Sales Table

Step 1: Create the Example Table

```
CREATE TABLE Sales (
SaleID INT PRIMARY KEY,
Salesperson VARCHAR(50),
Region VARCHAR(50),
Product VARCHAR(50),
Quantity INT,
SaleAmount DECIMAL(10,2)
);
```

Step 2: Insert Sample Data

```
INSERT INTO Sales (SaleID, Salesperson, Region, Product, Quantity, SaleAmount) VALUES
(1, 'Alice', 'North', 'Laptop', 1, 1000.00),
(2, 'Bob', 'South', 'Mouse', 3, 75.00),
(3, 'Alice', 'North', 'Monitor', 2, 300.00),
(4, 'Charlie', 'East', 'Keyboard', 1, 50.00),
(5, 'Bob', 'South', 'Monitor', 1, 150.00),
(6, 'Alice', 'North', 'Mouse', 2, 50.00),
(7, 'Charlie', 'East', 'Laptop', 2, 2000.00),
(8, 'David', 'West', 'Laptop', 1, 1100.00),
(9, 'David', 'West', 'Mouse', 4, 100.00),
(10, 'Eve', 'South', 'Monitor', 3, 450.00),
(11, 'Eve', 'South', 'Keyboard', 2, 100.00),
(12, 'Eve', 'South', 'Mouse', 1, 25.00),
(13, 'Alice', 'North', 'Keyboard', 1, 60.00),
(14, 'Bob', 'South', 'Laptop', 1, 1200.00),
(15, 'Charlie', 'East', 'Mouse', 2, 50.00);
```

1.Find total quantity sold by each salesperson.

ANS: mysql> select Salesperson,sum(Quantity) from Sales group by Salesperson;

```
+-------------+---------------+
| Salesperson | sum(Quantity) |
+-------------+---------------+
| Alice | 6 |
| Bob | 5 |
| Charlie | 5 |
| David | 5 |
| Eve | 6 |
+-------------+---------------+
```

2.Find salespersons who sold more than 5 items in total.

ANS: mysql> select Salesperson,sum(Quantity) from Sales group by Salesperson having sum(Quantity)>5;

```
+-------------+---------------+
| Salesperson | sum(Quantity) |
+-------------+---------------+
| Alice | 6 |
| Eve | 6 |
+-------------+---------------+
```

3.Find number of products sold by each salesperson.

ANS: mysql> select Salesperson,count(Quantity) from Sales group by Salesperson;

```
+-------------+-----------------+
| Salesperson | count(Quantity) |
+-------------+-----------------+
| Alice | 4 |
| Bob | 3 |
| Charlie | 3 |
| David | 2 |
| Eve | 3 |
+-------------+-----------------+
```

4.List regions where total sale amount exceeded $1000.

ANS: mysql> select Region,sum(SaleAmount) from Sales group by Region having sum(SaleAmount)>1000;

```
+--------+----------------+
| Region | sum(SaleAmount) |
+--------+----------------+
| North | 1410.00 |
| South | 2000.00 |
| East | 2100.00 |
| West | 1200.00 |
+--------+----------------+
```

5.Show salespersons who made more than 2 sales transactions.

ANS: mysql> select Salesperson,count(SaleAmount) from Sales group by Salesperson having count(SaleAmount)>2;

```
+-------------+------------------+
| Salesperson | count(SaleAmount) |
+-------------+------------------+
| Alice | 4 |
| Bob | 3 |
| Charlie | 3 |
| Eve | 3 |
+-------------+------------------+
```

6.Find total sale amount by product, and show only products that made over $500 in sales.

ANS: mysql> select Product,Sum(SaleAmount) from Sales group by product having Sum(SaleAmount)>500;

```
+---------+----------------+
| Product | Sum(SaleAmount) |
+---------+----------------+
| Laptop | 5300.00 |
| Monitor | 900.00 |
+---------+----------------+
```

7.Show the total quantity sold of each product in each region.

ANS: mysql> select Region,Product,sum(Quantity) from Sales group by Region,Product;

```
+--------+----------+---------------+
| Region | Product | sum(Quantity) |
+--------+----------+---------------+
| North | Laptop | 1 |
| South | Mouse | 4 |
| North | Monitor | 2 |
| East | Keyboard | 1 |
| South | Monitor | 4 |
| North | Mouse | 2 |
| East | Laptop | 2 |
| West | Laptop | 1 |
| West | Mouse | 4 |
| South | Keyboard | 2 |
| North | Keyboard | 1 |
| South | Laptop | 1 |
| East | Mouse | 2 |
+--------+----------+---------------+
```

8.Find salespersons who sold more than 1 type of product.

ANS: mysql> select salesperson,count(distinct product) from sales group by salesperson having count(distinct product)>1;

```
+-------------+------------------------+
| salesperson | count(distinct product) |
+-------------+------------------------+
| Alice | 4 |
| Bob | 3 |
| Charlie | 3 |
| David | 2 |
| Eve | 3 |
+-------------+------------------------+
```

9.Find the average quantity per product sold per region, where the average is greater than 1.
Ans: mysql> select product, region, avg(quantity) from sales group by product,region having avg(quantity);

```
+----------+--------+---------------+
| product | region | avg(quantity) |
+----------+--------+---------------+
| Laptop | North | 1.0000 |
| Mouse | South | 2.0000 |
| Monitor | North | 2.0000 |
| Keyboard | East | 1.0000 |
| Monitor | South | 2.0000 |
| Mouse | North | 2.0000 |
| Laptop | East | 2.0000 |
| Laptop | West | 1.0000 |
| Mouse | West | 4.0000 |
| Keyboard | South | 2.0000 |
| Keyboard | North | 1.0000 |
| Laptop | South | 1.0000 |
| Mouse | East | 2.0000 |
+----------+--------+---------------+
```

10.Show salespersons whose total sale amount is between $500 and $1500.
ANS: mysql> select salesperson ,sum(SaleAmount) from sales group by salesperson having sum(SaleAmount)>500 and sum(SaleAmount)<1500;

```
+-------------+-----------------+
| salesperson | sum(SaleAmount) |
+-------------+-----------------+
| Alice | 1410.00 |
| Bob | 1425.00 |
| David | 1200.00 |
| Eve | 575.00 |
+-------------+-----------------+
```

11.List top-performing products (more than 3 units sold in total).

ANS: mysql> select product, sum(quantity)from sales group by product having sum(quantity) > 3;

```
+----------+---------------+
| product | sum(quantity) |
+----------+---------------+
| Laptop | 5 |
| Mouse | 12 |
| Monitor | 6 |
| Keyboard | 4 |
+----------+---------------+
```

12.List salespersons who sold laptops.

ANS: mysql> select distinct salesperson from sales where product='laptop';

```
+-------------+
| salesperson |
+-------------+
| Alice |
| Charlie |
| David |
| Bob |
+-------------+
```

13.Find total sale amount per salesperson per region, only where it exceeds $500.

ANS:

mysql> select salesperson,region,sum(saleamount) from sales group by salesperson,region having sum(saleamount)>500;

```
+-------------+--------+-----------------+
| salesperson | region | sum(saleamount) |
+-------------+--------+-----------------+
| Alice | North | 1410.00 |
| Bob | South | 1425.00 |
| Charlie | East | 2100.00 |
| David | West | 1200.00 |
```

| Eve | South | 575.00 |
+-------------+--------+-----------------+

14.Find salespersons who sold at least 2 different products in a single region.

ANS: mysql> select salesperson,region,count(distinct product) from sales group by salesperson,region having count(distinct product)>=2;

+-------------+--------+------------------------+
| salesperson | region | count(distinct product) |
+-------------+--------+------------------------+
Alice	North	4
Bob	South	3
Charlie	East	3
David	West	2
Eve	South	3
+-------------+--------+------------------------+

15.Find products that were sold in more than one region.

ANS: mysql> select product,count(distinct region) from sales group by product having count(distinct region)>1;

+----------+------------------------+
| product | count(distinct region) |
+----------+------------------------+
Keyboard	3
Laptop	4
Monitor	2
Mouse	4
+----------+------------------------+

16.Show total number of sales per product and hide products with fewer than 2 sales.

ANS: mysql> select product,count(SaleAmount) from Sales group by product having count(SaleAmount)>2;

+----------+-------------------+
| product | count(SaleAmount) |
+----------+-------------------+

Laptop	4
Mouse	5
Monitor	3
Keyboard	3
+----------+-------------------+

17.Find region-wise total quantity sold by each salesperson.

ANS: mysql> select region,Salesperson,Sum(Quantity) from Sales group by region,Salesperson ;

+--------+-------------+---------------+
| region | Salesperson | Sum(Quantity) |
+--------+-------------+---------------+
North	Alice	6
South	Bob	5
East	Charlie	5
West	David	5
South	Eve	6
+--------+-------------+---------------+

18.Find salespersons who made more than 3 transactions and total sales amount is over $1000.

ANS: mysql> select Salesperson,count(*),sum(SaleAmount) from Sales group by Salesperson having count(*)>3 and sum(SaleAmount)>1000;

+-------------+----------+-----------------+
| Salesperson | count(*) | sum(SaleAmount) |
+-------------+----------+-----------------+
| Alice | 4 | 1410.00 |
+-------------+----------+-----------------+

19.Find average sale amount per region and show only regions with average above $200.

ANS: mysql> select Region,avg(SaleAmount) from Sales group by Region having avg(SaleAmount)>200;

+--------+-----------------+
| Region | avg(SaleAmount) |
+--------+-----------------+
| North | 352.500000 |
| South | 333.333333 |

| East | 700.000000 |
| West | 600.000000 |
+--------+-----------------+

20.List regions and products where more than 3 units were sold.

ANS: mysql> select Region,Product,sum(Quantity) from Sales group by Region,Product having sum(Quantity)>3;

+--------+---------+---------------+
| Region | Product | sum(Quantity) |
+--------+---------+---------------+
South	Mouse	4
South	Monitor	4
West	Mouse	4
+--------+---------+---------------+