MYSQL ASSIGNMENT 4

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

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

select ProductID, SUM(quantity*UnitPrice) as total_sales from Sales group by ProductID;

ProductID	total_sales
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 ProductsSold from Sales group by region;

region	ProductsSold
North	7
East	11
West	7

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

select ProductID, avg(quantity*UnitPrice) as AverageSale from Sales GROUP BY ProductID;

ProductID	AverageSale
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 total_sales from Sales group by region having total_sales>3000;

region	total_sales

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

select ProductID, max(quantity) as maxquantity from Sales group by ProductID;

ProductID	maxquantity
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 avgQuantity from Sales group by Region;

Region	avgQuantity
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(Quantity) as SalesRows from Sales group by CustomerID;

CustomerID	SalesRows
1001	2
1002	1
1003	1
1004	1

9. Find the products for which the average quantity sold is less than 5.

select ProductID, avg(Quantity) as avgQuantity from Sales group by ProductID having avgQuantity<5;

ProductID	avgQuantity
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, Quantity*UnitPrice as TotalSale from Sales;

CustomerID	Region	TotalSale
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 month(SaleDate) as SaleMonth, sum(Quantity*UnitPrice) as TotalSale from Sales GROUP BY SaleMonth;

SaleMonth	TotalSale
1	2500
2	2350
3	200

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

select Region, avg(UnitPrice) as avgUnitPrice from Sales group by Region having avgUnitPrice>200;

Region	avgUnitPrice
North	250.0000
West	250.0000

13. Write a query to get the minimum and maximum quantity sold per region.

select Region, max(Quantity) as maxQuantity, min(Quantity) as minQuantity from Sales group by Region;

Region	maxQuantity	minQuantity
North	5	2
East	10	1
West	7	7

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

select CustomerId, count(SaleID) as Purchases from Sales group by CustomerID having Purchases>2;

CustomerId	Purchases

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 TotalSale from Sales group by ProductID having TotalSale>1500;

ProductID	TotalSale
104	1750