 **RGBA** stands for Red, Green, Blue, and Alpha. It represents a color model where each pixel is defined by four values: red, green, blue (color channels), and alpha (opacity).

 To get the RGBA value of any image using the Pillow module, you can use the getpixel method after opening the image in RGBA mode. Here’s an example:

python

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from PIL import Image

# Open an image file

img = Image.open('example.png').convert('RGBA')

# Get the RGBA value of a pixel at position (x, y)

pixel = img.getpixel((x, y))

 A **box tuple** is a tuple that defines a rectangular area in an image. It typically has four values: (left, upper, right, lower), where (left, upper) is the coordinate of the top-left corner, and (right, lower) is the coordinate of the bottom-right corner. This is used in methods like crop to specify the area to be extracted.

Example:

python

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box = (100, 100, 400, 400)

 To find out the width and height of an Image object, you can use the size attribute. Here’s how:

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from PIL import Image

# Load an image

img = Image.open('example.png')

# Get width and height

width, height = img.size

 To get an Image object for a 100×100 image excluding the lower-left quarter of it, you would first define the box tuple for the region you want to keep and then use the crop method:

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from PIL import Image

# Load the image

img = Image.open('example.png')

# Define the box to exclude the lower-left quarter

width, height = img.size

box = (0, 0, width // 2, height // 2) # Adjust coordinates as needed

# Crop the image

cropped\_img = img.crop(box)

 To save an Image object after making changes, use the save method:

python

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# Save the modified image

img.save('modified\_example.png')

 Pillow’s shape-drawing code is contained in the ImageDraw module. This module provides methods to draw shapes and text on images.

 Image objects do not have drawing methods. To draw on an image, you use an ImageDraw object. You get this object by importing ImageDraw from Pillow and creating it with the image:

python

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from PIL import Image, ImageDraw

# Load the image

img = Image.open('example.png')

# Create an ImageDraw object

draw = ImageDraw.Draw(img)

# Now you can use methods on 'draw' to add shapes or text