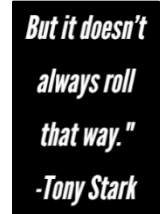
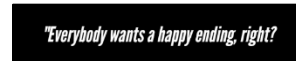


Joseph Smith

Completed



Originals



#Joe Smith 3/7/2020

```
def collage():
    helmet=makePicture(getMediaPath("helmet.png"))
    quotel=makePicture(getMediaPath("quotel.png"))
    quote2=makePicture(getMediaPath("quote2.png"))
    canvas=makeEmptyPicture(935,736,black)
    scaleHelmet(helmet,canvas)
    smaller=duplicatePicture(helmet)
    copyStuff(quotel,canvas,155,0,white)
    copyStuff(quote2,canvas,720,145,white)
    posterize(smaller)
    scaleReq(smaller,canvas,1)
    scaleReq(smaller,canvas,4)
    smaller=duplicatePicture(helmet)
    grayscale(smaller)
    scaleReq(smaller,canvas,2)
    scaleReq(smaller,canvas,3)
    explore(canvas)

def scaleHelmet(picture_in,picture_out):
    sourceX=0
    for targetX in range(0,935):
        sourceY=0
        for targetY in range(0,530):
            px=getPixel(picture_in,int(sourceX),int(sourceY))
            color=getColor(px)
            tx=getPixel(picture_out,targetX,targetY)
            setColor(tx,color)
            sourceY=sourceY+1.75
            sourceX=sourceX+1.75

def scaleReq(picture,target,req):
    sourceX=80
    for targetX in range((req-1)*getWidth(target)/4,req*getWidth(target)/4):
        sourceY=150
        for targetY in range(530,getHeight(target)):
            px=getPixel(picture,int(sourceX),int(sourceY))
            color=getColor(px)
            tx=getPixel(target,targetX,targetY)
```

```

    setColor(tx, color)
    sourceY=sourceY+4.25
sourceX=sourceX+4.25

def copyStuff (picture, target, targX, targetY, check) :
    for pictureX in range(0,getWidth (picture)) :
        targY=targetY
        for pictureY in range(0,getHeight (picture)) :
            px=getPixel (picture,pictureX,pictureY)
            tx=getPixel (target,targX,targY)
            color=getColor (px)
            if distance (color,check)<300:
                setColor (tx,color)
            targY=targY+1
        targX=targX+1

def grayscale (picture) :
    for p in getPixels (picture) :
        r=getRed (p)
        g=getGreen (p)
        b=getBlue (p)
        Gray= (r+g+b) /3
        grayColor=makeColor (Gray,Gray,Gray)
        setColor (p,grayColor)

def posterize (picture) :
    for p in getPixels (picture) :
        r=getRed (p)
        g=getGreen (p)
        b=getBlue (p)
        if (r<64) :
            setRed (p,31)
        if (r>63 and r<128) :
            setRed (p,95)
        if (r>127 and r<192) :
            setRed (p,223)
        if (r>191 and r<256) :
            setRed (p,223)
        if (b<64) :
            setBlue (p,31)
        if (b>63 and b<128) :
            setBlue (p,95)
        if (b>127 and b<192) :
            setBlue (p,223)
        if (b>191 and b<256) :
            setBlue (p,223)
        if (g<64) :
            setGreen (p,31)
        if (g>63 and g<128) :
            setGreen (p,95)
        if (g>127 and g<192) :
            setGreen (p,223)
        if (g>191 and g<256) :
            setGreen (p,223)

```