import os

print (os.getcwd())

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import cv2

import numpy as np

input=cv2.imread('./images/ataturk.jpg')

cv2.imshow('Ataturk',input)

cv2.waitKey()

cv2.destroyAllWindows()

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import numpy as np #Dizilerle çalışmak için gerekli

print (input.shape)

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print ('Height of image:',int(input.shape[0]),'pixels')

print ('Width of image:',int(input.shape[1]),'pixels')

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cv2.imwrite('output.jpg',input)

cv2.imwrite('output.png',input)

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#Gray

import cv2

# Load our input image

image = cv2.imread('./images/ataturk.jpg')

cv2.imshow('Original', image)

cv2.waitKey()

# We use cvtColor, to convert to grayscale

gray\_image = cv2.cvtColor(image, cv2.COLOR\_BGR2GRAY)

cv2.imshow('Grayscale', gray\_image)

cv2.waitKey()

cv2.destroyAllWindows()

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#Gray2

#Another method, faster method

img = cv2.imread('./images/ataturk.jpg',0)

# =0 Gray, >0 Color image

cv2.imshow('Grayscale', img)

cv2.waitKey()

cv2.destroyAllWindows()

#BlackBox

import cv2

import numpy as np

# Create a black image

image = np.zeros((512,512,3), np.uint8) #3 Kanallı

# Can we make this in black and white?

image\_bw = np.zeros((512,512), np.uint8) #Tek Kanal

cv2.imshow("Black Rectangle (Color)", image)

cv2.imshow("Black Rectangle (B&W)", image\_bw)

cv2.waitKey(0)

cv2.destroyAllWindows()

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#Line

# Draw a diagonal blue line of thickness of 5 pixels

image = np.zeros((512,512,3), np.uint8)

cv2.line(image, (0,0), (511,511), (255,127,0), 5)

cv2.imshow("Blue Line", image)

cv2.waitKey(0)

cv2.destroyAllWindows()

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# Draw a Rectangle in

image = np.zeros((512,512,3), np.uint8)

cv2.rectangle(image, (100,100), (300,250), (127,50,127), 5) #-1 FILL için

cv2.imshow("Rectangle", image)

cv2.waitKey(0)

cv2.destroyAllWindows()

#Circle

image = np.zeros((512,512,3), np.uint8)

cv2.circle(image, (350, 350), 100, (15,75,50), -1)

cv2.imshow("Circle", image)

cv2.waitKey(0)

cv2.destroyAllWindows()

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#Polygon

image = np.zeros((512,512,3), np.uint8)

# Let's define four points

pts = np.array( [[10,50], [400,50], [90,200], [50,500]], np.int32)

# Let's now reshape our points in form required by polylines

pts = pts.reshape((-1,1,2))

cv2.polylines(image, [pts], True, (0,0,255), 3)

cv2.imshow("Polygon", image)

cv2.waitKey(0)

cv2.destroyAllWindows()

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#Hello World

image = np.zeros((512,512,3), np.uint8)

cv2.putText(image, 'Hello World!', (75,290), cv2.FONT\_HERSHEY\_COMPLEX, 2, (100,170,0), 3)

cv2.imshow("Hello World!", image)

cv2.waitKey(0)

cv2.destroyAllWindows()