Lab 10: A Work of Art (10 pts)

Setup

1. Locate your "CS102" folder
2. Download lab10.zip
3. Extract the content of the zip file to lab10 in your CS102 folder
4. Open "lab10.py" with Thonny
5. **READ THE COMMENTS**

Now that we are writing functions, make sure your work today (and all future assignments) follows our class Python style guidelines and you include function comments. **Be careful of your indentation!**

Assignment

You will be editing an image of your choice by applying a visual effect to a **selected region** of an image. This is your chance to have some fun and get creative. If you are having trouble coming up with ideas, you can change someone's hair color, edit the color of the sky in an image, change the color of someone's outfit, or give a car a new paint job. You may **NOT** just do red eye or near/exact copies of examples in the book or the examples online. You may use `media.show()` to display your completed picture **OUTSIDE** of your functions. **DO NOT USE MEDIA.SHOW INSIDE EITHER OF YOUR FUNCTIONS!**

Task 1: Choose Your Canvas

Do a bit of searching for an image that seems like it would be fun to edit. The image will need to be in jpg or png format. You should use royalty free images (creative commons, pixabay, unsplash), the images used by the book, or your own photos. Just make sure that the image you choose is one you have permission to use. If you select an image and the resolution is very large, you may want to consider resizing it to be smaller so your program takes less time to run and test. If you are using a royalty free stock image site, they may offer you image downloads at various sizes.

Once you have found your image, begin writing your function in the lab10.py file to perform your edit. Make sure to **write a comment at the top of your function to explain what it does**.

Task 2: Framed

Congratulations, you have created a masterpiece! The only thing left to do is frame it! Complete the `border` function that located at the top of the lab10.py file you downloaded and call the function on your new image and provide a width for the frame. Your border will go all around the edge of your image, but the color and width of the border is your choice as long as it is clearly visible and is not so large that it obstructs the image.

Lab Submission

For this lab you will upload two files. The first will be your lab10.py code file, and the second will be the **original image** that your program edits.

Useful Media Functions

- media.getX(pixel)
- media.getY(pixel)
- media.getWidth(picture)
- media.getHeight(picture)
- media.makeColor(R, G, B)
- media.setColor(pixel, color)
- media.distance(color1, color2)
- media.getColor(pixel)
- media.duplicatePicture(picture)
- media.explore(picture)
- media.show(picture)