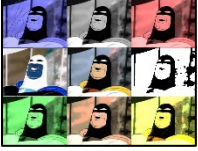


Josh Giunchedi

Completed



Originals



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#Josh Giunchedi 10/23/23
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def collage():
    image = makePicture(getMediaPath("SpaceGhost.jpg.jpg")) #input parameters up here
    canvas = makeEmptyPicture(972,735)
    signature = makePicture(getMediaPath("signature.jpg.jpg"))
    ml(image,canvas) #calls in all prior functions
    mm(image,canvas)
    mr(image,canvas)
    bl(image,canvas)
    bm(image,canvas)
    br(image,canvas)
    tl(image,canvas)
    tm(image,canvas)
    tr(image,canvas)
    bandw(image,canvas)
    ctropeB(image,canvas)
    ctropeR(image,canvas)
    ntive(image,canvas)
    charcoal(image,canvas)
    ctropeG(image,canvas)
    sepiatone(image,canvas)
    ctropeY(image,canvas)
    sig(signature,canvas)
    show(canvas)
    return(canvas)
```

```
#gets signature puts it at the top left and uses a chroma like distance function to
#"erase" the white background
```

```
def sig(signature,canvas):
    targetX = 0
    for sourceX in range(0,getWidth(signature)):
        targetY = 0
        for sourceY in range(0,getHeight(signature)):
            color = getColor(getPixel(signature,sourceX,sourceY))
            #where it says black this can be changed to any other color either using the
            #available colors or making your own
            if distance(color,black)<200:
                setColor(getPixel(canvas,targetX,targetY), color)
                targetY = targetY +1
            targetX = targetX +1
```

```
def mm(image,canvas):
    targetX = 324 #middle starts here
    for sourceX in range(0,getWidth(image)):
        targetY = 245
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX,targetY), color)
            targetY = targetY +1
```

```

targetX = targetX +1 #middle ends

def ml(image,canvas):
    targetX1 = 0 #middle left is here
    for sourceX in range(0,getWidth(image)):
        targetY1 = 245
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX1,targetY1), color)
            targetY1 = targetY1 +1
        targetX1 = targetX1 +1 # end middle left

def mr(image,canvas):
    targetX2 = 648 # middle right starts here
    for sourceX in range(0,getWidth(image)):
        targetY2 = 245
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX2,targetY2), color)
            targetY2 = targetY2 +1
        targetX2 = targetX2 +1 #end middle right

def bl(image,canvas):
    targetX3 = 0 #bottom left starts here
    for sourceX in range(0,getWidth(image)):
        targetY3 = 490
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX3,targetY3), color)
            targetY3 = targetY3 +1
        targetX3 = targetX3 +1 #bottom right ends here

def bm(image,canvas):
    targetX4 = 324 #bottom middle starts here
    for sourceX in range(0,getWidth(image)):
        targetY4 = 490
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX4,targetY4), color)
            targetY4 = targetY4 +1
        targetX4 = targetX4 +1 #bottom middle ends here

def br(image,canvas):
    targetX5 = 648 #bottom right starts here
    for sourceX in range(0,getWidth(image)):
        targetY5 = 490
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX5,targetY5), color)
            targetY5 = targetY5 +1
        targetX5 = targetX5 +1 #bottom right ends here

def tl(image,canvas):
    targetX6 = 0 #top right starts here
    for sourceX in range(0,getWidth(image)):
        targetY6 = 0
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX6,targetY6), color)
            targetY6 = targetY6 +1

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targetX6 = targetX6 +1 #top right ends here

def tm(image,canvas):
    targetX7 = 324 #top middle starts here
    for sourceX in range(0,getWidth(image)):
        targetY7 = 0
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX7,targetY7), color)
            targetY7 = targetY7 +1
        targetX7 = targetX7 +1 #top middle ends here

def tr(image,canvas):
    targetX8 = 648 #top right starts here
    for sourceX in range(0,getWidth(image)):
        targetY8 = 0
        for sourceY in range(0,getHeight(image)):
            color = getColor(getPixel(image,sourceX,sourceY))
            setColor(getPixel(canvas,targetX8,targetY8), color)
            targetY8 = targetY8 +1
        targetX8 = targetX8 +1 #top right ends here

def bandw(image,canvas): #makes top middle image black and white
    #on all of the functions below these first 3 lines are there to get the coordinates
    #for whatever gaud
    for p in getPixels(canvas):
        x = getX(p)
        y = getY(p)
        #these if statements are on all of the next functions so the effect is only used
        #in the designated area
        if (x > 323 and x < 649) and (y > 0 and y < 244):
            intensity =(getRed(p)+getGreen(p)+getBlue(p))/3
            setColor(p,makeColor(intensity, intensity, intensity))

def ctropeB(image,canvas): #makes a blue cyantrope in the top left qaudrant
    for p in getPixels(canvas):
        x = getX(p)
        y = getY(p)
        if (x > 0 and x < 325) and (y > 0 and y < 246):
            intensity =(getRed(p)+getGreen(p)+getBlue(p))/3
            setColor(p,makeColor(intensity, intensity, intensity))
            #red green and blue ctropes are easy becausd they only use one color but we
            #will get to one later that requires some more finesse
            b = getBlue(p)
            if (b < 63):
                b = b*2
            if (b > 62 and b < 192):
                b = b*1.3
            if (b >191):
                b = b*1.2
            setBlue(p,b)
            setRed(p, (getRed(p)*.75))
            setGreen(p, (getGreen(p)*.75))

def ctropeR(image,canvas): #cyantropes the top right qaud into red
    for p in getPixels(canvas):
        x = getX(p)
        y = getY(p)
        if (x > 648) and (y > 0 and y < 246):
            intensity =(getRed(p)+getGreen(p)+getBlue(p))/3

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setColor(p,makeColor(intensity, intensity, intensity))
b = getRed(p)
if (b < 63):
    b = b*2
if (b > 62 and b < 192):
    b = b*1.3
if (b >191):
    b = b*1.2
setRed(p,b)
setBlue(p, (getBlue(p)*.75))
setGreen(p, (getGreen(p)*.75))

```

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def ntive(image,canvas): #makes the middle left qaud into negative
for p in getPixels(canvas):
    x = getX(p)
    y = getY(p)
    if (x > 0 and x < 325) and (y > 245 and y < 489):
        red=getRed(p)
        green=getGreen(p)
        blue=getBlue(p)
        #inverts all the colors of the pixels
        negcolor=makeColor(255-red, 255-green, 255-blue)
        #actually changes the color of the pixels to the negative values we set above
        setColor(p,negcolor)

```

#makes middle left qaud image into an weird black and white charcoal like drawing

```

def charcoal(image,canvas):
for p in getPixels(canvas):
    x = getX(p)
    y = getY(p)
    if (x > 648) and (y > 245 and y < 489):
        r = getRed(p)
        g = getGreen(p)
        b = getBlue(p)
        luminance = (r+g+b)/3
        if luminance < 64:
            setColor(p,black)
        if luminance>=64:
            setColor(p,white)

```

def ctropeG(image,canvas): #makes bottom left qaud into a green cyantrope

```

for p in getPixels(canvas):
    x = getX(p)
    y = getY(p)
    if (x > 0 and x < 325) and (y > 490 and y < 736):
        intensity =(getRed(p)+getGreen(p)+getBlue(p))/3
        setColor(p,makeColor(intensity, intensity, intensity))
        g = getGreen(p)
        if (g < 63):
            g = g*2
        if (g > 62 and g < 192):
            g = g*1.3
        if (g >191):
            g = g*1.2
        setGreen(p,g)
        setRed(p, (getRed(p)*.75))
        setBlue(p, (getBlue(p)*.75))

```

#makes bottom middle quad into a vintage sepia toned brownish look

```

def sepiatone(image,canvas):
    for p in getPixels(canvas):
        x = getX(p)
        y = getY(p)
        if (x > 324 and x < 649) and (y > 490 and y < 736):
            intensity =(getRed(p)+getGreen(p)+getBlue(p))/3
            setColor(p,makeColor(intensity, intensity, intensity))
            red = getRed(p)
            blue = getBlue(p)
            if (red<63):
                red = red*1.1
                blue = blue*0.9
            if (red > 62 and red < 192):
                red = red*1.15
                blue = blue*0.85
            if (red > 191):
                red = red*1.8
            if (red>255):
                red = 255
            blue = blue*0.93
            setBlue(p,blue)
            setRed(p,red)

def ctropeY(image,canvas): #this was the one I was talking about above
    #this is the modification I struggled with the most and its the most significant
    #one as it wasnt in the book so it all came from me!
    for p in getPixels(canvas):
        x = getX(p)
        y = getY(p)
        if (x > 648) and (y > 490 and y < 736):
            #so unlike the RGB colors, yellow was not one of the colors weve used before so
            #after figuring out how yellows value worked I used both green and blue changes
            #for the value
            g = getGreen(p)
            b = getRed(p)
            if (g < 63):
                g = g*2
            if (g > 62 and g < 192):
                g = g*1.5
            if (g >191):
                g = g*1.3
            if (b < 63):
                b = b*2
            if (b > 62 and b < 192):
                b = b*1.5
            if (b >191):
                b = b*1.3
            setRed(p,b)
            setGreen(p,g)
            setBlue(p, (getBlue(p) *.75))

```