Introduction to Programming II Project Log

Project title:	Music Visualisation
Topic:	Week 20 New extension - 3D objects, testing feedback and amendments

What progress have you made this topic?

- I have completed multiple objects by multiple createCanvas() with WEBGL renderers
- I have created 3D torus and changing their size depending of the fourier.waveform() function, which I mapped against the size of the canvas; I have also made them rotate along the Y axis.
- I have also taken a modular approach to the visualisation, by creating custom functions of renderObject() which took in the canvas object. Canvas objects are also created iteratively by defining a object class that could be pushed into an array, which are subsequently rendered
- I have noted the feedback from a user (my friend) and amended some layout, including to provide more instructions by default. The menu is changed to be shown by default.

What problems have you faced and were you able to solve them?

- The visualisation was laggy when I tried to run it, it was at first quite puzzling to me since normally it would not be that lag. I went through the lecture and learned more about performance, which I found the memory being used by the 3D rendering is very high, close to 1GB after a few moment of running.
- In order to figure out the memory issue, I have looked closer to the codes and ensured I did not have a bug that could significantly hinder the performance, such as calling createGraphics() at draw() stage. However, it was not the case.
- Eventually, I tried to host my project externally, onto a server that I used for another web development project. (https://lightformify.com/private/p2/finalproj/) There was no memory issue on there, so I figured that the issue was due to Bracket's overhead when loading the preview server. Thus, I could not solve the problem.

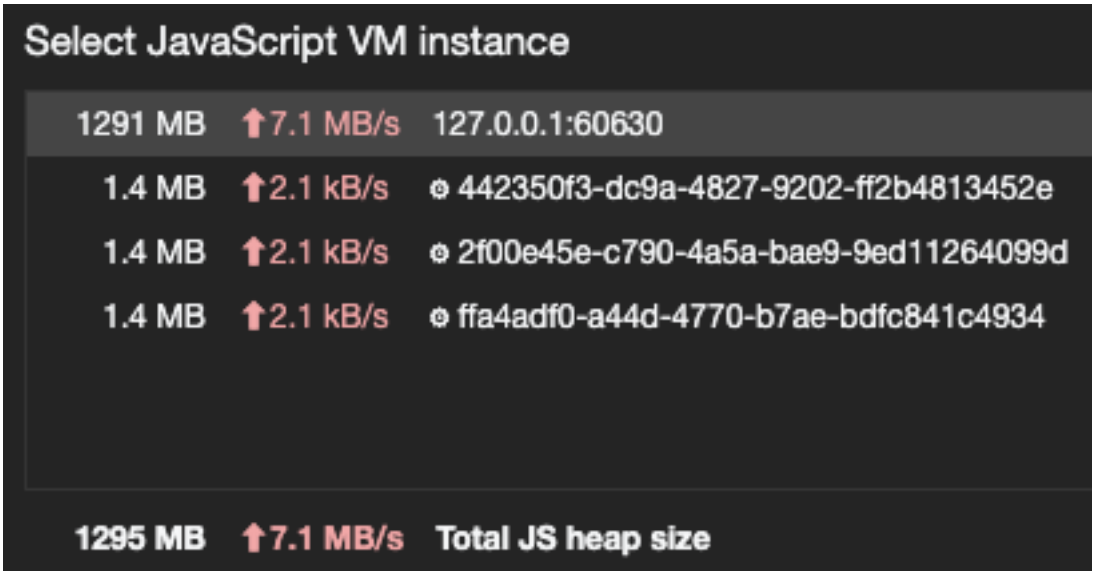
What are you planning to do over the next few weeks?

- I plan to complete the report part of the project

Are you on target to successfully complete your project? If you aren't on target, how will you address the issue?

- As there are performance issue regarding a static number of 3D objects, the original plan of having them dynamically created should be unrealistic and hence I would have to change the plan, presenting with 16 fixed positioned objects.

Memory usage under Bracket's preview server



Memory usage under external web server