Incom...
53	631	State Corporation Income T...
54	632	Sales Tax

Chapter 7 Problem 4

```

1 • SELECT
2     vendor_name,
3     i.invoice_id,
4     invoice_sequence,
5     line_item_amount
6 FROM
7     vendors v
8     JOIN
9     invoices i ON v.vendor_id = i.vendor_id
10    JOIN
11    invoice_line_items li ON i.invoice_id = li.invoice_id
12 WHERE
13     i.invoice_id IN (SELECT DISTINCT
14                     invoice_id
15                     FROM
16                     invoice_line_items
17                     WHERE
18                     invoice_sequence > 1)
19 GROUP BY vendor_name , i.invoice_id , invoice_sequence;

```





Result Grid   Filter Rows:

Export:  Wrap Cell Content: 

#	vendor_name	invoice_id	invoice_sequence	line_item_amount	
1	Wells Fargo Bank	12	1	50.00	
2	Wells Fargo Bank	12	2	75.60	
3	Wells Fargo Bank	12	3	58.40	
4	Wells Fargo Bank	12	4	478.00	
5	Zylka Design	78	1	1197.00	
6	Zylka Design	78	2	765.13	

Chapter 7 Problem 5

```
1 • SELECT
2     SUM(balance_due) AS 'Sum of largest unpaid invoices'
3 FROM
4     (SELECT
5         vendor_id,
6         MAX(invoice_total) AS balance_due
7     FROM
8         invoices
9     WHERE
10        invoice_total - payment_total - credit_total > 0
11     GROUP BY vendor_id) t
```





Result Grid 		Filter Rows: 	Export: 	Wrap Cell Content: 
#	Sum of largest unpaid invoices			
1	22101.39			

Chapter 7 Problem 6

```

1 • SELECT
2     ANY_VALUE(v.vendor_name) AS 'Vendor Name',
3     v.vendor_city AS 'Vendor City',
4     v.vendor_state AS 'Vendor State'
5 FROM
6     vendors v
7     LEFT OUTER JOIN
8     (SELECT
9         vendor_name, CONCAT(vendor_city, vendor_state) AS city_state
10    FROM
11        vendors) t ON v.vendor_name = t.vendor_name
12 GROUP BY v.vendor_state , v.vendor_city
13 HAVING COUNT(*) = 1

```

Result Grid  Filter Rows:  Export:  Wrap Cell Content: 				
#	Vendor Name	Vendor City	Vendor State	
23	Baker & Taylor Books	Charlotte	NC	
24	Rich Advertising	Fairfield	NJ	
25	Newbrige Book Clubs	Washington	NJ	
26	United Parcel Service	Reno	NV	
27	Cahners Publishing Company	The Lake	NV	
28	The Mailers Guide Co	New Rochelle	NY	
29	Venture Communications Int'l	New York	NY	
30	American Booksellers Assoc	Tarrytown	NY	
31	Edward Data Services	Cleves	OH	
32	Publishers Weekly	Marion	OH	
33	Nat Assoc of College Stores	Oberlin	OH	
34	Boucher Communications Inc	Fort Washington	PA	
35	Federal Express Corporation	Memphis	TN	
36	Ingram	Dallas	TX	
37	Enterprise Communications Inc	Mclean	VA	
38	US Postal Service	Madison	WI	

Chapter 7 Problem 7

```

1 • SELECT
2     vendor_name, invoice_number, invoice_date, invoice_total
3 FROM
4     invoices i
5     JOIN
6     vendors v ON i.vendor_id = v.vendor_id
7 WHERE
8     invoice_date IN (SELECT
9         MIN(invoice_date)
10        FROM
11        invoices
12        WHERE
13            vendor_id = i.vendor_id
14        GROUP BY vendor_id)
15 ORDER BY vendor_name

```





#	vendor_name	invoice_number	invoice_date	invoice_total	
20	IBM	QP58872	2014-05-07	116.54	
21	Ingram	31359783	2014-06-03	1575.00	
22	Malloy Lithographing Inc	0-2058	2014-05-28	37966.19	
23	Pacific Bell	111-92R-10096	2014-04-30	16.33	
24	Pollstar	77290	2014-05-13	1750.00	
25	Postmaster	CBM9920-M-...	2014-06-23	290.00	
26	Reiter's Scientific & Pro Books	C73-24	2014-07-19	600.00	
27	Roadway Package System, Inc	25022117	2014-05-01	6.00	
28	Suburban Propane	111897	2014-07-15	16.62	
29	United Parcel Service	989319-457	2014-04-08	3813.33	
30	Wakefield Co	97-1024A	2014-07-20	356.48	
31	Wang Laboratories, Inc.	MABO1489	2014-06-21	936.93	
32	Wells Fargo Bank	I77271-O01	2014-04-26	662.00	
33	Yesmed, Inc	10843	2014-05-11	4901.26	
34	Zylka Design	97/488	2014-04-24	601.95	

Chapter 7 Problem 8

```

1 • SELECT
2     vendor_name AS 'Vendor Name',
3     invoice_number AS 'Invoice #',
4     invoice_date AS 'Invoice date',
5     invoice_total AS 'Invoice Total'
6 FROM
7     invoices i
8     JOIN
9     (SELECT
10        vendor_id, MIN(invoice_date) AS oldest
11     FROM
12        invoices
13     GROUP BY vendor_id) oi ON i.vendor_id = oi.vendor_id
14        AND i.invoice_date = oi.oldest
15     JOIN
16     vendors v ON i.vendor_id = v.vendor_id
17 ORDER BY vendor_name

```

Result Grid  Filter Rows: 						Export:  Wrap Cell Content: 
#	Vendor Name	Invoice #	Invoice date	Invoice Total		
20	IBM	QP58872	2014-05-07	116.54		
21	Ingram	31359783	2014-06-03	1575.00		
22	Malloy Lithographing Inc	0-2058	2014-05-28	37966.19		
23	Pacific Bell	111-92R-...	2014-04-30	16.33		
24	Pollstar	77290	2014-05-13	1750.00		
25	Postmaster	CBM992...	2014-06-23	290.00		
26	Reiter's Scientific & Pro Books	C73-24	2014-07-19	600.00		
27	Roadway Package System, Inc	25022117	2014-05-01	6.00		
28	Suburban Propane	111897	2014-07-15	16.62		
29	United Parcel Service	989319-457	2014-04-08	3813.33		
30	Wakefield Co	97-1024A	2014-07-20	356.48		
31	Wang Laboratories, Inc.	MABO1489	2014-06-21	936.93		
32	Wells Fargo Bank	I77271-O01	2014-04-26	662.00		

Chapter 10 Problem 1

