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We use pip install easyocr because we google colab doesn't have easyocr installed in it plus we also change our runtime to GPU to support the library.

## ▼ Install Dependencies

```
!pip install easyocr
```

```

↳ Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/cola
Collecting easyocr
  Downloading easyocr-1.6.2-py3-none-any.whl (2.9 MB)
    _____ 2.9/2.9 MB 24.2 MB/s eta 0:00
Collecting pyclicker
  Downloading pyclicker-1.3.0.post4-cp39-cp39-manylinux_2_5_x86_64.manylinu
    _____ 608.2/608.2 kB 22.9 MB/s eta 0:
Requirement already satisfied: PyYAML in /usr/local/lib/python3.9/dist-pack
Collecting opencv-python-headless<=4.5.4.60
  Downloading opencv_python_headless-4.5.4.60-cp39-cp39-manylinux_2_17_x86_
    _____ 47.6/47.6 MB 14.8 MB/s eta 0:
Requirement already satisfied: torch in /usr/local/lib/python3.9/dist-packa
Requirement already satisfied: Shapely in /usr/local/lib/python3.9/dist-pac
Requirement already satisfied: Pillow in /usr/local/lib/python3.9/dist-pack
Requirement already satisfied: scikit-image in /usr/local/lib/python3.9/dis
Collecting ninja
  Downloading ninja-1.11.1-py2.py3-none-manylinux_2_12_x86_64.manylinux2010
    _____ 146.0/146.0 kB 8.2 MB/s eta 0:
Requirement already satisfied: scipy in /usr/local/lib/python3.9/dist-packa
Collecting python-bidi
  Downloading python_bidi-0.4.2-py2.py3-none-any.whl (30 kB)
Requirement already satisfied: numpy in /usr/local/lib/python3.9/dist-packa
Requirement already satisfied: torchvision>=0.5 in /usr/local/lib/python3.9
Requirement already satisfied: requests in /usr/local/lib/python3.9/dist-pa
Requirement already satisfied: sympy in /usr/local/lib/python3.9/dist-packa
Requirement already satisfied: filelock in /usr/local/lib/python3.9/dist-pa
Requirement already satisfied: typing-extensions in /usr/local/lib/python3.
Requirement already satisfied: triton==2.0.0 in /usr/local/lib/python3.9/di
Requirement already satisfied: networkx in /usr/local/lib/python3.9/dist-pa
Requirement already satisfied: jinja2 in /usr/local/lib/python3.9/dist-pack
Requirement already satisfied: cmake in /usr/local/lib/python3.9/dist-packa
Requirement already satisfied: lit in /usr/local/lib/python3.9/dist-package
Requirement already satisfied: six in /usr/local/lib/python3.9/dist-package
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.9/
Requirement already satisfied: imageio>=2.4.1 in /usr/local/lib/python3.9/d
Requirement already satisfied: PyWavelets>=1.1.1 in /usr/local/lib/python3.
Requirement already satisfied: tifffile>=2019.7.26 in /usr/local/lib/python
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.9/
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.9/dis
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3
Requirement already satisfied: charset-normalizer~2.0.0 in /usr/local/lib/
Requirement already satisfied: urllib3<1.27,>=1.21.1 in /usr/local/lib/pyth
Requirement already satisfied: mpmath>=0.19 in /usr/local/lib/python3.9/dis
Installing collected packages: pyclicker, ninja, python-bidi, opencv-python
  Attempting uninstall: opencv-python-headless
    Found existing installation: opencv-python-headless 4.7.0.72
    Uninstalling opencv-python-headless-4.7.0.72:
      Successfully uninstalled opencv-python-headless-4.7.0.72
Successfully installed easyocr-1.6.2 ninja-1.11.1 opencv-python-headless-4.

```

## ▼ Import Dependencies

```
import matplotlib.pyplot as plt
import cv2
import easyocr
from IPython.display import Image
```

Brief description of libraries being used:-

- **matplotlib.pyplot:** This is a plotting library used for creating visualizations in Python. In this code, it is used to display the image with the detected license plate and the extracted plate region.
- **cv2:** This is the OpenCV library, which is a computer vision library used for image and video processing. In this code, it is used for capturing the video stream from a camera, detecting license plates using a Haar Cascade classifier, and drawing rectangles around the detected plates.
- **easyocr:** This is a Python library used for optical character recognition (OCR), which is the process of recognizing text from images. In this code, it is used to extract the text from the license plate image after the plate has been detected.
- **IPython.display:** This is a module in the IPython library used for displaying images and other media types in Jupyter notebooks and IPython environments. In the code you provided, it is not used for any specific purpose, but it can be used to display images inline with the notebook output.

Overall, these libraries work together to detect license plates in real-time video streams, extract the text from the license plate images using OCR, and display the results.

## ▼ Creating Image Object

```
img="/content/scanned_img_4526.jpg"
Image(img)
```





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