**SQL ASSIGNMENT-2**

TASK 1:- UNDERSTANDING THE DATA

1. Describe the data in hand in your own words.

This is the database contain sales of a Superstore. This database structure has five tables as follows-

i) cust\_dimen:- which contain details about customer name, their id and their location

ii) market\_fact:- It contains customerwise orderwise and marketwise detail of value sales profit,shipping cost and order quantity.

iii) order\_dimen:- Contain order no., date, priority.

iv) Prod\_dimen:- Containing Product id, category and sub\_category.

v) Shipping\_dimen:- With shiping date, Id and shipping mode.

Upon, proper database design these tables will get information handy upon querying. These are having dimensions and has facts related to it.

Using market\_fact we can derive various insights which will aid in helping decisions regarding product segments sales and profit ability, shipping mode wise etc.

2. Identify and list the Primary keys and Foreign keys for this dataset provided to you (In case you don’t find either primary key, than specially mention this in your answer).

In table,

i) cust\_dimen: Cust\_id is Primary key, with no Foreign key

II) market\_fact: ord\_id, prod\_id, ship\_id and cust\_id are Foreign key, with no Primary

key

iii) order\_dimen: - ord\_id is as Primary key, here Order\_id also can be Primary key but it

but we use order\_id in shipping\_dimen as Foreign key it will help to retrieve details.

iv) Prod\_dimen:- Prod\_id as Primary key, with no Foreign key.

v) Shipping\_dimen:- Shipping\_dimen is as Primary key, with order\_id as Foreign key.

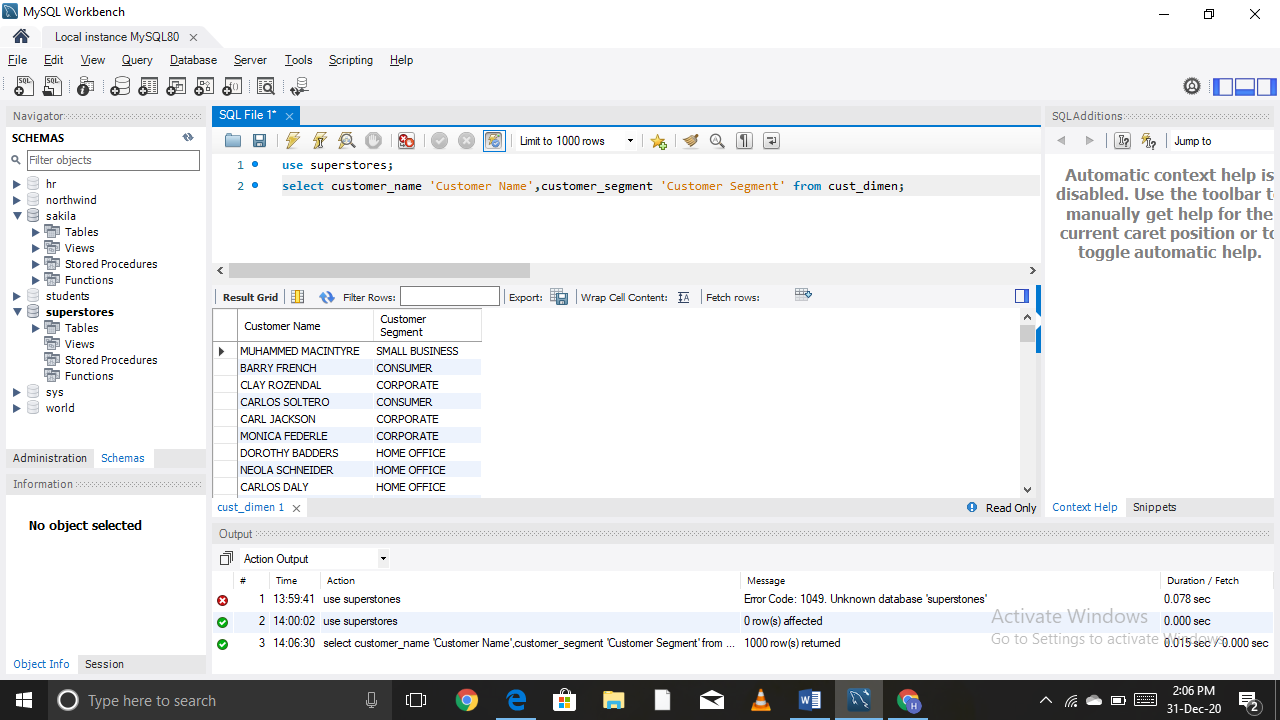
TASK 2:- BASIS & AND ADVANCED ANALYSIS

Query 1- Write a query to display the Customer\_Name and Customer Segment using alias name “Customer Name” from table cust\_dimen.

Use superstores;

select customer\_name 'Customer Name',customer\_segment 'Customer Segment' from

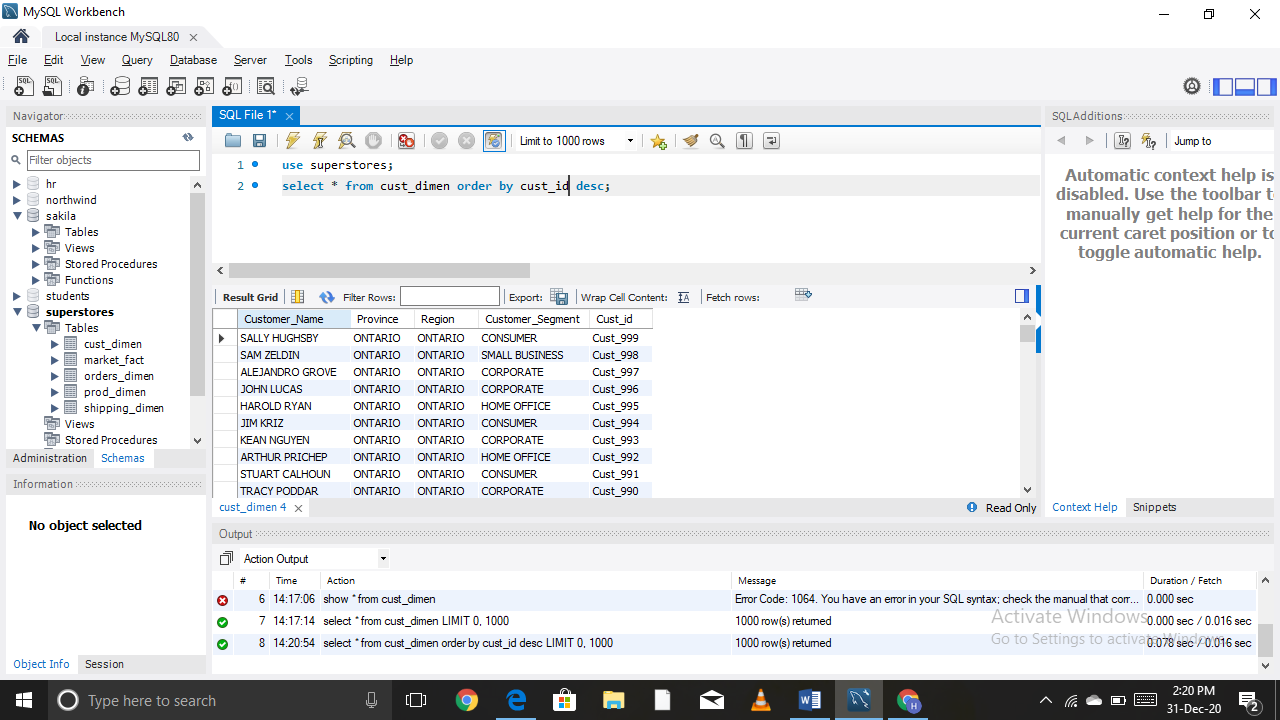
cust\_dimen;



Query 2- Write a query to find all the details of customer from the cust\_dimen table order by desc.

Use superstores;

select \* from cust\_dimen order by cust\_id desc;

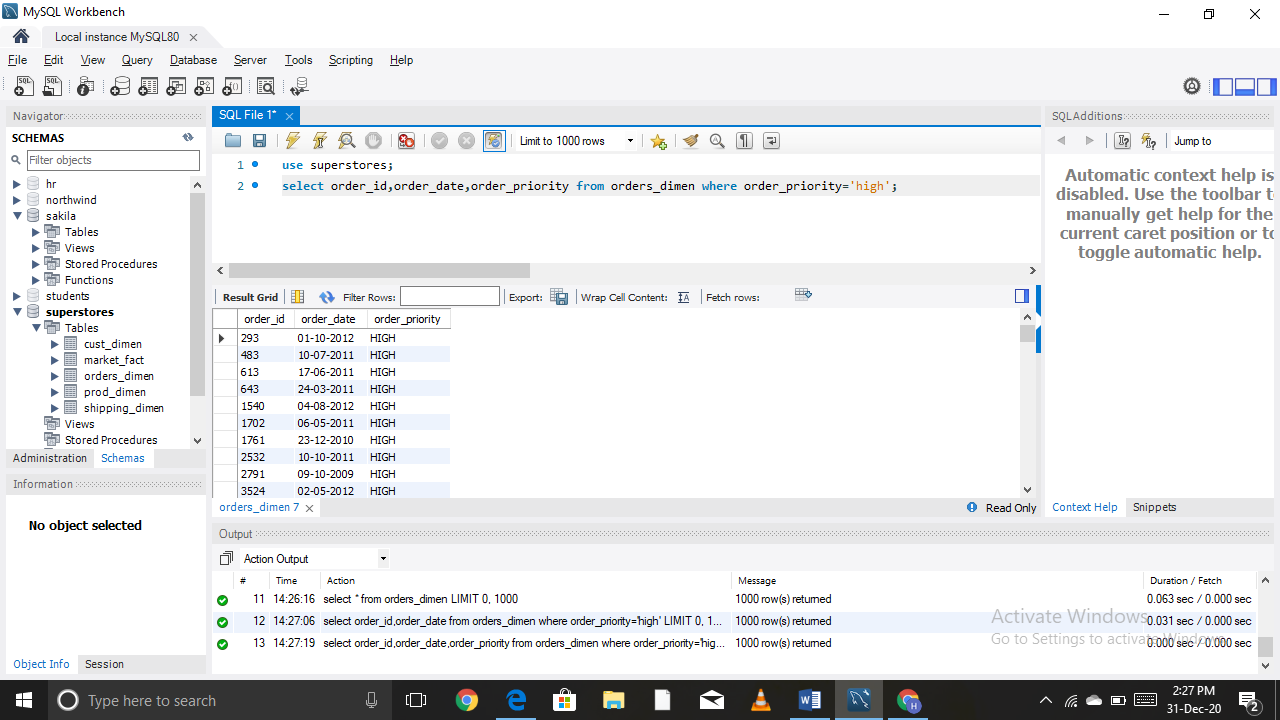


Query 3- Write a query to get the order ID, Order date from table ordes\_dimen where ‘Order Priority’ is high.

Use superstores;

select order\_id,order\_date,order\_priority from orders\_dimen where

order\_priority='high';

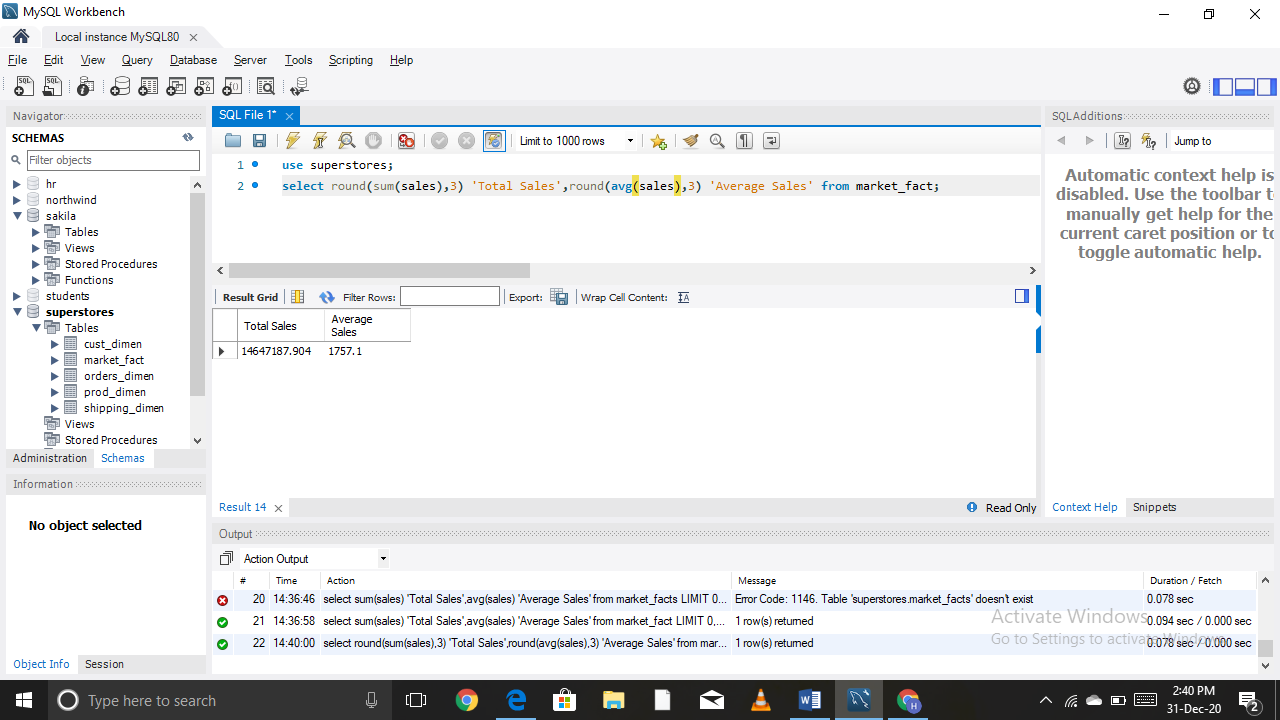


Query 4- Find the total and average sales (display total\_sales and avg\_sales).

Use superstores;

select round(sum(sales),3) 'Total Sales',round(avg(sales),3) 'Average Sales' from

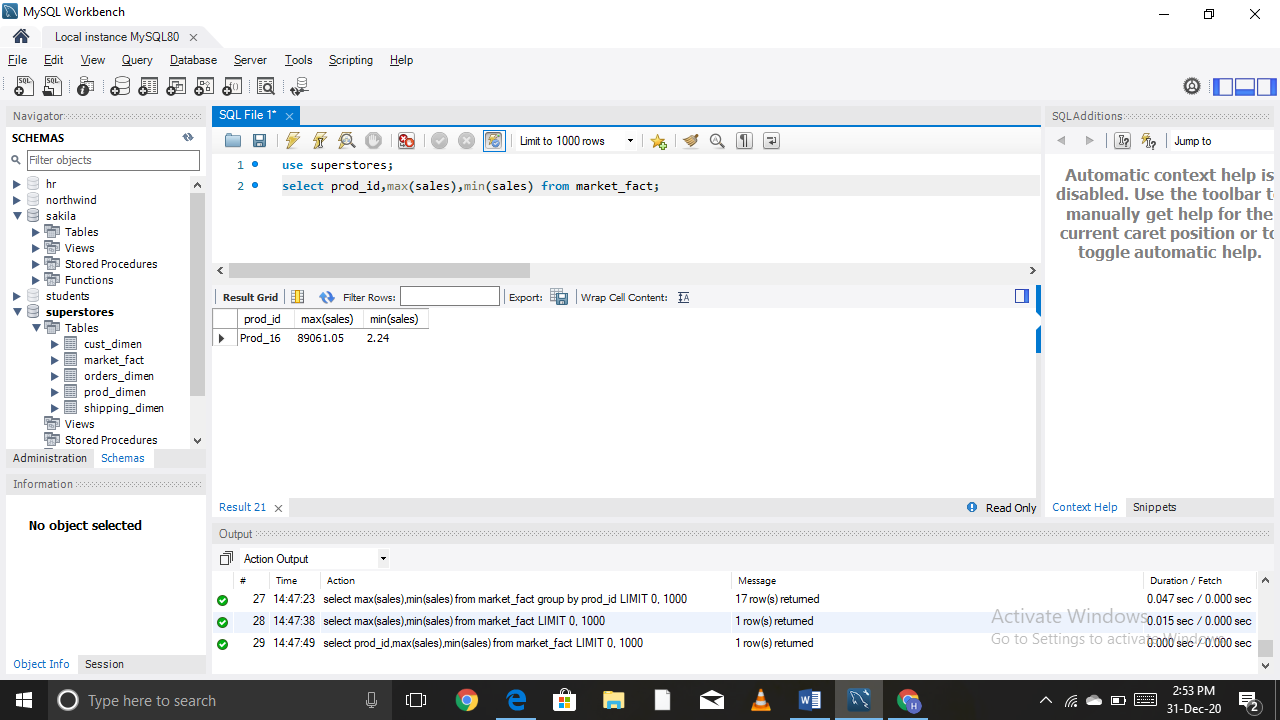
market\_fact;



Query 5- Write a query to find maximum and minimum sales from the market\_fact table.

Use superstores;

select prod\_id,max(sales),min(sales) from market\_fact;

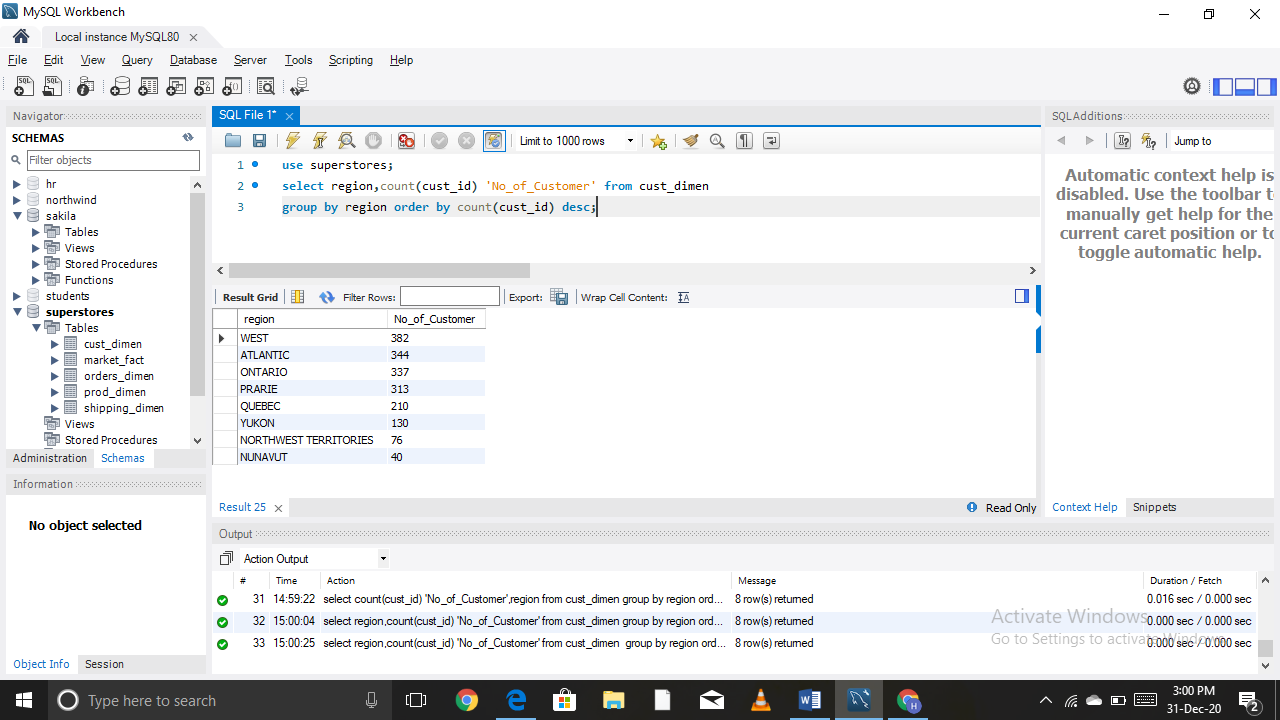


Query 6- Display the number of customers in each region decreasing order of no\_of\_customers. The result should contain columns Regions,no\_of-customers.

Use superstores;

select region,count(cust\_id) 'No\_of\_Customer' from cust\_dimen

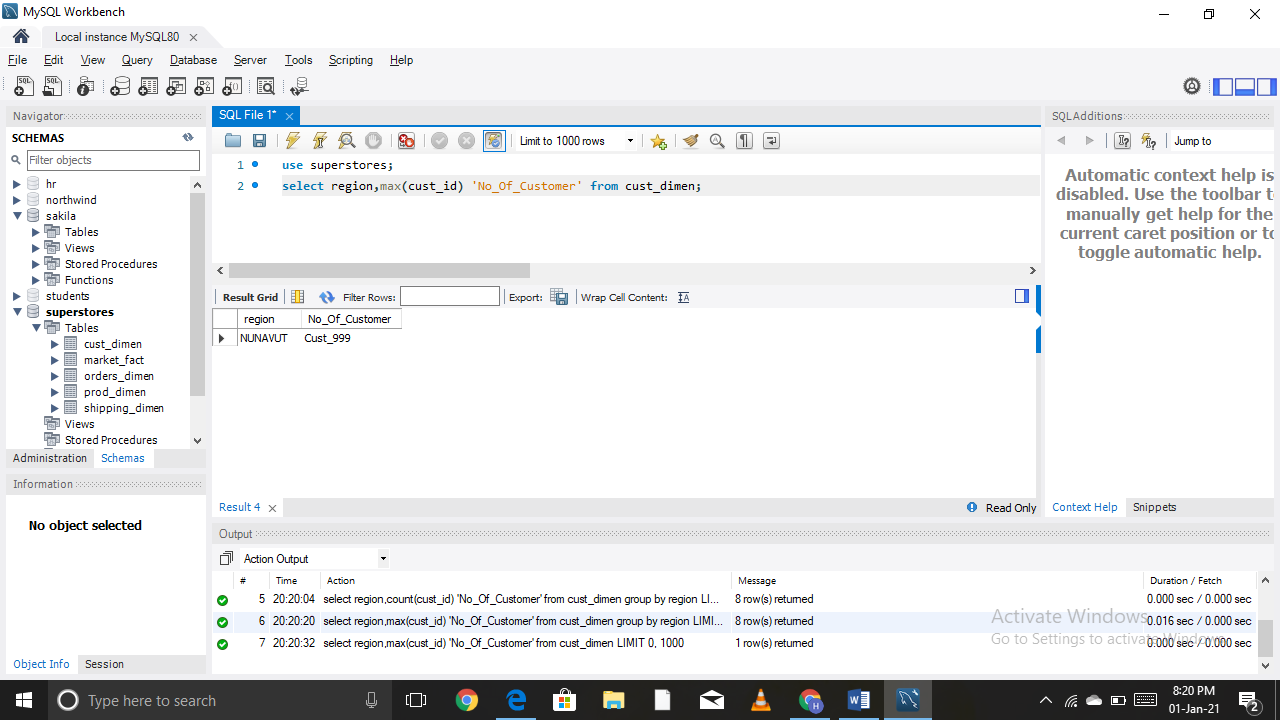
group by region order by count(cust\_id) desc;



Query 7- Find the region having maximum customers (display the region name and max(no\_of\_customers).

Use superstores;

select region,max(cust\_id) 'No\_Of\_Customer' from cust\_dimen



Query 8- Find the all the customer from Atlantic region who have ever purchases ‘TABLES’ and the number of tables purchased (display the customer name, no\_of\_tables purchased).

Use superstores;

select cust\_dimen.Region 'Region',cust\_dimen.Customer\_Name 'Customer Name',

prod\_dimen.Product\_Sub\_Category 'Product Sub Category',sum(market\_fact.Order\_Quantity) 'Order Quantity'

from market\_fact

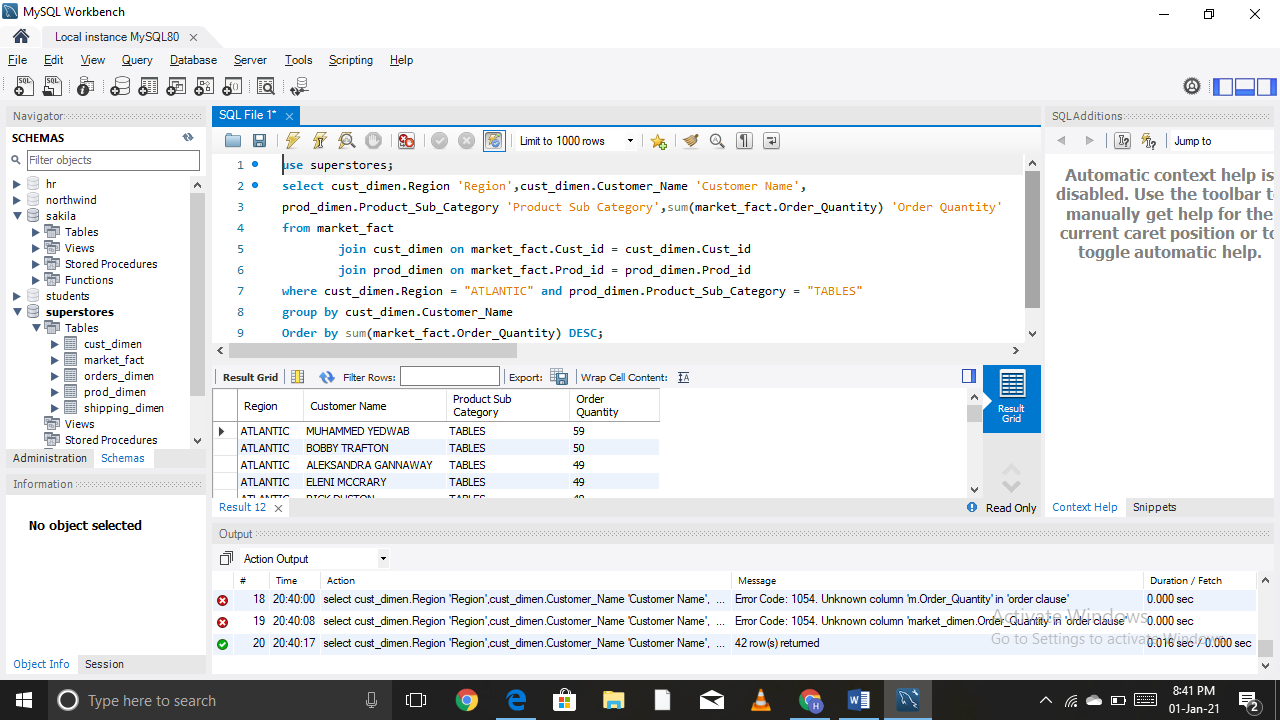
join cust\_dimen on market\_fact.Cust\_id = cust\_dimen.Cust\_id

join prod\_dimen on market\_fact.Prod\_id = prod\_dimen.Prod\_id

where cust\_dimen.Region = "ATLANTIC" and prod\_dimen.Product\_Sub\_Category = "TABLES"

group by cust\_dimen.Customer\_Name

Order by sum(market\_fact.Order\_Quantity) DESC;

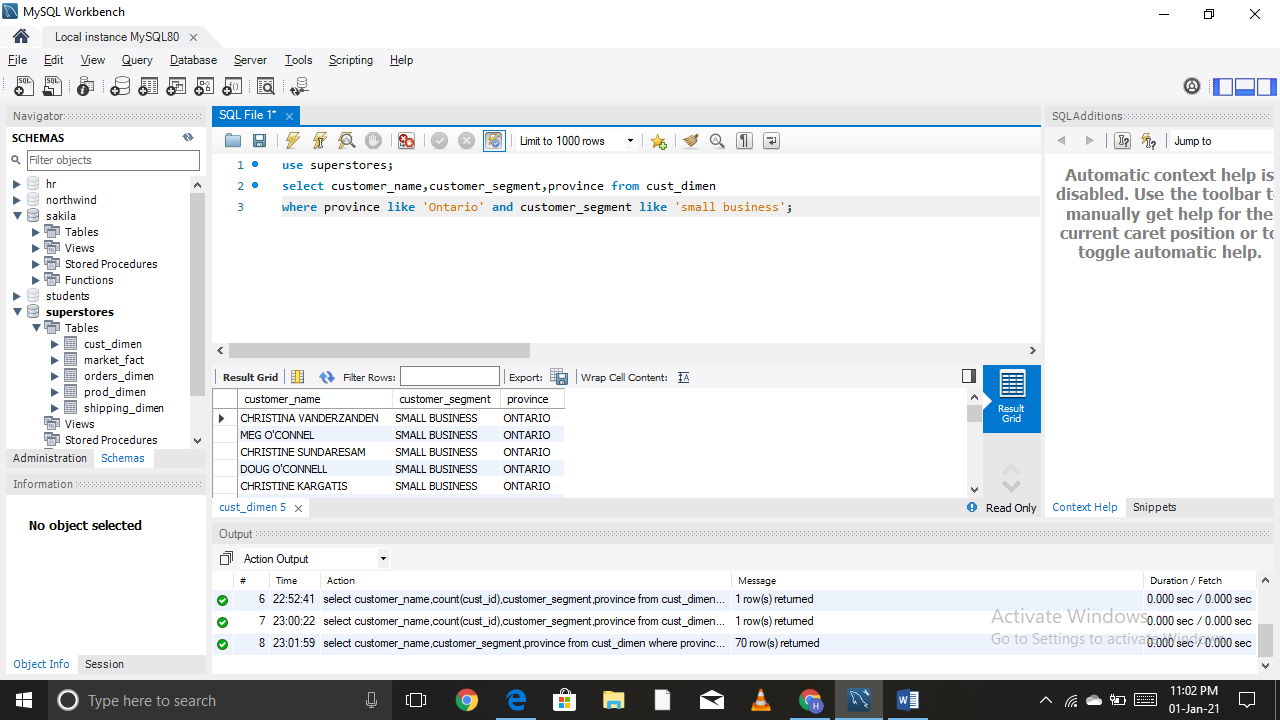


Query 9- Find the all the customer from Ontario province who own small Busnisses. (Display the customer name, no of small business owners).

Use superstores;

select customer\_name,customer\_segment,province from cust\_dimen

where province like 'Ontario' and customer\_segment like 'small business';

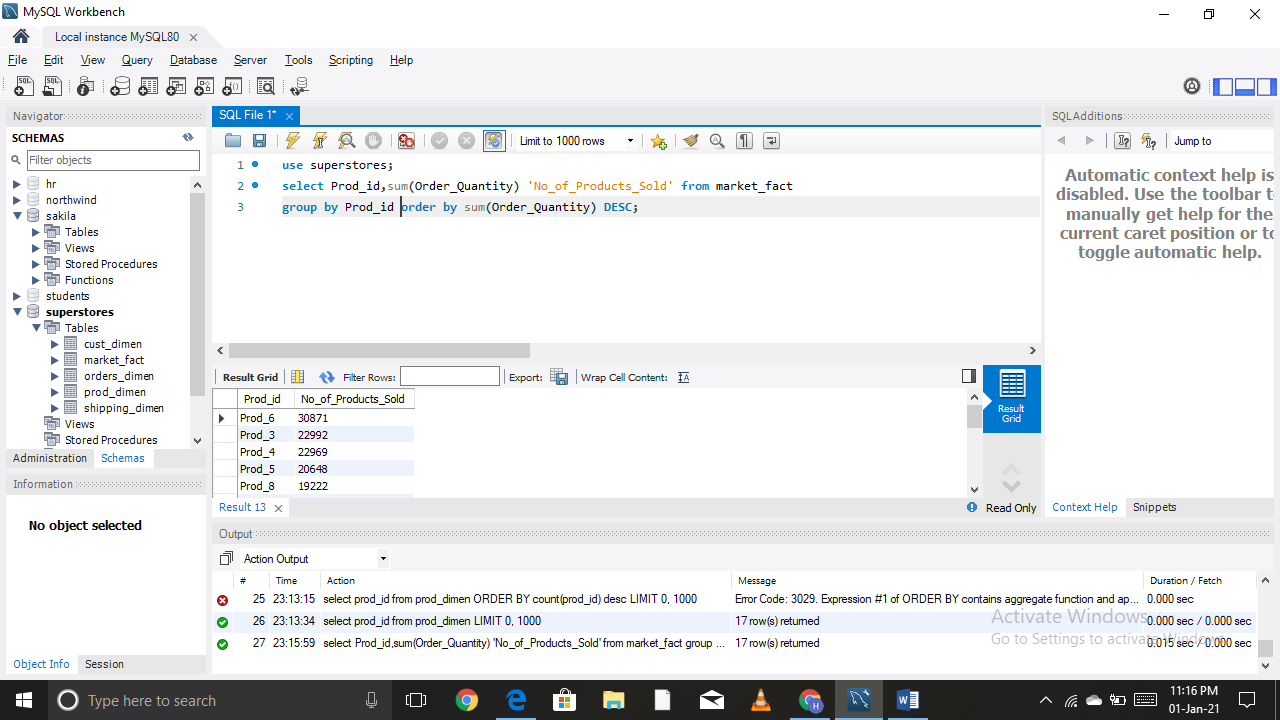


Query 10- Find the number and Id of products sold in decreasing order of products sold (display product id,no\_of\_products sold).

Use superstores;

select Prod\_id,sum(Order\_Quantity) 'No\_of\_Products\_Sold' from market\_fact

group by Prod\_id order by sum(Order\_Quantity) DESC;

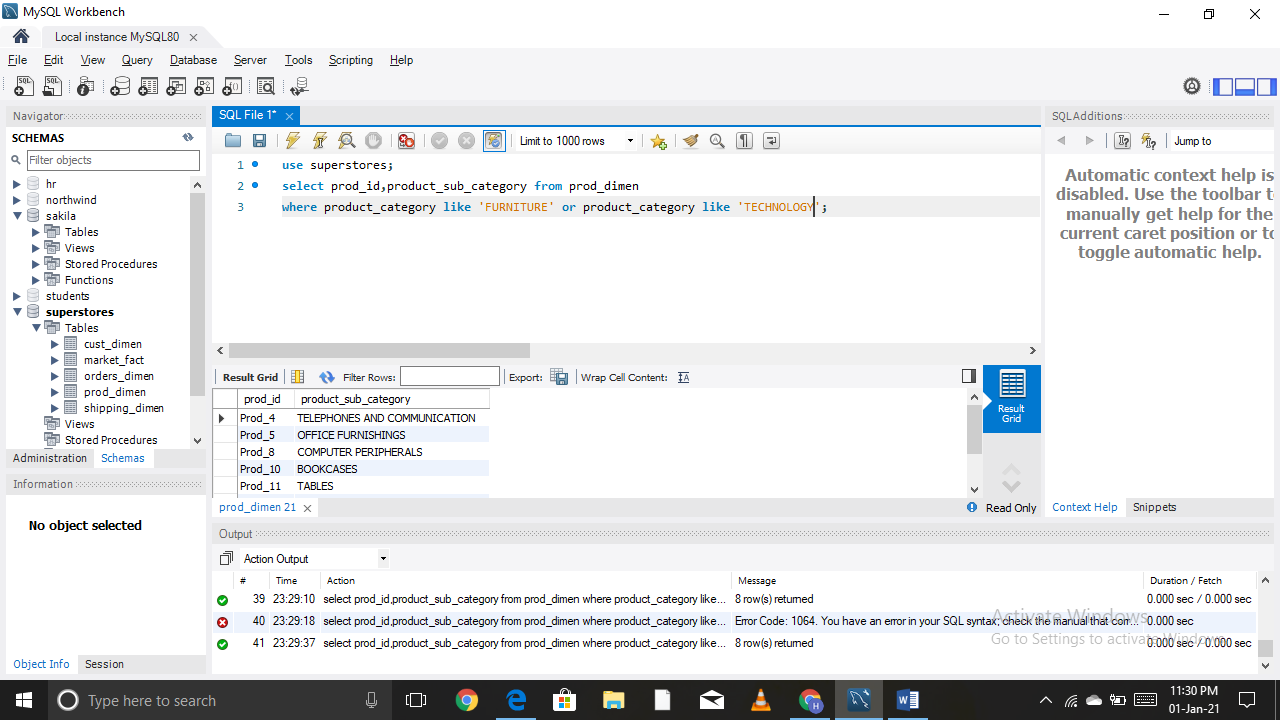


Query 11- Display product Id and product sub category whose product category belongs to furniture and Technology. The result should contain columns product id,product sub category.

Use superstores;

select prod\_id,product\_sub\_category from prod\_dimen

where product\_category like 'FURNITURE' or product\_category like 'TECHNOLOGY';



Query 12- Display the product categories in descending order of profits (display the product category wise profits i.e. product\_category, profits)?

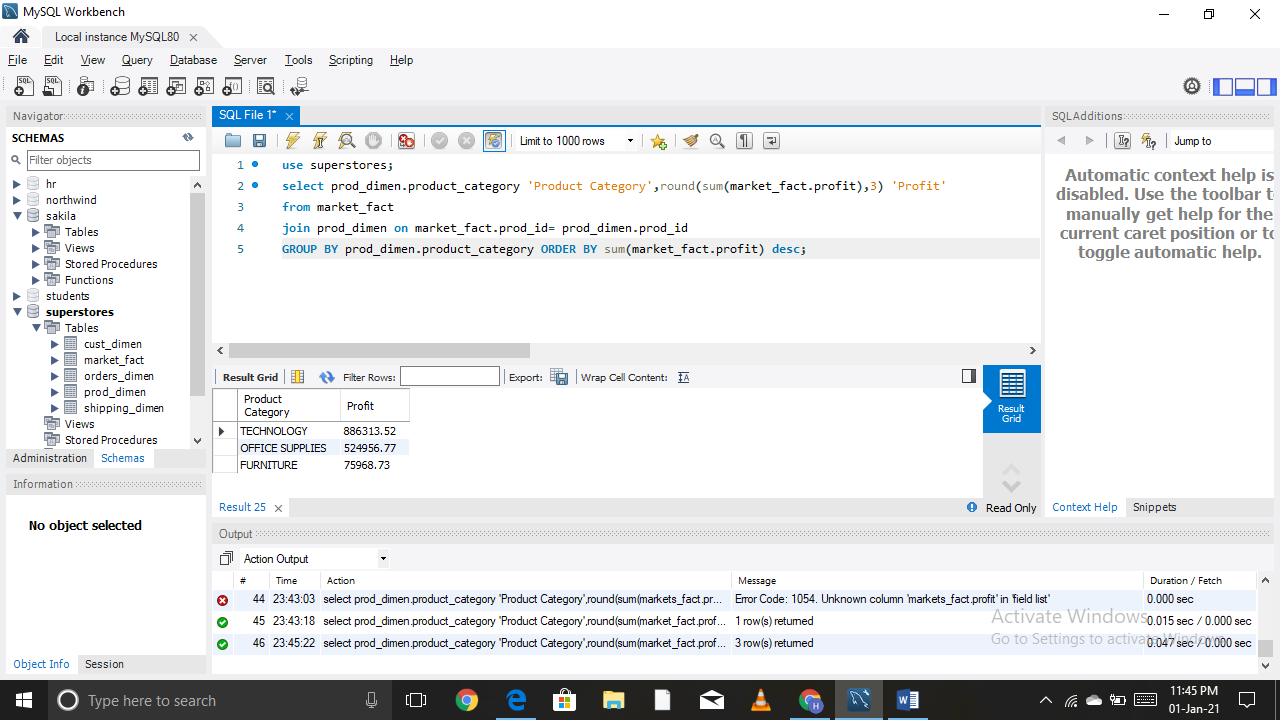
Use superstores;

select prod\_dimen.product\_category 'Product Category',round(sum(market\_fact.profit),3) 'Profit'

from market\_fact

join prod\_dimen on market\_fact.prod\_id= prod\_dimen.prod\_id

GROUP BY prod\_dimen.product\_category ORDER BY sum(market\_fact.profit) desc;



Query 13- Display the product category, product sub\_catagery and the profit within each subcatagery in three columns.

Use superstores;

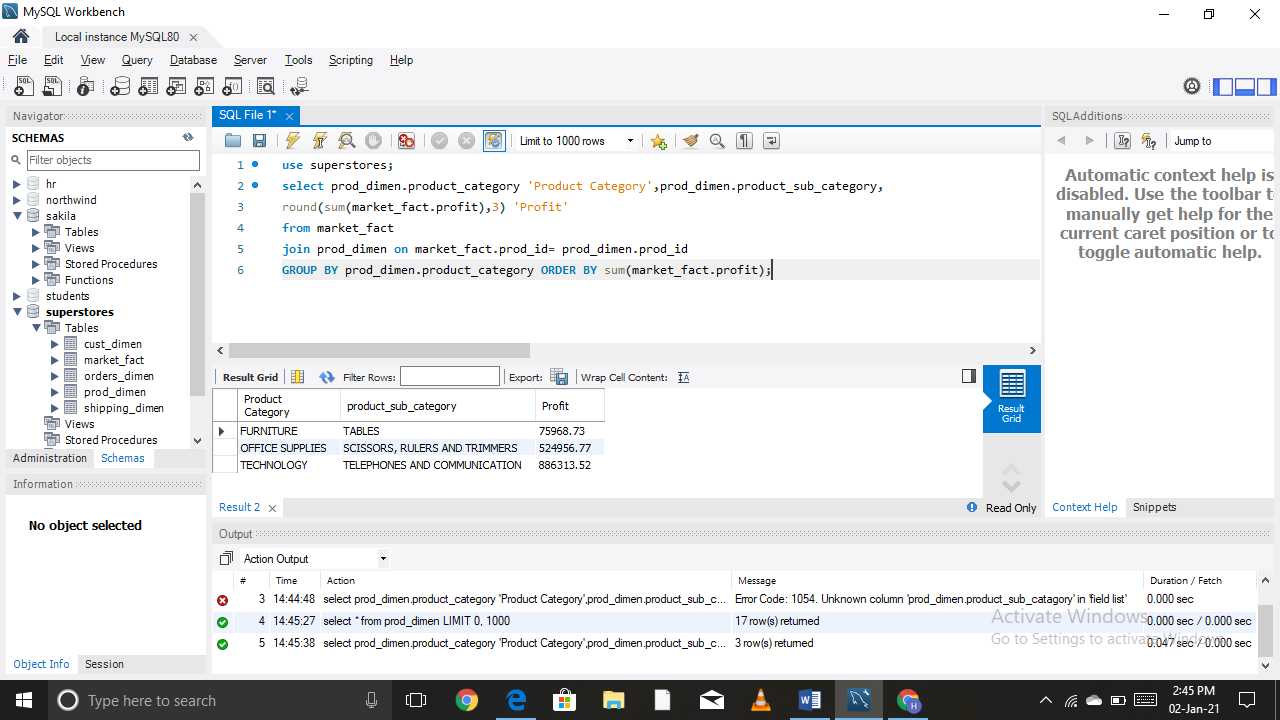
select prod\_dimen.product\_category 'Product

Category',prod\_dimen.product\_sub\_category, round(sum(market\_fact.profit),3) 'Profit'

from market\_fact

join prod\_dimen on market\_fact.prod\_id= prod\_dimen.prod\_id

GROUP BY prod\_dimen.product\_category ORDER BY sum(market\_fact.profit);



Query 14- Display the order date , order quantity and the sales for the order.

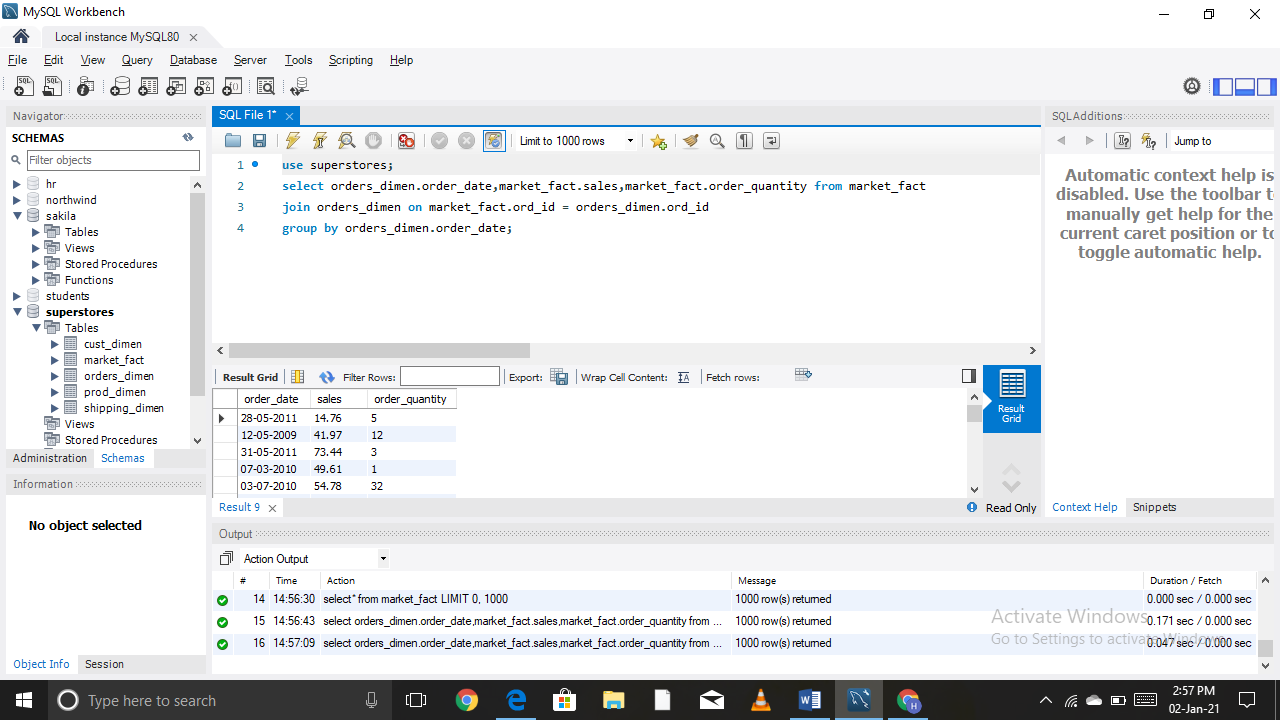
Use supertores;

select orders\_dimen.order\_date,market\_fact.sales,market\_fact.order\_quantity from

market\_fact

join orders\_dimen on market\_fact.ord\_id = orders\_dimen.ord\_id

group by orders\_dimen.order\_date;

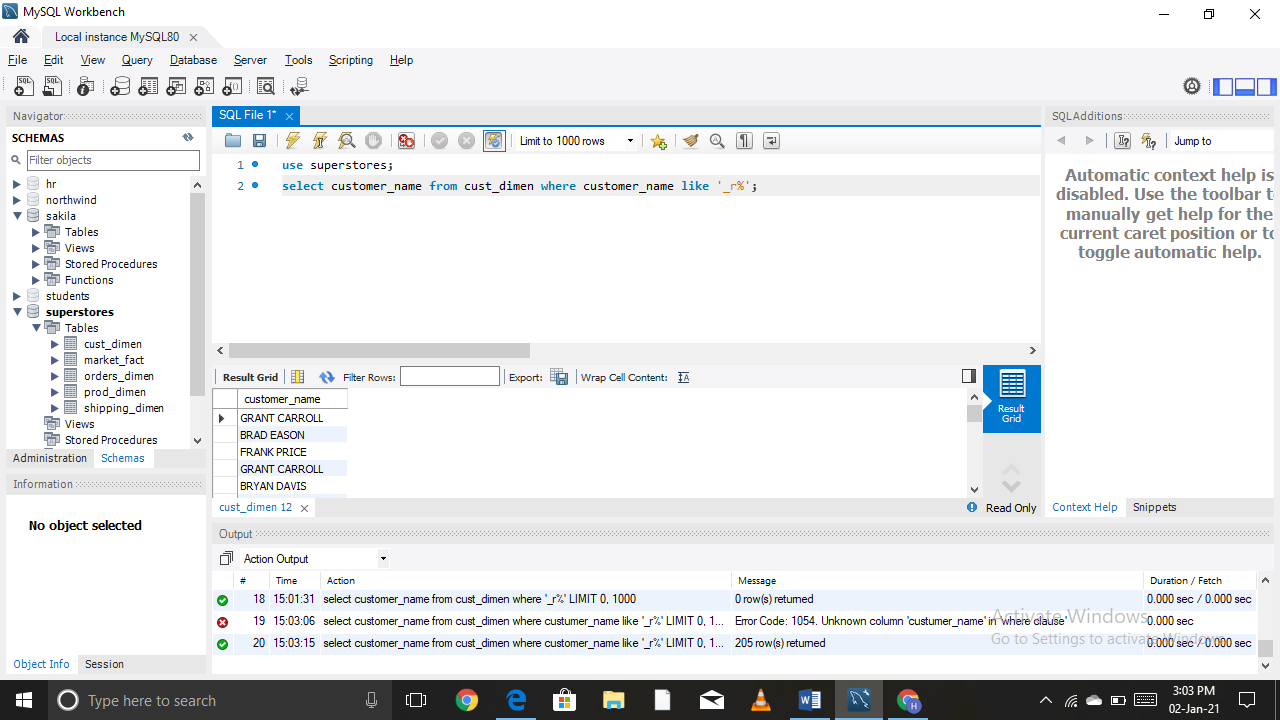


Query 15- Display the names of customer whose name contains the.

(i) Second letter as “R”

Use superstores;

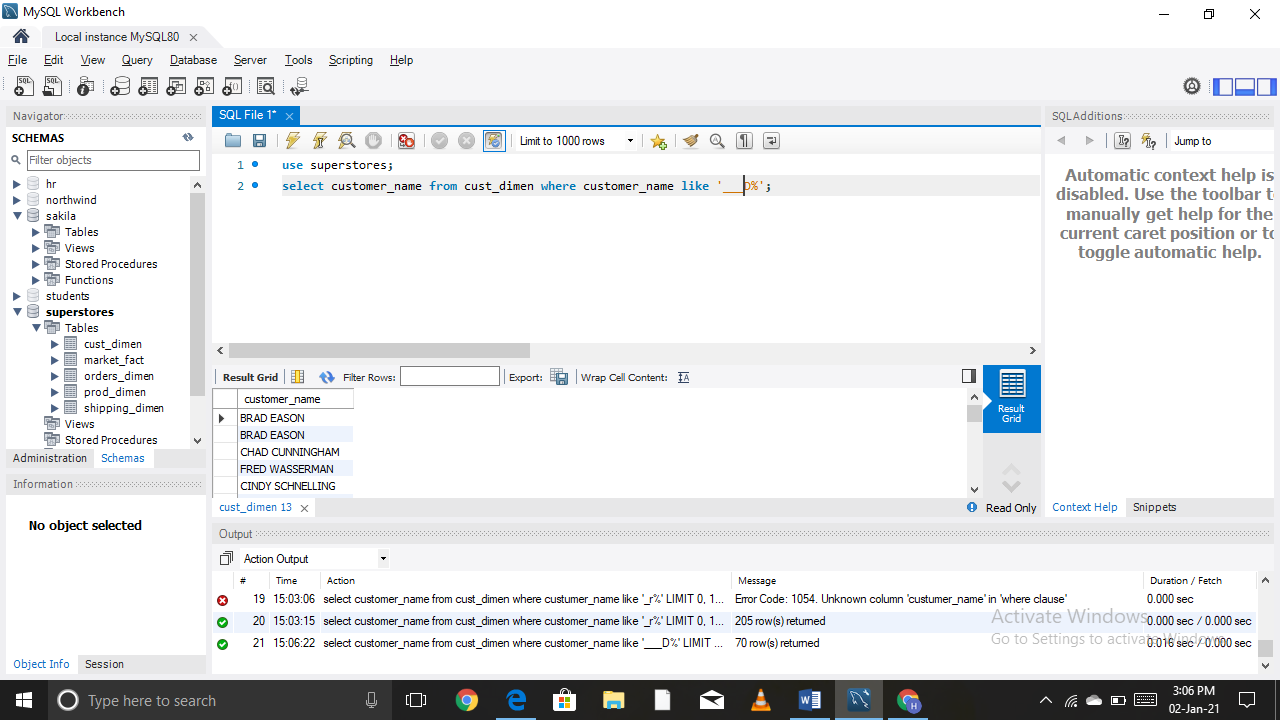
select customer\_name from cust\_dimen where customer\_name like '\_r%';



(ii) Fourth letter as “D”

Use superstores;

select customer\_name from cust\_dimen where customer\_name like '\_\_\_D%';



Query 16- Write a SQL query to make a list with cust\_id, sales, customer Name and their region where sales are between 1000 and 5000.

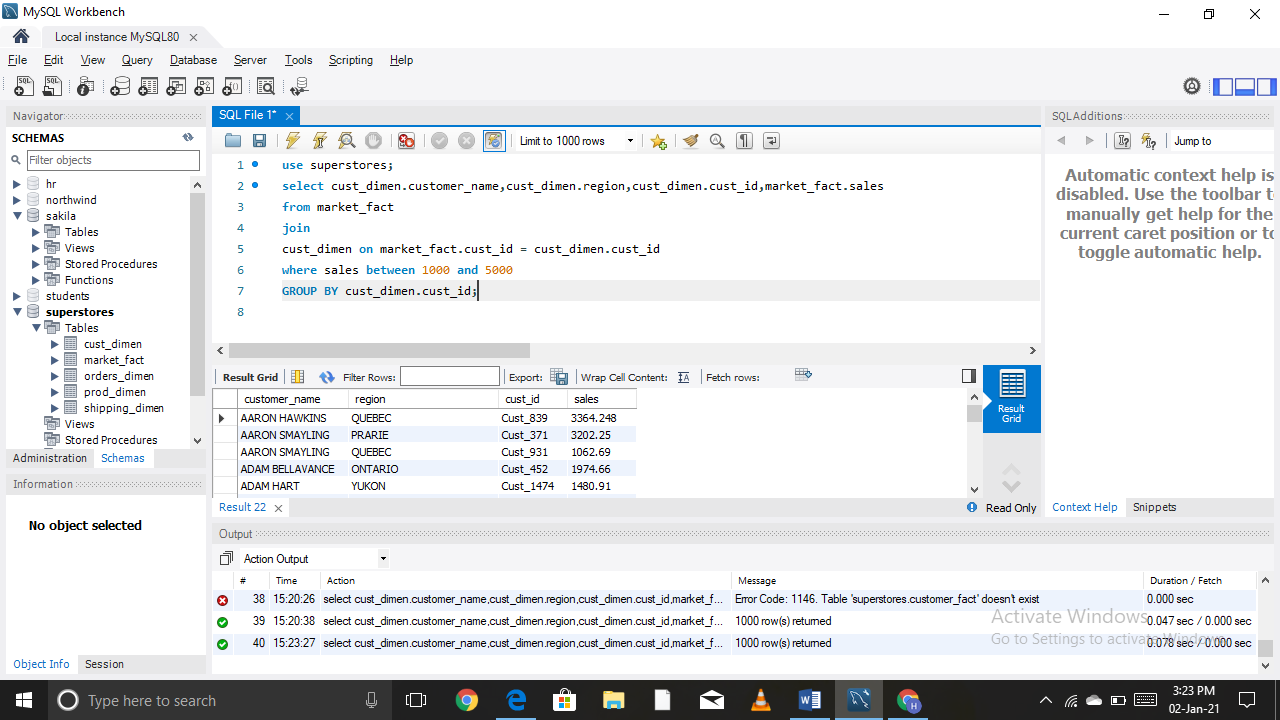
Use superstores;

Selectcust\_dimen.customer\_name,cust\_dimen.region,cust\_dimen.cust\_id,

market\_fact.sales from market\_fact

join cust\_dimen on market\_fact.cust\_id = cust\_dimen.cust\_id

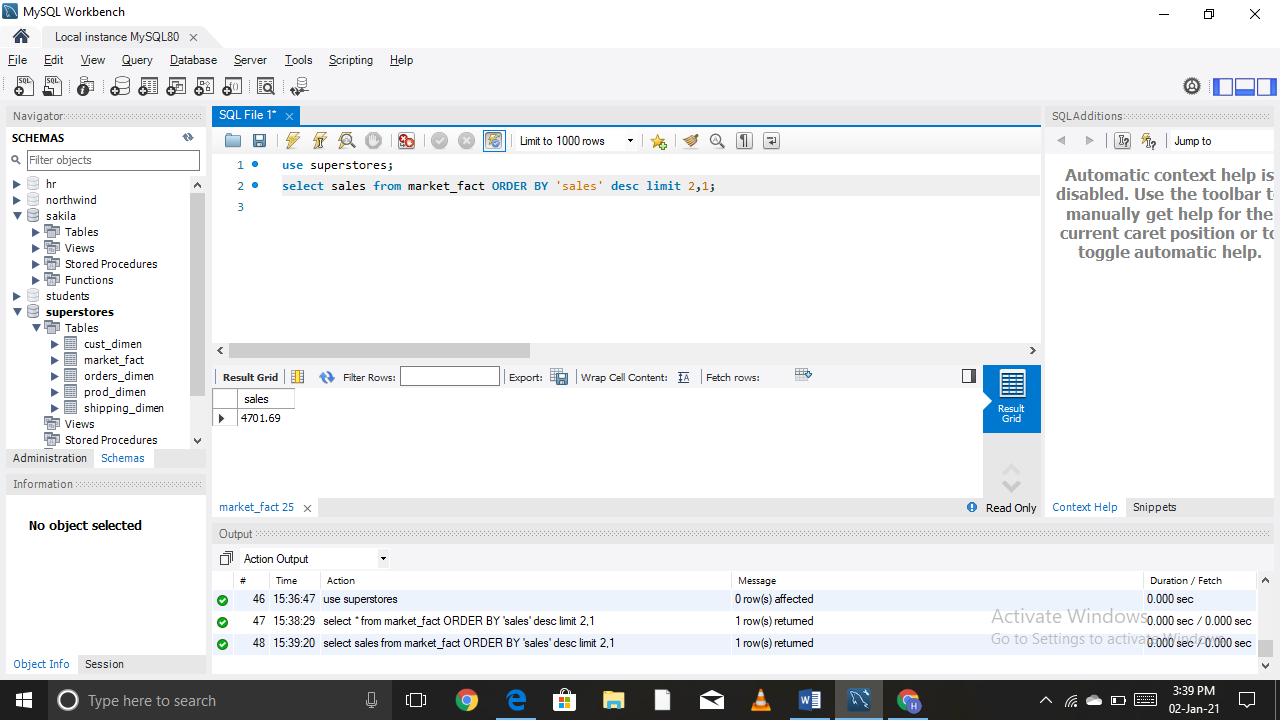
where sales between 1000 and 5000 GROUP BY cust\_dimen.cust\_id;



Query 17- Write a query to find the 3rd highest sales.

Use superstores;

select sales from market\_fact ORDER BY 'sales' desc limit 2,1;



Query 18- Where is the least profitable product subcategory shipped the most? For the least profitable product sub\_category, display the region-wise no\_of\_shipments and the profit made in each region in decreasing order of profits (i.e region,no\_of\_shipments, profit\_in\_each\_region)

NOTE-You can hardcode the name of the least profitable product subcategory).

Use superstores;

select cust\_dimen.Region 'Region',count(market\_fact.Ship\_id) 'No of Shipments',

round(sum(market\_fact.Profit),3) 'Profit in each region' from market\_fact

join cust\_dimen on market\_fact.Cust\_id = cust\_dimen.Cust\_id

join prod\_dimen on market\_fact.Prod\_id = prod\_dimen.Prod\_id

Where Product\_Sub\_Category = (Select prod\_dimen.Product\_Sub\_Category from

market\_fact

join prod\_dimen on market\_fact.Prod\_id = prod\_dimen.Prod\_id

group by Product\_Sub\_Category order by sum(market\_fact.Profit) LIMIT 1)

group by cust\_dimen.Region order by sum(market\_fact.Profit);

