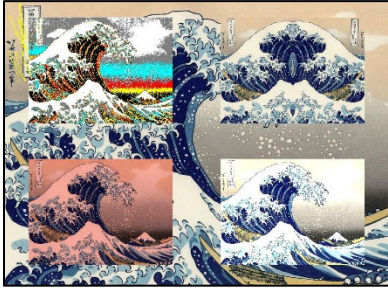# Tisiola Patterson

Completed   Original


```
#Tisiola Patterson
#3/6/2022
def mirror(pic):
  mirrorPoint = getWidth(pic) / 2
  width = getWidth(pic)
  for y in range(0,getHeight(pic)):
    for x in range(0,mirrorPoint):
      leftPixel = getPixel(pic,x,y)
      rightPixel = getPixel(pic,width - x - 1,y)
      color = getColor(leftPixel)
      setColor(rightPixel,color)
def sunset(pic):
  for p in getPixels(pic):
    value=getBlue(p)
    setBlue(p,value*0.7)
    value=getGreen(p)
    setGreen(p,value*0.7)
def lighten(pic):
  for x in range(0,getWidth(pic)):
    for y in range(0,getHeight(pic)):
      px = getPixel(pic, x,y)
      color = getColor(px)
      color = makeLighter(color)
      setColor(px,color)
def scale(smollPic,bigPic,num):
  sourceX = 0
  for targetX in range(0,getWidth(bigPic)):
    sourceY = 0
    for targetY in range(0,getHeight(bigPic)):
      color = getColor(getPixel(smollPic,int(sourceX),int(sourceY)))
      setColor(getPixel(bigPic,targetX,targetY), color)
      sourceY = sourceY + 1.0/num
    sourceX = sourceX + 1.0/num
def copy(target, canvas, target_x, target_y):
  targetX = target_x
  for sourceX in range(0, getWidth(target)):
    targetY = target_y
    for sourceY in range(0,getHeight(target)):
      color = getColor(getPixel(target,sourceX,sourceY))
      setColor(getPixel(canvas,targetX,targetY), color)
      targetY = targetY + 1
    targetX = targetX + 1
def chromakey(source, bg):
  for p in getPixels(source):
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```python
    x = getX(p)
    y = getY(p)
    if (getRed(p)<100 and getGreen(p)<100 and getBlue(p)<100):
      bgp = getPixel(bg,x,y)
      setColor(bgp, yellow)
def posterize(pic):
  for p in getPixels(pic):
    r = getRed(p)
    g = getGreen(p)
    b = getBlue(p)
    luminance = (r+b+g)/3
    if luminance < 50:
      setColor(p, black)
    elif luminance >=50 and luminance <=96:
      setColor(p, yellow)
    elif luminance >=97 and luminance <=135:
      setColor(p, red)
    elif luminance >=136 and luminance <=165:
      setColor(p, cyan)
    elif luminance >=166 and luminance <=200:
      setColor(p, gray)
    else:
      setColor(p, white)
def collage():
  canvas = makePicture(getMediaPath("kanagawa1.jpg"))
  pic =  makePicture(getMediaPath("kanagawa1.jpg"))
  empty = makeEmptyPicture(int(getWidth(pic)*.375),(int(getHeight(pic)*.375)))
  sig = makePicture(getMediaPath("sig.jpg"))
  scale(pic,empty,3.0/8)
  posterize(empty)
  copy(empty,canvas,62,40)
  pic =  makePicture(getMediaPath("kanagawa1.jpg"))
  scale(pic,empty,3.0/8)
  mirror(empty)
  copy(empty,canvas,562,40)
  pic =  makePicture(getMediaPath("kanagawa1.jpg"))
  scale(pic,empty,3.0/8)
  sunset(empty)
  copy(empty,canvas,62,408)
  pic =  makePicture(getMediaPath("kanagawa1.jpg"))
  scale(pic,empty,3.0/8)
  lighten(empty)
  copy(empty,canvas,562,408)
  empty = makeEmptyPicture(int(getWidth(sig)*.125),(int(getHeight(sig)*.125)))
  scale(sig,empty,1.0/8)
  chromakey(empty, canvas)
  explore(canvas)
```