

E:\pixel.py

```
1  from PIL import Image
2
3  # Import an image from directory:
4  input_image = Image.open("gfg.png")
5
6  # Extracting pixel map:
7  pixel_map = input_image.load()
8
9  # Extracting the width and height
10 # of the image:
11 width, height = input_image.size
12
13 # taking half of the width:
14 for i in range(width//2):
15     for j in range(height):
16
17         # getting the RGB pixel value.
18         r, g, b, p = input_image.getpixel((i, j))
19
20         # Apply formula of grayscale:
21         grayscale = (0.299*r + 0.587*g + 0.114*b)
22
23         # setting the pixel value.
24         pixel_map[i, j] = (int(grayscale), int(grayscale), int(grayscale))
25
26 # Saving the final output
27 # as "grayscale.png":
28 input_image.save("grayscale", format="png")
29
30 # use input_image.show() to see the image on the
31 # output screen.
32
```