

TravelTide - SQL Code

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WITH sessions_2023 AS (  
    SELECT *  
    FROM sessions s  
    WHERE s.session_start > '2023-01-04'  
)  
  
-- Users with more than 7 sessions in 2023  
filtered_users AS (  
    SELECT s.user_id, COUNT(*) AS session_count  
    FROM sessions_2023 s  
    GROUP BY s.user_id  
    HAVING COUNT(*) > 7  
)  
  
categorized_customers AS (  
    SELECT  
        u.user_id,  
        u.birthdate,  
        u.gender,  
        u.married,  
        u.has_children,  
        u.home_country,  
        u.home_city,  
        u.home_airport,  
        u.home_airport_lat,  
        u.home_airport_lon,  
        u.sign_up_date,  
        COUNT(DISTINCT s.session_id) AS session_count,  
        COUNT(DISTINCT f.trip_id) AS flight_count,  
        COUNT(DISTINCT h.trip_id) AS hotel_count,  
        AVG(f.base_fare_usd) AS avg_flight_fare,  
        AVG(h.hotel_per_room_usd) AS avg_hotel_fare,  
        SUM(CASE WHEN s.flight_discount THEN 1 ELSE 0 END) AS session_flight_discounts,  
        SUM(CASE WHEN s.hotel_discount THEN 1 ELSE 0 END) AS session_hotel_discounts,  
        MAX(f.seats) AS max_seats,  
        MAX(h.rooms) AS max_rooms,  
        -- Check if the user prefers local travel  
        COUNT(CASE WHEN f.destination = u.home_country THEN 1 ELSE NULL END) AS  
local_travel_count  
    FROM users u  
    JOIN filtered_users fu ON fu.user_id = u.user_id
```

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LEFT JOIN sessions_2023 s ON u.user_id = s.user_id
LEFT JOIN flights f ON s.trip_id = f.trip_id
LEFT JOIN hotels h ON f.trip_id = h.trip_id
GROUP BY u.user_id
),
final_classification AS (
    SELECT
        *,
        CASE
            WHEN flight_count > 3 AND session_flight_discounts > 2 THEN 'Frequent Flyer'
            WHEN (married = TRUE OR has_children = TRUE) AND max_seats > 1 AND
max_rooms >= 1 THEN 'Family Traveler'
            WHEN session_flight_discounts > 1 AND session_hotel_discounts > 1 THEN 'Budget
Traveler'
            WHEN avg_flight_fare > 800 OR avg_hotel_fare > 500 THEN 'Luxury Traveler'
            WHEN max_seats >= 1 AND max_rooms >= 1 AND flight_count > 3 THEN 'Business
Traveler'
            WHEN max_seats = 1 AND flight_count >= 1 THEN 'Solo
Travellers'
            WHEN max_seats >= 3 AND max_rooms >= 2 THEN 'The Groupies'
            WHEN max_seats >= 2 THEN 'The Explorers'
            ELSE 'Uncharacterizable'
        END AS customer_category
    FROM
        categorized_customers
),
assigned_perks AS (
    SELECT
        *,
        CASE customer_category
            WHEN 'Frequent Flyer' THEN 'Priority boarding'
            WHEN 'Family Traveler' THEN 'Family discount'
            WHEN 'Budget Traveler' THEN 'Extra discount on flights/hotels'
            WHEN 'Luxury Traveler' THEN 'Access to VIP lounges'
            WHEN 'Business Traveler' THEN 'Free business lounge access'
            WHEN 'Solo Travellers' THEN '100 loyalty points'
            WHEN 'The Groupies' THEN 'Hotel discount'
            WHEN 'The Explorers' THEN 'Free coupons'
        END AS perks
    FROM
        final_classification
    --where max_seats is not NULL
)
Select * from assigned_perks

```