HW 1 - Assignment 1: musical genre classification

Description:

Implement a classifier able to predict the **musical genre** of a music piece.

Input:

Use the dataset **GTZAN Genre Collection** available at the following links:

- http://marsyas.info/downloads/datasets.html
- https://www.kaggle.com/carlthome/gtzan-genre-collection

GTZAN is simply a collection of songs, divided in subfolders depending on the assigned genre. It includes 1000 songs for 10 genres at 22050 Hz sampling rate.

Depending on the group, you will need to classify only 4 genres among the 10 available in the dataset.

Group 16: Blues, Metal, Hip-Hop, Reggae

Group 8: Classical, Disco, Jazz, Country

Group 4: Rock, Pop, Reggae, Disco

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.