



Electronics dataset

3 Sep 2024

Summary Key Insights

- Our analysis of the order data reveals several key insights that can guide strategic decisions. Notably, the demand for Monitors has shown a consistent increase over the past year, with an estimated growth rate of 0.58% per day. This suggests a rising interest in Monitors, which could be leveraged by increasing inventory and marketing efforts for this product category. Conversely, the demand for Headphones has been declining at a rate of 0.30% per day, indicating a potential need to reassess the products market strategy or consider diversifying the product line to mitigate this downward trend.
- Additionally, the data highlights significant variations in product preferences based on the quantity ordered. For instance, Monitors are predominantly ordered in single units, making up 57.1% of single-item orders, and also show a notable presence in larger orders of six and seven units. Desks and Mice also exhibit increased percentages in larger order quantities, suggesting these products are often purchased in bulk. This information can be used to tailor promotional offers and bulk purchase discounts to align with customer purchasing behaviors. Furthermore, Printers, despite having the highest average price, show increased percentages in orders of four and nine units, indicating a steady demand that could be capitalized on through targeted marketing campaigns.

Summary Key Insights

- In summary, focusing on the growing demand for Monitors and adjusting strategies for declining products like Headphones can optimize sales. Additionally, understanding the purchasing patterns for bulk orders can help in designing effective promotions and inventory management strategies. These insights provide a clear direction for enhancing product offerings and meeting customer needs more effectively.

Weak Correlation Between Price and Product

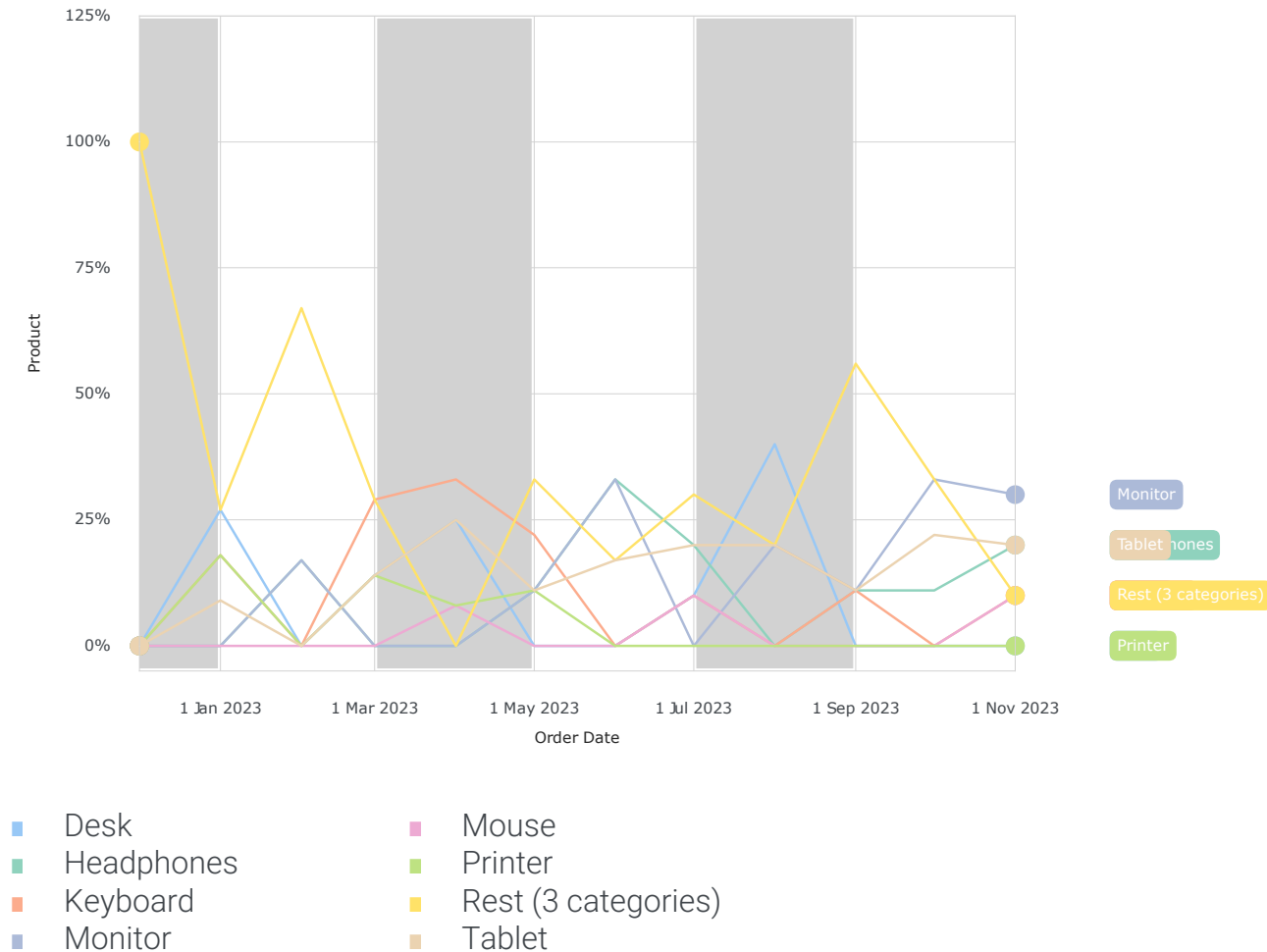
Predictive power from 0 (failure to predict) to 100 (perfect prediction) across columns



- The dataset includes details about orders such as Order ID, Product, Quantity Ordered, price per item, and Order Date. From the data, we can see that there are only a few significant relationships between these elements. For example, certain Products might be ordered more frequently during specific times of the year, or higher quantities of a Product might be linked to lower prices per item. However, the data doesn't show many strong connections beyond these points.
- An actionable interpretation from this could be to focus on marketing and stocking strategies for Products that show seasonal trends or bulk purchase patterns, as these could lead to increased sales and better inventory management.

Monitor Sales Surge While Headphones Decline

Product (%) from 30 Dec 2022 to 24 Dec 2023 (Order Date)



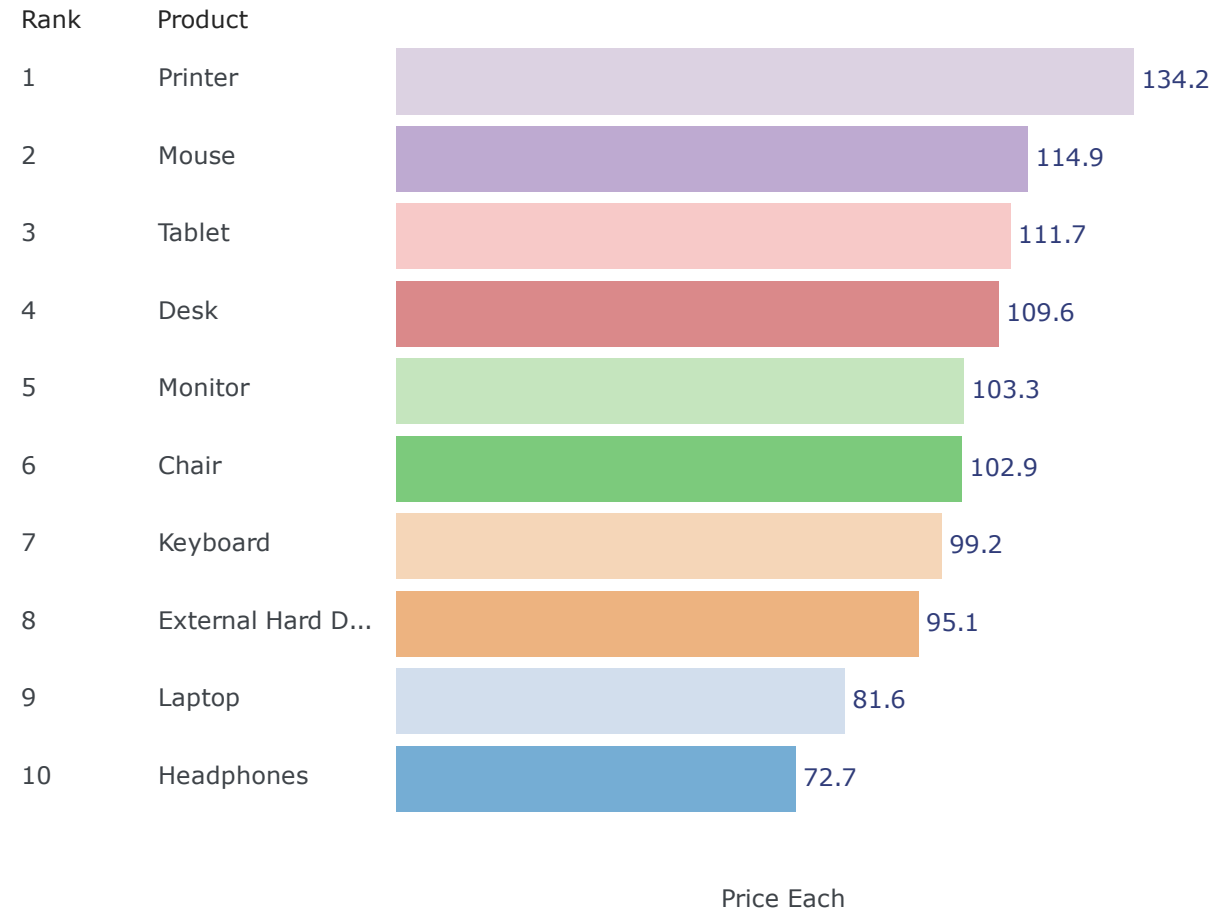
- Key takeaway: Consider increasing the stock and marketing efforts for Monitors, as their demand is rising. Conversely, evaluate the reasons behind the declining interest in Headphones and consider strategies to boost their sales or adjust inventory accordingly.
- The dataset contains information about orders, including Order ID, Product, Quantity Ordered, Price Each, and Order Date. The analysis looked at eight Product categories: Desk, Headphones, Keyboard, Monitor, Mouse, Printer, Rest (3 categories), and Tablet, focusing on their trends over time based on the Order Date.

- From December 30, 2022, to December 24, 2023, the Monitor category showed the most significant increase in orders, growing by about 0.58% each day. Conversely, the Headphones category experienced the most significant decrease in orders, dropping by about 0.30% each day.

Printers Lead Price Each Rankings by a Wide Margin

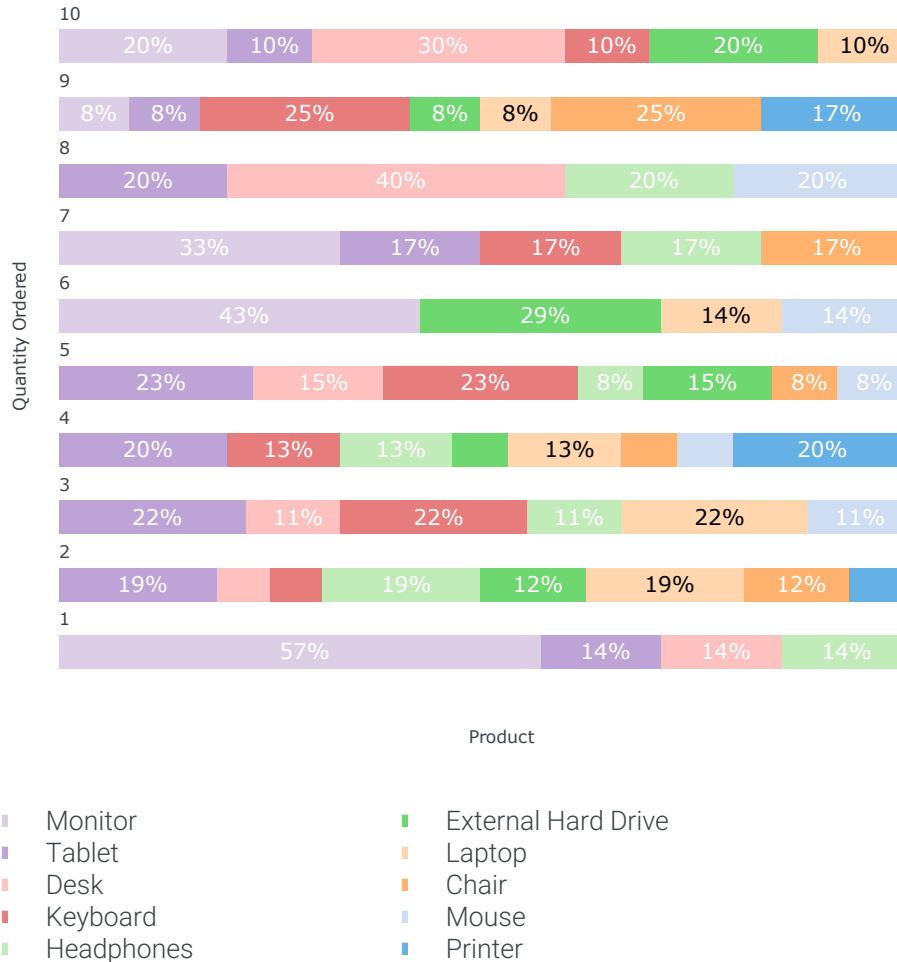
Top 10 Products averaged by Prices Each

- The average price of each Printer is much higher than the price of each Mouse and other Products. This suggests that Printers are significantly more expensive compared to other items in the dataset. If you're looking to increase revenue, focusing on selling more Printers could be a good strategy since they have a higher price point.



Product Distribution Shifts with Quantity Ordered

% Makeup of Product

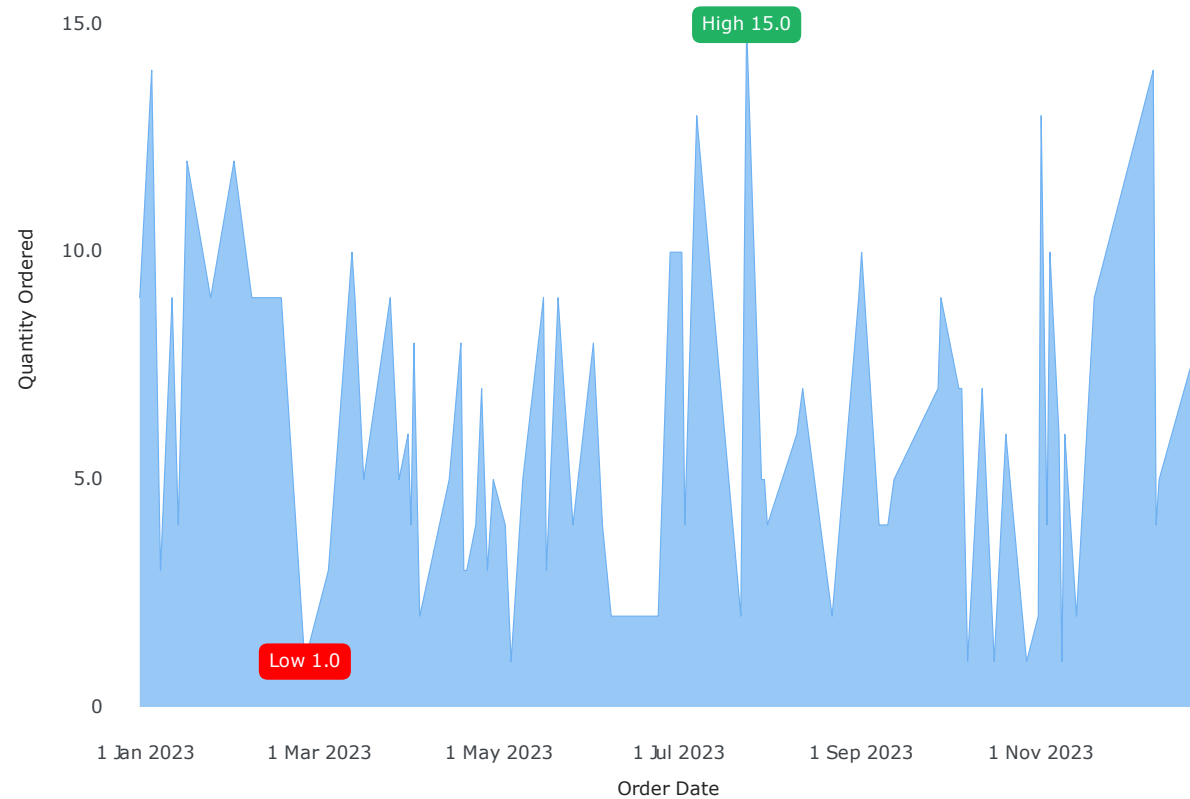


- Key takeaway: Consider offering promotions or discounts on Monitors for single-item purchases and on Desks for bulk orders to align with these purchasing trends.
- The data shows that the quantity of Products ordered affects the types of Products being purchased. For instance, Monitors are ordered much more frequently when the quantity is 1, 6, or 7, compared to their overall average. Desks are ordered more often in quantities of 8 and 10. External Hard Drives see a rise in orders when the quantity is 6, and Chairs are more common in orders of 9. Tablets are less likely to be ordered in quantities of 6. Mice are more frequently ordered in quantities of 6 and 8, while Printers are more common in orders of 4 and 9. Laptops are more frequently ordered in quantities of 3.

Quantity Ordered Shows No Clear Trend

Quantity Ordered across Order Date from 30 Dec 2022 to 24 Dec 2023

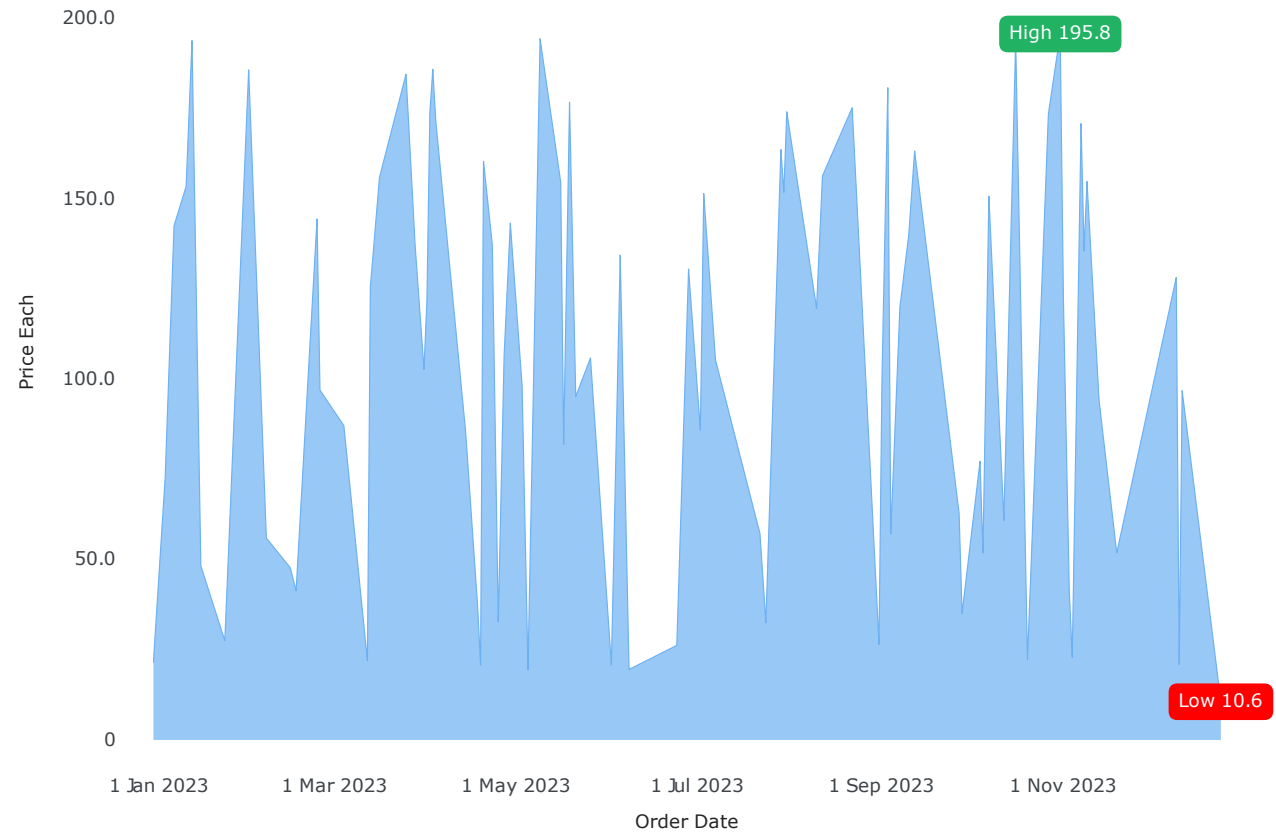
- Key takeaway: Since there is no clear trend in the Quantity Ordered, it might be useful to look at other factors like promotions, seasons, or specific Product popularity to understand what influences customer purchases.
- The data shows that there isn't a clear pattern or trend in the number of items ordered over time. This means that the quantity of Products people buy doesn't consistently go up or down during the period covered by the dataset.



Price Each Shows No Clear Trend

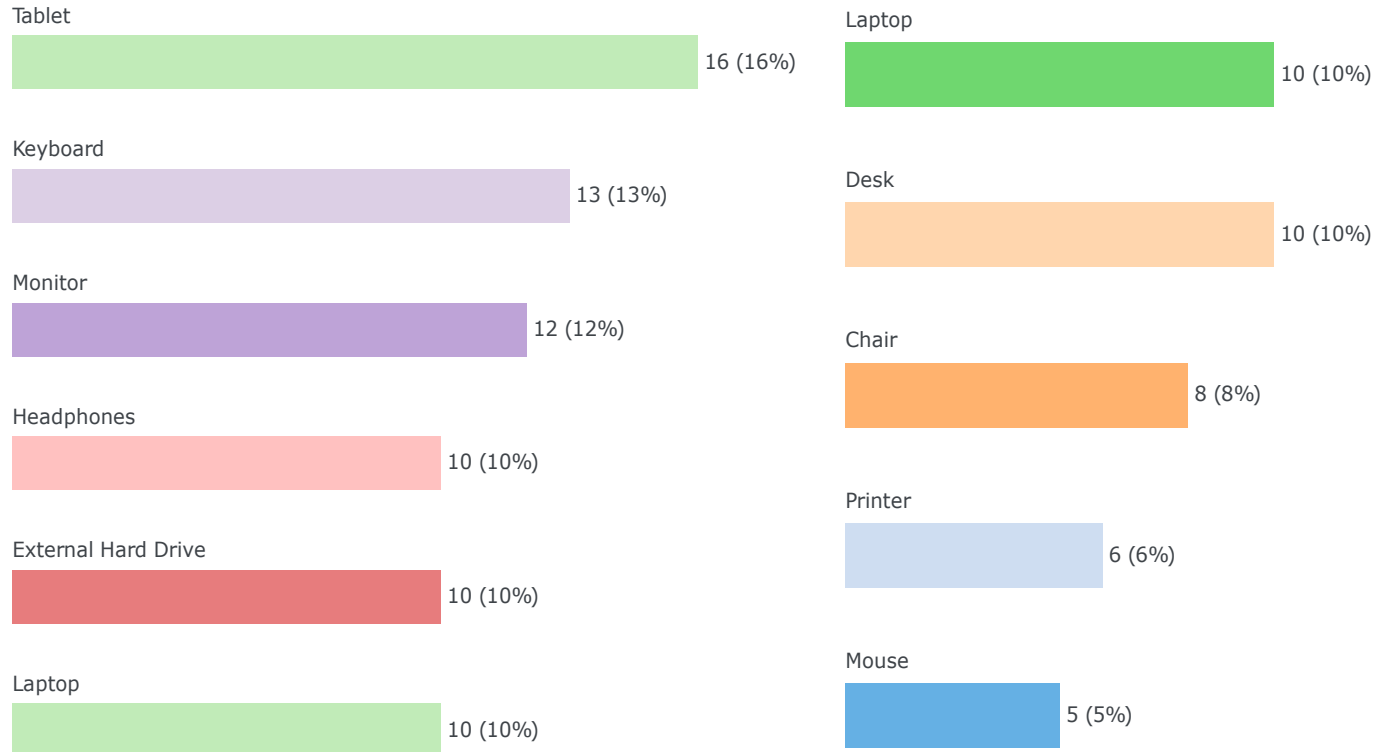
Price Each across Order Date from 30 Dec 2022 to 24 Dec 2023

- The data shows that there isn't a noticeable pattern or trend when it comes to the Price Each of the Products. This means that the prices of individual items don't seem to follow a specific direction over time or across different orders. They might be varying randomly or staying relatively stable without any clear increase or decrease.
- Since there are no significant trends in the prices, it might be useful to focus on other aspects of the data, such as the Quantity Ordered or the timing of orders, to find more actionable insights.



Product Categories Show Uniform Distribution

Counts for the ten categories within Product (%)



- The dataset includes details about orders such as Order ID, Product, Quantity Ordered, price per item, and Order Date. When examining the different Product categories, we notice that the number of orders for each Product is quite similar. This means that no single Product stands out as being ordered significantly more or less than the others.
- An actionable interpretation from this insight could be that the demand for Products is evenly distributed, suggesting a balanced inventory strategy might be effective.

Thank You

