**Task 1**

Libraries:

* from PIL import Image
* import NumPy as np

**Code**

from PIL import Image

import numpy as np

im = Image.open("/content/lab05.tif")

im #to show original image

resolution = im.size

original\_image = np.array(im)

word = ""

bin0 = np.array(im) #for bit position 1

bin1 = np.array(im) #for bit position 2

bin2 = np.array(im) #for bit position 3

bin3 = np.array(im) #for bit position 4

bin4 = np.array(im) #for bit position 5

bin5 = np.array(im) #for bit position 6

bin6 = np.array(im) #for bit position 7

bin7 = np.array(im) #for bit position 8

binary\_value = "" #stores current binary value

point = 0

for x in range(0,resolution[1]-1):

for y in range(0,resolution[0]-1):

point = original\_image[x][y]

binary\_value = bin(point)

binary\_value = binary\_value[2:len(binary\_value)]

while len(binary\_value) < 8:

binary\_value = "0" + binary\_value

bin7[x][y] = int(binary\_value[0]) \* 128

bin6[x][y] = int(binary\_value[1]) \* 64

bin5[x][y] = int(binary\_value[2]) \* 32

bin4[x][y] = int(binary\_value[3]) \* 16

bin3[x][y] = int(binary\_value[4]) \* 8

bin2[x][y] = int(binary\_value[5]) \* 4

bin1[x][y] = int(binary\_value[6]) \* 2

bin0[x][y] = int(binary\_value[7]) \* 1

im\_new = Image.fromarray(bin0)

im\_new.save("dollar0.tif")

im\_new = Image.fromarray(bin1)

im\_new.save("dollar1.tif")

im\_new = Image.fromarray(bin2)

im\_new.save("dollar2.tif")

im\_new = Image.fromarray(bin3)

im\_new.save("dollar3.tif")

im\_new = Image.fromarray(bin4)

im\_new.save("dollar4.tif")

im\_new = Image.fromarray(bin5)

im\_new.save("dollar5.tif")

im\_new = Image.fromarray(bin6)

im\_new.save("dollar6.tif")

im\_new = Image.fromarray(bin7)

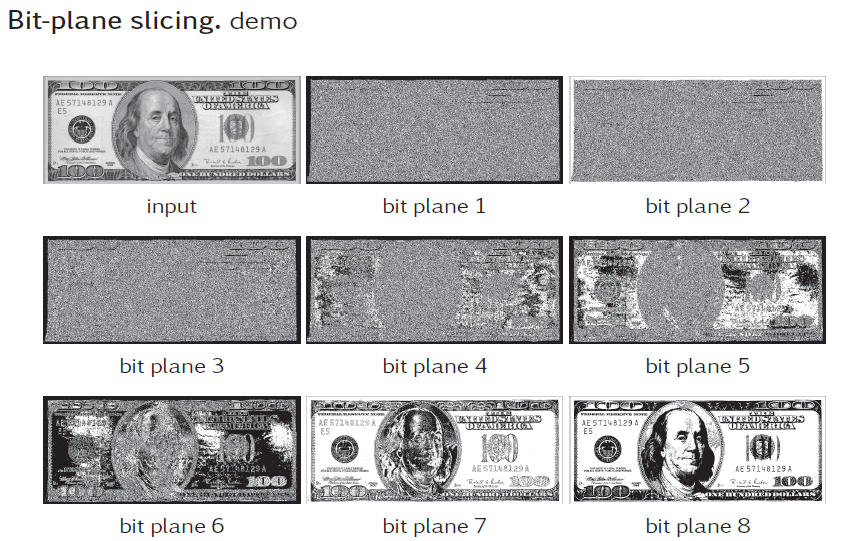
im\_new.save("dollar7.tif")

im\_new = Image.open("dollar0.tif")

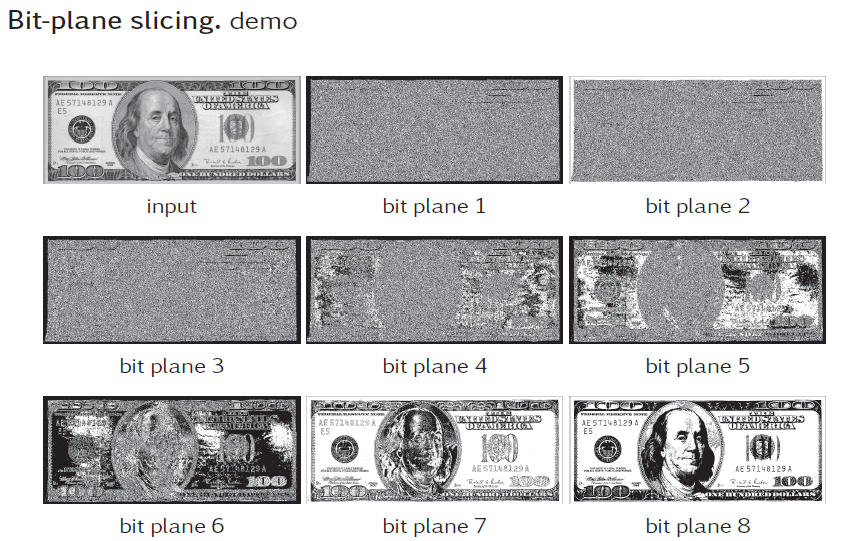
Im\_new

**Screenshot**

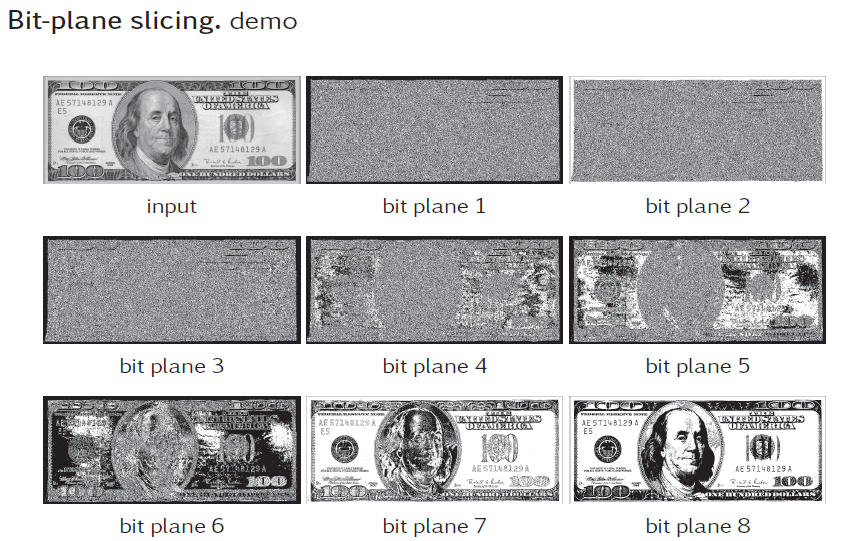
* Image Slice Bit 8



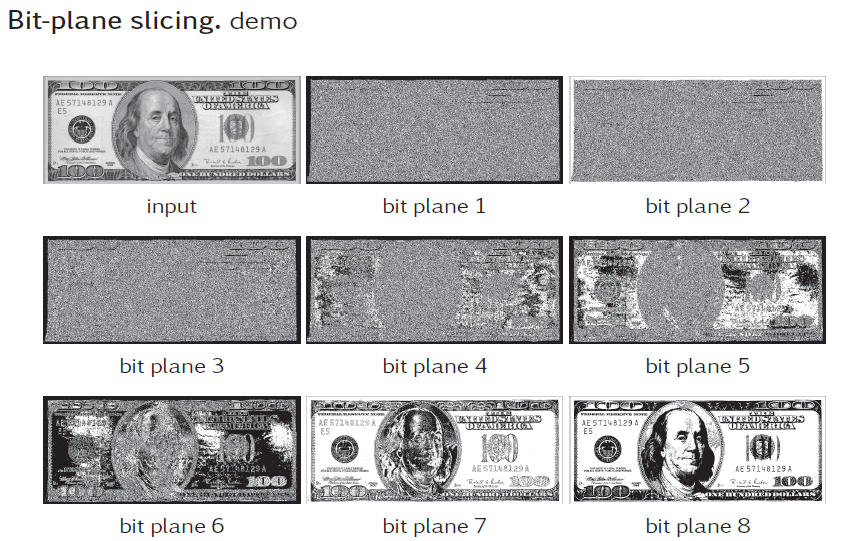
* Image Slice Bit 7



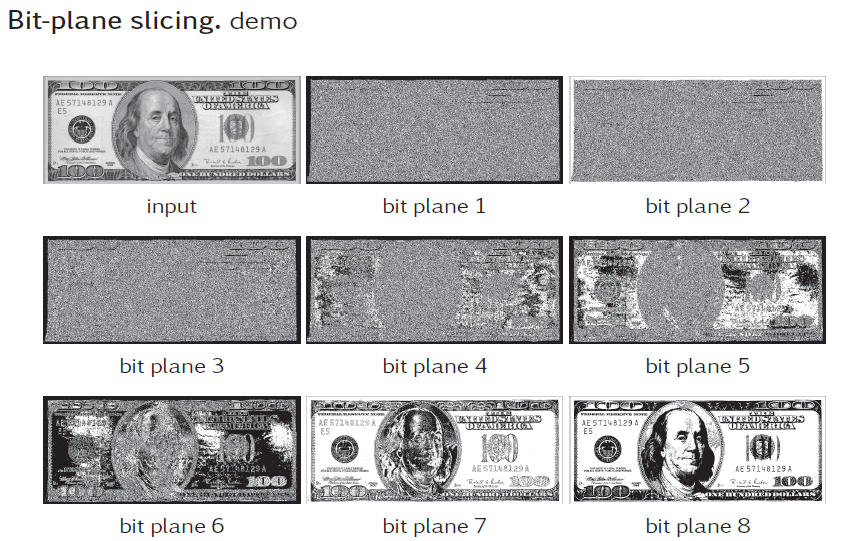
* Image Slice Bit 6



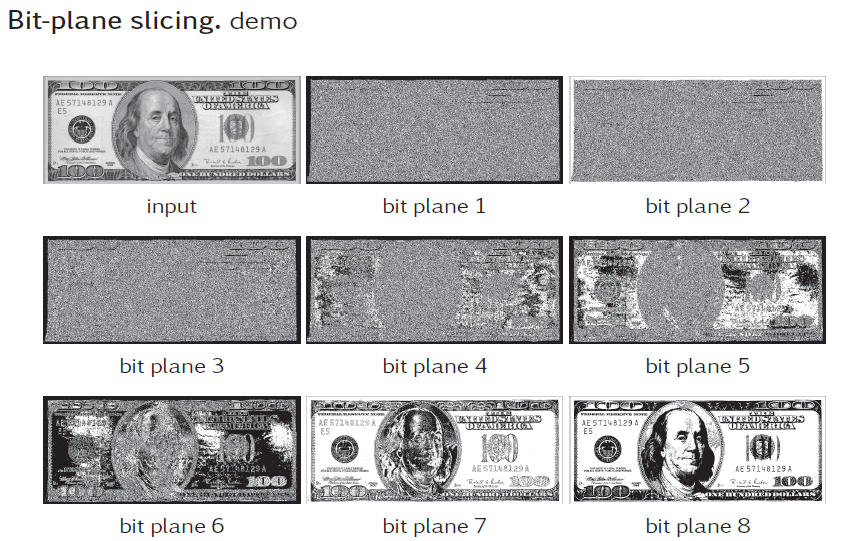
* Image Slice Bit 5



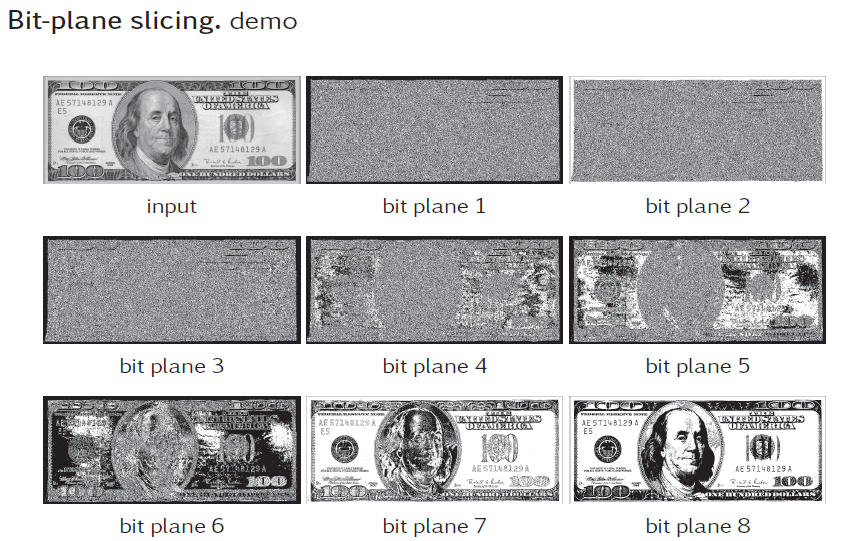
* Image Slice Bit 4



* Image Slice Bit 3



* Image Slice Bit 2



* Image Slice Bit 1

