



Answer the following questions:

A- We learn how to detect corners using Sum of squared differences. Using Matlab do the following steps:

- 1- Read Image.
- 2- Compute the gradient components in X and Y directions.
- 3- Compute the products of the gradients at each pixel.
- 4- Sum the result's over the window size.
- 5- Compute Matrix A.
- 6- Compute Score.

B- The following is a binary image.

	1	1			1			1	
	1				1			1	
1		1	1	1	1	1	1		1
1						1	1		
1		1	1	1					
1		1		1					
1		1		1					
1		1	1	1					
1									
1	1	1	1	1	1	1	1	1	

- (a) Label the connected components using Matlab assuming 4-neighbor connectivity.
- (b) Label the connected components using Matlab assuming 8-neighbor connectivity.

C- Using Matlab:



Coins.png

Segment coins from the background, by generate a binary image where white (1) are coins, and black (0) elsewhere.

- No gaps in the coins.
- No extraneous white pixels in the background.

Good Luck