

Data Analytics Project Tasks

Task 1: Data Cleaning & Preparation

- Identify missing values per column
- Handle missing values appropriately (not all with 0)
- Convert Order Date and Ship Date to datetime
- Check for duplicate rows
- Fix data types (Postal Code should be string)

Deliverables:

- Cleaned dataframe
- Short explanation of cleaning decisions

Task 2: Sales Performance Overview

- Total sales
- Average sales per order
- Number of unique customers
- Number of unique orders

Deliverables:

- Total Revenue
- Average Order Value (AOV)
- Customer Count

Task 3: Sales by Category & Sub-Category

- Total sales by Category
- Total sales by Sub-Category
- Identify top 5 and bottom 5 sub-categories

Task 4: Regional Analysis

- Sales by Region
- Top 5 states by sales
- Cities with highest revenue
- Bonus: Sales per customer by region

Task 5: Customer Segment Analysis

- Sales by Segment
- Average order value per segment
- Orders per customer per segment

Task 6: Time-Series Analysis

- Monthly sales trend
- Year-over-year sales growth
- Identify peak sales months
- Bonus: Rolling 3-month average

Task 7: Shipping Performance

- Sales by Ship Mode
- Average delivery time (Ship Date – Order Date)
- Orders per shipping mode

Task 8: Product-Level Insights

- Top 10 products by sales
- Products with very low sales
- Products with high sales concentration (few customers)

Task 9: Data Visualization

- Bar chart: Sales by Category
- Line chart: Monthly sales trend
- Map or bar chart: Sales by State
- Bar chart: Sales by Segment