# CS3241 Computer Graphics Lab 1: Doodles!



## Introduction

In this assignment, you will do 2D drawing in OpenGL. You may draw anything you like as long as there is *no violence, racism, and pornography* involved. Use your creativity! (But please limit it to 2D, if you are already playing with all the 3D transformation, please stay at the 2D plane with us in this assignment.) You can run an example program "sampleLab1.exe" by our TA (Shown in the right)

## Instructions

We zipped the whole project for both Mac and Windows users.

1. Unzip the file (Some students just double click on the zip file and tried to open the project files but failed because it is not unzipped.)
2. For Mac users, open the XCode project file. For Windows users, open the ".sln" file (Provided that you installed MS Visual Studio (Not MSVS Code).)
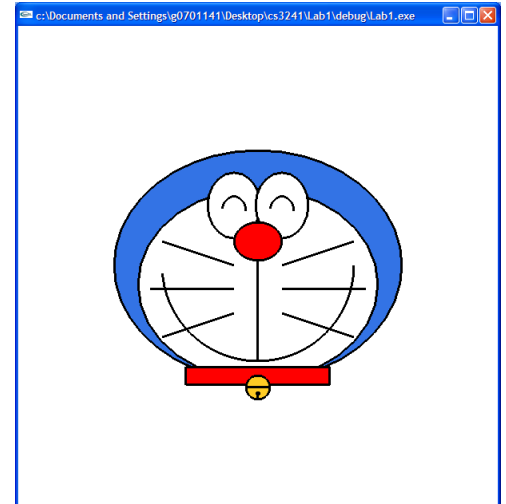
You can start drawing by putting your code into the function `display()` in the file `main.cpp`. Basically you can just put all your drawing routines into this function. However, it is recommended to structure your program and break down your functions for the sake of good programming styles. Please place all your new functions before `display()` and in the same .cpp file for this assignment.

## Requirements

This is a "warm-up" assignment. So please relax and enjoy doing it. The requirements are:

1. Draw a picture that you like. The code given will just draw a triangle. Please remove those code and draw something you want to.
2. Please make sure that all the keyboard controls work in your program (e.g. Q,E,A,D, etc.)
3. You cannot submit a file that is too big.
4. Use two gl/glut function that is not taught in the class or tutorial. Write it in the beginning of your .cpp submission for your grader to know like this:

```
/////////////////////////////////////////////////////
//   Name: Alan Cheng
//   Extra functions I used: glTexture3f() and glSelectBuffer()
/////////////////////////////////////////////////////

// CS3241 Assignment 1
#include <cmath>
#include <iostream>

#ifdef __WIN32
```

## Handin Procedure

1. Submit ONLY your main.cpp by copy-and-paste into Canvas Assignment

# Grading Rubric

- 20% Your code can compile and draw something different from the given triangle
- 20% You have a drawing with a few different colors.
- 20% You have use at least two meaningful transformation in your display function
- 20% Two functions that are not taught in our lecture or tutorials
- 20% for ~~subjective emotional~~ artistic appreciation
    - 0% It doesn't make any sense
    - 5% Ok
    - 10% Good looking (for > 80% of students)
    - 15% Very good, exceptional
    - 20% The best 5 students