Assignment #1: Clock Project Report

For this first assignment, I got to work in Visual Studio and use OpenGL, FreeGlut, and C++ for the first time. I am a native to Java and C# so being able to do it in C++ was a great experience. I am going to say that the hardest part of this all was getting this to configure on my laptop. I had followed along in class and I got nothing to work. I actually had to have Jinwei help me after class one day and she was able to help me despite with my laptop being so slow and buggy whenever I need to get something done. Once I got it all configured, I had to start reading in how to do this thing because I looked at the assignment and I had no idea where to start. I did some research on the OpenGL website and finally got some things working out in my favor. Instead of using a 2d rotation matrix, I used the Vertex3f function to draw the clock face placed at the specified coordinates. After it was placed, I used some math functions with a parameter called “triDegree” to make it draw 360 degrees and make a perfect circle. For each of the hands, they came out to be in the glArrays function, where each of the elements for the arrays was a coordinate (x, y, z) listed in the assignment outline. When plugging in the values given, the hour hand was much bigger than the minute hand and it actually had to be modified to make them proportionate for the clock. With some guidance from Jinwei, I was able to us glTranslatef and glRotatef to make the clock hands rotate with their given parameters. Given the equations and the time functions, I put the formula into the degree parameter of glRotatef and it was able to match up with my system time. It was a bit of a rough start but this project has been a great learning experience and I cannot wait to do some more with this class!