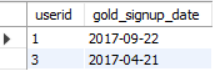
SQL PROBLEMS (Basic to Advance)

PROBLEM-1:



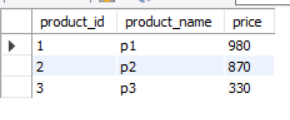


table: goldusers\_signup Table: product

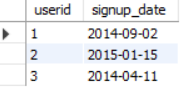


Table: users

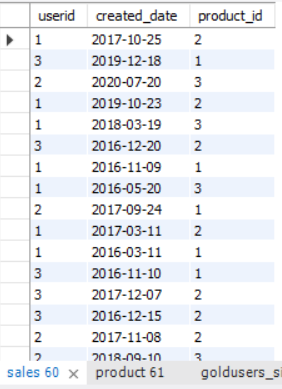


Table: sales

CODE FOR ABOVE TABLES:

use class;

CREATE TABLE goldusers\_signup(userid integer,gold\_signup\_date date);

INSERT INTO goldusers\_signup(userid,gold\_signup\_date)

VALUES (1,'2017-09-22'),

(3,'2017-04-21');

CREATE TABLE users(userid integer,signup\_date date);

INSERT INTO users(userid,signup\_date)

VALUES (1,'2014-09-02'),

(2,'2015-01-15'),

(3,'2014-04-11');

CREATE TABLE sales(userid integer,created\_date date,product\_id integer);

INSERT INTO sales(userid,created\_date,product\_id)

VALUES

(3,'2019-12-18',1),

(2,'2020-07-20',3),

(1,'2019-10-23',2),

(1,'2018-03-19',3),

(3,'2016-12-20',2),

(1,'2016-11-09',1),

(1,'2016-05-20',3),

(2,'2017-09-24',1),

(1,'2017-03-11',2),

(1,'2016-03-11',1),

(3,'2016-11-10',1),

(3,'2017-12-07',2),

(3,'2016-12-15',2),

(2,'2017-11-08',2),

(2,'2018-09-10',3);

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;

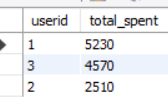
select \* from product;

select \* from goldusers\_signup;

select \* from users

1.What is the total amount each customer spent on zomato ?

select s.userid,sum(p.price) total\_spent from sales as s inner join product as p on s.product\_id = p.product\_id group by userid;

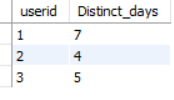
OUTPUT: 

2.How many days each customer visted zomato ?

select s.userid,count(s.created\_date) as No\_Of\_Days from sales s inner join users u on s.userid = u.userid group by userid

Both are gives same result

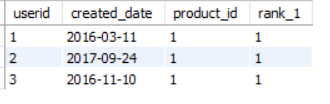
select userid,count( distinct created\_date) as Distinct\_days from sales group by userid

OUTPUT: 

3.what was the first pruduct purchased by each customer ?

select \* from

(select \*,rank() over(partition by userid order by created\_date) rank\_1 from sales) a where rank\_1=1



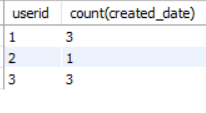
4.What is the most purchased item on the menu and how many times it was it purchased by all customer ?

select \* from

(select product\_id,count(created\_date) No\_times from sales group by product\_id order by count(product\_id) desc) a where No\_times=7;



select userid,count(created\_date) from sales where product\_id=2 group by userid order by userid;

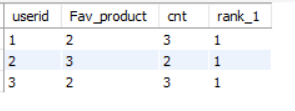


5.which item was the most popular for each customer?

select \* from

(select \*,rank() over(partition by userid order by cnt desc) rank\_1 from

(select userid,product\_id as Fav\_product,count(product\_id) cnt from sales group by userid,product\_id) a)b where rank\_1=1;



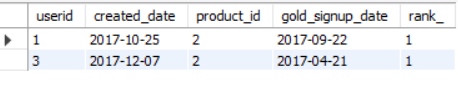
6. Which item was purchased first by the customer after they become a gold member ?'/

select \* from

(select \*,rank() over(partition by userid order by created\_date) rank\_ from

(select s.userid,s.created\_date,s.product\_id,g.gold\_signup\_date from sales s inner join goldusers\_signup g

on s.userid = g.userid where created\_date>=gold\_signup\_date) a)b where rank\_=1;



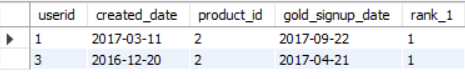
7.Which item was purchased just before the customer become a gold member ?'/

select \* from

(select \*,rank() over(partition by userid order by created\_date desc) rank\_1 from

(select s.userid,s.created\_date,s.product\_id , g.gold\_signup\_date from sales s inner join goldusers\_signup g

on s.userid=g.userid and created\_date <= gold\_signup\_date ) a )b where rank\_1=1;



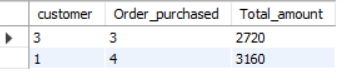
8.What is the total orders and amount spent for each member before they becom a gold member

select userid customer,count(created\_date) Order\_purchased,sum(price) Total\_amount from

(select a.\*,p.price from

(select s.userid,s.created\_date,s.product\_id,g.gold\_signup\_date from sales s inner join goldusers\_signup g

on s.userid = g.userid and created\_date<= gold\_signup\_date)a inner join product p on a.product\_id= p.product\_id) b group by userid;



9. 'If buying each product genartes points for eg 5rs=2 zomato points each product has different purchasing points for eg

p1 5rs=1 zomato point , for p2 10rs=5 and p3 5rs=1 zomato point

calculate points collected by each customer and for which product most points have been given till now ?

select userid, sum(total\_points) \* 2.5 cashback from

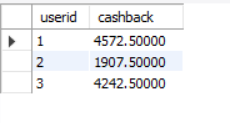
(select c.\*, amt/point\_ total\_points from

(select \*,case when product\_id =1 then 5 when product\_id= 2 then 2 when product\_id=3 then 5 else 0 end point\_ from

(select a.userid,a.product\_id,sum(price) amt from

(select s.\*,p.price from sales s inner join product p on s.product\_id = p. product\_id) a

group by userid,product\_id )b)c)d group by userid order by userid;



code for product:

select f.\* from

(select e.\*,rank() over( order by total desc) rak from

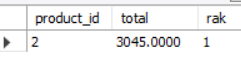
(select product\_id, sum(total\_points) total from

(select c.\*, amt/points total\_points from

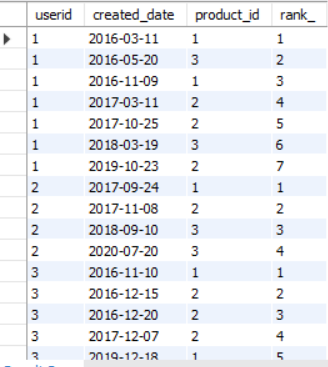
(select product\_id, amt, case when product\_id=1 then 5 when product\_id=2 then 2 when product\_id=3 then 5 else 0 end points from

(select userid,product\_id,sum(price) amt from

(select s.\*,p.price from sales s inner join product p on s.product\_id = p.product\_id)a group by userid,product\_id)b)c)d group by product\_id order by product\_id)e) f where rak=1

  
10. Rank all the transaction of the customer ?'

select \*, rank () over(partition by userid order by created\_date) rank\_ from sales



11.rank all the transaction for each member whenever they are a zomato gold member for every non gold member transation mark as na' ?

select b.\* , case when rank\_1= 0 then 'N/A' else rank\_1 end as rank\_2 from

(select a.\*,case when gold\_signup\_date is null then 0 else rank() over(partition by userid order by created\_date desc) end as rank\_1 from

(select s.userid,s.created\_date,s.product\_id,g.gold\_signup\_date from sales s left join goldusers\_signup g

on s.userid = g.userid and created\_date>=gold\_signup\_date)a)b

