Assignment submission

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1 TASK 1

Figure 1: this is the result.

In this task i learned to implement image transformation which can help in many task such as object detection and color detectioin etc

2 Task2

```python
    return cv2.cvtColor(frame, cv2.COLOR_BGR2RGB)

def convert_to_hsv(image):
    return cv2.cvtColor(image, cv2.COLOR_RGB2HSV)

def extract_hsv_channels(hsv_image):
    return cv2.split(hsv_image)

def histogram_equalization(image):
    gray = cv2.cvtColor(image, cv2.COLOR_RGB2GRAY)
    equalized = cv2.equalizeHist(gray)
    return gray, equalized

def binary_inversion(image, threshold=128):
    gray = cv2.cvtColor(image, cv2.COLOR_RGB2GRAY)
    _, binary = cv2.threshold(gray, threshold, 255, cv2.THRESH_BINARY_INV)
    return binary

def posterize_4_levels(image):
    gray = cv2.cvtColor(image, cv2.COLOR_RGB2GRAY)
    return (gray // 64) * 85
```

Figure 2: task 1 code snapshot.

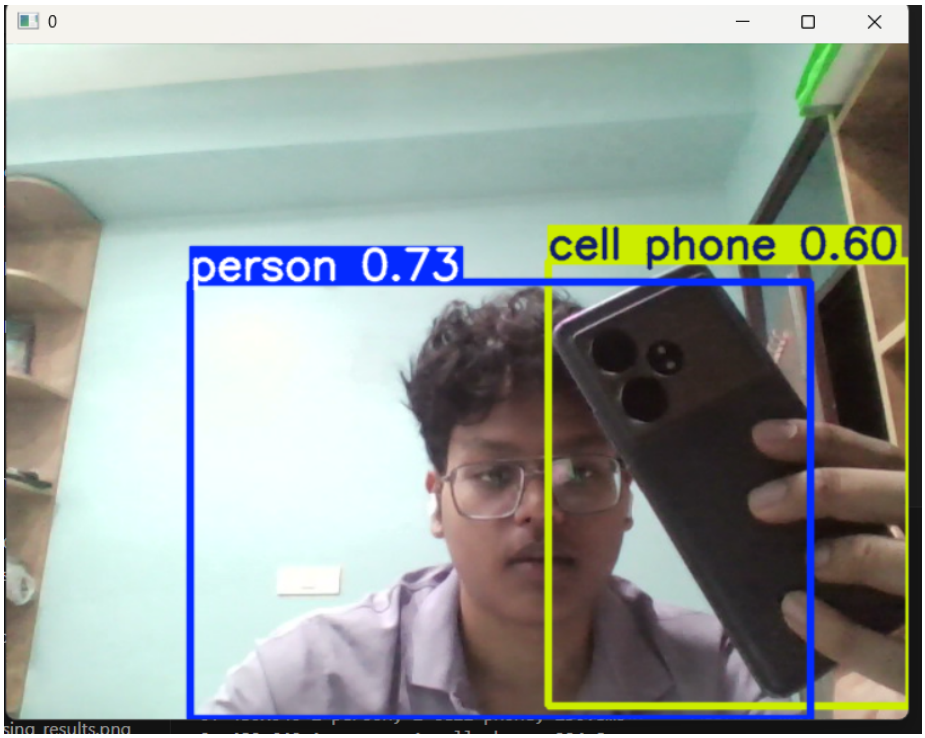

Figure 3: object detection using yolo.

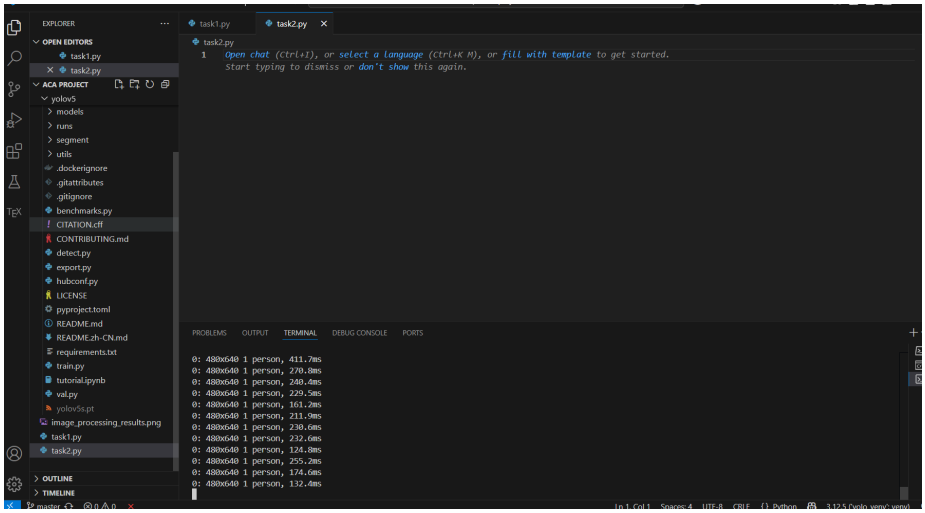

Figure 4: terminal snapshot.