



## Question [1] Introduction to audio and video processing in music

<a href="#">Audacity</a>	<a href="#">Cadence</a>	<a href="#">Tempo</a>	<a href="#">Beethoven</a>	<a href="#">Pour Elise</a>	<a href="#">Avidemux</a>
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[Submission link](#) at eclass

*Please submit a short report (PDF or WORD), with brief explanations of ALL your steps, and links to your web results (URL)*

## Question [1] Consider the two short music videos at:

<http://oldtown.glendon.yorku.ca/~teaching/2655/2022/hw1/>

- You will find this [LINK](#) (at Eclass) helpful for this question.

[a] [Tempo](#)

Why is there such a size difference between the two videos? Which one is longer?

[b] [Beats per minute \(BPM\) and frames per seconds \(fps\)](#)

Explain the difference in terms of “tempo” between the two videos.

[c] [Audio, video processing and music synchronization](#)

This [video](#) demonstrates the steps I took to make the video [fur\\_elise\\_v2.mp4](#) from the video [fur\\_elise\\_v1.webm](#). Listen carefully to the music.

Which audio effects and which interval (s) have I applied to make the video [fur\\_elise\\_v2.mp4](#)? Could you list all the steps I took? If necessary, use: Audacity → import > (video name) and examine the waveform.

[d] [Tempo](#) (88 per cent)

Just like shown in the video in (c) above, make a new video named `fur_elise_v3.mp4` from [fur\\_elise\\_v1.webm](#). But this time, your video should play at 88% tempo.

Display your video `fur_elise_v3.mp4` at your Glendon web site:

<http://oldtown.glendon.yorku.ca/~yourname/2655/hw1/88pctempo/>

At the URL above, “lastname” should be replaced by “your last name” (in small letters).

[e] [Video embed at a web page](#)

Display (embed or insert into a web page) the video ou made in [d] at your Glendon web site as the web page `page1.html` at:

<http://oldtown.glendondorku.ca/~yourname/2655/hw1/88pctempo/page1.html>

This link may be helpful: [https://www.w3schools.com/html/tryit.asp?filename=tryhtml5\\_video\\_autoplay](https://www.w3schools.com/html/tryit.asp?filename=tryhtml5_video_autoplay)



## Question [2]      Make a chorus effect with Fred Mercury

Given a segment from Bohemian Rhapsody at:

<http://oldtown.glendon.yorku.ca/~teaching/2023/huma2655/hw1/audio/segment-mm.wav>

(1)

Which looks like this:



And which was obtained (edited in Audacity) from the longer segment (music) below:

[http://oldtown.glendon.yorku.ca/~teaching/2023/huma2655/hw1/audio/vocals\\_ballad\\_part.wav](http://oldtown.glendon.yorku.ca/~teaching/2023/huma2655/hw1/audio/vocals_ballad_part.wav)

(2)

[a]      Chorus rendering of Fred Mercury

Make a chorus rendering of Fred Mercury singing with 3 voices from segment (1) and (2)

[b]      Mix and render

Display your final chorus rendering at your web site (audio embed) at

**<http://oldtown.glendon.yorku.ca/~yourname/2655/hw1/mercury/chorus.html>**

Describe very briefly your steps.

[c]      Mix and render 3 voices and piano

The piano track of Bohemian Rhapsody is at:

<http://oldtown.glendon.yorku.ca/~teaching/2023/huma2655/hw1/audio/piano.wav>

Use Audacity to edit/trim the audio Piano track, then mix-render it with the 3 voices you made in [a] above.

Display the mixdown music as mp3 file in the web page:

**<http://oldtown.glendon.yorku.ca/~yourname/2655/hw1/mercury/mixdown.html>**



*Itec/modr/human 2655*

*Computer Music*