# Assignment 14 Solutions

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

**Ans:** **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?

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

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

**Ans:** 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?

In [4]:

*#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?

In [8]:

**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?

In [13]:

*#Example Program*

**from** PIL **import** Image

pic **=** Image**.**open('pic.jpg')

pic**.**save('pic2.jpg')

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

**Ans:** 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?

**Ans:** 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.