

## Assessment Coding Test 1

Ques 1. Write the code for Local Binary Pattern in python (without using its library function) based on the following steps. Share the Colab Link.

Ques 2. Generate the output image using this code for input images given below.



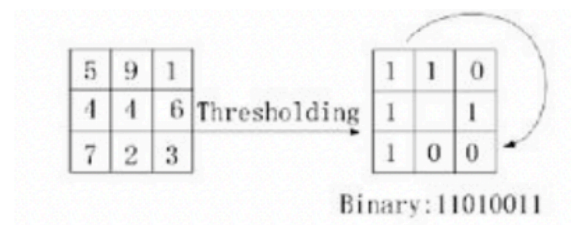
(a)



(b)

Steps for LBP code:

1. Take the input image and convert it into a grayscale image.
2. Use a sliding window technique to traverse the input image.
3. For each pixel location as centre, check its nearest 8 neighbourhood i.e.  $3 \times 3$  matrix as shown below.



4. Threshold the neighbourhood values based on the value at the centre pixel and generate the 8 bit binary.
5. Convert 8 bit binary into decimal for every pixel as centre.