

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.

```
> select salesperson, sum(quantity) from sales group by salesperson;
```

```
+-----+-----+
| salesperson | sum(quantity) |
+-----+-----+
| Alice      | 6             |
| Bob        | 5             |
| Charlie    | 5             |
| David      | 5             |
| Eve        | 6             |
+-----+-----+
```

5 rows in set (0.00 sec)

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

```
> select salesperson, sum(quantity) from sales group by salesperson having sum(quantity)>5;
```

```
+-----+-----+
| salesperson | sum(quantity) |
+-----+-----+
| Alice      | 6             |
| Eve        | 6             |
+-----+-----+
```

2 rows in set (0.00 sec)

3. Find number of products sold by each salesperson.

```
> select salesperson, count(product) from sales group by salesperson;
```

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

+-----+-----+

5 rows in set (0.00 sec)

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

> 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 |

+-----+-----+

4 rows in set (0.00 sec)

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

> select salesperson from sales group by salesperson having count(SaleAmount)>2;

+-----+

| salesperson |

+-----+

| Alice |

| Bob |

| Charlie |

| Eve |

+-----+

4 rows in set (0.00 sec)

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

> select product,sum(SaleAmount) from sales group by product having sum(SaleAmount)>500;

+-----+-----+

| product | sum(SaleAmount) |

+-----+-----+

| Laptop | 5300.00 |

| Monitor | 900.00 |

```
+-----+-----+
```

2 rows in set (0.00 sec)

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

> 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 |
```

```
+-----+-----+-----+
```

13 rows in set (0.00 sec)

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

> 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	
-----	--	---	--

+-----+-----+

5 rows in set (0.00 sec)

9.Find the average quantity per product sold per region, where the average is greater than 1.

> select region,product,avg(quantity) from sales group by region,product having avg(quantity)>1;

+-----+-----+-----+

region	product	avg(quantity)	
--------	---------	---------------	--

+-----+-----+-----+

South	Mouse	2.0000	
-------	-------	--------	--

North	Monitor	2.0000	
-------	---------	--------	--

South	Monitor	2.0000	
-------	---------	--------	--

North	Mouse	2.0000	
-------	-------	--------	--

East	Laptop	2.0000	
------	--------	--------	--

West	Mouse	4.0000	
------	-------	--------	--

South	Keyboard	2.0000	
-------	----------	--------	--

East	Mouse	2.0000	
------	-------	--------	--

+-----+-----+-----+

8 rows in set (0.00 sec)

10.Show salespersons whose total sale amount is between \$500 and \$1500.

> select salesperson from sales where SaleAmount>500 and SaleAmount<1500;

+-----+

salesperson	
-------------	--

+-----+

Alice	
-------	--

David	
-------	--

Bob	
-----	--

+-----+

3 rows in set (0.00 sec)

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

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

```
+-----+-----+
| product | sum(quantity) |
```

```
+-----+-----+
| Laptop  |      5 |
| Mouse   |     12 |
| Monitor |      6 |
| Keyboard|      4 |
```

```
+-----+-----+
4 rows in set (0.00 sec)
```

12. List salespersons who sold laptops.

```
> select salesperson from sales where product="laptop";
```

```
+-----+
| salesperson |
```

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

```
+-----+
4 rows in set (0.00 sec)
```

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

```
> 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  |
```

+-----+-----+-----+

5 rows in set (0.01 sec)

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

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

+-----+-----+

| salesperson | region |

+-----+-----+

| Alice | North |

| Bob | South |

| Charlie | East |

| David | West |

| Eve | South |

+-----+-----+

5 rows in set (0.00 sec)

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

> select product from sales group by product having count(distinct region)>1;

+-----+

| product |

+-----+

| Keyboard |

| Laptop |

| Monitor |

| Mouse |

+-----+

4 rows in set (0.00 sec)

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

> select product, count(SaleId) from sales group by product having count(SaleId)>=2;

+-----+-----+

| product | count(SaleId) |

+-----+-----+

Laptop	4
Mouse	5
Monitor	3
Keyboard	3

+-----+-----+

4 rows in set (0.00 sec)

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

> select salesperson,region, sum(quantity) from sales group by salesperson, region;

+-----+-----+

salesperson	region	sum(quantity)
-------------	--------	---------------

+-----+-----+

Alice	North	6
-------	-------	---

Bob	South	5
-----	-------	---

Charlie	East	5
---------	------	---

David	West	5
-------	------	---

Eve	South	6
-----	-------	---

+-----+-----+

5 rows in set (0.00 sec)

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

> 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
-------	---	---------

+-----+-----+

1 row in set (0.00 sec)

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

> 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 |

```

```

+-----+-----+

```

4 rows in set (0.00 sec)

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

```

> 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 |

```

```

+-----+-----+-----+

```

3 rows in set (0.00 sec)