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Kelas : A

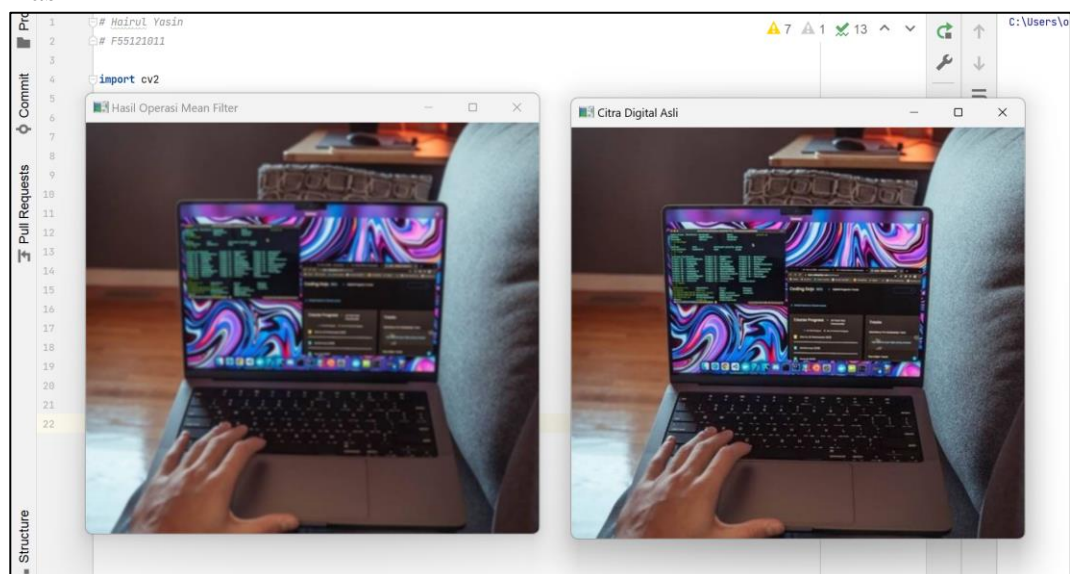
Implementasi Operasi Median Filter, Min Filter & Max Filter

1. Median Filter

Kode Program

```
1  # Hairul Yasin
2  # F55121011
3
4  import cv2
5  import numpy as np
6
7  # Load citra digital
8  img = cv2.imread('IMG1.jpg')
9
10 # Tentukan ukuran kernel
11 kernel_size = 3
12
13 # Lakukan operasi Mean Filter
14 img_mean = cv2.blur(img, (kernel_size, kernel_size))
15
16 # Tampilkan citra digital asli dan hasil operasi Mean Filter
17 cv2.imshow('Citra Digital Asli', img)
18 cv2.imshow('Hasil Operasi Mean Filter', img_mean)
19 cv2.waitKey(0)
20 cv2.destroyAllWindows()
```

Hasil

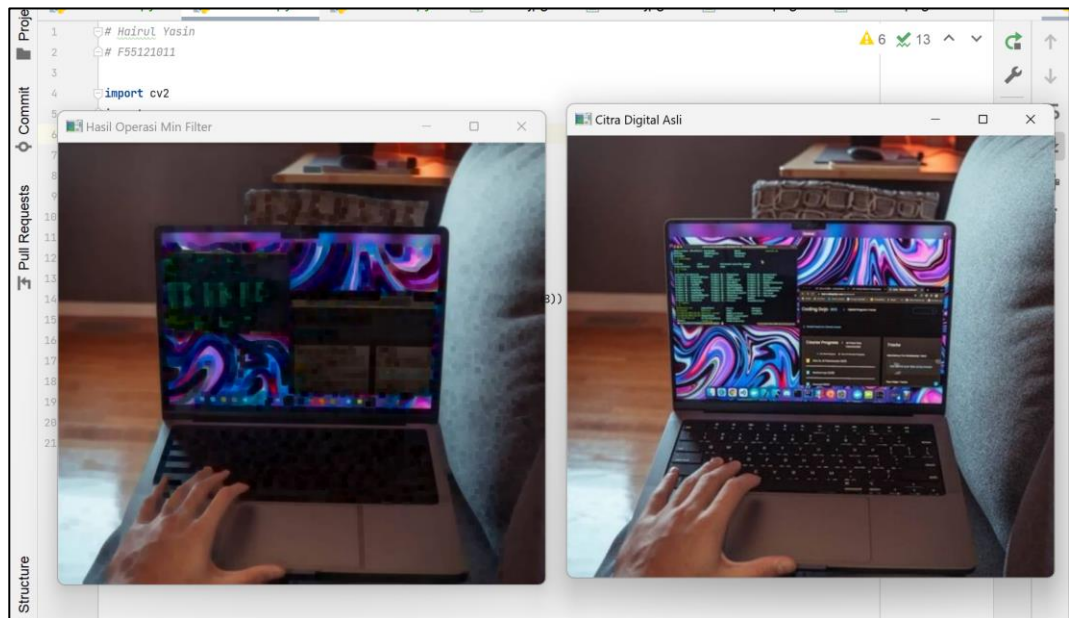


2. Min Filter

Kode Program

```
1  # Hairul Yasin
2  # F55121011
3
4  import cv2
5  import numpy as np
6
7  # Load citra digital
8  img = cv2.imread('IMG1.jpg')
9
10 # Tentukan ukuran kernel
11 kernel_size = 5
12
13 # Lakukan operasi Min Filter
14 img_min = cv2.erode(img, np.ones((kernel_size, kernel_size), np.uint8))
15
16 # Tampilkan citra digital asli dan hasil operasi Min Filter
17 cv2.imshow('Citra Digital Asli', img)
18 cv2.imshow('Hasil Operasi Min Filter', img_min)
19 cv2.waitKey(0)
20 cv2.destroyAllWindows()
21
```

Hasil



3. Max Filter

Kode Program

```
1  # Hairul Yasin
2  # F55121011
3
4  import cv2
5  import numpy as np
6
7  # Load citra digital
8  img = cv2.imread('IMG1.jpg')
9
10 # Tentukan ukuran kernel
11 kernel_size = 5
12
13 # Lakukan operasi Max Filter
14 img_max = cv2.dilate(img, np.ones((kernel_size, kernel_size), np.uint8))
15
16 # Tampilkan citra digital asli dan hasil operasi Max Filter
17 cv2.imshow('Citra Digital Asli', img)
18 cv2.imshow('Hasil Operasi Max Filter', img_max)
19 cv2.waitKey(0)
20 cv2.destroyAllWindows()
21
```

Hasil

