HW4

Problem:

The goal of this assignment is to implement texture mapping in OpenGL. The uv data is hard coded in the main function. The code that is required to be written is transferring the uv data to openGL buffer like what was done with the vertex position. Another piece of code is binding the texture in the rendering loop and shader code to draw the texture

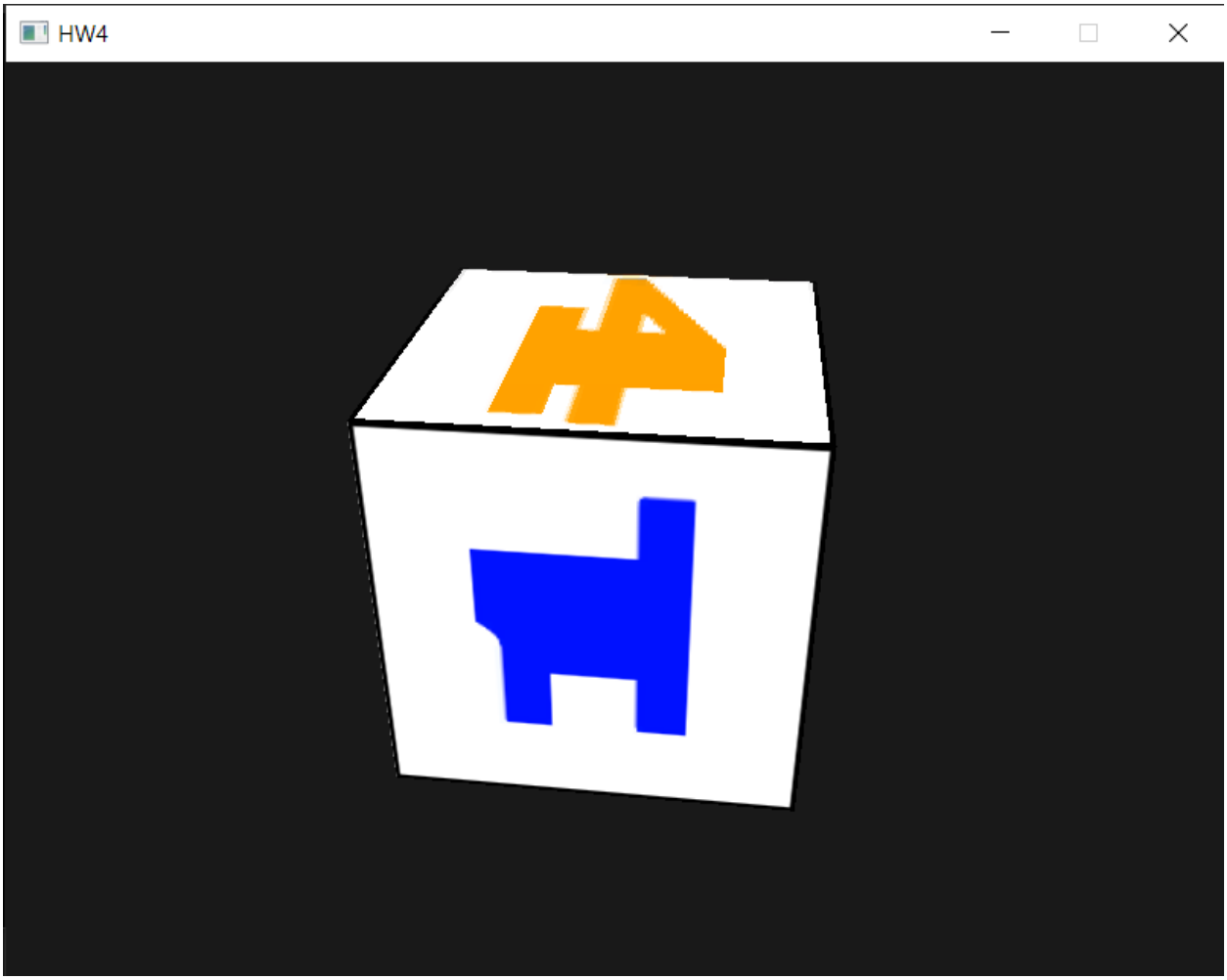
Algorithm and Method:

For the binding texture and transferring the uv data, I utilized an online resource, https://learnopengl.com/Getting-started/Textures. It is necessary to use the previous code from the vertex position portion of the code. For the two texture files, texture.vs and texture.frag, I utilized this online resource. http://www.opengl-tutorial.org/beginners-tutorials/tutorial-5-a-textured-cube/

Implementation:

In terms of implementation, it was easy to implement the texture.vs and texture.frag. The online resource states to use .rgb in the .frag file but since you are passing a vec4 value out, it is best to leave that out. For the texture.vs, I had to play around and see which combination of transformations I had to use in order for the texture to be correct and not mirrored. As for the uv, it took plenty of work trying to understand which parts of the vertex code was specifically for transferring data because redundancy was not happening. Instead it caused the texture to load differently.

Result: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