

Face Recognition

Algorithm Used

Haar cascade classifier - For detection of faces

Local Binary Patterns Histograms (LBPH) - For recognition of faces

Language Used - Python

Packages Required

1. OpenCv
2. Numpy
3. Pillow

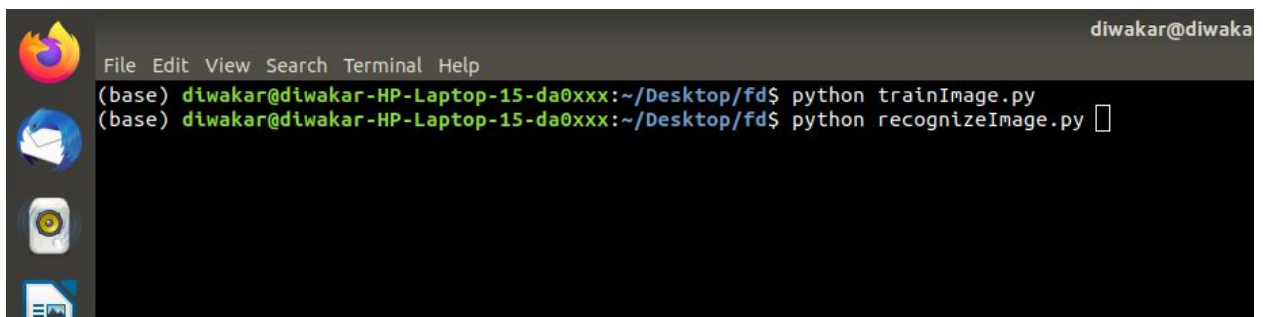
Working of Programs

1. Collection of dataset, by running Capture.py it will automatically capture and save 50 images by providing id and the name of any person.

```
(base) diwakar@diwakar-HP-Laptop-15-da0xxx:~/Desktop/fd$ python3 Capture.py
\Enter id ^CTraceback (most recent call last):
  File "Capture.py", line 5, in <module>
    id=input("Enter id ")
KeyboardInterrupt
(base) diwakar@diwakar-HP-Laptop-15-da0xxx:~/Desktop/fd$ python Capture.py
Enter id 1
Enter name Diwakar
```



2. Training using dataset by running trainImage.py. It saves the trained dataset to folder trainer/trainer.yml



3. Now we can run recognizeImage.py, it will show the name of person by inclosing face in rectangular boxes with some accuracy.

```
laptop-15-da0xxx:~/Desktop/fd$ python trainImage.py  
laptop-15-da0xxx:~/Desktop/fd$ python recognizeImage.py
```

