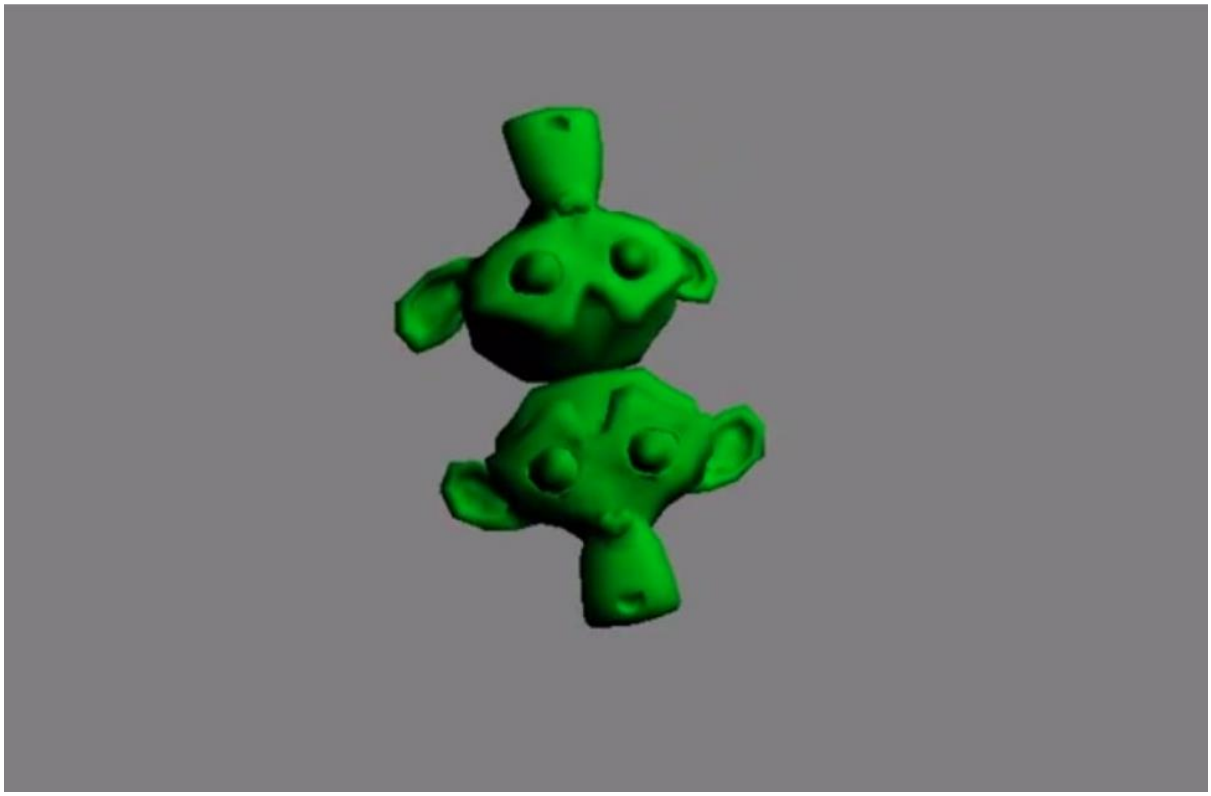
Lab #4

The purpose of this lab is to learn how to import models, starting with the monkey head and then trying your own.

Due date: 23rd October, 2022



1. This lab assignment is strictly **individual** (no groupwork).
2. You should attend the in-person lab on 11th October and use the online lab discussion board to get help from the demonstrator.
3. You can download the sample scene on Blackboard which should provide you with a good starting point. An 'obj' loader will be provided on Blackboard, along with a simple vertex shader for lighting your scene. You may use Assimp if you would like more functionality for your loader. Note: the sample code also shows an object hierarchy of the two monkey heads, but we do not have to worry about hierarchies for now.
4. You will be required to submit via Blackboard on 23rd October:
    - Evidence that you completed/attempted the lab (screenshot of result, video, screenshot of error message you got with short description of what went wrong, etc.). There are no marks allocated for this lab, but it is mandatory to upload at least some evidence, even if the program is showing an error.
    - Failure to upload anything may result in a penalty on future assignments.
5. Do not wait until the last minute to start this exercise. Assume something unexpected will happen and give yourself time to deal with it.

6. Your program should have the following features:
    - Keyboard control of the translation of the root object
    - Create a (simple) model of your own in a modelling package and import it
    - Import free models from the internet

Notes:

- You can create models in a modelling package (3DS Max, Blender, etc.) or download from the web (e.g., Turbosquid or https://free3d.com/ etc.).

- Each of your unique meshes should be associated with one vertex array object (VAO). This may be used to draw the same mesh in more than one location.

- You may use one shader programme for everything, or you may decide to use a separate shader programme for each mesh so that you may render each one in a different style.

- Try to keep your code as simple, short, and clean as possible, as you will be able to use this as the base for your final project.