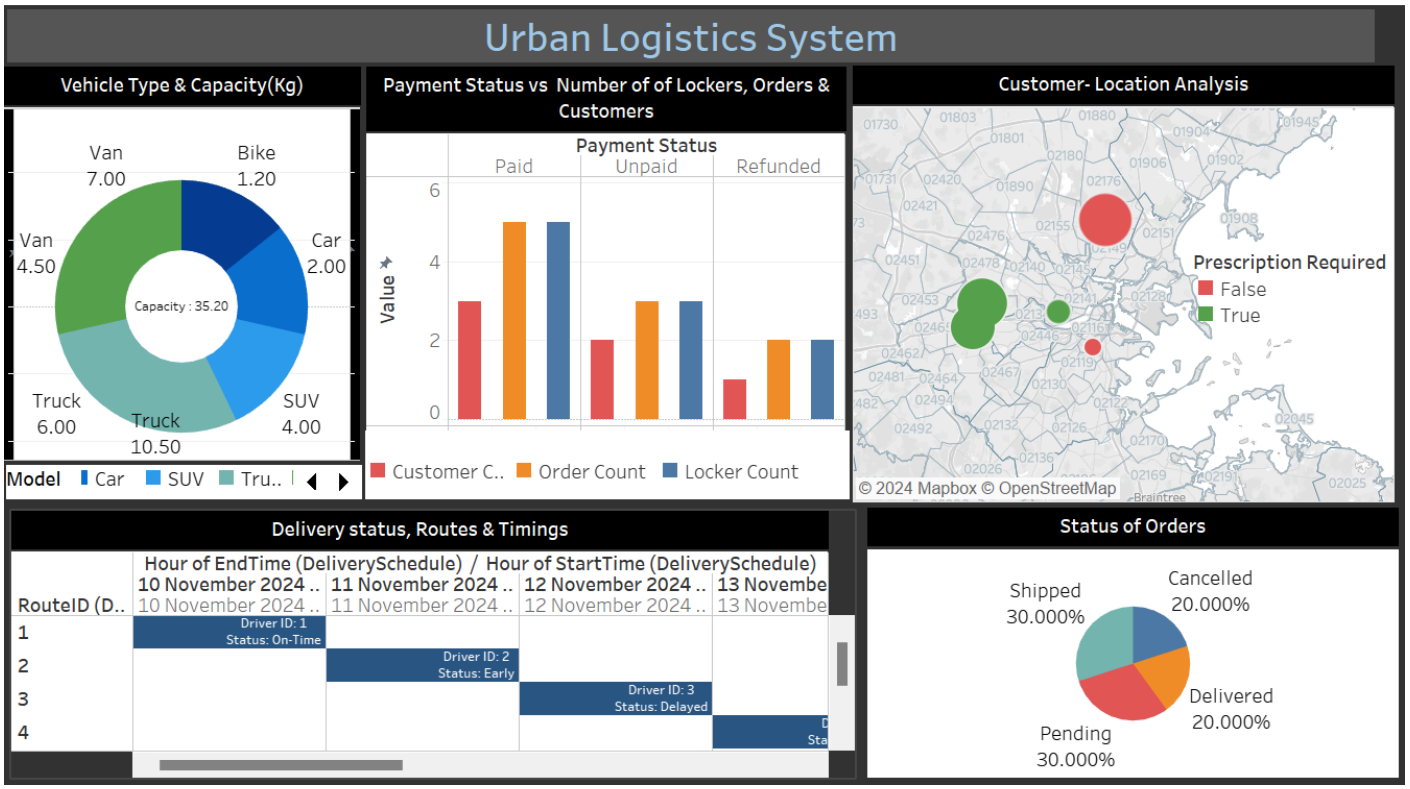
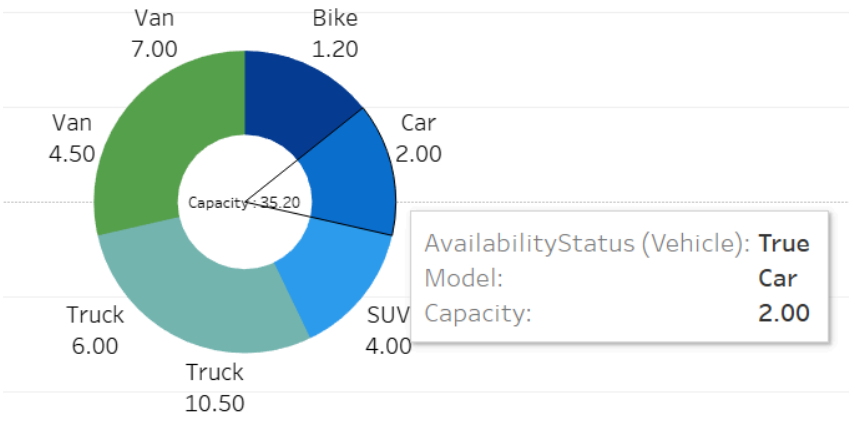
URBAN LOGISTICS SYSTEM

Tableau Dashboard:



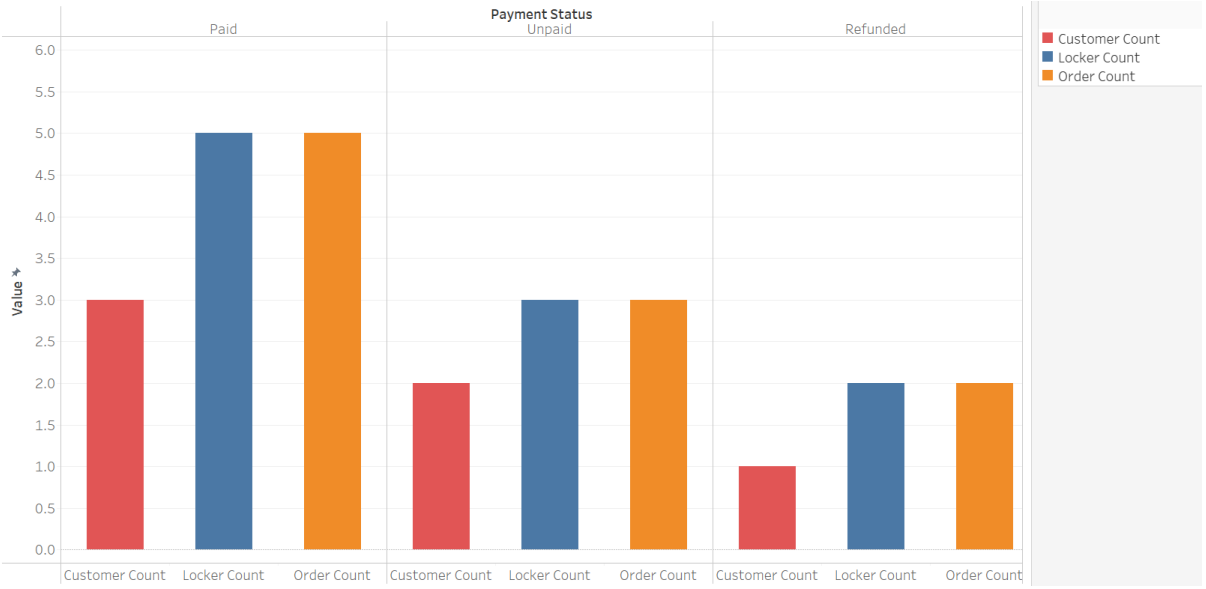
The Urban Logistics System dashboard provides a comprehensive overview of the key operational metrics for managing deliveries, optimizing routes, and improving logistics efficiency.

Vehicle Type and Capacity



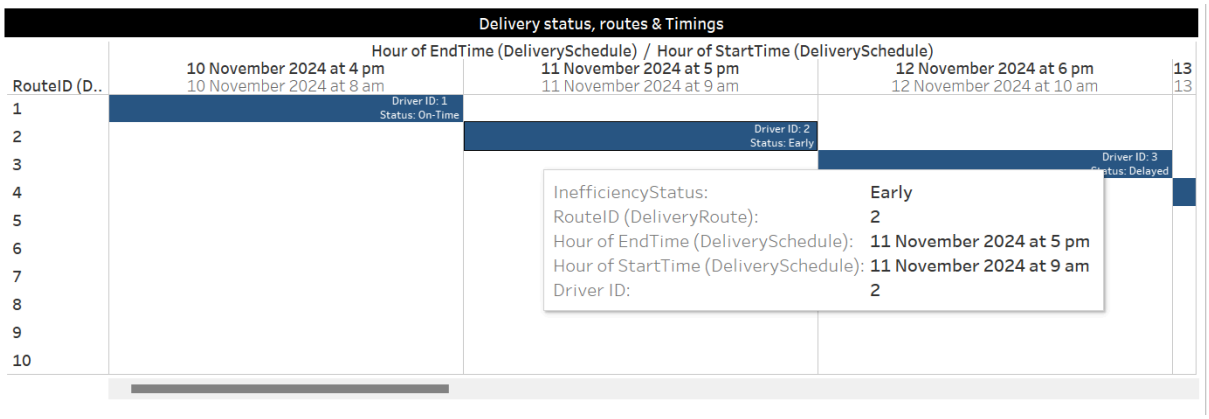
The total capacity of all vehicles is 35.20 kg, with trucks contributing the largest share (10.50 kg) followed by vans (7 kg and 4.50 kg). Bikes, having the smallest capacity (1.20 kg), are likely optimized for quick last-mile deliveries. This insight shows the diverse utilization of vehicles for urban deliveries, with larger vehicles handling bulk orders and smaller ones focusing on agility in dense areas.

Payment Status vs Lockers, Orders and Customers



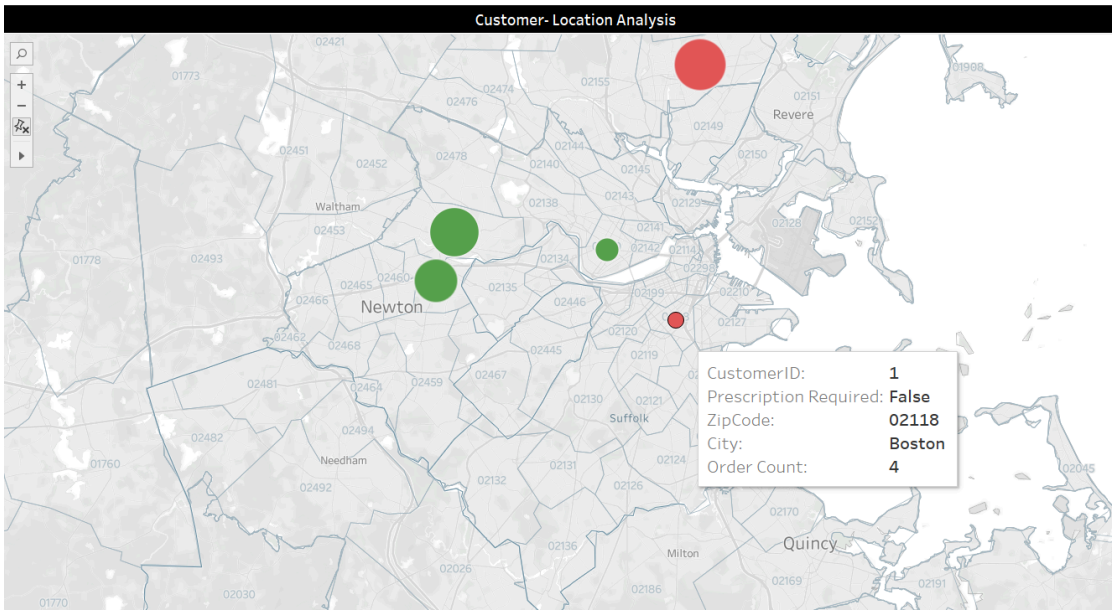
Orders with a "Paid" status are the most common, indicating a preference for pre-paid services among customers. Lockers are also heavily utilized under the "Paid" status, suggesting a correlation between locker usage and prepaid orders. On the other hand, "Unpaid" orders result in lower locker utilization, and "Refunded" orders reflect operational inefficiencies or customer dissatisfaction. This analysis emphasizes the need for streamlined payment mechanisms and better locker allocation for unpaid orders.

Delivery status, Routes & Timings



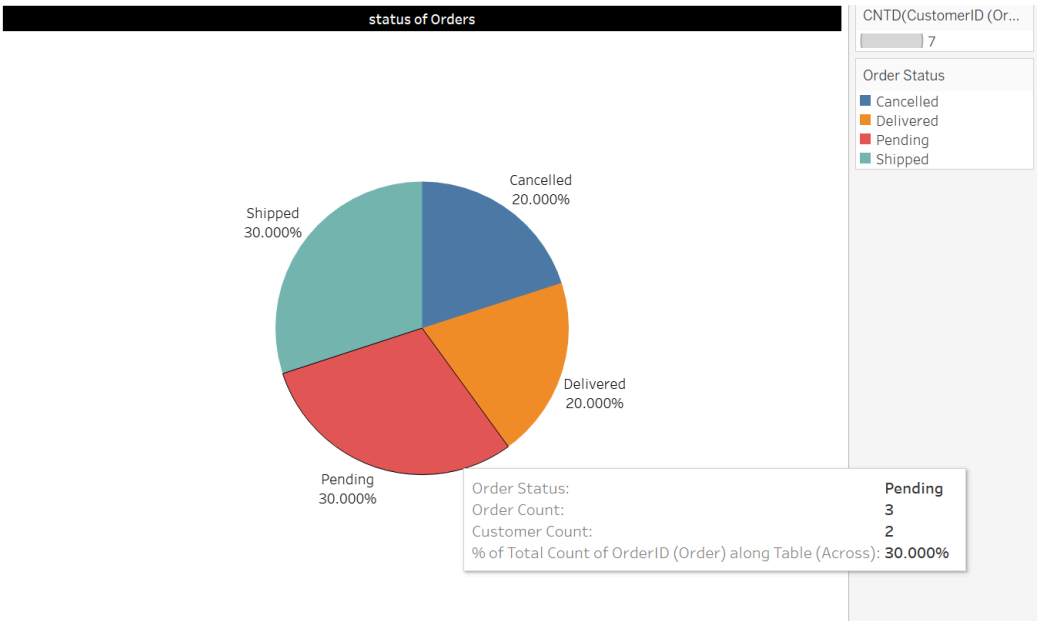
Drivers' performance varies across routes, with some deliveries marked as "Early" and others as "Delayed." For instance, Route 2 shows early completion, indicating effective route optimization or low traffic. Conversely, delays in Route 3 reveal inefficiencies or external challenges like congestion. Analyzing such patterns helps identify and replicate successful strategies across underperforming routes.

Customer Location Analysis



The map highlights significant customer activity in urban areas such as Boston and Newton, with notable demand for prescription-based deliveries in Newton (green markers). Non-prescription orders dominate Boston (red markers). These insights suggest that resources such as drivers and vehicles should be concentrated in areas with higher prescription delivery demands to meet service-level agreements while optimizing delivery operations in densely populated regions.

Status of Orders



30% of orders are pending, indicating delays or unfulfilled customer requests. 20% are canceled, signaling potential issues like inventory mismanagement or customer dissatisfaction. While 30% of orders are shipped and 20% are delivered, increasing the delivery rate and reducing cancellations could significantly improve operational efficiency and customer experience. These insights emphasize the importance of streamlining order processing and inventory tracking.