<https://metabase.sky.pro/question/71320>

Выводы:

1. В первом задании основным моментом, который смутил, было то, что баланс по некоторым студентам доходит до минус 4. Есть ощущение, что информация о пополнении баланса подгружается в базу не своевременно.
2. Что касается второго задания, то помимо того, что было уже отмечено на дополнительной встрече по курсовой (повторять то же самое наверно не имеет смысла), есть вопросы к балансу. Связан ли рост баланса только с ростом бизнеса? Может нам не хватает учителей, чтобы проводит уроки чаще? Может студенты хотели бы «списывать» баланс чаще, но мы не можем им дать такую частоту уроков.

Код:

with

all\_dates as

(select distinct class\_start\_datetime::date as dt

from skyeng\_db.classes

where date\_part ('year', class\_start\_datetime)=2016)

,first\_payments as

(select user\_id

, min(transaction\_datetime::date) as first\_pay

from skyeng\_db.payments

where status\_name= 'success'

group by user\_id)

, all\_dates\_by\_user as

(select user\_id, dt

from first\_payments a

join all\_dates b

on a.first\_pay <= b.dt

order by 1, 2)

--ШАГ4

, payments\_by\_dates as

(select user\_id, transaction\_datetime::date payment\_date , sum(classes) as transaction\_balance\_change

from skyeng\_db.payments

where status\_name= 'success'

group by 1, 2

order by 1, 2)

--ШАГ 5

, payments\_by\_dates\_cumsum as

(select a.user\_id

, a.dt

, b.transaction\_balance\_change

, sum (b.transaction\_balance\_change) over ( partition by a.user\_id order by a.dt) as transaction\_balance\_change\_cs

from all\_dates\_by\_user a

left join payments\_by\_dates b

on a.user\_id=b.user\_id and a.dt=b.payment\_date

)

--ШАГ 6

,classes\_by\_dates as

(select user\_id, class\_start\_datetime::date as class\_date , count (id\_class)\*-1 as classes

from skyeng\_db.classes

where class\_type != 'trial' and class\_status = 'success' or class\_status= 'failed\_by\_student'

group by 1, 2

order by 1, 2)

--ШАГ 7

, classes\_by\_dates\_dates\_cumsum as

(select a.user\_id

, a.dt

, b.classes

, sum (b.classes) over ( partition by a.user\_id order by a.dt) as classes\_cs

from all\_dates\_by\_user a

left join classes\_by\_dates b

on a.user\_id=b.user\_id and a.dt=b.class\_date

order by user\_id)

--ШАГ 8

,balances as

(select a.user\_id

,a.dt

,a.transaction\_balance\_change

,a.transaction\_balance\_change\_cs

,b.classes

,b.classes\_cs

,coalesce (transaction\_balance\_change\_cs,0)+ coalesce (classes\_cs,0) as balance

from payments\_by\_dates\_cumsum a

join classes\_by\_dates\_dates\_cumsum b

on a.user\_id=b.user\_id and a.dt=b.dt

order by 1,2

)

select dt as date

, sum(classes) as classes

, sum(classes\_cs) as classes\_cs

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

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

, sum(balance) as balance

from balances

group by dt

order by dt