```
CREATE TABLE goldusers_signup(user_id integer,gold_signup_date date);

INSERT INTO goldusers_signup(user_id,gold_signup_date)
 VALUES (1,'09-22-2017'),
(3,'04-21-2017');

drop table if exists users;
CREATE TABLE users(user_id integer,signup_date date);

INSERT INTO users(user_id,signup_date)
 VALUES (1,'09-02-2014'),
(2,'01-15-2015'),
(3,'04-11-2014');

drop table if exists sales;
CREATE TABLE sales(user_id integer,created_date date,product_id integer);

INSERT INTO sales(useri_d,created_date,product_id)
 VALUES (1,'04-19-2017',2),
(3,'12-18-2019',1),
(2,'07-20-2020',3),
(1,'10-23-2019',2),
(1,'03-19-2018',3),
(3,'12-20-2016',2),
(1,'11-09-2016',1),
(1,'05-20-2016',3),
(2,'09-24-2017',1),
(1,'03-11-2017',2),
(1,'03-11-2016',1),
(3,'11-10-2016',1),
(3,'12-07-2017',2),
(3,'12-15-2016',2),
(2,'11-08-2017',2),
(2,'09-10-2018',3);


drop table if exists product;
CREATE TABLE product(product_id integer,product_name text,price integer);

INSERT INTO product(product_id,product_name,price)
 VALUES
(1,'p1',980),
(2,'p2',870),
(3,'p3',330);
```

```
select * from sales;
select * from product;
select * from goldusers_signup;
select * from users;



--Q1) What is the total amount each customer spends on Zomato ?
select s.user_id,sum(p.price) as total_spend
from sales as s
inner join product as p
on s.product_id = p.product_id
group by s.user_id
order by s.user_id asc;

--Q2) How many days has each customer visited Zomato ?
select user_id, count(distinct created_date) as distinct_days
from sales
group by user_id

--Q3) What was the first product purchased by each of the customers ?
select *
from (
    select *, rank() over(partition by user_id
          order by created_date) rank
          from sales) as s
          where rank=1

--Q4) What is the most purchased item on the menu and how many times was it purchased by
all customers?
select user_id,count(product_id) as count
from sales
where product_id =(
  select product_id
  from sales
  group by product_id
  order by count(product_id) desc
          limit 1
)
group by user_id
```

```
--Q5) Which item was the most popular for each customer?
select *
from(
        select *,rank() over(partition by user_id
        order by count desc)
   rank from(
        select user_id,product_id,count(product_id) as count
        from sales
        group by user_id,product_id)a)b
        where rank = 1

--Q6) Which item was purchased first by the customer after they became  a member?
select *
from(
    select *,rank() over(partition by user_id
          order by created_date) rank
          from(
              select s.user_id,s.created_date,s.product_id,g.gold_signup_date
                    from sales as s
                    inner join goldusers_signup as g
                    on s.user_id = g.user_id
                    and created_date >= gold_signup_date)
          c)d where rank =1;

--Q7) Which item was purchased just before the customer became a member?
select *
from(
    select *,rank() over(partition by user_id
          order by created_date desc) rank
          from(
              select s.user_id,s.created_date,s.product_id,g.gold_signup_date
                    from sales as s
                    inner join goldusers_signup as g
                    on s.user_id = g.user_id
                    and created_date <= gold_signup_date)
          c)d where rank =1;

--Q8) What is the total orders and amount spent for each member before they became a
member?
select user_id,count(created_date) as order_purchased, sum(price) as total_amount_spent
from
(select c.*,p.price
from (
     select s.user_id,s.created_date,s.product_id,g.gold_signup_date
```

```
                    from sales as s
                    inner join goldusers_signup as g
                    on s.user_id = g.user_id
                    and created_date <= gold_signup_date
) as c
inner join product as p
on c.product_id = p.product_id) as e
group by user_id
order by user_id asc;
```