**Subfolder name: Customer analysis or customer\_data\_analysis**

**-- CTE 1: TopCountries**

**-- This CTE calculates the customer count for each country and selects the top 10 countries with the highest customer counts.**

WITH TopCountries AS (

SELECT

co.country\_id,

COUNT(c.customer\_id) AS customer\_count

FROM

customer c

INNER JOIN address a ON c.address\_id = a.address\_id

INNER JOIN city ci ON a.city\_id = ci.city\_id

INNER JOIN country co ON ci.country\_id = co.country\_id

GROUP BY

co.country\_id

ORDER BY

customer\_count DESC

LIMIT 10

),

**-- CTE 2: CustomerPayments**

**-- This CTE calculates the total amount paid by customers in the top countries.**

CustomerPayments AS (

SELECT

c.customer\_id,

c.first\_name,

c.last\_name,

co.country,

ci.city,

SUM(p.amount) AS total\_amount\_paid

FROM

customer c

INNER JOIN address a ON c.address\_id = a.address\_id

INNER JOIN city ci ON a.city\_id = ci.city\_id

INNER JOIN country co ON ci.country\_id = co.country\_id

INNER JOIN payment p ON c.customer\_id = p.customer\_id

INNER JOIN TopCountries tc ON co.country\_id = tc.country\_id

GROUP BY

c.customer\_id, c.first\_name, c.last\_name, co.country, ci.city

)

**-- Main query: Retrieve data from CustomerPayments**

SELECT

customer\_id,

country,

city,

total\_amount\_paid

FROM

CustomerPayments

ORDER BY

total\_amount\_paid DESC

LIMIT 5;

**-- CTE 1: TopCustomers**

**-- This CTE calculates the total amount paid by the top 5 customers in the top 10 countries with the highest customer counts. It also identifies customers' details such as first name, last name, country, and city.**

WITH TopCustomers AS (

SELECT

c.customer\_id,

c.first\_name,

c.last\_name,

co.country,

ci.city,

SUM(p.amount) AS total\_amount\_paid

FROM customer c

INNER JOIN address a ON c.address\_id = a.address\_id

INNER JOIN city ci ON a.city\_id = ci.city\_id

INNER JOIN country co ON ci.country\_id = co.country\_id

INNER JOIN payment p ON c.customer\_id = p.customer\_id

WHERE co.country\_id IN (

-- Subquery for top countries

SELECT co.country\_id

FROM customer c

INNER JOIN address a ON c.address\_id = a.address\_id

INNER JOIN city ci ON a.city\_id = ci.city\_id

INNER JOIN country co ON ci.country\_id = co.country\_id

GROUP BY co.country\_id, co.country

ORDER BY COUNT(c.customer\_id) DESC

LIMIT 10

)

GROUP BY c.customer\_id, c.first\_name, c.last\_name, co.country, ci.city

ORDER BY total\_amount\_paid DESC

LIMIT 5

),

**-- CTE 2: AllCustomers**

**-- This CTE identifies all customers and their respective country IDs.**

AllCustomers AS (

SELECT c.customer\_id, ci.country\_id

FROM customer c

INNER JOIN address a ON c.address\_id = a.address\_id

INNER JOIN city ci ON a.city\_id = ci.city\_id

)

**-- Main query: Comparison of customer counts**

SELECT

tc.country,

COUNT(DISTINCT all\_customers.customer\_id) AS all\_customer\_count,

COUNT(DISTINCT tc.customer\_id) AS top\_customer\_count

FROM TopCustomers AS tc

LEFT JOIN AllCustomers AS all\_customers ON tc.customer\_id = all\_customers.customer\_id

GROUP BY tc.country;