

# Comp380

Programming Assignment #2

Due Apr.-5 (Wed.) (before 11:59pm)

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**Objective:** Understand how to perform transformations to the model, idle-based animations, and simple interaction methods.

**Developing environment:** TA will test your code in Visual Studio 2015 (MSVC 14.0) in Microsoft Windows.

## Requirements:

- 1) Make project for PA2. Adding all \*.h and \*.cpp files into your project.
- 2) Compile and run the skeleton codes of PA2.
  - a. The code requires reading a file of “cow.obj” and “camera.obj”. This file should be in the working directory. (where \*.vcxproj located)
  - b. “beethoven.obj” file will be used in the next assignment. You don’t need to consider it during this assignment.
- 3) Understand the basic structure of the skeleton code; you will implement the next assignment with the skeleton codes again.
- 4) Implement the cow spinning around an arbitrary line. Choose the line randomly and draw it. Rotation is done in the modeling space. (15 pts)
  - a. Toggle the animation by typing “r”
  - b. You can use the idle-based animation method
- 5) Provide translation function along x, y, z directions in the modeling space (15 pts)
  - a. The amount of translations is determined by the mouse movement.
  - b. If you type “x”, “y”, or “z”, then, the cow model translates along a direction corresponding the key map. In order words, if you type “x”, then, the cow translates along x-direction in the modeling space.

## Deliveries:

- 1) Binary (\*.exe) and source codes (\*.cpp) of your solutions.
- 2) A report (\*.pdf) that specifies the files you made/changed.
- 3) Submit your work in KLMS. You should submit \*.zip file that contains your binary (\*.exe), source codes (\*.cpp), and your report (\*.pdf).

**Policies:** Everyone must turn in their own assignment. You can collaborate with others, but any work that you turn in should be your own.