LAB ACTIVITY
PENGOLAHAN CITRA DIGITAL
Pertemuan 6 – Operasi Dasar Pengolahan Citra

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Mata Kuliah: Pengolahan Citra Digital

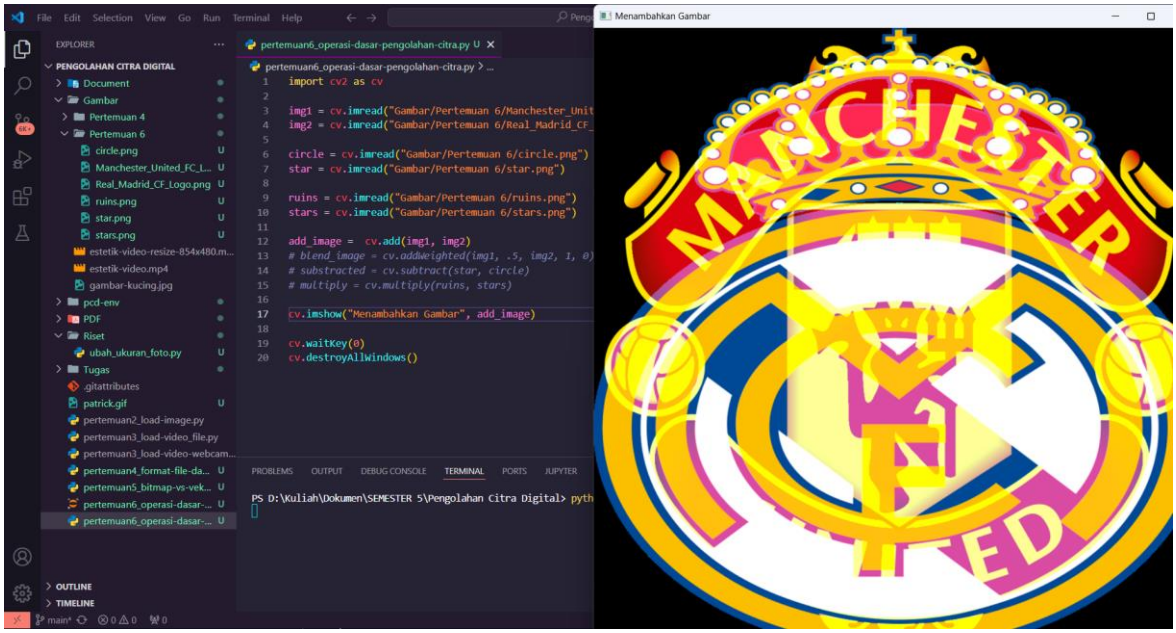
Alat dan Bahan:
1. Text Editor
2. Python
3. Library Python numpy, opencv
4. Google Colab (Opsional)

1. Operasi Gambar Menggunakan Python

Source Code:

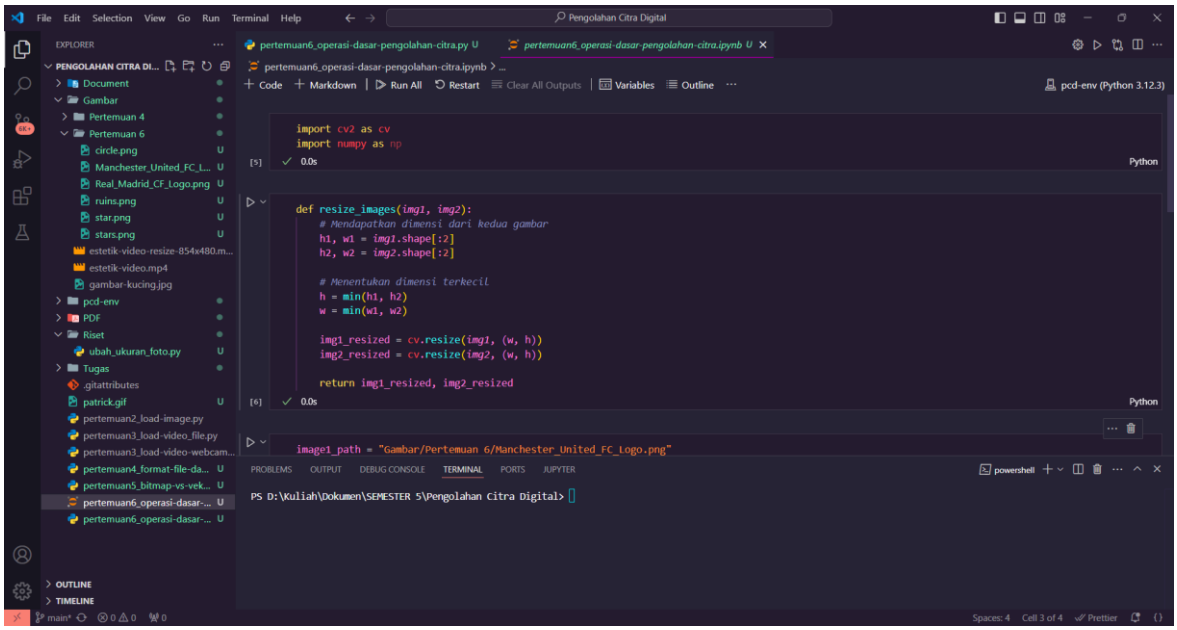
```
import cv2 as cv

img1 = cv.imread("Gambar/Pertemuan 6/Manchester_United_FC_Logo.png")
img2 = cv.imread("Gambar/Pertemuan 6/Real_Madrid_CF_Logo.png")

circle = cv.imread("Gambar/Pertemuan 6/circle.png")
star = cv.imread("Gambar/Pertemuan 6/star.png")

ruins = cv.imread("Gambar/Pertemuan 6/ruins.png")
stars = cv.imread("Gambar/Pertemuan 6/stars.png")

# add_image =  cv.add(img1, img2)
# blend_image = cv.addWeighted(img1, .5, img2, 1, 0)
# substracted = cv.subtract(star, circle)
multiply = cv.multiply(ruins, stars)

cv.imshow("Menambahkan Gambar", multiply)

cv.waitKey(0)
cv.destroyAllWindows()
```

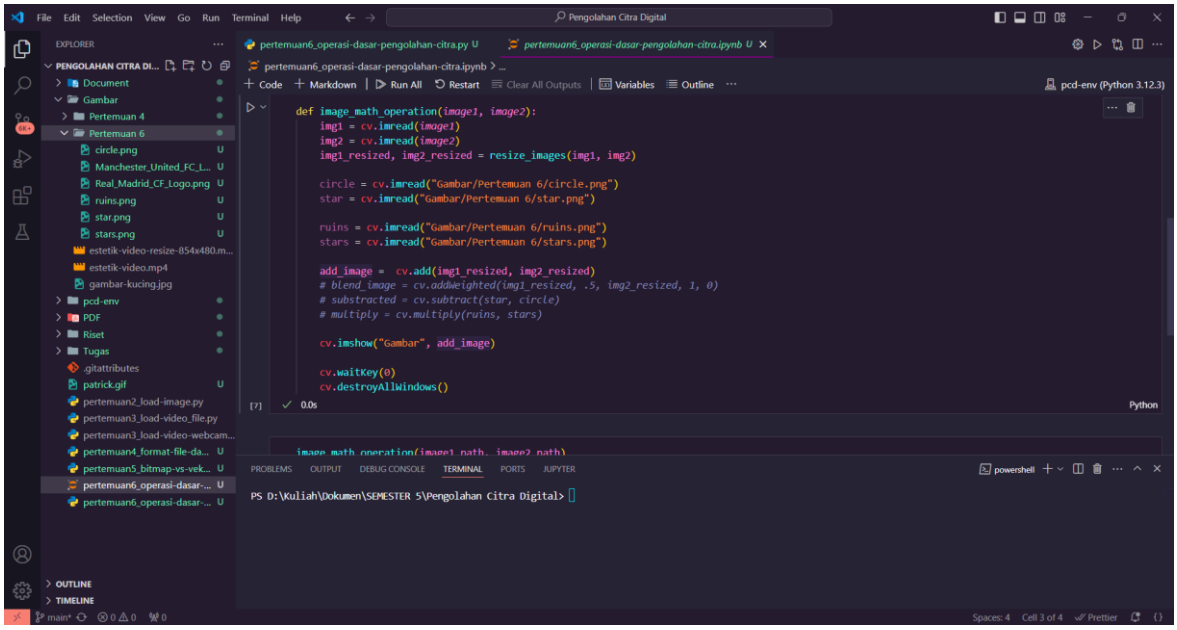
Hasil:



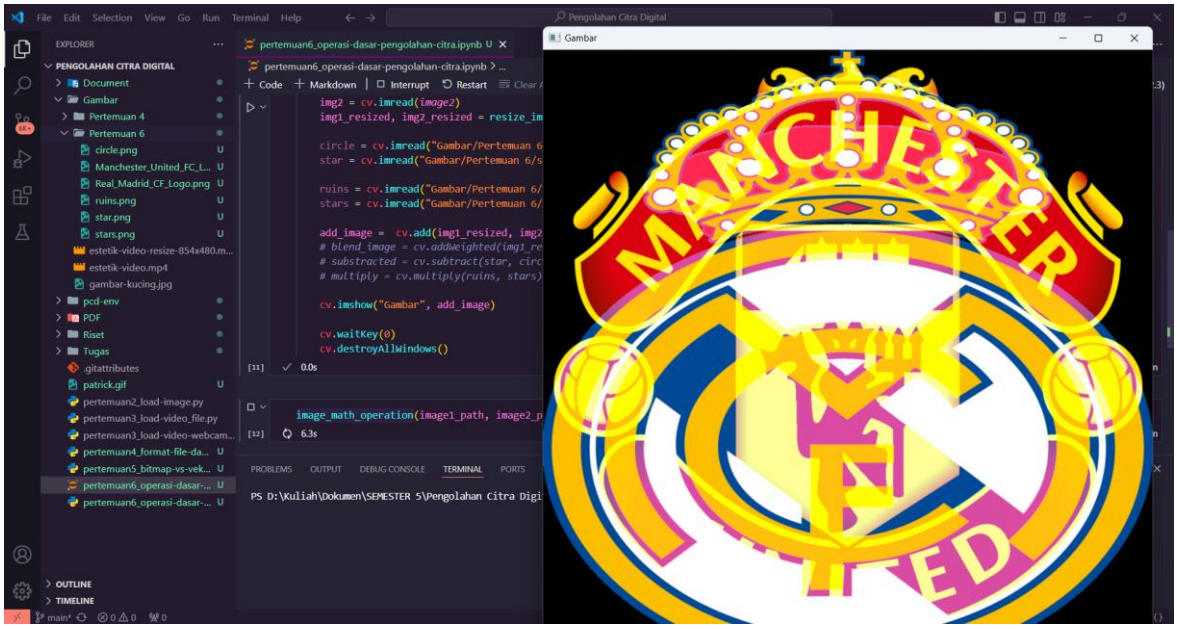
2. Penyesuaian Dimensi Gambar Menggunakan Python

Source Code:





Hasil:

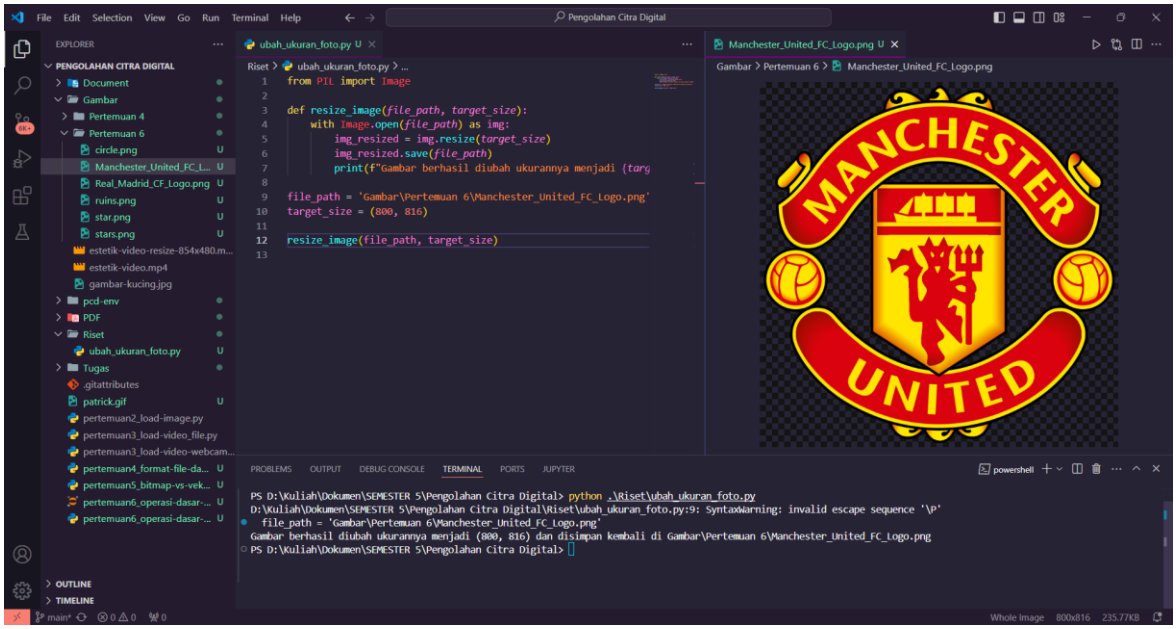


3. Mengubah Dimensi dan Disimpan Menggunakan Python

Source Code:

```
from PIL import Image

def resize_image(file_path, target_size):
    with Image.open(file_path) as img:
        img_resized = img.resize(target_size)
        img_resized.save(file_path)
        print(f"Gambar berhasil diubah ukurannya menjadi {target_size}
dan disimpan kembali di {file_path}")

file_path = 'Gambar\Pertemuan 6\Manchester_United_FC_Logo.png'
target_size = (800, 816)

resize_image(file_path, target_size)
```

Hasil:


File Edit Selection View Go Run Terminal Help
Pengolahan Citra Digital
EXPLORER
PENGOLAHAN CITRA DIGITAL
ubah_ukuran_foto.py U
Riset > ubah_ukuran_foto.py > ...
from PIL import Image
def resize_image(file_path, target_size):
with Image.open(file_path) as img:
img_resized = img.resize(target_size)
img_resized.save(file_path)
print(f"Gambar berhasil diubah ukurannya menjadi {targ
file_path = 'Gambar\Pertemuan 6\Manchester_United_FC_Logo.png'
target_size = (800, 816)
resize_image(file_path, target_size)
Manchester_United_FC_Logo.png U
Gambar > Pertemuan 6 > Manchester_United_FC_Logo.png
MANCHESTER
UNITED
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS JUPYTER
powershell
PS D:\Kuliah\Dokumen\SEMESTER 5\Pengolahan Citra Digital> python .\Riset\ubah_ukuran_foto.py
D:\Kuliah\Dokumen\SEMESTER 5\Pengolahan Citra Digital\Riset\ubah_ukuran_foto.py:9: SyntaxWarning: invalid escape sequence '\P'
file_path = 'Gambar\Pertemuan 6\Manchester_United_FC_Logo.png'
Gambar berhasil diubah ukurannya menjadi (800, 816) dan disimpan kembali di Gambar\Pertemuan 6\Manchester_United_FC_Logo.png
PS D:\Kuliah\Dokumen\SEMESTER 5\Pengolahan Citra Digital>
OUTLINE
TIMELINE
main*
Whole Image 800x816 235.77KB