GAM531/DPS931

**Game Engine Foundations**

**Lab One**

**Due date:** Sep. 16 (At the end of lab period)

For this lab, we are going to draw two triangles on either side of the screen on a horizontal axis. One of the triangles rotates clock-wise and the other one, counter-clock-wise.

Here are these steps that we need to follow to accomplish this task:

1. Download the Week\_Two codes from BB->Codes Developed In Class.
2. Modify the code and draw one rotating triangle whose centre is located on (0,0).
3. Next, you will need to translate it to the left side of the screen, say (0.5, 0). You will need to do this by modifying the transformation matrix and passing it to the vertex shader as we did in class. If you are not too sure about how to do this, ask me.
4. once you are done for the first triangle, you’ll need to follow the same procedure to draw the second triangle. Now, keep in mind that you will need to translate it to the right side of the screen. So, you will need to re-modify the transformation matrices.

**Note:** You will need to call the glDrawArrays() twice in the display function. The structure of the code looks as:

* Set-up transformation matrix
* draw the first triangle using rotational parameter, e.g. alpha
* Set-up transformation matrix
* draw the second triangle using rotational parameter, e.g. beta

**Need more challenge?** Move them toward each other as they are rotating.

**Submission:**

* Demonstrate it to your lab instructor to receive your grade
* Submit your code through blackboard (no submission will receive zero grade)