

# Kultra Mega Stores (KMS) – SQL Case Study Analysis

## Case Scenario I

1. The product category with the highest total sales is determined by summing up all sales values for each category. This helps KMS understand which category contributes most to revenue.
2. The top and bottom 3 regions are identified by summing up sales by region, then sorting them. This helps KMS target high-performing regions for expansion and low-performing ones for marketing or support.
3. The total sales of appliances in Ontario are calculated by filtering the dataset for 'Appliances' in the 'Product Sub-Category' column and 'Ontario' in the 'Province' column. This can guide inventory decisions in that area.
4. The bottom 10 customers by total sales are identified to help KMS increase their spend. Management could offer personalized discounts, improve communication, or incentivize with loyalty programs to boost these customer segments.
5. The shipping method with the highest cost is revealed by aggregating the 'Shipping Cost' by 'Ship Mode'. This insight can help KMS optimize logistics and reduce costs where possible.

## Case Scenario II

6. The most valuable customers are those with the highest total sales. We also identify the products they most frequently purchase. This insight helps in designing targeted promotions and upselling opportunities.
7. The small business customer with the highest sales is determined to better understand which B2B clients are driving revenue.
8. By counting the number of orders from each corporate customer, we identify the one placing the most orders. This helps build strong relationships with high-frequency clients.
9. The most profitable consumer customer is identified by summing up profits. Retaining such customers should be a priority due to their high contribution to the bottom line.
10. Customers who returned products are inferred by looking at negative profit values. We also identify which segment they belong to to help refine the return policy or customer service for those segments.
11. Analysis of shipping cost versus order priority is crucial. Here's how it breaks down:
  - If a customer chooses 'High' or 'Critical' order priority, it's justifiable to use faster, costlier shipping like Express Air.
  - However, if 'Low' priority orders are shipped using expensive methods, it signals an inefficiency.
  - Conversely, using Delivery Truck (cheaper but slower) for urgent orders can lead to customer dissatisfaction.

By grouping data by 'Order Priority' and 'Ship Mode', KMS can verify if high-cost shipping was used appropriately. This helps align logistics costs with customer expectations, ensuring both satisfaction and operational efficiency.