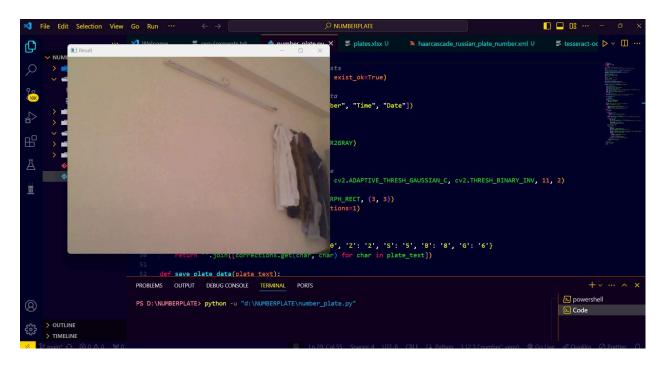
ANPR (Automatic Number Plate Recognition System)

Step 1: Simply Open the Folder of your Project

```
number_plate.py X ≡ plates.xlsx U
                                                    # Ensure the directory for the Excel file exists
os.makedirs(os.path.dirname(excel_file_path), exist_ok=True)
                                                    # Create an empty DataFrame to store plate data
plate_data = pd.DataFrame(columns=["Plate Number", "Time", "Date"])
             output
                                                      def preprocess_image(img_roi):
                                                          # Convert the image to grayscale
gray = cv2.cvtcolor(img_roi, cv2.COLOR_BGR2GRAY)
# Apply Gaussian blur to the image
blur = cv2.GaussianBlur(gray, (5, 5), 8)
# Apply adaptive thresholding to the image
             platedata
             Plates
          > iii tesseract
             number_plate.py
                                                           thresh = cv2.adaptiveThreshold(blur, 255, cv2.ADAPTIVE_THRESH_GAUSSIAN_C, cv2.THRESH_BINARY_INV, 11, 2) # Dilate the image to fill gaps
iii
                                                            kernel = cv2.getStructuringElement(cv2.MORPH_RECT, (3, 3))
                                                           dilate = cv2.dilate(thresh, kernel, iterations=1)
return dilate
                                                     def correct_plate_text(plate_text):
    corrections = {'0': '0', 'I': '1', 'Q': '0', 'Z': '2', 'S': '5', 'B': '8', 'G': '6'}
    return ''.join([corrections.get(char, char) for char in plate_text])
                                                     def save plate data(plate text):
                                           PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
                                                                                                                                                                                                                       ≥ powershell
▶ Code
                                           PS D:\NUMBERPLATE> python -u "d:\NUMBERPLATE\number_plate.py"
       OUTLINE
       > TIMELINE
```

Step 2:-Run the python Code



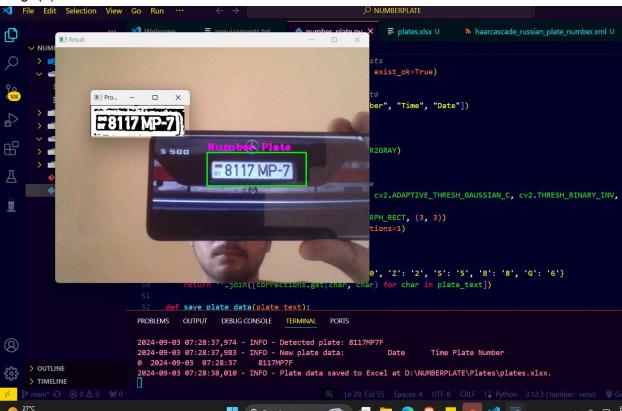
Step 3:

Place the Number plate in front of your webcam. Press 's' to save the image

Image(1)



Image(2)



Image(3)



Image (4)

