CPSC 3520 - HW1

Due: 11:59PM 3/31/15

Turn in: a Java / `lwjgl` program that creates a `Display` containing two different Entities:

- a sprite-textured game entity that uses a state machine to traverse the boundary of the screen.
- a sprite-textured game entity that follows the mouse cursor when the mouse button is pressed.

Any creative additions to this functionality are allowed and encouraged.

This required functionality has been developed in class. The real purpose of this assignment is to make sure that everyone is following some standards of project organization that will facilitate future development.

Organizational requirements

Your submission should be a single zip file (or other archive) of your project directory. If you are using Eclipse, this will be the directory from your workspace. If you are not using Eclipse, make sure this directory includes a text file describing compilation and execution.

This directory should have the following subdirectories

1. `src/` containing all of the source code you have written. You must package all of your source code. I suggest using the package `edu.utc.lastname3520`
2. `res/` containing all multimedia resources (specifically the sprite texture required by the assignment)

The filename for your submitted zip file must include your name.

Functionality

`Entity` must exist as a class, intended to be extended by other specific game entity types as the semester progresses.

Tip: the relationship between mouse pointer positions (such as retrieved using `Mouse.getX()` and `Mouse.getY()`) depends on the OpenGL projection used (the *ortho* thing from the code in class). In short, it is very easy to end up with a reversed Y axis for the mouse clicks. An easy way to compensate for this is to track using `windowHeight - Mouse.getY()`.

You should prioritize rendering the graphics using a coordinate frame that makes sense to you (is the origin at the top-left or bottom-left?). Modify the logic used in the routines that call `Mouse` methods if necessary.