



## GE Machine Learning Assignment

Thanks for taking the time to complete GlobalEnglish's machine learning assignment!

The dataset you received is a modified version of the dataset offered in a Kaggle competition organized by The Hewlett Foundation in 2012, intended to find a way to effectively automate the grading of student-written essays.

In the dataset provided for this assignment, you will find the following fields:

- essay\_id: a unique identifier for each individual student essay
- essay\_set: 1-8, an id for each set of essays. Note that each of the eight data sets has its own unique characteristics.
- essay: the ascii text of a student's response
- rater1\_domain1: a grade given by an expert
- rater2\_domain1: a grade given by a second expert
- domain1\_score: resolved score between the raters

The encoding of the text data is latin-1.

After conducting an insightful analysis of the data, your task is the following:

- 1) create models to predict the resolved score between raters (domain1\_score) of the essays and comment your findings
- 2) discuss the choice of the metric you considered to assess your models
- 3) find the main factors affecting the final grade

I recommend working in Python for this assignment, and send your solution as a Jupyter Notebook, but if you're more comfortable working with R, that's alright!

You are free to use any open source module/package, pretrained model or external data source if needed.

Good luck!