8 W E E K S Q L C H A L L E N G E . C O M

CASE STUDY #3



FOODIE-FID AVO GOOD TIME

```
Schema SQL Query SQL ResultsEdit on DB Fiddle
CREATE SCHEMA foodie_fi;
SET search_path = foodie_fi;
CREATE TABLE plans (
plan_id INTEGER,
 plan_name VARCHAR(13),
price DECIMAL(5,2)
);
INSERT INTO plans
(plan_id, plan_name, price)
VALUES
('0', 'trial', '0'),
('1', 'basic monthly', '9.90'),
('2', 'pro monthly', '19.90'),
('3', 'pro annual', '199'),
('4', 'churn', null);
CREATE TABLE subscriptions (
 customer_id INTEGER,
 plan_id INTEGER,
start_date DATE
```

);

INSERT INTO subscriptions

(customer_id, plan_id, start_date)

VALUES

- ('1', '0', '2020-08-01'),
- ('1', '1', '2020-08-08'),
- ('2', '0', '2020-09-20'),
- ('2', '3', '2020-09-27'),
- ('3', '0', '2020-01-13'),
- ('3', '1', '2020-01-20'),
- ('4', '0', '2020-01-17'),
- ('4', '1', '2020-01-24'),
- ('4', '4', '2020-04-21'),
- ('5', '0', '2020-08-03'),
- ('5', '1', '2020-08-10'),
- ('6', '0', '2020-12-23'),
- ('6', '1', '2020-12-30'),
- ('6', '4', '2021-02-26'),
- ('7', '0', '2020-02-05'),
- ('7', '1', '2020-02-12'),
- ('7', '2', '2020-05-22'),
- ('8', '0', '2020-06-11'),
- ('8', '1', '2020-06-18'),
- ('8', '2', '2020-08-03'),
- ('9', '0', '2020-12-07'),
- ('9', '3', '2020-12-14'),

```
('10', '0', '2020-09-19'),
```

```
('20', '1', '2020-04-15'),
```

```
('31', '0', '2020-06-22'),
```

```
('40', '0', '2020-01-22'),
```

```
('49', '0', '2020-04-24'),
```

```
('59', '0', '2020-10-30'),
```

```
('67', '2', '2020-08-21'),
```

```
('76', '3', '2020-09-07'),
```

```
('86', '0', '2020-07-10'),
```

```
('95', '2', '2021-03-16'),
```

```
('104', '2', '2020-04-05'),
```

```
('114', '1', '2020-06-12'),
```

```
('123', '4', '2020-05-15'),
```

```
('134', '0', '2020-07-02'),
```

```
('144', '2', '2021-02-09'),
```

```
('155', '0', '2020-09-13'),
```

```
('166', '0', '2020-07-03'),
```

```
('176', '0', '2020-09-13'),
```

```
('186', '4', '2021-02-05'),
```

```
('197', '0', '2020-05-17'),
```

```
('207', '0', '2020-05-20'),
```

```
('217', '0', '2020-12-06'),
```

```
('226', '2', '2020-11-24'),
```

```
('236', '0', '2020-06-22'),
```

```
('246', '0', '2020-01-27'),
```

```
('256', '1', '2020-07-20'),
```

```
('265', '1', '2020-06-20'),
```

```
('275', '0', '2020-04-27'),
```

```
('284', '2', '2020-08-03'),
```

```
('294', '0', '2020-01-19'),
```

```
('302', '4', '2020-01-22'),
```

```
('312', '0', '2020-01-09'),
```

```
('322', '0', '2020-12-19'),
```

```
('332', '1', '2020-10-18'),
```

```
('342', '1', '2020-06-28'),
```

```
('351', '1', '2020-05-31'),
```

```
('361', '0', '2020-10-10'),
```

```
('370', '1', '2020-03-15'),
```

```
('379', '0', '2020-02-05'),
```

```
('389', '0', '2020-01-04'),
```

```
('398', '2', '2020-10-02'),
```

```
('409', '0', '2020-09-02'),
```

```
('418', '1', '2020-10-14'),
```

```
('429', '0', '2020-02-05'),
```

```
('438', '2', '2020-04-16'),
```

```
('448', '3', '2020-10-30'),
```

```
('459', '2', '2020-12-14'),
```

```
('468', '3', '2020-05-01'),
```

```
('478', '1', '2020-10-30'),
```

```
('487', '3', '2021-01-14'),
```

```
('497', '1', '2020-04-15'),
```

```
('507', '0', '2020-07-16'),
```

```
('516', '1', '2020-12-28'),
```

```
('526', '1', '2020-05-27'),
```

```
('534', '3', '2020-08-15'),
```

```
('545', '0', '2020-03-05'),
```

```
('555', '1', '2020-05-01'),
```

```
('565', '2', '2020-01-09'),
```

```
('575', '1', '2020-06-23'),
```

```
('586', '1', '2020-01-19'),
```

```
('596', '0', '2020-05-18'),
```

```
('607', '1', '2020-01-09'),
```

```
('617', '3', '2020-09-06'),
```

```
('629', '0', '2020-11-04'),
```

```
('640', '0', '2020-03-17'),
```

```
('649', '0', '2020-09-02'),
```

```
('658', '1', '2020-11-21'),
```

```
('668', '3', '2020-06-14'),
```

```
('679', '0', '2020-06-10'),
```

```
('687', '1', '2020-05-30'),
```

```
('698', '1', '2020-11-19'),
```

```
('707', '0', '2020-08-30'),
```

```
('717', '0', '2020-01-08'),
```

```
('728', '0', '2020-06-17'),
```

```
('737', '0', '2020-11-04'),
```

```
('747', '0', '2020-11-10'),
```

```
('758', '0', '2020-10-28'),
```

```
('767', '3', '2020-12-26'),
```

```
('777', '2', '2020-09-13'),
```

```
('788', '0', '2020-05-11'),
```

```
('798', '1', '2020-10-18'),
```

```
('807', '3', '2020-07-28'),
```

```
('817', '3', '2020-08-28'),
```

```
('828', '0', '2020-06-22'),
```

```
('836', '1', '2020-03-31'),
```

```
('846', '0', '2020-03-18'),
```

```
('855', '1', '2020-06-24'),
```

```
('865', '2', '2020-04-03'),
```

```
('875', '0', '2020-03-13'),
```

```
('884', '1', '2020-11-08'),
```

```
('893', '1', '2020-05-23'),
```

```
('903', '0', '2020-05-09'),
```

```
('912', '3', '2021-02-23'),
```

```
('922', '0', '2020-11-02'),
```

```
('931', '0', '2020-01-27'),
```

```
('940', '2', '2020-01-24'),
```

```
('949', '2', '2020-10-14'),
```

```
('960', '0', '2020-10-22'),
```

```
('969', '2', '2020-02-28'),
```

```
('979', '1', '2021-01-04'),
```

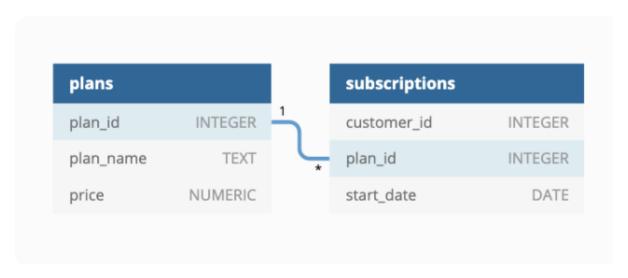
```
('990', '1', '2020-07-30'),
```

```
('1000', '2', '2020-03-26'),
('1000', '4', '2020-06-04');
```

- -- select * from plans
- -- select * from subscriptions

QUESTIONS

Entity Relationship Diagram



1. How many customers has Foodie-Fi ever had?

select count(distinct(customer_id))

from subscriptions

2. What is the monthly distribution of trial plan start_date values for our dataset - use the start of the month as the group by value

```
select
extract(month from s.start_date) as months,count(p.plan_name) trial_count
from subscriptions as s
join plans as p on
s.plan_id = p.plan_id
where p.plan_name = 'trial'
group by extract(month from s.start_date)
order by months
```

3. What plan start_date values occur after the year 2020 for our dataset? Show the breakdown by count of events for each plan_name

```
select p.plan_name, count(p.plan_name) count_of_plan_2021
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
where extract(year from s.start_date) = 2021
group by p.plan_name,extract(year from s.start_date)
```

4. What is the customer count and percentage of customers who have churned rounded to 1 decimal place?

```
select
count(s.customer_id) as churned_count,
round(count(s.customer_id)*100/(select count(distinct(customer_id)) from
subscriptions),1) as churned_count
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
5. How many customers have churned straight after their initial free trial - what percentage
is this rounded to the nearest whole number?
with mycte as
select
p.*,s.*,
row_number() over(partition by s.customer_id order by s.start_date) as ranking
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
)
select concat(round(count(customer_id)*100/(select count(distinct(customer_id)) from
subscriptions),1),",'%')
from mycte
where ranking = 2 and plan_name = 'churn'
6. What is the number and percentage of customer plans after their initial free trial?
```

```
with mycte as
select
p.*,s.*,
row_number() over(partition by s.customer_id order by s.start_date) as ranking
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
)
select count(customer_id) count_of_customer,
concat(round(count(customer_id)*100/(select count(distinct(customer_id)) from
subscriptions),1),",'%') as percentage_of_customer
from mycte
where ranking <> 1
7. What is the customer count and percentage breakdown of all 5 plan_name values at
2020-12-31?
select
p.plan_name,count(customer_id),
round(count(customer_id)*100.0/(select count(distinct(customer_id)) from
subscriptions),1)
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
where extract(year from s.start_date) = 2020
group by p.plan_name
```

```
8. How many customers have upgraded to an annual plan in 2020?
```

```
select
count(customer_id) as count_of_upgraded_to_annual
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
where p.plan_name = 'pro annual' and extract(year from s.start_date) = 2020
9. How many days on average does it take for a customer to an annual plan from the day
they join Foodie-Fi?
with mycte as(
select
s.customer_id,min(s.start_date) as min1
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
group by s.customer_id
order by customer_id
),
mycte2 as
```

```
select
s.customer_id,min(s.start_date) as min2
from plans as p
join subscriptions as s
on p.plan_id = s.plan_id
where s.plan_id = 3
group by s.customer_id
order by customer_id
), mycte3 as
select m1.*,m2.*,( m2.min2 -m1.min1) number_of_days
from mycte as m1
join mycte2 as m2
on m1.customer_id = m2.customer_id
)
select round(avg(number_of_days),1) as avg_days
from mycte3
10. How many customers downgraded from a pro monthly to a basic monthly plan in 2020?
with mycte as
select p.*,s.*,
row_number() over(partition by s.customer_id order by s.start_date desc) as ranking
from plans as p
join subscriptions as s
```

```
on p.plan_id = s.plan_id
)
select count(customer_id) as customer_basic_monthly_plan,plan_name
from mycte
where ranking = 1 and plan_name = 'basic monthly'
group by plan_name
```