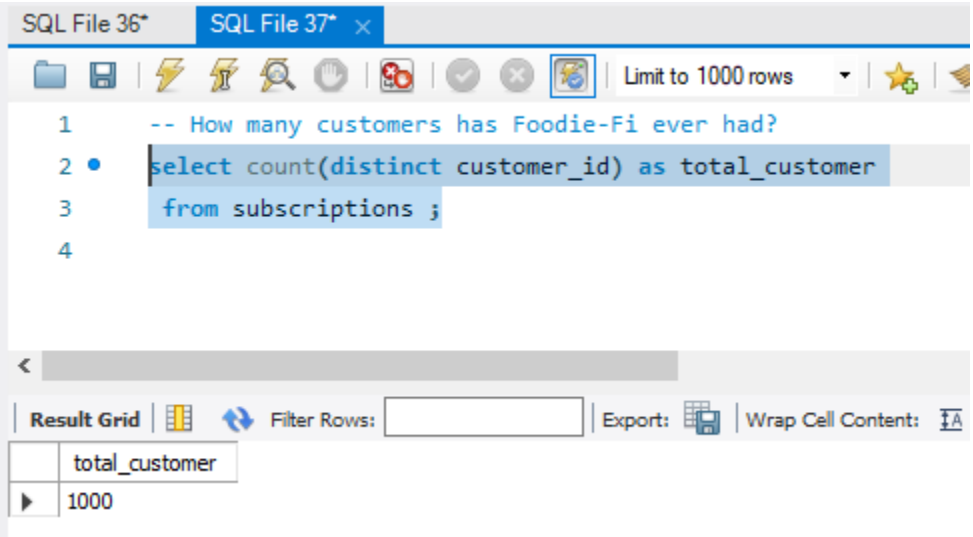
Question:1 How many customers has Foodie-Fi ever had?

Answer:select count(distinct customer_id) as total_customer

from subscriptions ;



Question: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 month(start_date) from subscriptions;

select start_date as start_of_month,count(*) AS trial_plans_started

FROM subscriptions s

Join plans p on s.plan_id=p.plan_id

WHERE p.Plan_name = 'trial'

group by start_date;

```sql
/* 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 start_date as start_of_month,count(*) AS trial_plans_started
FROM subscriptions s
Join plans p on s.plan_id=p.plan_id
WHERE p.Plan_name = 'trial'
group by start_date;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

start_of_month	trial_plans_started
2020-03-19	4
2020-10-23	3
2020-10-12	4
2020-07-27	6
2020-11-11	7
2020-06-11	4
2020-07-25	3

Question 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

```sql
select start_date,plan_name,Count(*) AS count_of_event
From plans p
join subscriptions s on p.plan_id=s.plan_id
where start_date>'2020-01-01'
group by start_date, plan_name;
```

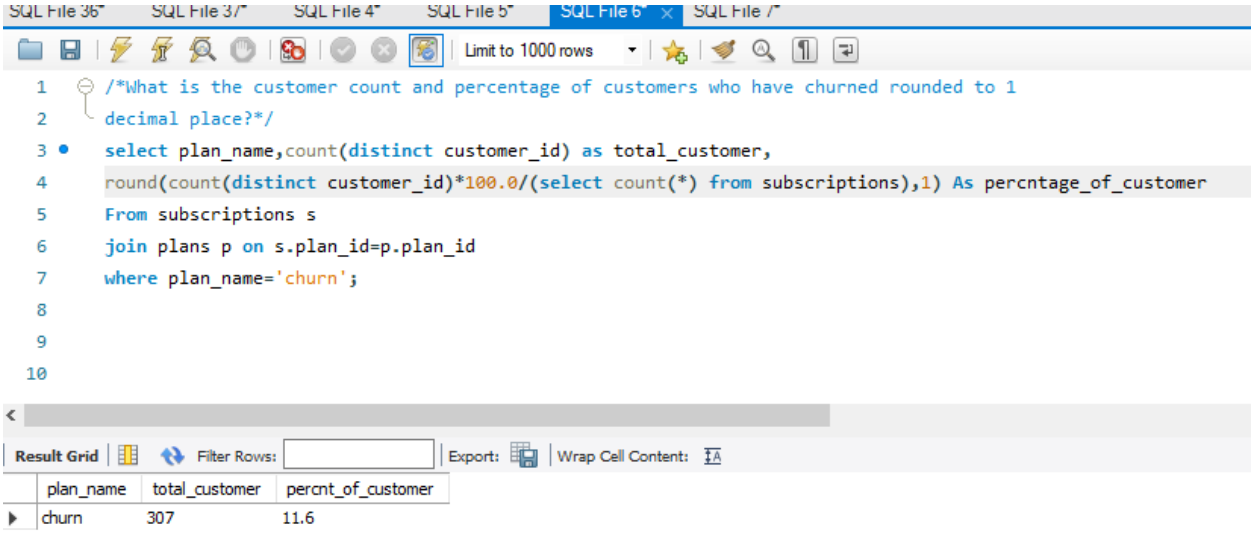
```sql
/*What plan start_date values occur after the year 2020 fo
by count of events for each plan_name*/
select start_date,plan_name,Count(*) AS count_of_event
From plans p
join subscriptions s on p.plan_id=s.plan_id
where start_date>'2020-01-01'
group by start_date, plan_name;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

start_date	plan_name	count_of_event
2020-08-01	trial	7
2020-08-08	basic monthly	5
2020-09-20	trial	4
2020-09-27	pro annual	1
2020-01-13	trial	4
2020-01-20	basic monthly	1
2020-01-17	trial	4

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

```
select plan_name,count(distinct customer_id) as total_customer,
round(count(distinct customer_id)*100.0/(select count(*) from subscriptions),1) As percntage_of_customer
From subscriptions s
join plans p on s.plan_id=p.plan_id
where plan_name='churn';
```



/*Question 5:How many customers have churned straight after their initial free trial - what percentage is this rounded to the nearest whole number?*/

```
with cte as(
select *,
lag(plan_id,1)over(partition by customer_id order by plan_id) as previous_plan
from subscriptions)
select count(previous_plan) as No_of_churn,
round(count(*)*100/(select count(distinct customer_id)from subscriptions),0) from cte
where plan_id=4 and previous_plan=0
```

```
2     this rounded to the nearest whole number?*/
3     with cte as(
4     select *,
5     lag(plan_id,1)over(partition by customer_id order by plan_id) as previous_plan
6     from subscriptions)
7     select count(previous_plan) as No_of_churn,
8     round(count(*)*100/(select count(distinct customer_id)from subscriptions),0) from cte
9     where plan_id=4 and previous_plan=0
10
11
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

No_of_churn	round(count(*)*100/(select count(distinct customer_id)from subscriptions),0)
92	9

Question:6 What is the number and percentage of customer plans after their initial free trial?

```
WITH cte AS (
   SELECT *,
   lead(plan_id,1)over(partition by customer_id order by plan_id) as next_plan from subscriptions)
   select next_plan,count(*) as num_of_customer,
   round(count(*)*100/(select count(distinct Customer_id)from subscriptions),1) as
percentage_next_plan
   from cte
   where next_plan is not null and plan_id=0
   group by next_plan
```

order by next_plan;

```
1     -- Question:6 What is the number and percentage of customer plans after their initial free trial?
2   WITH cte AS (
3       SELECT *,
4       lead(plan_id,1)over(partition by customer_id order by plan_id) as next_plan from subscriptions)
5       select next_plan,count(*) as num_of_customer,
6       round(count(*)*100/(select count(distinct Customer_id)from subscriptions),1) as percentage_next_plan
7       from cte
8       where next_plan is not null and plan_id=0
9       group by next_plan
10      order by next_plan;
11
12
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

next_plan	num_of_customer	percentage_next_plan
1	546	54.6
2	325	32.5
3	37	3.7
4	92	9.2

Question:7. What is the customer count and percentage breakdown of all 5 plan_name values at 2020-12-31?

```
select plan_name,Count(distinct customer_id) as total_customer,
Round(count(distinct customer_id)*100.0/(select count(*) from Subscriptions),2) as percent
From subscriptions s
join plans p on s.plan_id=p.plan_id
where
start_date<='2020-12-31'
group by plan_name;
```

```sql
select plan_name,Count(distinct customer_id) as total_customer,
Round(count(distinct customer_id)*100.0/(select count(*) from Subscriptions),2) as percent
From subscriptions s
join plans p on s.plan_id=p.plan_id
where
start_date<='2020-12-31'
group by plan_name;
```

esult Grid | Filter Rows: | Export: | Wrap Cell Content:

plan_name	total_customer	percent
basic monthly	538	20.30
churn	236	8.91
pro annual	195	7.36
pro monthly	479	18.08
trial	1000	37.74

Question:8 How many customers have upgraded to an annual plan in 2020?

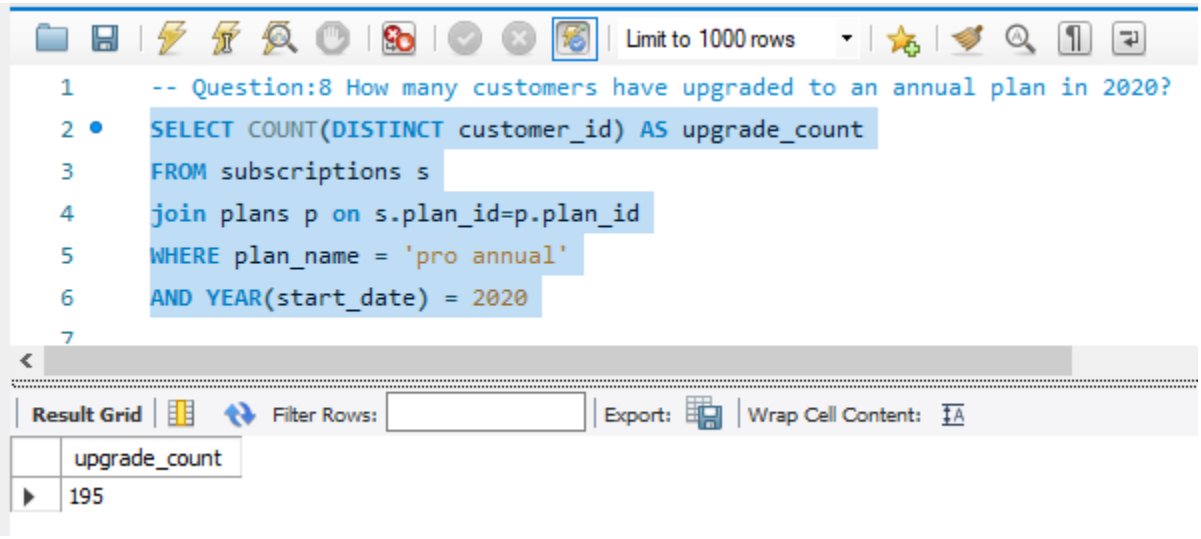
SELECT COUNT(DISTINCT customer_id) AS upgrade_count

FROM subscriptions s

join plans p on s.plan_id=p.plan_id

WHERE plan_name = 'pro annual'

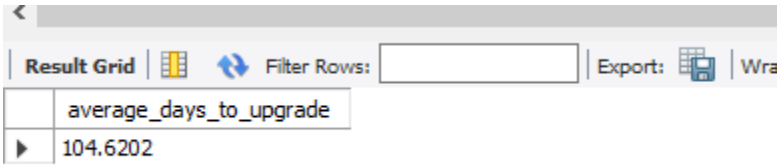
AND YEAR(start_date) = 2020



Question:9 How many days on average does it take for a customer to an annual plan from the day they join Foodie-Fi?

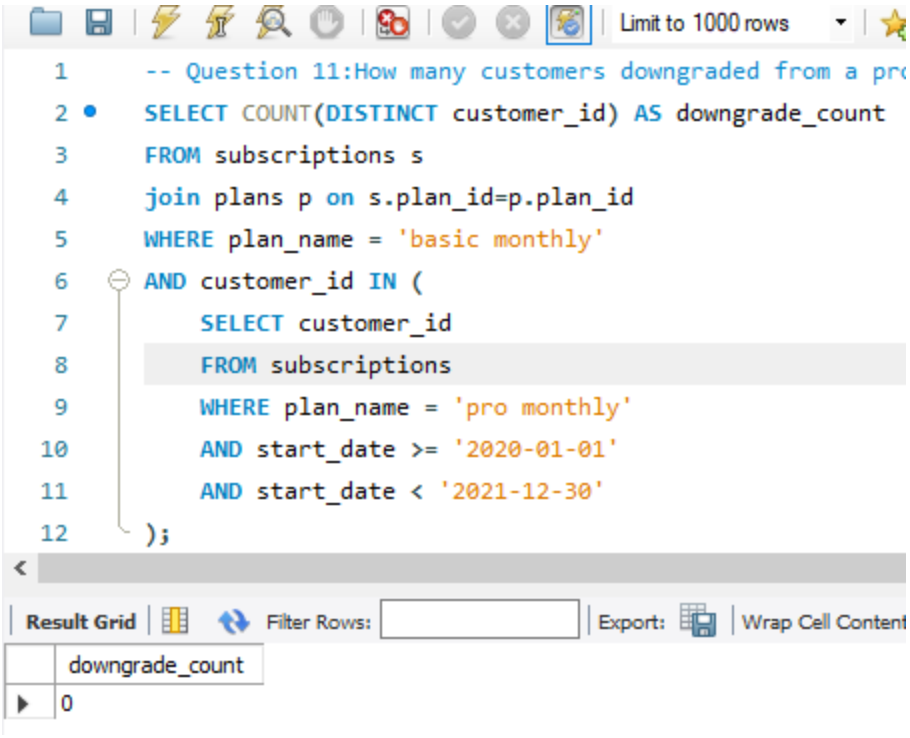
SELECT

```
    AVG(DATEDIFF(annual_plan.start_date, initial_subscription.start_date)) AS average_days_to_upgrade
FROM
    Subscriptions AS annual_plan
JOIN
    Subscriptions AS initial_subscription ON annual_plan.customer_id = initial_subscription.customer_id
JOIN
    Plans ON annual_plan.plan_id = Plans.plan_id
WHERE
    Plans.plan_name = 'pro annual'
    AND initial_subscription.start_date = (
        SELECT MIN(start_date)
        FROM Subscriptions
        WHERE customer_id = annual_plan.customer_id
    );
```



Question 11:How many customers downgraded from a pro monthly to a basic monthly plan in 2020?

```
SELECT COUNT(DISTINCT customer_id) AS downgrade_count
FROM subscriptions s
join plans p on s.plan_id=p.plan_id
WHERE plan_name = 'basic monthly'
AND customer_id IN (
    SELECT customer_id
    FROM subscriptions
    WHERE plan_name = 'pro monthly'
    AND start_date >= '2020-01-01'
    AND start_date < '2021-12-30'  );
```


Limit to 1000 rows
-- Question 11:How many customers downgraded from a pro
SELECT COUNT(DISTINCT customer_id) AS downgrade_count
FROM subscriptions s
join plans p on s.plan_id=p.plan_id
WHERE plan_name = 'basic monthly'
AND customer_id IN (
SELECT customer_id
FROM subscriptions
WHERE plan_name = 'pro monthly'
AND start_date >= '2020-01-01'
AND start_date < '2021-12-30'
);
Result Grid
Filter Rows:
Export:
Wrap Cell Content
downgrade_count
0