***Exploratory Data Analysis (EDA) Report***

**Dataset:** Online Orders of an E-commerce Website

**What is EDA?**

Exploratory Data Analysis (EDA) helps discover patterns, spot anomalies, and summarize data characteristics using statistics and visualization. It supports better business

decisions and data understanding.

**Steps Performed :**

**1. Data Import & Cleaning**

**-** Data shape: Rows = 8083, Columns = 7 -Duplicate rows removed: 1331

**2. Date Conversion**

**-** Converted 'crawl\_timestamp' to datetime

**3. Category Extraction**

**-** Extracted main product categories

**4. Univariate Analysis**

**-** Analyzed categories, brands, price distributions

**5. Bivariate Analysis & Correlation**

**-** Explored relationships between prices and discounts

**6. Time Series Trend**

**-** Visualized monthly product listings

**Key Insights :**

- Most listed product category: Clothing.

- Top brands by listing count: Karatcraft, Black, White.

- Retail prices are right-skewed, mostly under 10,000.

- Discounts vary widely, often between 50 and 5,000.

- Strong positive correlation observed between retail and discounted price.

- Monthly listings show seasonal patterns linked to promotions or festivals.

**Next Steps :**

- Handle any missing values.

- Explore discount patterns across categories.

- Analyze seasonal effects on product listings.

- Investigate customer behavior if user data is available.