

Task	Performance level				Full Marks
Preliminary Questions	4.6 - 5 10-12 well-formulated, specific, and relevant questions that demonstrate deep understanding of the dataset and its analytical potential. Questions are diverse, covering multiple aspects of the data.	4 - 4.5 10-12 questions provided but some lack specificity or relevance. Most questions are appropriate for the dataset.	3 - 3.9 8-9 questions provided, or 10-12 questions with limited depth or relevance to the dataset	0 - 2.9 Fewer than 8 questions, or questions are too generic, vague, or not answerable with the given dataset.	5
Understanding the data	5.5 - 6 Comprehensive analysis of all attributes including data types, ranges, unique values, and significance. Clear identification of key fields relevant to analysis. Well-organized presentation with appropriate code and commentary.	4.5 - 5.4 Thorough examination of most attributes with proper identification of data types and significant fields. Minor omissions in detail.	3 - 4.4 Basic understanding demonstrated with identification of main attributes and data types, but lacks depth in analyzing significance or relevance of fields.	0 - 2.9 Superficial or incomplete examination of data structure. Missing critical information about data types or significant fields.	6
Basic statistics & distribution	8 - 9 Comprehensive statistical analysis	6.6 - 7.9 Good coverage of basic statistics with	4.5 - 6.5 Basic statistics computed but limited	0 - 4.4 Minimal statistical analysis, poor or	9

	including mean, median, mode, standard deviation, quartiles as appropriate. Clear visualization of distributions with appropriate charts (histograms, box plots, etc.). Insightful interpretation of statistical findings.	relevant visualizations. Interpretations are generally accurate but may lack some depth.	visualization or interpretation. Some important statistical measures may be missing.	missing visualizations, or incorrect interpretations of statistical measures.	
Data Visualizations	13.5 - 15 Outstanding visualizations that are highly effective in communicating insights. Appropriate chart types selected for each analysis. Clear labels, titles, legends, and color schemes. Visualizations are polished and publication-ready. Strong narrative accompanies each visualization.	11 - 13.4 Good variety of appropriate visualizations with proper labeling. Charts effectively communicate most insights. Minor improvements possible in design or narrative.	7.5 - 10.9 Basic visualizations present but may use inappropriate chart types for some analyses. Labels or narratives may be incomplete. Limited variety in visualization types.	0 - 7.4 Few visualizations, inappropriate chart types, poor labeling, or visualizations that fail to communicate insights effectively.	15
Missing values and outliers	4.5 - 5 Thorough identification and quantification of missing values with appropriate handling strategies applied and justified. Clear	3.5 - 4.4 Good identification of missing values and outliers with reasonable handling approaches. Most issues addressed appropriately	2.5 - 3.4 Basic identification of missing values and outliers but limited handling or justification. Some issues may be overlooked.	0 - 2.4 Inadequate identification or handling of missing values. Outliers not properly identified or reported.	5

	identification and reporting of outliers with visualization. Impact on analysis discussed.				
Trends, Patterns, Relationships	13.5 - 15 Exceptional analysis revealing meaningful trends, patterns, and relationships. Effective comparative analysis across countries/regions. Clear identification of temporal trends, correlations, and significant changes. Strong supporting visualizations and insightful interpretations.	11 - 13.4 Solid identification of major trends and patterns with appropriate comparisons. Most significant relationships identified with good supporting evidence.	7.5 - 10.9 Basic trend analysis present but may miss some important patterns or relationships. Limited comparative analysis or depth in interpretation.	0 - 7.4 Superficial analysis with few insights into trends or patterns. Poor comparative analysis or missing important relationships in the data.	15
Answer Research Questions	18 - 20 All 8 questions clearly labeled and comprehensively answered with strong evidence from data analysis. Answers are insightful, well-supported by appropriate visualizations and statistics, and demonstrate sophisticated analytical thinking.	15 - 17.9 8 questions answered with good supporting evidence. Most answers are thorough and well-supported, though some may lack depth or complete evidence.	10 - 14.9 8 questions addressed but answers are basic or lack sufficient supporting evidence. Some questions may not be fully answered or clearly labeled.	0 - 9.9 Fewer than 8 questions answered, questions not clearly labeled, or answers are superficial with inadequate supporting evidence.	20

Report					
Abstract	2.7 – 3 Clear, concise, and comprehensive summary of objectives, methods, key findings, and conclusions. Demonstrates deep understanding and strong writing clarity.	2 – 2.6 Good summary covering most key elements (objectives, methods, findings). Minor omissions or lack of clarity.	1 – 1.9 Basic summary provided but lacks clarity or completeness in describing the study	0 – 0.9 Missing, vague, or irrelevant abstract.	3

Background and Problem Description	2.7 – 3 Thorough and well-structured background explaining context, significance, and motivation for the study. Clear statement of the problem and objectives.	2 – 2.6 Good background and problem statement with relevant context but limited depth or clarity.	1 – 1.9 Basic background with minimal explanation of context or unclear problem definition.	0 – 0.9 Poor or missing background and unclear problem statement.	3
Methods	4.5 – 5 Comprehensive and clearly described methodology. Logical flow connecting data processing, analysis techniques, and tools used. Methods are justified and reproducible.	3.5 – 4.4 Good description of methods with appropriate detail. Some minor omissions or limited justification.	2 – 3.4 Basic overview of methods, missing key details or clear reasoning.	0 – 1.9 Incomplete or unclear description of methods.	5
Results and Discussion	7 – 8 Insightful interpretation of analytical results with	5.5 – 6.9 Good presentation of results with relevant	3 – 5.4 Basic presentation of results, limited	0 – 2.9 Superficial results with little or no	8

	strong linkage to objectives. Clear, logical presentation with effective visuals and well-explained findings. Discussion demonstrates critical thinking and synthesis.	discussion. Minor gaps in interpretation or connection to objectives.	discussion, or mostly descriptive without analysis.	meaningful discussion.	
Conclusion	2.7 – 3 Strong, concise conclusion summarizing key insights and implications. Clearly relates back to objectives and findings.	2 – 2.6 Reasonable conclusion that summarizes findings but lacks depth or strong connection to objectives.	1 – 1.9 Basic summary without analytical synthesis.	0 – 0.9 Missing or irrelevant conclusion.	3
References	1.3 – 1.5 Comprehensive and properly formatted reference list using consistent citation style (IEEE). All sources relevant and credible.	1 – 1.2 Most references are properly formatted and relevant. Minor inconsistencies.	0.5 – 0.9 Few references or formatting issues present.	0 – 0.4 Missing or poor-quality references.	1.5
Formatting	1.3 – 1.5 Excellent structure and presentation. Consistent formatting, proper headings, tables, and figures neatly integrated. Adheres to word limits and style guides.	1 – 1.2 Good organization and readability with minor formatting inconsistencies	0.5 – 0.9 Acceptable structure but inconsistent formatting or visual clutter.	0 – 0.4 Poorly formatted, disorganized, or difficult to read.	1.5