CUSTOMER SEGMENTS

```
-- Recency calculation
WITH recency_data AS (
   SELECT
       user_crm_id,
       latest_purchase_date,
       DATE_DIFF((SELECT MAX(latest_purchase_date) FROM
`prism-insights.warehouse_PT.users`), latest_purchase_date, MONTH) AS Recency
   FROM `prism-insights.warehouse_PT.users`
),
recency_score_data AS (
   SELECT
       user_crm_id,
       latest_purchase_date,
       CASE
           WHEN Recency BETWEEN 0 AND 2 THEN 1  -- Score 1 for 0 to 2 months
           --when Recency > PERCENTILE_CONT(Recency, 0.80) OVER() then 1
           WHEN Recency BETWEEN 3 AND 6 THEN 2  -- Score 2 for 3 to 6 months
           --when Recency > PERCENTILE_CONT(Recency, 0.50) OVER() then 2
           ELSE 3                               -- Score 3 for more than 6 months
       END AS recency_score
   FROM recency_data
),
-- Frequency calculation
frequency_data AS (
   SELECT
       user_crm_id,
       COUNT(DISTINCT transaction_id) AS purchase_count
   FROM `prism-insights.warehouse_PT.transactions`
   WHERE user_crm_id IS NOT NULL
   GROUP BY user_crm_id
),
frequency_score_data AS (
   SELECT
       user_crm_id,
       CASE
           --WHEN purchase_count >= 10 THEN 1  -- High frequency users
           when purchase_count > PERCENTILE_CONT(purchase_count, 0.90) OVER() then
1
           --WHEN purchase_count BETWEEN 5 AND 9 THEN 2  -- Medium frequency
           when purchase_count > PERCENTILE_CONT(purchase_count, 0.7) OVER() then 2

           ELSE 3  -- Low frequency
       END AS frequency_score
```

```sql
    FROM frequency_data
),
-- Monetary value calculation (rule based)
monetary_data AS (
    SELECT
        user_crm_id,
        ROUND(SUM(transaction_total), 0) AS total_spent
    FROM `prism-insights.warehouse_PT.transactions`
    WHERE user_crm_id IS NOT NULL
    GROUP BY user_crm_id
),
monetary_score_data AS (
    SELECT
        user_crm_id,
        total_spent,
        CASE
            --WHEN total_spent > 100 THEN 1  -- High spenders
            when total_spent > PERCENTILE_CONT(total_spent, 0.80) OVER() then 1
            --WHEN total_spent > 30 THEN 2   -- Medium spenders
            when total_spent > PERCENTILE_CONT(total_spent, 0.50) OVER() then 2
            ELSE 3                          -- Low spenders
        END AS monetary_score
    FROM monetary_data
),
--  Combined RFM segments
combined_rfm AS (
    SELECT
        r.user_crm_id,
        r.recency_score,
        f.frequency_score,
        m.monetary_score,
        (r.recency_score + f.frequency_score + m.monetary_score) AS total_score
    FROM recency_score_data r
    LEFT JOIN frequency_score_data f ON r.user_crm_id = f.user_crm_id
    LEFT JOIN monetary_score_data m ON r.user_crm_id = m.user_crm_id
),
-- Segment classification
segment_data AS (
    SELECT
        user_crm_id,
        CASE
            WHEN total_score = 3 THEN '1 - Trendy'
            WHEN total_score = 4 THEN '2 - Regular Loyalist'
             WHEN total_score = 5 THEN '3 - Engaged Shoppers'
```

```
            WHEN total_score = 6 THEN '4 - Casual Buyers'
             WHEN total_score = 7 THEN '5 - Lapsed Customers'
          WHEN total_score = 8 THEN '6 - At-Risk Buyers'
           ELSE '7 - Lost Causes'
       END AS segment
   FROM combined_rfm
   LEFT JOIN monetary_data
   USING (user_crm_id)
),

 main as(
   SELECT
       u.user_crm_id,
       s.total_spent,
       u.city,
       u.user_gender,
       freq.purchase_count,
       u.latest_purchase_date,
       seg.segment
   FROM `prism-insights.warehouse_PT.users` u
   LEFT JOIN monetary_data s ON u.user_crm_id = s.user_crm_id
   LEFT JOIN segment_data seg ON u.user_crm_id = seg.user_crm_id
   LEFT JOIN frequency_data freq ON u.user_crm_id = freq.user_crm_id
   ORDER BY user_crm_id
 )

select segment, count(*)
from main
group by 1
order by 1
```

Cust_segments_1.1

```
-- Recency calculation
WITH recency_data AS (
   SELECT
       user_crm_id,
       latest_purchase_date,
       DATE_DIFF((SELECT MAX(latest_purchase_date) FROM
`prism-insights.warehouse_PT.users`), latest_purchase_date, MONTH) AS Recency
   FROM `prism-insights.warehouse_PT.users`
),
recency_score_data AS (
```

```sql
    SELECT
        user_crm_id,
        latest_purchase_date,
        CASE
            WHEN Recency BETWEEN 0 AND 2 THEN 1  -- Score 1 for 0 to 2 months
            --when Recency > PERCENTILE_CONT(Recency, 0.80) OVER() then 1
            WHEN Recency BETWEEN 3 AND 6 THEN 2  -- Score 2 for 3 to 6 months
            --when Recency > PERCENTILE_CONT(Recency, 0.50) OVER() then 2
            ELSE 3                               -- Score 3 for more than 6 months
        END AS recency_score
    FROM recency_data
),
-- Frequency calculation
frequency_data AS (
    SELECT
        user_crm_id,
        COUNT(DISTINCT transaction_id) AS purchase_count
    FROM `prism-insights.warehouse_PT.transactions`
    WHERE user_crm_id IS NOT NULL
    GROUP BY user_crm_id
),
frequency_score_data AS (
    SELECT
        user_crm_id,
        CASE
            --WHEN purchase_count >= 10 THEN 1  -- High frequency users
            when purchase_count > PERCENTILE_CONT(purchase_count, 0.90) OVER() then
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            --WHEN purchase_count BETWEEN 5 AND 9 THEN 2  -- Medium frequency
            when purchase_count > PERCENTILE_CONT(purchase_count, 0.7) OVER() then 2

            ELSE 3  -- Low frequency
        END AS frequency_score
    FROM frequency_data
),
-- Monetary value calculation (rule based)
monetary_data AS (
    SELECT
        user_crm_id,
        ROUND(SUM(transaction_total), 0) AS total_spent
    FROM `prism-insights.warehouse_PT.transactions`
    WHERE user_crm_id IS NOT NULL
    GROUP BY user_crm_id
),
```

```sql
monetary_score_data AS (
    SELECT
        user_crm_id,
        total_spent,
        CASE
            --WHEN total_spent > 100 THEN 1  -- High spenders
            when total_spent > PERCENTILE_CONT(total_spent, 0.80) OVER() then 1
            --WHEN total_spent > 30 THEN 2   -- Medium spenders
            when total_spent > PERCENTILE_CONT(total_spent, 0.50) OVER() then 2
            ELSE 3                          -- Low spenders
        END AS monetary_score
    FROM monetary_data
),
--  Combined RFM segments
combined_rfm AS (
    SELECT
        r.user_crm_id,
        r.recency_score,
        f.frequency_score,
        m.monetary_score,
        (r.recency_score + f.frequency_score + m.monetary_score) AS total_score
    FROM recency_score_data r
    LEFT JOIN frequency_score_data f ON r.user_crm_id = f.user_crm_id
    LEFT JOIN monetary_score_data m ON r.user_crm_id = m.user_crm_id
),
-- Segment classification
segment_data AS (
    SELECT
        user_crm_id,
        CASE
            WHEN total_score = 3 THEN '1 - Trendy'
            WHEN total_score = 4 THEN '2 - Regular Loyalist'
             WHEN total_score = 5 THEN '3 - Engaged Shoppers'
              WHEN total_score = 6 THEN '4 - Casual Buyers'
               WHEN total_score = 7 THEN '5 - Lapsed Customers'
           WHEN total_score = 8 THEN '6 - At-Risk Buyers'
            ELSE '7 - Lost Causes'
        END AS segment
    FROM combined_rfm
    LEFT JOIN monetary_data
    USING (user_crm_id)
),
```

```
 main as(
   SELECT
       u.user_crm_id,
       s.total_spent,
       u.city,
       u.user_gender,
       freq.purchase_count,
       u.latest_purchase_date,
       seg.segment
   FROM `prism-insights.warehouse_PT.users` u
   LEFT JOIN monetary_data s ON u.user_crm_id = s.user_crm_id
   LEFT JOIN segment_data seg ON u.user_crm_id = seg.user_crm_id
   LEFT JOIN frequency_data freq ON u.user_crm_id = freq.user_crm_id
   ORDER BY user_crm_id
 )


SELECT
    user_crm_id,
    total_spent,
    city,
    user_gender,
    purchase_count,
    latest_purchase_date,
    segment
FROM main
ORDER BY user_crm_id
```

Demographics

```
SELECT user_crm_id,city, user_gender, registration_date, prism_plus_tier FROM
`prism-insights.warehouse_PT.users`
```

Sessions:

```
SELECT user_crm_id,session_id, traffic_source FROM
`prism-insights.warehouse_PT.sessions`  where user_crm_id is not null
```