PYTHON BASIC

Assignment_14

1. What does RGBA stand for?

An RGBA value is a group of numbers that specify the amount of red, green, blue, and *alpha* (or transparency) in a color.

2. From the Pillow module, how do you get the RGBA value of any images?

In Pillow, RGBA values are represented by a tuple of four integer values.

3. What is a box tuple, and how does it work?

This means Pillow is expecting a tuple of four integer coordinates that represent a rectangular region in an image.

The four integers are, in order, as follows:

Top **The y-coordinate of the top edge of the box.**

Right **The x-coordinate of one pixel to the right of the rightmost edge of the box. This integer must be greater than the left integer.**

Bottom **The y-coordinate of one pixel lower than the bottom edge of the box. This integer must be greater than the top integer.**

4. Use your image and load in notebook then, How can you find out the width and height of an Image object?

```
from PIL import Image
Img = Image.open('/content/images.jfif')
width, height = Img.size
print(f'width {width} and height: {height}')
Img
```

width 230 and height: 219

5. What method would you call to get an Image object for a 100×100 image, excluding the lower-left quarter of it?

```
from PIL import Image
im = Image.new('RGBA', (100, 100), 'purple')
im.save('purpleImage.png')
print(im.size)
im
```

6. After making changes to an Image object, how could you save it as an image file?

```
image.save('purpleImage.png')
```

7. What module contains Pillow's shape-drawing code?

ImageDraw Module

```
from PIL import Image, ImageDraw

im = Image.new('RGBA', (200, 200), 'white')

draw = ImageDraw.Draw(im)

draw
```

output <PIL.ImageDraw.ImageDraw at 0x7f3a98d68a50>

8. Image objects do not have drawing methods. What kind of object does? How do you get this kind of object?

Drawing shape:

1. **Points**
2. **Lines**
3. **Rectangle**
4. **Ellipses**
5. **Poligon**

ImageDraw.Draw() to get an ImageDraw object, and storing the ImageDraw object in draw, we can call drawing methods on draw.