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**Objective**

Urban Retail Co. faced critical inventory inefficiencies: frequent stockouts of high-demand items,

overstocking of slow-movers, and lack of actionable insights into sales and supply chain trends. This

project aimed to address these challenges using advanced SQL analytics on historical sales and inventory

data.

**Key Insights from SQL Analysis**

1. Stockouts Risk Identified

Products like P068, P153, and P183 consistently had inventory levels across multiple stores —

indicating high demand and understocking.

2. Fast vs Slow Movers

• Fast-moving SKUs: High average units sold (e.g., P126, P133)

• Slow-moving SKUs: Products like P187 showed low turnover, causing unnecessary capital lock-in.

3. Reorder Point Estimation

Using average daily sales, reorder points were dynamically estimated per product-store pair. Many

products had reorders , which were often not met.

4. Inventory Turnover Variance

Products in categories like Snacks and Personal Care showed high turnover ratios, while

Furniture and Home Decor had lower turnover — highlighting overstocking in those segments.

5. Discount and Promo Insights

While Discounts had no major effects in average units sold. Holiday and promotional periods saw

significant demand spikes (~22%).

6. External Influences

• Sales were positively correlated with sunny weather for categories like beverages and ice cream.

• Price sensitivity observed: lower competitor pricing reduced sales for similar items.

7. Category-Wise Analysis

Electronics and clothing led in total sales, while Furniture ,toys had high stock with relatively low

movement — needing strategic reduction.

8. Regional Inventory Gaps

North and South region stores had comparatively lower average inventory levels — potential

candidates for redistribution or replenishment prioritization.

**Recommendations**

• Set Automated Reorder Thresholds using a 7-day rolling average per SKU.

• Prioritize Restocking of fast-moving SKUs in high-demand regions.

• Reduce Orders for slow-moving inventory like Furniture to free up warehouse space.

• Leverage Promotions and discounts tactically on price-sensitive items.

• Rebalance Inventory Across Regions to prevent both stockouts and holding cost excesses.