Assignment-2
Computer Vision (CSL7360)

Submission Guidelines:

1. Prepare a report (with name RollNo_A2) in pdf format discussing your approach, challenges, and limitations. Include visual examples and any external resources used.
2. Attach the link for a collab notebook (with the name RollNo_A2) in the report only (containing both questions). If you have used another platform for running the program, share the .py and .ipynb files in a zip folder.
3. Please stick to the submission date. Late submission may cause some deductions in marks.
4. This Assignment is based on the classical computer vision approach.
5. **Submit a single zip file containing the report pdf, images, and python file of your code with the name RollNo_A2 (eg. M22RM003_A2).**
6. **Do not upload the files separately.**

Questions:

Q1 On the below given images add the following types of noise:

1. Salt and pepper noise
2. Gaussian noise

Display the images with noise and explain the difference between these two noisy images. Then remove those noise using any filter and also write the functioning of the filter.

Q2 Take the following images and blur them using:

1. Gaussian blur
2. Motion Blur

Then display the images and the kernel used to blur them. Explain both blurring techniques in detail. After that de-blur those images with the help of that kernel and display the results.

Q3 From the below-given images take the image of a dog and place it on the road in the city image. Do necessary scaling and apply proper geometric transformations. Explain the steps in detail. Display the resulting image.

Link for images:

https://images.unsplash.com/photo-1578133630261-a79a92922335?ixlib=rb-1.2.1&ixid=eyJhcHBfaWQiOjEyMDd9&auto=format&fit=crop&w=1000&q=80

https://images.unsplash.com/photo-1514924013411-cbf25faa35bb?ixlib=rb-1.2.1&ixid=eyJhcHBfaWQiOjEyMDd9&auto=format&fit=crop&w=1000&q=80