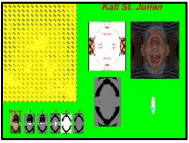
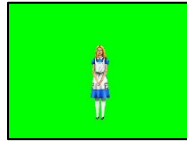


# Kali St. Julien

Completed



Originals



```
#Kali St. Julien 10/16/23
def collage():
    setMediaPath()
    picture = makePicture(getMediaPath("babyredeye.jpg"))
    width = getWidth(picture)
    height = getHeight(picture)
    newPic = makeEmptyPicture(1000,736,green)

    picture2 = makePicture(getMediaPath("screamingchild.jpg"))
    width2 = getWidth(picture2)
    height2 = getHeight(picture2)

    picture3 = makePicture(getMediaPath("alice.jpg"))
    width3 = getWidth(picture3)
    height3 = getHeight(picture3)

    picture4 = makePicture(getMediaPath("anthony.jpg"))
    width4 = getWidth(picture4)
    height4 = getHeight(picture4)

    picture5 = makePicture(getMediaPath("babyredeye.jpg"))
    width5 = getWidth(picture5)
    height5 = getHeight(picture5)

    picture6 = makePicture(getMediaPath("anthony.jpg"))
    width6 = getWidth(picture6)
    height6 = getHeight(picture6)

    picture7 = makePicture(getMediaPath("anthony.jpg"))
    width7 = getWidth(picture7)
    height7 = getHeight(picture7)

    name = "Kali St. Julien"
    myFont = makeStyle("Comic Sans", italic+bold, 50)
    addTextWithStyle(newPic,542,38,name,myFont,red)

    text1 = "Original"
    myFont1 = makeStyle("Comic Sans", italic+bold, 20)
    addTextWithStyle(newPic,36,592,text1,myFont1,red)

    text2 = "1"
    myFont2 = makeStyle("Comic Sans", italic+bold, 20)
    addTextWithStyle(newPic,149,592,text2,myFont2,red)

    text3 = "2"
    myFont3 = makeStyle("Comic Sans", italic+bold, 20)
    addTextWithStyle(newPic,215,592,text3,myFont3,red)

    text4 = "3"
```

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myFont4 = makeStyle("Comic Sans", italic+bold, 20)
addTextWithStyle(newPic,285,592,text4,myFont4,red)

text5 = "4"
myFont5 = makeStyle("Comic Sans", italic+bold, 20)
addTextWithStyle(newPic,343,592,text5,myFont5,red)

text6 = "5"
myFont6 = makeStyle("Comic Sans", italic+bold, 20)
addTextWithStyle(newPic,415,592,text6,myFont6,red)

#bringing in the first changed picture
picB = copy1(picture,newPic,width,height)
size = scale(picB, 2)
picDup = duplicatePicture(size)
copyPic(size, newPic, 0, 0)
#-add -----
picture33 = makeEmptyPicture(getWidth(size),getHeight(size),yellow)
picture33 = copyCheck(size,picture33,0)
picture33 = copyCheck(size,picture33,1)
copyPic(picture33, newPic, 0, 0)

#bringing in the second changed picture
Mirror1 = MirrorV(picture2,width2,height2)
size2 = scale2(Mirror1, .5)
picDup2 = duplicatePicture(size2)
copyPic2(size2, newPic, 700, 100)

#bringing in the third changed picture
light1 = Lighter(picture3,width3,height3)
size3 = scale3(light1, .5)
picDup3 = duplicatePicture(size3)
copyPic3(size3, newPic, 700, 450)

#bringing in the fourth changed picture
Combo = Mod5(picture4,width4,height4)
size4 = scale4(Combo, .5)
picDup4 = duplicatePicture(size4)
copyPic4(size4, newPic, 500, 400)

#bringing in the fith changed picture
Flip = flipH(picture5,width5,height5)
size5 = scale4(Flip, 1)
picDup5 = duplicatePicture(size5)
copyPic5(size5, newPic, 470, 100)

#The changes of Mod 5
original1 = original(picture6,width6,height6)
size6 = scale4(original1, .2)
picDup6 = duplicatePicture(size6)
copyPic5(size6, newPic, 44, 599)

C1 = changel(picture7,width7,height7)
size7 = scale4(C1, .2)
picDup7 = duplicatePicture(size7)
copyPic5(size7, newPic, 120, 599)

C2 = change2(picture7,width7,height7)
size8 = scale4(C2, .2)
picDup8 = duplicatePicture(size8)

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copyPic5(size8, newPic, 190, 599)
```

```
C3 = change3(picture7,width7,height7)
size9 = scale4(C3, .2)
picDup9 = duplicatePicture(size9)
copyPic5(size9, newPic, 260, 599)
```

```
C4 = change4(picture7,width7,height7)
size10 = scale4(C4, .2)
picDup10 = duplicatePicture(size10)
copyPic5(size10, newPic, 320, 599)
```

```
C5 = change5(picture7,width7,height7)
size11 = scale4(C5, .2)
picDup11 = duplicatePicture(size11)
copyPic5(size11, newPic, 388, 599)
```

```
explore(newPic)
```

```
def copy1(picture,newPic,width,height):
    #fourth = width/4
    #for x in range(0,fourth):
        #for y in range(0,height):
            #leftPx = getPixel(picture,x,y)
            # rightPx = getPixel(picture,width - x - 1,y)
            # setColor(rightPx,getColor(leftPx))

    for px in getPixels(picture):
        r = getRed(px)
        g = getGreen(px)
        b = getBlue(px)
        luminance = (r+g+b)/3
        if(luminance < 70 ):
            setColor(px, black)
        elif(luminance <= 165):
            setColor(px, gray)
        else:
            setColor(px, white)

    return picture
```

```
def MirrorV(picture2,width2,height2):
    third = width2/3
    for x in range(0,third):
        for y in range(0,height2):
            leftPx = getPixel(picture2,x,y)
            rightPx = getPixel(picture2,width2 - x - 1,y)
            setColor(rightPx,getColor(leftPx))

    half = height2/2
    for x in range(0,width2):
        for y in range(0,half):
            leftPx2 = getPixel(picture2,x,y)
            rightPx2 = getPixel(picture2,x,height2 - y - 1)
            setColor(leftPx2,getColor(rightPx2))

    for x in range(0,width2):
        for y in range(0,height2):
```

```

    pixel = getPixel (picture2, x, y)
    setColor (pixel, makeDarker (makeDarker (getColor (pixel))))

return picture2

def Lighter (picture3, width3, height3):
    for x in range (0, width3):
        for y in range (0, height3):
            pixel = getPixel (picture3, x, y)
            #pcColor = getColor (picel)
            #lighter = makeLighter (pxColor)
            #doubleLight = makeLighter (lighter)
            #color = doubleLight
            #setColor (pixel, color)
            setColor (pixel, makeLighter (makeLighter (makeLighter (getColor (pixel)))))
    return picture3

def Mod5 (picture4, width4, height4):
    for px in getPixels (picture4):
        r = getRed (px)
        g = getGreen (px)
        b = getBlue (px)
        luminance = (r+g+b)/3
        if (luminance < 50 ):
            setColor (px, black)
        elif (luminance <= 165):
            setColor (px, gray)
        else:
            setColor (px, white)

    third = width4/3
    for x in range (0, third):
        for y in range (0, height4):
            leftPx = getPixel (picture4, x, y)
            rightPx = getPixel (picture4, width4 - x - 1, y)
            setColor (rightPx, getColor (leftPx))

    half = height4/2
    for x in range (0, width4):
        for y in range (0, half):
            leftPx2 = getPixel (picture4, x, y)
            rightPx2 = getPixel (picture4, x, height4 - y - 1)
            setColor (leftPx2, getColor (rightPx2))

    for x in range (0, width4):
        for y in range (0, height4):
            pixel = getPixel (picture4, x, y)
            #pcColor = getColor (picel)
            #lighter = makeLighter (pxColor)
            #doubleLight = makeLighter (lighter)
            #color = doubleLight
            #setColor (pixel, color)
            setColor (pixel, makeLighter (makeLighter (makeLighter (getColor (pixel)))))

    for x in range (0, width4):
        for y in range (0, height4):
            pixel = getPixel (picture4, x, y)
            setColor (pixel, makeDarker (makeDarker (getColor (pixel))))

```

```

return picture4

def flipH(picture5,width5,height5):
    half = width5/2
    for x in range(0,half):
        for y in range(0,height5):
            leftPx = getPixel(picture5,x,y)
            rightPx = getPixel(picture5,width5 - x - 1,y)
            setColor(rightPx,getColor(leftPx))

    half2 = height5/2
    for x in range(0,width5):
        for y in range(0,half2):
            leftPx2 = getPixel(picture5,x,y)
            rightPx2 = getPixel(picture5,x,height5 - y - 1)
            setColor(leftPx2,getColor(rightPx2))

    for x in range(0,width5):
        for y in range(0,height5):
            pixel = getPixel(picture5,x,y)
            #pcColor = getColor(pixel)
            #lighter = makeLighter(pxColor)
            #doubleLight = makeLighter(lighter)
            #color = doubleLight
            #setColor(pixel,color)
            setColor(pixel,makeLighter(makeLighter(makeLighter(getColor(pixel))))))

    return picture5

def original(picture6,width6,height6):
    return picture6

def change1(picture7,width7,height7):
    for px in getPixels(picture7):
        r = getRed(px)
        g = getGreen(px)
        b = getBlue(px)
        luminance = (r+g+b)/3
        if(luminance < 50 ):
            setColor(px, black)
        elif(luminance <= 165):
            setColor(px, gray)
        else:
            setColor(px, white)

    return picture7

def change2(picture7,width7,height7):
    for px in getPixels(picture7):
        r = getRed(px)
        g = getGreen(px)
        b = getBlue(px)
        luminance = (r+g+b)/3
        if(luminance < 50 ):
            setColor(px, black)
        elif(luminance <= 165):
            setColor(px, gray)

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```

    else:
        setColor(px, white)

third = width7/3
for x in range(0,third):
    for y in range(0,height7):
        leftPx = getPixel(picture7,x,y)
        rightPx = getPixel(picture7,width7 - x - 1,y)
        setColor(rightPx,getColor(leftPx))

return picture7

def change3(picture7,width7,height7):
    for px in getPixels(picture7):
        r = getRed(px)
        g = getGreen(px)
        b = getBlue(px)
        luminance = (r+g+b)/3
        if(luminance < 50 ):
            setColor(px, black)
        elif(luminance <= 165):
            setColor(px, gray)
        else:
            setColor(px, white)

third = width7/3
for x in range(0,third):
    for y in range(0,height7):
        leftPx = getPixel(picture7,x,y)
        rightPx = getPixel(picture7,width7 - x - 1,y)
        setColor(rightPx,getColor(leftPx))

half = height7/2
for x in range(0,width7):
    for y in range(0,half):
        leftPx2 = getPixel(picture7,x,y)
        rightPx2 = getPixel(picture7,x,height7 - y - 1)
        setColor(leftPx2,getColor(rightPx2))

return picture7

def change4(picture7,width7,height7):
    for px in getPixels(picture7):
        r = getRed(px)
        g = getGreen(px)
        b = getBlue(px)
        luminance = (r+g+b)/3
        if(luminance < 50 ):
            setColor(px, black)
        elif(luminance <= 165):
            setColor(px, gray)
        else:
            setColor(px, white)

third = width7/3
for x in range(0,third):
    for y in range(0,height7):
        leftPx = getPixel(picture7,x,y)
        rightPx = getPixel(picture7,width7 - x - 1,y)
        setColor(rightPx,getColor(leftPx))

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```

half = height7/2
for x in range(0,width7):
    for y in range(0, half):
        leftPx2 = getPixel (picture7,x,y)
        rightPx2 = getPixel (picture7,x,height7 - y - 1)
        setColor (leftPx2,getColor (rightPx2))

for x in range(0,width7):
    for y in range(0,height7):
        pixel = getPixel (picture7,x,y)
        #pcColor = getColor (picel)
        #lighter = makeLighter (pxColor)
        #doubleLight = makeLighter (lighter)
        #color = doubleLight
        #setColor (pixel,color)
        setColor (pixel,makeLighter (makeLighter (makeLighter (getColor (pixel) ) ) ) )

return picture7

def change5 (picture7,width7,height7):
    for px in getPixels (picture7):
        r = getRed (px)
        g = getGreen (px)
        b = getBlue (px)
        luminance = (r+g+b)/3
        if (luminance < 50 ):
            setColor (px, black)
        elif (luminance <= 165):
            setColor (px, gray)
        else:
            setColor (px, white)

third = width7/3
for x in range(0,third):
    for y in range(0,height7):
        leftPx = getPixel (picture7,x,y)
        rightPx = getPixel (picture7,width7 - x - 1,y)
        setColor (rightPx,getColor (leftPx))

half = height7/2
for x in range(0,width7):
    for y in range(0, half):
        leftPx2 = getPixel (picture7,x,y)
        rightPx2 = getPixel (picture7,x,height7 - y - 1)
        setColor (leftPx2,getColor (rightPx2))

for x in range(0,width7):
    for y in range(0,height7):
        pixel = getPixel (picture7,x,y)
        #pcColor = getColor (picel)
        #lighter = makeLighter (pxColor)
        #doubleLight = makeLighter (lighter)
        #color = doubleLight
        #setColor (pixel,color)
        setColor (pixel,makeLighter (makeLighter (makeLighter (getColor (pixel) ) ) ) )

for x in range(0,width7):
    for y in range(0,height7):
        pixel = getPixel (picture7,x,y)

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        setColor(pixel,makeDarker(makeDarker(getColor(pixel))))
return picture7

#FOR FIRST PICTURE
def scale(picture_in, factor):
    picOut = makeEmptyPicture(int(getWidth(picture_in) * factor),
int(getHeight(picture_in) * 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(picOut, out_x, out_y), color)
            in_y = in_y + 1.0 / factor
            in_x = in_x + 1.0 / factor
    return picOut

def copyPic(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 copyCheck(source,destination,start):
    for x in range(start,getWidth(source),4):
        for y in range(start,getHeight(source),4):
            sourcepx = getPixel(source,x,y)
            destinationpx = getPixel(destination,x,y)
            setColor(destinationpx,getColor(sourcepx))
    return destination

#FOR SECOND PICTURE
def scale2(picture_in, factor):
    picOut = makeEmptyPicture(int(getWidth(picture_in) * factor),
int(getHeight(picture_in) * 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(picOut, out_x, out_y), color)
            in_y = in_y + 1.0 / factor
            in_x = in_x + 1.0 / factor
    return picOut

def copyPic2(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

```



```

#FOR THIRD PICTURE
def scale3(picture_in, factor):
    picOut = makeEmptyPicture(int(getWidth(picture_in) * factor),
int(getHeight(picture_in) * 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(picOut, out_x, out_y), color)
            in_y = in_y + 1.0 / factor
            in_x = in_x + 1.0 / factor
    return picOut

def copyPic3(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

#FOR FOURTH PICTURE
def scale4(picture_in, factor):
    picOut = makeEmptyPicture(int(getWidth(picture_in) * factor),
int(getHeight(picture_in) * 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(picOut, out_x, out_y), color)
            in_y = in_y + 1.0 / factor
            in_x = in_x + 1.0 / factor
    return picOut

def copyPic4(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

#FOR FIFTH PICTURE
def scale5(picture_in, factor):
    picOut = makeEmptyPicture(int(getWidth(picture_in) * factor),
int(getHeight(picture_in) * 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(picOut, out_x, out_y), color)
    in_y = in_y + 1.0 / factor
    in_x = in_x + 1.0 / factor
return picOut
```

```
def copyPic5(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
```