Data Analysis Structure for Case Study Reports

1. Introduction

Briefly introduce the context and objectives of the case study. Highlight the business problem or question addressed, and summarize the importance of data analysis in this context.

2. Data Overview

- Description of data sources
- Types and formats of data
- Summary statistics
- Data collection methods

3. Data Preparation

1. Data cleaning steps (handling missing values, duplicates, etc.)
2. Feature engineering and selection
3. Data transformation and normalization

4. Exploratory Data Analysis (EDA)

- Key findings and patterns
- Visualization of distributions and relationships (e.g., charts, plots)
- Identification of trends and outliers

5. Modeling & Methodology

1. Models or algorithms applied
2. Assumptions and rationale for choices
3. Validation methods and metrics

6. Results & Interpretation

- Summary of major findings
- Interpretation of results in the case context
- Visualization of key outcomes (as needed)

7. Recommendations

Actionable steps or decisions based on analysis results. Provide clear, data-driven recommendations relevant to the problem statement.

8. Limitations

- Data or methodological limitations
- Potential biases and uncertainties
- Areas for further research or analysis

9. Conclusion

Recap the main insights and business value derived from the analysis. Outline next steps or future possibilities.

10. Appendix

- Supporting tables, charts, or extended figures
- Technical details, code snippets, or supplementary analysis

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Important Notes:

- Be clear and concise; tailor depth of detail to your audience.
- Provide data visualizations where they add value.
- Always justify methodological choices and interpretations.
- Highlight both actionable insights and report limitations.
- Maintain transparency in data handling and assumptions.