

# Computer Vision HW5 Report

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## Execution

Using Python 3.7

```
$ python hw5.py
```

## Results

Subtask	Image	Subtask	Image
(a)		(b)	
(c)		(d)	

# Code Explanation

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- For all image processing (including read and write Images, accessing each pixels), I use the following libraries:
  - **Python OpenCV library** `cv2`
  - **Python numpy library** `numpy`
- Function `max()` do grayscale dilation, and function `min()` do grayscale erosion. Two functions have same parameters, with the octagonal 3-5-5-5-3 kernel , source binary image `img1` , and resulting binary image `img2` .

## References

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- Dilation (morphology) ([https://en.wikipedia.org/wiki/Dilation\\_\(morphology\)](https://en.wikipedia.org/wiki/Dilation_(morphology)))
- Erosion (morphology) ([https://en.wikipedia.org/wiki/Erosion\\_\(morphology\)](https://en.wikipedia.org/wiki/Erosion_(morphology)))
- Opening (morphology) ([https://en.wikipedia.org/wiki/Opening\\_\(morphology\)](https://en.wikipedia.org/wiki/Opening_(morphology)))
- Closing (morphology) ([https://en.wikipedia.org/wiki/Closing\\_\(morphology\)](https://en.wikipedia.org/wiki/Closing_(morphology)))