-- Q1. What is the toal revenue generate by male vs femal customer?

```
select
	gender,
	sum(purchase_amount) as total_revenue
from customer
group by gender;
```

gender text	total_revenue numeric
Female	75191
Male	157890

-- Q2 Which customers used a discount but still more than avage purchase amount?

```
select
	customer_id,
	purchase_amount
from customer
where discount_applied = 'Yes'
	and purchase_amount >= (
		select avg(purchase_amount)
		from customer
	)
order by purchase_amount
```

	customer_id bigint	purchase_amount bigint
1	96	100
2	616	100
3	582	100
4	1592	100
5	194	100
6	519	100
7	862	100
8	770	100
9	244	100
10	1480	100
11	249	100
12	1413	100
13	205	100

Total rows: 839 of 839 Query complete 00

-- Q3. Which are the top 5 product with the highest average reivew rating

```
select
	item_purchased,
	ROUND(AVG(review_rating::numeric),2) as agv_product_rating
from customer
group by item_purchased
order by agv_product_rating desc
```

limit 5

item_purchased text	agv_product_rating numeric
Gloves	3.86
Sandals	3.84
Boots	3.82
Hat	3.80
Skirt	3.78

```
-- Q4. Compare the average Purchase Amount between Standart and Express Shipping
select
	shipping_type,
	round(avg(purchase_amount), 2) avg_purchase
from customer
where shipping_type in ('Standard', 'Express')
group by shipping_type
```

shipping_type text	avg_purchase numeric
Standard	58.46
Express	60.48

```
-- Q5. Subscribed customer spend more? compare average spend and total revenue
-- between subcriber and none-subscribers.

select
	subscription_status,
	count(*) as total_customer,
	round(avg(purchase_amount), 2)as avg_spend,
	round(sum(purchase_amount), 2) as total_revenue
from customer
group by subscription_status
order by total_revenue, avg_spend desc
```

subscription_status text	total_customer bigint	avg_spend numeric	total_revenue numeric
Yes	1053	59.49	62645.00
No	2847	59.87	170436.00

```
-- Q6. Which 5 products have the hightest percentage of purchase with discount applied?
select
	item_purchased,
	100 * sum(case when discount_applied = 'Yes' then 1 else 0 end) / count(*) as discount_percentage
from customer
group by item_purchased
order by discount_percentage desc
```

limit 5

	item_purchased text	discount_percentage bigint
1	Hat	50
2	Sneakers	49
3	Coat	49
4	Sweater	48
5	Pants	47

```
-- Q7. Segment customers into New, Returing, and loyal based on thire total
--number of previous purchased, and show the count of each segment.
-- Using CTE

with customer_type as (
	select
		customer_id, previous_purchases,
		case
			when previous_purchases = 1 then 'New'
			when previous_purchases between 2 and 10 then 'Returning'
			else 'Loyal'
		end as customer_segment
	from customer
)

select
	customer_segment,
	count(*) as number_customer,
	round(100 * count(*) / sum(count(*)) over (),2) as customer_percentage
from customer_type
group by customer_segment
order by number_customer desc
```

	customer_segment text	number_customer bigint	customer_percentage numeric
	Loyal	3116	79.90
	Returning	701	17.97
	New	83	2.13

```
-- Q8. What are the top 3 most purchase products within each category

with item_counts as (
	select
		category,
```

```
                item_purchased,
                count(customer_id) as total_order,
                row_number() over (partition by category order by count(customer_id) desc) as item_rank
        from customer
        group by category, item_purchased
)

select
        item_rank,
        category,
        item_purchased,
        total_order
from item_counts
where item_rank <= 3
```

item_rank bigint	category text	item_purchased text	total_order bigint
1	Accessories	Jewelry	171
2	Accessories	Sunglasses	161
3	Accessories	Belt	161
1	Clothing	Blouse	171
2	Clothing	Pants	171
3	Clothing	Shirt	169
1	Footwear	Sandals	160
2	Footwear	Shoes	150
3	Footwear	Sneakers	145
1	Outerwear	Jacket	163
2	Outerwear	Coat	161

```
-- Q9. Are customer who are repeat buyer (more than 5 previous phurchases) also likly to subscribe?

select
        subscription_status,
        count(customer_id) as repeat_buyer
from customer
where previous_purchases > 5
group by subscription_status
```

subscription_status text	repeat_buyer bigint
No	2518
Yes	958

```
--Q 10. What is the revenue contribution of each age group
select
        age_group,
        sum(purchase_amount) as revenue
from customer
```

group by age_group
order by revenue desc

age_group text	revenue numeric
Young Adult	62143
Middle-aged	59197
Adult	55978
Senior	55763