NLP Assignment 2 : Alzheimer's Dementia Recognition using Language Data

The main objective of this assignment is for you to use machine Learning models to classify Alzheimer's Dementia (AD) patients from healthy individuals using language features. **You may choose to do either one of the following tasks, or both.** You will get a bonus score if you do both tasks.

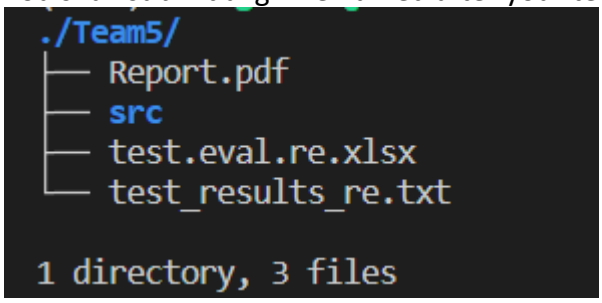
1. an AD classification task, where you are required to produce a model using language data to predict the label (AD or non-AD) for a speech session.

2. an MMSE score regression task, where you will create a model using language data to predict the subject's Minimum Mental Status Examination.

The training/test data are originally taken from the ADReSS Challenge 2020 with some modifications for this assignment.

The data can be downloaded from Moodle.

You shall submit a .gz file named after your team number with the following contents:



Due on May 9, 2023.
Late submissions are due on May 11, 2023. Late submission will result in a deduction from your grade. Any submission after the deadline will be rejected.

The minimum requirement for your submission:

1. Your Report.pdf should describe how to infer your model.

2. Your Report.pdf should describe your datasets, preprocessing methods, model structure, how you split your dataset into training set and validation set, every hyperpapameter you used, and the training/testing curves.

3. If your work includes the classification task, you must submit **test.eval.re.xlsx** and replace _X_'s with your model's predictions in the following format. Otherwise this file should not be attached.

	A	B	C	D	E	F	G
1	File	Language	Corpus	Code	Group	Duration_(se	Total_Utts
2	1	eng	Pitt	PAR	_X_	34	6
3	2	eng	Pitt	PAR	_X_	62	12
4	3	eng	Pitt	PAR	_X_	55	8
5	4	eng	Pitt	PAR	_X_	36	8
6	5	eng	Pitt	PAR	_X_	45	8
7	6	eng	Pitt	PAR	_X_	23	4
8	7	eng	Pitt	PAR	X	90	19

4. If your work includes the MMSE score regression task, you must submit **test_results_re.txt** and fill in your model's predictions in the following format. Otherwise this file should not be attached.

```
File Prediction
1    30
2    30
3    28
4    28
```