

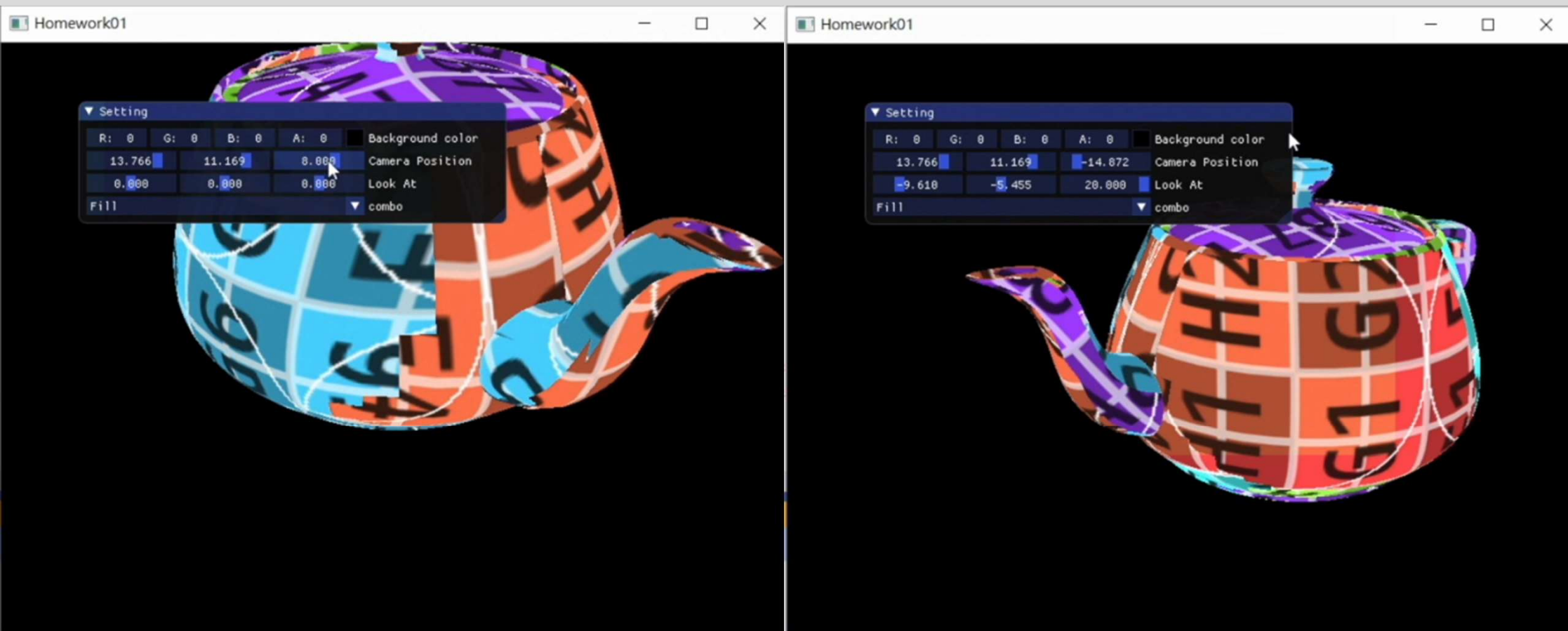
Homework 01

2023/09/18

Objectives

- ◆ Write an OpenGL application with the following features.
 - ◆ Load and render the 3d model.
 - ◆ Render the model with the texture.

Objectives



Requirements

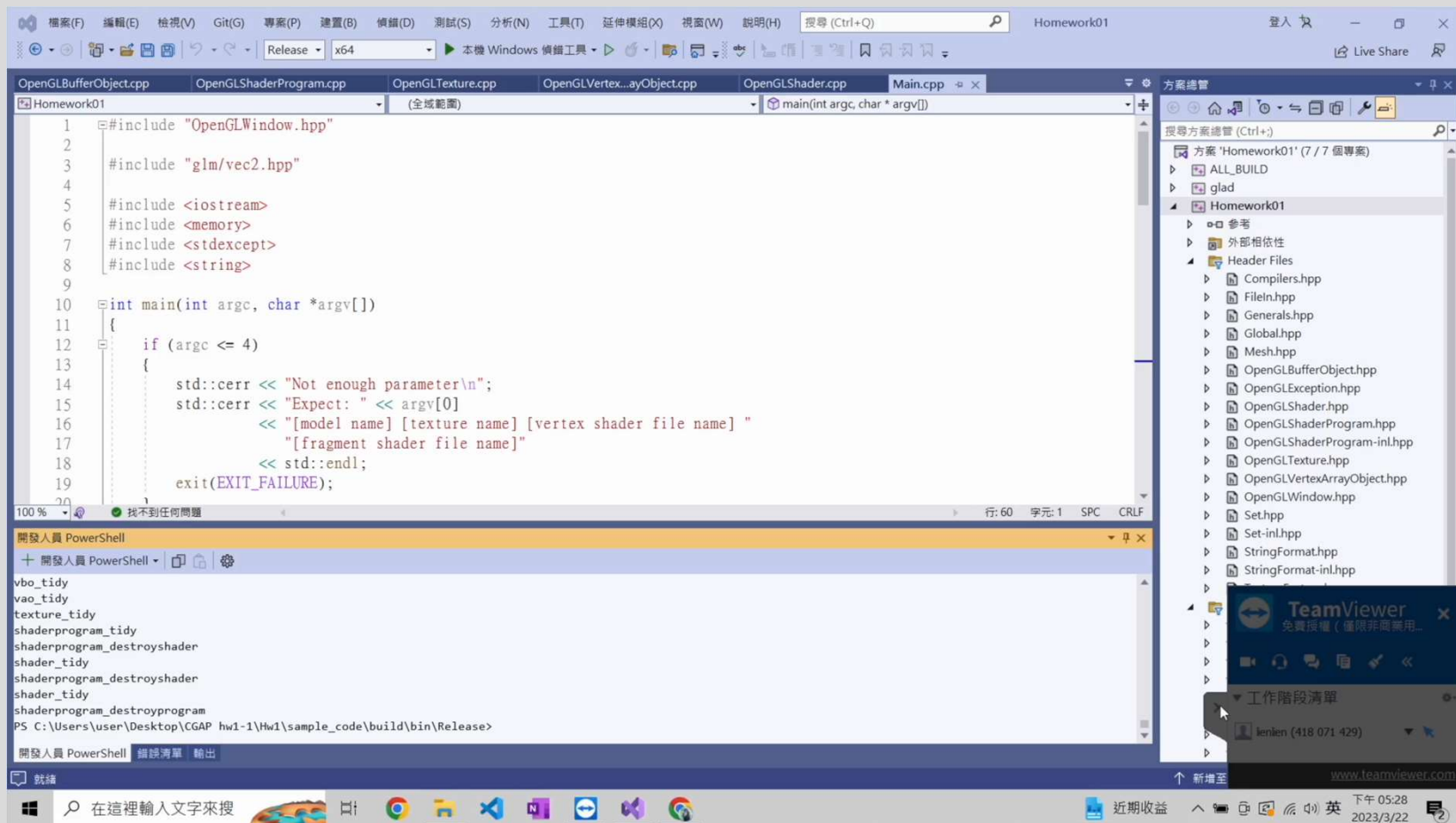
- ◆ You can modify the sample code (recommend) or write your own code.
- ◆ No limitation on Programming Language (sample is written in C++)
- ◆ No limitation on Operating System

Submission

- ◆ Compress your file into <student ID>_<student Name>.zip
 - ◆ e.g., P76114074_張浩綸.zip
- ◆ Your zip file should include:
 - ◆ Source Code
 - ◆ Demo Video
 - ◆ Report (pdf)
- ◆ Upload to Moodle.

Demo Video Example

- ◆ The video **MUST** include: 1) How to run the program (either from command line or IDE is OK)
- 2) The model with the texture and tune the scalar to get different view / position of the camera.



Report PDF Example

- ◆ The report should at least have:
 - ◆ Environment
 - ◆ Method description
 - ◆ How to run the program

一、作業環境

Windows 10 / Visual Studio 2022 / glfw version 3.3.6

二、方法說明

1. OpenGLBufferObject.cpp

三、程式如何執行

```
PS C:\Users\user\Desktop\CGAP_hw1-1\Hw1\sample_code\build\bin\Release> ./Homework01.exe "resources/model/Utah_teapot_(solid)_texture.obj" "resources/texture/uv.png" "Shader/BasicVertexShader.vs.glsl" "Shader/BasicFragmentShader.fs.glsl"
```

程式一開始會先建立 shader program 與 shader, 設定好 source 和 bind 程序後, 將 shader 都連接到 shaer program 上, 接著建立並設定 texture 相關訊息, VAO、VBO 也設置好後, 即可透過 Window 將貼好 texture 的 model 顯示出來。

實際程式跑的 function 順序如下:

Deadline

- ◇ On time: **2023/10/02 (Mon.) 23:55**
- ◇ Delay: **2023/10/09 (Mon.) 23:55**
- ◇ After **2023/10/02 (Mon.) 23:55**, I'll score your homework, and announce the score on moodle.
- ◇ If you have any problem with the score you get, please email to p76114074@gs.ncku.edu.tw and resubmit the new version to moodle before **2023/10/09 (Mon.) 23:55**