

## CSE 3302/5307 Lab Assignment 2

Due July 29, 2013

### Goal:

Understanding of JavaScript, elementary event-driven programming, and prototypal inheritance.

### Requirements:

1. Modify the solution to lab 6 from Spring 2013 for the following revised requirements:
  - a. Remove the “none” options from “Fill Color” and “Stroke Color”. This removes UI issues with boxes being invisible.
  - b. Add “Pink” and “Purple” colors for “Fill Color” and “Stroke Color”.
  - c. Add a second drawing mode: Square. This is similar to Rectangle in functionality:
    1. While dragging to define a square, the longer distance in the x- and y-dimensions indicates the length of a side of the square.
    2. If the drag would give a square that is partially outside the canvas, this should be treated the same as a mouseout for drawing a rectangle (i.e. abandon the new square).
    3. A separate square type is not required.
  - d. Boxes, whether rectangles or squares, may not overlap. A newly drawn box may be completely contained in other boxes as part of a containment hierarchy.
  - e. An “outermost” box may not inherit for any of the three graphic properties (“Fill Color”, “Stroke Color”, “Stroke Thickness”).
2. Email your program to [yeqing.li@mavs.uta.edu](mailto:yeqing.li@mavs.uta.edu) by 12:45 p.m. on July 29, 2013. Be sure to indicate what browser you tested with.

### Getting Started:

1. The solution for lab 6 is available in the directory <http://ranger.uta.edu/~weems/NOTES3302/LAB6SPR13/> as the files `lab6.html` and `boxDraw.inh3.js`.

A second version with more tracing, through an additional textarea, is provided as `lab6.demo.html` and `boxDraw.inh3.demo.js`.

The solution for lab 3 is available as the files `lab3.html` and `boxDraw.js`.

2. In the provided solution, there is a rectangle (`drawObject[0]`) whose border is the entire canvas. It is (initially) stroked in blue at a thickness of 5 without being filled. These graphic properties may be changed when in “Set Properties” mode. In addition, it is the root of the containment hierarchy. You do not have to keep this rectangle in your implementation.