Title: Python Basic Assignment-14

Name: Bhavikkumar Modi E-mail: bmodi700@gmail.com Website: https://keenbm.github.io/

1. What does RGBA stand for?

RGBA stands for Red, Green, Blue, Alpha.

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

```
from PIL import Image
img = Image.open('image.png')
rgba = img.convert("RGBA")
datas = rgba.getdata()
```

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

It is a tuple of four integer coordinates that represent a rectangular region in an image. The four integers are, in order, as follows:

- Left The x-coordinate of the leftmost edge of the box.
- Top The y-coordinate of the top edge of the box.
- Right The x-coordinate of one pixel to the right of the rightmost edge of the box. This integer must be greater than the left integer.
- Bottom The y-coordinate of one pixel lower than the bottom edge of the box. This integer must be greater than the top integer.

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

```
from PIL import Image

file_path = "geeksforgeeks.png"

img = Image.open(file_path)

width = img.width

height = img.height

print("The height of the image is: ", height)

print("The width of the image is: ", width)
```

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

```
from PIL import Image
```

```
import numpy as np
img = Image.open(r"IMAGE_PATH").convert('RGB')
img_arr = np.array(img)
img_arr[50 : 100, 0 : 50] = (0, 0, 0)
img = Image.fromarray(img_arr)
img.show()
```

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

```
from PIL import Image
import PIL
image_1 = Image.open(r"C:\Users\aniket\desktop\car.jpg")
image_1 = image_1.save("car_1.jpg")
```

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

The ImageDraw module contains the Pillow's shape drawing code.

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

Objects created with the ImageDraw module have the drawing methods.