

# Data Science Assignment: eCommerce

## Transactions Dataset

### **Task 1:** Exploratory Data Analysis (EDA) and Business Insights

From the EDA we can draw the following conclusion:

- **High-Value Customers:** Approximately 25% of customers have made purchases that exceeded \$5000, highlighting a significant portion of high-value customers.
- **2024 Transactions:** A staggering 99% of transactions occurred in the year 2024, indicating that the majority of activity is recent and focused in this year.
- **Top Contributors:** The **ActiveWear Smartwatch** emerged as the highest contributor to transaction volume, while the **ComfortLiving Laptop** was the least contributing product.
- **Least Popular Product:** The **SoundWave Jacket** turned out to be the least popular product in the catalog, suggesting a potential area for review or improvement in marketing or product features.
- **Revenue Distribution:** **Books** were the best-selling products, contributing nearly 28% to the total revenue, whereas **Home Decor** products had the lowest revenue contribution, signaling a possible opportunity for reassessment or targeted promotion.

These insights provide a deeper understanding of the customer and product landscape, highlighting areas for potential growth and focus.