Milestone One Guidelines and Rubric
Module B: AI for Leaders

Milestone One: Identifying a Problem and Relevant Datasets
In preparation for this assignment, you will research possible fields of interest and problems currently faced by those fields. You will also work to identify currently available datasets relevant to your fields of interest. You will select **at least five datasets.**

Your individual analysis of the datasets will help identify the overall value of the datasets. This analysis can be completed asynchronously and during live sessions.

In this assignment, you will submit a 4- to 6-page Microsoft Word document with double spacing, 12-point Times New Roman font, and one-inch margins. Sources should be cited according to APA style. No more than one page should be used to display examples of the datasets.

Criteria for Milestone One include:
- A description or summary of the nature and content of each dataset
    - What is it about?
    - What kinds of data does it include?
    - It is preferable that the datasets each contain as many types of data as possible (numbers, strings, images, audio, time series, etc.).
- An explanation of how or why each dataset is suitable for the following:
    - Supervised and/or unsupervised learning

- Clustering
  - Anomaly detection
  - Regression
  - Classification
  - Neural networks
- An explanation of missing, incorrect, or duplicated data
  - At least one of the datasets should contain some missing, incorrect, or duplicated data so that you can demonstrate your ability to deal with these problems.
- An explanation of the kinds of questions that could be answered by each dataset
  - Why are these questions interesting to you?
  - Why or how are these questions important for a particular industry?
    - Try to include two or three different industries across your five datasets.
    - Include an explanation about why the given industries are interesting to you personally.
- An attached or linked weekly Capstone Development Reflection Journal
  - A shared link to the weekly Capstone Development Reflection Journal is provided.
  - A minimum of five weeks' worth of Capstone Development Reflection Journal entries should be completed.
  - Note that the Capstone Development Reflection Journal entries are not part of the main Milestone submission and therefore do not count towards the 4-6 pages of the Milestone. You can re-use some material from the Journal entries to help in writing Milestone One, but if so, you must recognize and restructure it enough that the Milestone document makes sense, flows naturally, and addresses the needed questions.
- A reflection summary of your experiences with the project to this point. Consider including the following:
  - Process: How did your work develop up to this point?
  - Learning or successes: What new skills or knowledge did you gain through this project work? What is one way you can apply your skills or knowledge when you begin to work with your group in the next phase of the project? What do you think was your biggest area of success so far in this project?
  - Challenges: Did you encounter any challenges or problems? If so, how did you address the challenges or problems? What was the most difficult part of the project so far?
  - Overall: What are your greatest strengths/contributions to the team? What are the areas in which you personally need to improve?

Milestone One Rubric

Criteria	Exemplary	Proficient	Needs Improvement	Not Evident	Points
Description of each dataset	20 points Provides a thorough, accurate, and detailed description of five datasets, including nature, content, and types of data	17 points Provides a clear and accurate description of five datasets, including nature, content, and types of data	14 points Provides a partial description of five datasets, missing some key details about nature, content, or types of data; or provides descriptions for fewer than five datasets	0 points Provides little to no description of each dataset or does not attempt criterion	20
Evaluation of datasets	30 points Provides a comprehensive and detailed evaluation of five datasets including suitability of learning type, clustering, anomaly detection, regression, classification, and neural networks	25.5 points Provides a detailed evaluation of five datasets including suitability of learning type, clustering, anomaly detection, regression, classification, and neural networks	21 points Provides an evaluation of three or four datasets including suitability of learning type, clustering, anomaly detection, regression, classification, and neural networks	0 points Provides an incomplete evaluation of less than five datasets or does not attempt criterion	30
Industry/problem	10 points Provides a detailed or insightful explanation of the kinds of	8.5 points Provides a clear explanation of the	7 points Provides a basic explanation of the	0 points Provides little to no explanation of the	10

Criteria	Exemplary	Proficient	Needs Improvement	Not Evident	Points
	questions each dataset can answer, including what questions are important for specific industries	kinds of questions each dataset can answer and their importance for specific industries	kinds of questions each dataset can answer, with some details missing, or does not address five datasets	kinds of questions the datasets can answer or does not attempt criterion	
Reflection: Weekly Journal	5 points Provides detailed weekly progress in a journal document with at least five weekly capstone assignments	4.25 points Provides weekly progress in a journal document with at least five weekly capstone assignments	3.5 points Provides weekly progress in a journal document with less than five weekly capstone assignments	0 points Provides little to no work in a journal document for capstone assignments or does not attempt criterion	5
Reflection Summary	20 points Provides a comprehensive and insightful reflection summary, highlighting key learning experiences and overall project impact	17 points Provides a clear reflection summary, highlighting key learning experiences and overall project impact	14 points Provides a basic reflection summary, with some key details missing	0 points Provides little to no reflection or does not attempt criterion	20
Communication	10 points Consistently and effectively communicates ideas	8.5 points Clearly and effectively communicates ideas	7 points Communicates ideas with some clarity, but is inconsistent in	0 points Shows no evidence of consistent or	10

Criteria	Exemplary	Proficient	Needs Improvement	Not Evident	Points
	clearly, concisely, and effectively for a specific audience	for a specific audience	organization or effectiveness	effective communication	
Citations	5 points Incorporates all necessary citations/sources in proper APA format	4.25 points Incorporates some of the necessary citations/sources in APA format	3.5 points Incorporates some of the necessary citations/sources in non-standard format	0 points Does not incorporate any citations/sources	5
Total					**100**