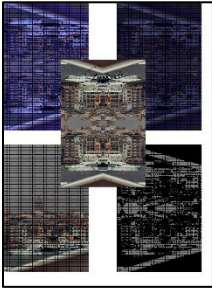


Oyekunle Alabi

Completed



Originals



```
def collage():
    canvas = makeEmptyPicture(736, 1000)#function creates a new empty picture
    pic = makePicture(getMediaPath("OYE.jpg"))#It loads the image from the media
    signature = makePicture(getMediaPath("Oye 2.jpg"))
    mirrorBotTop(pic)#It mirror the image vertically.
    sepia(pic)#It apply a sepia effect to the image.
    horizontalAndVerticalLines(pic)#It draws horizontal and vertical lines on the image
    copi(pic, canvas, 0 , 0)#It copy the modified "pic" image onto the top left corner of the canvas.
    makeDarke(pic)#It makes the image darker.
    copi(pic, canvas, 400 , 0)#It copy the modified "pic" image onto the top right corner of the canvas.
    grayPosterize(pic)#It apply a grayscales posterize effect to the image.
    copi(pic, canvas, 400 , 500)#It copy the modified "pic" image onto the bottom right corner of the canvas.
    pic = makePicture(getMediaPath("OYE.jpg"))#It load the original "OYE.jpg" image again.
    horizontalAndVerticalLines(pic)#It draw horizontal and vertical lines on the image.
    copi(pic, canvas, 0 , 500)#It copy the modified "pic" image onto the bottom left corner of the canvas.
    pic = makePicture(getMediaPath("OYE.jpg"))#It load the original "OYE.jpg" image again.
    mirrorHorizontal(pic)#It mirror the image horizontally.
    mirrorBotTop(pic)#It mirror the image vertically.
    copi(pic, canvas, 200 , 200)#It copy the modified "pic" image onto the center of the canvas.
    copi2(signature, canvas, 285 ,220)#It copy an image named "Oye 2.jpg" onto the canvas at a specific position.
    show(canvas)#It display the resulting image.

def sepia(pic):
    for p in getPixels(pic):
        red = getRed(p)
        green = getGreen(p)
        blue = getBlue(p)
```

```

    if blue < 63:
        blue = blue * 2
    if blue >= 63 and blue <= 191:
        blue = blue * 1.3
    if blue > 191:
        blue = blue * 1.2
    red = red * .75
    green = green * .75
    setColor(p,makeColor(red,green,blue))

def mirrorHorizontal(source):
    mirrorPoint = getWidth(source) / 2
    width = getWidth(source)
    for y in range(0,getHeight(source)):
        for x in range(0,mirrorPoint):
            leftPixel = getPixel(source,x,y)
            rightPixel= getPixel(source,width-x-1,y)
            color = getColor(leftPixel)
            setColor(rightPixel,color)

def mirrorBotTop(source):
    mirrorPoint = getWidth(source) / 1
    height = getHeight(source)
    for x in range(0,getWidth(source)):
        for y in range(0,mirrorPoint):
            topPixel = getPixel(source,x,y)
            bottomPixel= getPixel(source,x,height-y-1)
            color = getColor(bottomPixel)
            setColor(topPixel,color)

def makeDarke(picture):
    for x in range(0,getWidth(picture)):
        for y in range(0,getHeight(picture)):
            px = getPixel(picture,x,y)
            color = getColor(px)
            color = makeDarker(color)
            color = makeDarker(color)
            setColor(px,color)

def grayPosterize(pic):
    for p in getPixels(pic):
        r = getRed(p)
        g = getGreen(p)
        b = getBlue(p)
        luminance = (r+g+b) / 3

```

```

    if luminance < 50:
        setColor(p,black)
    if luminance >= 50 and luminance <= 165:
        setColor(p,gray)
    if luminance > 165:
        setColor(p,white)

def horizontalAndVerticalLines(pic):
    for x in range(0,getHeight(pic),5):
        for y in range(0,getWidth(pic)):
            setColor(getPixel(pic,y,x),black)
    for x in range(0,getWidth(pic),10):
        for y in range(0,getHeight(pic)):
            setColor(getPixel(pic,x,y), black)

def copi(source, source2, newX, newY):
    startX= int(newX)
    for x in range(0,getWidth(source)):
        startY= int(newY)
        for y in range(0, getHeight(source)):
            px = getPixel(source,x,y)
            color = getColor(px)
            px2 = getPixel(source2,int(startX),int(startY))
            setColor(px2,color )
            startY = startY + 1
        startX = startX + 1

def copi2(source, source2, newX, newY):
    startX= int(newX)
    for x in range(0,getWidth(source)):
        startY= int(newY)
        for y in range(0, getHeight(source)):
            px = getPixel(source,x,y)
            color = getColor(px)
            if distance(color, white)> 193:
                px2 = getPixel(source2,int(startX),int(startY))
                setColor(px2,black )
            startY = startY + 1
        startX = startX + 1

```