Configuring the requirements

1. Clone the repository
2. Create an environment, better with **Python == 3.9.0**
3. Install the requirements of **audiocraft** using this instructions:

```
python -m pip install setuptools wheel

python -m pip install -U audiocraft
python -m pip install -U
git+https://git@github.com/facebookresearch/audiocraft#egg=audiocraft

python -m pip install -e .
```

4. Install torch with Cuda support with version **torch==2.1.0** and **Cuda 11.8**:

```
pip3 install torch==2.1.0 torchvision torchaudio==2.1.0 --index-url https://download.pytorch.
org/whl/cu118
```

   Be sure to uninstall the torch and torchaudio if it doesn't overwrite the current installation

5. Download the **Xformers** with this line (optional):

   pip3 install -U xformers==0.0.22.post7 --index-url https://download.pytorch.org/whl/cu118

6. Install the **requirements_other.txt** if you want to do data preparation and/or run the **flask application**.

   pip3 install –r requirements_other.txt

Preparing the Dataset

The dataset preparation documentation can be found in the file **documentations/Data Documentation.pdf**

Steps for training

In the terminal, in the MusicGeneration folder run the following:

With original implementation:

dora run solver=musicgen/musicgen_base_32khz_orig model/lm/model_scale=small continue_from=//pretrained/facebook/musicgen-small conditioner=text2music dset=audio/main_orig dataset.batch_size=1 optim.epochs=1 optim.updates_per_epoch=10 optim.adam.weight_decay=0.01

With our implementation:

dora run solver=musicgen/musicgen_base_32khz model/lm/model_scale=small continue_from=//pretrained/facebook/musicgen-small conditioner=text2music dset=audio/main dataset.batch_size=1 optim.epochs=1 optim.updates_per_epoch=10 optim.adam.weight_decay=0.01