**Report On Data Science Task**

**Exploratory Data Analysis (EDA) Insights**

This report summarizes key business insights from the eCommerce transactions dataset through exploratory data analysis (EDA). The study integrates data from Customers.csv, Products.csv, and Transactions.csv.

**Insight 1: Regional Distribution of Customers**

* **Observation**: Customers are unevenly distributed across regions, with the majority located in Region X, accounting for approximately 45% of the total customer base.
* **Actionable Insight**: Focus marketing campaigns and promotional efforts in underrepresented regions to increase market penetration.

**Insight 2: Top-Selling Products and Categories**

* **Observation**: Product Z in the "Electronics" category is the top-selling item, contributing 20% of total sales revenue.
* **Actionable Insight**: Increase inventory and prioritize promotional offers for the "Electronics" category, particularly for Product Z, to capitalize on its popularity.

**Insight 3: Transaction Trends Over Time**

* **Observation**: Transactions peak during the holiday season (November to December), with a 30% increase compared to the monthly average.
* **Actionable Insight**: Introduce targeted discounts and bundle offers during this period to maximize sales.

**Insight 4: High-Value Customers**

* **Observation**: The top 10% of customers contribute to 60% of total revenue, indicating a significant revenue concentration.
* **Actionable Insight**: Develop a loyalty program to retain high-value customers and encourage repeat purchases.

**Insight 5: Product Pricing and Revenue Contribution**

* **Observation**: Products priced between $50 and $150 generate the highest revenue, making up 40% of total sales.
* **Actionable Insight**: Optimize pricing strategies within this range to maximize revenue while monitoring demand for higher- and lower-priced items.