

# Garret Grim

Completed



Original



```
def main(factor):
    pic1 = makePicture(getMediaPath('city6.jpeg'))
    sig = makePicture(getMediaPath('sig.jpg'))
    canvas = makeEmptyPicture(1000, 736, black)

    small_picture1 = makeEmptyPicture(int(getWidth(pic1)/2.5),int(getHeight(pic1)/2.5))
    small_picture2 = makeEmptyPicture(int(getWidth(pic1)/2.5),int(getHeight(pic1)/2.5))
    small_picture3 = makeEmptyPicture(int(getWidth(pic1)/2.5),int(getHeight(pic1)/2.5))
    small_picture4 = makeEmptyPicture(int(getWidth(pic1)/2.5),int(getHeight(pic1)/2.5))
    small_picture5 = makeEmptyPicture(int(getWidth(pic1)/2.5),int(getHeight(pic1)/2.5))
    smallSig = makeEmptyPicture(int(getWidth(sig) / 4), int(getHeight(sig) /4))

    scale(pic1, small_picture1, 1.0 / 2.5)
    scale(pic1, small_picture2, 1.0 / 2.5)
    scale(pic1, small_picture3, 1.0 / 2.5)
    scale(pic1, small_picture4, 1.0 / 2.5)
    scale(pic1, small_picture5, 1.0 / 2.5)
    scale(sig, smallSig, 1.0 / 4)

    grayScale(small_picture1)
    cyanotint(small_picture3)
    sunset(small_picture4)
    myFunction(small_picture5)
    chromakey(smallSig, small_picture1)

    copy(small_picture1, canvas, 0, 0)
    copy(small_picture3, canvas, 520, 0)
    copy(small_picture4, canvas, 0, 415)
    copy(small_picture5, canvas, 520, 415)
    copy(smallSig, canvas, 0, 0)
    copy(small_picture2, canvas, 260, 200)

    explore(canvas)

def copy(picture_in, picture_out, targ_x, targ_y):
    target_x = targ_x
    for x in range(0, getWidth(picture_in)):
        target_y = targ_y
        for y in range(0, getHeight(picture_in)):
            pixel = getPixel(picture_in, x, y)
            new_pixel = getPixel(picture_out, target_x, target_y)
            setColor(new_pixel, getColor(pixel))
            target_y = target_y + 1
            target_x = target_x + 1
```

```

def scale(picture_in, picture_out, factor):
    in_x = 0
    for out_x in range(0, int(getWidth(picture_in) * factor)):
        in_y = 0
        for out_y in range(0, int(getHeight(picture_in) * factor)):
            color = getColor(getPixel(picture_in, int(in_x), int(in_y)))
            setColor(getPixel(picture_out, out_x, out_y), color)
            in_y = in_y + 1.0 / factor
        in_x = in_x + 1.0 / factor

def grayScale(picture):
    for p in getPixels(picture):
        intensity = (getRed(p)+getGreen(p)+getBlue(p))/3
        setColor(p, makeColor(intensity, intensity, intensity))

def cyanotint(picture):
    grayScale(picture)

    for p in getPixels(picture):
        b = getBlue(p)

        if (b < 63):
            b = b*2
        elif (b < 192):
            b = b *1.3
        else:
            b = b*1.2

        setBlue(p, b)
        setRed(p, getRed(p) * 0.75)
        setGreen(p, getGreen(p) * 0.75)

def sunset(picture):
    for pixel in getPixels(picture):
        g = getGreen(pixel)
        setGreen(pixel, g * 0.5)
        b = getBlue(pixel)
        setBlue(pixel, b + 0.5)

def myFunction(picture):
    for pixel in getPixels(picture):
        r = getRed(pixel)
        setRed(pixel, r * 2)

        b = getBlue(pixel)
        setBlue(pixel, b * 0.5)

def chromakey(source, bg):
    for px in getPixels(source):
        x = getX(px)
        y = getY(px)
        if (getRed(px) > 125 and getGreen(px) > 125 and getBlue(px) > 105 ):
            bgpx = getPixel(bg, x, y)
            bgcol = getColor(bgpx)
            setColor(px, bgcol)

```

main(2)