**Audio Analysis Documentation**

**Steps to Generate Background\_score Matrix:**

1. Open ‘all\_segments\_matrix\_generation.py’ file
2. Import necessary libraries
3. # 1 # Execute ‘background\_music\_matrix’ function
4. # 2 # Set the directory where all video files are stored or set the path in ‘glob.glob’ and execute following code.
5. Now all the files with background\_score, segment duration, segment\_cuts will be stored in output directory of current directory.

**Steps to Generate the graph of background score and reach:**

1. Get the reach of specific movie and store it in separate file along with background score of the same movie.
2. Save this file as ‘reach\_background\_score.csv’
3. Open ‘Graph\_generation\_function.py’
4. Change the values in variable declaration section as per requirement
5. Run the following code as it is, at the end, both ‘.gif’ and ‘.mp4’ files will be saved in same directory.

**Steps to generate combined movie and animated graph video**

**OpenShot steps:**

1. Click on ‘+’ sign at the top to import video files (both graph video and Movie segments)
2. Drag video from left panel on to track bucket in the bottom centre
3. Right click on the video thumbnail -> layout -> ‘select position as per requirement’ (to show details modification options, click on view on the top and select advanced view
4. Can change the values of X, Y positions and X, Y Scale from the properties
5. Follow the same process for all the segments
6. Click on export button on the top to export the final video

**Steps to generate combined movie and animated graph video using python:**

1. Open ‘concatenate\_clips.py’ file, set directory to folder where both ‘animated\_graph file of background score’ and ‘movie segment’ files are stored.
2. Run the program and concatenated file will be saved in same directory.

**Directory paths:**

1. Full length movie basic analysis output:

D:\Saurabh D\saurabh\Audio\_analysis\Python\_files\Dataset\Full\_movie\_data\All Movie Outputs

1. Code files: D:\Saurabh D\saurabh\Audio\_analysis\Python\_files