

Task	Performance level				Full Marks
<b>Preliminary Questions</b>	<b>4.6 - 5</b> 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.	<b>4 - 4.5</b> 10-12 questions provided but some lack specificity or relevance. Most questions are appropriate for the dataset.	<b>3 - 3.9</b> 8-9 questions provided, or 10-12 questions with limited depth or relevance to the dataset	<b>0 - 2.9</b> Fewer than 8 questions, or questions are too generic, vague, or not answerable with the given dataset.	<b>5</b>
<b>Understanding the data</b>	<b>5.5 - 6</b> 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.	<b>4.5 - 5.4</b> Thorough examination of most attributes with proper identification of data types and significant fields. Minor omissions in detail.	<b>3 - 4.4</b> Basic understanding demonstrated with identification of main attributes and data types, but lacks depth in analyzing significance or relevance of fields.	<b>0 - 2.9</b> Superficial or incomplete examination of data structure. Missing critical information about data types or significant fields.	<b>6</b>
<b>Basic statistics &amp; distribution</b>	<b>8 - 9</b> Comprehensive statistical analysis	<b>6.6 - 7.9</b> Good coverage of basic statistics with	<b>4.5 - 6.5</b> Basic statistics computed but limited	<b>0 - 4.4</b> Minimal statistical analysis, poor or	<b>9</b>

	<p>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.</p>	<p>relevant visualizations. Interpretations are generally accurate but may lack some depth.</p>	<p>visualization or interpretation. Some important statistical measures may be missing.</p>	<p>missing visualizations, or incorrect interpretations of statistical measures.</p>	
<b>Data Visualizations</b>	<p><b>13.5 - 15</b> 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.</p>	<p><b>11 - 13.4</b> Good variety of appropriate visualizations with proper labeling. Charts effectively communicate most insights. Minor improvements possible in design or narrative.</p>	<p><b>7.5 - 10.9</b> Basic visualizations present but may use inappropriate chart types for some analyses. Labels or narratives may be incomplete. Limited variety in visualization types.</p>	<p><b>0 - 7.4</b> Few visualizations, inappropriate chart types, poor labeling, or visualizations that fail to communicate insights effectively.</p>	<b>15</b>
<b>Missing values and outliers</b>	<p><b>4.5 - 5</b> Thorough identification and quantification of missing values with appropriate handling strategies applied and justified. Clear</p>	<p><b>3.5 - 4.4</b> Good identification of missing values and outliers with reasonable handling approaches. Most issues addressed appropriately</p>	<p><b>2.5 - 3.4</b> Basic identification of missing values and outliers but limited handling or justification. Some issues may be overlooked.</p>	<p><b>0 - 2.4</b> Inadequate identification or handling of missing values. Outliers not properly identified or reported.</p>	<b>5</b>

	identification and reporting of outliers with visualization. Impact on analysis discussed.				
<b>Trends, Patterns, Relationships</b>	<b>13.5 - 15</b>  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.	<b>11 - 13.4</b>  Solid identification of major trends and patterns with appropriate comparisons. Most significant relationships identified with good supporting evidence.	<b>7.5 - 10.9</b>  Basic trend analysis present but may miss some important patterns or relationships. Limited comparative analysis or depth in interpretation.	<b>0 - 7.4</b>  Superficial analysis with few insights into trends or patterns. Poor comparative analysis or missing important relationships in the data.	<b>15</b>
<b>Answer Research Questions</b>	<b>18 - 20</b>  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.	<b>15 - 17.9</b>  8 questions answered with good supporting evidence. Most answers are thorough and well-supported, though some may lack depth or complete evidence.	<b>10 - 14.9</b>  8 questions addressed but answers are basic or lack sufficient supporting evidence. Some questions may not be fully answered or clearly labeled.	<b>0 - 9.9</b>  Fewer than 8 questions answered, questions not clearly labeled, or answers are superficial with inadequate supporting evidence.	<b>20</b>

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

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

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