

Note: Total sales = sale\_units \* sale\_price

1. List the total sales by region and customer. Your output should be sorted by region name and customer code. (4 pts)

```
select dwregion.reg_name, dwcustomer.cus_code, dwcustomer.cus_lname, dwcustomer.cus_fname,
sum(dwdaysalesfact.sale_units * dwdaysalesfact.sale_price) AS totalsales from dwcustomer INNER JOIN
dwregion ON dwcustomer.reg_id = dwregion.reg_id INNER JOIN dwdaysalesfact ON
dwcustomer.cus_code = dwdaysalesfact.cus_code GROUP BY dwregion.reg_name,
dwcustomer.cus_code, dwcustomer.cus_lname, dwcustomer.cus_fname ORDER BY
dwregion.reg_name, dwcustomer.cus_code;
```

reg_name	cus_code	cus_lname	cus_fname	totalsales
NE	10012	Smith	Kathy	287.91
NE	10013	Olowski	Paul	64.32
NW	10014	Orlando	Myron	494.71
NW	10019	Smith	Olette	39.95
SE	10010	Ramas	Alfred	180.26
SE	10011	Dunne	Leona	130.89
SE	10015	O'Brian	Amy	325.82
SE	10016	Brown	James	179.22
SW	10017	Williams	George	419.66
SW	10018	Farriss	Anne	129.32

(10 rows)

2. List the total sales by customer code, month, and product code; sort by customer code and month. (4 pts)

```
Select dwcustomer.cus_code, dwtime.tm_month, dwproduct.p_code, SUM(dwdaysalesfact.sale_units *
dwdaysalesfact.sale_price) AS totalsales from dwdaysalesfact INNER JOIN dwcustomer ON
dwdaysalesfact.cus_code = dwcustomer.cus_code INNER JOIN dwtime ON dwdaysalesfact.tm_id =
dwtime.tm_id INNER JOIN dwproduct on dwdaysalesfact.p_code = dwproduct.p_code GROUP BY
dwcustomer.cus_code, dwtime.tm_month, dwproduct.p_code ORDER BY dwcustomer.cus_code,
dwtime.tm_month
```

cus_code	tm_month	p_code	totalsales
10010	10	13-Q2/P2	74.95
10010	10	23109-HB	19.90
10010	10	54778-2T	14.97
10010	10	PVC23DRT	70.44
10011	10	2232/QTY	109.92
10011	10	SM-18277	20.97
10012	9	SM-18277	20.97
10012	10	23109-HB	9.95
10012	10	89-WRE-Q	256.99
10013	10	13-Q2/P2	29.98
10013	10	54778-2T	4.99
10013	10	PVC23DRT	29.35
10014	9	13-Q2/P2	14.99
10014	9	2232/QTY	109.92
10014	9	23109-HB	9.95
10014	10	WR3/TT3	359.85
10015	9	2238/QPD	38.95
10015	9	23109-HB	9.95

10015		9		54778-2T		9.98
10015		9		89-WRE-Q		256.99
10015		10		23109-HB		9.95
10016		9		13-Q2/P2		104.93
10016		9		1546-QQ2		39.95
10016		9		54778-2T		4.99
10016		9		PVC23DRT		29.35
10017		9		13-Q2/P2		14.99
10017		9		23109-HB		29.85
10017		9		54778-2T		14.97
10017		9		WR3/TT3		359.85
10018		9		2238/QPD		38.95
10018		9		23109-HB		9.95
10018		9		54778-2T		9.98
10018		9		PVC23DRT		70.44
10019		9		1546-QQ2		39.95

(34 rows)

3. For a-c show customer code, customer name and total sales; sort all output by total sales with the highest sales on top.

a) Show all purchases (total sales) in September to show which customer bought the most product in September (4 pts).

```
select dwcustomer.cus_code, CONCAT(dwcustomer.cus_fname, ' ', dwcustomer.cus_lname) as name,
SUM(dwdaysalesfact.sale_units * dwdaysalesfact.sale_price) AS totalsales, dwtime.tm_month from
dwdaysalesfact INNER JOIN dwcustomer ON dwdaysalesfact.cus_code = dwcustomer.cus_code INNER
JOIN dwtime ON dwdaysalesfact.tm_id = dwtime.tm_id WHERE dwtime.tm_month = 9 GROUP BY
dwcustomer.cus_code, dwtime.tm_month ORDER BY totalsales DESC;
```

cus_code		name		totalsales		tm_month
10017		George Williams		419.66		9
10015		Amy O'Brian		315.87		9
10016		James Brown		179.22		9
10014		Myron Orlando		134.86		9
10018		Anne Farriss		129.32		9
10019		Olette Smith		39.95		9
10012		Kathy Smith		20.97		9

(7 rows)

b) Show all purchases in October to show which customer bought the most product in October based on total sales (4 pts).

```
select dwcustomer.cus_code, CONCAT(dwcustomer.cus_fname, ' ', dwcustomer.cus_lname) as name,
SUM(dwdaysalesfact.sale_units * dwdaysalesfact.sale_price) AS totalsales, dwtime.tm_month from
dwdaysalesfact INNER JOIN dwcustomer ON dwdaysalesfact.cus_code = dwcustomer.cus_code INNER
JOIN dwtime ON dwdaysalesfact.tm_id = dwtime.tm_id WHERE dwtime.tm_month = 10 GROUP BY
dwcustomer.cus_code, dwtime.tm_month ORDER BY totalsales DESC;
```

cus_code		name		totalsales		tm_month
10014		Myron Orlando		359.85		10
10012		Kathy Smith		266.94		10
10010		Alfred Ramas		180.26		10

10011		Leona Dunne		130.89		10
10013		Paul Olowski		64.32		10
10015		Amy O'Brian		9.95		10

(6 rows)

c) Show all purchases for October and September combined to show which customer bought the most combined in both months (4 pts).

```
select dwcustomer.cus_code, CONCAT(dwcustomer.cus_fname, ' ', dwcustomer.cus_lname) as name,
SUM(dwdaysalesfact.sale_units * dwdaysalesfact.sale_price) AS totalsales FROM dwdaysalesfact
INNER JOIN dwcustomer ON dwdaysalesfact.cus_code = dwcustomer.cus_code INNER JOIN dwtime
ON dwdaysalesfact.tm_id = dwtime.tm_id WHERE dwtime.tm_month = 9 or dwtime.tm_month = 10
GROUP BY dwcustomer.cus_code ORDER BY totalsales DESC;
```

cus_code		name		totalsales
-----+-----+-----				
10014		Myron Orlando		494.71
10017		George Williams		419.66
10015		Amy O'Brian		325.82
10012		Kathy Smith		287.91
10010		Alfred Ramas		180.26
10016		James Brown		179.22
10011		Leona Dunne		130.89
10018		Anne Farriss		129.32
10013		Paul Olowski		64.32
10019		Olette Smith		39.95

(10 rows)

- List the total sales by month and product category. Your output should be sorted by month and product category. (9 pts)

```
select dwtime.tm_month, dwproduct.p_category, sum(dwdaysalesfact.sale_units *
dwdaysalesfact.sale_price) AS totalsales from dwdaysalesfact INNER JOIN dwproduct on
dwdaysalesfact.p_code = dwproduct.p_code INNER JOIN dwtime on dwdaysalesfact.tm_id =
dwtime.tm_id GROUP BY dwtime.tm_month, dwproduct.p_category ORDER BY dwtime.tm_month ASC;
```

tm_month		p_category		totalsales
-----+-----+-----				
9		CAT1		174.83
9		CAT2		446.81
9		CAT3		537.54
9		CAT4		80.67
10		CAT1		124.89
10		CAT2		366.91
10		CAT3		459.64
10		CAT4		60.77

(8 rows)

- List the number of product sales (number of rows) and total sales by month. Your output should be sorted by month and should show one row per month. (9 pts)

```
select dwtime.tm_month as month, count(dwdaysalesfact.sale_units) as productsalescount,
SUM(dwdaysalesfact.sale_units * dwdaysalesfact.sale_price) AS totalsales from dwdaysalesfact INNER
```

JOIN dwtime on dwtime.tm\_id = dwdaysalesfact.tm\_id GROUP BY dwtime.tm\_month ORDER BY dwtime.tm\_month;

month	productsalescount	totalsales
9	23	1239.85
10	13	1012.21

(2 rows)

6. For a-c show product category, product code, product description and units sold (sum of units sold). Which product is the best seller based on units sold?

a) Show units sold for September (4 pts)

Select dwproduct.p\_category as category, dwproduct.p\_code as code, dwproduct.p\_descript as description, sum(dwdaysalesfact.sale\_units) as unitcount, dwtime.tm\_month from dwdaysalesfact INNER JOIN dwproduct on dwdaysalesfact.p\_code = dwproduct.p\_code INNER JOIN dwtime on dwdaysalesfact.tm\_id = dwtime.tm\_id WHERE dwtime.tm\_month = 9 GROUP BY category, code, description, tm\_month ORDER BY unitcount DESC;

category	code	description	unitcount	tm_month
CAT3	PVC23DRT	PVC pipe, 3.5-in., 8-ft	17	9
CAT1	13-Q2/P2	7.25-in. pwr. saw blade	9	9
CAT1	54778-2T	Rat-tail file, 1/8-in. fine	8	9
CAT4	23109-HB	Claw hammer	6	9
CAT4	SM-18277	1.25-in. metal screw, 25	3	9
CAT3	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	3	9
CAT3	2238/QPD	B&D cordless drill, 1/2-in.	2	9
CAT2	1546-QQ2	Hrd. cloth, 1/4-in., 2x50	2	9
CAT2	89-WRE-Q	Hicut chain saw, 16 in.	1	9
CAT2	2232/QTY	B&D jigsaw, 12-in. blade	1	9

(10 rows)

b) Show units sold for October (4 pts)

Select dwproduct.p\_category as category, dwproduct.p\_code as code, dwproduct.p\_descript as description, sum(dwdaysalesfact.sale\_units) as unitcount, dwtime.tm\_month from dwdaysalesfact INNER JOIN dwproduct on dwdaysalesfact.p\_code = dwproduct.p\_code INNER JOIN dwtime on dwdaysalesfact.tm\_id = dwtime.tm\_id WHERE dwtime.tm\_month = 10 GROUP BY category, code, description, tm\_month ORDER BY unitcount DESC;

category	code	description	unitcount	tm_month
CAT3	PVC23DRT	PVC pipe, 3.5-in., 8-ft	17	10
CAT1	13-Q2/P2	7.25-in. pwr. saw blade	7	10
CAT4	23109-HB	Claw hammer	4	10
CAT1	54778-2T	Rat-tail file, 1/8-in. fine	4	10
CAT3	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	3	10
CAT4	SM-18277	1.25-in. metal screw, 25	3	10
CAT2	2232/QTY	B&D jigsaw, 12-in. blade	1	10
CAT2	89-WRE-Q	Hicut chain saw, 16 in.	1	10

(8 rows)

c) Show units sold for both months combined (4 pts)

Select dwproduct.p\_category as category, dwproduct.p\_code as code, dwproduct.p\_descript as description, sum(dwdaysalesfact.sale\_units) as unitcount from dwdaysalesfact INNER JOIN dwproduct on dwdaysalesfact.p\_code = dwproduct.p\_code INNER JOIN dwtime on dwdaysalesfact.tm\_id = dwtime.tm\_id WHERE dwtime.tm\_month = 9 or dwtime.tm\_month = 10 GROUP BY description, category, code ORDER BY unitcount DESC;

category	code	description	unitcount
CAT3	PVC23DRT	PVC pipe, 3.5-in., 8-ft	34
CAT1	13-Q2/P2	7.25-in. pwr. saw blade	16
CAT1	54778-2T	Rat-tail file, 1/8-in. fine	12
CAT4	23109-HB	Claw hammer	10
CAT4	SM-18277	1.25-in. metal screw, 25	6
CAT3	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	6
CAT2	1546-QQ2	Hrd. cloth, 1/4-in., 2x50	2
CAT2	89-WRE-Q	Hicut chain saw, 16 in.	2
CAT2	2232/QTY	B\&D jigsaw, 12-in. blade	2
CAT3	2238/QPD	B\&D cordless drill, 1/2-in.	2

(10 rows)

7. List the number of product sales (number of rows) and total sales by month, product category, and product. Your output should be sorted by month, product category and product. (10 pts)

select dwtime.tm\_month as month, dwproduct.p\_category as productcategory, dwproduct.p\_code as productcode, dwproduct.p\_descript as productdescription, count(dwdaysalesfact.sale\_units) as producesalescount, sum(dwdaysalesfact.sale\_units \* dwdaysalesfact.sale\_price) AS totalsales from dwdaysalesfact INNER JOIN dwproduct on dwdaysalesfact.p\_code = dwproduct.p\_code INNER JOIN dwtime on dwdaysalesfact.tm\_id = dwtime.tm\_id WHERE dwtime.tm\_month = 9 or dwtime.tm\_month = 10 GROUP BY month, productdescription, productcategory, productcode ORDER BY month ASC, productcategory ASC, productdescription ASC;

month	productcategory	productcode	productdescription	producesalescount	totalsales
9	CAT1	13-Q2/P2	7.25-in. pwr. saw blade	4	134.91
9	CAT1	54778-2T	Rat-tail file, 1/8-in. fine	4	39.92
9	CAT2	2232/QTY	B\&D jigsaw, 12-in. blade	1	109.92
9	CAT2	89-WRE-Q	Hicut chain saw, 16 in.	1	256.99
9	CAT2	1546-QQ2	Hrd. cloth, 1/4-in., 2x50	2	79.90
9	CAT3	2238/QPD	B\&D cordless drill, 1/2-in.	2	77.90
9	CAT3	PVC23DRT	PVC pipe, 3.5-in., 8-ft	2	99.79
9	CAT3	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	1	359.85
9	CAT4	SM-18277	1.25-in. metal screw, 25	1	20.97
9	CAT4	23109-HB	Claw hammer	5	59.70
10	CAT1	13-Q2/P2	7.25-in. pwr. saw blade	2	104.93
10	CAT1	54778-2T	Rat-tail file, 1/8-in. fine	2	19.96
10	CAT2	2232/QTY	B\&D jigsaw, 12-in. blade	1	109.92
10	CAT2	89-WRE-Q	Hicut chain saw, 16 in.	1	256.99
10	CAT3	PVC23DRT	PVC pipe, 3.5-in., 8-ft	2	99.79
10	CAT3	WR3/TT3	Steel matting, 4'x8'x1/6", .5" mesh	1	359.85
10	CAT4	SM-18277	1.25-in. metal screw, 25	1	20.97
10	CAT4	23109-HB	Claw hammer	3	39.80

(18 rows)