Installing OpenGL and Running OpenGL Programs on Microsoft Windows 10

Go to https://sourceforge.net/projects/orwelldevcpp and follow the links there to download and install Dev-C++ TDM-GCC 4.9.2 32/64bit edition. After Dev-C++ has been successfully installed, do the following:

Install Free GLUT:

Download and unzip the file freeglut-MSVC-3.0.0-2.mp.zip

from http://files.transmissionzero.co.uk/software/development/GLUT/freeglut-MSVC.zip

On 32-bit Windows:

- 1. Copy all the files from freeglut\include\GL to
 - C:\Program Files (x86)\Dev-Cpp\MinGW64\include\GL
 - (Note that you may have to create the **GL** folder)
- 2. Copy the file freeglut.lib from freeglut\lib to
 - C:\Program Files (x86)\Dev-Cpp\MinGW64\lib
- 3. Copy the file freeglut.dll from freeglut\bin to C:\Program Files (x86)\Dev-Cpp\MinGW64\bin

On 64-bit Windows:

- 1. Copy all the files from freeglut\include\GL to
 - C:\Program Files (x86)\Dev-Cpp\MinGW64\include\GL
 - (Note that you may have to create the **GL** folder)
- 2. Copy the file freeglut.lib from freeglut\lib\x64 to
 - C:\Program Files (x86)\Dev-Cpp\MinGW64\lib
- 3. Copy the file *freeglut.dll* from freeglut\bin\x64 to C:\Program Files (x86)\Dev-Cpp\MinGW64\bin

Install GLEXT:

- 1. Download and unzip the file *glext.zip* from https://sourceforge.net/projects/glextwin32
- 2. Copy all files from glext\include\gl and paste it into
 - C:\Program Files (x86)\Dev-Cpp\MinGW64\include\GL
- 3. Copy all files from glext\lib and paste it into C:\Program Files (x86)\Dev-Cpp\MinGW64\lib

Install GLEW:

Download and unzip the file *glew-2.2.0-win32.zip* from https://sourceforge.net/projects/glew

On 32-bit Windows:

- 1. Copy all the files from glew-2.2.0\include\GL to
 - C:\Program Files (x86)\Dev-Cpp\MinGW64\include\GL
- 2. Copy all the files from glew-2.2.0\lib\Release\Win32 and glew-2.2.0\bin\Release\Win32 to C:\Program Files (x86)\Dev-Cpp\MinGW64\lib

On 64-bit Windows:

1. Copy all the files from glew-2.2.0\include\GL to

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- C:\Program Files (x86)\Dev-Cpp\MinGW64\include\GL
- 2. Copy all the files from glew-2.2.0\lib\Release\x64 and glew-2.2.0\bin\Release\x64 to C:\Program Files (x86)\Dev-Cpp\MinGW64\lib

Run a Program:

- 1. Open Dev-C++ from the Start Menu to bring up the welcome screen.
- 2. Create a new project by going to File > New > Project
- 3. Select Basic then Console Application then C++ Project. Name your project and save it by clicking on OK.
- 4. Goto Project > Project Options or press Ctrl+H. Then goto *Parameters* under Additional command line options: goto *Linker:* and add following three lines:
 - -lfreeglut
 - -lopengl32
 - -lglu32

then click on OK to save it.

- 5. Write your own code or choose any sample program from the below link:

 https://www.opengl.org/archives/resources/code/samples/glut_examples/examples/examples.html
 - https://www.opengl.org/archives/resources/code/samples/simple
- 6. Then save it, run and execute to see its output.