MYSQL ASSIGNMENT 4

Table: `Sales`

SaleID	ProductID	CustomerID	SaleDate	Quantity	UnitPrice	Region
1	101	1001	2024-01-05	5	200	North
2	102	1002	2024-01-10	10	150	East
3	103	1003	2024-02-15	2	300	North
4	104	1001	2024-02-20	7	250	West
5	101	1004	2024-03-05	1	200	East

```
create database company4;

use company4;
```


```
Create table sales(

SaleID int,

ProductID int,

CustomerID int,

Saledate varchar(51),

Quantity int,

UnitPrice int,

Region varchar(52));

select * from sales;

Insert into sales(SaleID,ProductID,CustomerID,Saledate,Quantity,UnitPrice,Region)values

(1,101,1001,2024-01-05,5,200,"North"),

(2,102,1002,2024-01-10,10,150,"East"),

(3,103,1003,2024-02-15,2,300,"North"),

(4,104,1001,2024-02-20,7,250,"West"),
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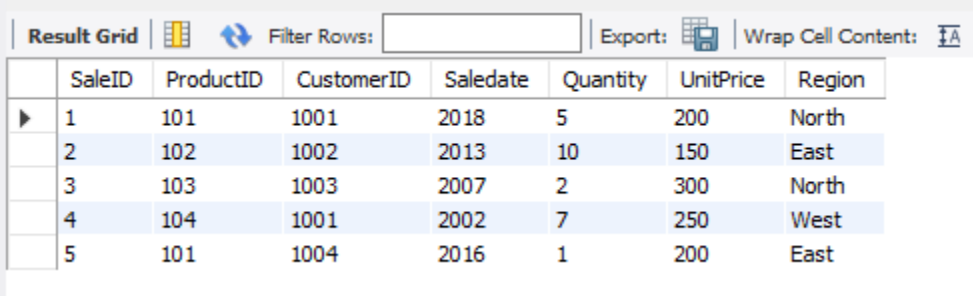
(5,101,1004,2024-03-05,1,200,"East");

select * from sales;



SaleID	ProductID	CustomerID	Saledate	Quantity	UnitPrice	Region
1	101	1001	2018	5	200	North
2	102	1002	2013	10	150	East
3	103	1003	2007	2	300	North
4	104	1001	2002	7	250	West
5	101	1004	2016	1	200	East

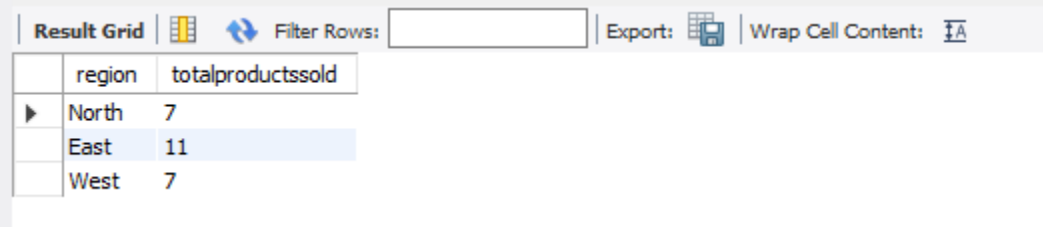
/*1.Write a query to calculate the total sales(Quantity*UnitPrice) for each product.*/

select ProductID, SUM(Quantity*UnitPrice) AS Totalsales from sales group by ProductID;

ProductID	Totalsales
101	1200
102	1500
103	600
104	1750

/*2.Write a query to find the total number of products sold in each region.*/

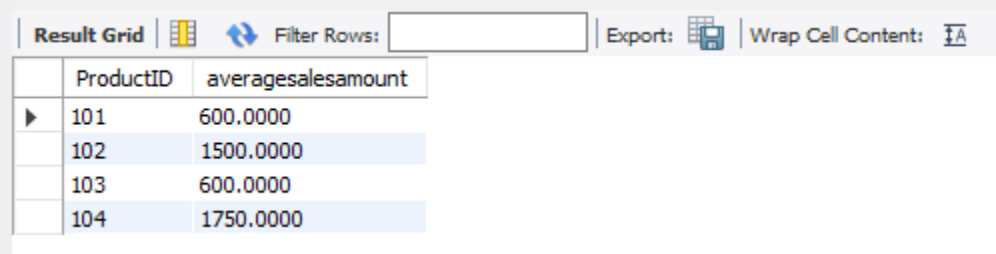
select region, sum(Quantity) as totalproductssold from sales group by region;



region	totalproductssold
North	7
East	11
West	7

/*3.Write a query to get the average sales amount per product.*/

select ProductID, AVG(Quantity*Unitprice) as averagesalesamount from sales group by ProductID;



ProductID	averagesalesamount
101	600.0000
102	1500.0000
103	600.0000
104	1750.0000

/*4.Find the regions where total sales are more than 3000.*/

select region, sum(Quantity*Unitprice) as totalsales from sales group by region having totalsales>3000;

region	totalsales

/*5.Write a query to get the maximum quantity sold for each product.*/

select ProductID, MAX(Quantity) as maximumquantitysold from sales group by productID;

ProductID	maximumquantitysold
101	5
102	10
103	2
104	7

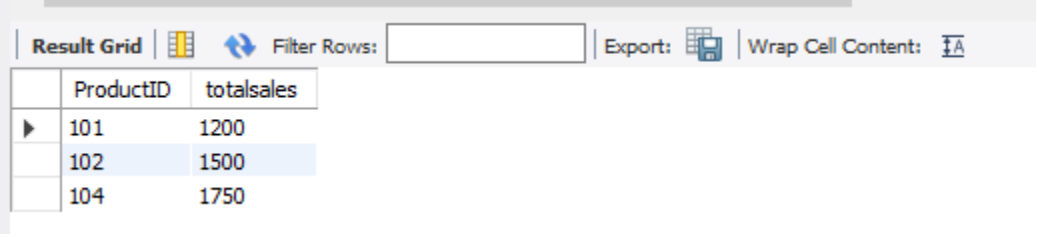
/*6.Write a query to calculate the average quantity of products sold per region.*/

select region, AVG(Quantity) as averagequantitysold from sales group by region;

region	averagequantitysold
North	3.5000
East	5.5000
West	7.0000

/*7.Find the product IDs that have generated a total sales amount of more than 1000.*/

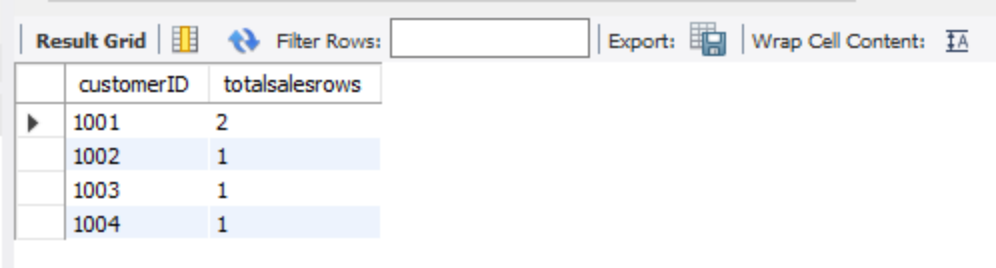
select ProductID, sum(Quantity*Unitprice) as totalsales from sales group by ProductID having totalsales>1000;



ProductID	totalsales
101	1200
102	1500
104	1750

/*8.Write a query to get the total number of sales(rows) made for each customer.*/

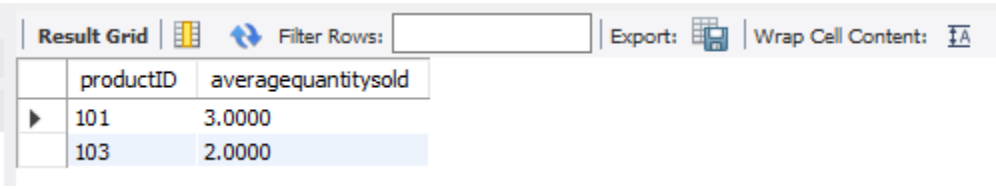
select customerID, count(*) as totalsalesrows from sales group by customerID;



customerID	totalsalesrows
1001	2
1002	1
1003	1
1004	1

/*9.Find the products for which the average quantity sold is less than5.*/

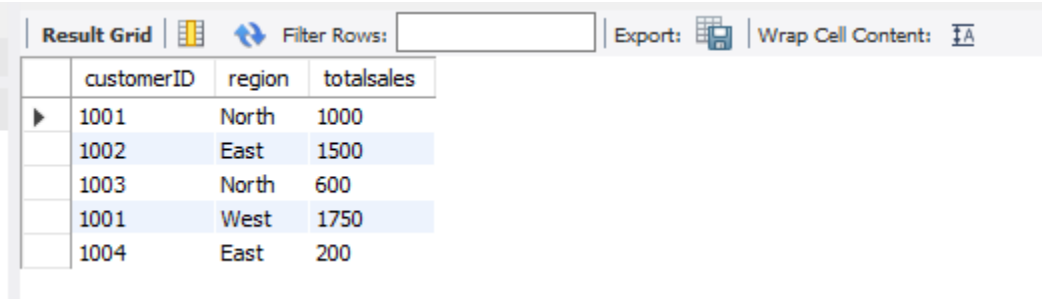
select productID, AVG(Quantity) as averagequantitysold from sales group by productID having averagequantitysold<5;



productID	averagequantitysold
101	3.0000
103	2.0000

/*10.Write a query to find the sum of total sales for each customer in each region.*/

select customerID,region, sum(Quantity*Unitprice) as totalsales from sales group by region,customerID;



customerID	region	totalsales
1001	North	1000
1002	East	1500
1003	North	600
1001	West	1750
1004	East	200

/*11.Write a query to calculate the total sales for each month.*/

select date_format(saledate,'%Y-%M') AS Month, sum(Quantity*Unitprice) as totalsales from sales group by date_format(saledate,'%Y-%M');

Month	totalsales
NULL	5050

/*12.Find the regions where the average unit price is more than 200.*/

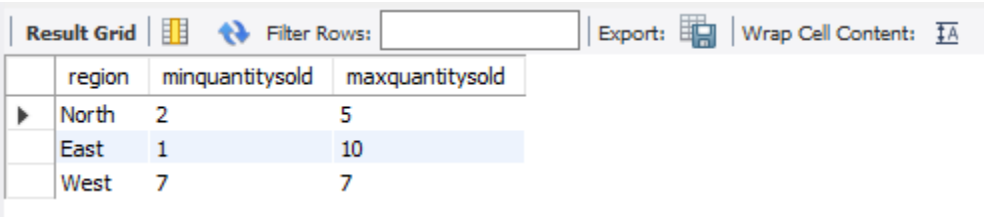
select region, avg(unitprice) as averageunitprice from sales group by region having averageunitprice>200;

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

region	averageunitprice
North	250.0000
West	250.0000

/*13.Write a query to get the minimum and maximum quantity sold for each region.*/

select region, min(Quantity) as minquantitysold, max(Quantity) as maxquantitysold from sales group by region;



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

region	minquantitysold	maxquantitysold
North	2	5
East	1	10
West	7	7

/*14.Find the customers who have made more than 2 purchases.*/

select customerID, COUNT(*) as purchasecount from sales group by customerID having purchasecount>2;

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

customerID	purchasecount

/*15.Write a query to find the total sales for each product and filter only those products

where the total sales exceed 1500.*/

select productID, sum(Quantity*Unitprice) as totalsales from sales group by ProductID having totalsales>1500;

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

productID	totalsales
104	1750