PYTHON ASSIGNMENT – 14

1.What does RGBA stand for?

RGBA stands for Red, Green, Blue, and Alpha. It is a color model used to represent colors in digital images and computer graphics. Each pixel in an RGBA image is defined by four components: the intensity of red, green, and blue, and the alpha channel representing transparency or opacity.

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

To get the RGBA value of any image using the Pillow module (Python Imaging Library), you can use the getpixel() method of the Image object. This method takes the coordinates (x, y) of the pixel as parameters and returns the RGBA value as a tuple.

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

A box tuple is a tuple containing four integer values representing the coordinates of a rectangular region in an image. The values are (left, top, right, bottom), where left and top are the coordinates of the upper-left corner of the box, and right and bottom are the coordinates of the lower-right corner of the box. This tuple defines a rectangular region or bounding box within an image.

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

Image object?

After loading an image into a Jupyter Notebook using the Pillow module, we can use the size attribute of the Image object to get a tuple containing the width and height of the image.

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

quarter of it?

To get an Image object for a 100×100 image, excluding the lower-left quarter, you can use the crop() method of the Image object. You would pass a box tuple representing the region to crop out, which would exclude the lower-left quarter of the image.

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

After making changes to an Image object, you can save it as an image file using the save() method of the Image object. This method takes the filename to save the image as and optionally accepts format-specific parameters.

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

Pillow's shape-drawing code is contained in the ImageDraw module of the Pillow library. This module provides functions and methods for drawing shapes such as lines, rectangles, circles, and polygons on Image objects.

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

of object?

Image objects do not have drawing methods. Instead, you need to create an ImageDraw object to draw shapes or text on an image. You can create an ImageDraw object using the ImageDraw.Draw() function, passing the Image object as a parameter. This object provides methods for drawing shapes and text on the image.