# Assignment 14

#### 1. What does RGBA stand for?

**Answer:**

**RGBA** is a four-channel format containing data for Red, Green, Blue, and an Alpha value. Where Alpha Represents the Opacity

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

**Answer:** **ImageColor.getcolor()** gives rgba value of any image

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

**Answer:**

A box tuple is a tuple value of four integers: the left-edge x-coordinate, the top-edge y-coordinate,the width, and the height, respectively.

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

**Answer:**

*#Example Program*  
from PIL import Image  
pic = Image.open('Pic.jpg')  
print(f'Width, Height -> {pic.size}') *# Approach 1*  
print(f'Width, Height -> {pic.width},{pic.height}') *# Approach 2*  
width,height = pic.size  
print(f'Width, Height -> {width},{height}') *# Approach 3*

Width, Height -> (287, 70)  
Width, Height -> 287,70  
Width, Height -> 287,70

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

**Answer:**

from PIL import Image  
img = Image.open('Pic.jpg')  
new\_img = img.crop((0,50,50,50))

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

**Answer:**

#Example Program  
from PIL import Image  
pic = Image.open('pic.jpg')  
pic.save('pic2.jpg')

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

**Answer:**

Pillows **ImageDraw** module contains Shape drawing methods

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

**Answer:**

ImageDraw objects have shape-drawing methods such as point(), line(), or rectangle().They are returned by passing the Image object to the ImageDraw.Draw() function.