In [1]:
```
!pip install easyocr
```

```
Collecting easyocr
  Downloading easyocr-1.7.1-py3-none-any.whl (2.9 MB)
     ---------------------------------------- 2.9/2.9 MB 78.3 kB/s eta 0:00:00
Requirement already satisfied: torchvision>=0.5 in d:\anaconda setup\lib\site-packages
(from easyocr) (0.15.2)
Requirement already satisfied: scikit-image in d:\anaconda setup\lib\site-packages (fro
m easyocr) (0.19.3)
Collecting ninja
  Downloading ninja-1.11.1-py2.py3-none-win_amd64.whl (313 kB)
     ------------------------------------ 313.0/313.0 kB 114.0 kB/s eta 0:00:00
Collecting pyclipper
  Downloading pyclipper-1.3.0.post5-cp310-cp310-win_amd64.whl (108 kB)
     ------------------------------------ 108.2/108.2 kB 165.2 kB/s eta 0:00:00
Requirement already satisfied: PyYAML in d:\anaconda setup\lib\site-packages (from easy
ocr) (6.0)
Requirement already satisfied: numpy in d:\anaconda setup\lib\site-packages (from easyo
cr) (1.23.5)
Requirement already satisfied: Pillow in d:\anaconda setup\lib\site-packages (from easy
ocr) (9.4.0)
Requirement already satisfied: scipy in d:\anaconda setup\lib\site-packages (from easyo
cr) (1.10.0)
Collecting python-bidi
  Downloading python_bidi-0.4.2-py2.py3-none-any.whl (30 kB)
Collecting Shapely
  Downloading shapely-2.0.1-cp310-cp310-win_amd64.whl (1.4 MB)
     ---------------------------------------- 1.4/1.4 MB 65.4 kB/s eta 0:00:00
Requirement already satisfied: opencv-python-headless in d:\anaconda setup\lib\site-pac
kages (from easyocr) (4.8.0.76)
Requirement already satisfied: torch in d:\anaconda setup\lib\site-packages (from easyo
cr) (2.0.1)
Requirement already satisfied: requests in d:\anaconda setup\lib\site-packages (from to
rchvision>=0.5->easyocr) (2.28.1)
Requirement already satisfied: networkx in d:\anaconda setup\lib\site-packages (from to
rch->easyocr) (2.8.4)
Requirement already satisfied: typing-extensions in d:\anaconda setup\lib\site-packages
(from torch->easyocr) (4.4.0)
Requirement already satisfied: jinja2 in d:\anaconda setup\lib\site-packages (from torc
h->easyocr) (3.1.2)
Requirement already satisfied: sympy in d:\anaconda setup\lib\site-packages (from torch
->easyocr) (1.11.1)
Requirement already satisfied: filelock in d:\anaconda setup\lib\site-packages (from to
rch->easyocr) (3.9.0)
Requirement already satisfied: six in d:\anaconda setup\lib\site-packages (from python-
bidi->easyocr) (1.16.0)
Requirement already satisfied: tifffile>=2019.7.26 in d:\anaconda setup\lib\site-packag
es (from scikit-image->easyocr) (2021.7.2)
Requirement already satisfied: imageio>=2.4.1 in d:\anaconda setup\lib\site-packages (f
rom scikit-image->easyocr) (2.26.0)
Requirement already satisfied: PyWavelets>=1.1.1 in d:\anaconda setup\lib\site-packages
(from scikit-image->easyocr) (1.4.1)
Requirement already satisfied: packaging>=20.0 in d:\anaconda setup\lib\site-packages
(from scikit-image->easyocr) (22.0)
Requirement already satisfied: MarkupSafe>=2.0 in d:\anaconda setup\lib\site-packages
(from jinja2->torch->easyocr) (2.1.1)
Requirement already satisfied: idna<4,>=2.5 in d:\anaconda setup\lib\site-packages (fro
m requests->torchvision>=0.5->easyocr) (2.10)
Requirement already satisfied: charset-normalizer<3,>=2 in d:\anaconda setup\lib\site-p
ackages (from requests->torchvision>=0.5->easyocr) (2.0.4)
Requirement already satisfied: certifi>=2017.4.17 in d:\anaconda setup\lib\site-package
s (from requests->torchvision>=0.5->easyocr) (2022.12.7)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in d:\anaconda setup\lib\site-pack
ages (from requests->torchvision>=0.5->easyocr) (1.26.14)
Requirement already satisfied: mpmath>=0.19 in d:\anaconda setup\lib\site-packages (fro
m sympy->torch->easyocr) (1.2.1)
Installing collected packages: pyclipper, ninja, Shapely, python-bidi, easyocr
Successfully installed Shapely-2.0.1 easyocr-1.7.1 ninja-1.11.1 pyclipper-1.3.0.post5 p
ython-bidi-0.4.2
```

```
WARNING: Ignoring invalid distribution -orch (d:\anaconda setup\lib\site-packages)
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WARNING: Ignoring invalid distribution -orch (d:\anaconda setup\lib\site-packages)
```
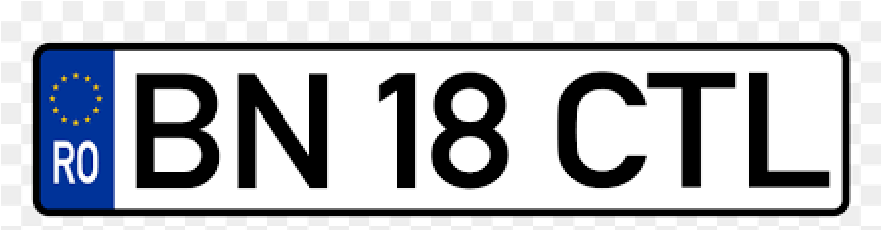

In [2]:
```
import matplotlib.pyplot as plt
import cv2
import easyocr
from IPython.display import Image
```

In [4]:
```
Image("download.png")
```

Out[4]:



In [5]:
```
reader = easyocr.Reader(['en'])
```

```
Neither CUDA nor MPS are available - defaulting to CPU. Note: This module is much faste
r with a GPU.
Downloading detection model, please wait. This may take several minutes depending upon
your network connection.

Progress: |██████████████████████████████████████████████████| 100.0% Complete

Downloading recognition model, please wait. This may take several minutes depending upo
n your network connection.

Progress: |██████████████████████████████████████████████████| 100.0% Complete
```

In [7]:
```
output = reader.readtext('download.png')
```

In [8]:
```
output
```

Out[8]:
```
[([[22, 66], [54, 66], [54, 96], [22, 96]], 'RO', 0.6593998510066528),
 ([[62, 28], [428, 28], [428, 108], [62, 108]],
  'BN 18 CTL',
  0.9921237666042335)]
```

In [10]:
```
cord = output[-1][0]
```

In [11]:
```
cord
```

Out[11]:
```
[[62, 28], [428, 28], [428, 108], [62, 108]]
```

- Finally, the values from this inner list are assigned to the variable cord. In your provided example, the cord variable will hold the coordinates of a rectangular region, which might be used for further processing.
- This code is essentially extracting the coordinates of a rectangular region from the last sublist in the output list and storing them in the cord variable for later use.

In [12]:
```
a = list(zip(*cord))
a
```

Out[12]:
```
[(62, 428, 428, 62), (28, 28, 108, 108)]
```

In [13]:
```
min(a[0])
```

Out[13]:
```
62
```

In [14]:
```
min(a[1])
```
Out[14]:
```
28
```

In [15]:
```
max(a[0])
```
Out[15]:
```
428
```

In [16]:
```
max(a[1])
```
Out[16]:
```
108
```

In [17]:
```

x_min, y_min = [int(min(idx)) for idx in zip(*cord)]
```

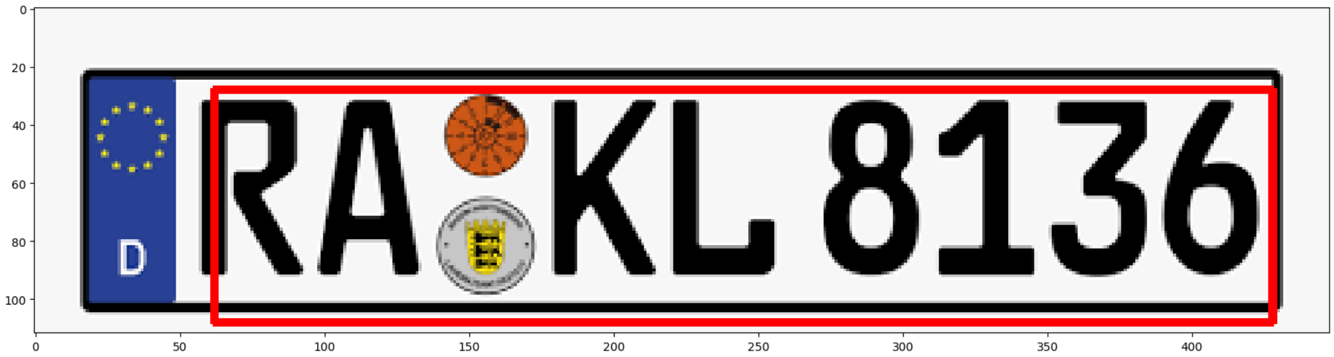
In [18]:
```
x_min, y_min
```
Out[18]:
```
(62, 28)
```

In [19]:
```

x_max, y_max = [int(max(idx)) for idx in zip(*cord)]
```

In [20]:
```
x_max, y_max
```
Out[20]:
```
(428, 108)
```

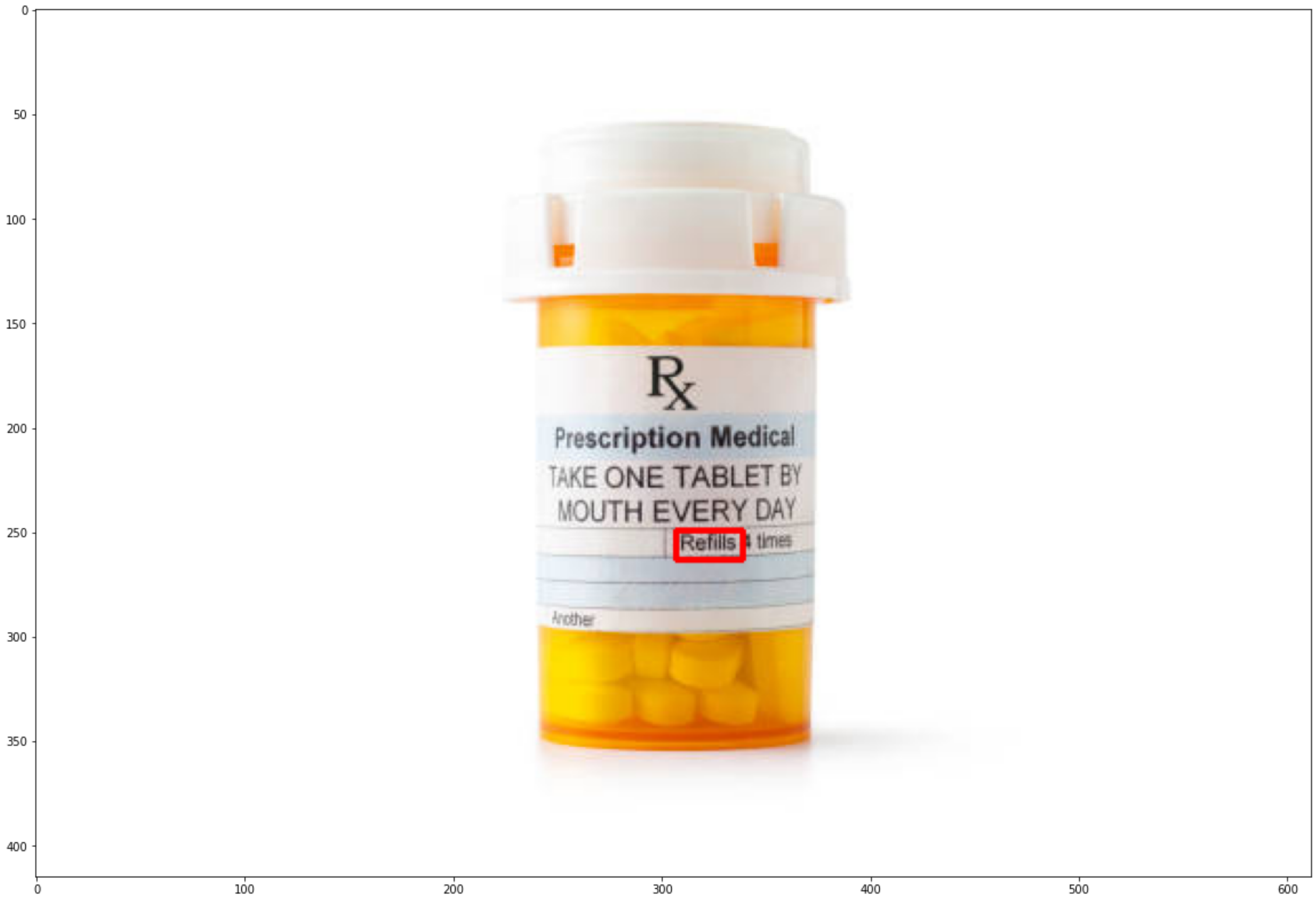
In [21]:
```
from pylab import rcParams
rcParams['figure.figsize'] = 20, 30
```

In [22]:
```
image = cv2.imread('download2.png')
cv2.rectangle(image,(x_min,y_min),(x_max,y_max),(0,0,255),2)
plt.imshow(cv2.cvtColor(image, cv2.COLOR_BGR2RGB))
```
Out[22]:
```
<matplotlib.image.AxesImage at 0x12549e0f0a0>
```



```
In [ ]: image = cv2.imread('/content/bottle.jpg')
        cv2.rectangle(image,(x_min,y_min),(x_max,y_max),(0,0,255),2)
        plt.imshow(cv2.cvtColor(image, cv2.COLOR_BGR2RGB))
```

```
Out[32]: <matplotlib.image.AxesImage at 0x7f11ae2f4210>
```



```
In [ ]:
```