

Python Week 1

Sampling and Quantization

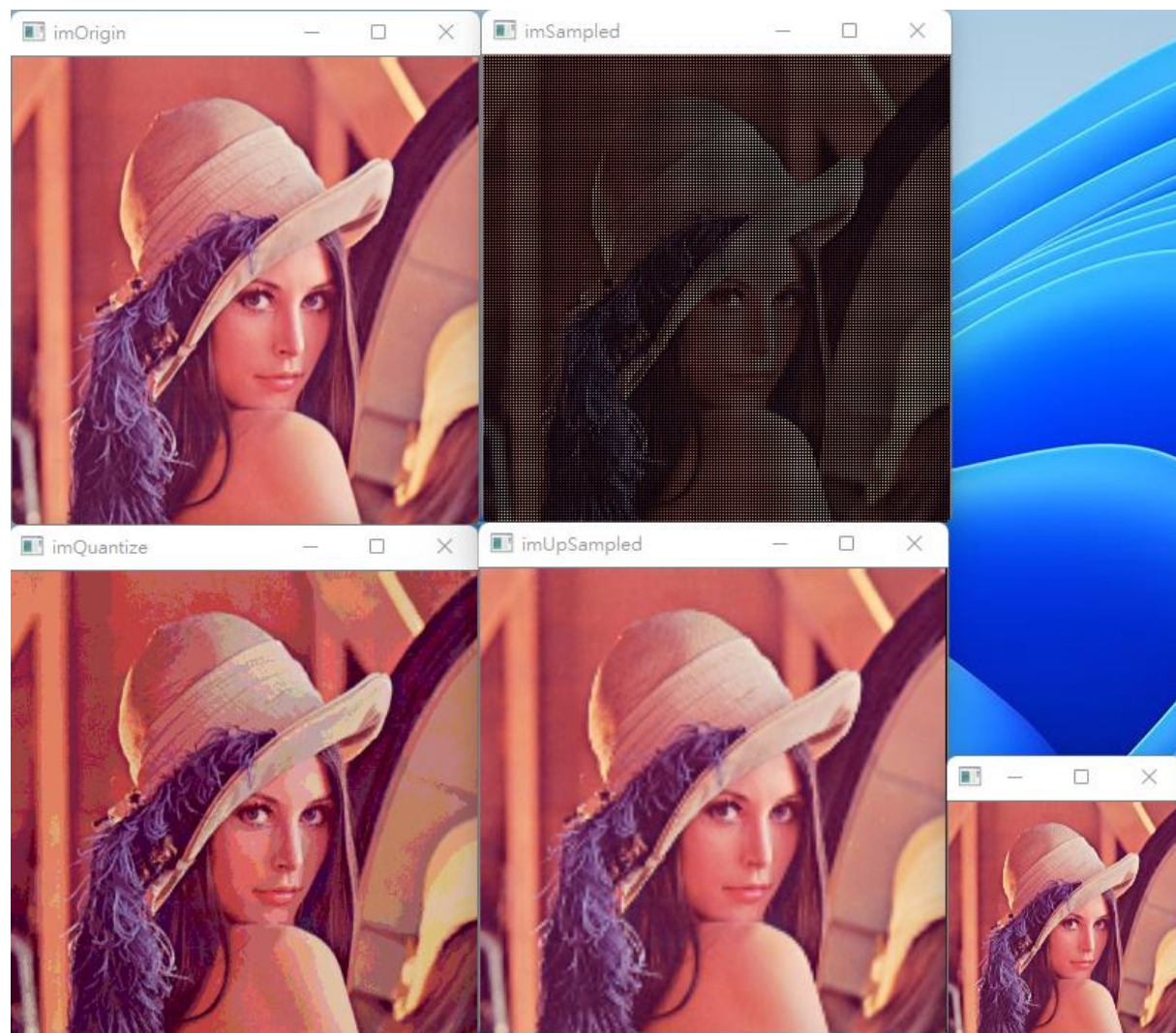
Request

1. Sampling the image pixels in even positions, e.g. (0, 0), (0, 2), (0, 4), (2, 2).....
2. Down sample the image with factor 2.
3. Up sample the image in request 2 to the original size.
4. Quantizing image from 256 levels to 8 levels.

You need to write the function 1. to 4. by yourself, using the function in opencv or any image processing repository on the GitHub is **NOT** allowed.

Hand on your python code before 6/27.

Result



Reference

- <https://sisu.ut.ee/sites/default/files/imageprocessing/files/digitizn.pdf>
- <https://wimarshikathamali1995.medium.com/sampling-quantization-in-digital-image-processing-8c4490357039>