**ID CARD DETECTION**

**PROGRAM:**

!pip install opencv-python pillow numpy

import cv2

import numpy as np

from PIL import Image

image\_path = "new image.jpeg"

image = cv2.imread(image\_path)

from matplotlib import pyplot as plt

plt.imshow(cv2.cvtColor(image, cv2.COLOR\_BGR2RGB))

plt.title("Original Image")

plt.axis("off")

plt.show()

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

edges = cv2.Canny(gray, 50, 150)

contours, \_ = cv2.findContours(edges, cv2.RETR\_EXTERNAL, cv2.CHAIN\_APPROX\_SIMPLE)

detected\_image = image.copy()

cv2.drawContours(detected\_image, contours, -1, (0, 255, 0), 3)

plt.imshow(cv2.cvtColor(detected\_image, cv2.COLOR\_BGR2RGB))

plt.title("Detected Contours")

plt.axis("off")

plt.show()

contours = sorted(contours, key=cv2.contourArea, reverse=True)

if contours:

largest\_contour = contours[0]

x, y, w, h = cv2.boundingRect(largest\_contour)

id\_card = image[y:y+h, x:x+w]

plt.imshow(cv2.cvtColor(id\_card, cv2.COLOR\_BGR2RGB))

plt.title("Detected ID Card")

plt.axis("off")

plt.show()

cv2.imwrite("new image.jpeg", id\_card)

else:

print("No ID card detected!")

**OUTPUT:**





