## Your Implementation Log

When you submit your assignment for marking, you will also need to submit an implementation log detailing the work you have done in this module towards the assignment. You are to start recording your log by week 5.

There are two parts to the log: a summary of the work you have done up to week 5 and a detailed diary of the work you do from week 5 onwards. Details of each of these sections are provided below:

**a) Summary of the Work Done in Weeks 1 through 4**

In the first 4 weeks, I was able to complete all the tutorials of each week without facing any problems. I didn’t have experience on C++ and at first it was hard for me to understand the basic structure of C++ programmes but with the help of my instructor and doing my own research I was able to comprehend the structure of C++ programmes and I was ready to begin the assignment.

**b) Detailed Diary of Work Done from Week 5 Onwards**

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| Week 5 | 3 hours per day | I started working on the pipeline I made some progress on the functions needed to complete the pipeline. |
| Week 6 | 3 hours per day | I was able to complete the pipeline and I saw the wireframe on the panel. |
| Week 7 | 3 hours per day | I was able to start writing and complete the method back face culling. |
| Week 8 | 2 hours per day | I wrote the polygon sorting method. The latter was achieved by an algorithm that I created with my imagination. |
| Week 9 | 2 hours per day | I completed the draw solid flat method and fill the polygon with colour on the panel |
| Week 10 | 3 hours per day | I created timers in render and update methods and I was able to make all the necessary transformations on the panel with the model (scale, translate, rotate). |
| Week 11 | 3 hours per day | I added the directional lighting to the model. The latter was achieved by creating a class named directionalLight() and a method named CalculateLightingDirectional(). |
| Week 12 | 3 hours per day | I added ambient and point light to the model. The latter was achieved by creating a pointLight class and an ambient light class and two function named CalculatePointLighting () and AmbientLightCalculation. |

Additionally, I created some functions such as subtractionVector(), normalize(), DotProduct() and CrossProduct() that helped me implement features such as back face culling, ambient lighting, directional lighting and point lighting.