



Ahmedabad
University

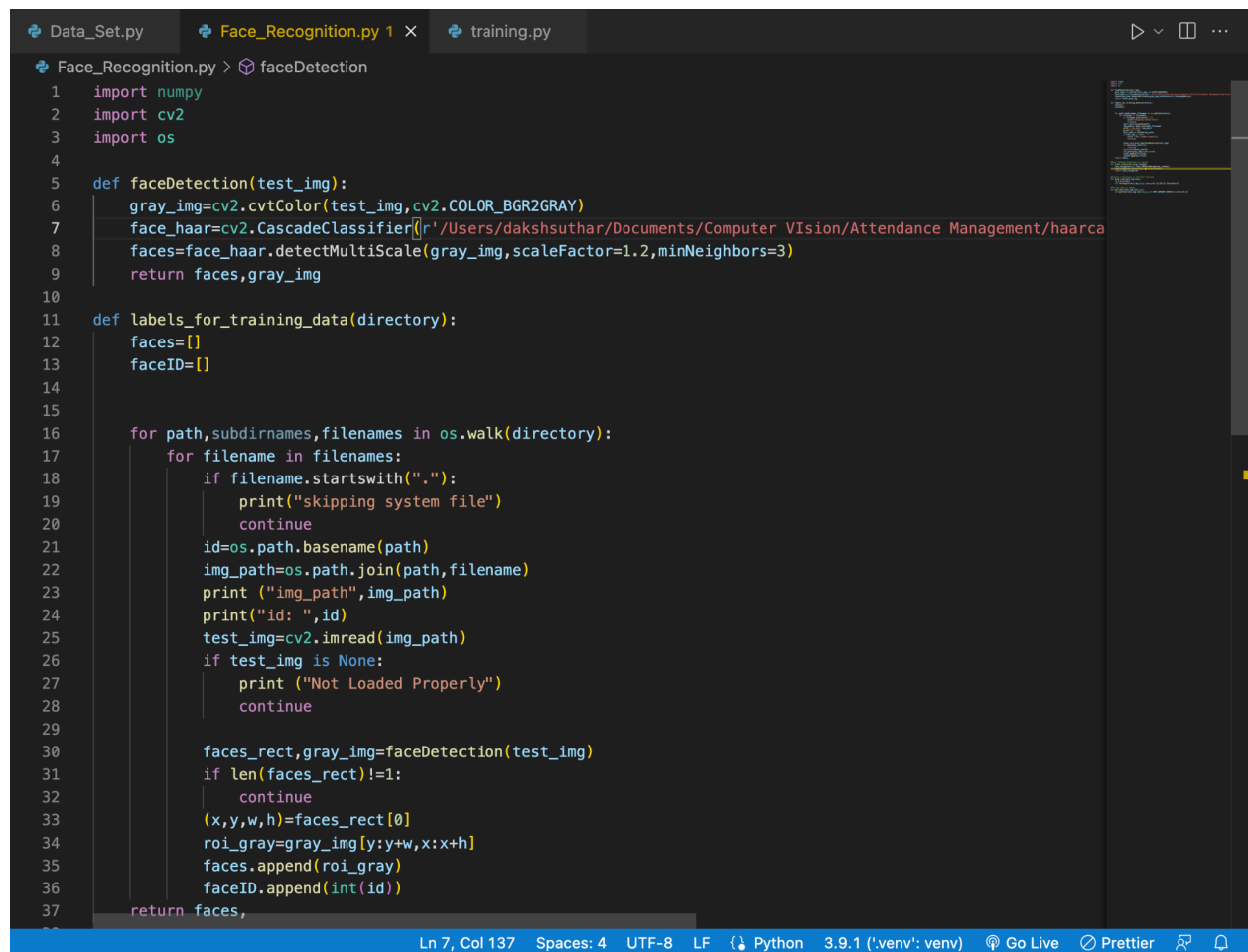
Weekly Report

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Tasks performed in the week:

After capturing the samples of faces, we will train the model for face recognition using lbph algorithm. We have taken the information from the user, i.e. id, name and trained the images based on it. We have implemented a basic lbph algorithm to train and recognise faces.



```
File Explorer | Data_Set.py | Face_Recognition.py 1 x | training.py | Run and Debug | Search | View | ...
Face_Recognition.py > faceDetection
1  import numpy
2  import cv2
3  import os
4
5  def faceDetection(test_img):
6      gray_img=cv2.cvtColor(test_img,cv2.COLOR_BGR2GRAY)
7      face_haar=cv2.CascadeClassifier([r'/Users/dakshsuthar/Documents/Computer VIsion/Attendance Management/haarca
8      faces=face_haar.detectMultiScale(gray_img,scaleFactor=1.2,minNeighbors=3)
9      return faces,gray_img
10
11 def labels_for_training_data(directory):
12     faces=[]
13     faceID=[]
14
15
16     for path,subdirnames,filenames in os.walk(directory):
17         for filename in filenames:
18             if filename.startswith("."):
19                 print("skipping system file")
20                 continue
21             id=os.path.basename(path)
22             img_path=os.path.join(path,filename)
23             print ("img_path",img_path)
24             print("id: ",id)
25             test_img=cv2.imread(img_path)
26             if test_img is None:
27                 print ("Not Loaded Properly")
28                 continue
29
30             faces_rect,gray_img=faceDetection(test_img)
31             if len(faces_rect)!=1:
32                 continue
33             (x,y,w,h)=faces_rect[0]
34             roi_gray=gray_img[y:y+w,x:x+h]
35             faces.append(roi_gray)
36             faceID.append(int(id))
37
38     return faces,
```

Ln 7, Col 137 | Spaces: 4 | UTF-8 | LF | Python 3.9.1 ('.venv': venv) | Go Live | Prettier | Search | View | ...

Tasks to be performed in the upcoming week:

In the upcoming week, we will combine all the steps, test it on different faces, and check whether the model works properly.

