

1. What does RGBA stand for?
2. From the Pillow module, how do you get the RGBA value of any images?
3. What is a box tuple, and how does it work?
4. Use your image and load in notebook then, How can you find out the width and height of an Image object?
5. What method would you call to get Image object for a 100×100 image, excluding the lower-left quarter of it?
6. After making changes to an Image object, how could you save it as an image file?
7. What module contains Pillow's shape-drawing code?
8. Image objects do not have drawing methods. What kind of object does? How do you get this kind of object?

1. RGBA stands for Red Green Blue Alpha. It is a color model that is commonly used for digital images, where each pixel is represented by a combination of red, green, blue, and alpha (transparency) values.
2. To get the RGBA value of an image using the Pillow module in Python, you can use the `getpixel()` method of the `Image` object. This method takes a tuple of coordinates (x,y) as an argument and returns the RGBA value of the pixel at that location.
3. A box tuple is a tuple that specifies a rectangular region in an image. It is typically represented as a tuple of four values: (left, upper, right, lower). The values specify the coordinates of the top-left and bottom-right corners of the rectangle. The box tuple is used in many image manipulation operations to specify a region of interest.
4. To find out the width and height of an `Image` object in Python, you can use the `size` attribute of the image. For example, if `img` is your `Image` object, you can get the width and height like this:

arduino

```
width, height = img.size
```

5. To get an `Image` object for a 100x100 image, excluding the lower-left quarter of it, you can use the `crop()` method of the `Image` object. This method takes a box tuple as an argument and returns a new `Image` object that contains the cropped region. For example, to get an `Image` object for the upper-right quarter of the image, you can do:

bash

```
new_img = img.crop((50, 0, 100, 50))
```

6. To save an `Image` object as an image file in Python, you can use the `save()` method of the image. This method takes a file name and format as arguments and

saves the image to the specified file. For example, to save the image as a PNG file, you can do:

less

```
img.save("output.png", "PNG")
```

7. Pillow's shape-drawing code is contained in the `ImageDraw` module. This module provides a number of methods for drawing basic shapes (such as lines, rectangles, and circles) on an `Image` object.
8. `ImageDraw` objects have drawing methods that can be used to draw shapes and text on an `Image` object. To get an `ImageDraw` object for an `Image` object in Python, you can use the `ImageDraw.Draw()` method. For example, to get an `ImageDraw` object for `img`, you can do:

css

```
from PIL import ImageDraw  
draw = ImageDraw.Draw(img)
```