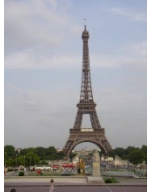


Reese Phillips

Completed



Originals



#Project created by Reese Phillips, 2024, March 7th.

```
def collage():
```

```
    eiffel = makePicture(getMediaPath("eiffel.jpg"))
    bigben = makePicture(getMediaPath("bigben.jpg"))
```

```
    canvas = makeEmptyPicture(int(getWidth(eiffel) * 2.04), int(getHeight(eiffel) * 2.04), black)
    scale(eiffel, canvas, 2.04)
```

```
    onebigben = makeEmptyPicture(int(getWidth(bigben) * 0.8), int(getHeight(bigben) * 0.8), black)
    scale(bigben, onebigben, 0.8)
    copyPicture(onebigben, canvas, 0, 400)
```

```
    onebigben = makeEmptyPicture(int(getWidth(bigben) * 0.5), int(getHeight(bigben) * 0.5), black)
    scale(bigben, onebigben, 0.5)
    twobigben = makeEmptyPicture(getWidth(onebigben), getHeight(onebigben) - 62)
    crop(onebigben, twobigben)
    threebigben = makeEmptyPicture(getWidth(twobigben), int(getHeight(twobigben) * 1.7))
    stretch(twobigben, threebigben, 1.7)
    copyPicture(threebigben, canvas, 371, 191)
```

```
    onebigben = makeEmptyPicture(int(getWidth(bigben) * 0.6), int(getHeight(bigben) * 0.6), black)
    scale(bigben, onebigben, 0.6)
    brighten(onebigben)
    copyPicture(onebigben, canvas, 359, 530)
```

```
    onebigben = makeEmptyPicture(int(getWidth(bigben) * 0.2), int(getHeight(bigben) * 0.2), black)
    scale(bigben, onebigben, 0.2)
    copyPicture(onebigben, canvas, 399, 100)
```

```
    onebigben = makeEmptyPicture(int(getWidth(bigben) * 0.6), int(getHeight(bigben) * 0.6), black)
    scale(bigben, onebigben, 0.6)
```

```
merger(onebigben, canvas, 360, 376)
merger(onebigben, canvas, 361, 377)

signature = makePicture(getMediaPath("signature.jpg"))
chromakeyB(signature, canvas)

explore(canvas)
```

```
def copyPicture(picture_in, picture_out, target_x, targ_y):
    height = getHeight(picture_in)
    for x in range(0, getWidth(picture_in)):
        target_y = targ_y
        for y in range(0, height):
            pixel = getPixel(picture_in, x, y)
            pixeln = getPixel(picture_out, target_x, target_y)
            setColor(pixeln, getColor(pixel))

            target_y = target_y + 1
            target_x = target_x + 1
```

```
def merger(picture_in, picture_out, target_x, targ_y):
    height = getHeight(picture_in)
    for x in range(0, getWidth(picture_in), 2):
        target_y = targ_y
        for y in range(0, height, 2):
            pixel = getPixel(picture_in, x, y)
            pixeln = getPixel(picture_out, target_x, target_y)
            setColor(pixeln, getColor(pixel))

            target_y = target_y + 2
            target_x = target_x + 2
```

```
def scale(picture_in, picture_out, scaleFactor):
    width = getWidth(picture_out)
    height = getHeight(picture_out)

    sourceX = 0
    for targetX in range(0, width):
        sourceY = 0
        for targetY in range(0, height):
            color = getColor(getPixel(picture_in, int(sourceX), int(sourceY)))
            setColor(getPixel(picture_out, targetX, targetY), color)
            sourceY = sourceY + 1.0 / scaleFactor
        sourceX = sourceX + 1.0 / scaleFactor
```

```

def crop(picture_in,picture_out):
    width = getWidth(picture_out)
    height = getHeight(picture_out)

    sourceX = 0
    for targetX in range(0,width):
        sourceY = 62
        for targetY in range(0,height):
            color = getColor(getPixel(picture_in,int(sourceX),int(sourceY)))
            setColor(getPixel(picture_out,targetX,targetY), color)
            sourceY = sourceY + 1.0
        sourceX = sourceX + 1.0

def stretch(picture_in,picture_out,scaleFactor)
    width = getWidth(picture_out)
    height = getHeight(picture_out)

    sourceX = 0
    for targetX in range(0,width):
        sourceY = 0
        for targetY in range(0,height):
            color = getColor(getPixel(picture_in,int(sourceX),int(sourceY)))
            setColor(getPixel(picture_out,targetX,targetY), color)
            sourceY = sourceY + 1.0 / scaleFactor
        sourceX = sourceX + 1.0

def brighten(s):
    for y in range(0,getHeight(s)):
        for x in range(0,getWidth(s)):
            pixel = getPixel(s, x, y)
            color = getColor(pixel)
            colorN = makeLighter(color)
            colorE = makeLighter(colorN)
            setColor(pixel, colorE)

def chromakeyB(source,bg):
    for px in getPixels(source):
        x = getX(px)
        y = getY(px)
        if getColor(px) == black:
            bgpx = getPixel(bg,x + 640,y + 930)
            setColor(bgpx,magenta)

```