# 521140S:4 Computer Graphics (2022) Environment Installation

## General information

In this assignment, the goal is to **set the OpenGL 3.1 environment with Python (PyOpenGL-3.1.5)** for development and get familiar with the basics of OpenGL3.1 rendering.

**There is no deadline for returning the work.** The result of this assignment doesn't account into the final score. But it recommended to be done before starting the first assignment.
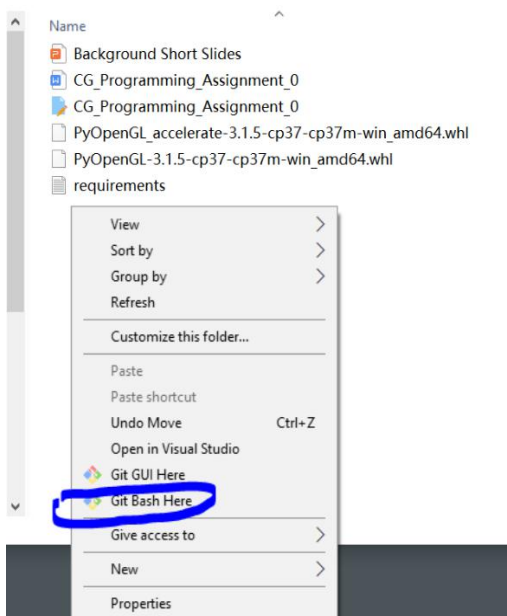
## Tasks

In this assignment, you are expected to set up the basic environment for OpenGL 3.1 with Python.

*1. Pre-requirements*

- Linux or Windows (Mac OS may work)
- Python >=3.6
- Pip >= 9.0
- Optional, Anaconda (recommended for environment management)

*2. Install dependencies:*

Go into the path of the folder of Programming Assignment 0 and open the terminal window:



Install the dependencies with this command (default for python 2 version):

```
pip install -r requirements.txt --user
```

Then update the PyOpenGL version with compatible python 3:

```
pip install PyOpenGL-3.1.5-cp37-cp37m-win_amd64.whl
pip install PyOpenGL_accelerate-3.1.5-cp37-cp37m-win_amd64.whl
```
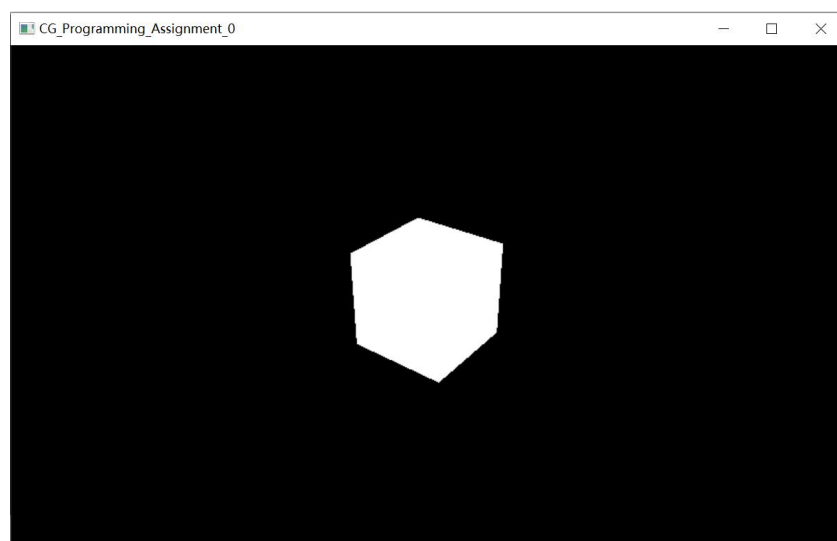
Make sure to change the `cp37` to your corresponding python version if it is not 3.7. You can download other versions from https://www.lfd.uci.edu/~gohlke/pythonlibs/#pyopengl.

*3. Run the sample code:*

Run the sample code with this command:

```
python CG_Programming_Assignment_0.py
```

Here is the initial running result:



Try to explore the code and get a pretty tea pot!