

PYTHON ASSIGNMENT 14

1. What does RGBA stand for?

RGBA (Red-Green-Blue-Alpha):

The RGB colour model is extended in this specification to include “alpha” to allow specification of the opacity of a colour. 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 colour.

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

ImageColor.getrgb() Method

Convert a colour string to an RGB tuple. If the string cannot be parsed, a ValueError exception is raised by this function.

Syntax: PIL.ImageColor.getrgb(colour)

Where, Arguments: colour – A colour string

Return Value: (red, green, blue[, alpha])

Example 1:

```
from PIL import ImageColor
# using getrgb
img = ImageColor.getrgb("blue")
print(img)
img1 = ImageColor.getrgb("purple")
print(img1)
```

Output:

```
(0, 0, 255)
(128, 0, 128)
```

ImageColor.getcolor() Method

This method is same as getrgb(), however, converts the RGB value to a greyscale value, if the mode isn't The graphics commands support shape drawing and text annotation colour or a palette image. If the string cannot be parsed, this function raises a ValueError exception.

Syntax: PIL.ImageColor.getcolor(color, mode)

Where, Arguments - A colour string

Return Value - (graylevel[, alpha]) or (red, green, blue[, alpha])

Example:

```
#Import required image modules
```

```

from PIL import Image, ImageColor
# using getrgb
img = ImageColor.getrgb("skyblue")
print(img)
img1 = ImageColor.getrgb("purple")
print(img1)

```

Output:

```

(135, 206, 235)
(128, 0, 128)

```

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?

```

from google.colab import files
uploaded = files.upload()

```

Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.

Saving grace.jpg to grace.jpg

```

from PIL import Image
myImg = Image.open('grace.jpg')
w,h = myImg.size
w,h

```

Output: (3520, 2294)

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

```

ImageObject.crop((0, 50, 50, 50))

```

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

By Calling 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.