create database zomato\_membership;

use zomato\_membership;

drop table if exists goldusers\_signup; CREATE TABLE goldusers\_signup(userid integer,gold\_signup\_date date);

INSERT INTO goldusers\_signup(userid,gold\_signup\_date) VALUES (1,'2017-09-24'), (3,'2017-04-21');

drop table if exists users;

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

INSERT INTO users (userid, signup\_date) VALUES (1,'2014-02-09'), (2,'2015-01-15'), (3,'2014-0411');

drop table if exists sales;

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

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

VALUES (1,'2017-04-19',2), (3,'201912-18',1), (2,'2020-12-17',3), (1,'2019-10-23',2), (1,'2018-03-19',3), (3,'2016-10-12',2), (1,'2016-09-11',1), (1,'2016-05-20',3), (2,'2017-09-24',1), (1,'2017-03-11',2), (1,'2016-11-01',1), (3,'2016-10-11',1), (3,'2017-06-17',2), (3,'2016-09-28',2), (2,'201-08-11',2), (2,'2018-09-10',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;

/\*[1]WHAT IS THE TOTAL AMOUNT EACH CUSTOMER SPENT ON CUSTOMER.........?\*/

select a.product\_id ,sum(b.price)total\_amount\_spent from sales a inner join product b on a.product\_id=product\_id group by a.user\_id;

\\*[2] HOW MANY DAYS HAS EACH CUSTOMER VISITED ZOMATO..........?\*/

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

/\*[3] WHAT WAS THE FIRST PRODUCT PURCHASED BY EACH CUSTOMER.........?\*

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

/\*[4]WHAT IS THE MOST PURCHASED ITEM ON THE MENUE AND HOW MANY TIMES WAS IT PURCHASED BY ALL CUSTOMER..........?

select product\_id,count(product\_id) count from sales group by product\_id order by(product\_id)desc limit 1;

/\*[5]WHICH ITEM IS MOST POPULAR FOR EACH CUSTOMER..............?\*/

select\*from

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

(select userid,product\_id,count(product\_id) cnt

from sales group by userid,product\_id)a)b

where rnk=1

/\*[6]WHICH ITEM WAS FIRST PURCHASED BY THE CUSTOMER WHEN THE BECOME A MEMBER....?\*/

select\*FROM(select c.\*,rank() over (partition by userid order by created\_date) rnk

FROM(select a.userid,a.created\_date,a.product\_id,b.gold\_signup\_date from sales a inner join goldusers\_signup b on a.userid and created\_date >=gold\_signup\_date)c)d

where rnk=1;

/\*[7] WHICH ITEM IS PURCHASED JUST BEFORENTHE CUSTOMER BECOME A MEMBER....?\*/

SELECT \*

FROM (SELECT c.\*, RANK() OVER(PARTITION BY userid ORDER BY created\_date DESC) AS rnk

FROM (SELECT a.userid, a.created\_date, a.product\_id, b.gold\_signup\_date FROM sales a

INNER JOIN goldusers\_signup b ON a.userid = b.userid AND a.created\_date >= b.gold\_signup\_date) AS c) AS d

WHERE rnk = 1;

/\*[8] WHAT IS THE TOTAL ORDERS AND AMOUNT SPENT FOR EACH MEMBER BEFORE THEY BECOME A MEMBER....?\*/

SELECT c.\*, d.price

FROM (

SELECT a.userid, a.created\_date, a.product\_id, b.gold\_signup\_date

FROM sales a

INNER JOIN goldusers\_signup b ON a.userid = b.userid AND a.created\_date >= b.gold\_signup\_date

) AS c

INNER JOIN product d ON c.product\_id = d.product\_id;

/\*[9]If buying each product generates points for eg 5rs=2 zomato point and each product has different purchasing points

for eg for p1 5rs=1 zomato point ,for p2 10rs=5 zomato point and p3 5rs=1 zomato point 2rs=1 zomato point

,calculate points collected by each customers and for which product most points have been given till now.\*/

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

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

(select d.\*,case when product\_id=1 then 5 when product\_id=2 then 2 when product\_id=3 then 5 else 0 end as points from

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

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

group by userid,product\_id)d)e)f group by userid;

select \* from

(select \*,rank() over(order by total\_point\_earned desc) rnk from

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

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

(select d.\*,case when product\_id=1 then 5 when product\_id=2 then 2 when product\_id=3 then 5 else 0 end as points from

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

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

group by userid,product\_id)d)e)f group by product\_id)g) where rnk=1;

/\*[10]In the first one year after a customer joins the gold program (including their join date) irrespective of what the customer has purchased they earn 5 zomato points for every 10 rs spent who earned more 1 or 3 and what was their points earnings in their first yr?\*/

select c.\*,d.price\*0.5 total\_points\_earned from

select a.userid,a.created\_date,a.product\_id,b.gold\_signup\_date from sales a inner join

oldusers signup b on a.userid=b.userid and created\_date>=gold\_signup\_date and created\_date<=DATEADD(year, 1,gold\_signup\_date))c

inner join product d on c.product\_id=d.product\_id;

/\*[11] 1 rnk all the transaction of the customers………….?\*/

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

/\*[12] 12 rank all the transactions for each member whenever they are a zomato gold member for every non gold member transaction mark as na\*/

select e.\*,case when rnk=0 then 'na' else rnk end as rnkk from

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

(select a.userid,a.created\_date,a.product\_id,b.gold\_signup\_date from sales a left join

goldusers\_signup b on a.userid=b.userid and created\_date>=gold\_signup\_date)c)e;