Computer Vision HW1

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Part 1

- upside-down lena.bmp

- right-side-left lena.bmp

- diagonally mirrored lena.bmp

Part 2

Use the following code to get the results

```
1  import cv2
2  import numpy as np
3
4  image = cv2.imread("lena.bmp")
5  h, w = image.shape[:2]
6  center = (h / 2, w / 2)
7  Mat = cv2.getRotationMatrix2D(center, 45, 1)
8  cv2.imwrite("4_rotate45.bmp", cv2.warpAffine(image, Mat, (h, w)))
9  cv2.imwrite("5_shrink.bmp", cv2.resize(image, (h >> 1, w >> 1)))
10 cv2.imwrite("6_binary.bmp", cv2.threshold(image, 127, 255, cv2.THRESH_BINARY)[1])
```

- rotate 45 degrees clockwise

- shrink lena.bmp in half
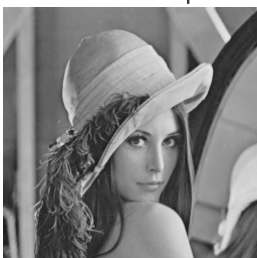
- binarize lena.bmp at 128 to get a binary image