drop table if exists driver;

CREATE TABLE driver(driver\_id integer,reg\_date date);

INSERT INTO driver(driver\_id,reg\_date)

VALUES (1,'01-01-2021'),

(2,'01-03-2021'),

(3,'01-08-2021'),

(4,'01-15-2021');

drop table if exists ingredients;

CREATE TABLE ingredients(ingredients\_id integer,ingredients\_name varchar(60));

INSERT INTO ingredients(ingredients\_id ,ingredients\_name)

VALUES (1,'BBQ Chicken'),

(2,'Chilli Sauce'),

(3,'Chicken'),

(4,'Cheese'),

(5,'Kebab'),

(6,'Mushrooms'),

(7,'Onions'),

(8,'Egg'),

(9,'Peppers'),

(10,'schezwan sauce'),

(11,'Tomatoes'),

(12,'Tomato Sauce');

drop table if exists rolls;

CREATE TABLE rolls(roll\_id integer,roll\_name varchar(30));

INSERT INTO rolls(roll\_id ,roll\_name)

VALUES (1 ,'Non Veg Roll'),

(2 ,'Veg Roll');

drop table if exists rolls\_recipes;

CREATE TABLE rolls\_recipes(roll\_id integer,ingredients varchar(24));

INSERT INTO rolls\_recipes(roll\_id ,ingredients)

VALUES (1,'1,2,3,4,5,6,8,10'),

(2,'4,6,7,9,11,12');

drop table if exists driver\_order;

CREATE TABLE driver\_order(order\_id integer,driver\_id integer,pickup\_time datetime,distance VARCHAR(7),duration VARCHAR(10),cancellation VARCHAR(23));

INSERT INTO driver\_order(order\_id,driver\_id,pickup\_time,distance,duration,cancellation)

VALUES(1,1,'01-01-2021 18:15:34','20km','32 minutes',''),

(2,1,'01-01-2021 19:10:54','20km','27 minutes',''),

(3,1,'01-03-2021 00:12:37','13.4km','20 mins','NaN'),

(4,2,'01-04-2021 13:53:03','23.4','40','NaN'),

(5,3,'01-08-2021 21:10:57','10','15','NaN'),

(6,3,null,null,null,'Cancellation'),

(7,2,'01-08-2020 21:30:45','25km','25mins',null),

(8,2,'01-10-2020 00:15:02','23.4 km','15 minute',null),

(9,2,null,null,null,'Customer Cancellation'),

(10,1,'01-11-2020 18:50:20','10km','10minutes',null);

drop table if exists customer\_orders;

CREATE TABLE customer\_orders(order\_id integer,customer\_id integer,roll\_id integer,not\_include\_items VARCHAR(4),extra\_items\_included VARCHAR(4),order\_date datetime);

INSERT INTO customer\_orders(order\_id,customer\_id,roll\_id,not\_include\_items,extra\_items\_included,order\_date)

values (1,101,1,'','','01-01-2021 18:05:02'),

(2,101,1,'','','01-01-2021 19:00:52'),

(3,102,1,'','','01-02-2021 23:51:23'),

(3,102,2,'','NaN','01-02-2021 23:51:23'),

(4,103,1,'4','','01-04-2021 13:23:46'),

(4,103,1,'4','','01-04-2021 13:23:46'),

(4,103,2,'4','','01-04-2021 13:23:46'),

(5,104,1,null,'1','01-08-2021 21:00:29'),

(6,101,2,null,null,'01-08-2021 21:03:13'),

(7,105,2,null,'1','01-08-2021 21:20:29'),

(8,102,1,null,null,'01-09-2021 23:54:33'),

(9,103,1,'4','1,5','01-10-2021 11:22:59'),

(10,104,1,null,null,'01-11-2021 18:34:49'),

(10,104,1,'2,6','1,4','01-11-2021 18:34:49');

select \* from customer\_orders;

select \* from driver\_order;

select \* from ingredients;

select \* from driver;

select \* from rolls;

select \* from rolls\_recipes;

1. How many rolls were ordered?

Ans: 14

select count(roll\_id) from customer\_orders;

2. How many unique customer orders wee made?

Ans: 5

select count(distinct customer\_id) from customer\_orders;

3. How many successful orders were delivered bby each driver?

driver\_id Successful orders

1 3

2 1

3 1

select driver\_id, COUNT(distinct order\_id)from driver\_order where cancellation not in('cancellation','customer cancellation')

group by driver\_id

4. How mnay of each roll was delivered?

select roll\_id,count(roll\_id) from

customer\_orders where order\_id in(

select order\_id from

(select\*,case when cancellation in ('cancellation','customer cancellation') then 'c' else 'nc' end as order\_cancel\_details from driver\_order)a

where order\_cancel\_details='nc')

group by roll\_id;

5. How many veg and Non veg rolls were ordered by each customer?

select a.\*,b.roll\_name from

(

select customer\_id, roll\_id,count(roll\_id)cnt

from customer\_orders

group by customer\_id,roll\_id) a inner join rolls b on a. roll\_id=b.roll\_id;

6. what was the maximum number of rolls delivered in a single order?

select \* from

(

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

(

select order\_id,count(roll\_id)cnt

from (

select \* from customer\_orders where order\_id in(

select order\_id from

(select\*,case when cancellation in ('cancellation','customer cancellation') then 'c' else'nc' end as order\_cancel\_details from driver\_order) a where order\_cancel\_details='nc'))b

group by order\_id

)c)d where rnk=1;

7. For each customer,how many delivered rolls had at least1 change and how many had no change?

with temp\_customer\_orders(order\_id,customer\_id,roll\_id,not\_include\_items,extra\_items\_included,order\_date)as

(

select order\_id, customer\_id, roll\_id,

case when not\_include\_items is null or not\_include\_items=''then '0' else not\_include\_items end as new\_not\_include\_items,

case when extra\_items\_included is null or extra\_items\_included =''or extra\_items\_included ='NaN'or extra\_items\_included ='NULL' then '0' else extra\_items\_included end as new\_extra\_items\_included,

order\_date from customer\_orders

)

select\* from temp\_customer\_orders;

with temp\_driver\_order(order\_id,customer\_id,roll\_id,not\_include\_items,extra\_items\_included,order\_date)as

(

select order\_id,driver\_id,pickup\_time,distance,duration,

case when cancellation in ('cancellation','customer cancellation') then 0 else 1 end as new\_cancellation

from driver\_order

)

select customer\_id,chg\_no\_chg,count(order\_id)at\_least\_1\_change from

(

select\*,case when not\_include\_items!='0' and extra\_items\_included!='0' then 'both inc exc' else'either1 inc or exc' end chg\_no\_chg

from temp\_customer\_orders where order\_id in (

select order\_id from temp\_driver\_order where new\_cancellatio1=0))a

group by customer\_id,chg\_no\_chg;

8. How many rolls were delivered that had both exclusions and extras?

with temp\_customer\_orders(order\_id,customer\_id,roll\_id,not\_include\_items,extra\_items\_included,order\_date)as

(

select order\_id, customer\_id, roll\_id,

case when not\_include\_items is null or not\_include\_items=''then '0' else not\_include\_items end as new\_not\_include\_items,

case when extra\_items\_included is null or extra\_items\_included =''or extra\_items\_included ='NaN'or extra\_items\_included ='NULL' then '0' else extra\_items\_included end as new\_extra\_items\_included,

order\_date from customer\_orders

)

,

temp\_driver\_order(order\_id,driver\_id,pickup\_time,distance,duration,new\_cancellation)as

(

select order\_id,driver\_id,pickup\_time,distance,duration,

case when cancellation in ('cancellation','customer cancellation') then 0 else 1 end as new\_cancellation

from driver\_order

)

select chg\_no\_chg,count(chg\_no\_chg)from

select\*,case when not\_include\_items!='0' and extra\_items\_included!='0' then 'both inc exc' else'either1 inc or exc' end chg\_no\_chg

from temp\_customer\_orders where order\_id in (

select order\_id from temp\_driver\_order where new\_cancellatio1=0))a

group by chg\_no\_chg;

9. What was the total number of rolls were ordered for each hour of the day?

select

hours\_bucket,count(hours\_bucket)from

(select\* ,

concat(cast(datepart(hour,order\_date)as varchar) ,'-',cast(datepart(hour,order\_date)+1 as varchar))hours\_bucket from customer\_orders)a

group by hours\_bucket ;

10. What was the number of orders for each day of the week?

select dow,count(distinct order\_id)from

(select \*,datename(dw,order\_date) dow from customer\_orders)a

group by dow;

A roll metrics

B driver and customer experience

C Ingredient optimisation

D Pricing and ratings

1. what was the average time in minutes it took for each driver to arrive at the fasoos HQ to pickup the order?

select driver\_id,sum(diff)/count(order\_id)avg\_mins from

(select \* from

(select \*,row\_number() over(partition by order\_id order by diff) rnk from

(select a.order\_id,a.customer\_id,a.roll\_id,a.not\_include\_items,a.extra\_items\_included,a.order\_date,

b.driver\_id,b.pickup\_time,b.distance,b.duration,b.cancellation, datediff(minute,a.order\_date,b.pickup\_time)diff

from customer\_orders a inner join driver\_order b on a.order\_id=b.order\_id

where b.pickup\_time is not null)a)b where rnk=1)c

group by driver\_id;

2. Is there any relationship between the number of rolls and how long the order takes to prepare?

select order\_id,count(roll\_id) cnt,sum(diff)/count(roll\_id) tym from

(select a.order\_id,a.customer\_id,a.roll\_id,a.not\_include\_items,a.extra\_items\_included,a.order\_date,

b.driver\_id,b.pickup\_time,b.distance,b.duration,b.cancellation, datediff(minute,a.order\_date,b.pickup\_time)diff

from customer\_orders a inner join driver\_order b on a.order\_id=b.order\_id

where b.pickup\_time is not null)a

group by order\_id;

3. what was the average distance travelled for each customer?

select customer\_id,sum(distance)/count(order\_id) avg\_distance from

(select \* from

(select \*,row\_number() over(partition by order\_id order by diff) rnk from

(

select a.order\_id,a.customer\_id,a.roll\_id,a.not\_include\_items,a.extra\_items\_included,a.order\_date,

b.driver\_id,b.pickup\_time,

cast(trim(replace (b.distance,'km',''))as decimal(4,2)) distance,

b.duration,b.cancellation, datediff(minute,a.order\_date,b.pickup\_time)diff

from customer\_orders a inner join driver\_order b on a.order\_id=b.order\_id

where b.pickup\_time is not null

)a)b

where rnk=1)c

group by customer\_id;

4. what is the difference between the longest and shortest delivery times for all orders?

select max(duration)- min(duration) diff from(

select cast( case when duration like '%min%' then left(duration, charindex('m',duration)-1) else

duration end as integer)as duration from

driver\_order where duration is not null)a;

5. what was the average speed for each driver for each delivery and do you notice any trend for these values?

speed= d/t

select a.order\_id,a.driver\_id,a.distance/a.duration speed,b.cnt from

(select order\_id, driver\_id,cast(trim(replace (distance,'km',''))as decimal(4,2)) distance

,cast( case when duration like '%min%' then left(duration, charindex('m',duration)-1) else

duration end as integer)as duration from driver\_order where distance is not null)a inner join

(select order\_id,count(roll\_id)cnt from customer\_orders group by order\_id)b on a.order\_id=b.order\_id;

6. what is the successful delivery percentage for each driver?

sdp= total orders sucessfuly deliverd/total orders taken

select driver\_id,(s\*1.0/t)\*100 cancelled\_per from

(select driver\_id,sum(can\_per) s, count(driver\_id)t from

(select driver\_id ,case when lower(cancellation )like '%cancel%' then 0 else 1 end as can\_per from driver\_order)a

group by driver\_id)b;