

## CIS 441/541: Project #2B

Due Nov 14<sup>th</sup>, 2016 (meaning 6am Nov. 15<sup>th</sup>)

Worth 7% of your grade

### Goal:

You will make a dog out of spheres and cylinders using `glPop/PopMatrix`, `glRotate`, `glTranslate`, and `glScale` commands. This project will help you learn more about the `ModelView` matrix and also better understand how geometries are constructed.

There is a new skeleton program, `project2B.cxx`.

This program contains:

- 1) infrastructure that works with the VTK library
- 2) routines for rendering cylinders and spheres
- 3) code that renders some of the dog's head.

You do not need to produce exactly my dog. Your dog should:

- (1) look more or less like a dog (i.e., as much as mine). The means no obvious problems with the geometry (example: the legs are super long and you left it because you didn't know how to fix it).
- (2) Use the sphere and cylinder routines in `project2B.cxx`.
  - a. If you want to use different geometries, let me know. The concern here would be if people bring in external geometries that simplify the problem too much.
- (3) Have two elements that are not aligned with  $(1,0,0)$ ,  $(0,1,0)$ , or  $(0,0,1)$ . My dog has the tail and neck at an angle.



What to turn in?:

- your source code
- 3 screenshots that show off your dog