**Speakers diarization with detecting the latency and overlap of online speakers**

The project has been based on MIT databases for training network.

In order to compile the desired code, the following stages must be taken:

1.install pycharm

2.install pip python --upgrade

the python version =3.9 (it is necessary)

3. pip install pip --upgrade

4. install anaconda (it takes time)

after the anaconda is installed the environment in conda based on python 3.9 is made.

5.the below libraries should be add in order to use them in code.

diart, tourch, tourchaudio, [pyannote.audio](https://github.com/pyannote/pyannote-audio)

6.conda create -n diart python=3.9

7.conda activate diart

8.conda create -n diart python=3.8

9.conda activate diart

10.pip install diart

11.pyannote.audio should be installed

12. the terms of MIT have to be consented by user by following the

https://huggingface.co/pyannote/segmentation

13. order the token for login open the below link:

14. pip install huggingface\_hub

15.conda install -c conda-forge huggingface\_hub

16. use the token code for logging to the MIT database

17.the main.py must be run

18. please enter the token number

19. after compile the main.py

20. the script turn the laptop's speaker on and the voice of speaker are saved every 0.5 in buffers.

21. by using pipeline all voices are recorded and according to the frequency the speaker voices is recognized.

22. the network will be trained by 5 sec recording

23. the crucial parts of this project are latency and the over-lap of speakers' voices.

the problems are solved by separating the frequency according to the trained network and pytourch library.