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1  --1. calculate the total quantity of each product sold
2  SELECT p.ProductName, sum(s.Quantity) AS TotalQuantitySold
3  FROM Sales s
4  JOIN Products p ON s.ProductID = p.ProductID
5  GROUP BY p.ProductName
6
7  --2. find the average price of products in each Category
8  SELECT Category, avg(Price) AS AveragePrice
9  FROM Products
10 GROUP BY Category
11
12 --3. find the customer who has made the most purchases based on Quantity
13 SELECT c.CustomerName, sum(s.Quantity) AS TotalPurchases
14 FROM Sales s
15 JOIN Customers c ON s.CustomerID = c.CustomerID
16 GROUP BY c.CustomerName
17 ORDER BY TotalPurchases DESC
18 LIMIT 5
19
20 --4. find the total revenue generated from Sales
21 SELECT sum(p.Price*s.Quantity) AS TotalRevenue
22 FROM Sales s
23 JOIN Products p ON s.ProductID = p.ProductID
24
25 --5. find the products that have been sold more than a certain quantity
26 SELECT p.ProductName, sum(s.Quantity) AS TotalQuantity
27 FROM Sales s
28 JOIN Products p ON s.ProductID = p.ProductID
29 GROUP BY p.ProductName
30 HAVING sum(s.Quantity) > 5
31
32 --6. find the customers who have purchased products from the electronics Category
33 SELECT DISTINCT c.CustomerName
34 FROM Sales s
35 JOIN Customers c ON s.CustomerID = c.CustomerID
36 JOIN Products p ON s.ProductID = p.ProductID
37 WHERE p.Category = 'Electronics'
38
39 --7. find the latest sales date for each Customer
40 SELECT c.CustomerName, max(s.SaleDate) AS LatestSaleDate
41 FROM Sales s
42 JOIN Customers c ON s.CustomerID = c.CustomerID
43 GROUP BY c.CustomerID
44
45 --8. find the total amount spent by each customer
46 SELECT c.CustomerName, sum(p.Price*s.Quantity) AS TotalAmountSpent
47 FROM Sales s
48 JOIN Customers c ON s.CustomerID = c.CustomerID
49 JOIN Products p ON s.ProductID = p.ProductID
50 GROUP BY c.CustomerName
51
52 --9. find the best selling Category
53 SELECT p.Category , sum(s.Quantity) as total_sold
54 FROM Sales s
55 JOIN Products p ON s.ProductID = p.ProductID
56 GROUP BY p.Category
57 ORDER BY total_sold DESC
58 LIMIT 1
59
60 --10. find the customer who spent the most money
61 SELECT c.CustomerName, SUM(p.Price * s.Quantity) AS TotalSpent
62 FROM Sales s
63 JOIN Customers c ON s.CustomerID = c.CustomerID
64 JOIN Products p ON s.ProductID = p.ProductID
65 GROUP BY c.CustomerName
66 ORDER BY TotalSpent DESC
67 LIMIT 1;

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