DAY 5 Assignment

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

   select

       extract(year from order_date) as order_year,

       extract(quarter from order_date) as order_quarter,

       count(*) as order_count,

       round(cast(avg(freight) as numeric), 2) as average_freight_cost

   from

       orders

   where

       freight > 100

   group by

       order_year,

       order_quarter

   order by

       order_year,

       order_quarter;

```sql
select
    extract(year from order_date) as order_year,
    extract(quarter from order_date) as order_quarter,
    count(*) as order_count,
    round(cast(avg(freight) as numeric), 2) as average_freight_cost
from
    orders
where
    freight > 100
group by
    order_year,
    order_quarter
order by
    order_year,
    order_quarter;
```

Data Output   Messages   Notifications

order_year numeric	order_quarter numeric	order_count bigint	average_freight_cost numeric
1996	3	12	163.84
1996	4	22	203.85
1997	1	14	232.65
1997	2	21	269.55
1997	3	26	236.44
1997	4	33	206.75
1998	1	43	245.48
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

   select ship_region, count(*) as num_orders, min(freight), max(freight)
   from orders
   group by ship_region
   having count(*) >= 5
   order by num_orders desc;

Query   Query History

```
21
22    /* 2. GROUP BY with HAVING – High Volume Ship Regions.Display ship region, no of orders in each region, min and max fre
23
24 v  select ship_region, count(*) as num_orders, min(freight), max(freight)
25    from orders
26    group by ship_region
27    having count(*) >= 5
28    order by num_orders desc;
29
```

Data Output   Messages   Notifications

Showing rows

ship_region character varying (15)	num_orders bigint	min real	max real
[null]	507	0.02	1007.64
SP	49	0.14	890.78
RJ	34	2.27	193.37
ID	31	8.19	830.75
OR	28	0.2	719.78
Co. Cork	19	16.74	603.54
WA	19	4.56	606.19
Táchira	18	2.08	210.19
NM	18	8.53	708.95
BC	17	0.94	243.73
Lara	14	0.12	163.97

3. **Get all title designations across employees and customers (Try UNION & UNION ALL)**

   select title from employees
   UNION
   select contact_title from customers;

   select title from employees
   UNION ALL
   select contact_title from customers;

```
34
35 ∨  select title from employees
36    UNION
37    select contact_title from customers;
38
```

Data Output   Messages   Notifications

	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

```
38
39 ∨  select title from employees
40    UNION ALL
41    select contact_title from customers;
42
```

Data Output   Messages   Notifications

	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

4. **Find categories that have both discontinued and in-stock products (Display category_id, instock means units_in_stock > 0, Intersect)**

> select category_id, units_in_stock as instock
>
> from products
>
> where units_in_stock >0
>
> INTERSECT
>
> select category_id, units_in_stock as instock
>
> from products
>
> where discontinued = 0
>
> order by instock;

Query   Query History

```
44    /* 4. Find categories that have both discontinued and in-stock products. (Display category_id, instock means unit
45
46  ⌄ select category_id, units_in_stock as instock
47    from products
48    where units_in_stock >0
49
50    INTERSECT
51
52    select category_id, units_in_stock as instock
53    from products
54    where discontinued = 0
55    order by instock;
56
```

Data Output   Messages   Notifications

	category_id smallint 🔒	instock smallint 🔒
1	2	4
2	7	4
3	8	5
4	2	6
5	4	9
6	8	10
7	8	11
8	2	13
9	4	14
10	1001	15

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

```sql
select order_id
from orders
Except
select distinct order_id
from order_details
where discount = 1;
```

```
60 ✓  select order_id
61     from orders
62     Except
63     select distinct order_id
64     from order_details
65     where discount = 1;
66
67
```

Data Output   Messages   Notifications

	order_id 🔒 smallint
1	11038
2	10782
3	10725
4	10423
5	10518
6	10356