**Data Analytics Case Study Template**

**📊 Case Study Title:**  
*Enter a short, descriptive title (e.g., “Improving Sales Performance Using Tableau: A Superstore Dataset Analysis”)*

**1. 🧠 Problem Statement / Business Question**  
- What is the problem, opportunity, or question you’re solving?  
- Who is the target audience?

**Example:**  
“How can the sales team increase profitability in the Central Region by identifying top-performing products and underperforming categories?”

**2. 📂 Dataset Description**  
- Name of dataset  
- Source (e.g., Kaggle, internal DB)  
- Number of rows and columns  
- Key columns (e.g., Order Date, Sales, Profit, Region, Category)

**Example:**  
“Used the ‘Superstore Sales’ dataset from Kaggle with 10,000+ rows and 21 columns containing sales transaction data from 2014–2017.”

**3. 🧹 Data Cleaning & Preparation**  
- Tools used (Excel, SQL, Python, etc.)  
- Steps taken: handling missing values, duplicates, formatting dates  
- Any assumptions made

**Example:**  
“Cleaned missing Customer IDs and removed rows with negative Profit. Converted date fields to standard datetime format.”

**4. 📈 Exploratory Data Analysis (EDA)**  
- Summary statistics  
- Visualizations (bar charts, histograms, box plots)  
- Key findings or patterns

**Example:**  
“Discovered that the South region has high sales but low profits. Technology category is consistently high performing.”

**5. 📊 Data Analysis / Insights Generation**  
- Analytical methods used (e.g., SQL queries, pivot tables, dashboards)  
- Advanced techniques (clustering, forecasting, etc.)  
- Specific insights tied to business problems

**Example:**  
“Using Tableau, we identified that 80% of the profit comes from 20% of customers — Pareto Principle applied.”

**6. 💡 Recommendations**  
- Actionable suggestions based on insights  
- Solutions to the original business problem

**Example:**  
“Focus marketing on top 20% customers and reduce discount rates for Office Supplies in the Central Region.”

**7. 🛠️ Tools and Techniques Used**  
- Software/tools (Tableau, SQL, Excel, Python, etc.)  
- Key formulas, libraries, or methods used

**8. 🗂️ Appendix (Optional)**  
- Sample SQL queries  
- Dashboard screenshots  
- Links to GitHub or interactive dashboards