HW 1 - Assignment 3: audio effect classification

Description:

Implement a classifier system able to predict the audio effect used in recordings of electric guitar and bass.

Input:

As dataset use the I**DMT-SMT-AUDIO-EFFECTS** which is available at the following link:

https://www.idmt.fraunhofer.de/en/business_units/m2d/smt/audio_effects.html

Please read the dataset description PDF for specific details on the audio files included in the dataset.

You do not need to classify all 11 different classes, but you will work only on **3 classes**:

- **distortion**
- **tremolo**
- **no effect**

You can decide either to use all the dataset or only a portion of it (e.g. only monophonic, only guitar, …).

The results of the classification must be reported as a confusion matrix and, optionally, other metrics of your choice.

Output:

- a brief presentation of your work (max 5 minutes) that will be given to the class
- a more detailed report in which you illustrate and explain every step of your classification system and in which the results are shown and commented (max 8 pages) **to be delivered by May 14th**.
- a link to a repository containing the code (e.g. on GitHub) with minimal comments.