**Problem Statements**

**1**. How can we identify which product categories contribute most to total sales, and how can we optimize the sales of underperforming categories?

**2.** What are the peak hours for orders, and how can we optimize resource allocation during high-demand times?

**3.** Which days of the week experience the highest and lowest sales volumes, and how can we drive more sales on slow days?

**4.** How do different store locations compare in terms of sales and footfalls, and how can underperforming stores improve?

**5.** What is the sales distribution by product size, and how can we leverage this to increase revenue?

**6.** How do total sales fluctuate across different months, and how can we leverage this information to forecast and drive future sales?

**7.** How can we increase the average bill per person and the quantity ordered per customer?

**8.** What product categories sell the highest quantity, and how can we drive sales of lower-quantity categories?

**Analysed Solutions**

**Solution 1**

* **Identify Popular Products:** Coffee is the top-selling product category, while others like Tea, Bakery, and Flavours contribute less.
* **Optimize Low-Performing Categories:** Boost sales in underperforming categories through bundling strategies (e.g., Coffee + Bakery combos), discounts, or promotions.
* **Seasonal Promotions:** Analyse seasonal demand fluctuations and create time-specific offers (e.g., winter promotions for hot beverages).

**Solution 2**

* **Identify Peak Hours:** Peak times such as morning hours can be determined for efficient planning.
* **Optimize Staffing and Inventory:** Ensure adequate staffing and stock during high-demand hours, and reduce waste during off-peak times.
* **Target Promotions:** Introduce time-specific offers or discounts during off-peak hours to boost traffic.

**Solution 3:**

* **High and Low Sales Days:** Identify which days, like Monday or Friday, see the most sales, and which days, like Tuesday or Wednesday, need improvement.
* **Boost Slow Days:** Implement promotional strategies or discounts for slower weekdays to increase footfall.
* **Optimize Operations:** Adjust staffing and inventory to better handle busy days, ensuring operational efficiency.

**Solution 4:**

* **Store Performance:** Identify top-performing stores like Hell’s Kitchen and Astoria, and compare them with lower-performing stores like Lower Manhattan.
* **Improvement Strategies:** Underperforming stores can improve through targeted marketing, better product placement, and customer service enhancements.
* **Footfall Analysis:** Compare the ratio of footfall to sales for each store to better understand performance drivers.

**Solution 5:**

* **Popular Product Sizes:** Regular and Large sizes account for the majority of sales. Investigate the "Not Specified" category for potential data cleanup.
* **Upsell Larger Sizes:** Encourage customers to upgrade to larger sizes by offering incentives such as discounts or loyalty points.
* **Customization by Store:** Explore whether certain stores or times of day prefer different sizes, and adjust promotions accordingly.

**Solution 6:**

* **Seasonal Trends:** Use monthly sales trends to anticipate high and low-demand periods and prepare for peak seasons.
* **Promotional Strategies:** Offer summer-themed or special promotional products during traditionally slower months, like May and June.
* **Resource Planning:** Adjust inventory and staffing levels to align with seasonal sales patterns.

**Solution 7:**

* **Cross-Selling Opportunities:** Introduce strategies to increase the average bill per person, such as suggesting complementary items (e.g., a bakery item with coffee).
* **Loyalty Programs:** Implement customer loyalty programs that encourage higher spending or frequent purchases.
* **Target Large Orders:** Identify which customer segments are more likely to place larger orders, and direct marketing efforts toward them.

**Solution 8:**

* **High-Selling Categories:** Coffee leads in quantity sold, with Tea and Bakery lagging. Investigate ways to boost lower-selling categories like Flavours and Drinking Chocolate.
* **Product Mix Optimization:** Focus on promoting a balanced product mix that combines high-selling and high-margin products.
* **Increase Sales of Low-Selling Products:** Use bundling strategies or promotions to increase sales of lower-performing categories.