Assignment #4

Coin Segmentation

Given images of coins that have added text as captions or descriptions (see the given images), write a program that segments the coins and removes any added text or background noise as follows:

1. Load the image and convert it to greyscale
2. Use thresholding to generate an initial segmentation
3. Use morphological operations (erosion, dilation, closing, opening, etc.) to
   - wash out the added text or background noise
   - Fill hole generated by the segmentation inside the coins

   Here, you need to use the operations successively, try with different kernel sizes, and/or try with different combinations of the operations, until the noise is completely removed (see as example ch.17, slide 24)
4. Use the result as a mask to restore the original image without the text, see the example on the next page

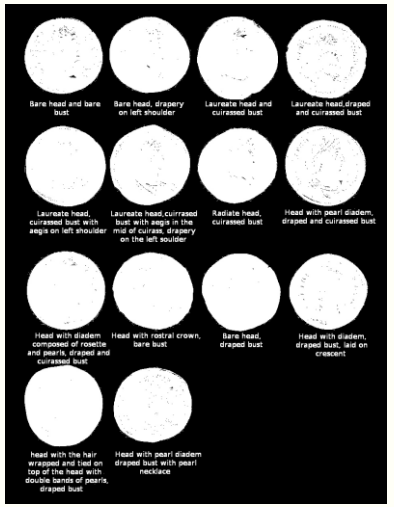
Note: You need to display the results of all steps

Assignment #4

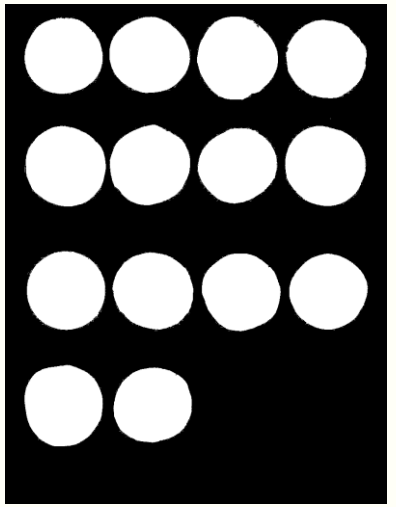
Coin Segmentation

Step 1

Step 2



Step 3



Step 4