WITH first\_payments AS -- ШАГ 1\_2

(SELECT user\_id

, DATE\_TRUNC ('day', MIN (transaction\_datetime)) AS first\_payment\_date

FROM skyeng\_db.payments

WHERE status\_name = 'success'

GROUP BY user\_id

),

all\_dates AS -- ШАГ 2\_2

(SELECT DISTINCT DATE\_TRUNC ('day', class\_start\_datetime) AS days\_with\_classes\_2016

FROM skyeng\_db.classes

WHERE class\_start\_datetime BETWEEN '2016-01-01' AND '2016-12-31'

),

payments\_by\_dates AS -- ШАГ 3\_2

(SELECT user\_id

, DATE\_TRUNC ('day', transaction\_datetime) AS date\_of\_payment

, SUM (classes) AS transaction\_balance\_change

FROM skyeng\_db.payments

WHERE status\_name = 'success'

GROUP BY user\_id, transaction\_datetime

),

all\_dates\_by\_user AS --ШАГ 4\_2

(SELECT first\_payments.user\_id

, all\_dates.days\_with\_classes\_2016

FROM all\_dates

JOIN first\_payments

ON all\_dates.days\_with\_classes\_2016>=first\_payments.first\_payment\_date

),

classes\_by\_dates AS --ШАГ 5\_2

(SELECT user\_id

, DATE\_TRUNC ('day', class\_start\_datetime) as class\_date

, COUNT (\*) OVER (PARTITION BY user\_id, class\_start\_datetime)\*-1 AS classes

FROM skyeng\_db.classes

WHERE class\_status IN ('success', 'failed\_by\_student') AND class\_type != 'trial'

),

payments\_by\_dates\_cumsum AS --ШАГ 6\_2

(SELECT a.user\_id

, a.days\_with\_classes\_2016

, p.date\_of\_payment

, p.transaction\_balance\_change

, SUM (transaction\_balance\_change) over (PARTITION BY a.user\_id ORDER BY days\_with\_classes\_2016) AS transaction\_balance\_change\_cs

FROM all\_dates\_by\_user a

LEFT JOIN payments\_by\_dates p

ON a.user\_id = p.user\_id

AND a.days\_with\_classes\_2016 = p.date\_of\_payment

ORDER BY a.user\_id

),

classes\_by\_dates\_dates\_cumsum AS --ШАГ 1\_3

(SELECT a.\*

, c.classes

, COALESCE ((SUM (classes) OVER (PARTITION BY a.user\_id ORDER BY days\_with\_classes\_2016)), 0) AS classes\_cs

FROM all\_dates\_by\_user a

LEFT JOIN classes\_by\_dates c

ON a.user\_id = c.user\_id

AND a.days\_with\_classes\_2016 = c.class\_date

ORDER BY a.user\_id

),

balances AS -- ШАГ 2\_3

(SELECT t1.user\_id

, t1.days\_with\_classes\_2016

, t1.transaction\_balance\_change

, t1.transaction\_balance\_change\_cs

, t2.classes

, t2.classes\_cs

, t2.classes\_cs + t1.transaction\_balance\_change\_cs as balance

FROM payments\_by\_dates\_cumsum t1

LEFT JOIN classes\_by\_dates\_dates\_cumsum t2

ON t1.user\_id = t2.user\_id

AND t1.days\_with\_classes\_2016 = t2.days\_with\_classes\_2016

)

SELECT \* --ШАГ 3\_3

FROM balances

ORDER BY user\_id

, days\_with\_classes\_2016

-- SELECT days\_with\_classes\_2016 --ШАГ 3\_4

-- , SUM (transaction\_balance\_change) AS sum\_transaction\_balance\_change

-- , SUM (transaction\_balance\_change\_cs) AS sum\_transaction\_balance\_change\_cs

-- , SUM (classes) AS sum\_classes

-- , SUM (classes\_cs) AS sum\_classes\_cs

-- , SUM (balance) AS sum\_balance

-- FROM balances

-- GROUP BY days\_with\_classes\_2016

-- ORDER BY days\_with\_classes\_2016