
a short report on

Image Seprator

created by

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The following program code is an image separator that separates on the basis of face similarity.

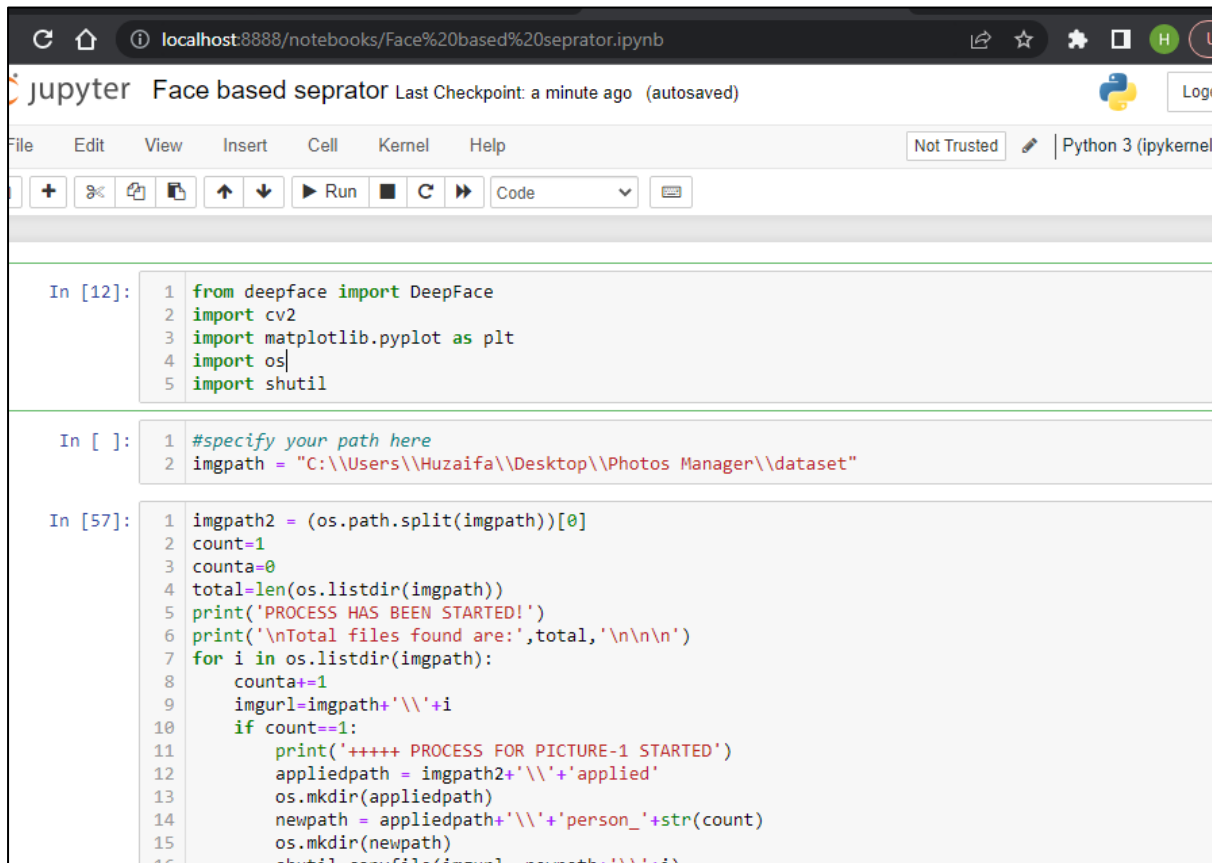
LIBRARIES USED

- DeepFace
- cv2
- os
- shutil

METHODOLOGY

When we run the project for the first time the DeepFace library take some time and download specific weight from internet. These weights consume a heavy space and are downloaded in C drive of the computer. DeepFace library is a library built on top of the tensorflow and is responsible for detecting faces in images of similar features.

The program flows by iterating over each image and then comparing the image with first image in each person folder, if the picture matches the person it is added to that person folder or if it doesn't matches any the person then a new folder for that image will be created. The first image in dataset is not compared with any person rather that is simply be designated inside a folder as a person_1.

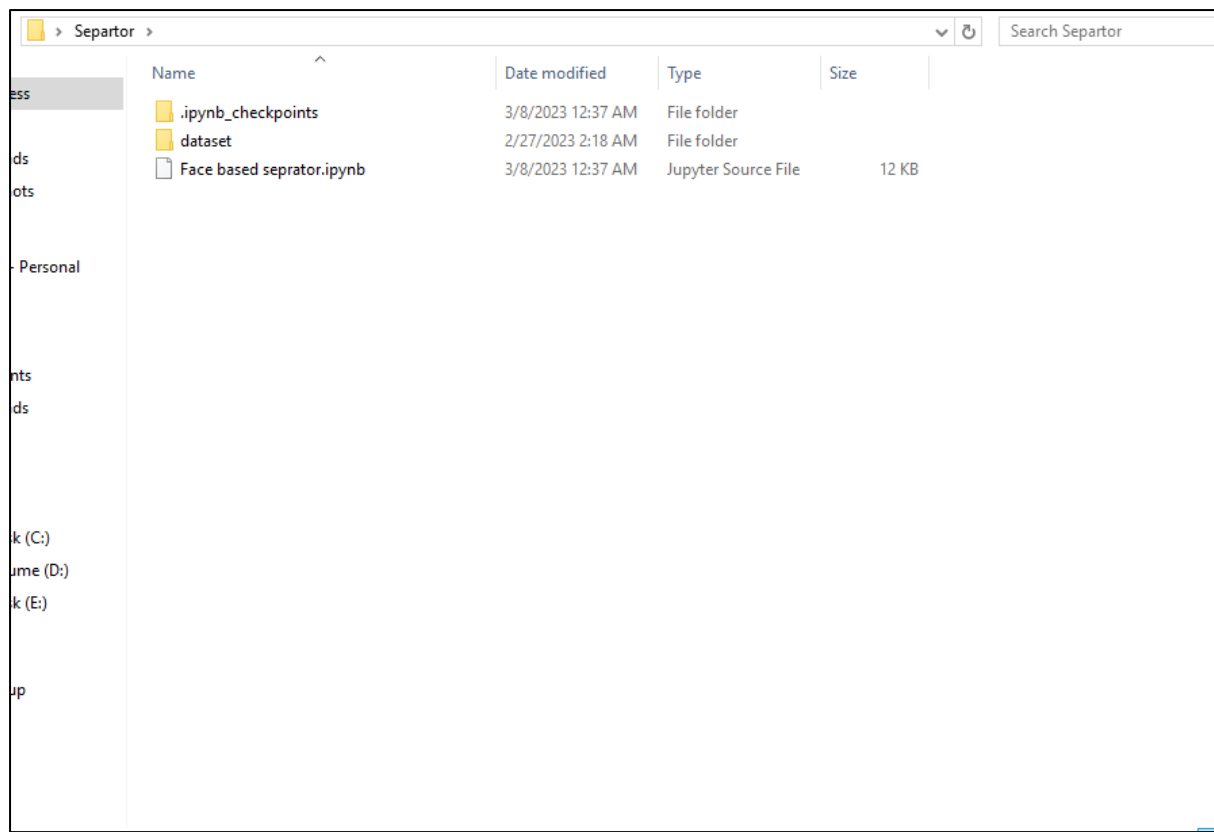


```
In [12]: 1 from deepface import DeepFace
2 import cv2
3 import matplotlib.pyplot as plt
4 import os
5 import shutil

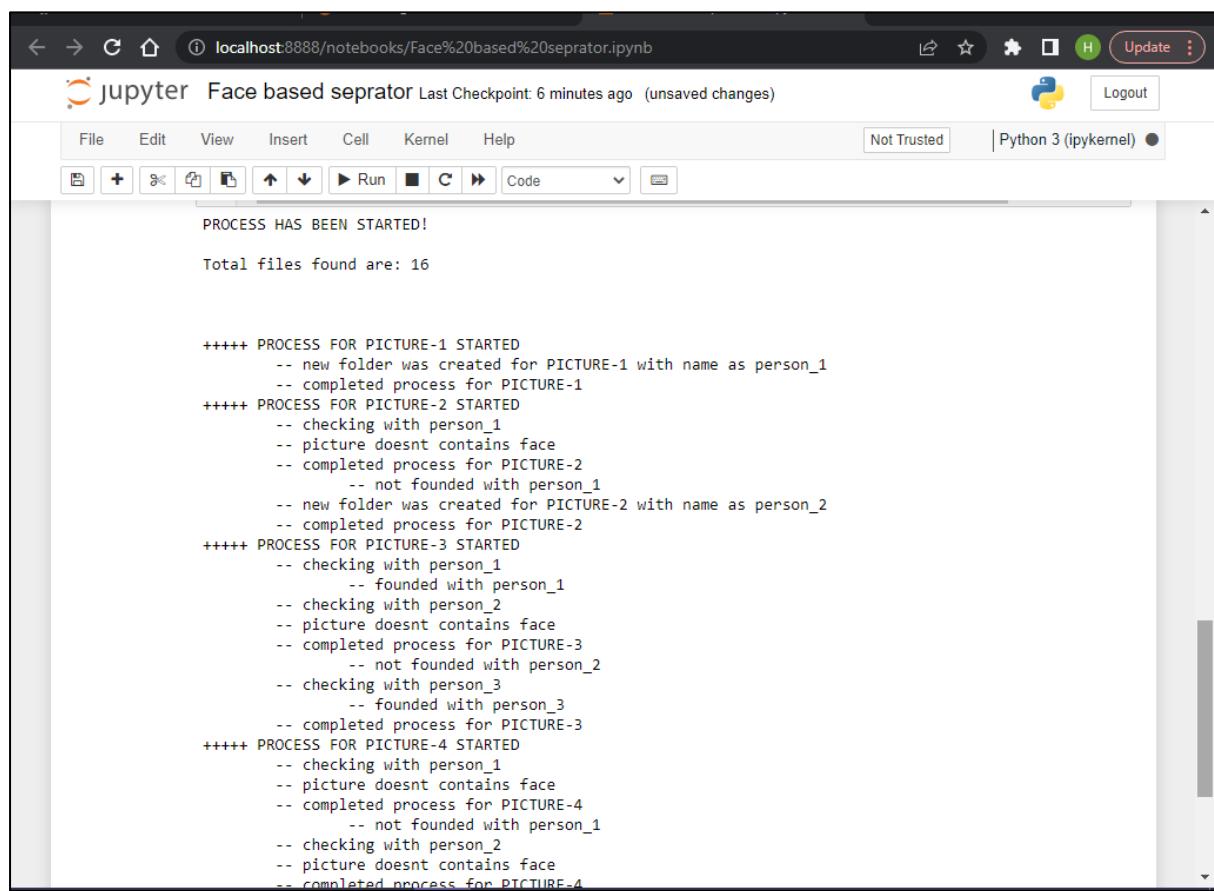
In [ ]: 1 #specify your path here
2 imgpath = "C:\\Users\\Huzaifa\\Desktop\\Photos Manager\\dataset"

In [57]: 1 imgpath2 = (os.path.split(imgpath))[0]
2 count=1
3 counta=0
4 total=len(os.listdir(imgpath))
5 print('PROCESS HAS BEEN STARTED!')
6 print('\nTotal files found are:',total,'\n\n')
7 for i in os.listdir(imgpath):
8     counta+=1
9     imgurl=imgpath+'\\'+i
10    if count==1:
11        print('+++++ PROCESS FOR PICTURE-1 STARTED')
12        appliedpath = imgpath2+'\\'+i+'applied'
13        os.mkdir(appliedpath)
14        newpath = appliedpath+'\\'+i+'person_'+str(count)
15        os.mkdir(newpath)
16        shutil.copyfile(imgurl, newpath+'\\'+i)
```

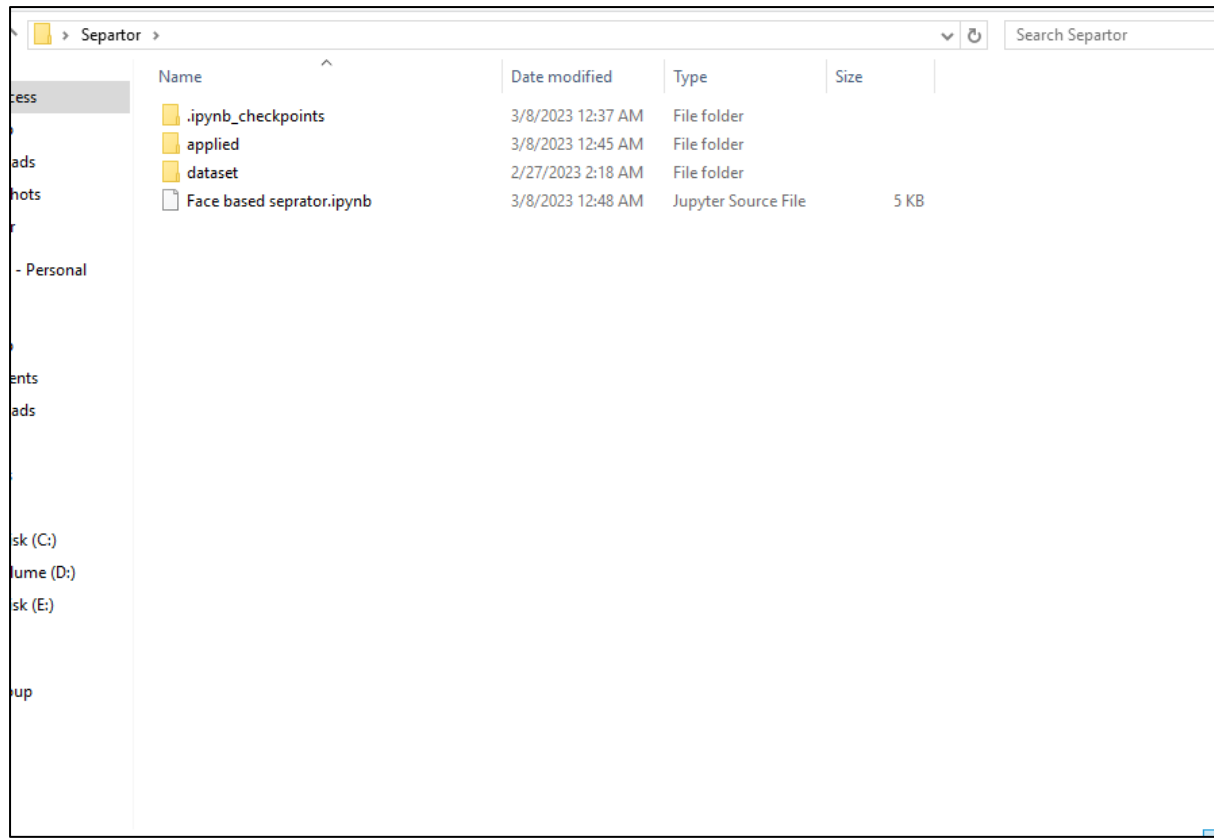
Main program



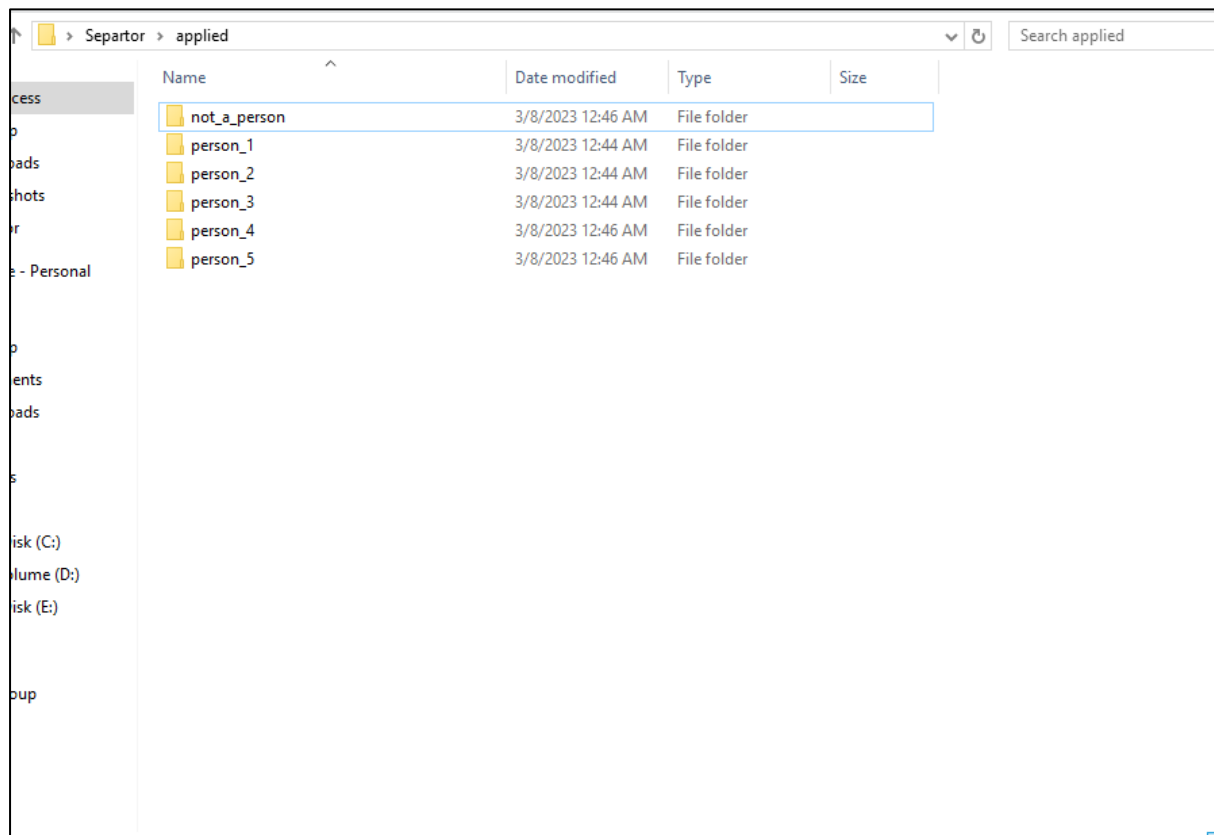
Specified folder before execution of code



Execution of code



Folder after execution of code



Folder after execution of code

LIMITATIONS

The accuracy of the code depends solely on the ability of DeepFace library to detect the correct faces. The DeepFace library may produce different or inaccurate results on different dataset or images.