Assignment 6: 2D Arrays and Loops

Due Date: March 6, 2015

Objective

The objective of this lab is to

- Have some fun playing with images using 2d arrays, methods, and loops

Exercises

1. You will need to write code that flips an image vertically. Modify your Picture class to create a flipVertical(Picture source) method that draws the source upside down in the current (target) Picture. You callr would look like this:

    ```
    Picture source = new Picture("<<source file>>")
    Picture target = new Picture(source.getWidth(), source.getHeight());
    target.flipVertical(source);
    target.repaint();
    ```

    For reference, it is possible to solve this in 10 lines of code. If your code is 30 or more lines long, you will lose points. You may use any helper method necessary.

    Hint: In the notes you will find a method called mirrorVertical() that might be of help for you.

2. Create your own image special effect. This needs to go beyond the type of just color-changing algorithm you wrote last week to include something like a distortion (multiple mirroring, splitting and copying, etc). The choice is yours!

    - Write a method in Picture.java, with an appropriate name, that implements your special effect.
    - Write a method for Picture.java called runEffect() that takes no parameters. runEffect() should run your special effect method.
    - Snap a picture of an image created when runEffect() is called.

    Hint: You may use any of the methods that we have previously worked with.

Submit:

Upload Picture.java and the snapshot of your picture.