

Day 5

1. GROUP BY with WHERE - Orders by Year and Quarter

Display, order year, quarter, order count, avg freight cost only for those orders where freight cost > 100

```
4  SELECT
5      EXTRACT(YEAR FROM order_date) AS OrderYear,
6      EXTRACT(QUARTER FROM order_date) AS OrderQuarter,
7      COUNT(order_id) AS OrderCount,
8      ROUND(AVG(freight)::numeric,2) AS AvgFreightCost
9  FROM
10     orders
11  WHERE
12     freight > 100
13  GROUP BY
14     OrderYear,
15     OrderQuarter
16  ORDER BY
17     OrderYear,
18     OrderQuarter;
19
20  /*2. GROUP BY with HAVING - High Volume Ship Reg
21  Display ship region, no of orders in each region, mi
```

Data Output Messages Notifications

	orderyear numeric	orderquarter numeric	ordercount bigint	avgfreightcost numeric
1	1996	3	12	163.84
2	1996	4	22	203.85
3	1997	1	14	232.65
4	1997	2	21	269.55
5	1997	3	26	236.44
6	1997	4	33	206.75
7	1998	1	43	245.48
8	1998	2	16	292.79

2. GROUP BY with HAVING - High Volume Ship Regions

Display, ship region, no of orders in each region, min and max freight cost

Filter regions where no of orders >= 5

```

24 SELECT
25     ship_region,
26     COUNT(order_id) AS order_count,
27     MIN(freight) AS min_freight,
28     MAX(freight) AS max_freight
29 FROM
30     Orders
31 WHERE
32     ship_region IS NOT NULL
33 GROUP BY
34     ship_region
35 HAVING
36     COUNT(order_id) >= 5
37 ORDER BY
38     order_count DESC;

```

Data Output Messages Notifications

	ship_region character varying (15)	order_count bigint	min_freight real	max_freight real
1	SP	49	0.14	890.78
2	RJ	34	2.27	193.37
3	ID	31	8.19	830.75
4	OR	28	0.2	719.78
5	Co. Cork	19	16.74	603.54
6	WA	19	4.56	606.19
7	NM	18	8.53	708.95
8	Táchira	18	2.08	210.19
9	BC	17	0.94	243.73
10	Lara	14	0.12	163.97
11	Essex	13	3.04	146.32
12	Quilmes	12	4.87	878.12

Total rows: 16 Query complete 00:00:00.152

- Get all title designations across employees and customers (Try UNION & UNION ALL)

```

42 --UNION
43 ✓ SELECT title
44 FROM employees
45
46 UNION
47
48 SELECT contact_title
49 FROM customers;

```

Data Output Messages Notificati



	title character varying (30)
1	Owner
2	Sales Associate
3	Sales Agent
4	Inside Sales Coordinator
5	Marketing Manager
6	Assistant Sales Agent
7	Assistant Sales Representative
8	Accounting Manager
9	Vice President, Sales
10	Sales Manager
11	Sales Representative
12	Marketing Assistant

Total rows: 14 Query complete 0

```

50 --UNION ALL
51 ✓ SELECT title
52 FROM employees
53
54 UNION ALL
55
56 SELECT contact_title
57 FROM customers;

```

Data Output Messages Notificat



	title character varying (30)
1	Sales Representative
2	Vice President, Sales
3	Sales Representative
4	Sales Representative
5	Sales Manager
6	Sales Representative
7	Sales Representative
8	Inside Sales Coordinator
9	Sales Representative
10	Sales Representative
11	Owner
12	Owner

Total rows: 100 Query complete

4. Find categories that have both discontinued and in-stock products

(Display category_id, instock means units_in_stock > 0, Intersect)

```
62 select category_id, units_in_stock as instock
63 from products
64 where units_in_stock > 0
65
66 INTERSECT
67
68 select category_id, units_in_stock as instock
69 from products
70 where discontinued = 0
71 order by instock;
72
```

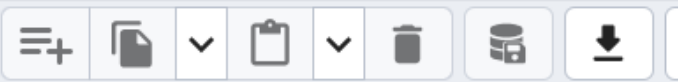
Data Output Messages Notifications

	category_id smallint	instock smallint
1	3	3
2	7	4
3	2	4
4	8	5
5	3	6
6	2	6
7	4	9
8	8	10
9	3	10
10	8	11
11	2	13
12	4	14
Total rows: 63		Query complete 00:00:00.116

5. Find orders that have no discounted items (Display the order_id, EXCEPT)

```
75 select order_id
76 from orders
77
78 Except
79
80 select distinct order_id
81 from order_details
82 where discount = 1;
```

Data Output Messages Notifications



	order_id smallint
1	11038
2	10782
3	10725
4	10423
5	10518
6	10356
7	10963
8	10596
9	10282
10	10658
11	10283
12	10570

Total rows: 830

Query complete 00:00:00