

Computer Programming Canvas #12 – Mouse Events

Objective: Use the HTML5 canvas object and Javascript to cause shapes to appear on the screen using mouse clicks. In the sample done in class, the functionality already exists to use the left mouse button to drag a circle until the mouse goes up, and which point a circle filled with a random color is drawn whose center is at the location of the mouse pointer.

1. In your Computer Programming folder, create a folder titled *first_last_canvas_12*. Copy the *mouse_events.html* file from your *practice* folder and paste it in your *first_last_canvas_12* folder. Make sure the file name is *mouse_events.html*.
2. Edit the *mouse_events.html* file
 - a) Change the title to *First Last - Canvas 12*
 - b) Add more colors until you have at least 10.
 - c) Modify the *this.draw()* function in *Circle* to outline the circle as well as fill it.
 - d) Add code so that when the right mouse button is clicked, the outline of a square is drawn. The square moves around the screen as long as the right mouse button is pressed. When the right mouse button is released, the square is filled in with a random color. It is also outlined.
 - e) The center of the square must be drawn at the point where the mouse pointer lies. You may choose the length of the side of the square.
3. Zip your *first_last_canvas_12* folder. Turn in your *first_last_canvas_12.zip* file.

Extra credit opportunities:

1. When the center button is pressed, draw an equilateral triangle centered at the mouse pointer. To do this correctly, you will need to remember properties of equilateral triangles.
2. Change the radius of the circle that is drawn to be a random number within a range that you pick.
3. Change the side of the square that is drawn to be a random number within a range that you pick.
4. Change the side of the triangle that is drawn to be a random number within a range that you pick.

Example with all extra credit:

