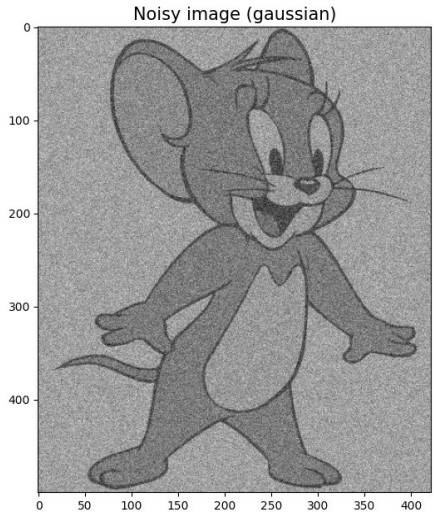
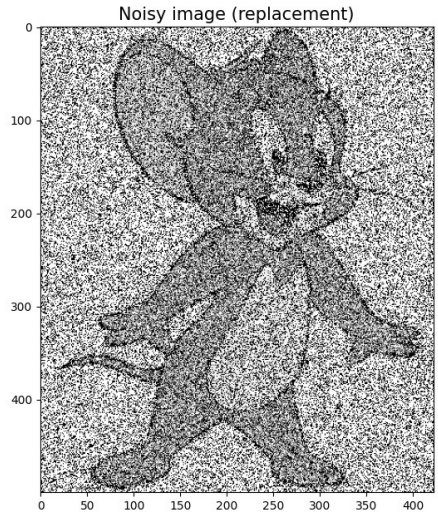
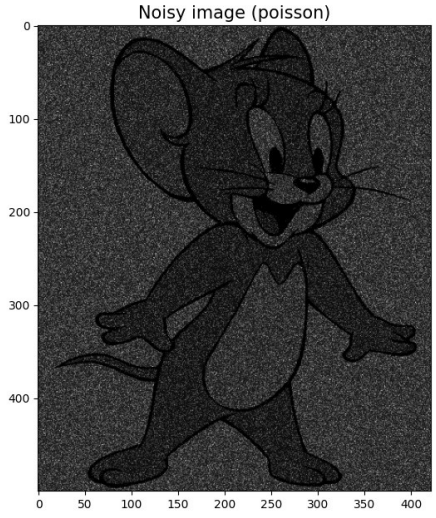
Report on Project_2

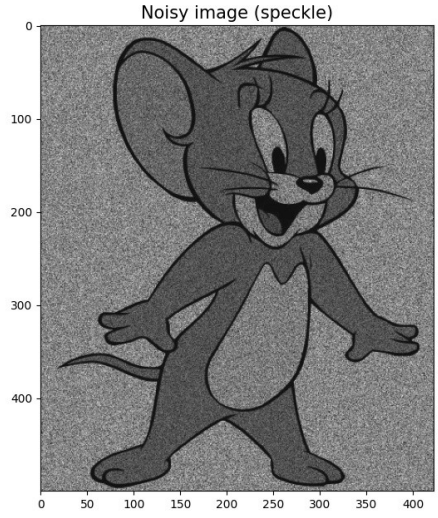
1. Noisy Image Generation

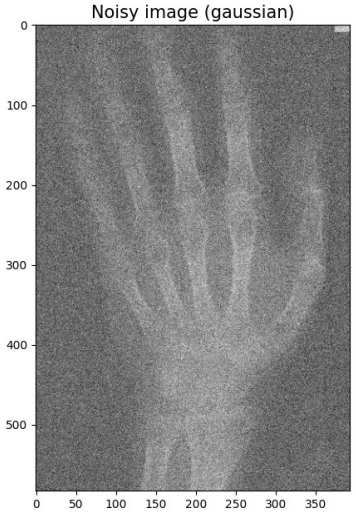
For this question, I have used four types of noises: gaussian, replacement(salt and peper), speckle and poisson. Here are some of the output images:

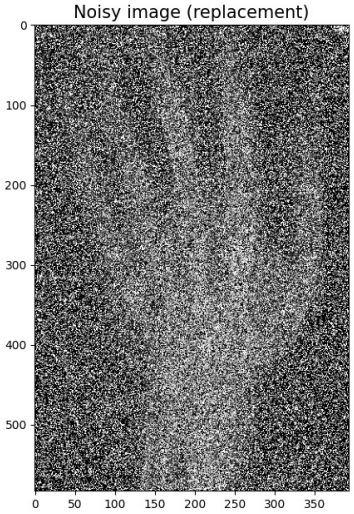


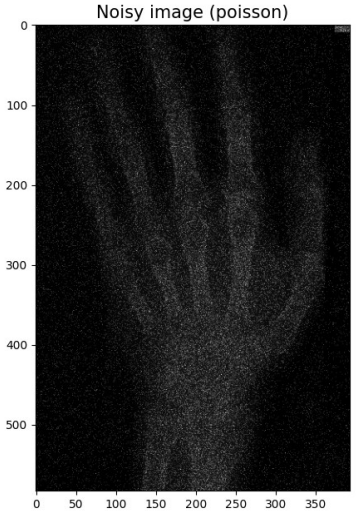


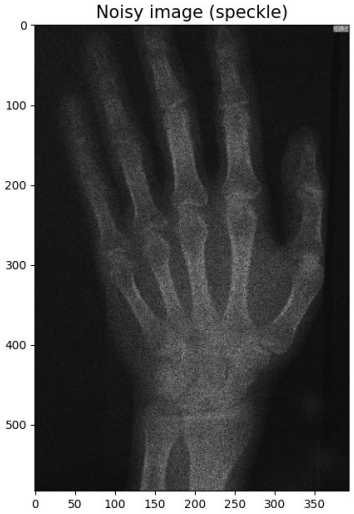




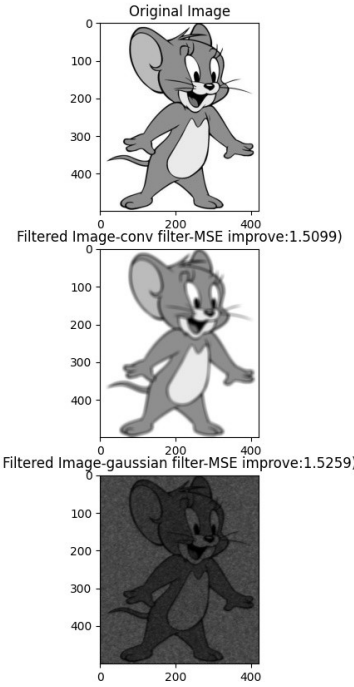


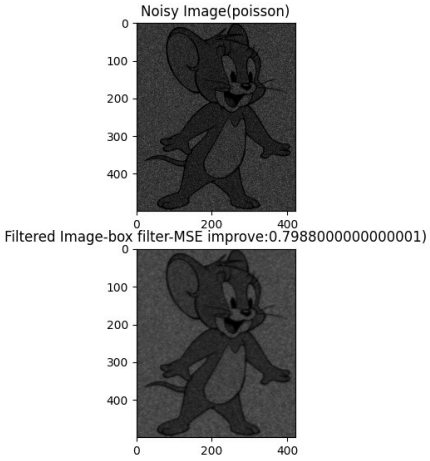


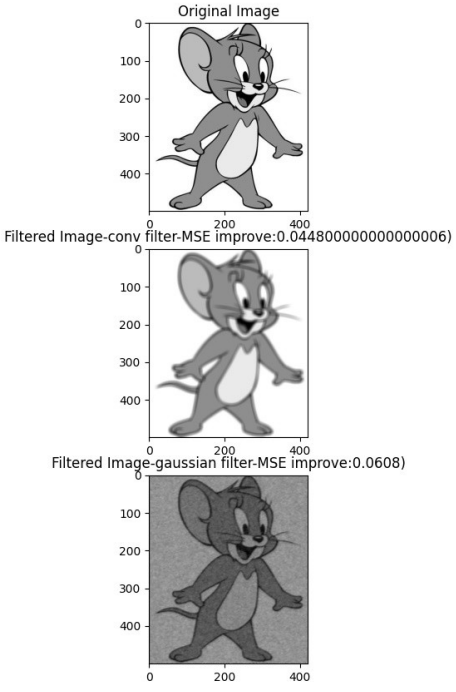


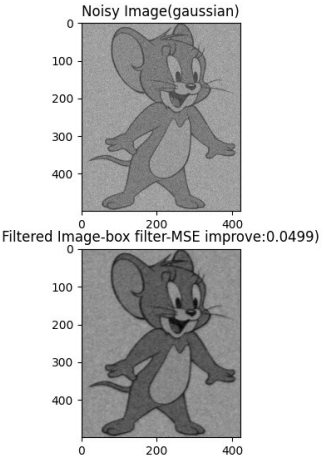


Q2 Linear Filtering outputs:

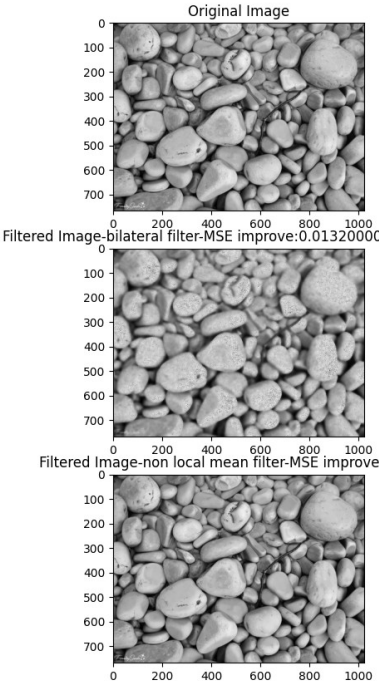


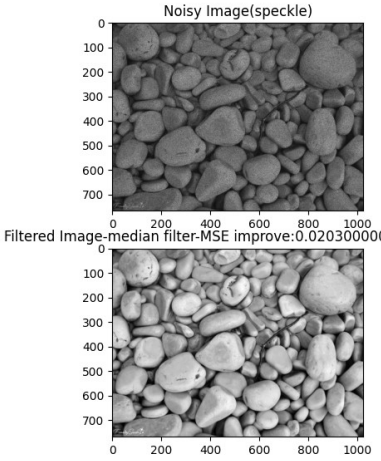


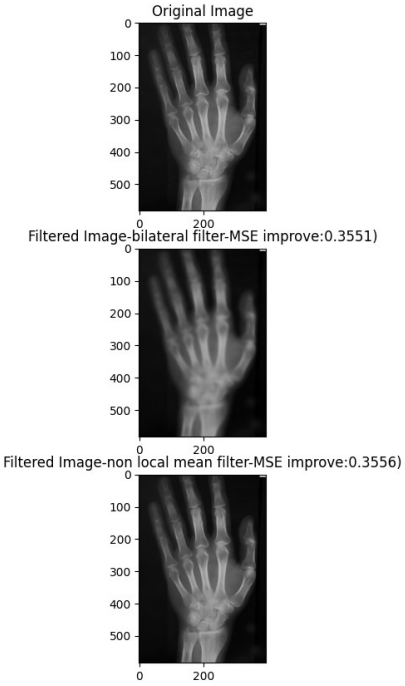


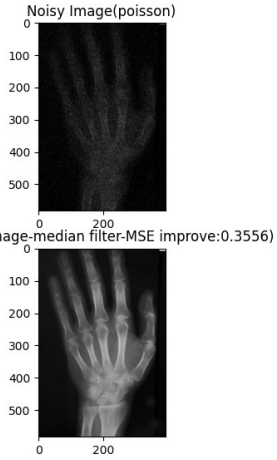


Q3 Non-Linear Filtering Outputs:


Original Image
Filtered Image-bilateral filter-MSE improve:0.013200000000000002)
Filtered Image-non local mean filter-MSE improve:0.0204)


Noisy Image(speckle)
Filtered Image-median filter-MSE improve:0.020300000000000002)


Original Image
Filtered Image-bilateral filter-MSE improve:0.3551)
Filtered Image-non local mean filter-MSE improve:0.3556)


Noisy Image(poisson)
Filtered Image-median filter-MSE improve:0.3556)