**Step by Step Guide:**

**To save Pre-trained Weights from the ANC Model**

1. **Merge the audio files**

**Audio Sets to Train ANC:**

Each Class folder contains 50 randomly picked audio files of that class from the first 5 folds of the Urban8ksound data set.

**Python Code:**

The python code “Main” merges all the Wav files in a folder into one Wav file. In this way, we can train the ANC model for different kinds of audios which belong to similar class by using just one Wav file.

Rerun this code if any changes are made in any of the folders to get the Updated “Merged.wav” files for every folder.

1. **Training the Model:**

Each “Merged.wav” is selected individually and passed through the ANC model. The simulation time is set approximately 5 times to the duration of the file so that the Model is well trained on a particular class.

1. **Saving the weights:**

Once the weights are attained, they are needed to be saved for future use. That is done by running the following code inside the MATLAB Command Prompt window.

**latest\_updatedweights = simout(end,:);**

**fid=fopen('Pre-Trained Weights/Pretrained\_weights\_Class\_1.txt','w');**

**prin=fprintf(fid,'%.15f\n',latest\_updatedweights);**

**fclose(fid);**

**Note:**

**Update the fopen command for every class to avoid overwriting and other issues**