## Part1 Exam: Making Personal Collage

**Part1\_Exam:** You will write a Python program as described below. The Python program, and the 2 .jpg files will be uploaded to dropbox and also to remy account. Be sure to place good comments in your program so that I can try to understand what you were attempting to do and can give partial credit if it is warranted. Your documentation in your program should outline exactly what your program does in order to meet the requirements. You may use any resources at your disposal including your previous programs that you have written for this class. All code must be your own. Your collage MUST be a completed, well planned finished work of art that is suitable for placement in a portfolio of work demonstrating your programming and artistic ability.

**The Program:**

Create a Python program is JES that allows the user to choose two files using the mouse and then manipulates and shows the final manipulated image(s) to the user when it is done with the manipulation. (Note: It also gets one argument at the command line which is a file name that the user wants to write the resulting image to. You MUST supply the two images in your directory for this project. These files must be your own images not images you downloaded from the Internet.

**Specifications:**

The program will have at least 2 or more sub-functions:

* 1. The **initialization function:**
     + Which is our typical "control function or main function" that collects user information and creates the variables needed and passes them on to the other function(s). This function is also the function that displays and/or writes the files to disk.
     + It has the user choose 2 files that you supply to make your final image and your program uses both of these images to construct the final collaged image
     + It also takes an argument at the command line that will be a file that the user wishes to write out.
     + The program then displays the final image to the user. (Remember user controls are all executed through the initialzation function)
     + The program then writes the image to disk to the place that the user entered as a command line argument. (Again remember user controls are all executed through the initialzation function)
  2. One or more **secondary function(s)** that actually manipulates the images. Note that each of these functions or methods used shall be documented in the program itself, including reference what the function does and/or reference to the book where the particular technique was shown.
     + It uses both of the images and draws them into a blank canvas, or writes one of the imaged into the other.
     + It uses at least 3 of the following techniques found in Ch 6 and must do at least one of the mirroring/rotating type of transformations:
       - mirroring pixels
       - changing colors on the copied image
       - rotating an image
       - stretching or changing the scale of an image
       - blurring an image
       - blending 2 images
       - drawing into an image

**The Files on Remy:**

Save these four files for your program in your as ~/bin/cis122 subdirectory on remy.parkland.edu

* [your\_parkland\_username]\_part1\_exam.py
* [your\_parkland\_username]\_img1.jpg This will be the first image I must select.
* [your\_parkland\_username]\_img2.jpg This will be the second image I must select
* F1OUT.jpg (Output of part1\_exam)

**The Files on final exam folder on desktop:** (start solving part2\_exam after you finished this one)

Put all these files in folder name final exam:

* [your\_parkland\_username]\_part1\_exam.py
* [your\_parkland\_username]\_img1.jpg This will be the first image I must select.
* [your\_parkland\_username]\_img2.jpg This will be the second image I must select
* F1OUT.jpg (Output of part1\_exam)