1)Restoration from kernel

` Here due to the white noise inverse filter is amplifying noise more so that we are unable to restore image

But using wiener filter and least squares we can restore that image partially still as parameters of these parameters are my choice I tried with other parameters I am getting changes in output. But every change is towards restoration only.

Linear least squares filter is better than among others.

2)median filter and bilateral filtering

Here given image have impulse noise as it is impulse, I have observed that median filter showing better performance among others

Bilateral filter saving edges more efficient than just gaussian filter I have to output from bilateral and for gaussian almost same but while zooming and observing bilateral filter output is good.

3)Barbara image down sampling

Here Barbara image have high frequency components more since I am doing down sampling, I have got effect of aliasing in direct down sampling so I have applied gaussian lowpass filter first to remove high frequency components and then down sampled it I have got better almost non aliasing image as output.

4)Edge detection

I have don edge detection for an image which is already done edge detection side doing this I have easily that edges I have found purely based on the threshold I put. Since I have took low light images instead of Otsu, I have tried manual low threshold to get better results.