

Nama : Ambar Wati

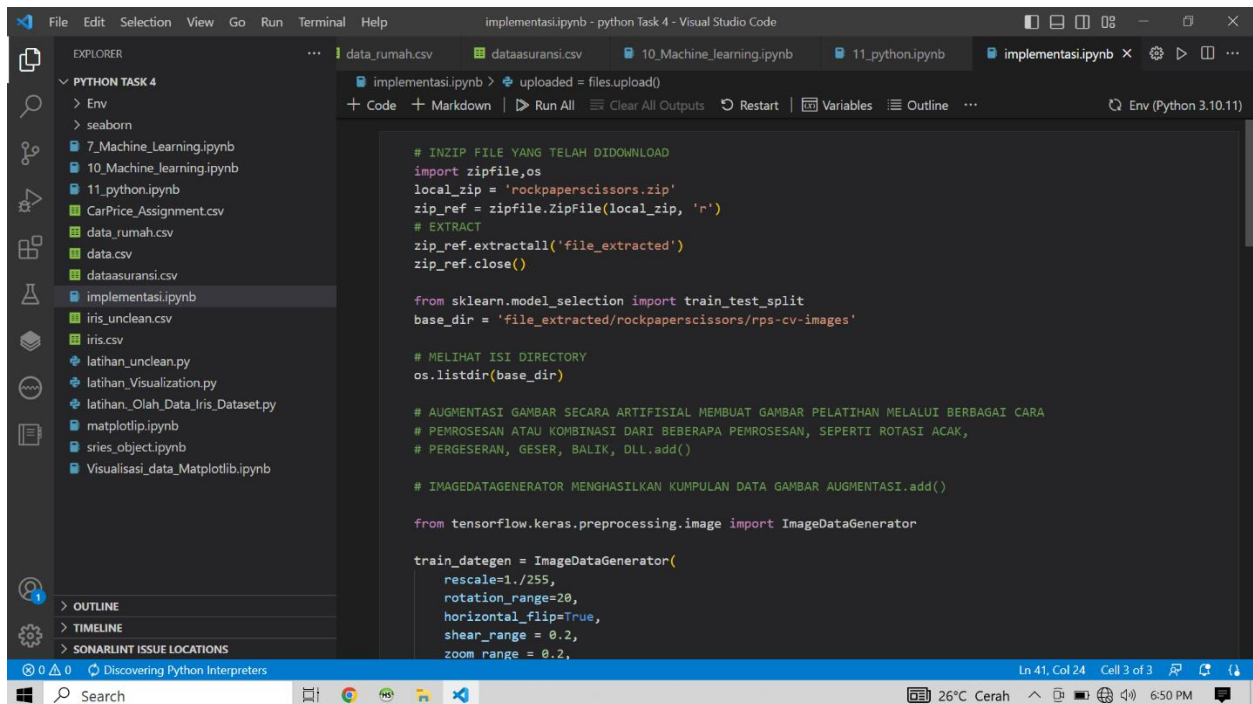
NIM : 20.01.013.001

Kelas : C

Mata Kuliah : Pemrograman Python

Task 8

Deep Learning



```
implementasi.ipynb - python Task 4 - Visual Studio Code
+ Code + Markdown | Run All | Clear All Outputs | Restart | Variables | Outline ...
Env (Python 3.10.11)

# INZIP FILE YANG TELAH DIDOWNLOAD
import zipfile,os
local_zip = 'rockpaperscissors.zip'
zip_ref = zipfile.ZipFile(local_zip, 'r')
# EXTRACT
zip_ref.extractall('file_extracted')
zip_ref.close()

from sklearn.model_selection import train_test_split
base_dir = 'file_extracted/rockpaperscissors/rps-cv-images'

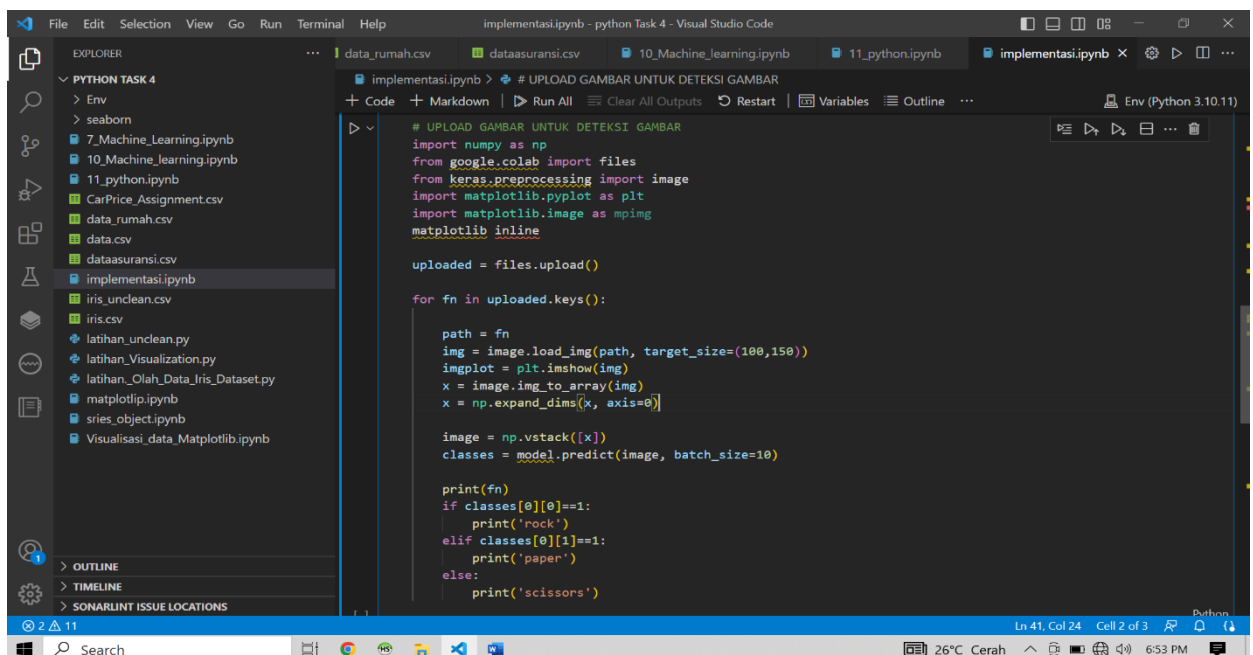
# MELIHAT ISI DIRECTORY
os.listdir(base_dir)

# AUGMENTASI GAMBAR SECARA ARTIFISIAL MEMBUAT GAMBAR PELATIHAN MELALUI BERBAGAI CARA
# PEMROSESAN ATAU KOMBINASI DARI BEBERAPA PEMROSESAN, SEPERTI ROTASI ACAK,
# PERGESERAN, GESER, BALIK, DLL.add()

# IMAGEDATAGENERATOR MENGHASILKAN KUMPULAN DATA GAMBAR AUGMENTASI.add()

from tensorflow.keras.preprocessing.image import ImageDataGenerator

train_datagen = ImageDataGenerator(
    rescale=1./255,
    rotation_range=20,
    horizontal_flip=True,
    shear_range = 0.2,
    zoom_range = 0.2,
```



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Env (Python 3.10.11)

# UPLOAD GAMBAR UNTUK DETEKSI GAMBAR
import numpy as np
from google.colab import files
from keras.preprocessing import image
import matplotlib.pyplot as plt
import matplotlib.image as mpimg
matplotlib inline

uploaded = files.upload()

for fn in uploaded.keys():

    path = fn
    img = image.load_img(path, target_size=(100,100))
    imgplot = plt.imshow(img)
    x = image.img_to_array(img)
    x = np.expand_dims(x, axis=0)

    image = np.vstack([x])
    classes = model.predict(image, batch_size=10)

    print(fn)
    if classes[0][0]==1:
        print('rock')
    elif classes[0][1]==1:
        print('paper')
    else:
        print('scissors')
```

