## 1. Please write a query for how many customers started the subscription flow each

## month as well as the number and % that completed.

*The months are presented as number of each month(Jan - 1, Feb - 2, etc)*

*Guests that entered the subscription flow are the total number of rows in subscriptions table for that month.*

*Last 2 parameters are calculated as per logic given in exercise.*

SELECT

extract(month from date\_created) AS "Month",

COUNT(\*) AS "Guests that entered subscription flow",-- total customers who started subscription flow

SUM(

CASE WHEN date\_initialized IS NOT NULL

THEN 1

ELSE 0

END) AS "No. of guests who subscribed",--total subscriptions

ROUND(SUM(

CASE WHEN date\_initialized IS NOT NULL

THEN 1

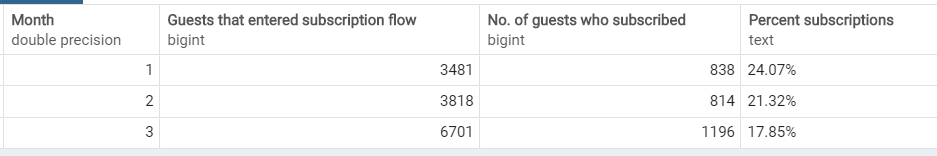
ELSE 0

END)\*100.0/COUNT(\*),2)||'%' AS "Percent subscriptions"

FROM thistle\_web.subscriptions\_subscription

GROUP BY

extract(month from date\_created)



## 2. What is the signup success rate (# of people signing up for a subscription vs. all

## people who enter the checkout flow) for meat vs. veg plans?

*A group by clause with protein type gives the answer for this question tweaking the SQL in 1st question.*

SELECT

protein\_type,

COUNT(\*) AS "Guests that entered subscription flow",-- total customers who started subscription flow

SUM(

CASE WHEN date\_initialized IS NOT NULL

THEN 1

ELSE 0

END) AS "No. of guests who subscribed",--total subscriptions

ROUND(SUM(

CASE WHEN date\_initialized IS NOT NULL

THEN 1

ELSE 0

END)\*100.0/COUNT(\*),2)||'%' AS "Sign up success rate"

FROM thistle\_web.subscriptions\_subscription

GROUP BY

protein\_type

## 

## 3.Please calculate how many customers cancel within 14 days of signing up.

*A simple count of total customers where difference in cancelled date and subscription date is less than or equal to 14.*

SELECT

SUM(

CASE WHEN DATE\_PART('day',c.date\_cancelled::timestamp-s.date\_initialized::timestamp) <= 14

THEN 1

ELSE 0

END

)

FROM

thistle\_web.subscriptions\_subscription "s"

JOIN

thistle\_web.subscriptions\_subscriptioncancellation "c"

ON s.id = c.subscription\_id

## 

## 4. Please calculate retention by weekly cohort.

*This report starts from day first subscription was added to the subscription table.*

*Cohort total is counted as the number of subscriptions on the first day.*

*‘Week’ column refers to the first day of each new week.*

*Active subscriptions are counted as ‘subscriptions started before or on a given day’ minus ‘subscription cancelled on or before that day’. (given day = first day of each week in table)*

WITH first\_day(first\_day,last\_day) AS

(

SELECT

MIN(date\_initialized)::date,

MAX(date\_initialized)::date

FROM

thistle\_web.subscriptions\_subscription

),

first\_dow (first\_dow) AS

(

SELECT

dow

FROM

public.etl\_calendar,first\_day

WHERE

day=first\_day.first\_day

),

start\_cohort (scount) AS

(

SELECT

COUNT(\*)

FROM thistle\_web.subscriptions\_subscription,first\_day

WHERE date\_initialized::date <= first\_day.first\_day

)

SELECT

first\_day "cohort",

day "week",

DATE\_PART('day',day::timestamp-first\_day::timestamp)/7+1 "week\_number",

start\_cohort.scount "cohort\_total",

start\_cohort.scount-

(SELECT count(\*) FROM thistle\_web.subscriptions\_subscriptioncancellation

WHERE date\_cancelled <= day AND date\_cancelled>=first\_day)+

(SELECT count(\*) FROM thistle\_web.subscriptions\_subscription

WHERE date\_initialized <= day)"active\_subs",

(start\_cohort.scount-

(SELECT count(\*) FROM thistle\_web.subscriptions\_subscriptioncancellation

WHERE date\_cancelled <= day AND date\_cancelled>=first\_day)+

(SELECT count(\*) FROM thistle\_web.subscriptions\_subscription

WHERE date\_initialized <= day))/start\_cohort.scount\*1.0 "active\_percent"

FROM

public.etl\_calendar,first\_dow,first\_day,start\_cohort

WHERE

dow=first\_dow.first\_dow

AND day::date < last\_day

