

# Assignment 1

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## Part 1: Code Overview

The code in main.cpp does the following: Set display mode, initial window position and title. Register display and resize functions with GLUT. run glut main loop.

### Necessary changes for OSX:

#### CmakeLists.txt

Line 8:

```
1 -- add_executable(${Executable_file} main.cpp)
2 ++ add_executable(${Executable_file} main.cpp visuals.cpp)
```

Line 80:

```
1 -- IF(${CMAKE_SYSTEM_NAME} MATCHES "Linux")
2 ++ IF(${CMAKE_SYSTEM_NAME} MATCHES "Linux" OR APPLE)
```

Line 86:

```
1 -- ENDIF(${CMAKE_SYSTEM_NAME} MATCHES "Linux")
2 ++ ENDIF(${CMAKE_SYSTEM_NAME} MATCHES "Linux" OR APPLE)
```

#### main.cpp, visuals.cpp

Line 1:

```
1 -- #include <GL/glut.h>
2 ++ #if __APPLE__
3 ++     #include <GLUT/glut.h>
4 ++ #else
5 ++     #include <GL/glut.h>
6 ++ #endif
```

### Compile & run

```
1 $ cmake CMakeLists.txt
2 $ make
3 $ bin/Hello_world_GL
```

## Part 2: alternatives to GLM and FreeGLUT

### FreeGLUT alternatives:

On OSX, GLUT is very easy to use, as it's already installed. Another alternative is GLFW, which seems to be way more modern. I really feel like GLFW is the way to go.

A more comprehensive list can be found [Here](#). I could not find any viable alternatives to GLM:(