

COMP 2355
Winter 2012
Lab #11
February 14, 2012

This lab should be submitted to your course SVN by noon on February 15 in a folder named “Lab11”.

This lab should be implemented in multiple .cpp files and multiple header (.h) files.

1. Implement a generic shape class.
 - a. Implement a virtual function to get an enclosing rectangle for the shape.
 - b. Implement a virtual function to test whether a point is inside a shape. (This function should be passed integer x and y coordinates.)
2. Implement derived classes for circles, squares, and rectangles which inherit from the generic shape.
3. Implement a function which can take two shapes and determine if they overlap. We define overlapping as overlapping on integer coordinates, so you only need to check for overlaps on grid cells.

You are responsible to think about the design and implement the design of this class appropriately.