

Case Study Rubric on the Impact of Demographics on Abortion Opinions

Due Date: TBD

Submission Format: Upload PDF and GitHub repository link to Canvas

General Description

This case study offers a platform to demonstrate your technical and conceptual skills through a project that simulates real-world scenarios similar to those you might encounter in academic or professional settings. The case study is designed to integrate and apply your accumulated data science skills to an independently-driven project, producing a comprehensive deliverable that addresses specific research questions and provides insightful conclusions.

Deliverables

- Written Report: A PDF document including a reference page.
 - Code Repository: A GitHub repository titled "CS-[Your First & Last Name]" containing all scripts and datasets used.
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Category	Details
Formatting	<ul style="list-style-type: none">• Written Report: Submit as a PDF.• Data & Code:<ul style="list-style-type: none">• Include all scripts and any additional datasets used, hosted on GitHub.• References: List references on a separate page at the end of the report using IEEE citation style.
Written Report	<ul style="list-style-type: none">• Problem Statement:<ul style="list-style-type: none">• Summary: Briefly describe the issue being studied — the

	<p>impact of demographic factors on opinions about abortion.</p> <ul style="list-style-type: none"> ● Importance: Discuss the relevance of understanding these influences in the contexts of public policy, healthcare, and ethical discussions. ● Methodology: <ul style="list-style-type: none"> ● Outline your approach with a graphic illustrating your analysis plan, from data collection to processing and analysis. ● Results and Implications: <ul style="list-style-type: none"> ● Detail the findings of your study, emphasizing the relationship between demographics and abortion opinions. ● Discuss the broader implications of your findings, suggesting how they might inform policy decisions or future research. ● Reflection: <ul style="list-style-type: none"> ● Reflect on challenges encountered, solutions implemented, and lessons learned. ● Suggest what could be improved in future projects.
Code	<ul style="list-style-type: none"> ● Exploratory Data Analysis: <ul style="list-style-type: none"> ● Analyze the dataset focusing on variables related to abortion opinions (e.g., pro-choice, pro-life, and attitudes toward legislation).

	<ul style="list-style-type: none"> • Use visualizations to represent the data distribution and demographic relationships. • Predictive Modeling: <ul style="list-style-type: none"> • Construct decision tree models to predict abortion opinions from demographic data. • Explain the choice of model parameters and evaluate model performance. • Documentation: <ul style="list-style-type: none"> • Include comprehensive comments to clarify the steps and logic behind your code.
References	<ul style="list-style-type: none"> • Citation: Include a comprehensive list of all external references used, formatted according to IEEE standards, that were not included in the provided materials.