-- 1

with first\_payments as

(select user\_id

, min(date\_trunc('day', transaction\_datetime)) as first\_payment\_date

from SKYENG\_DB.payments

where status\_name = 'success'

group by user\_id) ,

--2

all\_dates as

(select distinct date\_trunc('day', class\_start\_datetime) as dt

from SKYENG\_DB.classes

where class\_status = 'success' and date\_trunc('year', class\_start\_datetime) = '2016-01-01'

group by dt

order by dt) ,

---3

all\_dates\_by\_user as

(select fp.user\_id

, ad.dt

from first\_payments fp

join all\_dates ad

on ad.dt >= fp.first\_payment\_date) ,

--- 4

payments\_by\_dates as

(select user\_id

, date\_trunc('day', transaction\_datetime) as payment\_date

, COALESCE(sum(classes) , 0) as transaction\_balance\_change

from SKYENG\_DB.payments

where status\_name = 'success'

group by user\_id

, payment\_date

order by user\_id) ,

--- 5

payments\_by\_dates\_cumsum as

(select du.user\_id

, dt

, COALESCE(transaction\_balance\_change , 0) as transaction\_balance\_change

, COALESCE(sum(transaction\_balance\_change) over (partition by du.user\_id order by dt) , 0) as transaction\_balance\_change\_cs

from all\_dates\_by\_user du

left join payments\_by\_dates pd

on du.user\_id = pd.user\_id

and du.dt = pd.payment\_date ) ,

--- 6

classes\_by\_dates as

(select user\_id

, date\_trunc('day', class\_start\_datetime) as class\_date

, count(id\_class)\*(-1) as classes --списания с баланса

from SKYENG\_DB.classes

where class\_status in ('success', 'failed\_by\_student')

and class\_type != 'trial'

group by user\_id

, class\_date) ,

--- 7

classes\_by\_dates\_dates\_cumsum as

(select du.user\_id

, dt

, COALESCE(classes , 0) as classes

, COALESCE(sum(classes) over (partition by du.user\_id order by dt), 0) as classes\_cs

from all\_dates\_by\_user du

left join classes\_by\_dates d

on du.user\_id = d.user\_id

and du.dt = d.class\_date) ,

--- 8

balances as

(select x.user\_id

, x.dt

, x.transaction\_balance\_change

, x.transaction\_balance\_change\_cs

, y.classes

, y.classes\_cs

, y.classes\_cs + x.transaction\_balance\_change\_cs as balance

from payments\_by\_dates\_cumsum as x

left join classes\_by\_dates\_dates\_cumsum y

on x.user\_id = y.user\_id

and x.dt = y.dt)

--Задание\_1

/\*select \*

from balances

order by user\_id

, dt

limit 1000 \*/

--- 9

select dt

, sum(transaction\_balance\_change) as transaction\_balance\_change

, sum(transaction\_balance\_change\_cs) as transaction\_balance\_change\_cs

, sum(classes) as classes

, sum(classes\_cs) as classes\_cs

, sum(balance) as balance

from balances

group by balances.dt

order by balances.dt