Computer Science Department
ICS 552: Machine Learning and Data Science
FINAL PROJECT - GRADING RUBRIC

Course Code: ICS 552
Semester: Semester I: September to December, 2025
Assigned Date: 1st December 2025
Due Date: 16th December 2025, 11:59pm
Total Points: 100
Weighting: 40% of final grade

Student ID No.: _____

Instructors:

Dr. Ayorkor Korsah akorsah@ashesi.edu.gh
Kwabena Bamfo kbamfo@ashesi.edu.gh

ASHESI

Masters in Intelligent Computing Systems
Machine Learning and Data Science (September 2025)

Problem Situation 5 (PROSIT 5): Bringing It All Together - Grading Rubric

Total: 100% (+5% bonus possible)

1. Problem Framing and Research Questions (10%)

Level	Description
Excellent (8–10%)	The research question is precise, context-aware, and ethically grounded. Clear relevance to leadership's concerns.
Good (6–7%)	Clear question with some ethical framing.
Fair (3–5%)	Question is general or incomplete; limited institutional grounding.
Poor (0–2%)	Misaligned, vague, or ethically inappropriate research framing.

2. Data Preparation and Feature Engineering (20%)

Level	Description
Excellent (16–20%)	Clean, well-organized data; merges datasets correctly; feature engineering is thoughtful, contextually justified, and enhances modeling. Notebook is clear.
Good (14–15%)	Solid data cleaning and preparation; some meaningful features added.
Fair (10–13%)	Basic cleaning; limited feature engineering; missing rationale.
Poor (0–9%)	Disorganized or incorrect data preparation; major gaps.

3. Exploratory Data Analysis and Insight Discovery (15%)

Level	Description
Excellent (12–15%)	EDA is insightful and focused. Visuals are appropriate and interpretations are clear and meaningful.
Good (10–11%)	Adequate EDA with relevant visuals; some insights.
Fair (7–9%)	Surface-level EDA; weak or minimal interpretation.
Poor (0–6%)	Minimal or incorrect EDA; visuals unclear or misleading.

4. Modeling Strategy and Technical Execution (25%)

Level	Description
Excellent (20–25%)	Strong justification of modeling choices. Well-executed training, validation, tuning, and diagnostic checks. Demonstrates mastery of regularization, model capacity, and evaluation metrics. The notebook is technically sound.
Good (17–19%)	Solid modeling approach; some tuning and diagnostics; minor conceptual gaps.
Fair (12–16%)	Basic model use; limited tuning or evaluation; conceptual misunderstandings.
Poor (0–11%)	Incorrect or unjustified modeling; major errors in execution.

5. Interpretation of Results and Ethical Reasoning (20%)

Level	Description
Excellent (16–20%)	Insightful, responsible interpretation. Addresses fairness, bias, uncertainty, and cultural sensitivity. Handles sensitive topics (AJC, major success/difficulty, math track) with care.
Good (14–15%)	Generally responsible interpretation with reasonable ethical considerations.

Fair (10–13%)	Interpretation shallow or incomplete; ethics mentioned but not applied.
Poor (0–9%)	Misleading or deterministic interpretations; ethical issues ignored.

6. Data Storytelling and Visual Communication (10%)

Level	Description
Excellent (8–10%)	Clear narrative arc (context, conflict, insight, action). Visuals are clean, well-designed, and culturally sensitive. The story is coherent and compelling.
Good (6–7%)	Clear visuals and reasonable narrative; minor issues in design or flow.
Fair (3–5%)	Basic visuals; narrative incomplete or inconsistent.
Poor (0–2%)	Confusing visuals; weak narrative; inappropriate framing.

Optional Bonus (up to +5%): Creativity and Empathy

For exceptional:

- feature engineering
- visual storytelling
- ethical insight
- cultural sensitivity
- or innovative analytical approaches

Not required, but awarded at instructor discretion.