Analyzing and Visualizing Regional Sales Performance

Excel project

Task 2: Data Cleaning with Text Functions

I cleaned and standardized the Region and Product Category columns by replacing special symbols using CTRL+H and applying IFS formulas in helper columns to ensure consistent naming conventions. After trimming extra spaces in the Order column and standardizing regional and category values, I pasted the cleaned data back into the main columns.

Task 1: Searching and Filtering Data

I used the shortcut CTRL+SHIFT+L to filter the dataset, selecting "South" in the Region column and "Electricity" in the Product Category column. This displayed the order details, quantity, sales amount, profit, and discount for the electronics category in the South region, enabling focused performance analysis.
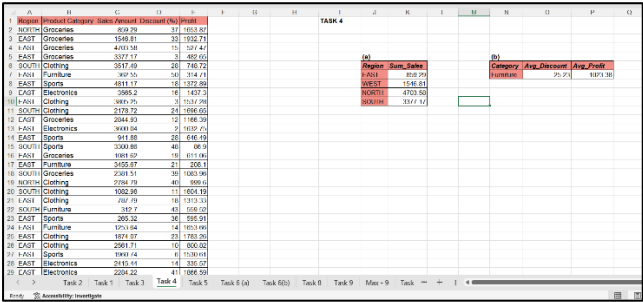
Task 3: Merging Data

I created a PivotTable using CTRL+SHIFT with arrow keys, placing the Region column in the Rows area and the Average Sales Amount in the Values area to calculate region-wise
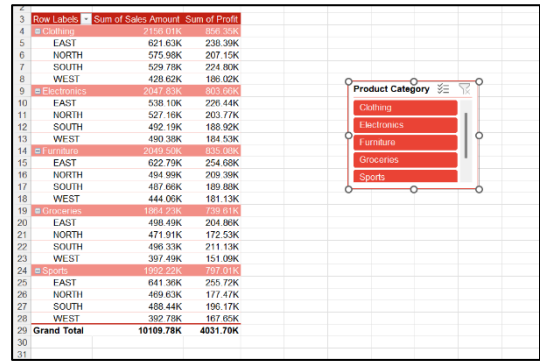
averages. Then, using the XLOOKUP formula, I mapped these averages to a new column named Avg_sales_region_wise, enabling dynamic integration of regional performance data into the main dataset.
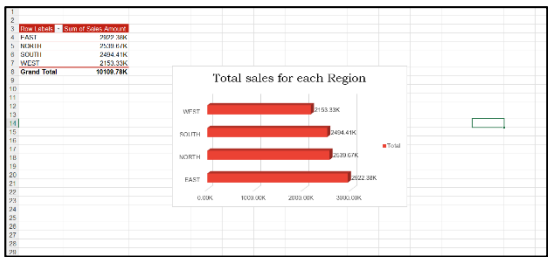
Task 4: Excel Formulas

I used the SUMIF formula to create a summary table calculating total sales for each region and applied absolute references for accurate computations. Additionally, I built another table using AVERAGEIF formulas to determine the average discount and profit for the Furniture category, allowing focused analysis of sales and profitability by region and product type.
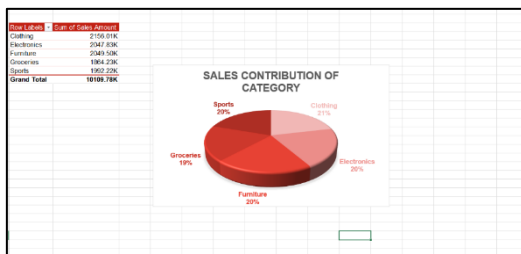
Task 5: Pivot Tables

I created a PivotTable by selecting the dataset and adding Product Category and Region to the Rows area, with Sales and Profit in the Values area to summarize totals. Then, I inserted slicers for Product Category and Region, arranging and formatting them to allow dynamic and visually clear analysis of sales and profit data.
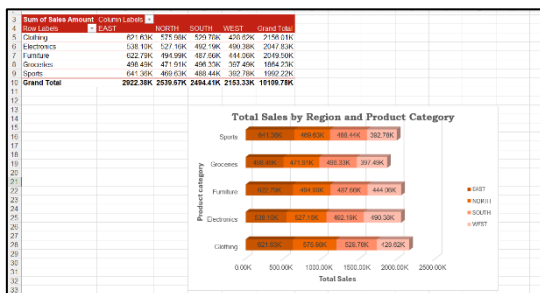
Task 6: Charts

I created a PivotTable from the dataset to summarize total sales by region and then inserted a bar chart using the PivotTable Analyze tab. After customizing the chart's title, colors, and layout, it provided a clear visual comparison of sales performance across regions, highlighting top revenue-generating areas.
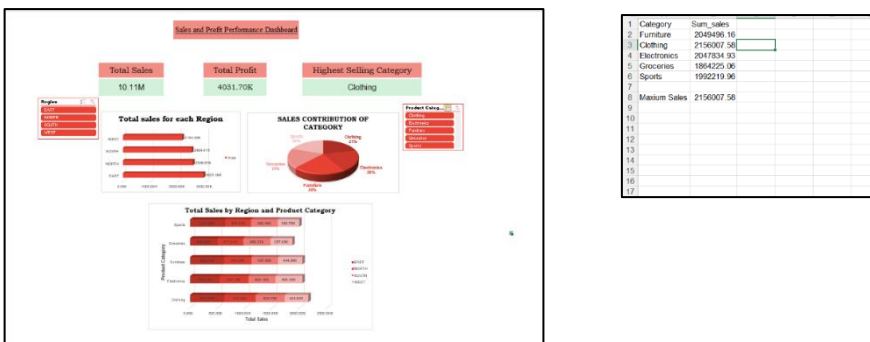
I created a PivotTable from the dataset by adding Product Category to the Rows area and Sales to the Values area, then inserted a Pie Chart through the PivotTable Analyze tab. After customizing the chart's title, colours, and design, it effectively displayed the percentage share of total sales by product category, highlighting top-performing segments.

Task 8: Stacked Bar Chart

I created a PivotTable by organizing Product Category in the Rows area, Region in the Columns area, and Sales in the Values area, then inserted a Stacked Bar Chart from the Insert tab. After customizing its title, colors, and layout, the chart effectively compared total sales across product categories by region, highlighting top revenue-generating segments.

Task 9: Basic Dashboard

I designed an interactive KPI dashboard by resizing cells, removing gridlines, and merging sections to create a clean layout, then calculated total sales, total profit, and the highest selling product category using SUM, SUMIF, MAX, INDEX, and MATCH formulas. Finally, I integrated bar, pie, and stacked bar charts with slicers for Region and Product Category to enable dynamic, synchronized filtering and clear visual analysis of sales performance.

Task 10: Highlight High Performers (Conditional Formatting)

I added a new column named Profit Margin calculated using the formula (Profit / Sales Amount) * 100 and applied conditional formatting to highlight key insights. Profit margins above 50% were shown in green and sales amounts over 4000 in red, making high-profit and high-sales transactions easily identifiable.