**Algorithm Description:**

Erosion: The kernel slides through the image (as in 2D convolution). A pixel in the original image (either 1 or 0) will be considered 1 only if all the pixels under the kernel is 1, otherwise it is eroded (made to 0).

Dilation: It is just opposite of erosion. Here, a pixel element is ‘1’ if at least one pixel under the kernel is ‘1’. So, it increases the white region in the image or size of foreground object increases.

Opening: Opening is just another name of erosion followed by dilation. It is useful in removing noise.

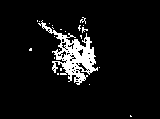
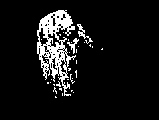
Closing: Closing is reverse of Opening, Dilation followed by Erosion. It is useful in closing small holes inside the foreground objects, or small black points on the object.

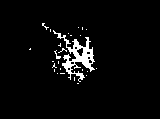
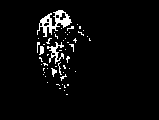
Boundary: It is the difference between dilation and closing of an image to find the boundary of an image.

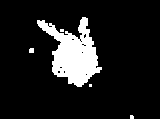
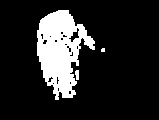
For running the notebook please put all images in the same folder where the jupyter notebook resides.

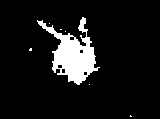
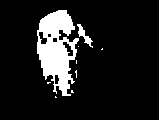
**Result Analysis:**

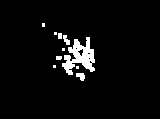
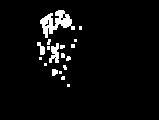
Structuring element = [[1,1,1],[1,1,1],[1,1,1]]

Original Image:  

Eroded Image:  

Dilated Image:  

Closed Image:  

Opened Image:  

Boundary Image:  