- Title: *Amazon Customer Lifetime Value 2.0 Dashboard*
- Subtitle: *Customer Insights, RFM Segmentation & CLV Prediction*
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- Date: 2025-09-18

Problem Statement :
E-commerce Challenge: *"Which customers are long-term valuable and how much future revenue can they generate?"*
Business Impact: Helps in **customer retention, personalized marketing, and product strategy**.

. Dataset Overview

- Customers.csv → customer profile
- Orders.csv → order transactions
- Products.csv → product details
- CLV_Summary (derived dataset after RFM + models)
- Rows, timeframe (2022–2025), key fields

Methodology:

1. Data Cleaning & Preparation
2. RFM Aggregation (Recency, Frequency, Monetary)
3. BG/NBD Model → predict purchase frequency
4. Gamma-Gamma Model → predict monetary value
5. CLV = combine both models → 12-month forecast
6. Visualization in Power BI

RFM Analysis
- Explain R (Recency), F (Frequency), M (Monetary)
- Why useful: identifies loyal, at-risk, inactive customers

CLV Modeling

- BG/NBD → predicts probability of future purchases
- Gamma-Gamma → predicts revenue per transaction
- Penalizer Coef explanation (regularization to avoid overfitting)
- Output: Customer-level CLV for 12 months

Dashboard – Overview Page

- KPIs:
  - Total Customers
  - Avg CLV
  - Total Orders
- CLV distribution chart
- Top 10 customers by CLV
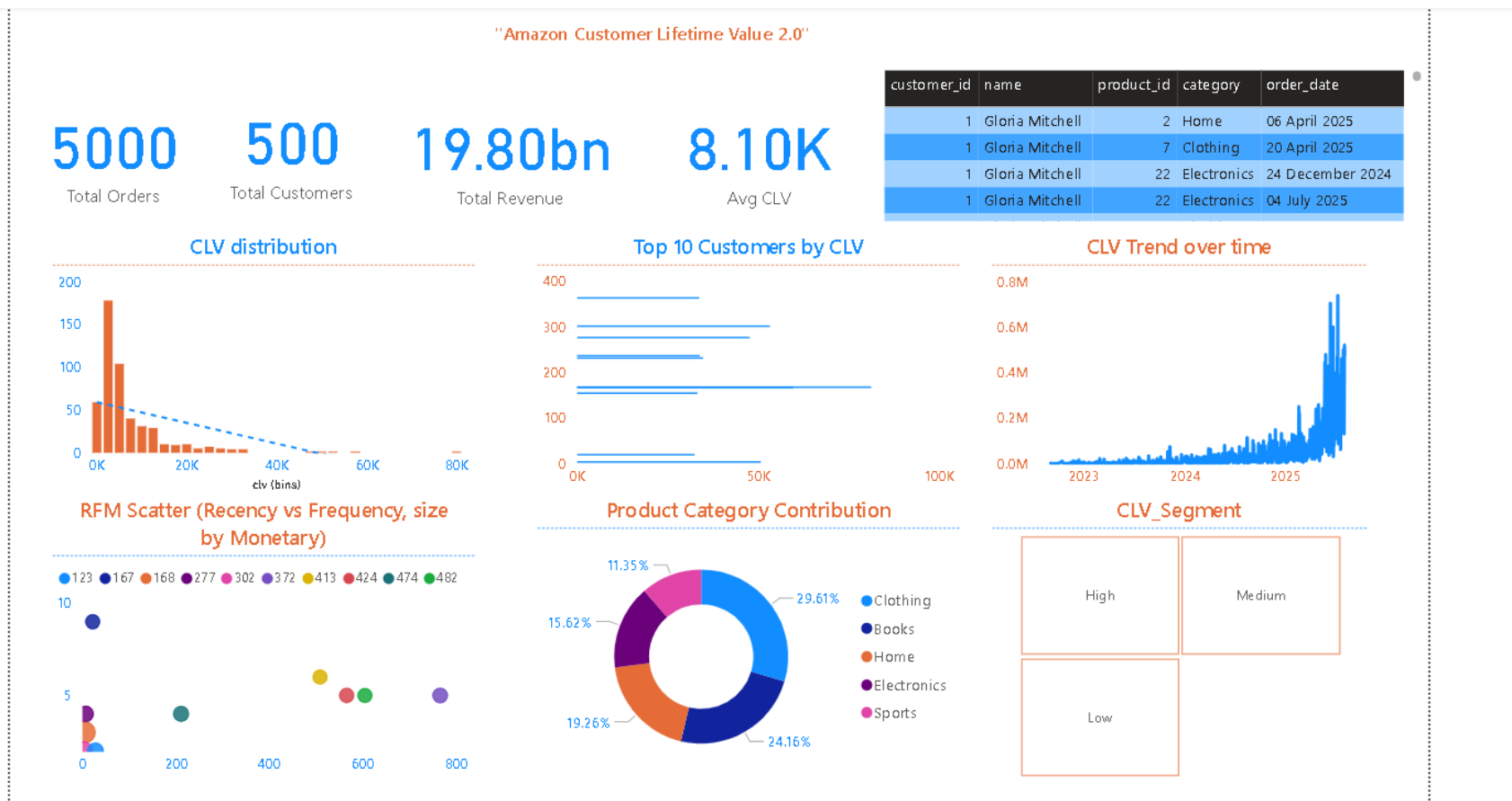
Customer Details Page
•Revenue trend of customer
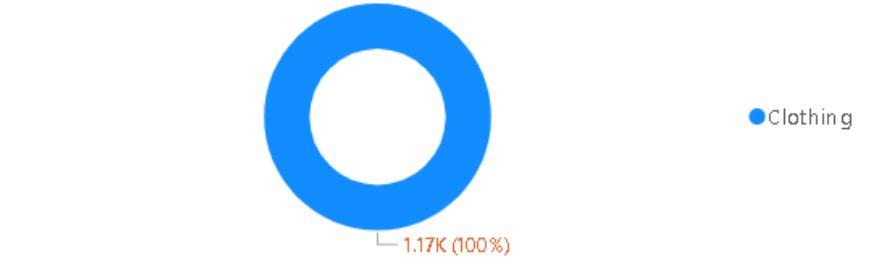•Past purchase history (categories bought, total spend)
•Predicted CLV

Product Category Distribution

1.17K (100%)

● Clothing

1
Customer Lifetime Value

Count of order_id	order_date	category	name	Total Revenue
1	19 September 2024	Clothing	Shannon Jordan	1,167.51
1				1,167.51

Revenue Trend

1,500

1,000

19 Sep
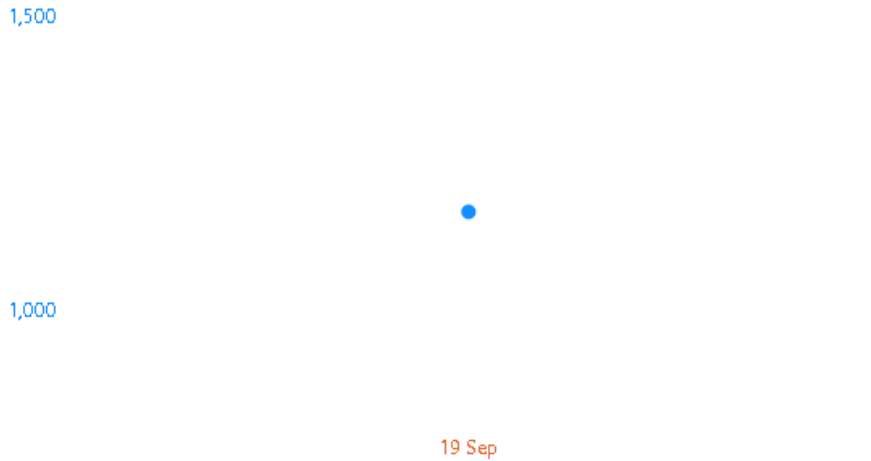
Key Insights:

20% customers contribute ~80% of revenue → classic **Pareto Principle** (also called 80/20 rule: a small % of inputs drive the majority of outputs).

High CLV customers mostly buy *Electronics* (example: laptops, phones).

Revenue has been growing rapidly after the 2023 spike, indicating strong customer demand.

Some customers show high frequency but low monetary value → they purchase often but spend less → opportunity for **upselling / cross-selling**.

Business Recommendations

- Retain **high CLV customers** with loyalty programs
- Reactivate **at-risk customers** with targeted discounts
- Push **high-value categories** more (e.g., Clothing, Electronics)
- Personalize campaigns using CLV segmentation

Thank You/Let's Connect
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Git hub: https://github.com/Tanu272004/Amazon-CLV-2.0