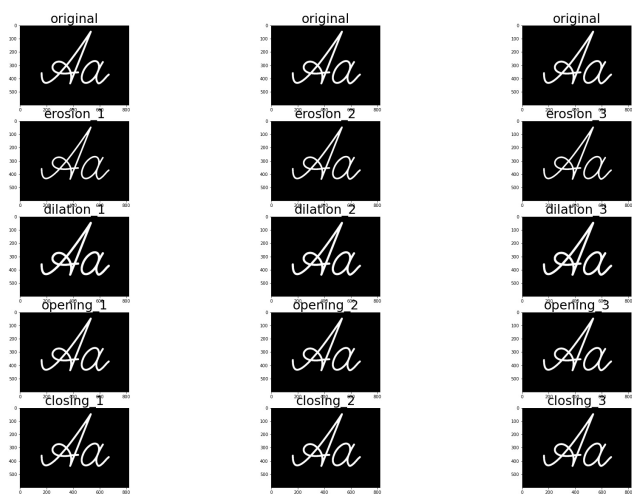# assignment 8

Abdur Rahim Sheikh

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1   Introduction

This problem was stated as "Explain what happens when you apply morphological dilation, erosion, opening, and closing operations using at least three kinds of structuring elements on your favorite binary image."

So I used cv2.erode and cv2.dilate functions to output the desired functions. How I completed the problem is described below.

1. imported necessary packages like numpy,matplotlib and cv2

2. loaded an image of english alphabet 'Aa' then converted it to grayscale and then to binary.0,255.

3. Created 3 kernel

4. Applied cv2.erode and cv2.dilate to the binary image.

5. then mixed these methode to create opening and closing like below. let A is the image and B is the kernel then,

   - opening = cv2.dilate(cv2.erode(image,kernel),kernel)
   - closing = cv2.erode(cv2.dilate(image,kernel),kernel) 6) finally I plotted those image using matplotlib.

2 Outcome

This is the result of my work