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

),

all\_dates as

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

from SKYENG\_DB.classes

where class\_start\_datetime between '2016-01-01 00:00' and '2016-12-31 23:59'

group by dt

),

all\_dates\_by\_user as

(select user\_id

, dt

from all\_dates as al

join first\_payments as fp

on al.dt >= fp.first\_payment\_date

),

payments\_by\_dates as

(select user\_id

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

, sum(classes) as transaction\_balance\_change

from SKYENG\_DB.payments

where status\_name = 'success'

group by user\_id

, payment\_date

),

classes\_by\_dates as

(select user\_id

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

, count(\*) \* -1 as classes

from SKYENG\_DB.classes

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

and class\_type != 'trial'

group by user\_id

, class\_date

),

payments\_by\_dates\_cumsum as

(select adb.user\_id

,dt

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

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

from all\_dates\_by\_user adb

left join payments\_by\_dates pbd

on adb.dt = pbd.payment\_date and

adb.user\_id = pbd.user\_id

),

classes\_by\_dates\_dates\_cumsum as

(select adb.user\_id

,dt

,classes

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

from all\_dates\_by\_user as adb

left join classes\_by\_dates as cd

on adb.user\_id=cd.user\_id

and adb.dt=cd.class\_date

),

balances as

( select pdc.user\_id

,pdc.dt

,transaction\_balance\_change

,transaction\_balance\_change\_cs

,classes

,classes\_cs

,classes\_cs+transaction\_balance\_change\_cs as balance

from payments\_by\_dates\_cumsum as pdc

join classes\_by\_dates\_dates\_cumsum cddc

on pdc.user\_id=cddc.user\_id

and pdc.dt=cddc.dt

)

--select\*

-- from balances

-- order by user\_id,dt

--limit 1000

select dt

, sum(transaction\_balance\_change) as tbc

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

, sum(classes) as sum\_classes

, sum(classes\_cs) as sum\_classes\_cs

, sum(balance) as sum\_balance

from balances

group by dt

order by dt