



# Problem Statement

Online grocery platforms like Instacart operate at massive scale, handling millions of users, orders, and products across multiple departments every day. Despite having access to large volumes of transactional data, business teams often struggle to convert raw data into actionable insights that can guide operational planning, inventory management, marketing strategy, and customer retention initiatives.

Key challenges faced by stakeholders include:

- **Lack of visibility into customer purchasing behavior** across different times of the day and days of the week, making it difficult to align delivery capacity and workforce planning with demand.
- **Inefficient inventory planning across departments**, resulting in overstocking of low-demand items and stockouts of high-demand products.
- **Limited understanding of customer loyalty and repeat purchasing patterns**, which impacts the effectiveness of retention strategies and promotional campaigns.
- **Delayed and manual reporting processes**, where analysts spend significant time preparing data instead of analyzing it, leading to slow decision-making.
- **Disconnected metrics across teams**, where marketing, operations, and supply chain rely on separate reports rather than a unified view of platform performance.

As a result, decision-makers lack a centralized, interactive analytics solution that provides real-time visibility into platform health, customer behavior, and operational performance, preventing data-driven decisions that could optimize costs, improve customer experience, and increase revenue.