**Excel Data Cleaning & Analysis Project**

**Project Overview**

This project involves data cleaning and analysis using Microsoft Excel. The dataset contains over 9,000 rows of e-commerce order data, and the goal is to clean, format, and analyze the data using Excel functions and Pivot Tables.

**Steps Performed**

**1. Data Import & Initial Formatting**

* Imported the dataset (CSV format) into Excel.
* Checked for blank rows and removed unnecessary ones.
* Converted the table into an **Excel Table** for easier analysis.

**2. Handling Missing Values**

* Identified missing values in key columns.
* Used appropriate methods to fill missing values or remove unnecessary blank rows.

**3. Formatting Data**

* **Date Columns (Order Date & Ship Date)**: Converted to YYYY-MM-DD format.
  + Formula used: =TEXT(A2, "YYYY-MM-DD")
* **Sales & Profit Columns**: Formatted as currency.
* **Text Data (Categories & Segments)**: Applied Proper Case formatting.
  + Formula used: =PROPER(A2)
* **Postal Codes**: Ensured consistency using VLOOKUP for city mapping.
  + Formula used: =VLOOKUP(A2, City\_Table!A:B, 2, FALSE)

**4. Creating Pivot Tables for Analysis**

* **Total Sales & Profit by Month**
  + Dragged **Order Date** to Rows and grouped by Month.
  + Added **Sales & Profit** to Values and formatted them as currency.
* **Top 5 Categories by Sales**
  + Dragged **Category** to Rows and **Sales** to Values.
  + Sorted by Sales (Descending) and filtered the Top 5.
* **Sales by Region/City**
  + Dragged **Region/City** to Rows and **Sales** to Values.
* **Order Count Analysis**
  + Changed calculation type to **Count** instead of Sum to analyze order frequency.
  + Formula used: =COUNTIF(A:A, Criteria)

**5. Visualizing Data**

* Created **Pivot Charts** for sales trends, category performance, and regional distribution.
* Enhanced readability using conditional formatting.
  + Formula used for highlighting high sales: =B2>10000 (applied using Conditional Formatting rules)

**Final Deliverables**

* **Cleaned Excel File (.xlsx)** containing:
  + Processed data.
  + Pivot Tables.
  + Dashboard with key insights.
* **GitHub Repository** with the project files.

**Key Insights & Findings**

✅ Identified **seasonal trends** in sales and profit. ✅ Determined the **top-selling product categories**. ✅ Analyzed **regional sales distribution** to identify high-performing areas.

**Next Steps**

* Convert this analysis into a Power BI Dashboard.
* Perform SQL-based analysis for deeper insights.
* Work on another dataset for comparison.

This project demonstrates proficiency in **data cleaning, missing value handling, Pivot Tables, and visualization** in Excel. It is a valuable addition to any data analytics portfolio.

📂 **GitHub Repository:** [Insert Link]