ARIN DEV
IIT BHUBANESWAR

Second Year, B.Tech (ECE)

Contact   :   arindev30@gmail.com

21ec01048@gmail.com

Major Project 2

```python
#Major Project 2 : Face Detection and Counting Faces

import cv2
face_cascade = cv2.CascadeClassifier('haarcascade_frontalface_default.xml')

img = cv2.imread('Faces3.jpg') #Reading the image
gray = cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)#Converting the image into grayscale

faces = face_cascade.detectMultiScale(gray,scaleFactor = 1.2,minNeighbors = 9)

face_count =0

for x,y,w,h in faces :
    face_count+=1
    d = f'{face_count}'
    img = cv2.rectangle(img,(x,y),(x+w,y+h),(0,255,0),5) #For making a rectangle around the face
    cv2.putText(img,d,(int(x+w/3),int(y+h)),cv2.FONT_HERSHEY_DUPLEX,2,(255,0,0),5) # To put the index of face ddetected

##    print(faces , face_count , d)

print(f'Number of faces detected in the photo are : {face_count}')

cv2.imshow('Face Detection',img) #To display the final image

cv2.waitKey(0)
cv2.destroyAllWindows()

# Project by : Arin Dev (IIT Bhubaneswar, Second Year B.Tech student)
# Email : arindev30@gmail.com and 21ec01048@iitbbs.ac.in
```
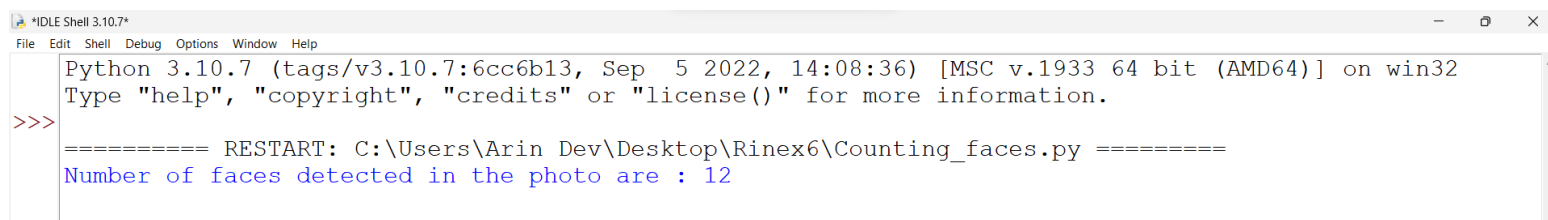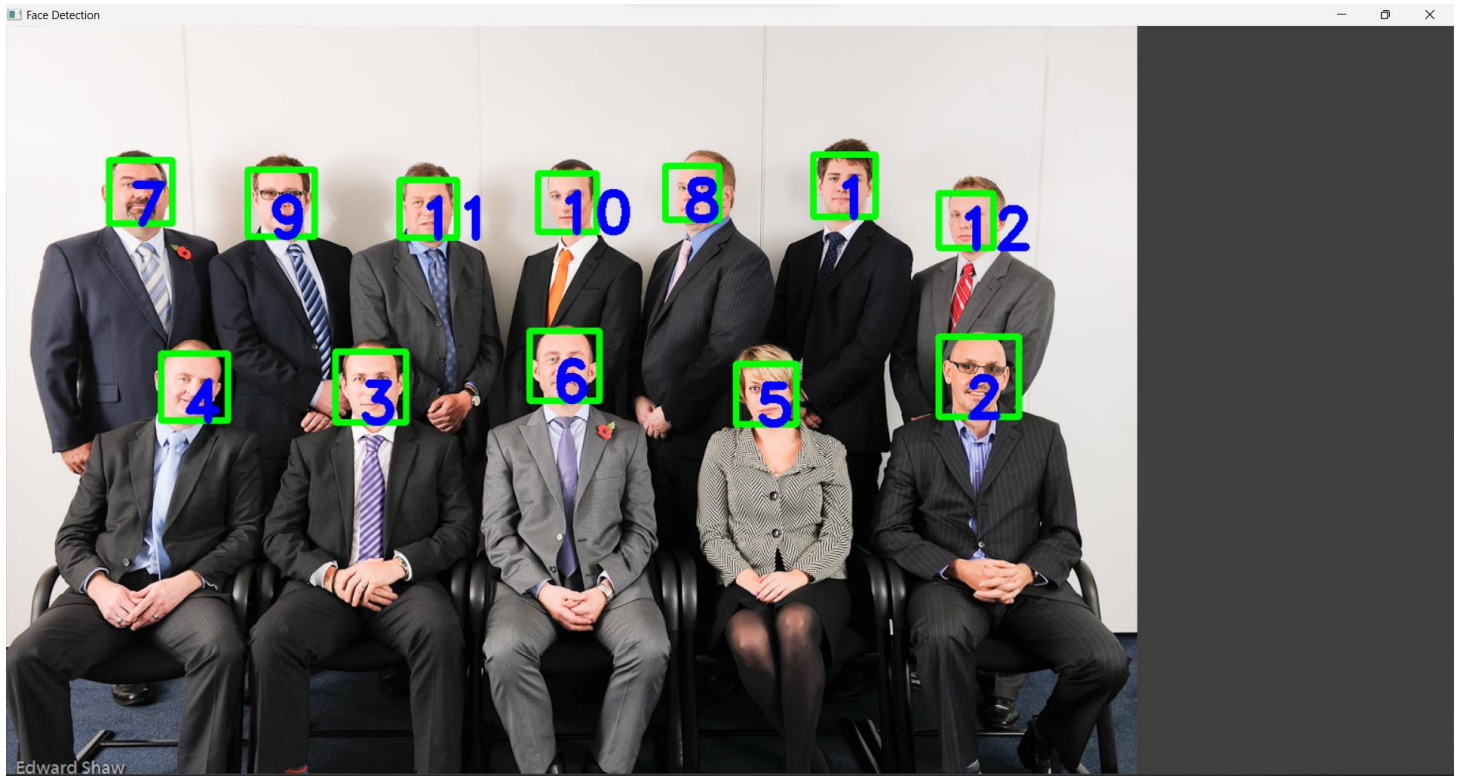
OUTPUT:

```
*IDLE Shell 3.10.7*                                                    –  □  ×
File  Edit  Shell  Debug  Options  Window  Help
    Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep  5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
    Type "help", "copyright", "credits" or "license()" for more information.
>>>
    ========== RESTART: C:\Users\Arin Dev\Desktop\Rinex6\Counting_faces.py =========
    Number of faces detected in the photo are : 12
```

Project by : Arin Dev (IIT Bhubaneswar, Second Year B.Tech student)
Email : arindev30@gmail.com and 21ec01048@iitbbs.ac.in

Link to this Notebook :
https://colab.research.google.com/drive/10rdU6e-4QiiM7T_XJ_nqW2UUK5QL3-nw?usp=sharing

Link to my Colab Notebooks :
https://drive.google.com/drive/folders/1WyxyVfRdAYuGWbqHI9O3rFCyMN0RSo1t?usp=sharing

Link to my GitHub : https://github.com/arin-dev/Rinex