Task 3: SQL for Data Analysis

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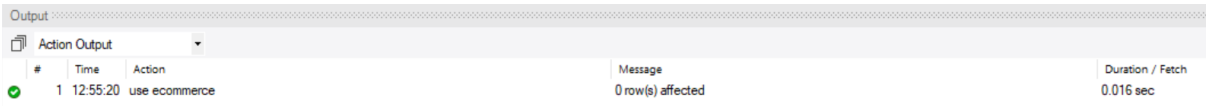
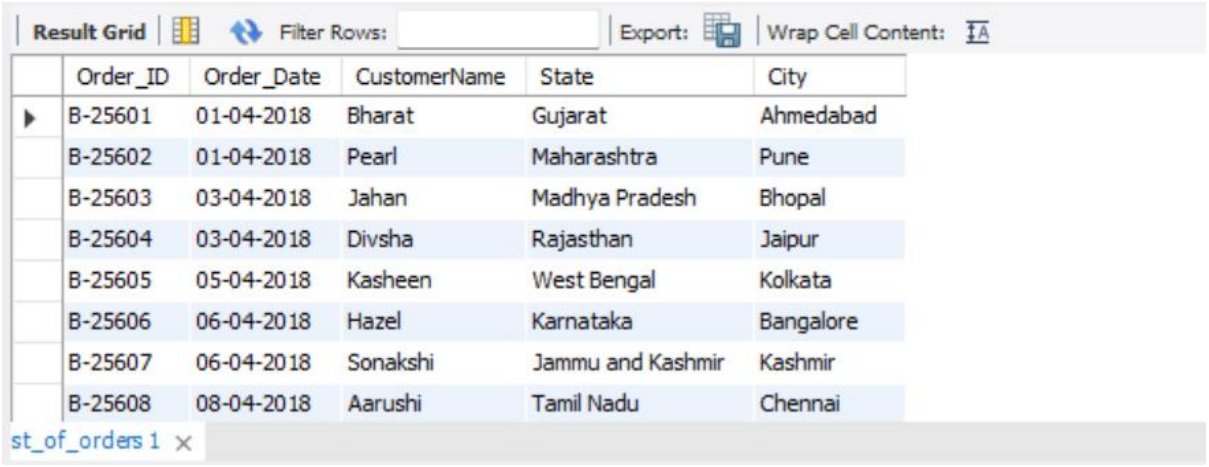
Create Database ecommerce;

use ecommerce;

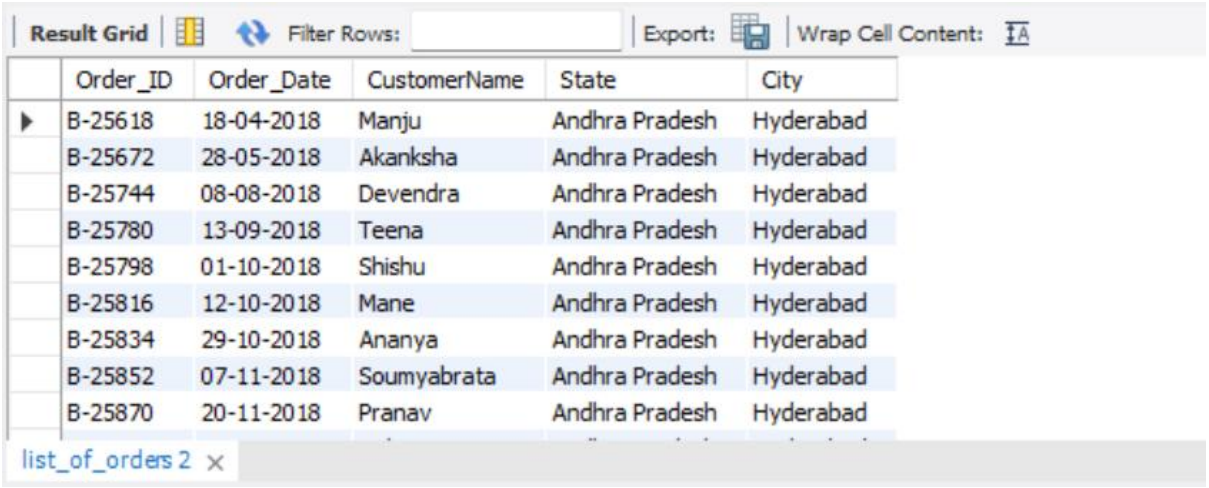


select * from list_of_orders;



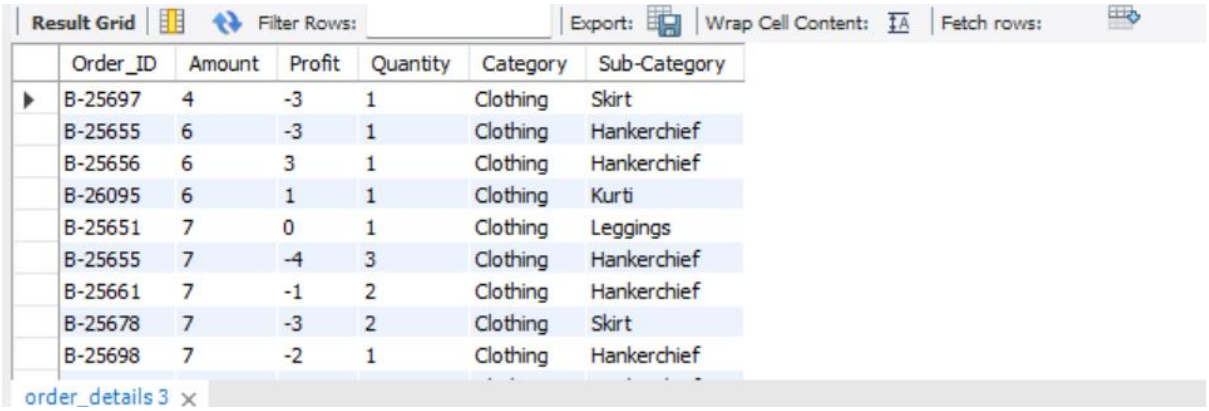
Order_ID	Order_Date	CustomerName	State	City
B-25601	01-04-2018	Bharat	Gujarat	Ahmedabad
B-25602	01-04-2018	Pearl	Maharashtra	Pune
B-25603	03-04-2018	Jahan	Madhya Pradesh	Bhopal
B-25604	03-04-2018	Divsha	Rajasthan	Jaipur
B-25605	05-04-2018	Kasheen	West Bengal	Kolkata
B-25606	06-04-2018	Hazel	Karnataka	Bangalore
B-25607	06-04-2018	Sonakshi	Jammu and Kashmir	Kashmir
B-25608	08-04-2018	Aarushi	Tamil Nadu	Chennai

select * from list_of_orders where state = "Andhra Pradesh";



Order_ID	Order_Date	CustomerName	State	City
B-25618	18-04-2018	Manju	Andhra Pradesh	Hyderabad
B-25672	28-05-2018	Akanksha	Andhra Pradesh	Hyderabad
B-25744	08-08-2018	Devendra	Andhra Pradesh	Hyderabad
B-25780	13-09-2018	Teena	Andhra Pradesh	Hyderabad
B-25798	01-10-2018	Shishu	Andhra Pradesh	Hyderabad
B-25816	12-10-2018	Mane	Andhra Pradesh	Hyderabad
B-25834	29-10-2018	Ananya	Andhra Pradesh	Hyderabad
B-25852	07-11-2018	Soumyabrata	Andhra Pradesh	Hyderabad
B-25870	20-11-2018	Pranav	Andhra Pradesh	Hyderabad

select * from order_details order by Amount;

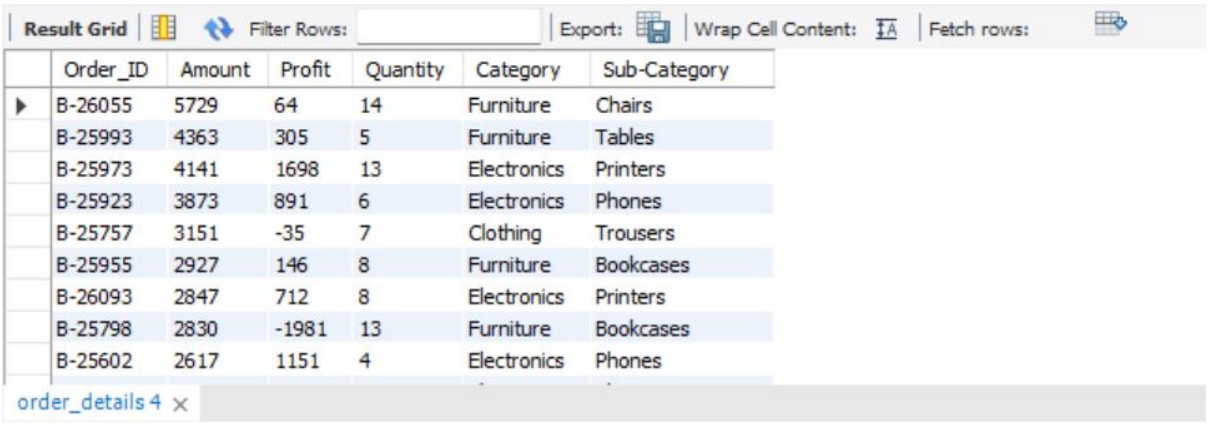


Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Order_ID	Amount	Profit	Quantity	Category	Sub-Category
B-25697	4	-3	1	Clothing	Skirt
B-25655	6	-3	1	Clothing	Hankerchief
B-25656	6	3	1	Clothing	Hankerchief
B-26095	6	1	1	Clothing	Kurti
B-25651	7	0	1	Clothing	Leggings
B-25655	7	-4	3	Clothing	Hankerchief
B-25661	7	-1	2	Clothing	Hankerchief
B-25678	7	-3	2	Clothing	Skirt
B-25698	7	-2	1	Clothing	Hankerchief

order_details 3

select * from order_details order by Amount desc;



Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

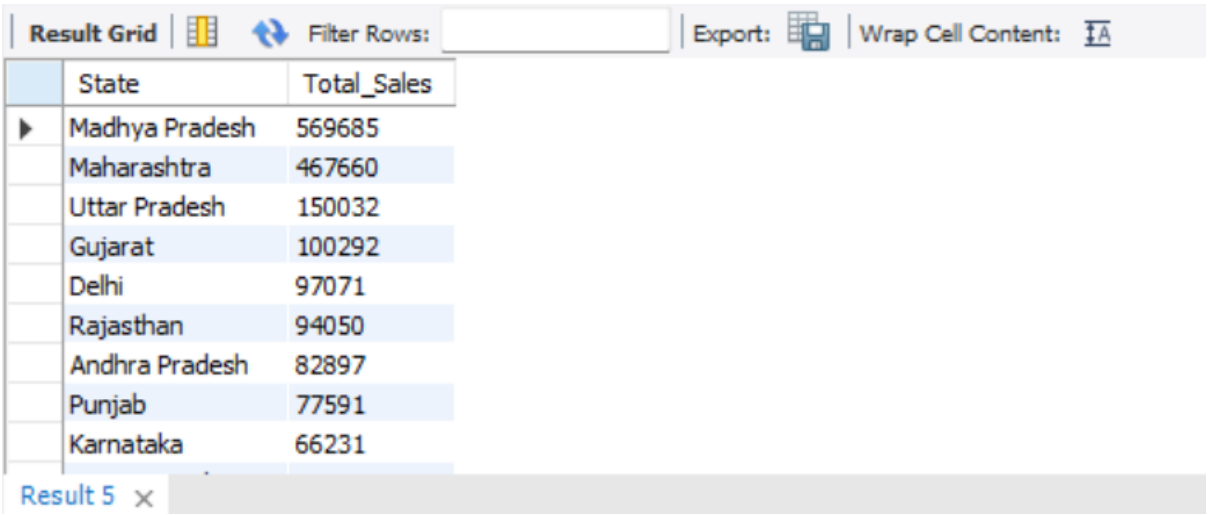
Order_ID	Amount	Profit	Quantity	Category	Sub-Category
B-26055	5729	64	14	Furniture	Chairs
B-25993	4363	305	5	Furniture	Tables
B-25973	4141	1698	13	Electronics	Printers
B-25923	3873	891	6	Electronics	Phones
B-25757	3151	-35	7	Clothing	Trousers
B-25955	2927	146	8	Furniture	Bookcases
B-26093	2847	712	8	Electronics	Printers
B-25798	2830	-1981	13	Furniture	Bookcases
B-25602	2617	1151	4	Electronics	Phones

order_details 4

SELECT State, SUM(Amount * Quantity) AS Total_Sales FROM list_of_orders

JOIN order_details ON list_of_orders.Order_ID = order_details.Order_ID

GROUP BY State ORDER BY Total_Sales DESC;

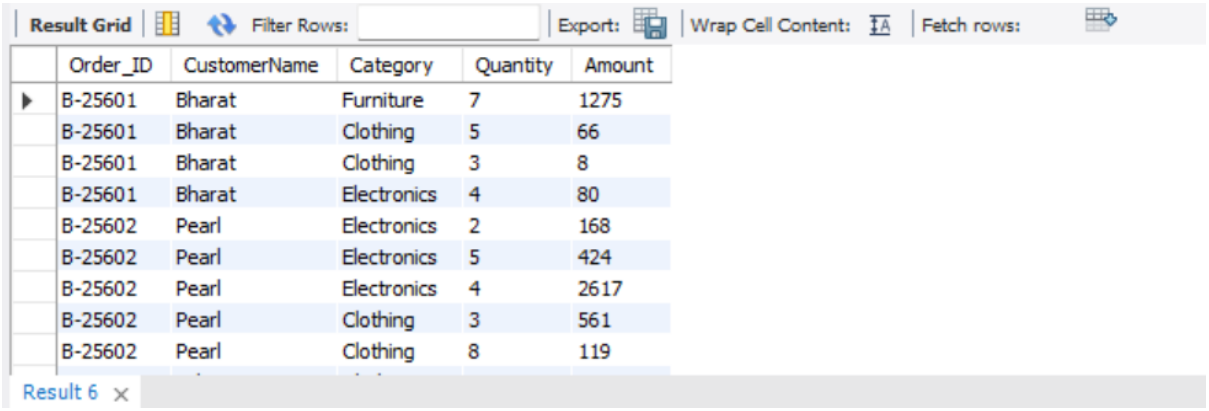


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

State	Total_Sales
Madhya Pradesh	569685
Maharashtra	467660
Uttar Pradesh	150032
Gujarat	100292
Delhi	97071
Rajasthan	94050
Andhra Pradesh	82897
Punjab	77591
Karnataka	66231

Result 5

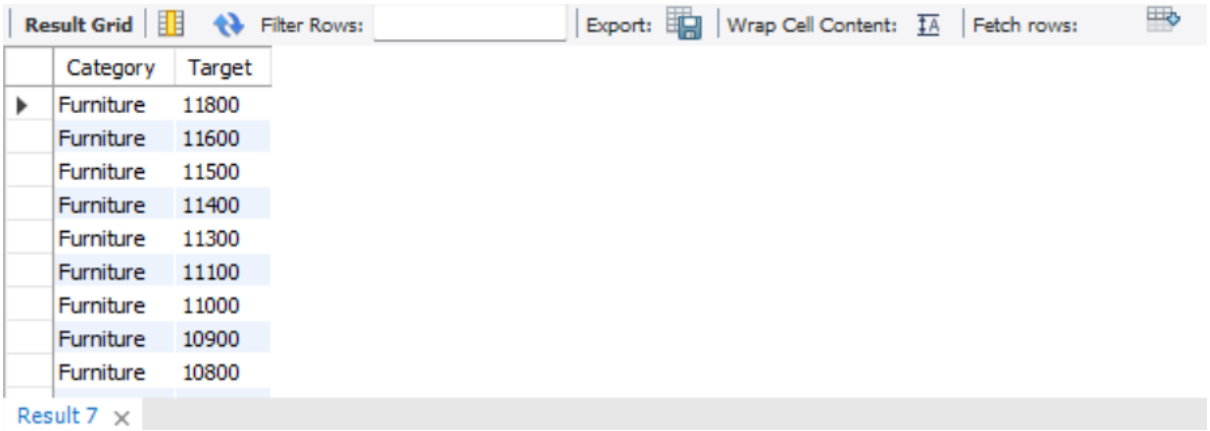
```
SELECT lo.Order_ID, lo.CustomerName, od.Category, od.Quantity, od.Amount
FROM list_of_orders lo
INNER JOIN order_details od ON lo.Order_ID = od.Order_ID;
```



Order_ID	CustomerName	Category	Quantity	Amount
B-25601	Bharat	Furniture	7	1275
B-25601	Bharat	Clothing	5	66
B-25601	Bharat	Clothing	3	8
B-25601	Bharat	Electronics	4	80
B-25602	Pearl	Electronics	2	168
B-25602	Pearl	Electronics	5	424
B-25602	Pearl	Electronics	4	2617
B-25602	Pearl	Clothing	3	561
B-25602	Pearl	Clothing	8	119

Result 6

```
SELECT od.Category, st.Target
FROM order_details od
LEFT JOIN sale_target st ON od.Category = st.Category;
```

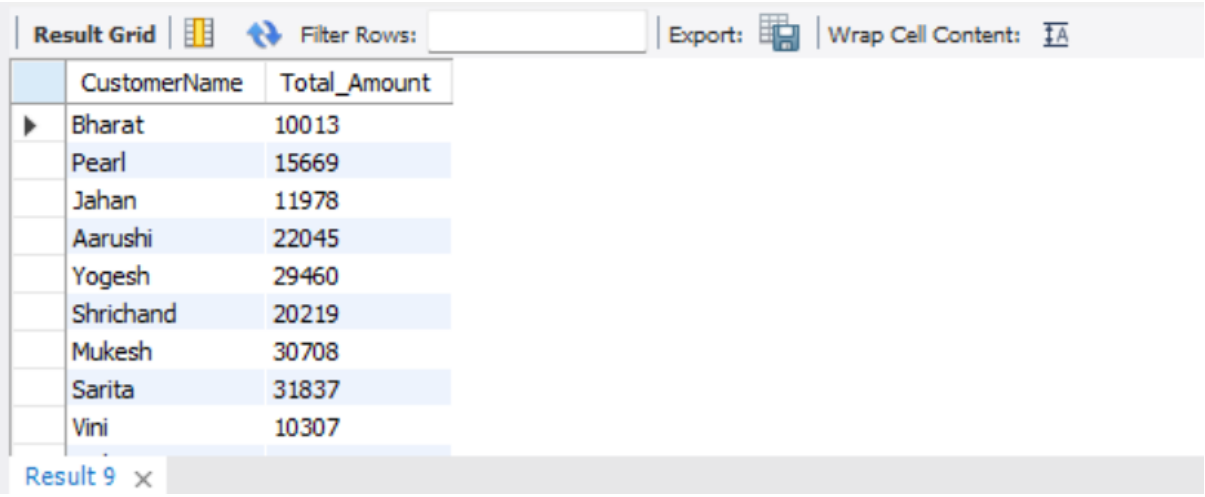


Category	Target
Furniture	11800
Furniture	11600
Furniture	11500
Furniture	11400
Furniture	11300
Furniture	11100
Furniture	11000
Furniture	10900
Furniture	10800

Result 7

```
SELECT CustomerName,Total_Amount
FROM (
    SELECT lo.CustomerName, SUM(od.Amount * od.Quantity) AS Total_Amount
    FROM list_of_orders lo
    JOIN order_details od ON lo.Order_ID = od.Order_ID
    GROUP BY lo.CustomerName
) AS customer_sales
```

WHERE Total_Amount > 10000;

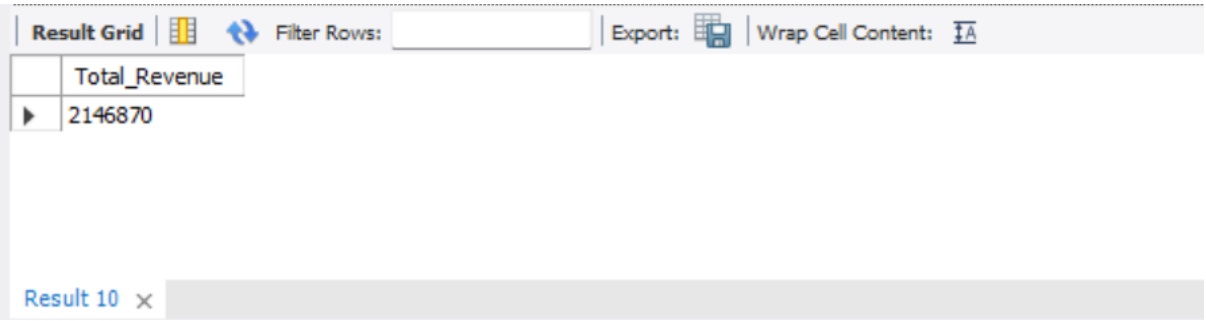


CustomerName	Total_Amount
Bharat	10013
Pearl	15669
Jahan	11978
Aarushi	22045
Yogesh	29460
Shrichand	20219
Mukesh	30708
Sarita	31837
Vini	10307

Result 9

SELECT SUM(Amount * Quantity) AS Total_Revenue

FROM order_details;

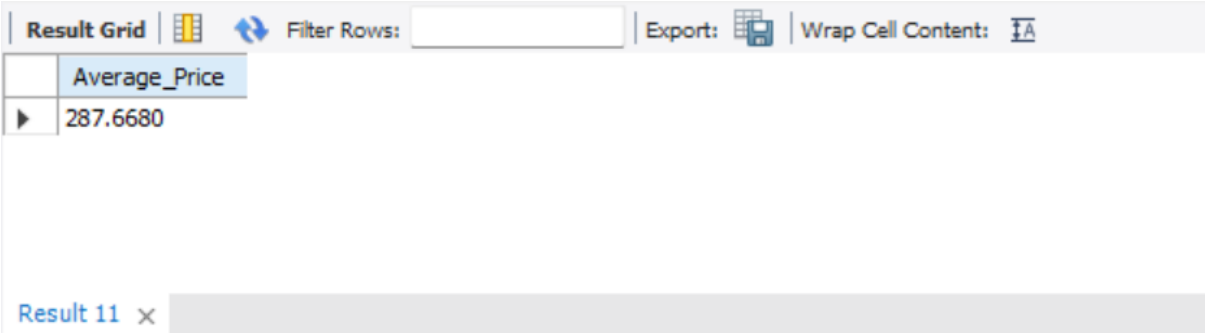


Total_Revenue
2146870

Result 10

SELECT AVG(Amount) AS Average_Price

FROM order_details;



Average_Price
287.6680

Result 11

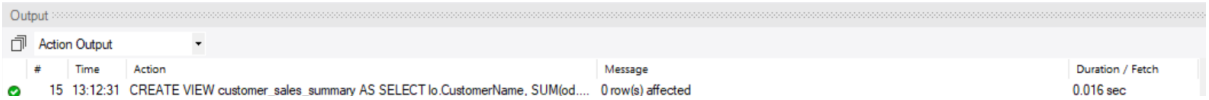
CREATE VIEW customer_sales_summary AS

SELECT lo.CustomerName, SUM(od.Amount * od.Quantity) AS Total_Spent

FROM list_of_orders lo

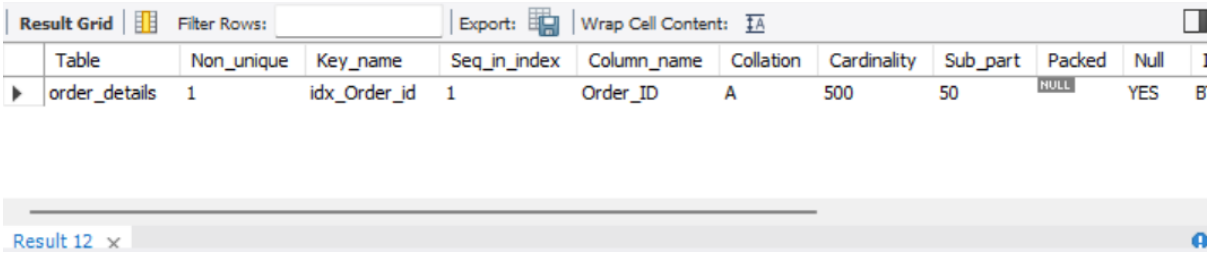
JOIN order_details od ON lo.Order_ID = od.Order_ID

GROUP BY lo.CustomerName;



CREATE INDEX idx_Order_id ON order_details(Order_id(50));

SHOW INDEX FROM order_details;



CREATE INDEX idx_customer_Name ON list_of_orders(CustomerName(50));

SHOW INDEX FROM list_of_orders;