Langara College CPSC 2130 – Multimedia and Animation

Assignment 7: HTML5 Canvas

1. Create a looping animation using the PNG animation frames contained in the folder called **"frames"**. If you want, feel free to use the animation you created for assignment 4; to do this, you can output your animation from After Effects as a sequence of PNG files.

   You may use the template file **"frame-animation.html"** that has been provided with the files for this assignment.
      a. The slides in the course materials on D2L provide an overview for how to create a frame animation and render it using the canvas element:
         i. Use an array to store the animation frames once they have been loaded. Make sure that all of the animation frames have been loaded before the animation starts.
         ii. Make sure that the animation loops indefinitely. Set the framerate to be appropriate for the animation.
      b. Save this file as **frame-animation.html**. Make sure all the PNG files are handed in with your work.
2. Create a canvas with dimensions 1024 x 768 pixels.
      a. Use JavaScript to make an illustration on the canvas with the following properties. Write detailed comments in your code to indicate which statements generate which visual elements in the illustration:
         i. At least one **closed Bezier path** with at least **four** curve segments. (meaning four sets of one anchor point and two control points.)
         ii. At least **two other shapes**, using any of **rectangles**, **arcs**, **text**, **linear segments**, and **quadratic curves**.
         iii. At least **two different fill colors**
         iv. At least **two different stroke colors and widths**
      b. Save your file as **illustration.html**.

   Take some time to make a thoughtful and well-executed illustration. You will be graded on the challenge level of your illustration, the efficiency and control of your Bezier curve (have all the points been placed deliberately and intentionally?) and your technical implementation of the other shapes. (have you missed any steps and is your code well-written?)

   Hand In

   Rename your working folder **to a7-firstname-lastname**; zip this folder and hand it in to D2L.

Resources:
- [W3 Schools Canvas Tutorial](#)
- [Mozilla Developer Network Canvas Tutorial](#)

Checklist:

1.
    a. [2 marks] Frames loaded, drawn after load
    b. [2 marks] Frames drawn to browser window with appropriate frame rate (not too slow or fast)
    c. [BONUS +1] Use an animation that you created yourself
2.
    a. [2 marks] Bezier path with four segments
    b. [2 marks] Two other shapes with two colors and two fills
    c. [2 marks] Challenging, well-constructed illustration.

    [2 marks] Folder is named, zipped and handed in properly

Total: 12