

# Summary

- Introduction :

This analysis was conducted to evaluate order, payment, and customer behavior data for Alt Mobility. The goal was to generate actionable business insights from SQL-based data analysis and visualize customer retention trends using cohort analysis. The findings are grouped into three categories: SQL insights, retention observations, and strategic recommendations.

- Key Insights from SQL Queries :

A. Order and Sales Analysis:

- The majority of customer orders are marked as “Completed,” reflecting a strong fulfillment pipeline. However, a notable share of “Pending” and “Cancelled” orders suggests room for operational improvement.
- Monthly sales trends show periodic increases and dips, pointing toward seasonality, campaign influence, or market behavior.
- Revenue is heavily driven by successfully fulfilled orders. The aggregation of order amounts from “Completed” orders indicates total revenue generated.

B. Customer Segmentation and Behavior:

- Customers were categorized into three segments based on total spending:
  - Premium Customers – Spent more than ₹1000
  - Regular Customers – Spent ₹500 to ₹1000
  - Occasional Customers – Spent less than ₹500
- Premium customers form a valuable segment due to higher lifetime value, while occasional customers show potential for growth through engagement strategies.

C. Repeat Purchase Behavior:

- Several customers made multiple purchases, signaling a loyal customer base.
- Identifying repeat customers helps develop retention-focused offers, loyalty programs, and relationship-building strategies.

D. Payment Status and Methods:

- Most payments were marked as "Completed," showing reliability in the payment process.
- PayPal was one of the most frequently used payment methods, followed by others.
- There were some failed or incomplete payments, which might point to gateway issues, user abandonment, or transaction errors.

- **Observations from Customer Retention Analysis:**

- A. Cohort Behavior:

- Customers were grouped by their cohort month (i.e., the month of their first order).
- The cohort analysis revealed that customer retention drops month-over-month, which is expected in most customer lifecycles.
- Cohorts from early months (e.g., January, March) showed better long-term retention, possibly due to more effective onboarding or seasonal factors.
- Recent cohorts showed quicker drop-off, suggesting weaker engagement or external market shifts.

- B. Visual Insights from Heatmap:

- A Power BI matrix was used to visualize cohort retention.
- The heatmap clearly illustrated how customer engagement declines over time, with darker cells indicating stronger retention.
- This type of visualization helps identify which onboarding or marketing strategies are working for specific customer groups.

## 4. Recommendations for Alt Mobility:

- A. Enhance Retention Strategy:

- Focus on engaging customers during the first 60–90 days after their initial order.
- Use targeted email campaigns, loyalty points, or offers to encourage repeat behavior.

- B. Leverage Customer Segments:

- Premium customers can be nurtured with exclusive benefits.

- Occasional customers should receive reactivation emails and time-limited offers.
- Use customer segmentation to personalize campaigns and drive engagement.

#### C. Optimize Order Fulfillment:

- Investigate causes of “Pending” and “Cancelled” orders.
- Improve inventory management or user experience during checkout to reduce drop-offs.

#### D. Monitor and Improve Payments:

- Reduce failed payments by offering alternate payment methods or improving gateway performance.
- Track payment issues to detect friction in the transaction flow.
- Analyze high-performing cohorts to understand what led to better retention.
- Use those insights to guide onboarding experiences for new customers.

- Conclusion :

This analysis revealed critical insights into customer purchasing behavior, sales performance, and payment reliability. By leveraging SQL analysis and cohort-based visualizations, Alt Mobility can adopt more focused marketing, retention, and product strategies to drive customer value and operational excellence.