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Lab 10: Explanation

For this project, we’re working with the Superstore Sales dataset. The data is from a retail store. Thus, it includes key details like product names, sales, profits, and customer info. The main goal is to analyze this data using Python to figure out how the store is doing and where there’s room for improvement. In doing so, it's advisable if we calculate things like total sales and profit, as that's how company performance is understood. Additionally, it's important to look at trends across different product categories to optimize performance. In this assignment, we'll use Python to process the data. The end goal is to understand what’s working well and offer some suggestions to help boost sales.

In our analysis, we looked at key metrics like total sales, total profit, and the number of unique customers. These metrics justify store performance, or god forbid a lack thereof. In addition, we viewed sales by category to identify how product type impacted sales. Thus, profit margin calculations gave us valuable insights into which products were the most profitable. As a business, you need to understand what customers are buying the most. So, we figured out which products are bringing in the highest profit.

The top categories driving sales were Technology and Furniture, which had the highest sales and profit margins. These were the categories that customers seemed to prefer, and they played a big role in the store’s overall success. On the flip side, Office Supplies wasn’t performing as well, with lower sales and profit margins. Looking at individual products, the most profitable ones were those with high sales and strong profit margins. These should be the focus of the store’s sales efforts going forward.

To improve sales, the store should focus on promoting its strongest categories—Technology and Furniture—by using targeted marketing and keeping enough stock. For weaker categories like Office Supplies, it might help to adjust pricing, offer deals, or update the product lineup. Continuing to push the most profitable products will also help keep the store on track for better profits. By acting on these insights, the store can boost sales and improve its overall performance.