WITH months AS (

SELECT

'2017-01-01' as first\_day,

'2017-01-31' as last\_day

UNION

SELECT

'2017-02-01' as first\_day,

'2017-02-28' as last\_day

UNION

SELECT

'2017-03-01' as first\_day,

'2017-03-31' as last\_day

),

cross\_join AS (

SELECT \*

FROM subscriptions

CROSS JOIN months

),

status AS (

SELECT

id, first\_day AS 'month',

CASE

WHEN subscription\_start < first\_day

AND (subscription\_end > first\_day

OR subscription\_end IS NULL)

AND segment = 87

THEN 1

ELSE 0

END AS is\_active\_87,

CASE

WHEN subscription\_start < first\_day

AND (subscription\_end > first\_day

OR subscription\_end IS NULL)

AND segment = 30

THEN 1

ELSE 0

END AS is\_active\_30,

CASE

WHEN ((subscription\_end BETWEEN first\_day and last\_day) AND (segment = 30))

THEN 1

ELSE 0

END AS is\_canceled\_30,

CASE

WHEN ((subscription\_end BETWEEN first\_day and last\_day) AND (segment = 87))

THEN 1

ELSE 0

END AS is\_canceled\_87

FROM cross\_join

),

status\_aggregate AS (

SELECT month,

SUM(is\_active\_87) AS 'sum\_active\_87',

SUM(is\_active\_30) AS 'sum\_active\_30',

SUM(is\_canceled\_87) AS 'sum\_canceled\_87',

SUM(is\_canceled\_30) AS 'sum\_canceled\_30'

FROM status

GROUP BY month

)

SELECT month,

(1.0 \* sum\_canceled\_87 / sum\_active\_87) AS 'churn\_87',

(1.0 \* sum\_canceled\_30 / sum\_active\_30) AS 'churn\_30'

FROM status\_aggregate

GROUP BY month;