

Data Visualization Competition: COMET Lab

Luddy School of Informatics, Computing, and Engineering – Indiana University Indianapolis.

COMET Lab Data Visualization Competition Rubric

Criteria for Evaluation

The following criteria are used to evaluate the effectiveness and quality of a data visualization web page with interactive graphs. Each criterion is weighed accordingly, and a grade between 1 and 5 is assigned, where 1 represents minimal fulfillment and 5 represents exceptional quality.

Weight of Each Criteria:

- **Project Originality:** 15%
- **Data Interpretation and Analysis:** 20%
- **Visualization Clarity and Design:** 20%
- **Interactivity and User Experience:** 15%
- **Effectiveness of Insights:** 15%
- **Customization for Audience:** 15%

Grading Rubric

Criteria	Description	Weight	Grading Range
Project Originality (Presentation Skills)	Uniqueness and innovative approach of the data visualization project. Is it something new or a creative extension of existing ideas presented?	15%	1: Minimal innovation, 5: Highly original ideas being presented
Data Interpretation and Analysis	Ability to extract and interpret relevant information from the data. Are key insights provided clearly, with appropriate context and conclusions?	20%	1: Misleading or incorrect interpretations, 5: Deep, insightful analysis
Visualization Clarity and Design	Clarity of charts, graphs, and visuals. Do the visuals communicate the data effectively? Is the visual design clean, polished, and accessible?	20%	1: Confusing or unclear, 5: Clear, easy to understand, and visually appealing
Interactivity and User Experience	Degree of interactive features that enhance user engagement. Do interactive elements help convey more meaning or improve comprehension?	15%	1: No interactivity, 5: Thoughtful, well-executed interactivity that adds value
Effectiveness of Insights	Effectiveness in turning data insights into actionable recommendations. Does the visualization lead to concrete suggestions or answers to key	15%	1: Insights not actionable, 5: Clear, practical insights with actionable recommendations

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	questions?		
Customization for Audience	Customizing the visualizations to the intended audience. Is the audience properly considered in terms of visual design, complexity, and insights conveyed?	15%	1: Poorly matched to audience needs, 5: Tailored perfectly for audience requirements

Grading Example Breakdown

- **Excellent (4.5 - 5.0):** The project shows a high level of creativity, insight, and technical skill. Visualizations are clear, easy to understand, and engaging. There is a high level of interactive features, and insights are directly relevant and actionable. Customization is on-point, considering the audience's needs.
- **Good (3.5 - 4.4):** The project is strong overall but could benefit from some refinement. Some visualizations may lack clarity, or the insights provided are not as actionable as they could be. Good interactivity but may need more fine-tuning.
- **Satisfactory (2.5 - 3.4):** The project meets basic standards but lacks innovation or in-depth analysis. Visuals may be simplistic, unclear, or lack design polish. Interactivity may not add value or is confusing.
- **Needs Improvement (1.0 - 2.4):** The project needs significant work to meet expectations. Visualizations are unclear, lack purpose, or are not suited for the target audience. Interactivity is either absent or ineffective. Insights are difficult to interpret.

General Comments and Feedback

- Provide actionable examples of how users could derive value from visualizations.
- Explain visualization choices, color usage, and metric ranking in greater detail where possible.
- Ensure that visualizations convey meaningful insights with minimal clutter, avoiding overly complex visual choices when simple options can be more effective.
- Tailor the visual content to your audience's level of expertise to enhance understanding and engagement.