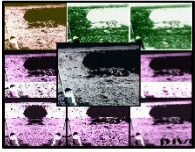
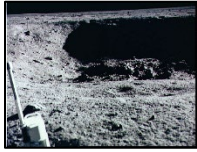


Diego Menjivar

Completed



Originals



```
from mediaComp import *
```

```
# Written by Diego Menjivar, finished on 4/1/2026 forgot when started
```

```
def collage():
    moon_surface = moon()
    background = canvas(moon_surface)
    purpTint(moon_surface)
    bg_moon = scale(moon_surface, 3)
    collage_pic = nine_moon(bg_moon,background)
    for i in range(3):
        collage_pic = blur(collage_pic, bg_moon)
    pixelate(collage_pic, bg_moon)
    lighten(collage_pic)
    setYellow(collage_pic)
    mirror(collage_pic)
    negative(collage_pic)
    original(collage_pic)
    signature(collage_pic)
    pictureTool(collage_pic)

def negative(picture):
    width = getWidth(picture)//3
    height = getHeight(picture)//3
    for x in range(0,width * 2):
        for y in range(0, height):
            pixel = getPixelAt(picture, x + width, y)
            red_value = abs(getRed(pixel) - 255)
            green_value = abs(getGreen(pixel) - 255)
            blue_value = abs(getBlue(pixel) - 255)
            setRed(pixel, red_value)
            setGreen(pixel, green_value)
            setBlue(pixel, blue_value)
    return picture
```

```

def signature(picture):
    sign_picture = makePicture(getMediaFolder('signature.jpeg'))
    sign = scale(sign_picture, 20)
    for x in range(0,getWidth(sign)):
        for y in range(0,getHeight(sign)):
            sign_pixel = getPixelAt(sign, x, y)
            sign_color = getColor(sign_pixel)
            collage_pixel = getPixelAt(picture, x + getWidth(picture)-getWidth(sign) , y +
                getHeight(picture) - getHeight(sign))
            if getRed(sign_pixel) < 200 and getGreen(sign_pixel) < 200 and getBlue(sign_pixel) < 200:
                setColor(collage_pixel, sign_color)
    return picture

def original(picture):
    original_pic = moon()
    original_pic = scale(original_pic, 2.25)
    for x in range(0,getWidth(original_pic)):
        for y in range(0,getHeight(original_pic)):
            color = getColor(getPixelAt(original_pic, x, y))
            setColor(getPixelAt(picture, x + int((getWidth(picture) - getWidth(original_pic))/ 2), y +
                int((getHeight(picture) - getHeight(original_pic))/ 2)), color)

def mirror(picture):
    width = getWidth(picture)//3
    height = getHeight(picture)//3
    for x in range(0,width//2):
        for y in range(0,height):
            left_pixel = getPixelAt(picture, x,y + height * 2 )
            right_pixel = getPixelAt(picture, width - x - 1, y + height * 2)
            color = getColor(left_pixel)
            setColor(right_pixel, color)
    return picture

def pixelate(picture, bg_moon):
    bg_moon = scale(bg_moon, 3)
    bg_moon = scale(bg_moon, 0.3333)
    for x in range(0,getWidth(bg_moon)):
        for y in range(0,getHeight(bg_moon)):
            color = getColor(getPixelAt(bg_moon, x, y,))
            setColor(getPixelAt(picture, x + getWidth(bg_moon), y + getHeight(bg_moon)*2), color)
    return picture

def setYellow(picture):
    for x in range(0,getWidth(picture)//3):

```

```

    for y in range(0,getHeight(picture)//3):
        pixel = getPixelAt(picture, x, y)
        red_value = getRed(pixel)
        green_value = getGreen(pixel)
        blue_value = getBlue(pixel)
        setRed(pixel, red_value + 50)
        setGreen(pixel, green_value + 50)
        setBlue(pixel, blue_value - 20)
return picture

def lighten(picture):
    for x in range(0,getWidth(picture)):
        for y in range(int(getHeight(picture)*.55) ,int(getHeight(picture)*.80)):
            pixel = getPixelAt(picture, x, y)
            color = getColor(pixel)
            color = makeLighter(color)
            color = makeLighter(color)
            setColor(pixel, color)
    return picture

def blur(picture0, picture1):
    blur_picture = duplicatePicture(picture0)
    for x in range(getWidth(picture1)*2, getWidth(picture0) - 1):
        for y in range(1, int(getHeight(picture0)) - 1):
            center = getPixelAt(blur_picture, x, y)
            left = getPixelAt(picture0, x - 1, y)
            right = getPixelAt(picture0, x + 1, y)
            top = getPixelAt(picture0, x, y - 1)
            bottom = getPixelAt(picture0, x, y + 1)
            new_red = (getRed(center) + getRed(left) + getRed(right) + getRed(top) + getRed(bottom)) // 5
            new_green = (getGreen(center) + getGreen(left) + getGreen(right) + getGreen(top)+getGreen(bottom))//5
            new_blue = (getBlue(center) + getBlue(left) + getBlue(right) +getBlue(top) + getBlue(bottom)) // 5
            setColor(center, makeColor(new_red, new_green, new_blue))
    return blur_picture

def nine_moon(picture0, picture1):
    width = getWidth(picture0)
    height = getHeight(picture0)
    for offsetx in range(3):
        for offsety in range(3):
            for x in range(0,width):
                for y in range(0,height):
                    color = getColor(getPixelAt(picture0, x, y))
                    setColor(getPixelAt(picture1, x + (offsetx * width), y + (offsety * height)),color)
    return picture1

```

```

def canvas(picture):
    background = makeEmptyPicture(getWidth(picture),getHeight(picture), black)
    return background

def scale(picture, factor):
    x = factor
    new_width = getWidth(picture) // x
    new_height = getHeight(picture) // x
    new_picture = makeEmptyPicture(new_width, new_height)
    source_x = 0
    for new_x in range(0,getWidth(new_picture)):
        source_y = 0
        for new_y in range(0,getHeight(new_picture)):
            color = getColor(getPixelAt(picture, int(source_x), int(source_y)))
            setColor(getPixelAt(new_picture, new_x, new_y), color)
            source_y = source_y + x
        source_x = source_x + x
    return new_picture

def moon():
    moon_surface=makePicture(getMediaFolder("moon-surface.jpg"))
    background = makeEmptyPicture(getWidth(moon_surface)+7, getHeight(moon_surface)+13, black)
    for x in range(2,getWidth(moon_surface)):
        for y in range(0,getHeight(moon_surface)):
            color = getColor(getPixelAt(moon_surface, x, y))
            setColor(getPixelAt(background, x + 5, y + 5), color)
    return background

def purpTint(picture):
    grayScale(picture)
    for pixel in getPixels(picture):
        red_value = getRed(pixel)
        blue_value = getBlue(pixel)
        if red_value < 63:
            red_value = red_value * 1.5
            blue_value = blue_value * 2.15
        elif red_value < 192:
            red_value = red_value * 1.5
            blue_value = blue_value * 2.15
        else:
            red_value = red_value * 1.5
            if red_value > 255:
                red_value = 255

```

```
    blue_value = blue_value * 2.15
    setRed(pixel, red_value)
    setBlue(pixel, red_value)
```

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