Digital Creations From Sea to Code

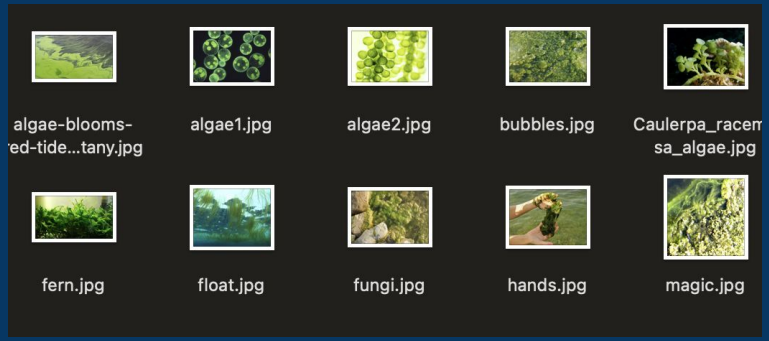
Shells, Aquatic Creatures & Algae

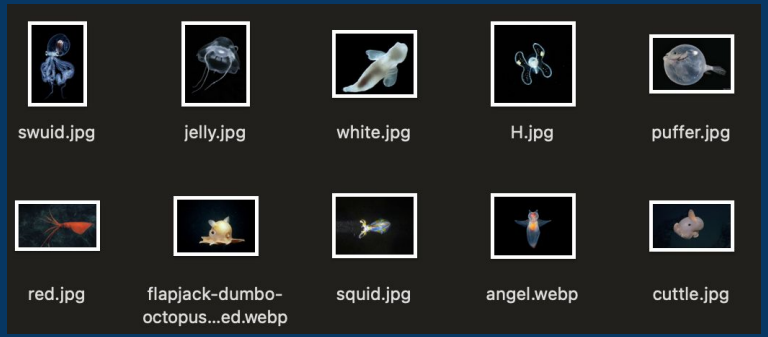
Badah Oh
Intro to Code as a Liberal Art

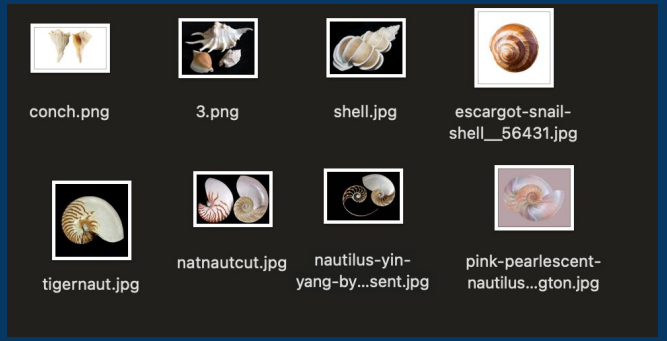
algae

sea

shells







ALGORITHM 1: FIRST STEPS

```
1   import sys
2   from os import listdir, path
3   from PIL import Image
4   # python3 algo1.py shells (name of the image folder)
5   import random
6   # i want to import random from shells
7
8   currentdirectory = sys.argv[1]
9   #sys.argv[1] means the user "1" is the second argument after the python file
10
11  files = listdir(sys.argv[1])
12  # print(files)
13  files.remove(".DS_Store")
14
15  random_file = random.choice(files)
16  random_file2 = random.choice(files)
17  print(random_file, random_file2)
18  #choosing random image from folder
19  # img = Image.open( path.join(sys.argv[1],random_file) )
20
21
```

```
badaoh@badas-mbp final-project % python3 algo1.py shells
tigernaut.jpg shell.jpg
badaoh@badas-mbp final-project %
```

ALGORITHM 1: NEXT STEP

```
Image.open(path.join(currentdirectory,random_file ))
Image.open(path.join(currentdirectory,random_file2 ))



random_file.resize((400,400))
random_file2.resize((400,400))
  #      keeps saying on terminal that AttributeError: 'str' object has no attribute 'resize'
  # make sure images are all png or jpg or there will be error
# random_file.convert("RGBA")
# random_file2.convert("RGBA")
# CONVERTING IMAGE SIZE SO THEYRE ALL THE SAME
```

```
Traceback (most recent call last):
  File "/Users/badaoh/code-fall24/unit-1/final-project/algo1.py", line 30, in <module>
    random_file.resize((400,400))
AttributeError: 'str' object has no attribute 'resize'
badaoh@badas-mbp final-project %
```

ALGORITHM 1: BLENDING

```
if len(sys.argv) != 3:
    #! is to say opposite
   #could change to 4
    #exit("This command requires two arguments")

random_file = Image.open( sys.argv[1] )
random_file2 = Image.open( sys.argv[2] )


#three_img_blend = Image.blend(random_file, random_file2, .2)
#three_img_blend.save("blend3.jpg")
# on terminal: python3 algo1.py.py (can enter shells or sea instead of image files) Image-1.jpg , image-1-B.jpg
blendedrandom_img = Image.blend(random_file, random_file2,.5)
blendedrandom_img.save("blended.jpg")
# make sure images match up in size
# only takes 3 arguments at a time
# argv 1 being first image argv 2 being second image and third being the opacity
#blending images together

# # then taking two sets of blended images and blending them together
```

ALGORITHM 1: ANOTHER LAYER

```
if len(sys.argv) != 2:
    exit("This program requires one
    argument: the name of the image file
    that will be created.")

# Make a new 400x400 image
img = Image.new("RGB", (400,400) )

for y in range(400):

    for x in range(400):

        r = 0
        g = 0
        b = 0
        if x %  50 > 25:
            r = 255

        if y % 50  > 25:
            b = 0

        if x % 100 > 50 and y % 100 > 50:
            g = 0
            #green

        pixel = (r, g, b)
        img.putpixel( (x,y), pixel )
#checking
img.save("redstripes.jpg")
```

ALGORITHM 1: IDEAL RESULTS

```
if len(sys.argv) != 4:
    #! is to say opposite
   #could change to 4
    #exit("This command requires two arguments")

random_file = Image.open( sys.argv[1] )
random_file2 = Image.open( sys.argv[2] )
img = Image.open(sys.argv[3])
# (img is red stripes)

three_img_blend = Image.blend(random_file, random_file2,img, .3)
three_img_blend.save("blend3.jpg")
```

ALGORITHM 2

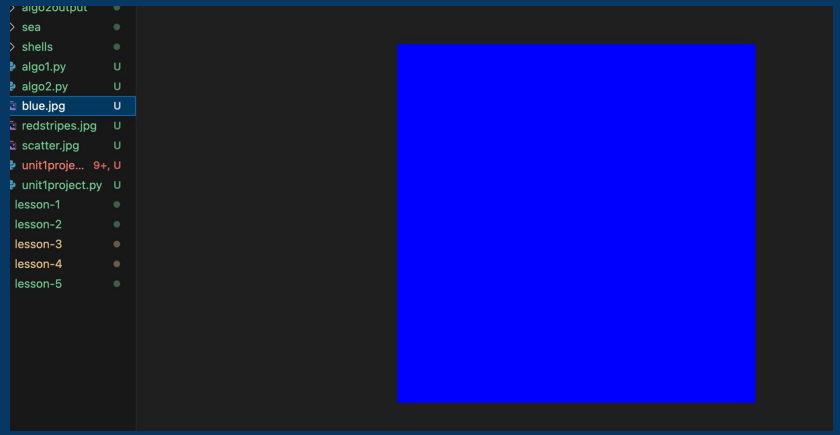
```python
import sys
from os import listdir, path
from PIL import Image

import random
# python3 algo1.py shells (name of the image folder)
import random
# # i want to import random from shells

currentdirectory = sys.argv[1]
#sys.argv[1] means the user "1" is the second argument after the python file
#using currentdirectory as a variable for sys.argv[1]

files = listdir(sys.argv[1])
# print(files)
files.remove(".DS_Store")

random_file = random.choice(files)
# random_file2 = random.choice(files)
print(random_file)
#print(random_file, random_file2)
##choosing random image from folder
#img = Image.open( path.join(sys.argv[1],random_file) )



Image.open(random_file)
# img2 = Image.open(image name )

random_file.resize((400,400))
random_file.convert("RGB")
# # CONVERTING IMAGE SIZE SO THEYRE ALL THE SAME
```

ALGORITHM 2: chosen random image and resize

```
badaoh@badas-mbp final-project % python3 algo2.py sea
jelly.jpg
badaoh@badas-mbp final-project %
```

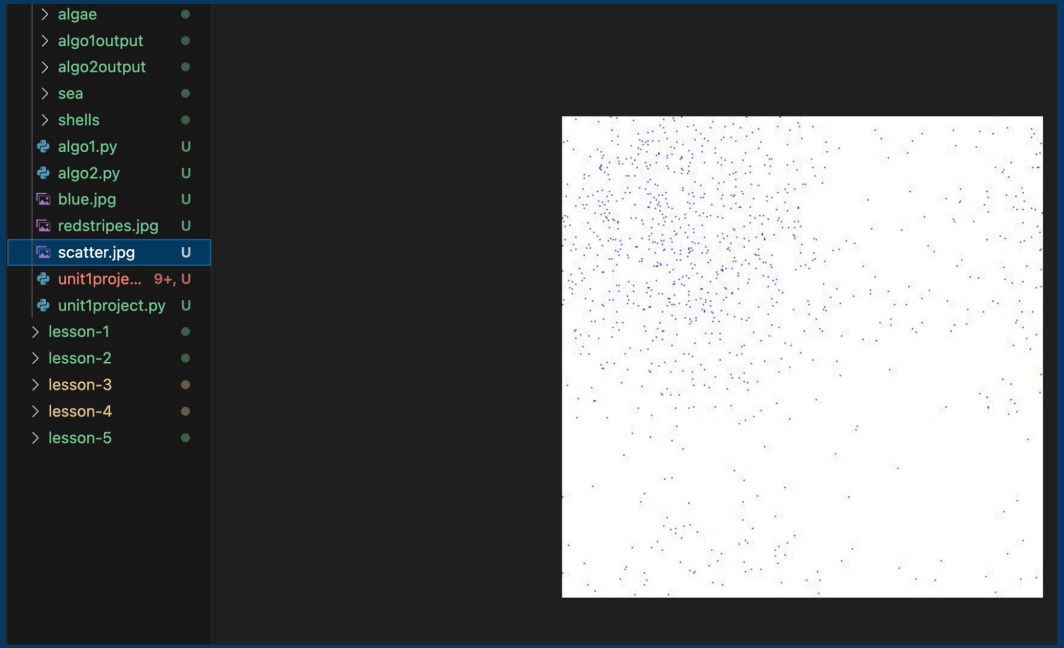
ALGORITHM 2: MAKING BLUE

```
#making blue square
width = 400
height = 400

img = Image.new("RGB", (width,height), (0,0,255) )

img.save("blue.jpg")


# #blending blue square with a random image taking that blue blended image
```



ALGORITHM 2: MAKING BLUE SCATTER

```
width = 400
height = 400

img2 = Image.new("RGB", (width,height), (255,255,255) )

# loop 500 times, and each time, pick a random x and
# a random y
# and draw a pixel there
for n in range(1000):

    ## even distribution
    # x = int( random.random() * 100 )
    # y = int( random.random() * 100 )

    # ## gaussian distribution
    # x = int( random.gauss(50,10) )
    # y = int( random.gauss(50,10) )

    ## gaussian distribution just for x
    x = int( random.gauss(100,80) )
    #y = int( random.random() * 100  )
    y = int( random.gauss(100,80)  )

    img2.putpixel( (x,y), (0,0,255) )
### scatter pixels are blue!!!

img2.save("scatter.jpg")
```



ALGORITHM 2: BLEND THREE COMPONENTS

~THANK YOU~