Project Overview: Business Data Analysis

This project showcases my ability to analyze and interpret complex business data using Excel. The assignment involves working with a dataset containing transaction details, customer information, product metrics, and city-level trends. The primary objective is to derive actionable insights and present a concise analysis through Excel-based calculations and visualizations.

About Dataset

1. **Date :**Indicates the time period of each transaction, allowing for time-based trend analysis.
2. **Transaction Type:** Classifies the nature of each transaction.
3. **Reason for Transaction:** Provides context, such as returns, promotions, or regular sales.
4. **Customer Name & Code:** Unique identifiers for customer segmentation and analysis.
5. **Customer Type:** Categorizes customers based on their profile (e.g., retail, wholesale).
6. **Category & Brand:** Classification of products for revenue analysis.
7. **UPC (Units Per Case):** Tracks specific product identifiers and packaging.
8. **Quantity:** Number of units sold or transacted.
9. **Amount:** Revenue generated per transaction.
10. **Channel Description:**Details the sales channel, such as online, in-store, or wholesale.
11. **City:** Identifies the location of transactions, enabling region-specific trend analysis.

Key Features of the Project:

1. **Revenue Analysis:**
    - Calculated total revenue by category and brand to identify top-performing segments.
2. **Customer Insights:**
    - Identified the top 5 customers contributing the highest revenue.
    - Determined the most frequently purchased product for each customer type.
3. **City-Wise Trends:**
    - Analyzed city-level revenue and transaction patterns.
    - Highlighted cities with the most transactions and revenue contributions.
4. **Channel Performance:**
    - Computed the average quantity sold per transaction for each sales channel.
5. **Transaction Reasons:**
    - Identified key reasons for transactions and their financial impact.
6. **Data Visualization:**
    - Utilized pivot tables, conditional formatting, and charts for clear data representation.

Tools and Techniques Used:

- **Excel Formulas:** Implemented `SUMIF`, `COUNTIF`, `AVERAGEIF`, `IF`, and `VLOOKUP` for efficient data manipulation.
- **Pivot Tables:** Aggregated data to reveal trends and insights.
- **Conditional Formatting:** Highlighted key metrics to enhance readability.
- **Charts:** Visualized trends and comparisons for quick understanding.