**ADITYA AMIN** **ASSIGN : 14**

1. What does RGBA stand for?

RGBA stands for "Red, Green, Blue, Alpha." It is a color model used to represent colors in digital graphics and computer programming. The RGBA color model is an extension of the RGB color model, which uses three values (red, green, and blue) to represent a color, by adding an additional value called "alpha" that represents the opacity or transparency of the color

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

from PIL import Image

# Open the image

image = Image.open("example.png")

# Get the RGBA data as a list of tuples

rgba\_data = list(image.getdata())

# Print the first 10 RGBA values

print(rgba\_data[:10])

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

In the context of the Pillow module in Python, a "box tuple" refers to a tuple that represents a rectangular region or bounding box on an image. The box tuple is a common way to specify regions of interest (ROIs) or areas to be cropped, resized, or otherwise processed in Pillow. Example :

from PIL import Image

# Open the image

image = Image.open("example.png")

# Define a box tuple

box = (100, 100, 200, 200) # (left, upper, right, lower)

# Crop the image to the specified box

cropped\_image = image.crop(box)

# Display the cropped image

cropped\_image.show()

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

# Open the image

image = Image.open("example.png")

# Display the image

image.show()

# Get the width and height of the image

width, height = image.size

# Print the width and height

print("Width: ", width)

print("Height: ", height)

1. 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 100x100 image, excluding the lower-left quarter of it, you can use the crop() method of the Image class provided by the Pillow module in Python

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

After making changes to an Image object using Pillow in Python, you can save it as an image file using the save() method provided by the Image class.

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

The shape-drawing code in Pillow, a popular Python imaging library, is contained within the ImageDraw module. The ImageDraw module provides various methods for drawing shapes such as lines, rectangles, ellipses, polygons, and text on an Image object.

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

You are correct, Image objects in Pillow, a popular Python imaging library, do not have drawing methods. Instead, you need to use an ImageDraw object to perform drawing operations on an Image object.