Programming Assignment # 2
Noise Addition and Reduction
EE433- Fall 2019

We have discussed image degradation and restoration. In this assignment you need to capture an image using your cell phone, add some noise to it and then use restoration techniques to restore.

Tasks:
1. Capture a photo
2. Convert it to Gray scale
3. Add Noise to it, Gaussian and Salt&pepper (so that its visible in image)
      a. for Gaussian noise use two different variances
      b. For salt and pepper noise use two different probabilities
4. Restore image using following:
      a. Arithmatic filter
      b. Contraharmonic Mean (choose Q intelligently)
      c. Median Filter
      d. Midpoint filter

You have to write a report, showing all the images and discuss your observations with various parameters.
If you are using python notebooks, you can add comments in the same file instead of a separate report.

Submission details: You need to submit, code, your selected image files and a report.
Deadline: 15th Nov. 2019
Note: You can use late days for this assignment. Grading will be relative.