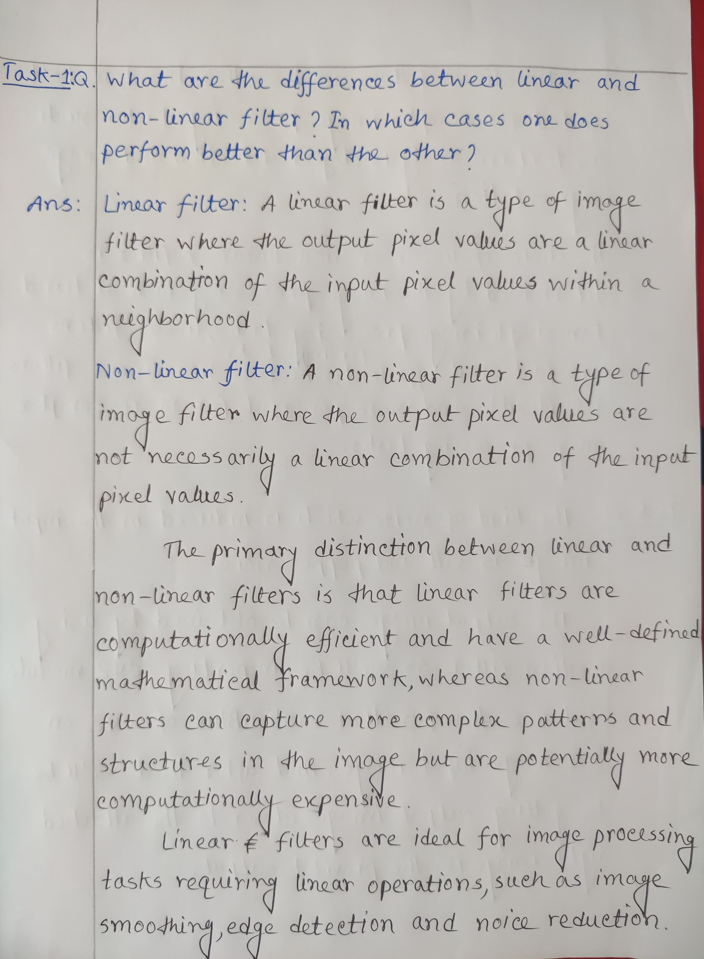
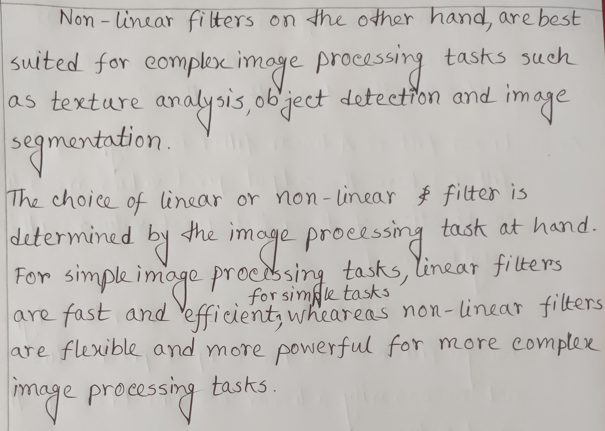
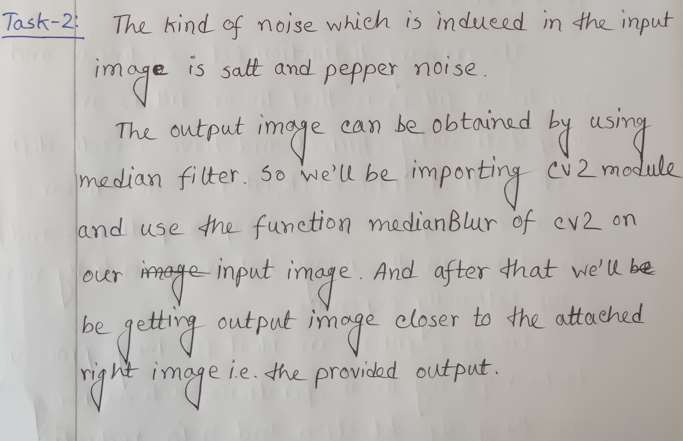
**Task-1:**

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**Task-2:**



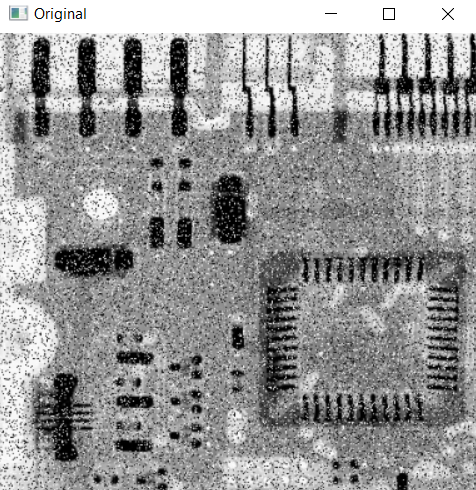
**The code of the Task-2 is:**

import cv2  
import numpy as np

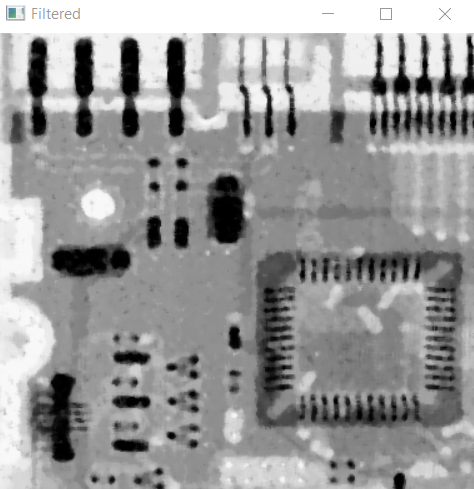
input\_img = cv2.imread('Input-2.png')  
grayed = cv2.cvtColor(input\_img, cv2.COLOR\_BGR2GRAY)  
filtered\_img = cv2.medianBlur(grayed, 5)

cv2.imshow('Original', grayed)  
cv2.imshow('Filtered', filtered\_img)  
cv2.waitKey(0)

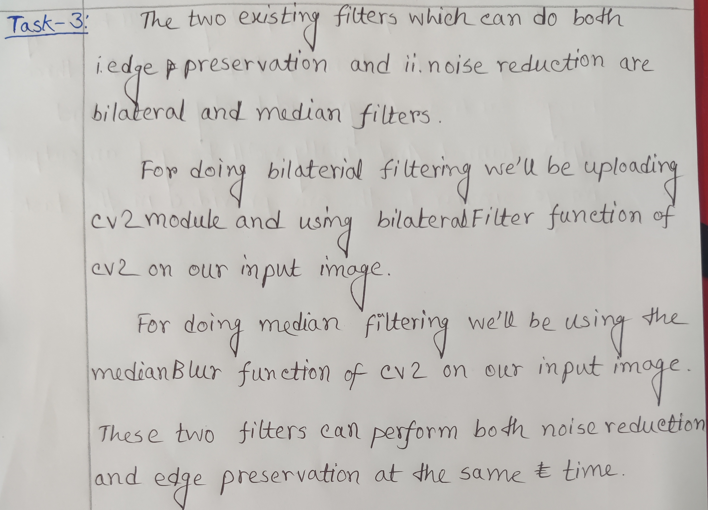
**The Input:**

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**The Output:**

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**Task-3:**

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**The code of Task-3(Bilateral) is:**

import cv2  
import numpy as np

input\_noise\_img = cv2.imread('input-3.png')  
bilateral\_img = cv2.bilateralFilter(input\_noise\_img, 20, 40, 100, borderType = cv2.BORDER\_CONSTANT)

cv2.imshow('Original', input\_noise\_img)  
cv2.imshow('Bilateral', bilateral\_img)  
cv2.waitKey(0)  
cv2.destroyAllWindows()

**The Input:**

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**The Output:**

****

**The code of Task-3(Median) is:**

import cv2  
import numpy as np

input\_noise\_img = cv2.imread('input-3.png')  
median\_img = cv2.medianBlur(input\_noise\_img, 7)

cv2.imshow('Original', input\_noise\_img)  
cv2.imshow('Median', median\_img)  
cv2.waitKey(0)  
cv2.destroyAllWindows()

**The Input:**

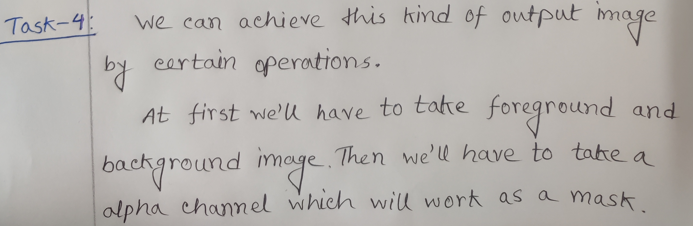
****

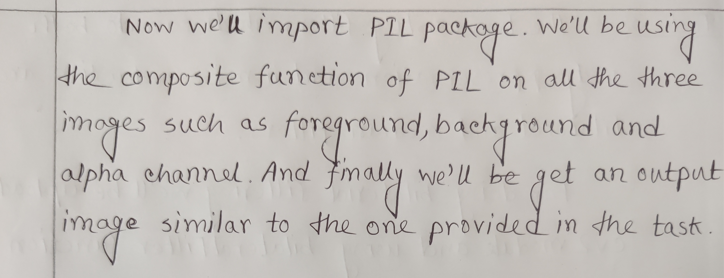
**The Output:**

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**Task-4:**

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**The code of Task-4 is:**

import cv2  
import numpy as np

from PIL import Image

foregnd\_img = Image.open('foregnd.png').convert('RGB').resize((600,600))  
backgnd\_img = Image.open('backgnd.png').convert('RGB').resize((600,600))

masking = Image.open('alpha\_chnl.png').convert('L').resize((600,600))

Image.composite(foregnd\_img, backgnd\_img, masking).save('Output.png')

out\_img = cv2.imread('Output.png')  
cv2.imshow('Output Image', out\_img)  
cv2.waitKey(0)  
cv2.destroyAllWindows()

**The Inputs:**

Background:

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Foreground:



Alpha Channel:



**The Output:**

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