E-COMMERCE SALES

"NAVIGATING THE FUTURE OF ONLINE SHOPPING USING SQL"

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TABLE OF CONTENT

1. LIST ALL CUSTOMERS FROM A PARTICULAR STATE.

```sql
#List all customers from the state of California (CA).

select *
from ecommerce_sales.customers
where state = 'CA';
```
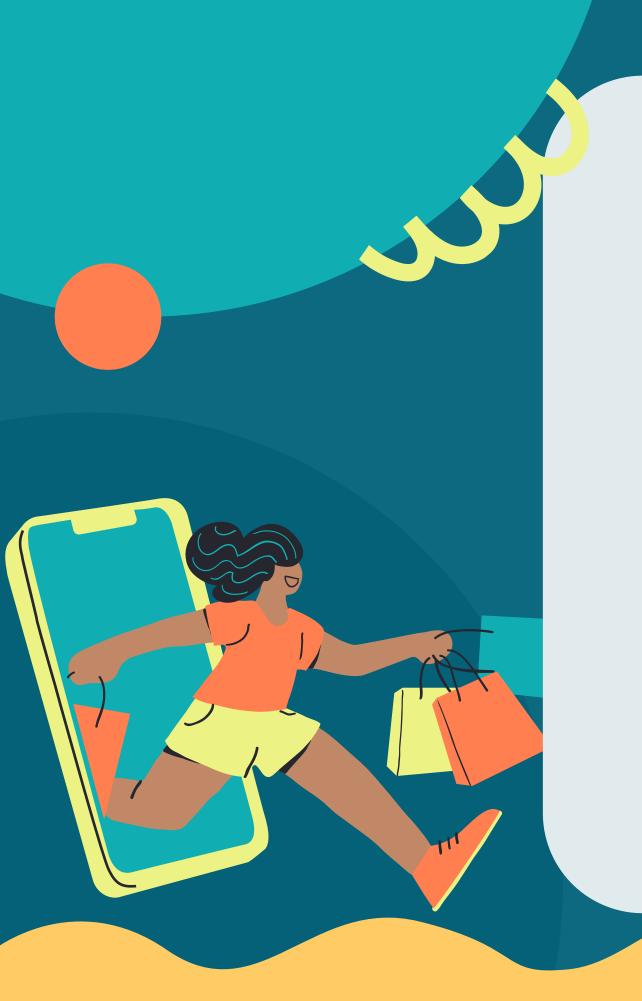
🔒◎	123 ⌐ᵒ customer_id	A-Z zip_code	A-Z city	A-Z state
1	33	59379	Rodriguezport	CA
2	96	32588	Owenshaven	CA
3	182	14448	Woodsborough	CA
4	197	64543	Wilcoxhaven	CA
5	219	69664	New Robert	CA

2. COUNT THE NUMBER OF ORDERS BY THEIR STATUS.

```sql
#Count the number of orders by their status
#(e.g., delivered, shipped, cancelled, processing).

select status, count(*) as n_orders
from orders o
group by status;
```

🔒⊙	A-Z status	123 n_orders
1	delivered	2,462

3. GET THE TOTAL NUMBER OF UNIQUE PRODUCTS SOLD.

```sql
#Get the total number of unique products sold from
#the Electronics category.

select COUNT(DISTINCT o.product_id) as unique_id
from orders o
join products p on p.product_id = o.product_id
where p.category_name = 'Electronics';
```

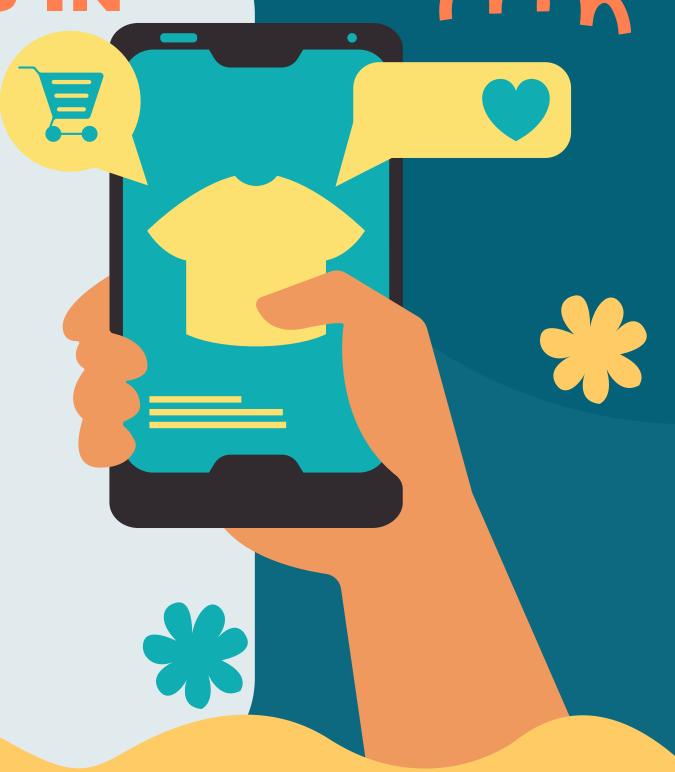| 🔒 ○	123 unique_id ▼
1	134

4. RETRIEVE ALL PRODUCTS IN A SPECIFIC CATEGORY.

```sql
#Retrieve all products that belong to the Books category.

select *
from products
where category_name = 'Books';
```

	123 ⚷ product_id ▼	A-Z category_name ▼
1	6	Books
2	7	Books
3	8	Books
4	20	Books

5. FIND THE TOP 5 STATES WITH THE HIGHEST NUMBER OF CUSTOMERS.

```
#Find the top 5 states with the highest
#number of customers in your customers
#table.

select state,count(*) as high_cust
from customers
group by state
order by high_cust desc
limit 5;
```

	state	high_cust
1	MS	64
2	ID	50
3	WY	50
4	NE	48
5	CO	48

6. CALCULATE THE AVERAGE DELIVERY TIME FOR ALL DELIVERED ORDERS.

```sql
#Calculate the average delivery time (in days) for orders with status delivered.

select round(avg(datediff(delivered_date, purchase_date)),2) as avg_time
from orders
where status = 'delivered';
```

123 avg_time
1	11.24

7. COUNT HOW MANY ORDERS WERE PLACED EACH MONTH.

```sql
#Count how many orders were placed in each month of the
#year 2024.

select DATE_FORMAT(purchase_date, '%y-%m') as order_month,
count(*) as total_orders
from orders
where year(purchase_date) = 2024
group by order_month
order by order_month;
```

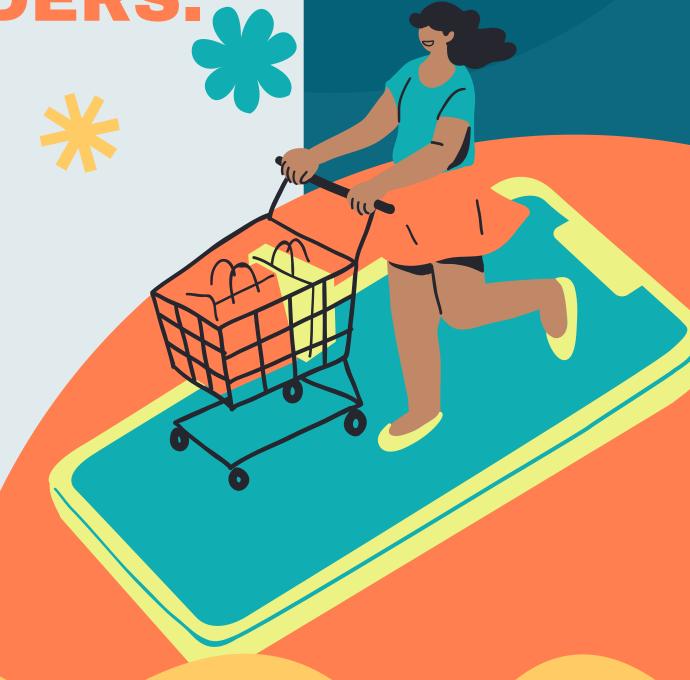| A-Z order_month	123 total_orders
24-01	109
24-02	94
24-03	103
24-04	105
24-05	106

8. IDENTIFY THE CUSTOMER WHO HAS PLACED THE MOST ORDERS.

```sql
#Identify the customer who has placed the most orders.

SELECT customer_id, COUNT(*) AS total_ordered
FROM orders
GROUP BY customer_id
ORDER BY total_ordered DESC
LIMIT 3;
```

	123 ▣ customer_id ▼	123 total_ordered ▼
1	973	6
2	1,717	6
3	1,108	6

9. CALCULATE THE CANCELLATION RATE FOR EACH PRODUCT CATEGORY.

```
#Calculate the cancellation rate for each product category.

select p.category_name, round(sum(case when o.status = 'cancelled'
then 1 else 0 end) * 1 / count(o.status),2) as cancellation_rate
from orders o
join products p on o.product_id = p.product_id
group by p.category_name;
```

A-Z category_name	123 cancellation_rate
1 Grocery	0
2 Electronics	0
3 Clothing	0
4 Books	0
5 Toys	0

10. DETERMINE HOW MANY ORDERS WERE DELIVERED ON TIME VS DELAYED.

```sql
#Determine how many orders were delivered on time vs delayed.

SELECT
case
    when delivered_date <= estimated_delivery_date then 'On-Time'
    when delivered_date > estimated_delivery_date then 'Late'
    else 'Unknown'
end as delivery_status,
count(*) as total_orders
from orders
where status = 'delivered'
group by delivery_status;
```

	delivery_status	total_orders
1	Late	1,510
2	On-Time	952

THANK YOU