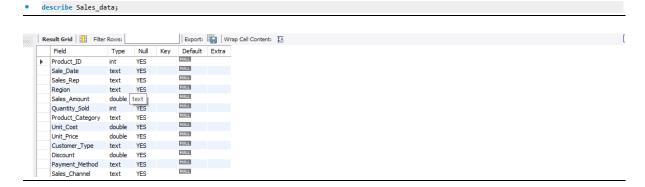
Sales Data Analysis

1. Database and Table Setup

We created a relational database named Sales and defined a table sales_data with the following fields:

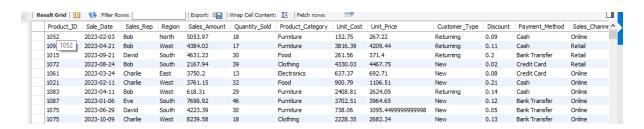
- Product details: Product_ID, Product_Category, Unit_Cost, Unit Price
- Sales transaction details: Sale_Date, Sales_Rep, Region, Sales_Amount, Quantity Sold, Discount
- Customer and channel details: Customer_Type, Payment_Method, Sales_Channel, Region_and_Sales_Rep

```
-- Create database "Sales"
        create database Sales;
        use Sales;
  4
       -- Create table Sales_data;
 6 • \ominus CREATE TABLE sales_data (
           Product_ID INT,
           Sale_Date DATE,
          Sales_Rep VARCHAR(50),
10
          Region VARCHAR(50),
          Sales_Amount DECIMAL(10,2),
11
         Ouantity Sold INT,
12
          Product Category VARCHAR(50),
13
          Unit_Cost DECIMAL(10,2),
14
        Unit_Price DECIMAL(10,2),
15
          Customer_Type VARCHAR(50),
         Discount DECIMAL(5,2),
          Payment_Method VARCHAR(50),
           Sales_Channel VARCHAR(50),
           Region_and_Sales_Rep VARCHAR(100)
21
```



Retrieve all records from the sales data:

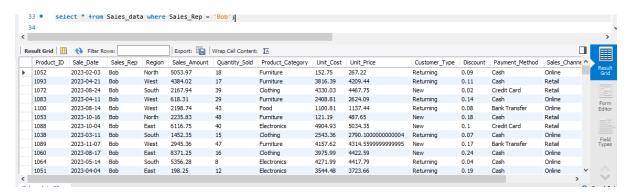
```
27 • select * from Sales_data;
28
```



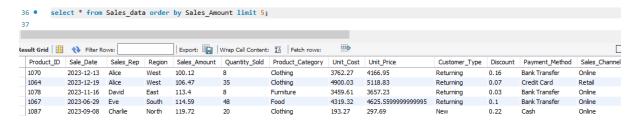
Show all distinct Product_Category:



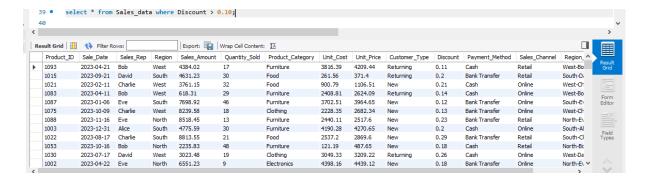
Display sales made by Sales Rep = 'Bob':



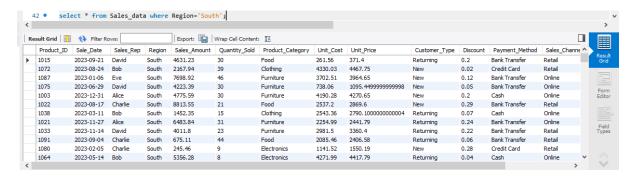
Get top 5 highest Sales_Amount values:



Find all records where the Discount is more than 0.10:



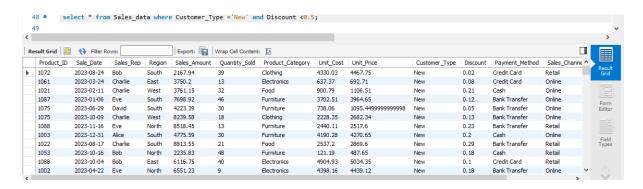
Get sales from the South region:



List all Sales_Rep who handled Electronics category:



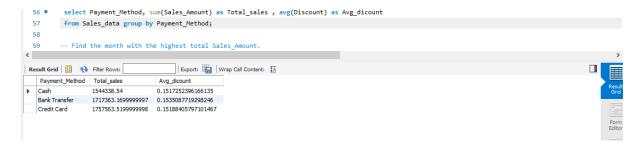
Get all records with Customer_Type = 'New' and Discount < 0.05:



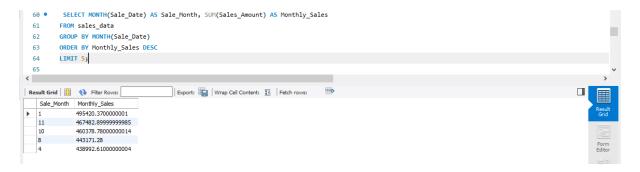
Total Sales_Amount by region:



Total sales and average discount for each Payment_Method:



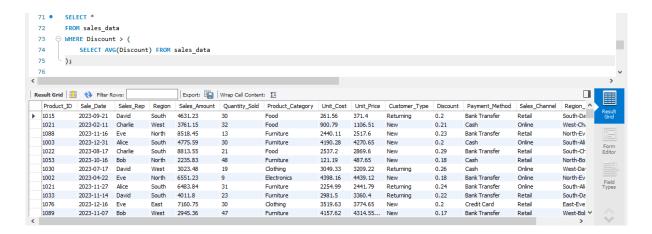
Find the month with the highest total Sales_Amount:



Show product-wise average unit cost and average unit price:



Find Sales with Above-Average Discount:



List Regions with Sales Above Overall Average:



Conclusion:

This analysis provided insights into:

- Top-performing regions and sales reps
- Sales trends by month and category
- Customer behavior based on discounts and payment methods
- Regions with strong sales performance