Spike: Task 17
Title: Sprites and Graphics

Author: Hayden Whiteford, 104001272

Goals / deliverables:

Create a graphical 2D application capable of displaying images. Your application must:

1. Display a single image as the background image for your application, which can be toggled “on” or “off” using the “0” (zero) key
2. Load one other image that contains three identifiable sub regions (tiles) within it
3. Define three rectangles that specify the sub-region (“part”) for each tiles image
   a. Display each tiles image to a unique random location using a toggle “on” or “off” in response to the 1, 2 and 3 number keys

Technologies, Tools, and Resources used:

List of information needed by someone trying to reproduce this work

- Xcode
- SDL2
- SDL_image

Tasks undertaken:

- **Created an SDL image application that toggles rendering a background image on and off using the 0 key**
- **Using a photo made up of three smaller photos, created “tile” rectangles that match the dimensions of each smaller photo, and output tiles, with positions that can be randomly set**
- **Change the position and visibility of each tile using the 1, 2 and 3 keys.**

What we found out:

SDL2 has basic rendering shapes like rectangles which can be useful in this case for our tile system. Also, when rendering a surface texture (our photos), we need a source and destination rectangle. Our source determines where the original tiles are in our “Combined” image, and the destination rectangle determines where that tile should be on our screen.