

## Assignment\_14

### 1. What does RGBA stand for?

An RGBA value is a tuple of 4 integers, each ranging from 0 to 255. The four integers correspond to the amount of red, green, blue, and alpha (transparency) in the color.

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

A function call to `ImageColor.getcolor('CornflowerBlue', 'RGBA')` will return (100, 149, 237, 255), the RGBA value for that color.

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

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?

`imageObj.size` is a tuple of two integers, the width and the height.

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

`imageObj.crop((0, 50, 50, 50))`. Notice that you are passing a box tuple to `crop()`, not four separate integer arguments.

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

Call the `imageObj.save('new_filename.png')` method of the Image object.

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

The `ImageDraw` module contains code to draw on images.

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

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.