In [ ]:

```
import cv2
import imutils
import pytesseract

pytesseract.pytesseract.tesseract_cmd = r"D:\Full Stack Data Science AI & ML\Class

image = cv2.imread(r"D:\Full Stack Data Science AI & ML\Class Practice\Number_plate
resized_image = imutils.resize(image)
cv2.imshow('original image',image)
cv2.waitKey(0)

gray_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
cv2.imshow('greyed image',image)
cv2.waitKey(0)

gray_image = cv2.bilateralFilter(gray_image,11,17,17)
cv2.imshow('smoothened image',gray_image)
cv2.waitKey(0)

edged = cv2.Canny(gray_image, 30,200)
cv2.imshow('edged image',edged)
cv2.waitKey(0)

cnts,new = cv2.findContours(edged.copy(),cv2.RETR_LIST, cv2.CHAIN_APPROX_SIMPLE)
image1=image.copy()
cv2.drawContours(image1,cnts,-1,(0,255,0),3)
cv2.imshow('contours',image1)
cv2.waitKey(0)

cnts = sorted(cnts,key=cv2.contourArea,reverse=True)[:30]
screenCnt = None
image2 = image.copy()
cv2.drawContours(image2,cnts,-1,(0,255,0),3)
cv2.imshow('Top 30 contours',image2)
cv2.waitKey(0)

i=7
for c in cnts:
    perimeter = cv2.arcLength(c,True)
    approx = cv2.approxPolyDP(c, 0.018*perimeter,True)
    if len(approx) == 4:
        screenCnt = approx
        x,y,w,h = cv2.boundingRect(c)
        new_img = image[y:y+h,x:x+w]
        cv2.imwrite('./'+str(i)+'.png',new_img)
        i+=1
        break

cv2.drawContours(image,[screenCnt],-1,(0,255,0),2)
cv2.imshow('image with detected license plate',image)
cv2.waitKey(0)
cv2.destroyAllWindows()
```