Simz Rolls

PROJECT BY SIMRANJIT KAUR

SKILLS USED- STRUCTURED QUERY LANGUAGE (ADVANCED CONCEPTS)

CONCEPTS USED

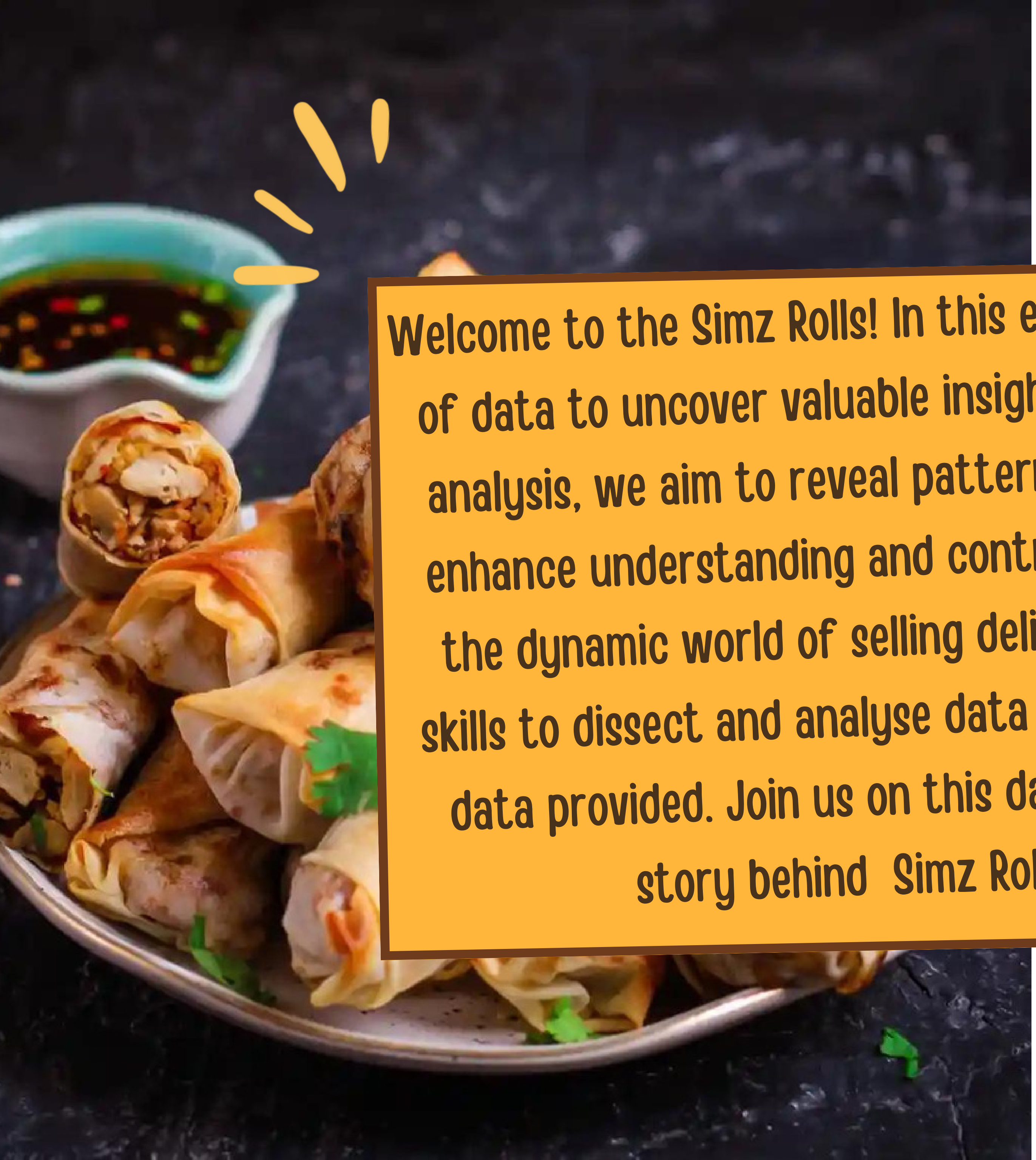
JOINS

CTE

WINDOW FUNCTIONS

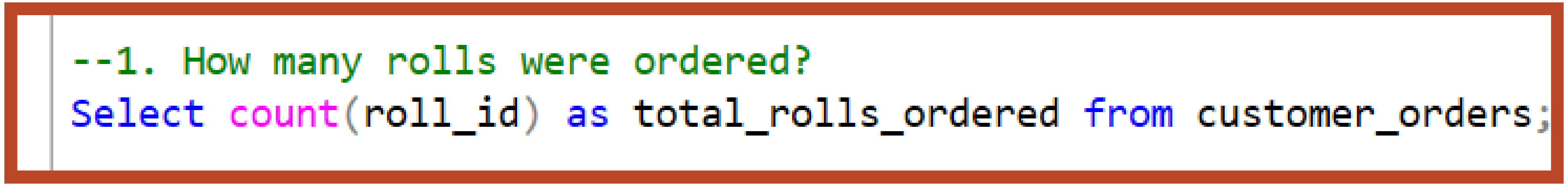
DATETIME FUNCTIONS

STRING FUNCTIONS

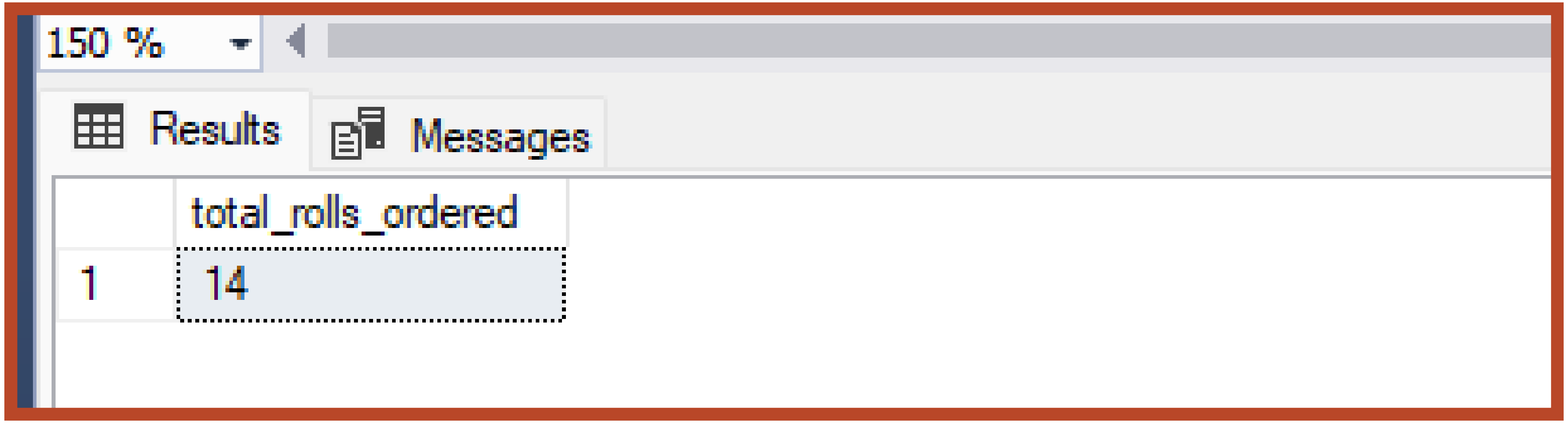


Welcome to the Simz Rolls! In this exploration, we dive into the vast realm of data to uncover valuable insights for Simz Rolls. Through meticulous analysis, we aim to reveal patterns, trends and opportunities that will enhance understanding and contribute to informed decision-making in the dynamic world of selling delicious rolls. This project employs SQL skills to dissect and analyse data to uncover trends and patterns in the data provided. Join us on this data-driven journey as we unravel the story behind Simz Rolls and its diverse offerings.

HOW MANY ROLLS WERE ORDERED?

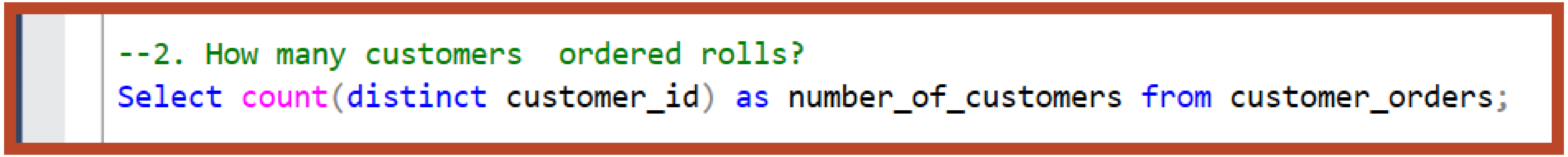


```
--1. How many rolls were ordered?
Select count(roll_id) as total_rolls_ordered from customer_orders;
```

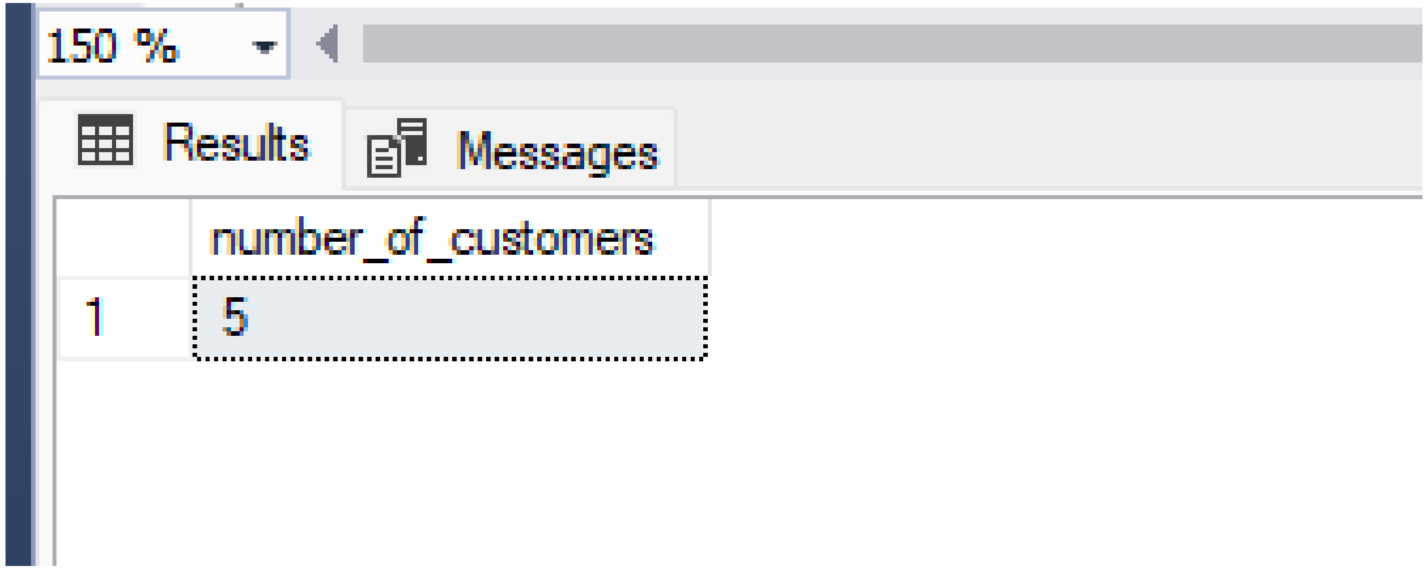


```
   total_rolls_ordered
1  14
```

HOW MANY CUSTOMERS ORDERED ROLLS?

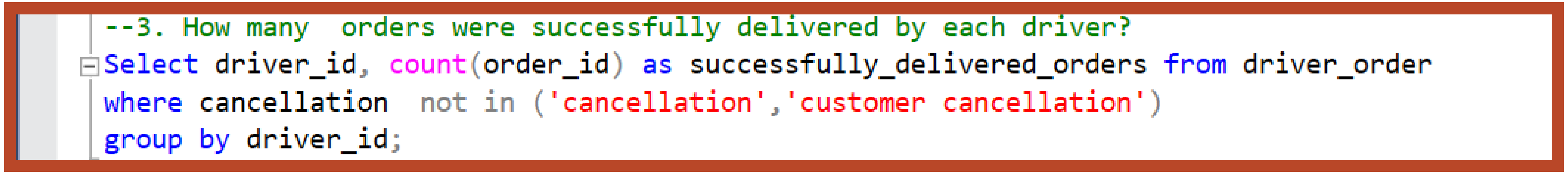


```sql
--2. How many customers  ordered rolls?
Select count(distinct customer_id) as number_of_customers from customer_orders;
```

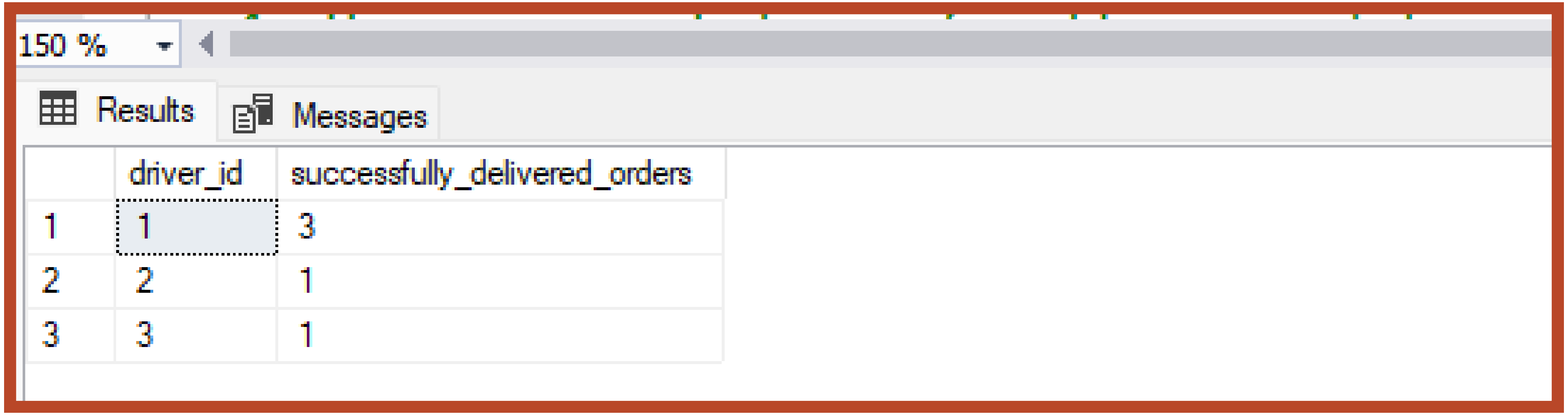


```
   number_of_customers
1  5
```

HOW MANY ORDERS WERE SUCCESSFULLY DELIVERED BY EACH DRIVER

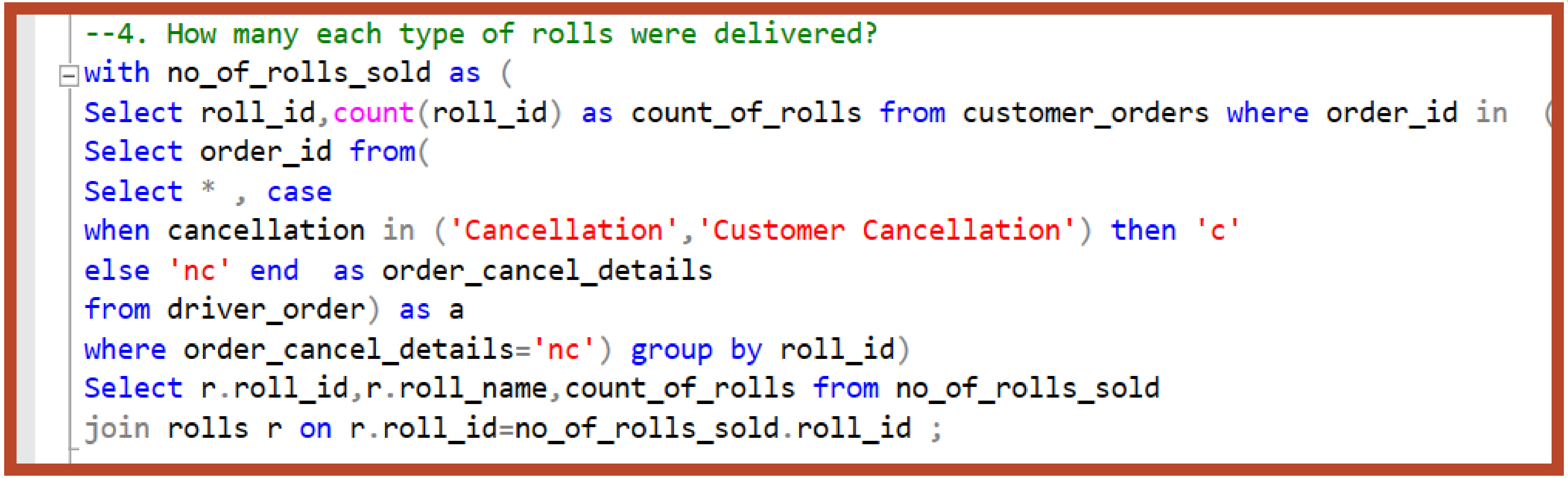


```
--3. How many  orders were successfully delivered by each driver?
Select driver_id, count(order_id) as successfully_delivered_orders from driver_order
where cancellation  not in ('cancellation','customer cancellation')
group by driver_id;
```

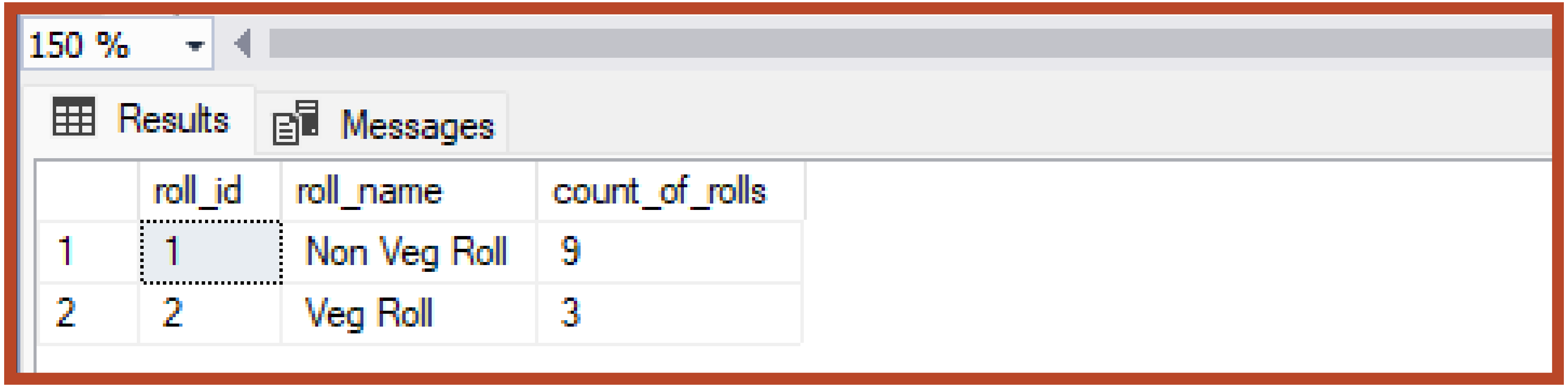


	driver_id	successfully_delivered_orders
1	1	3
2	2	1
3	3	1

HOW MANY EACH TYPE OF ROLL WERE DELIVERED

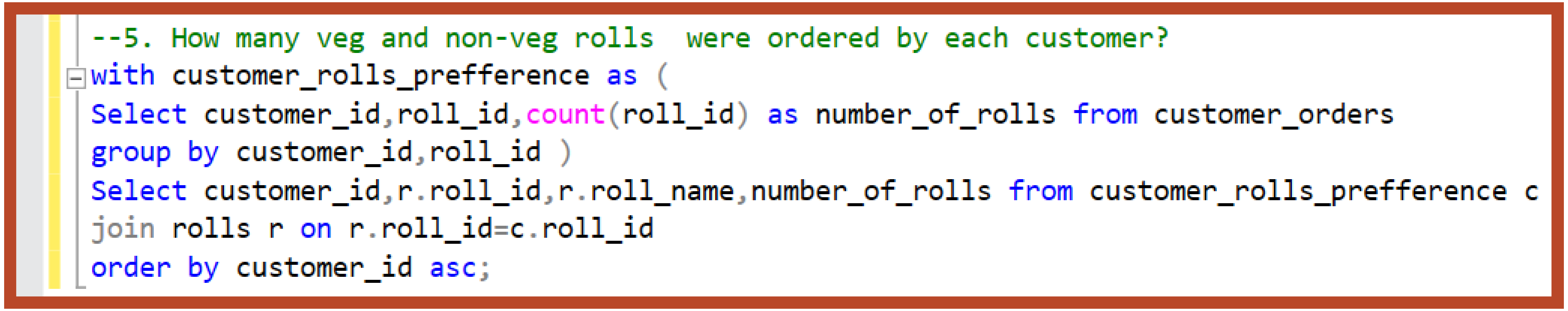


```
--4. How many each type of rolls were delivered?
with no_of_rolls_sold as (
Select roll_id,count(roll_id) as count_of_rolls from customer_orders where order_id in (
Select order_id from(
Select * , case
when cancellation in ('Cancellation','Customer Cancellation') then 'c'
else 'nc' end  as order_cancel_details
from driver_order) as a
where order_cancel_details='nc') group by roll_id)
Select r.roll_id,r.roll_name,count_of_rolls from no_of_rolls_sold
join rolls r on r.roll_id=no_of_rolls_sold.roll_id ;
```

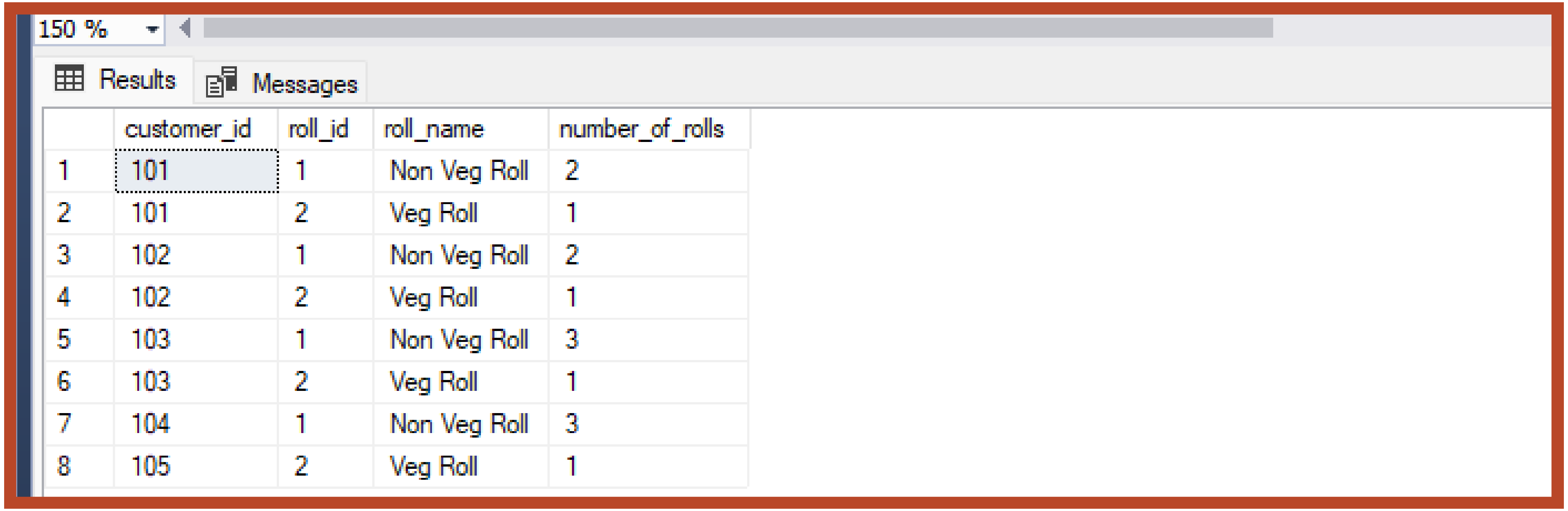


	roll_id	roll_name	count_of_rolls
1	1	Non Veg Roll	9
2	2	Veg Roll	3

HOW MANY VEG AND NON-VEG ROLLS WERE ORDERED BY EACH CUSTOMER

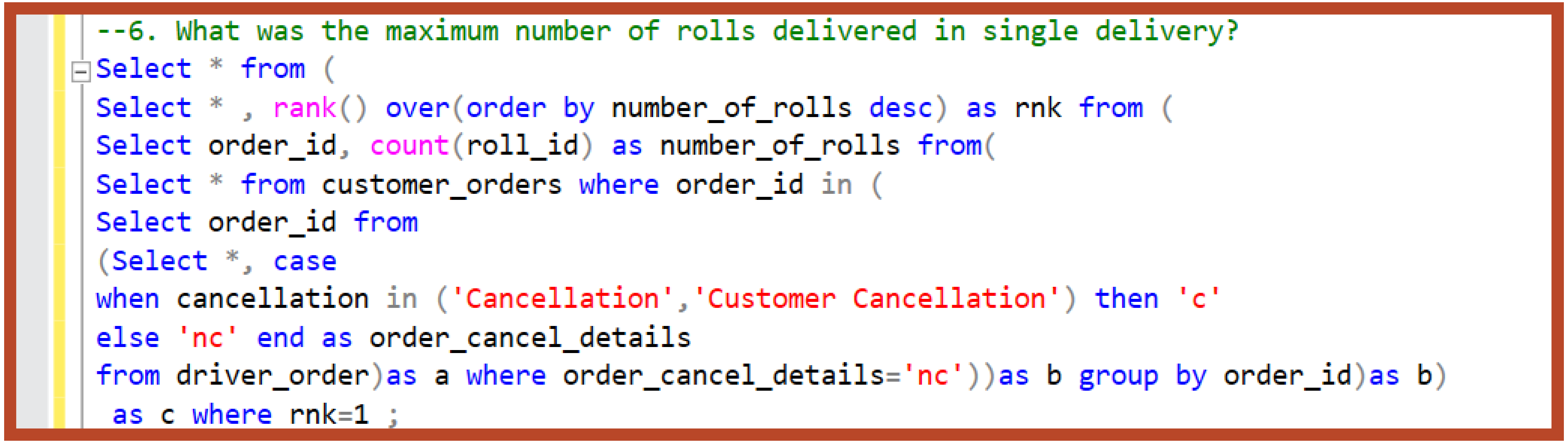


```sql
--5. How many veg and non-veg rolls  were ordered by each customer?
with customer_rolls_prefference as (
Select customer_id,roll_id,count(roll_id) as number_of_rolls from customer_orders
group by customer_id,roll_id )
Select customer_id,r.roll_id,r.roll_name,number_of_rolls from customer_rolls_prefference c
join rolls r on r.roll_id=c.roll_id
order by customer_id asc;
```

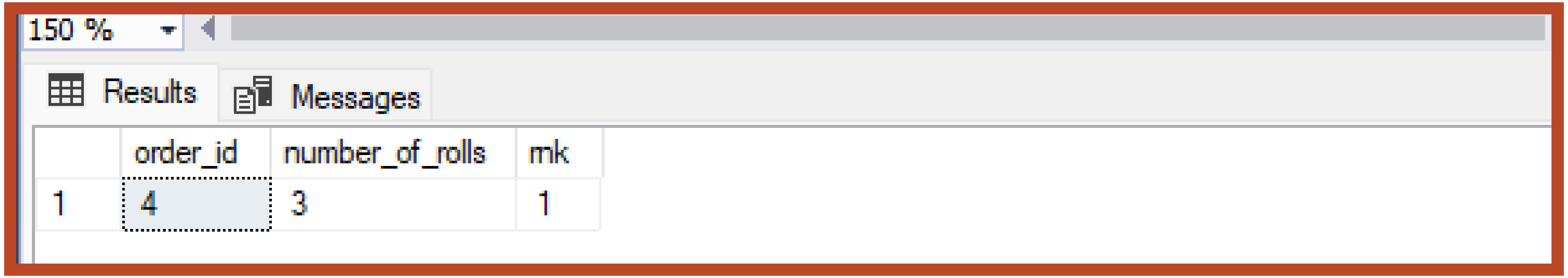


	customer_id	roll_id	roll_name	number_of_rolls
1	101	1	Non Veg Roll	2
2	101	2	Veg Roll	1
3	102	1	Non Veg Roll	2
4	102	2	Veg Roll	1
5	103	1	Non Veg Roll	3
6	103	2	Veg Roll	1
7	104	1	Non Veg Roll	3
8	105	2	Veg Roll	1

WHAT WAS THE MAXIMUM NUMBER OF ROLLS ORDERED IN SINGLE DELIVERY

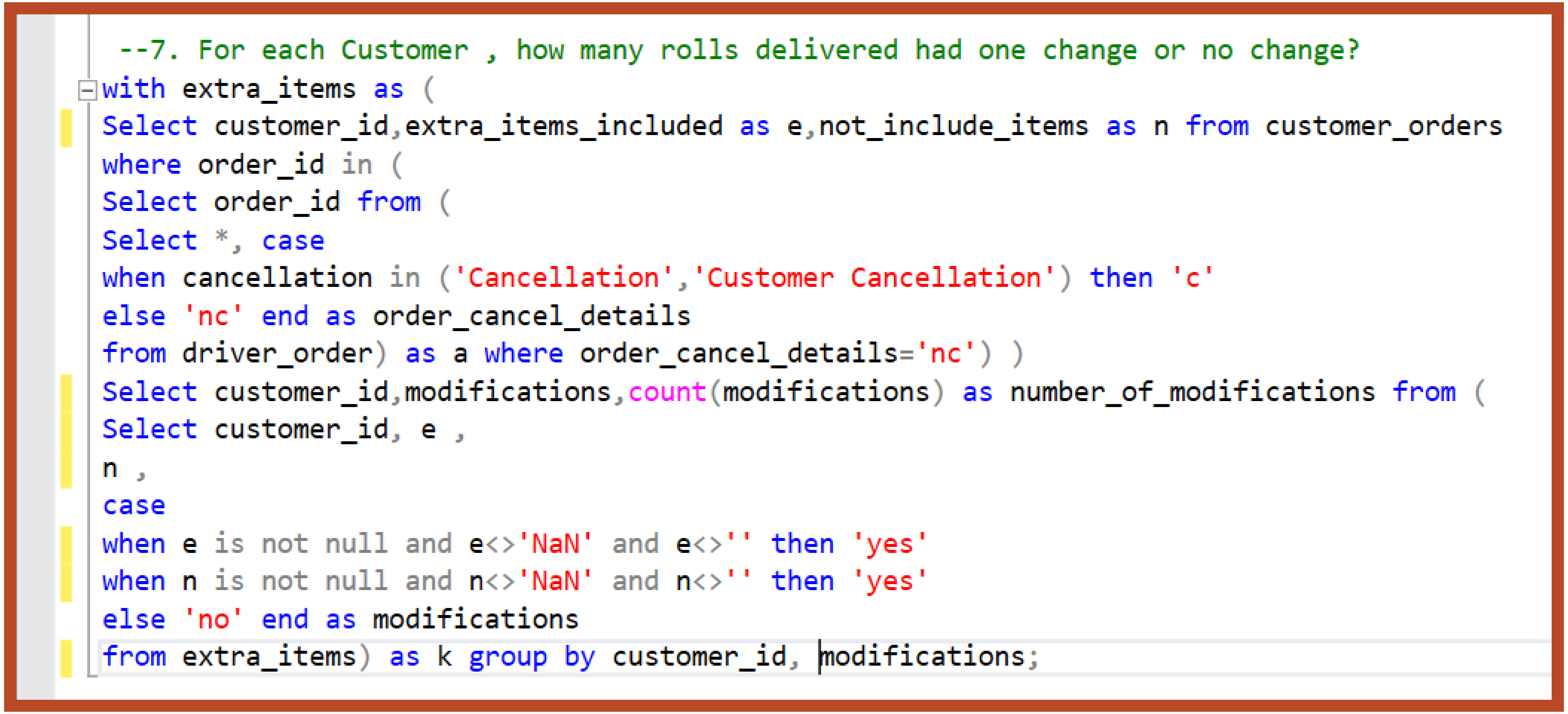


```
--6. What was the maximum number of rolls delivered in single delivery?
Select * from (
Select * , rank() over(order by number_of_rolls desc) as rnk from (
Select order_id, count(roll_id) as number_of_rolls from(
Select * from customer_orders where order_id in (
Select order_id from
(Select *, case
when cancellation in ('Cancellation','Customer Cancellation') then 'c'
else 'nc' end as order_cancel_details
from driver_order)as a where order_cancel_details='nc'))as b group by order_id)as b)
 as c where rnk=1 ;
```



	order_id	number_of_rolls	rnk
1	4	3	1

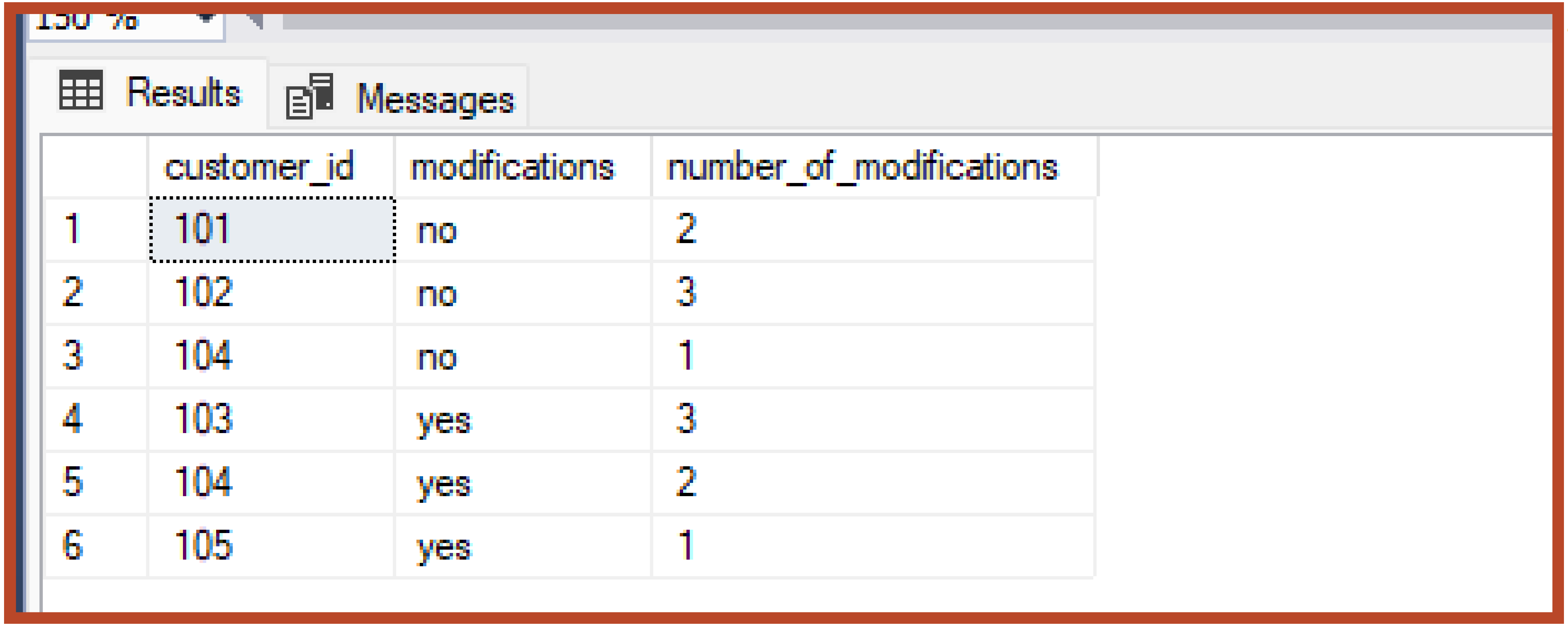
FOR EACH CUSTOMER, HOW MANY DELIVERED HAD CHANGE OR NO CHANGE



```sql
 --7. For each Customer , how many rolls delivered had one change or no change?
with extra_items as (
Select customer_id,extra_items_included as e,not_include_items as n 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) as a where order_cancel_details='nc') )
Select customer_id,modifications,count(modifications) as number_of_modifications from (
Select customer_id, e ,
n ,
case
when e is not null and e<>'NaN' and e<>'' then 'yes'
when n is not null and n<>'NaN' and n<>'' then 'yes'
else 'no' end as modifications
from extra_items) as k group by customer_id, modifications;
```

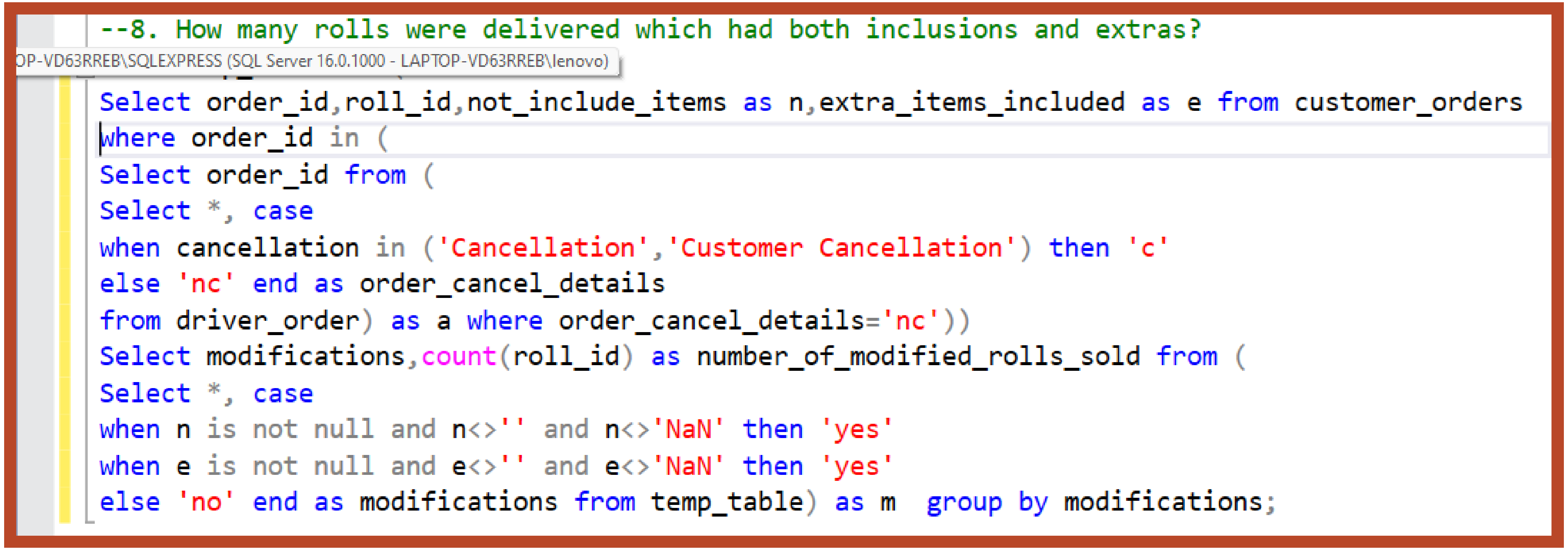
SOLUTION NEXT →

FOR EACH CUSTOMER, HOW MANY DELIVERED HAD CHANGE OR NO CHANGE

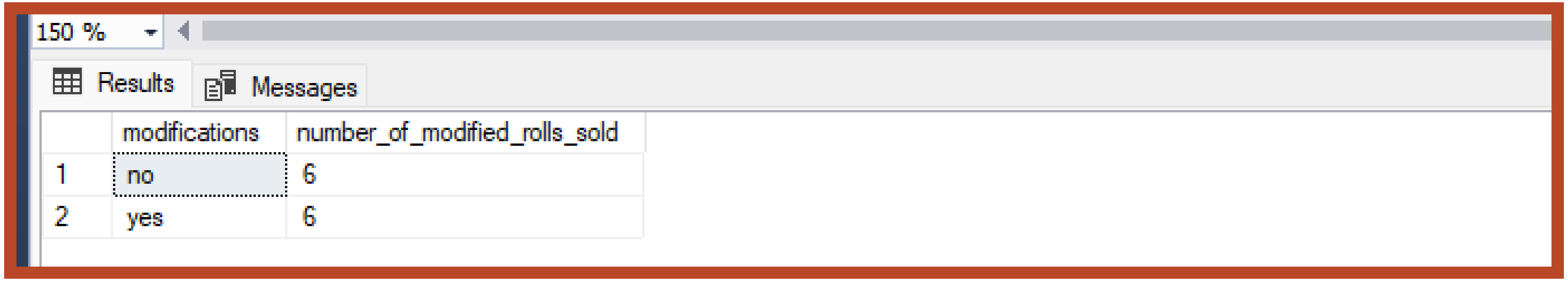


	customer_id	modifications	number_of_modifications
1	101	no	2
2	102	no	3
3	104	no	1
4	103	yes	3
5	104	yes	2
6	105	yes	1

HOW MANY ROLLS WERE DELIVERED WHICH HAD BOTH INCLUSIONS AND EXTRAS

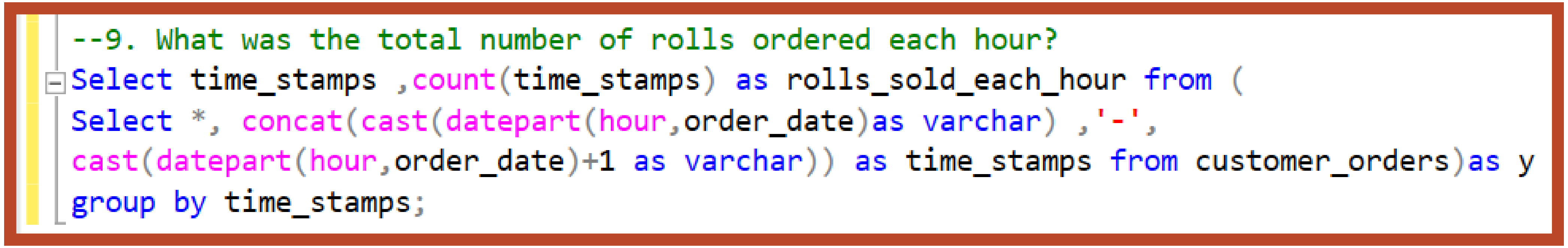


```
--8. How many rolls were delivered which had both inclusions and extras?
OP-VD63RREB\SQLEXPRESS (SQL Server 16.0.1000 - LAPTOP-VD63RREB\lenovo)
Select order_id,roll_id,not_include_items as n,extra_items_included as e from customer_orders
where order_id in (
Select order_id from (
Select *, case
when cancellation in ('Cancellation','Customer Cancellation') then 'c'
else 'nc' end as order_cancel_details
from driver_order) as a where order_cancel_details='nc'))
Select modifications,count(roll_id) as number_of_modified_rolls_sold from (
Select *, case
when n is not null and n<>'' and n<>'NaN' then 'yes'
when e is not null and e<>'' and e<>'NaN' then 'yes'
else 'no' end as modifications from temp_table) as m  group by modifications;
```

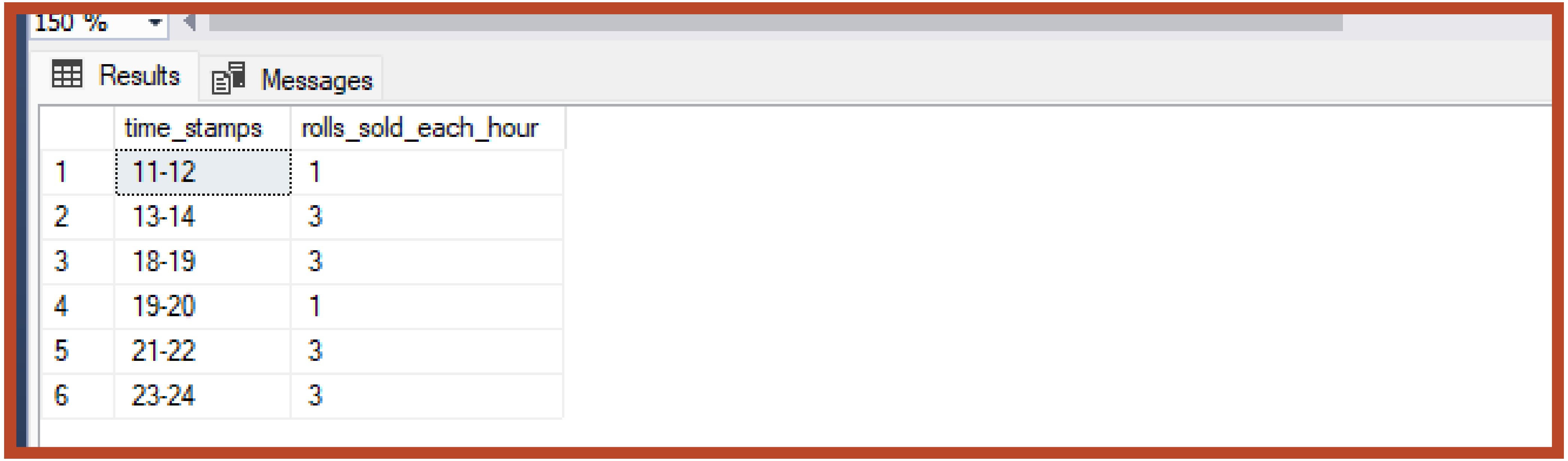


	modifications	number_of_modified_rolls_sold
1	no	6
2	yes	6

WHAT WAS THE TOTAL NUMBER OF ROLLS ORDERED EACH HOUR ?

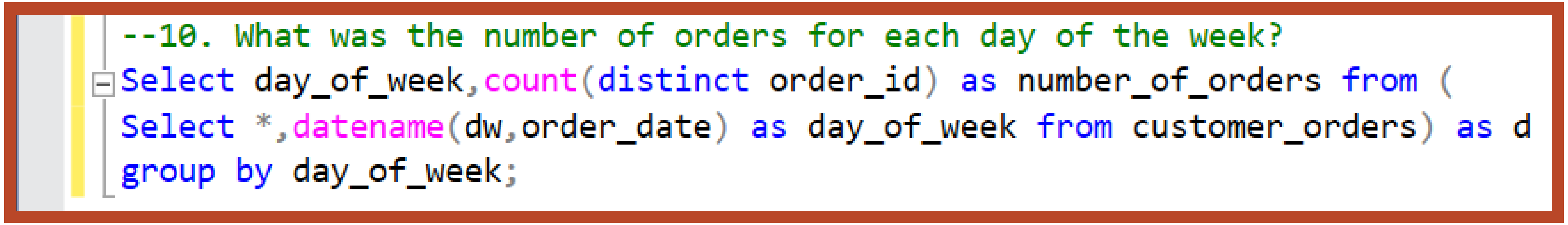


```
--9. What was the total number of rolls ordered each hour?
Select time_stamps ,count(time_stamps) as rolls_sold_each_hour from (
Select *, concat(cast(datepart(hour,order_date)as varchar) ,'-',
cast(datepart(hour,order_date)+1 as varchar)) as time_stamps from customer_orders)as y
group by time_stamps;
```

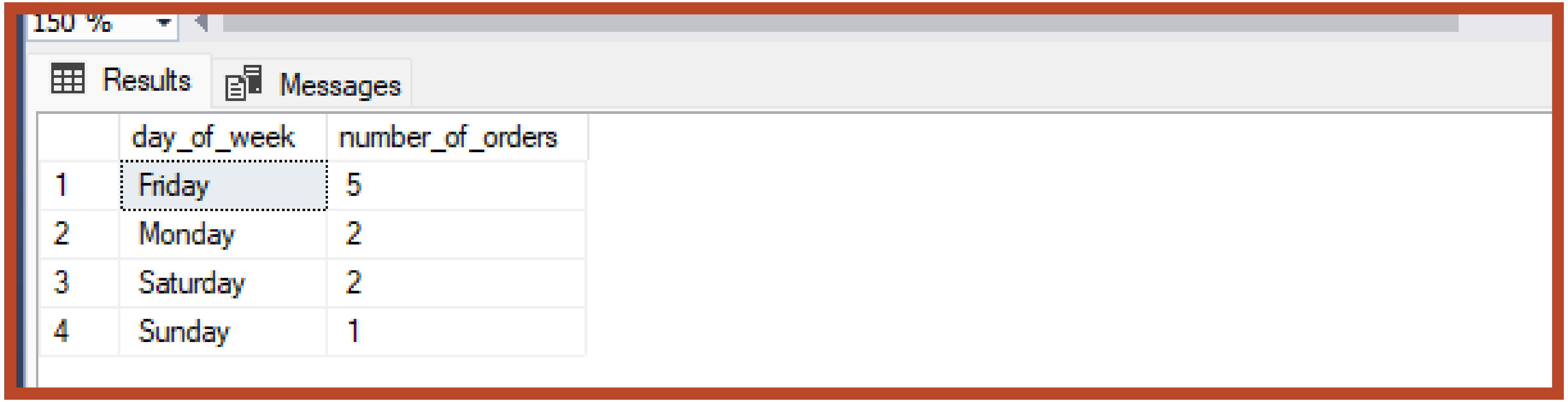


	time_stamps	rolls_sold_each_hour
1	11-12	1
2	13-14	3
3	18-19	3
4	19-20	1
5	21-22	3
6	23-24	3

WHAT WAS THE NUMBER OF ORDERS FOR EACH DAY OF THE WEEK

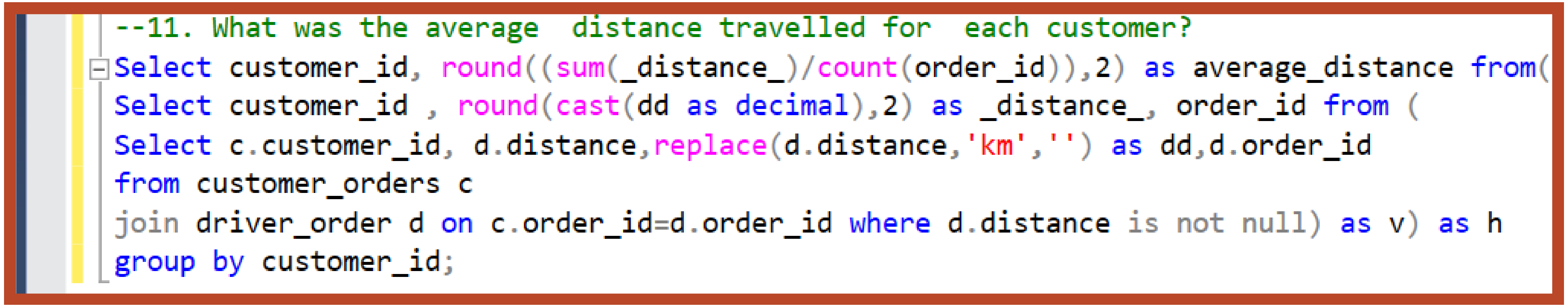


```
--10. What was the number of orders for each day of the week?
Select day_of_week,count(distinct order_id) as number_of_orders from (
Select *,datename(dw,order_date) as day_of_week from customer_orders) as d
group by day_of_week;
```

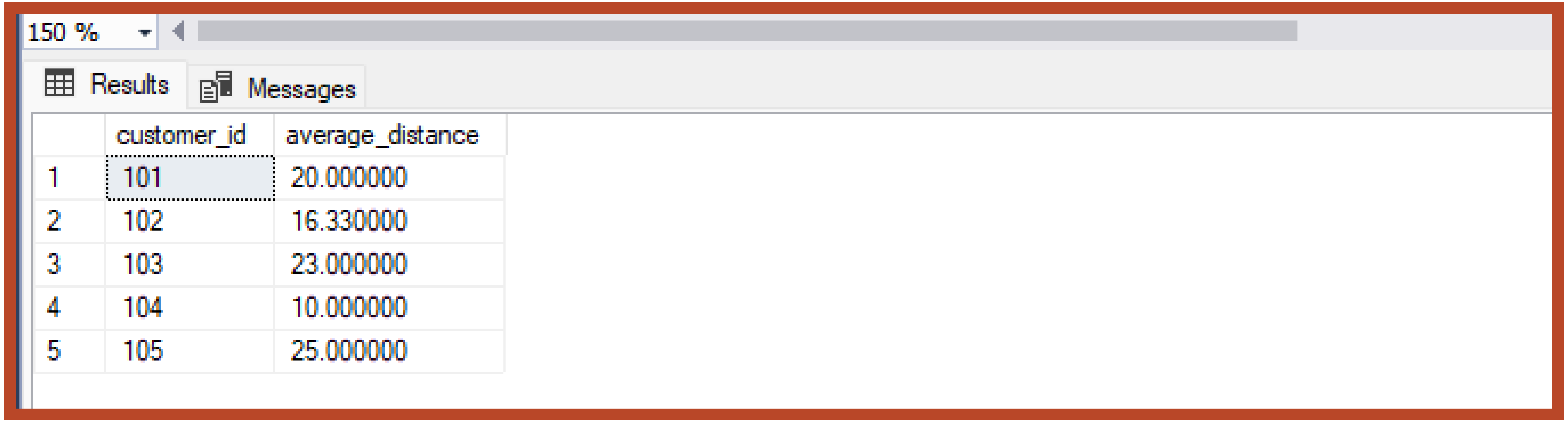


	day_of_week	number_of_orders
1	Friday	5
2	Monday	2
3	Saturday	2
4	Sunday	1

WHAT WAS THE AVERAGE DISTANCE TRAVELLED FOR EACH CUSTOMER

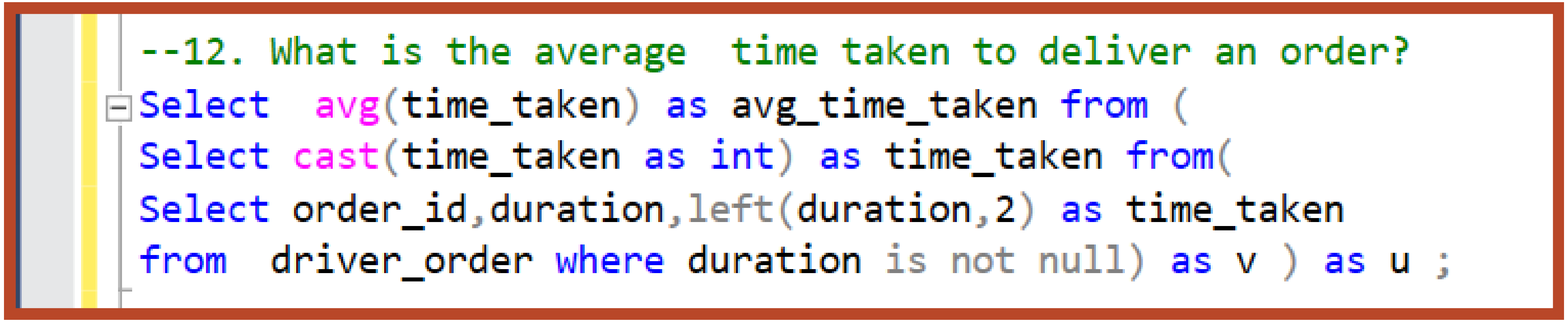


```sql
--11. What was the average  distance travelled for  each customer?
Select customer_id, round((sum(_distance_)/count(order_id)),2) as average_distance from(
Select customer_id , round(cast(dd as decimal),2) as _distance_, order_id from (
Select c.customer_id, d.distance,replace(d.distance,'km','') as dd,d.order_id
from customer_orders c
join driver_order d on c.order_id=d.order_id where d.distance is not null) as v) as h
group by customer_id;
```

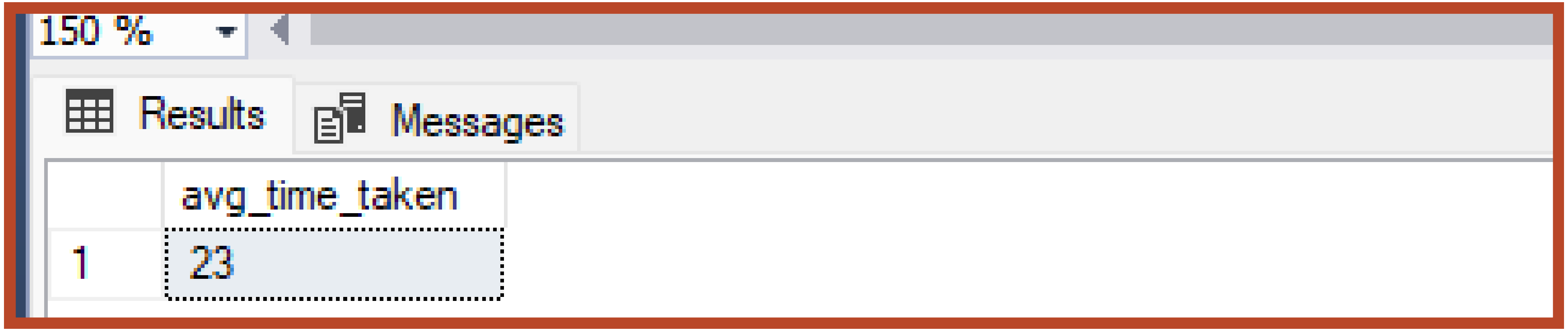


	customer_id	average_distance
1	101	20.000000
2	102	16.330000
3	103	23.000000
4	104	10.000000
5	105	25.000000

WHAT WAS THE AVERAGE TIME TAKEN TO DELIVER AN ORDER

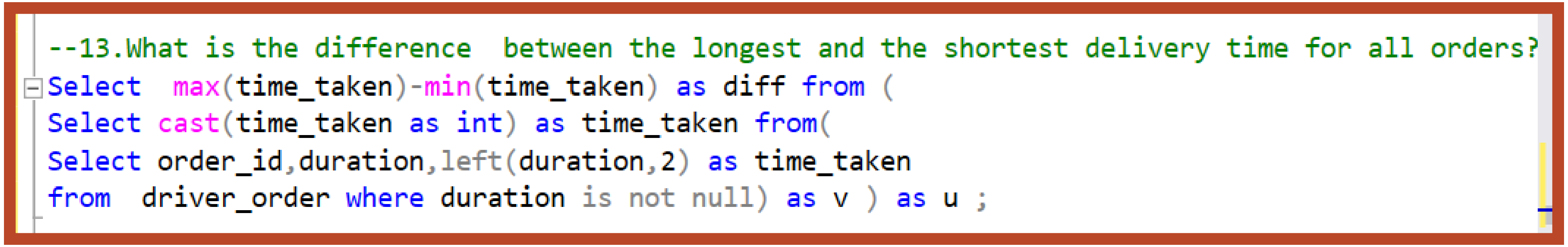


```sql
--12. What is the average  time taken to deliver an order?
Select  avg(time_taken) as avg_time_taken from (
Select cast(time_taken as int) as time_taken from(
Select order_id,duration,left(duration,2) as time_taken
from  driver_order where duration is not null) as v ) as u ;
```

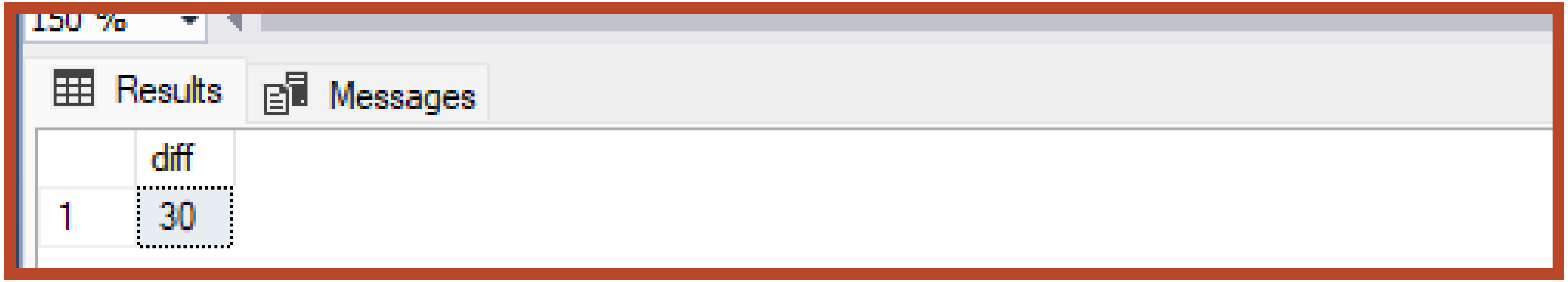


```
   avg_time_taken
1  23
```

WHAT IS THE DIFFERENCE BETWEEN THE LONGEST AND THE SHORTEST DELIVERY TIME FOR ALL ORDERS

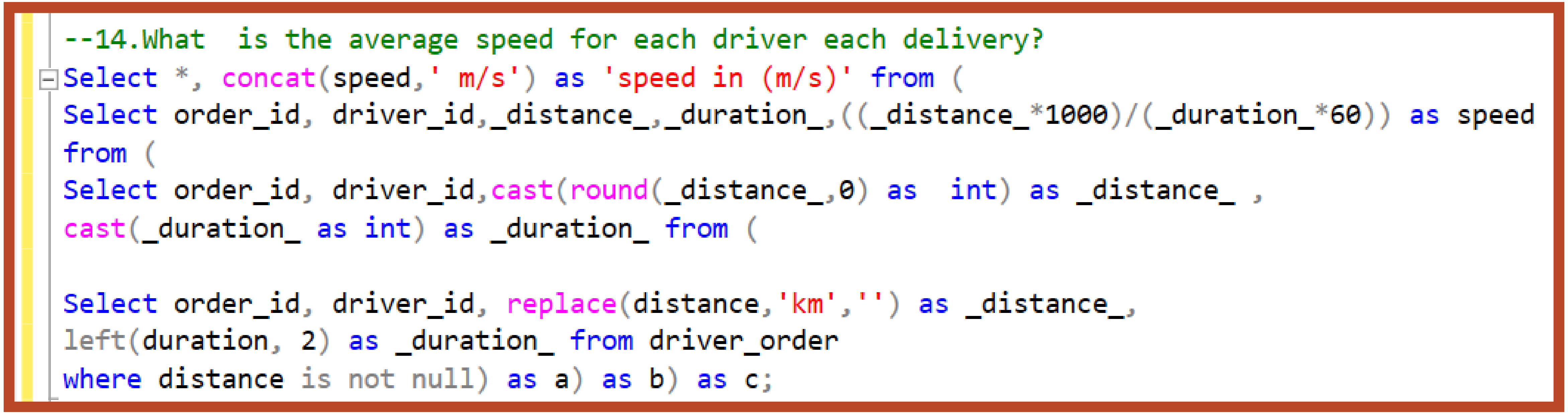


```
--13.What is the difference  between the longest and the shortest delivery time for all orders?
Select  max(time_taken)-min(time_taken) as diff from (
Select cast(time_taken as int) as time_taken from(
Select order_id,duration,left(duration,2) as time_taken
from  driver_order where duration is not null) as v ) as u ;
```



	diff
1	30

WHAT IS THE SPEED OF EACH DRIVER FOR EACH DELIVERY

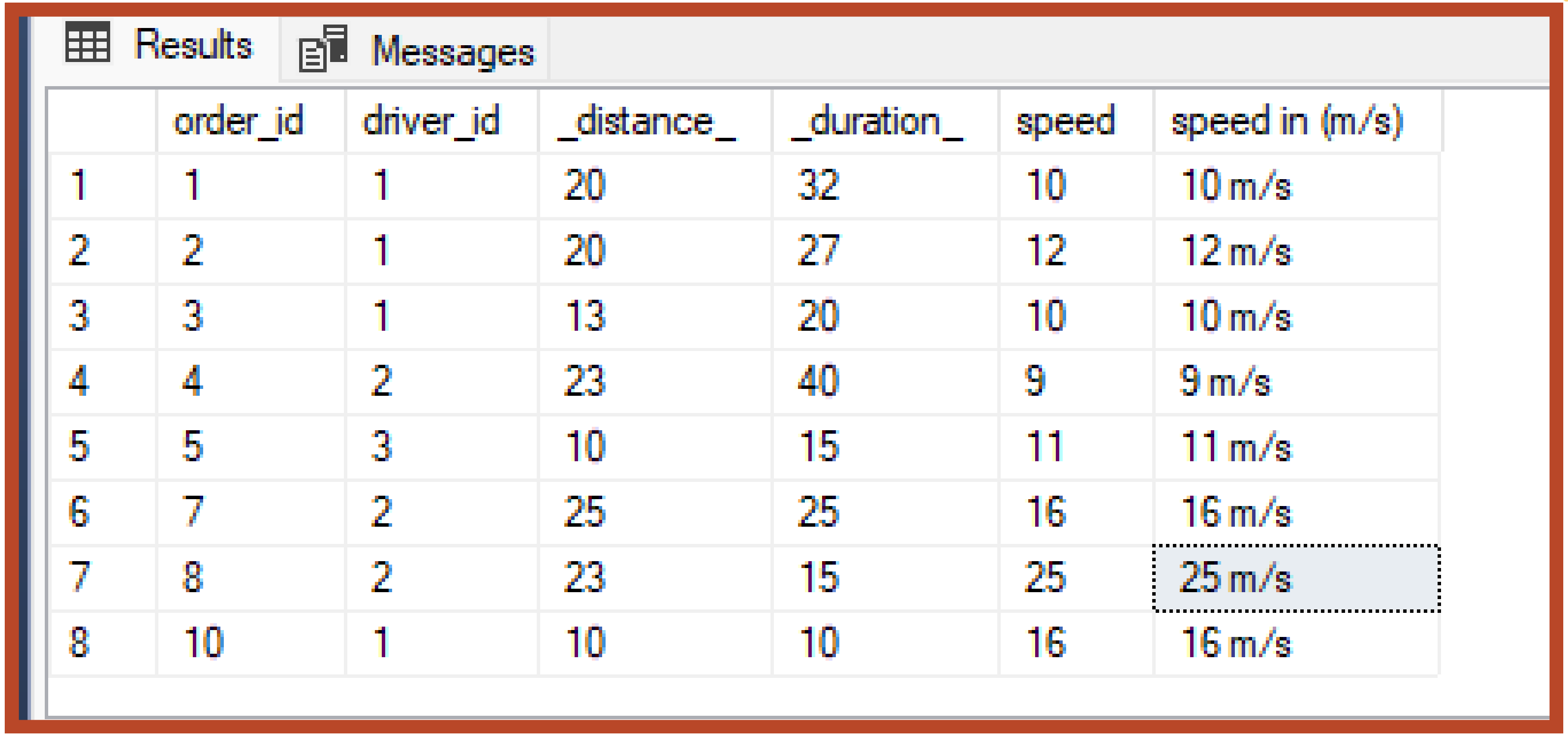


```
--14.What  is the average speed for each driver each delivery?
Select *, concat(speed,' m/s') as 'speed in (m/s)' from (
Select order_id, driver_id,_distance_,_duration_,((_distance_*1000)/(_duration_*60)) as speed
from (
Select order_id, driver_id,cast(round(_distance_,0) as  int) as _distance_ ,
cast(_duration_ as int) as _duration_ from (

Select order_id, driver_id, replace(distance,'km','') as _distance_,
left(duration, 2) as _duration_ from driver_order
where distance is not null) as a) as b) as c;
```

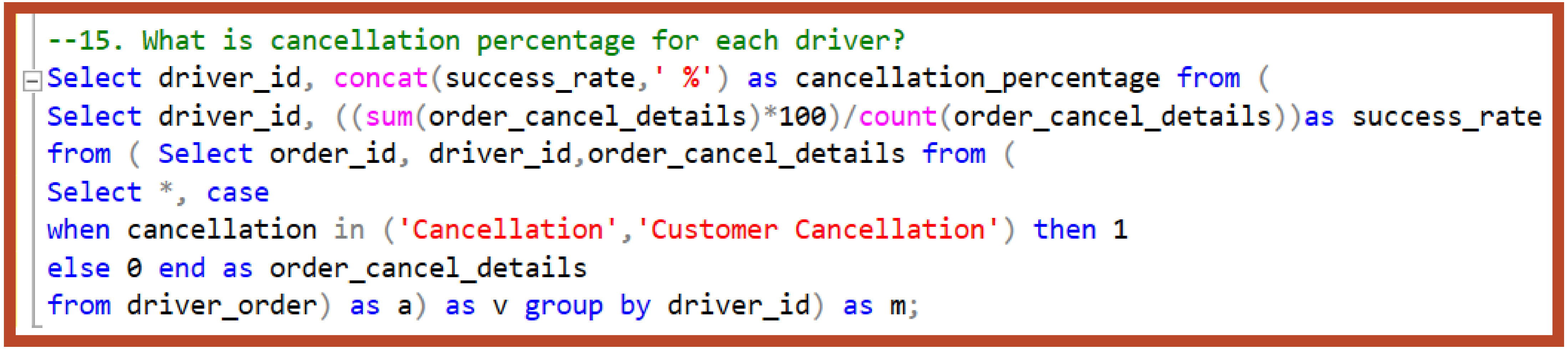
SOLUTION NEXT

WHAT IS THE SPEED OF EACH DRIVER FOR EACH DELIVERY

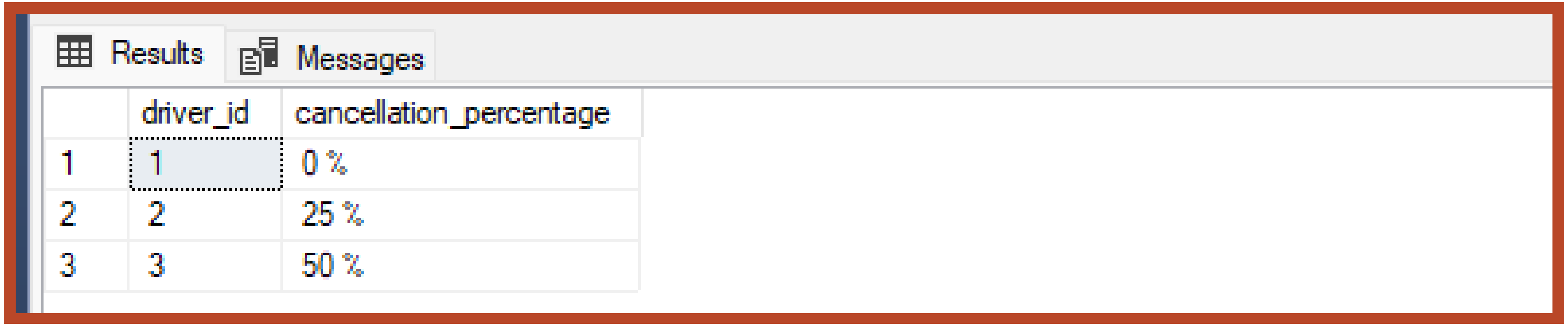


	order_id	driver_id	_distance_	_duration_	speed	speed in (m/s)
1	1	1	20	32	10	10 m/s
2	2	1	20	27	12	12 m/s
3	3	1	13	20	10	10 m/s
4	4	2	23	40	9	9 m/s
5	5	3	10	15	11	11 m/s
6	7	2	25	25	16	16 m/s
7	8	2	23	15	25	25 m/s
8	10	1	10	10	16	16 m/s

WHAT IS CANCELLATION PERCENTAGE FOR EACH DRIVER



```
--15. What is cancellation percentage for each driver?
Select driver_id, concat(success_rate,' %') as cancellation_percentage from (
Select driver_id, ((sum(order_cancel_details)*100)/count(order_cancel_details))as success_rate
from ( Select order_id, driver_id,order_cancel_details from (
Select *, case
when cancellation in ('Cancellation','Customer Cancellation') then 1
else 0 end as order_cancel_details
from driver_order) as a) as v group by driver_id) as m;
```



	driver_id	cancellation_percentage
1	1	0 %
2	2	25 %
3	3	50 %

Thank you

Thank you

Thank you