Tutorial 1 - OpenGL Installation

Mac OS:

1. Install GLEW and GLFW using Homebrew. If you already have Homebrew installed, just run `brew install glfw3` and `brew install glew`
2. Extract the sample code
3. Run the following commands

   ```
   make
   ./sample
   ```

   Run `make clean` to remove the generated sample and main.o files
4. The output should be rotating triangle coloured red.

Linux:

1. Install glut/freeglut, GLEW and GLFW by using the following command in the terminal

   ```
   sudo apt-get install freeglut3-dev libglew-dev mesa-utils libglfw3 libglfw3-dev
   ```

2. Verifying installation. Follow the following steps :

   ```
   glxinfo | grep "direct rendering"   ### Expected output → direct rendering: Yes
   glxinfo | grep "OpenGL core profile version"   ### Expected output → Some version above 3.1
   glxgears  ### Should run an animation having 3 gears. Verifies that setup is OK.
   ```

3. Extract the provided sample code.
4. Run the following

   ```
   make
   ./sample
   ```

5. Output should be a red coloured rotating triangle.
6. Some possible errors (Doesn't recognise 'in' qualifier because of GLSL version, explicitly declare #version 330 core in the first line of each shader file).

Windows:

Demonstration in class

You can refer to this video: https://www.youtube.com/watch?v=8p76pJsUP44

Extract the windows specific sample code

Ensure `make` is installed

Running instructions:

```
make
./sample
```

Output: